APPENDICES

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Appendices
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APPENDIX A: SPECIFIC MANDATES AND AUTHORITIES

The development of the revised Jarbidge Resource Management Plan (RMP) followed all applicable laws, regulations, and policies, including, but not limited to, those listed in Table A-1. For more detail on what is required by these documents, please refer to the original document.

Table A-1. Specific Mandates and Authorities

Document Name
Laws
General Mining Law of 1872, as amended (30 United States Code [U.S.C.] 21)
Antiquities Act of 1906 (16 U.S.C. 431-433)
Migratory Bird Treaty Act of 1918 (16 U.S.C. 703 et seq.)
Mineral Leasing Act of 1920, as amended (30 U.S.C. 181)
Taylor Grazing Act of 1934, as amended (43 U.S.C. 315)
Soil Conservation and Domestic Allotment Act of 1935 (16 U.S.C. 590)
Food, Drug, and Cosmetic Act of 1938 and the Miller Amendment to the Act (21 U.S.C. 301 et seq.)
Federal Insecticide, Fungicide, and Rodenticide Act of 1947, as amended (7 U.S.C. 136 et seq.)
Appropriations Act of 1952, McCarran Amendment (43 U.S.C. 666)
Recreation and Public Purposes Act of 1954 (68 Statute 173; 43 U.S.C. 869 et. seq.; a complete revision of the Recreation Act of 1926 [44 Statute 741])
Watershed Protection and Flood Prevention Act of 1954, as amended (16 U.S.C. 1001 et seq.)
Sikes Act of 1960, as amended (16 U.S.C. 670 et seq.)
Water Resources Planning Act of 1962 (42 U.S.C. 1962 et seq.)
Classification and Multiple Use Act of 1964 (43 U.S.C. 1411-18)
Land and Water Conservation Fund Act of 1964, as amended (16 U.S.C. 460 et seq.)
Wilderness Act of 1964 (16 U.S.C. 1131 et seq.)
Fish and Wildlife Coordination Act of 1965 (16 U.S.C. 661 et seq.)
National Historic Preservation Act of 1966, as amended, (16 U.S.C. 470
National Trails System Act of 1968 (16 U.S.C. 1241-1251)
Wild and Scenic Rivers Act of 1968, as amended (16 U.S.C. 1271 et seq.)
National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.)
Mining and Mineral Policy Act of 1970, as amended (30 U.S.C. 21)
Clean Air Act of 1970, as amended (42 U.S.C. 7401 et seq.)
Control of Pollution from Federal Facilities Act of 1970 (33 U.S.C. 1323)
Horse Protection Act of 1970 (15 U.S.C. 1821 et seq.)
Wild and Free-Roaming Horses and Burros Act of 1971 (16 U.S.C. 1331 et seq.)
Federal Environmental Pesticide Control Act of 1972 (7 U.S.C. 136 et seq.)
Endangered Species Act of 1973 (16 U.S.C. 1531 et. seq.)
Archaeological and Historic Preservation Act of 1974 (16 U.S.C. 469)
Federal Noxious Weed Act of 1975 (7 U.S.C. 2801 et seq.)
Federal Land Policy and Management Act of 1976, as amended (43 U.S.C. 1701 et seq.)
Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1201)
Clean Water Act of 1977, as amended (30 U.S.C. 1251)
Safe Drinking Water Act Amendments of 1977 (42 U.S.C. 201)
Soil and Water Resources Conservation Act of 1977 (16 U.S.C. 2001)
American Indian Religious Freedom Act of 1978 (42 U.S.C. 1996)
Public Rangelands Improvement Act of 1978 (43 U.S.C. 1901 et seq.)
Migratory Bird Conservation Act of 1979, as amended (16 U.S.C. 715)
Archaeological Resources Protection Act of 1979, as amended (16 U.S.C. 470 et seq.)
Emergency Wetland Resources Act of 1986 (16 U.S.C. 3901)
Federal Cave Resources Protection Act of 1988 (16 U.S.C. 4301 et seq.)
Native American Graves Protection and Repatriation Act of 1990 (25 U.S.C. 301)

Document Name
Laws
Pollution Prevention Act of 1990 (42 U.S.C. 13101 et seq.)
Energy Policy and Conservation Act Reauthorization of 2000, as amended (PL 106-469)
Energy Policy Act of 2005 (PL 109-58)
Wild Horse and Burro Sale-Authority, within Consolidated Appropriations Act of 2005 (PL 108-447, Sec 142)
Omnibus Public Lands Management Act of 2009 (PL 111-11)
Executive Orders and Memoranda
Executive Order of April 17, 1926—Public Water Reserve No. 107
Executive Order 11514—Protection and Enhancement of Environmental Quality, March 5, 1970 (35 FR 4247)
Executive Order 11593—Protection and Enhancement of the Cultural Environment, May 13, 1971 (36 FR 8921)
Executive Order 11644—Use of Off-Road Vehicles on Public Lands, February 8, 1972 (37 FR 2877), as amended by Executive Order 11989
Executive Order 11738—Providing for administration of the Clean Air Act and the Federal Water Pollution Control Act with respect to Federal contracts, grants or loans, September 10, 1973 (38 FR 25161)
Executive Order 11752—Prevention, control, and abatement of environmental pollution at Federal facilities, December 17, 1973 (38 FR 34793)
Executive Order 11987—Exotic Organisms, May 24, 1977 (42 FR 26949)
Executive Order 11988—Floodplain Management, May 24, 1977 (42 FR 26951), as amended by Executive Order 12148
Executive Order 11990—Protection of Wetlands, May 25, 1977 (42 FR 26961)
Executive Order 12088—Federal Compliance with Pollution Control Standards, October 17, 1978 (43 FR 47707)
Executive Order 12372—Intergovernmental Review of Federal Programs, July 14, 1982 (47 FR 30959)
Executive Order 12898—Federal actions to address environmental justice in minority populations and low-income populations, February 11, 1994 (59 FR 7629)
Executive Order 12962—Recreational Fisheries, June 7, 1995 (60 FR 30769), as amended by Executive Order 13474, September 28, 2008 (73 FR 57229)
Executive Order 13007—Indian Sacred Sites, May 24 1996 (61 FR 104)
Executive Order 13084—Consultation and Coordination with Indian Tribal Governments, May 14, 1998 (63 FR 27655)
Executive Order 13112—Invasive Species, February 3, 1999 (64 FR 6183)
Executive Order 13186—Responsibilities of Federal Agencies To Protect Migratory Birds, January 10, 2001 (66 FR 3853)
Executive Order 13287—Preserve America, March 5, 2003 (68 FR 43)
Executive Order 13443—Facilitation of Hunting Heritage and Wildlife Conservation (72 FR 46537)
Executive Memorandum—Government-to-Government Relations with Native American Tribal Governments, April 29, 1994
Regulations
36 CFR---Parks, Forests, and Public Property
40 CFR—Protection of Environment
43 CFR—Public Lands: Interior
50 CFR—Wildlife and Fisheries
Departmental Guidance
Secretarial Order 3206—American Indian Tribal Rights, Federal Tribal Trust Responsibilities, and the Endangered Species Act
Secretarial Order 3226A1—Climate Change and the Department of the Interior
Secretarial Order 3285A1—Renewable Energy Development by the Department of the Interior

Document Name
Departmental Guidance
Secretarial Order 3289A1—Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources
Secretarial Order 3305—Ensuring Scientific Integrity within the Department of the Interior
Secretarial Order 3310—Protecting Wilderness Characteristics on Lands Managed by the Bureau of Land Management
Secretarial Order 3317A1—Department of the Interior Policy on Consultation with Indian Tribes
BLM Manuals
1601—Land Use Planning
1613—Areas of Critical Environmental Concern
1626—Travel and Transportation
1703—Hazardous Management and Resource Restoration
1734—Rangeland Interagency Ecological Site Manual
1740—Renewable Resource Improvements and Treatments
2200—Land Exchanges
2881—Mineral Leasing Act-General
2930—Recreation Permits and Fees
3800—Mining Claims under the General Mining Laws
4180—Land Health
4700—Wild Free-Roaming Horse and Burro Management
6250—National Scenic and Historic Trail Administration
6280—Management of National Scenic and Historic Trails and Trails Under Study or Recommended as Suitable for Congressional Designation
6310—Conducting Wilderness Characteristics Inventory on BLM Lands
6320—Considering Lands with Wilderness Characteristics in the BLM Land Use Planning Process
6330—Management of Wilderness Study Areas
6340—Management of Designated Wilderness Areas
6400—Wild and Scenic Rivers – Policy and Program Direction for Identification, Evaluation, Planning, and Management
6840—Special Status Species Management
7100—Soil Resource Management
7200—Water Resources
7300—Air Resource Management Program
8100—The Foundations for Managing Cultural Resources
8110—Identifying and Evaluating Cultural Resource Authorities
8120—Tribal Consultation under Cultural Resources
8130—Planning for Uses of Cultural Resources
8140—Protecting Cultural Resources
8150—Permitting Uses of Cultural Resources
8170—Interpreting Cultural Resources for the Public
8270—Paleontological Resource Management
8320—Planning for Recreation and Visitor Services
8330—Policy on Reasonable Accommodations for Persons with Disabilities
8353—Trail Management Areas – Secretarially Designated National Recreation, Water, and Connecting and Side Trails
8380—Cave and Karst Resources Management
8400—Visual Resource Management
9113—Roads
9115—Primitive Roads
9210—Fire Management
9211—Fire Planning Manual

Document Name
BLM Handbooks
H-1601-1—Land Use Planning Handbook
H-1740-2—Integrated Vegetation Management
H-1742-1—Emergency Fire Rehabilitation Handbook
H-1790-1—National Environmental Policy Act Handbook
H-2200-1—Land Exchange Handbook
H-3070-1—Economic Evaluation of Coal Properties
H-3070-2—Economic Evaluation of Oil and Gas Properties
H-3600-1—Mineral Materials Disposal Handbook
H-3809-1—Surface Management
H-4180-1—Rangeland Health Standards
H-4700-1—Wild Horses and Burros Management
H-8120-1—General Procedural Guidance for Native American Consultation
H-8342—Travel and Transportation Handbook
H-8410-1—Visual Resource Inventory Handbook
H-9211-1—Fire Planning Handbook

APPENDIX B: BEST MANAGEMENT PRACTICES, DESIGN FEATURES, AND OPERATING PROCEDURES

This appendix provides a listing of best management practices (BMPs), design features, and operating procedures that, when applied with management actions described in Chapter 2, would aid in achieving goals and objectives. These BMPs, design features, and operating procedures are tools to reduce adverse social, economic, and environmental effects. Additional practices may be added or included in this list as they are developed and determined to reduce unwanted impacts from management activities. Likewise, practices included in this list that do not achieve the desired results may be altered or removed from consideration. These BMPs, design features, and operating procedures were from many sources and could be applied alone or in combination as necessary to make progress towards or to achieve objectives.

While the overall vision embraces the use of these BMPs, design features, and operating procedures to reduce or minimize impacts, they are not to be considered a land use plan decision. They are dynamic and may be updated or modified based on future guidance, policy, and science without a plan amendment. BMPs, design features, and operating procedures used in site-specific situations would be incorporated into the proposed action or used as mitigation measures to reduce impacts. The determination of which BMPs, design features, and operating procedures to apply will be made during individual project planning. The use of BMPs, design features, or operating procedures will be analyzed through the NEPA process for site-specific projects.

The BMPs, design features, and operating procedures are categorized by resource use or activity. Because BMPs, design features, or operating procedures from programmatic Records of Decision are included, some are listed more than once. New information could result in BMPs being modified or added to reduce or mitigate impacts.

Vegetation Treatments

- The economic effects of alternative fuels management practices would be considered.
- Collaborate with local partners to assess wildland urban interface areas and to develop or update County Wildfire Protection Plans.
- Incorporate cultural protection practices in treatments using prescribed fire. Practices may include but are not limited to:
  - Reducing fuels manually on vulnerable sites or features.
  - Disposing of debris away from cultural features.
  - Using low-intensity backing fire in areas near historic features.
  - Saturating ground or grass adjacent to vulnerable structures with water, foam, or gel before burning.
  - Pre-burning site(s) at lower intensity than planned for the surrounding areas.
  - Limiting fire intensity and duration over vulnerable sites.
  - Using a fast-moving, higher intensity fire over lithic scatters, where rock materials are vulnerable to longer-duration heating.
  - Creating fire breaks near or around sites.
  - Wrapping structures in fire-proof materials or using retardant or foam to protect structures.
  - Covering rock art or wrapping carved trees or other such features in fire retardant fabric.
  - Reducing fuels and smoke near rock art.
  - Covering fuels near rock art with foam, water, or retardant, avoiding the rock art.
- Hazardous materials and abandoned mine sites identified in any specific fuels management or vegetation treatment area should be avoided.
- The use of hazardous substances (e.g., gasoline in riparian zones, explosives) for prescribed fire control should be avoided whenever practical.
- Treatments should be designed to minimize impacts to the character of the managed recreation setting in Special Recreation Management Areas and Extensive Recreation Management Areas and to the recreation experiences and benefits desired by the recreation participant.

- Wherever possible, vegetation treatments in Visual Resource Management Class I and II areas would replicate the natural line, form, color, and texture found in the surrounding area. Treatments that result in long-term disruption of natural visual qualities (e.g., drill seeding that establishes vegetation rows) should not be used unless the visual impacts can be hidden through treatment design.

Water Quality

The best management practices in this section expand and supplement the basic guidelines and minimum requirements of the Idaho Department of Lands (Forest Practices Regulations), Idaho Department of Water Resources Stream Channel Alteration Regulations, and the Corps of Engineers 404 Regulations.

Transportation and Travel

Road Planning – Design and Location

- Plan each road to the minimum standards for the intended use.
- Plan to dispose of excavated waste material on geologically stable sites and away from Riparian Conservation Areas (RCAs).
- Design full-bench roads for slopes over 60 percent. End-haul excess material to a geologically stable site for disposal and away from RCAs. Use balanced cut-and-fill road construction where practical.
- Design stream channel crossings as near to a right angle with the stream as possible to minimize disturbance to banks and existing channels.
- For road segments that parallel stream courses, consider the need for stream shade along with safety considerations during brushing operations. This may necessitate hand brushing, partial brushing, or limbing, with consideration for providing growth for future shade for the RCA.

Road Construction

- For any repair work in fish-bearing streams, instream work will be timed to avoid disturbance of staging adult fish, redds, or gravels with un-emerged juveniles where possible. Timing restrictions may be waived in cases of overriding safety concerns or the threat of severe resource damage.
- Fuel storage and fueling of equipment will not occur within RCAs.
- Before working in a stream channel or in a RCA, all heavy equipment or other machinery will be inspected for hydraulic or other leaks. Fix identified problems before entering areas that could affect water quality. Clean equipment with accumulations of oil, grease, or other toxic materials prior to use in these areas. An emergency spill containment kit will be located on site during construction activity.
- Clear drainage ways of all debris generated during construction or maintenance that may interfere with drainage or affect water quality.
- When constructing roads near RCAs, use hay bales, silt fences or other sediment filtering materials to minimize sediment reaching the RCA. Minimize the amount of woody debris buried in embankments and minimize the amount of snow, ice, and frozen soil added to embankments.
- Construct stream culverts, cross drains, or relief culverts to prevent erosion. Use riprap, woody debris, downspouts, or similar devices to prevent erosion of fills. Culverts in natural drainage ways would be oriented to minimize fill slope erosion or to carry water beyond fills.

Bridges

- Use an adequately long bridge span to avoid constricting the natural active flow channel and minimize constriction of any overflow channel.
- Avoid placing abutments in the active stream channel to the extent practicable.
- Place foundations onto nonscour-susceptible material (e.g., bedrock or coarse rock material) or below the expected maximum depth of scour.
- Set bridge abutments or footings into firm natural ground (e.g., not fill material or loose soil) when placed on natural slopes.

Low-Water Crossings

- Locate low-water crossings where streambanks are low with gentle slopes and channels are not deeply incised.
- Select and design low-water crossing structures to maintain the function and bedload movement of the natural stream channel.
- Construct the low-water crossing to conform to the site, channel shape, and original streambed elevation and to minimize flow restriction, site disturbance, and channel blockage to the extent practicable.
- Use suitable measures to stabilize or harden the streambed and approaches, including the entire bankfull width and sufficient clearance, where necessary to support the vehicle traffic design.
- Construct the driving surface with material suitable to resist expected shear stress or lateral forces of water flow at the site.

Road Drainage

- For insloped roads, generally design ditch gradients to be between two and eight percent to prevent sediment deposition and ditch erosion. The higher gradients may be suitable for more stable soils; use the lower gradients for less stable soils.
- Construct drain dips deep enough into the subgrade so that traffic will not obliterate them. Dips should be angled 20 to 45 degrees perpendicular to the road and have a drainage grade of 2% to 8%.
- Where possible, install relief culverts at the gradient of the original ground slope; otherwise armor outlets with rock or anchor downspouts to carry water across the fill slope.
- Skew relief culverts 20 to 30 degrees toward the inflow from the ditch to improve inlet efficiency. Develop the catch basin at sufficient size to prevent the culvert inlet from plugging.
- Construct at or near natural elevation of the streambed to avoid or minimize potential flooding upstream of the crossing and erosion below the outlet.
- Install culverts long enough to extend beyond the toe of the fill slopes to minimize erosion.
- Use suitable measures to avoid or minimize water from seeping around the culvert.

Road Maintenance

- Maintain erosion control features through periodic inspection and maintenance, including cleaning dips and cross-drains, repairing ditches, marking culvert inlets to aid in location, and clearing debris from catch basins and culverts.
- Avoid using roads during wet periods if such use would damage the road drainage features.
- Apply dust abatement or other surface stabilizing chemicals to prevent entry into streams. Do not place dust abatement chemicals in road ditches, and apply at rates which do not pooling of abatement chemicalson the road surface.
- When removing down logs in the road which extend into a stream, any woody material on the fill slope and in the stream will not be removed to provide for woody debris recruitment, except in cases where the retention of this material would result in a safety concern (i.e., downstream facilities).
- Grade road surfaces only as often as necessary to maintain a stable running surface and to retain the original surface drainage.
- Avoid cutting the toe of cut slopes when grading roads or pulling ditches.
- Avoid sidecasting material where these materials may be introduced into a stream, or where the placement of these materials will contribute to destabilization of the slope.

Snow Removal

- Snow will not be completely removed. In general, a minimum two inches of snow must be left on the roadway during plowing operations to protect the surface of the road.
- Prevent plugging ditches and culverts during snow plowing operations.
- Sidecast material will not include dirt and gravel.
- Snow berms will not be left on the road or shoulder unless drainage holes are opened and maintained. Drainage holes will be spaced as required to obtain satisfactory surface drainage without discharge on erodible fills.

- Damage from, or as a result of snow removal, will be restored in a timely manner.

Resources and Resource Uses

Livestock Grazing

- Collect no more water than is sufficient to meet the intended purpose of the spring development.
- Equip the spring box with a shut off valve to return water to the spring when not in use.
- Ensure that enough water remains in the spring to support the source groundwater, dependent ecosystem, and downstream aquatic ecosystems.

Recreation Management

- Educate the public to conduct their activities in ways that will not degrade water quality. Avoid discharges and disposal of human and animal waste, petroleum products, and other hazardous substances in or near RCAs in recreation areas.
- Provide primitive sanitation facilities in areas where perpetual concentrated dispersed recreation use is causing adverse effects to soil, water quality, or riparian resources.
- Design, construct, and maintain trail width, grades, curves, and switchbacks suitable to the terrain and designated use.
- Design stream crossings to use the most cost-efficient structure consistent with resource protection, facility needs, and types of use and safety obligations.
- Develop and designate campsites in appropriate locations where repeated use is causing adverse effects.
- Design and locate parking and staging areas of appropriate size and configuration to accommodate expected vehicles and avoid or minimize adverse effects to adjacent soil, water quality, and riparian resources. Use suitable measures to harden and avoid or minimize damage to parking area surfaces that experience heavy use or are used during wet periods.
- Locate and design watercraft launch sites to avoid, minimize, or mitigate adverse effects to soil, water quality, and riparian resources.

Fire Management

- Conduct water drafting at locations and in a manner that avoids or minimizes adverse effects to water quality.
- Avoid mixing chemicals (retardant, foam, etc.) in wetlands and riparian zones.
- Avoid refueling in wetlands and riparian zones. If refueling a pump drafting from a water source use measures to minimize and contain spills.
- During fire suppression efforts, avoid watershed damage in excess of that which would be caused by the fire itself. Avoid heavy equipment operation on fragile soils and steep slopes when possible. Use resource advisors and specialists to advise the incident commander on resource values during the suppression effort.
- Stabilize areas where erosion potential increased or drainage patterns are altered by wildfires or by suppression related activities. Treatments include, but are not limited to:
  - Installing water bars and other drainage diversions in fire roads, fire lines, and other cleared areas;
  - Seeding, planting and fertilizing to provide vegetative cover;
  - Spreading slash or mulch to protect bare soil;
  - Repairing damaged road drainage facilities; and
  - Installing erosion barriers.
- Provide for water quality protection in formulating prescribed fire prescriptions. Prescription elements include fire weather, slope, aspect, soil moisture, and fuel moisture. These elements influence the fire intensity and have a direct effect on whether desired ground cover remains after burning, and whether a water repellent layer is formed.
- Maintain soil productivity, minimize erosion, and prevent ash, sediment, nutrients, and debris from entering water bodies during prescribed fires. Some of the techniques used to prevent water quality impacts include:

- Maintaining the integrity of the stream course and RCA width and
- Planning prescribed fires with intensities that will not result in soils becoming hydrophobic.

Special Status Species

Greater Sage-Grouse

- Avoid spraying treatment areas for the control of grasshoppers and Mormon crickets in key sage-grouse habitat in May and June (or as appropriate to local circumstances) to provide insect availability for early development of sage-grouse chicks.
- Use approved chemicals with the lowest toxicity to sage-grouse that still provide effective control of grasshoppers and Mormon crickets. Coordinate with US Department of Agriculture Animal and Plant Health Inspection Service to determine the approved chemical with the lowest toxicity.

Slickspot Peppergrass

- A qualified biologist may be required to monitor slickspots to avoid impacts during projects in habitat categories for slickspot peppergrass.
- In occupied habitat, only hand sprayers will be used for the application of herbicide.
- Within 10 feet of occupied slickspots, weeds will only be treated by hand.

Noxious Weeds and Invasive Plants

- When relevant, incorporate noxious weed and invasive plant prevention into project designs, including but not limited to: Emergency Stabilization and Burned Area Rehabilitation, fuels, range infrastructure, wildlife, fisheries, botany, soil, watershed, cultural resource, paleontology, recreation, and stream restoration projects.
- Encourage noxious weed and invasive plant awareness and education in employee development, training plans, and orientation for field, fire, and administrative positions.
- Promptly treat recreation sites or other high use areas when noxious weeds and invasive species are found.

Wildland Fire Suppression

- In the event a wildland fire escapes initial attack, a resource advisor should be assigned to ensure that resource management concerns are adequately addressed and that necessary mitigation occurs.
- If one of the following is being threatened or has the potential to be threatened, the authorized officer must be notified and a resource advisor should be dispatched:
  - Public health and safety;
  - Wildland urban interface;
  - Sage-grouse habitat;
  - Occupied habitat for slickspot peppergrass; or
  - Areas of Critical Environmental Concern; Wilderness Study Areas (WSAs); Wilderness; designated, eligible, or suitable Wild and Scenic Rivers; or National Historic Trails (NHTs).
- Use the minimum control line width necessary for containing fires; following containment, additional control lines should be avoided.
- Existing roads should be used for dozer lines before new dozer lines are constructed.
- Use of natural firebreaks and existing roads and trails to contain a wildland fire would be encouraged within special designations (e.g., WSAs, Areas of Critical Environmental Concern, and NHTs).
- Equipment used during extended attack should be cleaned before arriving on site and prior to demobilization to minimize the spread of noxious weeds and invasive plants. Wash stations should be set up in base camps and staging areas when practical.
- For fires requiring an incident management team, coordinate with the Field Office specialists prior to the establishment of base camps, staging areas, or support facilities so areas with special designations, special status species habitat, cultural resources sites, noxious weed patches, or riparian areas would be avoided to the extent practical.
- Through the authorized officer or resource advisor, an archaeologist should be notified to provide technical expertise, identify cultural resources that may be encountered, and identify best cultural protection practices to be used during suppression activities.

- Prior to wildland fire season, potential areas of conflict between archaeological resources and wildland fire suppression activities should be identified.
- Consider covering rock art or wrapping historic buildings or other such features in fire retardant fabric.
- To the extent practicable, suppress wildfires near rock art sites to minimize smoke damage. Rock art sites would be a suppression priority once the wildfire is contained. Avoid direct applications of foam, water, or retardant to rock art sites during suppression operations.

Livestock Grazing

General

- Ensure noxious weed and invasive plant prevention and control are considered in the management of grazing allotments.
- Implement grazing practices that allow for periodic rest during the growing season and promote rangeland health.
- Use annual indicators to evaluate implementation of grazing scedules.
- Manage water availability to alter distribution of livestock to maintain plant vigor and habitat for wildlife and special status plant species.
- Consider kind and breed of livestock to improve distribution patterns and forage use.
- Encourage the use of animal husbandry practices, such as early weaning of calves or culling of problem cattle, to achieve resource objectives.
- Remove and properly dispose of supplement tubs, old pipe, troughs, wire, and etc. from BLM managed lands.
- Pursue opportunities to incorporate multiple allotments under a single management plan/strategy where incorporation would result in enhanced management to promote rangeland health and resolve resource issues.

Upland Areas

- Periodically treat crested wheatgrass seedings to prevent widespread development of decadent plants undergoing a process of decline of vigor, production, and palatability to wildlife and livestock due to accumulation of previous year's biomass. (i.e., manage livestock grazing to reduce disturbance to special status birds in native plant communities during nesting. For example, deferring some pastures during nesting or active herding of livestock between pastures.
- Place salt and other supplements in annual grasslands or non-native perennial grassland sites. If specific pastures contain only native habitats, place salt and supplements in areas that are already disturbed including, but not limited to:
  - dirt road or jeep trail intersections,
  - water troughs located in the uplands,
  - gravel pits, or
  - areas previously used for salting.
- In pastures with non-native plant communities, place salt and other supplements at least 0.25 mile from native plant communities. If space limits this practice, place supplements to minimize livestock congregation in native plant communities.
- Consider placing livestock water or supplements away from agricultural land to provide relatively large blocks of suitable nesting and wintering habitat for pheasants, as well as nesting habitat for other taller grass dependent species such as northern harriers, short-eared owls, and several songbirds.

Riparian Areas

- Use water developments in upland areas to reduce livestock concentrations in riparian areas.
- Place salt and other supplements in the uplands at least 0.25 mile away from riparian zones and wetlands, unless determined necessary to meet specific resource objectives.
- Use localized hardened crossings to limit surface disturbance and reduce erosion at streamside livestock watering and crossing areas as long as fish migration through the watering areas is not impeded.

- Use riding and herding to control livestock distribution and use in areas with identified resource concerns such as in riparian areas, wet meadows, or stream crossings. Frequency of this method would vary by allotment, pasture and resource concern.
- Use gap fencing in conjunction with gullies, cliffs, and other natural barriers to limit livestock trailing and bedding in riparian areas; bed livestock in the uplands where possible.
- When water gaps are necessary, locate water gaps in rocky or hardened areas (natural or manmade) to minimize trampling damage to streambanks and streambeds. Use narrow water gaps to discourage livestock from loafing at the water source.
- Ensure utilization levels provide for sufficient herbaceous and woody vegetation during periods of high flow to protect streambanks, dissipate energy, and trap sediments.
- When entering a pasture, locate livestock near upland troughs or ponds to avoid impacts to riparian areas.

Range Infrastructure

Fences (Applicable to all programs)

- Encourage reducing fence densities by implementing alternative control methods such as herding, turning off waters, and placement of salt or supplements (Autenrieth et al., 2006; Yoakum, 2004b).
- When reconfiguring pastures within an allotment and when the allotment size allows, larger pasture sizes (greater than 3,000 acres) are preferred to smaller pasture sizes to meet big game objectives.
- Modify fences that cross big game migration routes (e.g., Davison clips, let-down fence, or other techniques) to ensure that pronghorn and mule deer movements are not blocked.
- Exclosure fences should be at least 10 acres to accommodate big game use (Gross and Knight, 2000).
- If it is necessary to restrict big game to protect resource values, including rare plant habitat, such exclosures should be of adequate height (at least 8 feet) to prevent big game access. These types of exclosures would be sized to protect the resource value which may cover less than 10 acres.

Water Developments

Proposed Authorizations/Activities

- Design structures in a manner that minimizes potential for production of mosquitoes which may carry West Nile virus.
- Fences should not be placed on dams or berms to minimize waterfowl, shorebird, and other avian collisions. Fences should be beyond the high water mark surrounding the pond/reservoir to minimize collision with waterfowl and shorebirds. Anchor troughs without wires, poles, and other obstructions directly over the trough surface to reduce injuries and make the troughs more accessible to bats (Tuttle et al., 2006).
- Evaluate ponds and reservoirs as habitat for amphibians. Where habitat is occupied by amphibians, take measures to maintain or improve habitat quality, including planting aquatic cover, providing basking areas, reducing trampling at critical times of the year, and providing water from spring through fall (CSFTT, 2003).
- Explore alternative strategies to divert water that reduce impacts on the spring source or riparian habitat (e.g., locating collection devices far enough below the spring source that it reduces detrimental impacts on the spring source or surrounding riparian vegetation (CSFTT, 2003), leaving adequate water at the spring source to maintain or enhance the existing condition).

Recreation

Recreation Sites

- Develop site-specific measures to avoid impacts to sage-grouse at existing or new recreation sites (e.g., seasonal closures, location of facilities).
- In the sage-grouse management area, use perch deterrents on signs and kiosks to reduce raven or raptor use of this infrastructure as foraging perches.

Transportation and Travel

- In coordination with Idaho Department of Fish and Game, Nevada Department of Wildlife, and local highway districts, evaluate primitive roads and trails and consider seasonal restrictions. Primitive roads in sage-grouse nesting and big game winter habitat would have the highest priority for seasonal closures during sensitive periods (Mule Deer Working Group, 2004) (Idaho Sage-grouse Advisory Committee, 2006).
- Through the transportation and travel management planning process, address important wildlife habitat values including key sage-grouse breeding habitat (Idaho Sage-grouse Advisory Committee, 2006) and big game parturition and winter habitats (Mule Deer Working Group, 2004) through actions such as closing or rerouting roads and seasonal restrictions.
- To the extent practical, schedule road realignments and other major construction to occur between June 21 and November 30 in big game winter habitat and sage-grouse habitat.
- Spray herbicides along roadsides to minimize sources of noxious weed and invasive plant seed that could be transported to other areas. Follow conservation measures found in Appendix E when applying herbicide along roadsides in occupied habitat for slickspot peppergrass.
- Ensure road blading and roadside herbicide applications are coordinated chronologically to minimize herbicide use and increase effectiveness.
- Use spot grading whenever possible to reduce route braiding.
- Where culverts and water bars are installed, use methods to slow water flow to prevent erosion. Methods may include rock, filter cloth, straw rolls, or other methods.
- When culverts are removed, they will be hauled to a land fill or recycled.
- Place a high priority on closing and reclaiming unauthorized motor vehicle routes.
- Ditch outs should remain within the road's right-of-way. Avoid ending ditch outs in defined ephemeral channels.

Land Use Authorizations

Communication Towers and Overhead Transmission Lines

- Construct new power lines and bury cable next to existing roads or other linear disturbance features to the extent possible.
- Remove wires from abandoned overhead power or telephone lines; cut off poles near ground level and remove them.
- Design towers and configure power poles to prevent raptors from using them as perches or nest sites.
- Design towers and adjacent structures with the smallest footprint possible; however, a larger footprint for self-supporting towers is preferable to guy-supported towers with a smaller footprint.
- Install visual markers or other proven methods on guyed towers to prevent collisions by wildlife.
- Install downshield security lighting for on-the-ground facilities to minimize attraction to birds and bats.

Wind Energy Development

The design features for wind energy development are from the Implementation of a Wind Energy Development Program and Associated Land Use Plan Documents Record of Decision (BLM, 2005) which amended the 1987 Jarbidge RMP and Record of Decision. Applicable design features will be adopted as required elements of project-specific Plans of Development (PODs) and/or as right-of-way (ROW) authorization stipulations. They are categorized by development activity: site monitoring and testing, development of the POD, construction, operation, and decommissioning. The design features for development of the POD identify elements that address potential impacts associated with subsequent phases of development.

Site Monitoring and Testing

- The Federal Aviation Administration (FAA)-required notice of proposed construction shall be made as early as possible to identify any air safety measures that would be required.
- The area disturbed by installation of meteorological towers (i.e., footprint) shall be kept to a minimum.

- Existing roads shall be used to the maximum extent feasible. If new roads are necessary, they shall be designed and constructed to the appropriate standard.
- Meteorological towers shall not be located in sensitive habitats or in areas where ecological resources known to be sensitive to human activities (e.g., sage-grouse, golden eagle nest territories, etc) are present. Installation of towers shall be scheduled to avoid disruption of wildlife reproductive activities or other important behaviors.
- Meteorological towers installed for site monitoring and testing shall be inspected periodically for structural integrity.

Plan of Development Preparation

General

- Project developers shall coordinate with the BLM, Department of Defense, and FAA early in the project planning process to identify and minimize impacts on airspace use. Identifying impacts on airspace use shall include, but is not limited to:
  - Consult with the FAA on proposed construction of any facility that is 100 feet (~61 m) or taller to evaluate potential safety hazards.
  - Consult with the DoD to minimize and/or eliminate impacts on military operations, and encourage compatible development.
- Available information describing the environmental and sociocultural conditions in the vicinity of the proposed project shall be collected and reviewed as needed to predict potential impacts of the project.
- To plan for efficient use of the land, necessary infrastructure requirements shall be consolidated wherever possible, and current transmission and market access shall be evaluated carefully.
- The project shall be planned to utilize existing roads and utility corridors to the maximum extent feasible, and to minimize the number and length/size of new roads, lay-down areas, and borrow areas.
- A monitoring program shall be developed to ensure that environmental conditions are monitored during the construction, operation, and decommissioning phases. The monitoring program requirements, including adaptive management strategies, shall be established at the project level to ensure that potential adverse impacts of wind energy development are mitigated. The monitoring program shall identify the monitoring requirements for each environmental resource present at the site, establish metrics against which monitoring observations can be measured, identify potential mitigation measures, and establish protocols for incorporating monitoring observations and additional mitigation measures into standard operating procedures and best management practices.
- “Good housekeeping” procedures shall be developed to ensure that during construction, operation and decommissioning the site will be kept clean of debris, garbage, fugitive trash or waste, and graffiti; to prohibit scrap heaps and dumps; and to minimize storage yards.

Wildlife and Other Ecological Resources

- Operators shall review existing information on species and habitats in the vicinity of the project area to identify potential concerns.
- Operators shall conduct surveys for Federal and/or State-protected species and other species of concern (including special status plant and animal species) within the project and adjoining areas, design the project to avoid (if possible), minimize, or mitigate impacts to these resources.
- Operators shall identify important, sensitive, or unique habitats in the vicinity of the project and design the project to avoid (if possible), minimize, or mitigate impacts to these habitats (e.g., locate the turbines, roads, and ancillary facilities in the least environmentally sensitive areas; i.e., away from riparian habitats, streams, wetlands, drainages, or critical wildlife habitats).
- The BLM will prohibit the disturbance of any population of Federally listed plant species.
- Operators shall use best available information to evaluate avian and bat use of the project area and design the project and site-specifi BMPs to minimize or mitigate the potential for bird and bat strikes (e.g., development shall not occur in riparian habitats and wetlands). Scientifically rigorous avian and bat use surveys shall be conducted; the amount and extent of ecological baseline data required shall

be determined on a project basis. The surveys will cover all seasons and be at least two years in duration. An avian and bat protection plan shall be completed for wind energy development projects.

- Turbines shall be configured to avoid landscape features known to attract raptors, if site studies show that placing turbines there would pose a significant risk to raptors.
- Operators shall determine the presence of bat colonies and avoid placing turbines near known bat hibernation, breeding, and maternity/nursery colonies; in known migration corridors; or in known flight paths between colonies and feeding areas.
- Operators shall determine the presence of raptor nests (i.e., active raptor nests and alternate nest sites within breeding territories during the breeding season). Measures to reduce raptor use at a project site (e.g., minimize road cuts, maintain either no vegetation or non-attractive plant species around the turbines) shall be considered.
- A habitat restoration plan shall be developed to avoid (if possible), minimize, or mitigate negative impacts on vulnerable wildlife while maintaining or enhancing habitat values for other species. The plan shall identify revegetation, soil stabilization, and erosion reduction measures that shall be implemented to ensure that all temporary use areas are restored. The plan shall require that restoration occur as soon as possible after completion of activities to reduce the amount of habitat converted at any one time and to speed up the recovery to natural habitats.
- Procedures shall be developed to mitigate potential impacts to special status species. Such measures could include avoidance, relocation of project facilities or lay-down areas, and/or relocation of biota.
- Facilities shall be designed to discourage their use as perching or nesting substrates by birds. For example, power lines and poles shall be configured to minimize raptor electrocutions and discourage raptor and raven nesting and perching.

Visual Resources

- The public shall be involved and informed about the visual site design elements of the proposed wind energy facilities. Possible approaches include conducting public forums for disseminating information, offering organized tours of operating wind developments, and using computer simulation and visualization techniques in public presentations.
- Turbine arrays and turbine design shall be integrated with the surrounding landscape. Design elements to be addressed include visual uniformity, use of tubular towers, proportion of turbines, color of nonreflective paints, and prohibition of messages on turbines.
- Other site design elements shall be integrated with the surrounding landscape. Elements to address include minimizing the profile of the ancillary structures, burial of cables, prohibition of commercial symbols, and lighting. Regarding lighting, efforts shall be made to minimize the need for and amount of lighting on ancillary structures.

Roads

- An access road siting and management plan shall be prepared incorporating existing BLM standards regarding road design, construction, and maintenance, such as those described in the BLM 9113 Manual and the *Surface Operating Standards for Oil and Gas Exploration and Development* (i.e., the Gold Book, 4th Edition, 2007).

Ground Transportation

- A transportation plan shall be developed, particularly for the transport of turbine components, main assembly cranes, and other large pieces of equipment. The plan shall consider specific object sizes, weights, origin, destination, and unique handling requirements and shall evaluate alternative transportation approaches. In addition, the process to be used to comply with unique State requirements and to obtain all necessary permits shall be clearly identified.
- A traffic management plan shall be prepared for the site access roads to ensure that no hazards would result from the increased truck traffic and that traffic flow would not be adversely impacted. This plan shall incorporate measures such as informational signs, flaggers when equipment may result in blocked throughways, and traffic cones to identify any necessary changes in temporary lane configuration.

Noise

- Proponents of a wind energy development project shall take multiple measurements in multiple seasons to assess the existing background noise levels at multiple sites and compare them with the anticipated noise levels associated with the proposed project.

Noxious Weeds and Pesticides

- Operators shall develop a plan for control of noxious weeds and invasive plant species, which could occur as a result of new surface disturbance activities at the site. The plan shall address monitoring, education of personnel on weed identification, the manner in which weeds spread, and methods for treating infestations. The use of certified weed-free mulching shall be required. A controlled inspection and cleaning area shall be established to visually inspect construction equipment arriving at the project area and to remove and collect seeds that may be adhering to tires and other equipment surfaces.
- If pesticides are used on the site, an integrated pest management plan shall be developed to ensure that applications would be conducted within the framework of BLM and USDI policies and entail only the use of Environmental Protection Agency-registered pesticides. Pesticide use shall be limited to nonpersistent, immobile pesticides and shall only be applied in accordance with label and application permit directions and stipulations for terrestrial and aquatic applications.

Cultural/Historic Resources

- BLM will consult with Indian tribal governments early in the planning process to identify issues regarding the proposed wind energy development, including issues related to the presence of cultural properties, access rights, disruption to traditional cultural practices, and impacts to visual resources important to the tribe(s).
- The presence of archaeological sites and historic properties in the area of potential effect shall be determined on the basis of a records search of recorded sites and properties in the area and/or, depending on the extent and reliability of existing information, an archaeological survey. Archaeological sites and historic properties present in the area of potential effect shall be reviewed to determine whether they meet the criteria of eligibility for listing on the National Register of Historic Places (NRHP).
- When any ROW application includes remnants of a National Historic Trail, is located within the viewshed of a National Historic Trail's designated centerline, or includes or is within the viewshed of a trail eligible for listing on the NRHP, the operator shall evaluate the potential visual impacts to the trail associated with the proposed project and identify appropriate mitigation measures for inclusion as stipulations in the POD.
- If cultural resources are present at the site, or if areas with a high potential to contain cultural material have been identified, a Cultural Resources Management Plan (CRMP) shall be developed. This plan shall address mitigation activities to be taken for cultural resources found at the site. Avoidance of the area is always the preferred mitigation option. Other mitigation options include archaeological survey and excavation (as warranted) and monitoring. If an area exhibits a high potential, but no artifacts were observed during an archaeological survey, monitoring by a qualified archaeologist could be required during all excavation and earthmoving in the high-potential area. A report shall be prepared documenting these activities. The CRMP also shall:
    - Establish a monitoring program,
    - Identify measures to prevent potential looting/vandalism or erosion impacts, and
    - Address the education of workers and the public to make them aware of the consequences of unauthorized collection of artifacts and destruction of property on public land.

Paleontological Resources

- Operators shall determine whether paleontological resources exist in a project area on the basis of the sedimentary context of the area, a records search for past paleontological finds in the area, and/or, depending on the extent of existing information, a paleontological survey.
- If paleontological resources are present at the site, or if areas with a high potential to contain paleontological material have been identified, a paleontological resources management plan shall be developed. This plan shall include a mitigation plan for collection of the fossils; mitigation could

include avoidance, removal of fossils, or monitoring. If an area exhibits a high potential but no fossils were observed during survey, monitoring by a qualified paleontologist could be required during all excavation and earthmoving in the sensitive area. A report shall be prepared documenting these activities. The paleontological resources management plan also shall:

- Establish a monitoring program,
- Identify measures to prevent potential looting/vandalism or erosion impacts, and
- Address the education of workers and the public to make them aware of the consequences of unauthorized collection of fossils on public land.

Hazardous Materials and Waste Management

- Operators shall develop a hazardous materials management plan addressing storage, use, transportation, and disposal of each hazardous material anticipated to be used at the site. The plan shall identify all hazardous materials that would be used, stored, or transported at the site. It shall establish inspection procedures, storage requirements, storage quantity limits, inventory control, nonhazardous product substitutes, and disposition of excess materials. The plan shall also identify requirements for notices to Federal and local emergency response authorities and include emergency response plans.
- Operators shall develop a waste management plan identifying the waste streams that are expected to be generated at the site and addressing hazardous waste determination procedures, waste storage locations, waste-specific management and disposal requirements, inspection procedures, and waste minimization procedures. This plan shall address all solid and liquid wastes that may be generated at the site.
- Operators shall develop a spill prevention and response plan identifying where hazardous materials and wastes are stored on site, spill prevention measures to be implemented, training requirements, appropriate spill response actions for each material or waste, the locations of spill response kits on site, a procedure for ensuring that the spill response kits are adequately stocked at all times, and procedures for making timely notifications to authorities.

Storm Water

- Operators shall develop a storm water management plan for the site to ensure compliance with applicable regulations and prevent off-site migration of contaminated storm water or increased soil erosion.

Human Health and Safety

- A safety assessment shall be conducted to describe potential safety issues and the means that would be taken to mitigate them, including issues such as site access, construction, safe work practices, security, heavy equipment transportation, traffic management, emergency procedures, and fire control.
- A health and safety program shall be developed to protect both workers and the general public during construction, operation, and decommissioning of a wind energy project. Regarding occupational health and safety, the program shall identify all applicable Federal and State occupational safety standards; establish safe work practices for each task (e.g., requirements for personal protective equipment and safety harnesses; Occupational Safety and Health Administration standard practices for safe use of explosives and blasting agents; and measures for reducing occupational electric and magnetic fields exposures); establish fire safety evacuation procedures; and define safety performance standards (e.g., electrical system standards and lightning protection standards). The program shall include a training program to identify hazard training requirements for workers for each task and establish procedures for providing required training to all workers. Documentation of training and a mechanism for reporting serious accidents to appropriate agencies shall be established.
- Regarding public health and safety, the health and safety program shall establish a safety zone or setback for wind turbine generators from residences and occupied buildings, roads, ROWs, and other public access areas that is sufficient to prevent accidents resulting from the operation of wind turbine generators. It shall identify requirements for temporary fencing around staging areas, storage yards, and excavations during construction or decommissioning activities. It shall also identify measures to be taken during the operation phase to limit public access to hazardous facilities (e.g., permanent

fencing would be installed only around electrical substations, and turbine tower access doors would be locked).

- Operators shall consult with local planning authorities regarding increased traffic during the construction phase, including an assessment of the number of vehicles per day, their size, and type. Specific issues of concern (e.g., location of school bus routes and stops) shall be identified and addressed in the traffic management plan.
- If operation of the wind turbines is expected to cause significant adverse impacts to nearby residences and occupied buildings from shadow flicker, low-frequency sound, or electric and magnetic fields site-specific recommendations for addressing these concerns shall be incorporated into the project design (e.g., establishing a sufficient setback from turbines).
- The project shall be planned to minimize electromagnetic interference (e.g., impacts to radar, microwave, television, and radio transmissions) and comply with Federal Communications Commission regulations. Signal strength studies shall be conducted when proposed locations have the potential to impact transmissions. Potential interference with public safety communication systems (e.g., radio traffic related to emergency activities) shall be avoided.
- The project shall be planned to comply with FAA regulations, including lighting regulations, and to avoid potential safety issues associated with proximity to airports, military bases or training areas, or landing strips.
- Operators shall develop a fire management strategy to implement measures to minimize the potential for a human-caused fire.

Construction

General

- All control and mitigation measures established for the project in the POD and the resource-specific management plans that are part of the POD shall be maintained and implemented throughout the construction phase, as appropriate.
- The area disturbed by construction and operation of a wind energy development project (i.e., footprint) shall be kept to a minimum.
- The number and size/length of roads, temporary fences, lay-down areas, and borrow areas shall be minimized.
- Topsoil from all excavations and construction activities shall be salvaged and reapplied during reclamation.
- All areas of disturbed soil shall be reclaimed using weed-free native grasses, forbs, and shrubs.
- Reclamation activities shall be undertaken as early as possible on disturbed areas.
- All electrical collector lines shall be buried in a manner that minimizes additional surface disturbance (e.g., along roads or other paths of surface disturbance). Overhead lines may be used in cases where burial of lines would result in further habitat disturbance.
- Operators shall identify unstable slopes and local factors that can induce slope instability (such as groundwater conditions, precipitation, earthquake activities, slope angles, and the dip angles of geologic strata). Operators also shall avoid creating excessive slopes during excavation and blasting operations. Special construction techniques shall be used where applicable in areas of steep slopes, erodible soil, and stream channel crossings.
- Erosion controls that comply with Federal, State, and local standards shall be applied. Practices such as jute netting, silt fences, and check dams shall be applied near disturbed areas.

Wildlife

- Guy wires on permanent meteorological towers shall be avoided, however, may be necessary on temporary meteorological towers installed during site monitoring and testing. If used guy wires would be marked to reduce wildlife mortality.
- In accordance with the habitat restoration plan, restoration shall be undertaken as soon as possible after completion of construction activities to reduce the amount of habitat converted at any one time and to speed up the recovery to natural habitats.

- All construction employees shall be instructed to avoid harassment and disturbance of wildlife, especially during reproductive (e.g., courtship and nesting) seasons. In addition, pets shall not be permitted on site during construction.

Visual Resources

- Operators shall reduce visual impacts during construction by minimizing areas of surface disturbance, controlling erosion, using dust suppression techniques, and restoring exposed soils as closely as possible to their original contour and vegetation.

Roads

- Existing roads shall be used, but only if in safe and environmentally sound locations. If new roads are necessary, they shall be designed and constructed to the appropriate standard and be no higher than necessary to accommodate their intended functions (e.g., traffic volume and weight of vehicles). Excessive grades on roads, road embankments, ditches, and drainages shall be avoided, especially in areas with erodible soils. Special construction techniques shall be used, where applicable. Abandoned roads and roads that are no longer needed shall be recontoured and revegetated.
- Access roads and on-site roads shall be surfaced with aggregate materials, wherever appropriate.
- Access roads shall be located to follow natural contours and minimize side hill cuts.
- Roads shall be located away from drainage bottoms and avoid wetlands, if practicable.
- Roads shall be designed so that changes to surface water runoff are avoided and erosion is not initiated.
- Access roads shall be located to minimize stream crossings. All structures crossing streams shall be located and constructed so that they do not decrease channel stability or increase water velocity. Operators shall obtain all applicable Federal and State permits.
- Existing drainage systems shall not be altered, especially in sensitive areas such as erodible soils or steep slopes. Potential soil erosion shall be controlled at culvert outlets with appropriate structures. Catch basins, roadway ditches, and culverts shall be cleaned and maintained regularly.

Ground Transportation

- Project personnel and contractors shall be instructed and required to adhere to speed limits commensurate with road types, traffic volumes, vehicle types, and site-specific conditions, to ensure safe and efficient traffic flow and to reduce wildlife collisions and disturbance and airborne dust.
- Traffic shall be restricted to the roads developed for the project. Use of other unimproved roads shall be restricted to emergency situations.
- Signs shall be placed along construction roads to identify speed limits, travel restrictions, and other standard traffic control information. To minimize impacts on local commuters, consideration shall be given to limiting construction vehicles traveling on public roadways during the morning and late afternoon commute time.

Air Emissions

- Dust abatement techniques shall be used on unpaved, unvegetated surfaces to minimize airborne dust.
- Speed limits (e.g., 25 mph [40 km/h]) shall be posted and enforced to reduce airborne fugitive dust.
- Construction materials and stockpiled soils shall be covered if they are a source of fugitive dust.
- Dust abatement techniques shall be used before and during surface clearing, excavation, or blasting activities.

Excavation and Blasting Activities

- Operators shall gain a clear understanding of the local hydrogeology. Areas of groundwater discharge and recharge and their potential relationships with surface water bodies shall be identified.
- Operators shall avoid creating hydrologic conduits between two aquifers during foundation excavation and other activities.
- Foundations and trenches shall be backfilled with originally excavated material as much as possible. Excess excavation materials shall be disposed of only in approved areas or, if suitable, stockpiled for use in reclamation activities.

- Borrow material shall be obtained only from authorized and permitted sites. Existing sites shall be used in preference to new sites.
- Explosives shall be used only within specified times and at specified distances from sensitive wildlife or streams and lakes, as established by the BLM or other Federal and State agencies.

Noise

- Noisy construction activities (including blasting) shall be limited to the least noise-sensitive times of day (i.e., daytime only between 9 a.m. and 10 p.m.) and weekdays.
- All equipment shall have sound-control devices no less effective than those provided on the original equipment. All construction equipment used shall be adequately muffled and maintained.
- All stationary construction equipment (i.e., compressors and generators) shall be located as far as practicable from nearby residences.
- If blasting or other noisy activities are required during the construction period, nearby residents shall be notified in advance.

Cultural and Paleontological Resources

- Unexpected discovery of cultural or paleontological resources during construction shall be brought to the attention of the responsible BLM authorized officer immediately. Work shall be halted in the vicinity of the find to avoid further disturbance to the resources while they are being evaluated and appropriate mitigation measures are being developed.

Hazardous Materials and Waste Management

- Secondary containment shall be provided for all on-site hazardous materials and waste storage, including fuel. In particular, fuel storage (for construction vehicles and equipment) shall be a temporary activity occurring only for as long as is needed to support construction activities.
- Wastes shall be properly containerized and removed periodically for disposal at appropriate off-site permitted disposal facilities.
- In the event of an accidental release to the environment, the operator shall document the event, including a root cause analysis, appropriate corrective actions taken, and a characterization of the resulting environmental or health and safety impacts. Documentation of the event shall be provided to the BLM authorized officer and other Federal and State agencies, as required.
- Any wastewater generated in association with temporary, portable sanitary facilities shall be periodically removed by a licensed hauler and introduced into an existing municipal sewage treatment facility. Temporary, portable sanitary facilities provided for construction crews shall be adequate to support expected on-site personnel and shall be removed at completion of construction activities.

Public Health and Safety

- Temporary fencing shall be installed around staging areas, storage yards, and excavations during construction to limit public access.

Operations

General

- All control and mitigation measures established for the project in the POD and the resource-specific management plans that are part of the POD shall be maintained and implemented throughout the operational phase, as appropriate. These control and mitigation measures shall be reviewed and revised, as needed, to address changing conditions or requirements at the site, throughout the operational phase. This adaptive management approach would help ensure that impacts from operations are kept to a minimum.
- Inoperative turbines shall be repaired, replaced, or removed in a timely manner. Requirements to do so shall be incorporated into the due diligence provisions of the right-of-way (ROW) authorization. Operators will be required to demonstrate due diligence in the repair, replacement, or removal of turbines; failure to do so could result in termination of the ROW authorization.

Wildlife

- Employees, contractors, and site visitors shall be instructed to avoid harassment and disturbance of wildlife, especially during reproductive (e.g., courtship and nesting) seasons. In addition, any pets shall be controlled to avoid harassment and disturbance of wildlife.
- Observations of potential wildlife problems, including wildlife mortality, shall be reported to the BLM authorized officer immediately.

Ground Transportation

- Ongoing ground transportation planning shall be conducted to evaluate road use, minimize traffic volume, and ensure that roads are maintained adequately to minimize associated impacts.

Monitoring Program

- Site monitoring protocols defined in the POD shall be implemented. These will incorporate monitoring program observations and additional mitigation measures to minimize future environmental impacts.
- Results of monitoring program efforts shall be provided to the BLM authorized officer.

Public Health and Safety

- Permanent fencing shall be installed and maintained around electrical substations.
- Turbine tower access doors shall be locked to limit public access.
- In the event an installed wind energy development project results in electromagnetic interference, the operator shall work with the owner of the impacted communications system to resolve the problem. Additional warning information may also need to be conveyed to aircraft with onboard radar systems so that echoes from wind turbines can be quickly recognized.

Decommissioning

General

- Prior to the termination of the ROW authorization, a decommissioning plan shall be developed and approved by the BLM. The decommissioning plan shall include a site reclamation plan and monitoring program.
- All management plans, best management practices, and stipulations developed for the construction phase shall be applied to similar activities during the decommissioning phase.
- All turbines and ancillary structures shall be removed from the site.
- Topsoil from all decommissioning activities shall be salvaged and reapplied during final reclamation.
- All areas of disturbed soil shall be reclaimed using weed-free native shrubs, grasses, and forbs.
- The vegetation cover, composition, and diversity shall be restored to values commensurate with the ecological setting.

Solar Energy Development

The following design features were adopted from the Approved Resource Management Plan Amendments/Record of Decision for Solar Energy Development in 6 Southwestern States (BLM and DOE, 2012) to provide consistency. Applicable design features will be adopted as required elements of project-specific Plans of Development (PODs) and/or as right-of-way (ROW) authorization stipulations.

Lands and Realty

General

- Project developers shall consult with the BLM in the early phases of project planning to identify potential land use conflicts and constraints. Identification of potential land use conflicts shall include, but is not limited to:
    - In coordination with the BLM, developers shall consult existing BLM land use plans and local land use plans, as well as appropriate affected Tribes; Federal, State, and local agencies; and adjacent property owners.
    - Identifying legal access to Federal, State, and private lands surrounding the proposed solar facilities and the potential to create areas that are inaccessible to the public.

  - Considering the effects on the uses of public lands around boundaries of solar energy facilities.
  - Considering the potential effects on prime and unique farmland.
  - Evaluating land use impacts and constraints for the project and consider options to avoid, minimize, and/or mitigate adverse impacts.
  - Informing existing BLM ROW authorization holders within solar energy development areas, pursuant to Title 43, Part 2807.14 of the Code of Federal Regulations (43 CFR 2807.14), that an application that might affect their existing ROW has been filed and request their comments.
  - Identifying public land boundaries. Proposed solar energy developments within 0.25 mile of any project boundary will require issuance of a Chain of Survey Certificate in conformance with the Departmental standard. In some cases, Land Description Reviews, Certificates of Inspection and Possession, Boundary Assurance Certificates, resurveys, re-monumentation, and/or referencing of Public Land Survey System corners may be required before the start of any action.
- Methods to minimize land use conflicts and constraints may include, but are not limited to:
  - Informing project personnel of all laws and regulations that they may be subject to, such as state borders limitations on the removal of salable materials such as stone or wood from a project site for personal use, and use of vehicles off of the project site in limited access areas. This information should be incorporated into a Worker Education and Awareness Plan that is provided to all project personnel prior to entering the project worksite. The worker education and awareness plan shall be provided on a regular basis, covering multiple resources, to ensure the awareness of mitigation efforts during all phases of the project's life. Information in the worker education and awareness plan shall be reviewed and approved by the BLM prior to the issuance of a Notice to Proceed and shall incorporate adaptive management protocols for addressing changes over the life of the project, should they occur.

Site Characterization, Siting and Design, Construction

- Solar facilities shall be sited, designed, and constructed to avoid, minimize, and/or mitigate impacts on BLM managed lands. Methods to minimize impacts on BLM managed lands may include:
  - Identifying and protecting evidence of the Public Land Survey System and related Federal property boundaries prior to commencement of any ground-disturbing activity. This will be accomplished by contacting the BLM Cadastral Survey to coordinate data research, evidence examination and evaluation, and locating, referencing, or protecting monuments of the Public Land Survey System and related land boundary markers from destruction. In the event of obliteration or disturbance of the Federal boundary evidence, the responsible party shall immediately report the incident, in writing, to the BLM authorized officier. The BLM Cadastral Survey will determine how the marker is to be restored. In rehabilitating or replacing the evidence the responsible party will be instructed to use the services of a Certified Federal Surveyor, whose procurement shall be per qualification-based selection, or to reimburse the BLM for costs. All surveying activities will conform to the Manual of Surveying Instructions and appropriate State laws and regulations. Local surveys will be reviewed by Cadastral Survey before being finalized or filed in the appropriate State or county office. The responsible party shall pay for all survey, investigation, penalty, and administrative costs.
  - Considering opportunities to consolidate access to and other supporting infrastructure for single projects and for cases where there is more than one project in close proximity to another in order to maximize the efficient use of public land and minimize impacts.

Special Designations and Lands Managed for Wilderness Characteristics

General

- Protection of existing values of specially designated areas and Lands with Wilderness Characteristics shall be evaluated during the environmental analysis for solar energy projects, and the results shall be incorporated into the project planning and design.
- Assessing potential impacts on specially designated areas and Lands with Wilderness Characteristics shall include, but is not limited to, the following:
  - Identifying specially designated areas and Lands with Wilderness Characteristics in proximity to the proposed projects. In coordination with the BLM, developers shall consult existing land use plans and updated inventories.

  - Identifying lands that are within the geographic scope of a proposed solar energy project that have not been recently inventoried for wilderness characteristics or any lands that have been identified in a citizen's wilderness proposal in order to determine whether they possess wilderness characteristics. Developers shall consider including the wilderness characteristics evaluation as part of the processing of a solar energy ROW application for those lands without a recent wilderness characteristics inventory. All work must be completed in accordance with current BLM policies and procedures.
- Methods to mitigate unavoidable impacts on special designations and Lands with Wilderness Characteristics may include, but are not limited to:
  - Acquiring wilderness inholdings from willing sellers.
  - Acquiring private lands from willing sellers adjacent to designated wilderness.
  - Acquiring private lands from willing sellers within designated wilderness or Wilderness Study Areas.
  - Acquiring other lands containing important wilderness or related values, such as opportunities for solitude or a primitive, unconfined (type of) recreation.
  - Restoring wilderness (e.g., modifying routes or other structures that detract from wilderness character).

Site Characterization, Siting and Design, Construction

- Solar facilities shall avoid, minimize, and/or mitigate impacts on the values of special designations and Lands with Wilderness Characteristics.

Rangeland Resources – Grazing

General

- Project developers shall consult with the BLM and coordinate with affected grazing permittees/lessees to discuss how a proposed project may affect grazing operations and to address possible alternatives to avoid and minimize impacts, as well as mitigation and compensation strategies.

Site Characterization, Siting and Design, Construction

- Roads shall be constructed, improved, and maintained to minimize their impact on grazing operations. Road design shall include fencing, cattle guards, and speed control and information signs where appropriate.

Wild Horses

General

- Project developers shall coordinate with the BLM and other stakeholders early in the project planning process to assess and consider options to avoid, minimize, and/or mitigate impacts on wild horses and their management areas. Assessing impacts on wild horses and their management areas shall include:
  - Identifying wild horses and their use areas within the herd area in proximity to the proposed projects.
  - Evaluating potential impacts on wild horses and their management areas as part of the environmental impact analysis for the project and considering options to avoid, minimize, and/or mitigate adverse impacts in coordination with the BLM.
- Methods to minimize impacts on wild horses and their management areas may include:
  - Installing fencing and access control.
  - Providing for movement corridors.
  - Delineating open range.
  - Requiring traffic management measures (e.g., vehicle speed limits).
  - Ensuring access to or replacement of water sources.
  - Incorporating key mitigation elements for wild horse in a worker education and awareness plan that is provided to all project personnel prior to entering the project work sites.

Site Characterization, Siting and Design, Construction

- Project access roads shall be sited, designed, constructed, fenced, and/or improved to minimize potential wild horse collisions. Fences, or other appropriate structures, should be constructed to exclude wild horses from solar energy project site facilities. Either water sources or access routes to water sources for horses should be excluded from the solar energy development area, or alternate water sources or routes should be provided.

Wildland Fire Ecology and Management

General

- Project developers shall coordinate with the BLM and other appropriate fire organizations early in the project planning process to determine fire risk and methods to minimize fire risk. Identifying fire risk shall include:
  - Minimize the potential for fire risk associated of the proposed project in coordination with the BLM and other appropriate fire organizations. Developers shall consult existing land use plans and fire management plans.
  - Evaluating fire risk as part of the environmental impact analysis for the project and considering options to avoid, minimize, and/or mitigate such risk in coordination with the BLM.
- General methods to minimize fire risk mayinclude:
  - Develop and implement fire management measures that include providing worker training.
  - Incorporate key elements to mitigate the potential for fire into a worker education and awareness plan that is provided to all project personnel prior to entering the project worksite.
  - Incorporate inspection and monitoring measures, including adaptive management protocols, to minimize fire risk during construction, operations, and decommissioning of a solar energy development.

Site Characterization, Siting and Design, Construction

- Solar facilities shall minimize fire risk. Methods to minimize fire risk may include, but are not limited to, the following:
  - Siting and designing the solar facilities to ensure sufficient room for fire management within the ROW and its facilities to minimize the risk of fire moving outside the ROW and the risk of fire threatening the facility from outside.
  - Consulting fire management personnel to determine actions, both active and passive (e.g., vegetation manipulation), that may minimize the need for protective responses by the BLM and State and local fire organizations.
  - Developing and implementing measures to integrate vegetation management to minimize the potential to increase the frequency of wildland fires and prevent the establishment of non-native, invasive species on the solar energy facility and its transmission line and roads.

Transportation, Travel, and Recreation

General

- Project developers shall consult with the BLM in the early phases of project planning to identify public access and recreation use areas in and adjacent to a project site. Identifying public access and recreation in and adjacent to a project shall include, but is not limited to, the following:
  - Considering existing public access through or around proposed solar facilities that allows for access to and use of BLM managed public lands and non-BLM managed lands. Developers shall conduct this assessment in coordination with the BLM and consult existing land use plans, recreation management plans, etc.
  - Identifying legal access to Federal, State, and private lands surrounding the solar facilities to avoid creating areas that are inaccessible to the public.
- Methods to minimize access and recreation conflicts may include, but are not limited to, the following:
  - Considering replacement of acreage lost for identified recreation opportunities, such as off-highway vehicle use.
  - Considering, to the extent practicable, providing access through or around a solar energy facility to provide for adequate public access and/or recreation.

- Incorporating environmental inspection and monitoring measures into the POD and other applicable plans to monitor and respond to impacts on recreation during construction, operations, and decommissioning of a solar energy development, including adaptive management protocols.

Site Characterization, Siting and Design, Construction

- Solar facilities shall not be sited in areas designated as unique or important recreation resources (such as Special Recreation Management Areas), where it has been determined that a solar facility or other such development of the land would be in direct conflict with the objectives of the relevant management plan.

Aviation

General

- Project developers shall coordinate with the BLM, Department of Defense, and Federal Aviation Administration (FAA) early in the project planning process to identify and minimize impacts on airspace use. Identifying impacts on airspace use shall include, but is not limited to:
  - Consult with the FAA on proposed construction of any facility that is 100 feet (~ 61 m) or taller to evaluate potential safety hazards.
    Consult with the DoD to minimize and/or eliminate impacts on military operations, and encourage compatible development.

Soil Resources and Geologic Hazards

General

- Project developers shall coordinate with the BLM and other Federal, State, and local agencies early in the project planning process to assess soil erosion and geologic hazard concerns and to minimize potential impacts. Assessing soil erosion and geologic hazard concerns shall include, but is not limited to, the following:
  - Identifying soil erosion and geologic hazard concerns on-site and in proximity to the proposed projects. In coordination with the BLM, developers shall consult existing land use plans, updated inventories, soil surveys, etc.
  - Identifying local factors that can cause slope instability (e.g., groundwater conditions, precipitation, earthquake activity, slope angles, and the dip angles of geologic strata).
  - Consulting with Federal, State, and local agencies regarding road design on the basis of local meteorological conditions, soil moisture, and erosion potential.
  - Determining the potential safety and resource impacts associated with soil erosion.
  - Evaluating soil erosion and geologic hazard concerns as part of the environmental impact analysis for the project and considering options to avoid, minimize, and/or mitigate adverse impacts.

Site Characterization, Siting and Design, Construction

- Solar facilities shall be sited to minimize soil erosion and geologic hazard concerns. Methods to minimize soil erosion may include, but are not limited to:
  - Designing structures to meet the requirements of all applicable Federal, State, and local permits and building codes.
  - Minimizing ground-disturbing activities.
  - Preventing channel erosion from project runoff.
  - Controlling culvert outlets with appropriate structures (e.g., rock lining or apron) to reduce soil erosion and scouring.
  - Recontouring and revegetating project roads that are no longer needed in order to increase infiltration and reduce soil compaction.
  - Utilizing excavated materials for backfill.
  - Controlling project vehicle and equipment speeds to reduce dust erosion.
  - Controlling water runoff and directing it to settling or rapid infiltration basins.
  - Retaining sediment-laden waters from disturbed, active areas within the project through the use of barriers and sedimentation devices (e.g., berms, straw bales, sandbags, jute netting, or silt

fences). Removing sediment from barriers and sedimentation devices to restore sediment-control capacity.
  - Placing barriers and sedimentation devices around drainages and wetlands.
  - Siting project structures and facilities to avoid disturbance in areas with existing biological soil crusts.
  - Replanting project areas with native or non-native perennial vegetation at spaced intervals to break up areas of exposed soil and reduce soil loss through wind erosion.
  - Minimizing land disturbance (including crossings) in natural drainage systems and groundwater recharge zones (i.e., ephemeral washes and playas).
  - Locating and constructing drainage crossing structures so as not to decrease channel stability or increase water volume or velocity.
  - Providing adequate space (i.e., setbacks) between solar facilities and natural washes to preserve hydrologic function.
  - Considering the use of existing roads, disturbance areas, and borrow pits before creating new infrastructure.
  - Siting, designing, and constructing new roads consistent with the appropriate design standards and criteria, such as those described in BLM Manual 9113 and 43 CFR 8342.1. Roads should follow natural land contours, and hill cuts should be minimized in the project area.
  - Avoiding areas with unstable slopes and soils.
  - Avoiding excessive grades on roads, road embankments, ditches, and drainages during site preparation and construction.
  - Considering use of special construction techniques in areas of steep slopes, erodible soil, and drainage ways.
  - Considering construction in stages to limit the areas of exposed and unstabilized soils.
  - Reducing construction activity timeframes so that ground-disturbing activities take place over as short a timeframe as possible.
  - Lessening fugitive dust by using dust abatement on designated roads used by construction traffic.
  - Lessening fugitive dust emissions and site soils compaction by gravelling surfaces used for construction traffic and watering unvegetated surfaces.
  - Avoiding clearing and disturbing areas outside the construction zone.
  - Clearly identifying construction zone boundaries on the ground (e.g., through the use of construction fencing) to minimize conflict with resource.
  - Avoiding ground disturbance in areas with intact biological soil crusts.
  - Burying electrical lines from solar collectors along existing features (e.g., roads or other paths of disturbance) to minimize the overall area of surface disturbance.
  - Obtaining borrow materials from authorized and permitted sites.
  - Conducting construction grading in compliance with industry practice (e.g., the American Society for Testing and Materials international standard methods) and other requirements (e.g., BLM and/or local grading and construction permits).
  - Using temporary stabilization devices (i.e., erosion matting blankets or soil stabilizing agents) for areas that are not actively under construction.
  - Salvaging topsoil from all excavation and construction and reapplying it to disturbed areas upon completion of construction.
  - Restoring native plant communities as quickly as possible in disturbed areas through revegetation or by seeding and transplanting (using weed-free native grasses, forbs, and shrubs).
  - Minimizing soil-disturbing activities on wet soils.
  - Incorporating environmental inspection and monitoring measures into the POD and other applicable plans to monitor and respond to impacts on soil resources during construction, operations, and decommissioning of a solar energy development, including adaptive management protocols.
- Methods to minimize geologic hazard concerns may include, but are not limited to, the following:
  - Building project structures in accordance with the design-based recommendations in the project-specific geotechnical investigation report.
  - Considering special siting, design, and engineering strategies in areas that have potential for flooding or debris flow.

Operations and Maintenance

- Compliance with the stipulations for soil resources and geologic hazards shall be monitored by the project developer. Consultation with the BLM shall be maintained through the operations and maintenance of the project, employing an adaptive management strategy and modifications, as necessary and approved by the BLM. Methods to minimize soil erosion and geologic hazard operations and maintenance of the project shall include, but are not limited to, the following:
    - Applying best management practices (BMPs) developed for the construction phase to similar activities during the operations phase to minimize soil loss.
    - Performing routine site inspections to assess the effectiveness of maintenance requirements for erosion and sediment control systems.
    - Maintaining permanent barriers and sedimentation devices to ensure effective control.
    - Regularly maintaining catch basins, roadway ditches, and culverts.
    - Identifying soil erosion and geologic hazard requirements within the POD and other applicable plans.

Reclamation and Decommissioning

- All BMPs for soil erosion and geologic hazards developed for the construction phase shall be applied to similar activities undertaken during the decommissioning and reclamation phase.
- To the extent possible, the original grade and drainage pattern shall be re-established.
- Native plant communities in disturbed areas shall be restored by revegetation or by seeding and transplanting (using weed-free native grasses, forbs, and shrubs), on the basis of recommendations by the BLM.

Mineral Resources

General

- Project developers shall consult with the BLM in the early phases of project planning to identify potential impacts on mineral development activities and ways to minimize potential adverse impacts. Assessing impacts on mineral resources shall include, but is not limited to, the following:
    - Identifying active mining claims or mineral development activities and potential for mineral development in proximity to a proposed project. In coordination with the BLM, developers shall consult existing land use plans and updated inventories.
- Solar energy development ROWs shall contain the stipulation that the BLM retains the right to issue oil and gas or geothermal leases with a stipulation of no surface occupancy within the ROW area.

Site Characterization, Siting and Design, Construction

- Solar energy development projects shall be located to minimize conflicts with valid existing mineral rights and/or ongoing mineral development.

Water Resources

General

- The following activities will be undertaken to minimize impacts on water resources. They are to be done in coordination with the appropriate Federal, State, and local regulating agencies.
- The project developer shall control project site drainage, erosion, and sedimentation related to stormwater runoff. The project developer shall identify site surface water runoff patterns and develop measures that prevent adverse impacts associated with project related soil deposition and erosion throughout and downslope of the project site and project related construction areas. This shall be implemented within a Stormwater Pollution Prevention Plan (SWPPP) and incorporated into the POD, as appropriate. Assessing stormwater runoff concerns shall include, but is not limited to, the following:
    - Conducting hydrologic analysis and modeling to define the 100-year, 24-hour rainfall for the project area and calculating projected runoff from this storm at the site.
    - Demonstrating the project will not increase off-site flooding potential, and including provisions for stormwater and sediment retention on the project site.

  - Demonstrating compliance with construction stormwater permitting through the Environmental Protection Agency (EPA) or State-run National Pollutant Discharge Elimination System program (whichever applies within the State).
  - Demonstrating compliance with the EPA requirement that any development larger than 20 acres (0.08 km^2) and begun after August 2011 must monitor construction discharges for turbidity concentrations.
- Methods to minimize stormwater runoff may include, but are not limited to, the following:
  - Managing runoff from parking lots, roofs, or other impervious surfaces.
  - Creating or improving landscaping used for stormwater treatment to capture runoff.
  - Considering reduction of impervious surfaces through the use of permeable pavement or other pervious surfaces.
  - Maintaining natural drainages and pre-project hydrographs for the project ROW to the extent practicable.
  - Maintaining pre-development flood hydrograph for all storms up to and including the 100-year rainfall event.
  - Incorporating environmental inspection and monitoring measures into the POD and other applicable plans to monitor and respond to impacts from stormwater runoff during construction, operations, and decommissioning of a solar energy development, including adaptive management protocols.
- Project developers shall conduct hydrologic study (or studies) that demonstrate a clear understanding of the local surface water and groundwater hydrology. Assessing surface water and groundwater hydrology may include, but is not limited to, the following:
  - Determining the relationship of the project site hydrologic basin to the basins in the region.
  - Identifying surface water bodies within the watershed or individual projects (including rivers, streams, ephemeral washes/drainages, reservoirs, wetlands, playas, and floodplains) and identifying the 100-year floodplain of any surface water feature on the site.
  - Identifying applicable groundwater aquifers.
  - Quantifying physical characteristics of surface water features, such as stream flow rates, stream cross sections, channel routings, seasonal flow rates.
  - Quantifying physical characteristics of the groundwater aquifer, such as physical dimensions of the aquifer, sediment characteristics, confined/unconfined conditions, hydraulic conductivity, and transmissivity distribution of the aquifer.
  - Quantifying the regional climate, including seasonal and long-term information on temperatures, precipitation, evaporation, and evapotranspiration.
  - Quantifying the sustainable yield of surface waters and groundwater available to the project.
  - Consulting with the US Army Corps of Engineers regarding the siting of solar energy generating facilities in relation to hydrological features that have the potential to be subject to USACE jurisdiction.
- Project developers shall coordinate with the BLM and other Federal, State, and local agencies early in the planning process in order to identify water use for the solar energy project, and to secure a reliable and legally available water supply to meet project water needs. Assessing water use shall include, but is not limited to, the following:
  - Quantifying water use requirements for project construction, operations, and decommissioning.
  - Meeting potable water supply standards of Federal, State, and local water quality authorities (e.g., Sections 303 and 304 of the Clean Water Act).
  - Identifying wastewater treatment measures and new or expanded facilities, if any, to be included as part of the facilities' National Pollutant Discharge Elimination System permit.
- Methods for minimizing water use may include, but are not limited to, the following:
  - Considering water conservation measures related to solar energy technology water needs to reduce project water requirements (i.e., use dry cooling, use recycled or impaired water).
  - Incorporating environmental inspection and monitoring measures into the POD and other applicable plans to monitor water use during construction, operations, and decommissioning of the solar energy development, including adaptive management protocols.
- Project developers shall avoid and/or minimize impacts on existing surface water features, including streams, reservoirs wetlands, floodplains, intermittent/ephemeral streams, and playas (from the development in accordance with the following:

- The Clean Water Act, including Sections 401, 402, and 404, addressing licensing and permitting issues;
- Executive Orders (E.O.s) 11988 and 11990 of May 24, 1977, regarding floodplain and wetland management: E.O. 11988, "Floodplain Management" (*Federal Register*, Volume 42, page 26951 [42 FR 26951]), and E.O. 11990, "Protection of Wetlands" (42 FR 26961);
- EPA stormwater management guidelines and applicable State and local guidelines;
- Consultation with the USACE, in accordance with the 1987 wetlands delineation manual and appropriate regional supplement; avoidance, minimization and compensation proposals;
- USACE permit, Nationwide verification, or other approved jurisdiction. This includes identification of a Least Environmentally Damaging Practicable Alternative within the environmental analysis. The USACE permit, Nationwide verification, or approved jurisdiction letter shall be provided to the BLM prior to a decision;
- National Wild and Scenic Rivers System (Public Law 90-542; 16 *United States Code* [U.S.C.] 1271 et seq.); and
- Required Clean Water Act Section 303(d) identification of impaired surface water bodies.

Site Characterization, Siting and Design, Construction

- Project developers shall minimize impacts on groundwater and surface water resources in accordance with the laws and policies above. Methods to minimize impacts on surface water and groundwater resources may include:
  - Reclaiming disturbed soils as quickly as possible.
  - Preventing the release of project waste materials into stormwater discharges.
  - Avoiding impacts on sole source aquifers according to EPA guidelines.
  - Developing measures to prevent potential groundwater and surface water contamination and incorporating them into the Spill Prevention and Emergency Response Plan and POD, as appropriate.
  - Minimizing land disturbance in ephemeral washes and playas. Stormwater facilities shall be designed to route flow through or around the facility using existing washes when feasible, instead of concrete-lined channels.
  - Designing culverts and water conveyances to comply with BLM, State, and local standards, or to accommodate the runoff of a 100-year storm, whichever is larger.
  - Designing stormwater retention and/or infiltration and treatment systems for storm events up to and including the 100-year storm event.
  - Utilizing geotextile matting to stabilize disturbed channels and stream banks.
  - Diverting worksite runoff from entering disturbed streams using earth dikes, swales, and lined ditches.
  - Placing sediment control devices so that sediment-laden water can pond, thus allowing sediment to settle out.
  - Considering placement of check dams (i.e., small barriers constructed of rock, gravel bags, sandbags, fiber rolls, or reusable products) across a swale or drainage ditch to reduce the velocity of flowing water.
  - Considering special construction techniques in areas of erodible soil, alluvial fans, and stream channel/wash crossings.
  - Backfilling foundations and trenches with originally excavated material.
  - Disposing of excess excavated material according to Federal and State laws.
  - Maintaining drilling fluids or cuttings in a manner so as not to contact aquatic habitats. Temporary impoundments for storing drilling fluids and cuttings shall be lined to minimize the infiltration of runoff into groundwater or surface water.
  - Avoiding washing equipment or vehicles in streams and wetlands.
  - Constructing entry and exit pits in work areas to trap sediments from vehicles so they do not enter streams at stream crossings.
  - Providing for periodic removal of wastewater generated in association with sanitary facilities by a licensed hauler.
  - Avoiding the creation of hydrologic conduits between two aquifers.

- Using herbicides and pesticides within the framework of BLM and USDI policies and standard operating procedures, to include the use of only EPA-registered pesticides/herbicides that also comply with State and local regulations.
- Transporting, storing, managing, and disposing of hazardous materials and vehicle/equipment fuels in accordance with accepted BMPs and in compliance with all applicable regulations, and where applicable, the SWPPP.

Operations and Maintenance

- Compliance with the terms and conditions for water resource mitigation shall be monitored by the project developer. The developer shall consult with the BLM through operations and maintenance of the project, employing an adaptive management strategy and modifications, as necessary and approved by the BLM. Maintaining the water resources during operations and maintenance of the project shall include:
  - Monitoring water quantity and quality in areas adjacent to or downstream from development areas through the life of the project to ensure that water flows and water quality are protected.
  - Treating of sanitary and industrial wastewater either on-site or off-site to comply with Federal, State, and local regulations. Any discharges to surface waters would require National Pollutant Discharge Elimination System permitting. Any storage or treatment of wastewater on-site must use proper lining of holding ponds and tanks to prevent leaks.
  - Implementing monitoring using adaptive management strategies to ensure that long-term water use during operations does not substantially and disproportionately contribute to the long-term decline of groundwater levels or surface water flows and volumes, considering any mitigation measures that have been taken.

Reclamation and Decommissioning

- Reclamation of the project site shall begin immediately after decommissioning to reduce the likelihood of water resource impacts from project activities. Developers shall coordinate with the BLM in advance of interim/final reclamation to have the BLM or other designated resource specialists on-site during reclamation to ensure water resource requirements and BMPs are implemented. Methods for minimizing water resource impacts associated with reclamation and decommissioning activities may include:
  - Restoring the project area to predevelopment water conditions or to the extent acceptable to the BLM.
  - Considering contouring of soil borrow areas, cut-and-fill slopes, berms, water bars, and other disturbed areas to approximate naturally occurring slopes.
  - Salvaging and reapplying topsoil from decommissioning activities during final reclamation.
  - Continuing groundwater and surface water monitoring activities for a limited period of time, if appropriate given the specific situation.

Ecological Resources

Many BMPs are similar for different types of ecological resources (plant communities and habitats, wildlife, aquatic resources, and special status species). BMPs for avoiding or minimizing impacts on ecological resources in general and during the various project phases are presented in the following sections.

General

- Project developers shall consult with the BLM and other Federal, State, and local agencies in the early phases of project planning to help ensure compliance with Federal regulations that address the protection of fish, wildlife, and plant resources, with appropriate Federal, State, and local agencies. Assessing compliance with pertinent regulations for ecological resources shall include, but is not limited to, the following:
  - Developing, in coordination with the BLM and US Fish and Wildlife Service (FWS), strategies for complying with regulatory requirements of the Bald and Golden Eagle Act.

  - Developing in coordination with appropriate Federal and State agencies (e.g., BLM, FWS, and State resource management agencies) measures to protect birds (including migratory species protected under the Migratory Bird Treaty Act).
  - Contacting appropriate agencies (e.g., BLM, FWS, and State resource management agencies) early in the project planning process to identify potentially sensitive ecological resources such as aquatic habitats, wetland habitats, unique biological communities, crucial wildlife habitats, and special status species locations and habitats located within or in the vicinity of the solar energy facility and associated access roads and ROWs.
  - Consulting with the USACE regarding the siting of solar energy generating facilities and energy transmission infrastructure in relation to hydrological features that have the potential to be subject to USACE jurisdiction.
  - Considering restrictions on timing and duration of activities developed in coordination with the BLM, FWS, and other appropriate agencies to minimize impacts from project activities on nesting birds (especially passerines and listed species).
  - Considering recommendations contained in the Interim Golden Eagle Technical Guidance: Inventory and Monitoring Protocol and Other Recommendations in Support of Golden Eagle Management and Permit Issuance (Pagel et al., 2010).
  - Adhering to Instruction Memorandum 2010-156, the Bald and Golden Eagle Protection Act—Golden Eagle National Environmental Policy Act and Avian Protection Plan Guidance for Renewable Energy, until programmatic permits from the FWS are available. The analysis of potential impacts on and mitigation for, golden eagles shall be made in coordination with the FWS.
  - Avoiding take of golden eagles and other raptors. Mitigation regarding the golden eagle shall be developed in consultation with the FWS and appropriate State natural resource agencies. A permit may be required under the Bald and Golden Eagle Protection Act.
- Methods to minimize impacts to ecological resources may include:
  - Including submittal of a jurisdictional delineation for consultation with the USACE, in accordance with the 1987 wetlands delineation manual and appropriate regional supplement; avoidance, minimization and compensation proposals.
  - Developing measures to ensure protection of raptors in coordination with appropriate Federal and State agencies (e.g., BLM, FWS, and State resource management agencies).
  - Developing measures to ensure protection of bats in coordination with appropriate Federal and State agencies (e.g., BLM, FWS, and State resource agencies).
  - Developing measures to ensure mitigation and monitoring of impacts on special status species in coordination with appropriate Federal and State agencies (e.g., BLM, FWS, and State resource management agencies).
  - Consulting with the FWS upon discovery of Federally listed threatened and endangered species during any phase of the project. All applicable terms and conditions and conservation measures listed in the programmatic Biological Opinion, issued by the FWS, shall be followed.
  - Informing project personnel that only qualified biologists are permitted to handle listed species according to specialized protocols approved by the FWS.
  - Considering plants, wildlife, and their habitats in the facility's Dust Abatement Plan.
  - Limiting herbicide use to non-persistent, immobile substances. Only herbicides with low toxicity to wildlife and non-target native plants species shall be used, as determined in consultation with the FWS. Section 5.10.2.1.5 of the Draft Solar Energy Development Programmatic Environmental Impact Statement (BLM and DOE, 2010) discusses the potential impacts of herbicides on wildlife. All herbicides shall be applied in a manner consistent with their label requirements and in accordance with guidance provided in the Draft Programatic Environmental Impact Statement for Solar Energy Development in Six South Western States, (BLM and DOE, 2010) and the Programmatic Environmental Impact Statement Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States (BLM, 2007d) using herbicides. Prior to application of herbicide treatments, a qualified person, such as a biologist, shall conduct surveys of bird nests and of special status species to identify the special measures or BMPs necessary to avoid and minimize impacts on migratory birds and special status species.
  - Developing a SWPPP for each project that avoids, to the extent practicable, changes in surface water or groundwater quality (e.g., chemical contamination, increased salinity, increased

temperature, decreased dissolved oxygen, and increased sediment loads) or flow that result in the alteration of terrestrial plant communities or communities in wetlands, springs, seeps, intermittent streams, perennial streams, and riparian areas (including the alteration of cover and community structure, species composition, and diversity) off the project site.
  - Utilizing block or check valves on both sides of the waterway or habitat to minimize product release from pipelines that transport hazardous liquids (e.g., oils) that pass through aquatic or other habitats. Such pipelines shall be constructed of double-walled pipe at river crossings.
  - Considering compensatory mitigation and monitoring of significant direct, indirect, and cumulative impacts on, and loss of habitat for, special status plant and animal species.
  - Incorporating key elements on the identification and protection of ecological resources (especially for special status species), including knowledge of required design features, in instructions to all personnel. Incorporate the knowledge into a worker education and awareness plan that is provided to all project personnel prior to entering the project worksite.
  - Planning for vegetation management that is consistent with applicable regulations and agency policies for the control of noxious weeds and invasive plant species.
  - Developing measures for fire management and protection that minimize the potential for a human- or facility-caused fire to affect ecological resources and that respond to natural fire situations.
  - Developing measures to investigate the possibility of revegetating parts of the solar array area.
  - Designating a qualified biologist who will be responsible for overseeing compliance with all design features related to the protection of ecological resources throughout all project phases, particularly in areas requiring avoidance or containing sensitive biological resources. This person shall be reviewed and approved by the FWS and the BLM for designation as a qualified biologist.
  - Conducting pre-construction surveys, in coordination with BLM, FWS, and State agency statutes, programs, and policies.
  - Conducting seasonally appropriate inspections by a qualified biologist or team of biologists to ensure that important or sensitive species or habitats are not present in or near project areas. Attendees at the inspections may include appropriate Federal agency representatives, State natural resource agencies, and construction contractors, as appropriate. Habitats or locations to be avoided shall be clearly marked.

Site Characterization, Siting and Design, Construction

- Solar facilities shall be sited to avoid, minimize, or mitigate impacts on ecological resources. Methods to mitigate impacts on ecological resources include:
  - Siting and designing projects to avoid on important, sensitive, or unique habitats in the project vicinity, including, but not limited to waters of the United States, wetlands (both jurisdictional and non-jurisdictional), springs, seeps, streams (ephemeral, intermittent, and perennial), 100-year floodplains, ponds and other aquatic habitats, riparian habitat, crucial wildlife habitats, and habitats supporting special status species populations (including designated and proposed critical habitat).
  - Reducing the attractiveness of solar energy development and infrastructure areas to opportunistic predators such as desert kit fox, coyotes, and common ravens. Considering opportunities to upgrade or maintain crossings along existing facilities (e.g., roads) such that listed species occupancy and connectivity are not compromised.
  - Avoiding siting projects in designated critical habitat, Areas of Critical Environmental Concern, or other specially designated areas that are identified as necessary for special status species and habitat conservation.
  - Consider siting projects on previously disturbed lands in close proximity to energy load centers to avoid and minimize impacts on remote, undisturbed lands.
  - Designing project facilities to reduce the number of stream (e.g., access roads and utilities could share common ROWs, where feasible), and locating facilities in pre-disturbed areas to reduce potential for habitat fragmentation.
  - Preventing establishment and spread of invasive plant species and noxious weeds within the ROW. Developers should consider siting project facilities and activities, including associated roads and utility corridors, out of occupied habitats of special status animal species.

- Coordinate with Federal and State agencies to translocate special status plants including long-term monitoring of populations at receptor sites to evaluate success. Considering conducting interim and final restoration activities as soon as possible after development activities are completed in order to reduce the amount of habitat converted at any one time and to speed up the recovery to natural habitats.
- Implementing revegetation, soil stabilization, and erosion reduction measures to ensure temporary use areas are restored.
- Conducting a nesting bird survey or other necessary survey for nesting birds. If active nests are detected, the nest area shall be flagged, and no activity shall take place near the nest (at a distance determined by the BLM in coordination with the FWS and/or appropriate State agencies), or until the appropriate agencies agree that construction can proceed with the incorporation of agreed-upon monitoring measures.
- To the extent practicable, avoiding entry into aquatic habitats, such as streams and springs, during site characterization activities until surveys by qualified biologists have evaluated the potential for unique flora and fauna to be present.
- Locating and designing individual project facilities to minimize disruption of animal movement patterns and connectivity of habitats.
- Avoiding surface water or groundwater withdrawals that adversely affect sensitive habitats (e.g., aquatic, wetland, playa, and riparian habitats) and habitats occupied by special status species.
- Designing water intake facilities to minimize the potential for aquatic organisms from surface waters to be entrained in cooling water systems.
- Demonstrating, through hydrologic modeling, that the withdrawals required for the project are not going to affect groundwater discharges that support special status species or their habitats.
- Considering the use of fencing and netting for evaporation ponds to prevent their use by wildlife.
- To the extent practicable, locating meteorological towers, solar sensors, soil borings, wells, and travel routes to avoid sensitive habitats or areas where wildlife (e.g., sage-grouse) is known to be sensitive to human activities.
- To the extent practicable, avoiding siting solar power facilities near open water or other areas that are known to attract large numbers of birds.
- To the extent practicable, placing tall structures, such as meteorological towers and solar power towers, to avoid known flight paths of birds and bats.
- Implementing current guidelines and methodologies in the design of proposed transmission facilities in order to minimize the potential for raptors and other birds to collide or be electrocuted by them.
- Placing mechanisms to visually warn birds (permanent markers or bird flight diverters) on transmission lines at regular intervals to prevent birds from colliding with the lines.
- Designing transmission line support structures and other facility structures to discourage use by raptors for perching or nesting (e.g., by using monopoles rather than lattice support structures or by use of anti-perching devices).
- Considering spanning important or sensitive habitats with transmission line conductors within the limits of standard structure design.
- Using low-water crossings (fords) during the driest time of the year. Developers should consider using rocked approaches to fords and returning the crossing to pre-existing stream channel conditions after the need for a low-water ford has passed.
- Employing noise reduction devices (e.g., mufflers) to minimize the impacts on wildlife and special status species populations.
- Explosives shall be used only within specified times and at specified distances from sensitive wildlife or surface waters as established by the BLM or other Federal and State agencies.
- Minimizing the number of areas where wildlife could hide or be trapped (e.g., open sheds, pits, uncovered basins, and laydown areas). Trapping of special status species wildlife is prohibited unless the animal is removed from the path of harmful activity. Trapped animals shall be released nearby in appropriate habitat.
- Implementing measures for proper trash removal and storage, such as using secured containers and periodic emptying, on the project site to reduce attractive opportunistic species, such as common ravens, coyotes, and feral cats and dogs.

- Constructing, improving, and maintaining access roads to minimize potential wildlife/vehicle collisions and facilitate wildlife movement through the project area.
- Limiting project vehicle speeds and using shuttle vans and carpooling in areas occupied by special status animal species. Traffic shall yield to wildlife, allowing safe road crossing.
- Utilizing existing access roads, utility corridors, and other infrastructure to the maximum extent feasible.
- Locating staging and parking areas within the site of the utility scale solar energy facility to minimize habitat disturbance.
- Considering rolled and compacted on-site construction access routes to allow trucks and equipment to access construction locations.
- Minimizing vehicle use off of access roads and foot traffic through undisturbed areas.
- Constructing fences (as practicable) to exclude livestock and wildlife from project facilities.
- Prohibiting project personnel from bringing firearms and pets to project sites.
- Placing food refuse and other garbage in closed containers so it is not available to scavengers.
- Reducing the collection, harassment, or disturbance of plants, wildlife, and their habitats (particularly special status species) through employee and contractor education about applicable Federal and State laws.
- Advising personnel to minimize stopping and exiting their vehicles in the winter ranges of large game while there is snow on the ground.
- Coordinating with BLM and appropriate project personnel to handle unreasonable traffic delays caused by wildlife in roads. Utilizing appropriate personnel to move live, injured, or dead wildlife off roads, ROWs, or the project site.
- Reporting any vehicle-wildlife collisions. Observations of potential wildlife problems, including wildlife mortality, shall be immediately reported to the BLM or other appropriate agency authorized officer.
- Considering road closures or other travel modifications (e.g., lower speed limits, no foot travel) during crucial periods (e.g., winter conditions, calving/fawning seasons, raptor nesting).
- Conducting pre-construction surveys by qualified personnel, such as a qualified biologist, in areas with potential to adversely affect special status species.
- Considering the number of qualified biological monitors (as determined by the Federal authorizing agency and FWS) to be on-site during initial site preparation and during the construction period to monitor, capture, and relocate animals that could be harmed and are unable to leave the site on their own.
- Relocating wildlife found in harm's way from the area of the activity. Qualified personnel shall be required to relocate some animals such as rattlesnakes.
- Establishing a controlled inspection and cleaning area to visually inspect construction equipment arriving at the project area and to remove and collect seeds that may be adhering to tires and other equipment surfaces.
- To the extent practicable, avoiding placement of transmission towers within aquatic and wetland habitats, or other sensitive habitats such as riparian habitats. If towers must be placed within these habitats, they shall be designed and installed to not impede flows or fish passage.
- Designing necessary stream crossings to provide in-stream conditions that allow for and maintain uninterrupted movement and safe passage of fish during all project periods.
- Considering cutting trees in stream buffers that are able to grow into a transmission line conductor clearance zone within three to four years.
- Considering the use of helicopters where access roads do not exist or where access roads could not be constructed without significantly impacting habitats.

Operations and Maintenance

- The developer shall manage vegetation utilizing the principles of integrated pest management, including biological controls to prevent the spread of invasive species, per the Vegetation Treatments Using Herbicides on BLM Lands in 17 Western States, (BLM, 2007d) and the National Invasive Species Management Plan (National Invasive Species Council, 2009). Consultation with the BLM shall be maintained through operations and maintenance of the project, employing an adaptive management strategy and modifications, as necessary and approved by the BLM. Methods to

manage vegetation, including controlling for noxious weeds and invasive plant species, during operations and maintenance of the project may include, but are not limited to, the following:
  - Using certified weed-free seed and mulching.
  - Cleaning vehicles to avoid introducing noxious weeds and invasive plants.
  - Educating project personnel on noxious weed identification, the manner in which weeds spread, and methods for treating infestations.
  - Considering periodic monitoring, reporting, and immediate eradication of noxious weed or invasive plants occurring within the ROW.
  - Limiting vegetation maintenance and performing maintenance mechanically rather than with herbicides.
  - Considering retaining short (i.e., less than 7-in. (18-cm) tall) native species during maintenance and operation activities.
  - Reducing risk of non-native, invasive and nuisance species introductions. Developers should decontaminate equipment used in surface water, especially equipment used to convey water (i.e., pumps).
  - Monitoring for and eradicating non-native, invasive plants.
  - Reestablishing vegetation within temporarily disturbed areas immediately following the completion of construction activities.
  - Focusing revegetation efforts on the establishment of native plant communities similar to those present in the vicinity of the project site. Considering dominant native species within the plant communities that exist in adjacent areas and have similar soil conditions for revegetation.
- The developer shall, in consultation with the BLM and appropriate Federal, State, and local agencies, manage projects so as to minimize impacts on ecological resources during operations and maintenance of the project, employing an adaptive management strategy and modifications, as necessary and approved by the BLM. Methods to minimize impacts on ecological resources during operations and maintenance of the project shall include, but are not limited to, the following:
  - Monitoring for increase in predation of special status species (e.g., greater sage-grouse) from ravens and other species that are attracted to developed areas and use tall structures opportunistically to spot vulnerable prey.
  - Turning off all unnecessary lighting at night to limit attracting wildlife, particularly migratory birds.
  - Monitoring for and reporting bird mortality species (e.g., raptors) that are associated with power lines to the BLM and the FWS.
  - Monitoring for the effects of groundwater withdrawals on plant communities.
  - Monitoring unavoidable impacts on wetlands and waters of the United States.
  - Removing raptor nests only if the birds are not actively using the nest.
  - Considering relocating nests to nesting platforms. Report on relocated or destroyed nests to the appropriate Federal and/or State agencies.
  - Coordinating with the FWS and BLM project personnel in the event that a raptor nest is located on a transmission line structure.
  - Remove raven nests when inactive (i.e., no eggs or young).
  - Minimizing removal of deadfall or overhanging vegetation in streams for crossings.
  - Installing fish screens on cooling water intakes to limit the potential for impingement impacts on organisms in surface water sources used for cooling water.
  - Maintaining areas left in a natural condition during construction (e.g., wildlife crossings) in as natural a condition as possible within safety and operational constraints.
  - Avoiding use of guy wires to minimize impacts on birds and bats. If guy wires are necessary, permanent markers (e.g., bird flight diverters) shall be used to increase their visibility.
  - Maintaining native vegetation cover and soils and minimizing grading.
  - Instructing personnel to avoid harassment and disturbance of local plants and wildlife.
  - Informing personnel of the potential for wildlife interactions around facility structures.

Reclamation and Decommissioning

- Reclamation of the project site shall begin immediately after decommissioning to reduce the likelihood of resource impacts in disturbed areas as quickly as possible. Addressing resource impacts during reclamation and decommissioning may include, but is not limited to, the following:

- Applying design features developed for the construction phase to similar activities during the decommissioning and reclamation phase.
- Developing and implementing a Decommissioning and Site Reclamation Plan specific to the project, approved by the BLM in consultation with appropriate agencies, that incorporates adaptive management strategies.
- Using weed-free seed mixes of, grasses, forbs, and native shrubs of local sources where available.
- Developing and implementing monitoring measures to ensure successful reclamation.
- Lightly raking and/or ripping and reseeding with seeds from low stature plant species collected from the immediate vicinity in disturbed areas.
- Reclaiming access roads when they are no longer needed, considering seasonal restrictions.
- Filling or grading holes and ruts created by the removal of structures and access roads.
- Considering maximizing area reclaimed during solar energy operations to minimize habitat loss and fragmentation.
- Maintaining a clean and orderly worksite during and after decommissioning to ensure land is clear of debris.
- Returning land surfaces to pre-development contours immediately following decommissioning.
- Expediting the reestablishment of vegetation for site stabilization.
- Continuing vegetation reestablishment efforts until all success criteria have been met.
- Focusing revegetation on the establishment of native plant communities similar to those present in the vicinity of the project site. Considering dominant native species within the plant communities that exist in adjacent areas and have similar soil conditions for revegetation.
- Leaving the facility fencing in place for several years, or replacing it with new exclusion fencing, to assist reclamation (e.g., the fence could preclude large mammals and vehicles from disturbing revegetation efforts). Shorter times for maintaining fencing may be appropriate in cases where the likelihood of disturbance by cattle and wildlife is low.

Air Quality and Climate

General

- Project developers shall consult with the BLM in the early phases of project planning to help determine the potential conformance to air quality and other potential constraints. Assessing conformance to air quality and other related constraints may include the following:
  - Identify air quality and other related constraints associated with the project site. In coordination with BLM, the appropriate State and local air regulatory authorities shall be consulted to identify air quality and related constraints and requirements.
  - Minimize the PM_{10} and $PM_{2.5}$ particulate matter from the solar energy project and its facilities.

Site Characterization, Siting and Design, Construction

- Solar facilities shall be sited to minimize impacts on air quality. Methods to minimize air quality impacts shall include:
  - Use equipment that meets emission standards specified in the State code of regulations and meets the applicable EPA Tier 3 (motor vehicle emission and fuel) and Tier 4 (nonroad diesel engines) emissions requirements.
  - The Dust Abatement Plan for the solar facilities may use multiple methods for dust suppressant (i.e., water, paving, gravel, and/or regulation-compliant palliatives).
- Other methods to minimize air quality impacts and related constraints may include:
  - Surfacing access roads with aggregate that is hard enough that vehicles cannot crush it.
  - Manage unpaved roads, disturbed areas (e.g., areas of scraping, excavation, backfilling, grading, and compacting), and loose materials generated during project activities as frequently as necessary to effectively minimize fugitive dust generation.
  - Use machinery that has air-emission-control devices as required by Federal, State, and local regulations or ordinances.
  - Limit travel to stabilized roads.
  - Considerpaving the main access road to the main power block and the main maintenance building.

- Post and enforce speed limits (e.g., 10 mph [16 km/h]) within the construction site to minimize airborne fugitive dust.
- Cover vehicles that transport loose materials as they travel on public roads, using dust suppressants on truck loads, and keeping loads below the freeboard of the truck bed.
- Install wind fences around disturbed areas that could affect the area beyond the site boundaries (e.g., nearby residences).
- Suspend soil disturbance activities and travel on unpaved roads during periods of high winds. Site-specific wind speed thresholds shall be determined on the basis of soil properties determined during site characterization.
- Plant compatible native vegetative to limit dust generation from stockpiles that will be inactive for a relatively long period.
- To the extent practicable, avoid chemical dust suppressants that emit volatile organic compounds within or near ozone non-attainment areas.
- Use of ultra-low sulfur diesel with a sulfur content of 15 parts per million or less for project vehicles.
- Limit idling time of equipment to no more than five minutes, unless idling must be maintained for proper operation (e.g., drilling, hoisting, and trenching).
- Minimize use of dust palliatives in areas of close proximity to sensitive soil and streams.
- Access transmission lines from public roads and designated routes to minimize fugitive dust emissions.
- Minimize on-site vehicle use and require routine preventive maintenance, including tune-ups to meet the manufacturer's specifications, to ensure efficient combustion and minimal emissions.
- Encourage use of newer and cleaner equipment that meets more stringent emission controls.
- Limit access to the construction site and staging areas to authorized vehicles only through the designated treated roads.
- Schedule construction to limit the areas with exposed soil at any time.
- Inspect and clean the tires of all construction related vehicles to ensure they are free of dirt before they enter paved public roadways.
- Clean up visible track-out or runoff dirt on public roadways resulting from the construction site (e.g., street vacuum/ sweeping).
- Salvage topsoil from all excavations and construction activities during reclamation or interim reclamation and reapply and seed topsoil atconstruction areas not needed for facility operation as soon as activities in that area have ceased.
- Consider atmospheric conditions when planning construction activities to minimize dust.
- To the extent practicable, avoid ground disturbance from construction-related activities in areas with intact biological soil crusts and desert pavement. Developers should salvage soil crusts for restoration, on the basis of recommendations by the BLM once construction has been completed.
- Incorporate environmental inspection and monitoring measures into the Plan of Development and other relevant plans to monitor and respond to air quality during construction, operations, and decommissioning of a solar energy development, including adaptive management protocols.

Operations and Maintenance

- Compliance with the terms and conditions for air quality shall be monitored by the project developer. Consultation with BLM shall be maintained through operations and maintenance of the project, employing an adaptive management strategy and modifications, as necessary and approved by the BLM. Methods for maintaining compliance with the terms and conditions for air quality during operations and maintenance may include:
  - Monitoring and treating areas that have been graded, scraped, bladed, compacted, or denuded of vegetation ahead of actual construction/assembly.
  - Reapply palliatives or water as necessary to effectively manage fugitive dust.
  - Use dust abatement on the portions of facilities maintained free of vegetation during operations to limit fugitive dust from bare surfaces and unpaved access roads.
  - Combustion sources would comply with State emission standards.

Reclamation and Decommissioning

- Reclamation of the site shall incorporate the BMPs listed above for construction to reduce air quality impacts associated decommissioning.

Visual Resource Management

General

- Project developers shall consult with the BLM in the early phases of project planning to help determine the proposed project's potential conformance to Visual Resource Management (VRM) class designations and other potential constraints, thus avoiding costly unforeseen planning implications and re-design. Assessing conformance to VRM class designations and identifying visual resource conflicts shall include:
  - Consulting with the appropriate BLM field office for VRM class designations and associated management objectives during the early phases of project planning, including those related to project site selection, planning, and design.
  - Analyzing how the visual values influence project design and how the impacts on these values will be minimized through consideration for the proposed project location and its relationship to the surrounding viewshed.
  - Including a qualified professional, such as a landscape architect, with demonstrated experience of the BLM's VRM policies and procedures as part of the developer's and the BLM's respective planning teams, to evaluate visual resource issues as project siting options are considered.
  - Consulting with the locally based public to provide input on identifying important visual resources in the project area and on the siting and design process. The public shall be involved and informed about the visual site design elements of the proposed solar energy facilities.
  - Consult on viewshed protection objectives and practices with the respective land management agencies for landscapes having special designations, such as Wilderness Areas, National Scenic and Historic Trails, Wild and Scenic Rivers, and National Parks located within the project's viewshed. Developers shall demonstrate a concerted effort to reconcile conflicts while recognizing that the BLM retains authority for final decisions for project approval and stipulations.
  - For applications that include artifacts and remnants of a National Historic Trail, are located within the viewshed of a National Historic Trail's designated centerline, or include or are within the viewshed of a trail eligible for listing on the the National Register of Historic Places by virtue of its important historical or cultural values and integrity of setting. Mitigate adverse effects to the potential visual impacts on the trail associated with the proposed project through the Section 106 consultation process.
  - Landscape settings observed from a unit of the National Park system, National Historic Trail, and cultural resources of tribal concern may be a part of the historic context contributing to the historic significance of the site or trail.
  - Project developers are encouraged to obtain topographical data of engineering-design quality and use digital terrain mapping tools at a landscape-viewshed scale for project location selection, site planning and design, visual impact analysis, and visual impact mitigation planning and design. The digital terrain mapping tools shall be at a resolution and contour interval suitable for site design and accurate placement of proposed developments into the digital viewshed. Visual simulations shall be prepared and evaluated in accordance with BLM Handbook H-8431-1 and other agency directives, to create spatially accurate and realistic depictions of the appearance of proposed facilities. Simulations shall depict proposed project facilities from Key Observation Points (KOPs) and other visual resource sensitive locations.
  - Conduct public outreach to disseminate visual resource information through methods such as offering organized tours of operating solar energy development projects, and using simulations in public presentations.
  - Performing visual mitigation planning and design through field assessments, applied global positioning system technology, photo documentation, use of computer-aided design and development software, three-dimensional geographic information system modeling software, and imaging software to depict visual simulations to reflect a full range of visual resource mitigation measures.

Site Characterization, Siting Design, and Construction

- Solar facilities shall minimize glint and glare. Identification of glint and glare effects shall include, but is not limited to, the following:
  - Assessing and quantifying potential glint and glare effects and determining the potential safety and visual impacts associated with glint and glare using appropriate and commonly accepted software, procedures, and past project examples.
  - Having qualified individuals conduct assessments for glint and glare.
- Methods to minimize glint and glare effects may include, but are not limited to, the following:
  - Limiting use of signs and project construction signs. Beyond those required for basic facility and company identification for safety, navigation, and delivery purposes, commercial symbols or signs and associated lighting on buildings and other structures should be prohibited.
  - Utilizing retro-reflective or luminescent markers in lieu of permanent lighting.
  - Minimizing off-site visibility of all commercial symbols and signs and associated lighting. Necessary signs should be made of non-glare materials and utilize unobtrusive colors. The reverse sides of signs and mounts should be painted or coated using a suitable color selected from the BLM Standard Environmental Color Chart to reduce contrasts with the existing landscape. However, placement and design of any signs required by safety regulations must conform to regulatory requirements.
  - Considering off-site mitigation of visual impacts. In some situations, off-site mitigation may serve as a means to offset and/or recover the loss of visual landscape integrity. For example, off-site mitigation could include reclaiming unnecessary roads, removing abandoned buildings, reclaiming abandoned mine sites, putting utility lines underground, rehabilitating and revegetating existing erosion or disturbed areas, or establishing scenic conservation easements. Appropriate off-site mitigation will be determined on a project specific basis in consultation with the BLM.
- Solar facilities shall minimize night-sky effects. Identification of night-sky effects shall include, but is not limited to the following:
  - Assessing and quantifying potential lighting impacts on the night sky and nocturnal wildlife, while providing lighting for hazard marking, safety, and other necessary site needs.
  - Conducting assessments for night-sky effects by qualified individuals using appropriate and commonly accepted procedures and past project examples.
- Methods to minimize night-sky effects may include, but are not limited to, the following:
  - Using minimum intensity lighting that meets safety criteria. When accurate color rendition is not required (e.g., roadway, basic security), lighting shall be amber in color, using low pressure sodium lamps, yellow LED lighting, or equivalent. When white light is required for accurate color rendition, it shall be equal to or less than 3500° Kelvin color temperature. Bluish white lighting is discouraged.
  - Prohibiting the use of red or white strobe lighting unless the BLM approves its use because of conflicting mitigation requirements.
  - Fully shielding all permanent lighting (e.g., full cut-off), except for collision markers required by the FAA or other emergency lighting triggered by alarms.
  - Mount lighting so that no light is emitted above an imaginary horizontal plane through the fixture.
  - Considering lighting control through timers, sensors, dimmers, or switches that are available to facility operators.
  - Considering vehicle-mounted lights over permanently mounted lighting for nighttime maintenance activities. When possible, such vehicle-mounted lighting shall be aimed toward the ground to avoid causing glare and skyglow.
- The siting and design of solar facilities, structures, roads, and other project elements shall explore and document design considerations for reducing visual dominance in the viewshed and shall comply with the VRM class objectives above. Assessing visual dominance shall include, but is not limited to, the following:
  - Conforming with VRM class objectives through the use of the BLM contrast rating procedures defined in BLM Handbook H-8431-1. Visual contrast rating mitigation of visual impacts shall abide by the requirements outlined in the handbook and other BLM directives. Revised project plans and simulations are to be reevaluated by using the contrast rating procedures.

  - Selecting KOPs by first determining the extent of the viewshed using the viewshed modeling tools previously cited above. The viewshed modeling shall illustrate the areas from which the proposed facilities may be seen out to 25 miles (40 km). From within the areas, KOPs are to be selected at places where people would be expected: scenic overlooks, roads, trails, campgrounds, recreationally active river corridors, residential areas, etc. For the purpose of conducting a visual contrast rating evaluation, the number of KOPs would be reduced to those that serve as the best representations for demonstrating conformance to the respective VRM class objectives. The BLM is consulted on the KOP selections, and reserves the right to require additional KOPs to further determine the extent of visual impacts and conformance to VRM class objectives.
  - Integrating visual design elements into the construction plans, details, drawings, and specifications for the project.
  - Incorporating facility siting measures to minimize the profile of all facility-related structures to reduce visibility and visual dominance within the viewshed, particularly for facilities proposed within the foreground/middleground distance zone (0–5 miles [0–8 km]) of sensitive viewing locations.
- Measures to minimize visual dominance may include, but are not limited to, the following:
  - Using existing topography and vegetation as screening or partially screening devices.
  - Incorporating visual design elements when planning for grubbing and clearing, vegetation thinning and clearing, grading, revegetation, drainage, and structural measures.
  - Minimizing visual dominance of projects by siting projects outside the viewsheds of KOPs or by diminishing dominance through maximizing visible separation with distance.
  - Avoiding, when feasible, locating facilities near visually prominent landscape features (e.g., knobs and waterfalls) that naturally draw an observer's attention.
  - Avoiding visual "skylining" by placing structures, transmission lines, and other facilities away from ridgelines, summits, or other locations where they would silhouette against the sky from important viewing locations; however, consideration should be given to the potential for increased ground disturbance and other resource impacts.
  - Designing linear features (e.g., ROWs and roads) to follow natural land contours rather than straight lines; however, consideration should be given to the potential for increased ground disturbance and other resource impacts.
  - Locating linear developments (e.g., transmission lines, pipelines, roads) at the edges of natural clearings or natural lines of transition between vegetation type and topography.
  - Considering alternative means of access in visually sensitive areas, to preserve the natural landscape conditions between tower locations.
  - Minimizing vegetation and ground disturbance, and taking advantage of existing clearings where feasible.
  - Reducing cut and fill for structures and roads by design and location. Retaining walls, binwalls, half bridges, etc., can be used to reduce cut and fill.
  - Considering rounded and varied road-cut slopes and the cut-and fill pitches to reduce contrasts in form and line; encouraging slope cuts to preserve specimen trees and nonhazardous rock outcroppings.
  - Considering sculpting and shaping natural or previously excavated bedrock landforms when excavation of these landforms is required. For example, percent backslope, benches, and vertical variations may be integrated into a final landform that repeats the natural shapes, forms, textures, and lines of the surrounding landscape. The earthen landform may be integrated and transitioned into the excavated bedrock landform. Sculpted rock face angles, bench formations, and backslope could adhere to the natural bedding planes of the natural bedrock geology. The color contrast from the excavated rock faces may be removed by color treating with a rock stain. Native vegetation or a mix of native and non-native species (if necessary to ensure successful revegetation) could be reestablished with the benches and cavities created within the created bedrock formation.
  - Designing and installing natural-looking earthwork landforms, or vegetative or architectural screening to minimize visual impacts. Considering shape and height of earthwork landforms for adaptation to the surrounding landscape.
  - Repeating the size, shape, and characteristics of naturally occurring openings in vegetation for facilities, structures, roads, etc.

- Burying electrical collector lines, pipelines, and communication and local utility lines to minimize additional surface disturbance where feasible (e.g., along roads or other paths of surface disturbance).
- Minimizing visual impacts associated with solar energy and electricity transmission projects by choosing appropriate building and structural materials and surface treatments (i.e., paints or coatings designed to reduce contrast and reflectivity). A careful study of the site should be performed to identify appropriate colors and textures for materials; both summer and winter appearance shall be considered, as well as seasons of peak visitor use. Materials and surface treatments shall repeat and/or blend with the existing form, line, color, and texture of the landscape.
- Considering the typical viewing distances and landscape when choosing colors. Appropriate colors for smooth surfaces often need to be two to three shades darker than the background color to compensate for shadows that darken most textured natural surfaces. The BLM Standard Environmental Color Chart CC-001 and guidance shall be referenced when selecting colors.
- Selecting appropriately colored materials for structures, or stains/coatings to blend with the project's backdrop. Materials, coatings, or paints having little or no reflectivity shall be used whenever possible.
- Color treating solar panel/mirror/heliostat backs/supports to reduce visual contrast with the landscape setting.
- Color treating solar towers to reduce visual contrast.
- Considering multiple-color camouflage technology application projects within sensitive viewsheds and with a visibility distance that is between 0.25 and two miles (0.40 and 3.20 km).
- Matching aboveground pipelines' paint or coating to their surroundings.
- Considering the appropriate choice of monopoles versus lattice towers for a given landscape setting to further reduce visual impacts.
- Utilizing non-specular conductors and non-reflective coatings on insulators for electricity transmission/distribution projects.
- Minimizing the use of signs. Where signs are necessary, they shall be made of non-glare materials and utilize unobtrusive colors. The reverse sides of signs and mounts shall be painted or coated by using the most suitable color selected from the BLM Standard Environmental Color Chart; however, placement and design of any signs required by safety regulations must conform to regulatory requirements.
- Clearly delineating construction boundaries and minimizing areas of surface disturbance; preserving vegetation to the greatest extent possible; utilizing undulating surface disturbance edges; stripping, salvaging, and replacing topsoil; using contoured grading; controlling erosion; using dust suppression techniques; and stabilizing exposed soils.
- Preserving existing rocks, vegetation, and drainage patterns to the maximum extent possible.
- Employing brush-beating, mowing, or the use of protective surface matting rather than removing vegetation.
- Considering mulching and spreading slash from vegetation removal over fresh soil disturbances.
- Avoiding leaving slash piles in sensitive viewing areas.
- Considering restoration of disturbed soils by use of weed-free native grasses, forbs, and shrubs representative of the surrounding and intact native vegetation composition and/or using non-native species, if necessary, to ensure successful revegetation.
- Reducing the visual color contrast of graveled surfaces with approved color treatment practices.
- Considering segregating and spreading topsoil from cut-and-fill activities on freshly disturbed areas to reduce color contrast.
- Avoiding leaving topsoil piles in sensitive viewing areas.
- Spreading excess cut and fill material within project disturbance area and vegetate per approved restoration plan requirements while maintaining natural drainage pathways. Where soil cannot reasonably be spread within project disturbance areas, excess cut-and-fill materials should be hauled out to minimize ground disturbance and impacts from piles.
- Removing stakes and flagging from the construction area after completion of construction.

- Project developer shall perform a pre-construction meeting with BLM or their designated visual/scenic resource specialists, such as a landscape architect, to coordinate the project construction VRM mitigation strategy. Final design and construction documents will be reviewed with regard to the

visual mitigation elements, assuring that requirements and commitments are adequately addressed. The review of construction documents will include, but not be limited to, grading, drainage, revegetation, vegetation clearing, and feathering.

Operations and Maintenance

- Compliance with the terms and conditions for VRM mitigation shall be monitored by the project developer. Consultation with the BLM shall be maintained through operations and maintenance of the project, employing an adaptive management strategy and modifications, as necessary and approved by the BLM. Maintaining the visual resource design elements during operations and maintenance shall include, but is not limited to, the following:
  - Maintaining revegetated surfaces until a self-sustaining stand of vegetation is reestablished and visually adapted to the undisturbed surrounding vegetation. No new disturbance shall be created during operations without completion of a VRM analysis and approval by the BLM authorized officer.
  - Keeping painted and color-treated facilities in good repair and repainting when the color fades or flakes.
  - Using interim restoration during the operating life of the project as soon as possible after land disturbances.
  - Including dust abatement and noxious weed control in maintenance activities.
  - Deploying and operating mirrors/heliostats to avoid high intensity light (glare) reflected off-site. Where off-site glare is unavoidable and project site/off-site spatial relationships favor effective results, fencing with privacy slats or similar screening materials should be considered.

Reclamation and Decommissioning

- Reclamation of the construction site shall begin immediately after construction to reduce the likelihood of visual contrasts associated with erosion and invasive weed infestation and to reduce the visibility of temporarily disturbed areas as quickly as possible. Developers shall coordinate with BLM in advance of interim/final reclamation to have BLM or other designated visual/scenic resource specialists, such as a landscape architect, on-site during reclamation to work on implementing visual resource requirements and BMPs. Methods for minimizing visual contrast associated with reclamation and decommissioning of the project may include, but are not limited to, the following:
  - Including treatments, such as thinning and feathering vegetation along project edges, enhanced contour grading, salvaging landscape materials from within construction areas, special revegetation requirements (e.g., use of mix of native and non-native species).
  - Designing and implementing restoration of the project area to predevelopment visual conditions and the inventoried visual quality rating, or to that of the surrounding landscape setting conditions to the best extent possible or to conditions agreed upon by the BLM.
  - Removing aboveground and near-ground-level structures. Some structures may need to be removed to a level below the ground surface to allow reclamation/restoration.
  - Considering contouring soil borrow areas, cut-and-fill slopes, berms, water bars, and other disturbed areas to approximate naturally occurring slopes. Contouring to a rough texture would trap seeds and discourage off-road travel, thereby reducing associated visual impacts. Cut slopes can be randomly scarified and roughened to reduce texture contrasts with existing landscapes and aid in revegetation.
  - Utilizing native vegetation to establish a composition consistent with the form, line, color, and texture of the surrounding undisturbed landscape.
  - Reapplying stockpiled topsoil to disturbed areas, where applicable, or using a mix of native and non-native species if necessary to ensure successful revegetation.
  - Removing or burying gravel and other surface treatments.
  - Restoring rocks, brush, and forest to approximate pre-existing visual conditions.
  - Integrating feathering edges of vegetation to reduce form and line contrasts with the existing landscapes.

Noise

General

- Project developers shall consult with the BLM in the early phases of project planning to assess and minimize the proposed project's noise impacts on sensitive noise receptors. Assessing noise impacts may include, but is not limited to:
  - Measuring the existing background ambient sound levels both within and outside the project site and comparing these with the anticipated noise levels proposed at the facility. Nearby residences and likely sensitive human and important wildlife habitat areas (leks, sage-grouse nesting areas, big game winter range) shall be identified.

Site Characterization, Siting and Design, Construction

- The siting and design of solar facilities, structures, roads, and other project elements shall seek to minimize impacts on sensitive noise receptors. Methods to minimize project impacts on sensitive noise receptors may include:
  - Enclose noisy equipment.
  - Post warning signs at high-noise areas and implement a hearing protection program for work areas with noise in excess of 85 Decibel A.
  - Implement a noise complaint process and hotline, including documentation, investigation, evaluation, and resolution of legitimate project-related noise complaints.
  - Maintain project equipment in accordance with manufacturers' specifications. For example, suitable mufflers and/or air-inlet silencers shall be installed on all internal combustion engines and certain compressor components.
  - Limit low-altitude (under 1,500 feet [457 m]) helicopter flights to install transmission lines near noise-sensitive locations where only helicopter activities can perform the installation.
  - Schedule construction to minimize disruption to nearby residents and existing operations surrounding the project areas.
  - Noisy construction activities near sensitive receptors would take place during the least noise-sensitive times of day (i.e., daytime between 7 a.m. and 7 p.m.), and on weekdays.
  - Schedule individual noisy activities to occur at the same time to reduce the frequency of site boundary noise.
  - Implement noise control measures (e.g., erection of temporary wooden noise barriers) where activities are expected near sensitive receptors.
  - Notify nearby residents in advance of noisy activities, such as blasting or pile driving, before and during the construction period.
  - Site immobile construction equipment (e.g., compressors and generators) away from nearby residences and other sensitive receptors to the extent practicable.
  - Site permanent sound-generating facilities (e.g., compressors, pumps) away from residences and other sensitive areas to the extent practicable. Acoustic screening may be required.
  - Use low-noise systems (e.g., for ventilation systems, pumps, generators, compressors, and fans) and equipment without prominent discrete tones.
  - Install louvered side(s) of wet cooling tower(s) away from sensitive receptors. Noise impacts may be further reduced by selecting quieter fans and fans that operate at a lower speed, particularly if they operate at night. Silencers on fan stacks may also be used.
  - Reduce potential noise impacts by taking advantage of existing topography and distances, constructing engineered sound barriers and/or berms, or sound insulated buildings.
  - Monitor and respond to noise impacts during construction, operations, and decommissioning of a solar energy development, including adaptive management protocols.

Operations and Maintenance

- Compliance with the terms and conditions for noise shall be monitored by the project developer. Consultation with the BLM shall be maintained through operations and maintenance of the project, employing an adaptive management strategy and modifications as necessary and approved by the BLM. Methods for maintaining compliance with the noise design elements during operations and maintenance may include:

- Manage cooling systems and dish engine technology so that noise levels at the nearest residences and sensitive receptor areas to the facility boundary are kept within applicable guidelines.
- Reduce vehicle noise within and around the project area with posted speed limits.
- Schedule activities to minimize disruption to nearby residents and existing operations surrounding the project areas.
- Notify nearby residents in advance of noisy activities, such as blasting or pile driving, before and during the site reclamation and decommissioning.
- Monitor and minimize to the extent practicable transformer noise levels. Install of new transformers with reduced flux density or construct a barrier walls, partial enclosures, or full enclosures to shield or contain the noise.

Reclamation and Decommissioning

- Reclamation of the construction site shall minimize the project's noise impacts on sensitive noise receptors.

Paleontological Resources

General

- Project developers shall coordinate with the BLM early in the project planning process to identify and minimize impacts on paleontological resources. Identifying paleontological resources shall include the following:
  - Determining in coordination with the BLM whether paleontological resources exist in a project area.
  - Determining the potential presence of paleontological resources on the basis of the following: the sedimentary context of the area and its potential to contain paleontological resources (potential fossil yield classification class); a records search of published and unpublished literature for past paleontological finds in the area; coordination with paleontological researchers working locally in potentially affected geographic areas and geologic strata; and/or depending on the extent of existing information, the completion of a paleontological survey.
- Methods to minimize impacts on paleontological resources may include, but are not limited to, the following:
  - Instituting training/education programs in the worker education and awareness plan, to reduce the amount of inadvertent destruction to paleontological sites. Project-specific management practices shall be established in coordination with the BLM, incorporating BLM Instruction Memorandum 2009-011.
  - Planning for management and mitigation of paleontological resources of the project area for areas of known presence or high potential of presence.
  - Identifying measures to prevent potential looting/vandalism or erosion impacts and addressing the education of workers and the public to make them aware of the consequences of unauthorized collection of fossils on public land.
  - Incorporating environmental inspection and monitoring measures into Plans of Development and other relevant plans to monitor and respond to paleontological resource impacts during construction, operations, and decommissioning of a solar energy development, including adaptive management protocols.

Site Characterization, Siting and Design, Construction

- Project developers should use a qualified paleontological monitor during excavation and earthmoving activities in areas with high potential for paleontological resources.
- Project developers shall notify the BLM immediately upon discovery of fossils. Work shall be halted at the fossil site and continued elsewhere until qualified personnel, such as a paleontologist, can visit the site, determine the significance of the find, and, if significant, make site specific recommendations for collection or other resource protection. The area of the discovery shall be protected to ensure that the fossils are not removed, handled, altered, or damaged until the site is properly evaluated and further action determined.

Cultural Resources

General

- Project developers shall coordinate with the BLM early in the planning process to identify and minimize cultural resource impacts; the BLM will consult with other Tribal, Federal, State, and local agencies as appropriate. Determining cultural resource impacts shall include the following:
  - Initiating National Historic Preservation Act, Section 106 consultations between the BLM, State Historic Preservation Officer (SHPO), Indian tribes, and other consulting parties early in the project planning process.
  - Conducting site-specific Section 106 review for individual projects. The BLM will require the completion of inventory, evaluation, determinations of effect, and treatment in accordance with the National Programmatic Agreement and appropriate State protocol agreements.
- General methods to minimize cultural resource impacts may include the following:
  - If historic properties that could be adversely affected are present in the project location, developing a Memorandum of Agreement to address the mitigation steps that will be followed to avoid, minimize, or mitigate adverse effects on historic properties.
  - Where the BLM determines that a specific proposed solar energy project has the potential to adversely affect historic properties but those effects cannot be determined prior to its approval, the BLM may elect to review a proposed solar energy project using an undertaking-specific Programmatic Agreement (PA) executed pursuant to 36 CFR 800.6.
  - Using training/educational programs for solar company workers to reduce occurrences of disturbances, vandalism, and harm to nearby historic properties. The specifics of these sensitivity training programs shall be established in project-specific consultations between the applicant, BLM, SHPO, and affected Indian tribes.
  - Securing a performance and reclamation bond for all solar energy generation facilities to ensure compliance with the terms and conditions of the ROW authorization. When establishing bond amounts and conditions, the BLM authorized officer shall require coverage of all expenses tied to cultural resources identification, protection, and mitigation. These may include, but are not limited to, costs for ethnographic studies, inventory, testing, geomorphological studies, data recovery, curation, monitoring, treatment of damaged sites, and generation and submission of reports.

Site Characterization, Siting and Design, Construction

- Solar facilities shall be characterized, sited and designed, and constructed in coordination with the BLM to minimize cultural resource impacts. Methods to minimize impacts on cultural resources shall include the following:
  - The BLM determining the Area of Potential Effects (APE) for each proposed solar energy project, to include a review of existing information, and efforts to seek information from and views of tribes and other parties likely to have knowledge of or concerns with historic properties in the APE. This information will be supplemented by discussions at pre-application meetings with the solar energy project applicant, SHPO, and affected tribes regarding project designs, sacred sites, traditional cultural properties, and proposed cultural resource inventory strategies.
  - The BLM consulting the SHPO, affected tribes (regarding the treatment of adverse effects for those property types on which the tribes indicate at pre-application or other meetings they wish to provide input), and any other consulting parties, if the National Register of Historic Places the National Register of Historic Places (NRHP)-eligible properties are present at the site and would be adversely affected. The BLM will seek agreement to avoid, minimize, or mitigate adverse effects on historic properties. The BLM will execute a Memorandum of Agreement with the SHPO to conclude the Section 106 process and will file a copy with the Advisory Council on Historic Preservation. Where the BLM and the SHPO are unable to execute a Memorandum of Agreement, the BLM will invite the Advisory Council on Historic Preservation to participate in an undertaking-specific Memorandum of Agreement. The Memorandum of Agreement will specify the treatment for which the BLM will be responsible, and which will be implemented by the solar applicant.
  - Undertaking a Class III inventory of the APE. If the BLM decides to require less than a Class III inventory for the entire APE, the BLM will seek additional views of the SHPO, affected tribes, and

other parties and determine the final inventory strategy that best represents a reasonable and good-faith effort to carry out appropriate identification efforts.
  - Conducting inventories according to the standards set forth in the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (48 FR 44716); BLM Handbook H-8110 (Handbook for Identifying Cultural Resources); revised BLM Manual 8110; and applicable BLM or SHPO survey, site record, or reporting standards. All inventory data must be provided to the BLM in digitized or paper format that meets BLM accuracy standards, including shape files for surveyed areas.
  - Bringing any unexpected discovery of cultural resources during any phase of development (construction, operations and maintenance, or decommissioning) to the attention of the responsible BLM authorized officer immediately, as specified in the PA. Work shall be halted in the vicinity of the find. The area of the find shall be protected to ensure that the resources are not removed, handled, altered, or damaged while they are being evaluated and to ensure that appropriate mitigative or protective measures can be developed and implemented.
- Methods to minimize cultural resource impacts may include, but are not limited to, the following:
  - Including in the Memorandum of Agreement measures for management of historic properties, in situations where historic properties require management or monitoring for avoidance and protection within or near a project's boundaries. Such measures will specify the preparation and implementation of steps to lessen the adverse effects of the undertaking upon those aspects of NRHP eligibility criteria that make the historic properties eligible for nomination to the NRHP.
  - Requiring that surface disturbance be restricted or prohibited within the viewshed of such property types when their eligibility is tied to their visual setting to protect NRHP-eligible traditional cultural properties, sacred sites, or historic trails from visual intrusion and to maintain the integrity of their historic setting unless acceptable mitigation is proposed.
  - Employing cultural field monitors (appropriate for the resource anticipated) to monitor ground-disturbing activities (for example in geomorphic settings, such as in shifting sands, where buried deposits may be present) in cases where there is a probability of encountering cultural resources during construction that could not be detected during prior Class III inventories. Monitoring plans shall be specified within Memorandums of Agreement.
  - Encouraging the use of previously disturbed lands and lands determined by archeological inventories to be devoid of historic properties.

Reclamation and Decommissioning

- Prior to reclamation activities, the BLM may require further planning for treatment of historic properties or planning for mitigation addressing reclamation activities.
- The BLM shall be notified prior to the demolition or substantial alteration of any building or structure. If judged necessary by the BLM, the developer will be required to evaluate the structures for their significance employing professionally qualified architects or historic architects. If structures slated for demolition are found to be eligible for listing on the NRHP, they will be recorded to Historic American Building Survey and/or Historic American Engineering Record standards before alteration or removal.
- Project developers shall confine soil-disturbing reclamation and decommissioning activities to previously disturbed areas. Known historic properties will be avoided during these activities.

Tribal Rights and Interests

General

- The BLM shall consult with Federally recognized Indian tribes early in the planning process to identify issues and areas of concern regarding any proposed solar energy project as required by the National Historic Preservation Act and other authorities to determine whether construction and operation of a project is likely to disturb traditional cultural properties or sacred sites, impede access to culturally important locations, disrupt traditional cultural practices, affect movements of animals important to tribes, or visually affect culturally important landscapes. Identifying issues and areas of concern to Federally recognized Indian tribes shall include, but is not limited to, the following:
  - Covering planning, construction, operation, and reclamation activities during consultation. Agreements or understandings reached with affected tribes shall be carried out in accordance with the terms of Memorandums of Agreement or project specific PAs.

  - The BLM consulting with affected Indian tribes during the Section 106 process at the points specified in the PA.
  - The BLM consulting with Indian tribes under the terms of the Native American Graves Protection and Repatriation Act (NAGPRA). Any planning for treatment of historic properties or mitigation will take such consultations into account.
  - The BLM seeking, during consultation, to develop agreements with affected tribes on how to appropriately respond to input and concerns in advance to save time and avoid confusion.
- Methods to minimize issues and areas of concern to Federally recognized Indian tribes may include, but are not limited to, the following:
  - Employing standard noise design features for solar facilities located near sacred sites to minimize the impacts of noise on culturally significant areas.
  - Employing health and safety design features for the general public for solar facilities located near Native American traditional use areas in order to minimize potential health and safety impacts on Native Americans.
  - Avoiding known human burial sites. Where there is a reasonable probability of encountering undetected human remains and associated funerary objects by a solar energy project, the BLM will carry out discussions with Indian tribes before the project is authorized, in order to provide general guidance on the treatment of any cultural items (as defined by NAGPRA) that might be exposed.
  - Avoiding visual intrusion on sacred sites through the selection of the solar facility location and solar technology. When complete avoidance is not practicable or economically feasible, the BLM shall engage in timely and meaningful consultation with the affected tribe(s) and shall attempt to formulate a mutually acceptable plan to mitigate or reduce the adverse effects.
  - Avoiding rock art (panels of petroglyphs and/or pictographs). These panels may be just one component of a larger sacred landscape, in which avoidance of all impacts may not be possible. Mitigation plans for eliminating or reducing potential impacts on rock art shall be formulated in consultation with the appropriate tribal cultural authorities.
  - Avoiding springs and other water sources that are or may be sacred or culturally important. If it is necessary for construction, maintenance, or operational activities to take place in proximity to springs or other water sources, appropriate measures, such as the use of geotextiles or silt fencing, should be taken to prevent silt from degrading water sources. The effectiveness of these mitigating barriers shall be monitored. Measures for preventing water depletion impacts on springs should also be employed. Particular mitigations shall be determined in consultation with the appropriate Indian tribe(s).
  - Avoiding culturally important plant species. When it is not possible to avoid affecting these plant resources, consultations shall be undertaken with the affected Indian tribe(s). If the species is available elsewhere on agency-managed lands, guaranteed access may suffice. For rare or less-common species, establishing (transplanting) or propagating an equal amount of the plant resource elsewhere on agency-managed land accessible to the affected tribe may be acceptable.
  - Avoiding culturally important wildlife species and their habitats. When it is not possible to avoid these habitats, solar facilities should be designed to minimize impacts on game trails, migration routes, and nesting and breeding areas of tribally important species. Mitigation and monitoring procedures should be developed in consultation with the affected tribe(s).
  - Securing a performance and reclamation bond for all solar energy generation facilities to ensure compliance with the terms and conditions of the ROW authorization. When establishing bond amounts and conditions, the BLM authorized officer shall require coverage of all expenses tied to identification, protection, and mitigation of cultural resources of concern to Indian tribes. These may include, but are not limited to, costs for ethnographic studies, inventory, testing, geomorphological studies, data recovery, curation, monitoring, treatment of damaged sites, and generation and submission of reports.

Site Characterization, Siting and Design, Construction

- Prior to construction, the project developer shall provide training to contractor personnel whose activities or responsibilities could affect issues and areas of concern to Federally recognized Indian tribes.

Operations and Maintenance

- Consultation with affected Federally recognized Indian tribes shall be ongoing during the life of the project.
- The project developer shall train facility personnel regarding their responsibilities to protect any known resources of importance to Federally recognized Indian tribes.

Reclamation and Decommissioning

- The project developer shall confine reclamation and decommissioning activities to previously disturbed areas and existing access roads to the extent practicable.
- The project developer shall return the site to its pre-construction condition, to the extent practicable and approved by the BLM.

Socioeconomic Impacts

General

- Project developers shall coordinate with the BLM and other Federal, State, and local agencies to identify and minimize potential socioeconomic impacts. Identifying socioeconomic impacts may include:
  - Project developers may need to collect and evaluate available information describing the socioeconomic conditions in the vicinity of the proposed project.
  - Develop options to minimize and/or mitigate adverse sociaoeconomic impacts in coordination with the BLM.
  - Develop a community monitoring program that would be sufficient to identify and evaluate socioeconomic impacts resulting from solar energy development. Measures developed for monitoring may include the collection of data reflecting the economic, fiscal, and social impacts of development at the Tribal, State, and local level.
  - Develop community outreach programs that would help communities adjust to changes triggered by solar energy development.
  - Establish vocational training programs for the local workforce to promote development of skills required by the solar energy industry.
  - Develop instructional materials for use in area schools to educate the local communities on the solar energy industry.

Environmental Justice

General

- Project developers shall coordinate with the BLM and other Federal, State, and local agencies to identify and minimize the potential for environmental justice impacts. Identifying environmental justice impacts may include:
  - Project developers shall identify all environmental justice communities and collect and evaluate available information describing the socioeconomic conditions in the vicinity of the proposed project, as needed, to predict potential environmental justice impacts of the project (i.e., environmental, economic, cultural, and health impacts on low-income and minority populations).
  - Evaluate environmental justice impacts as part of the environmental impact analysis for the project and consider options to mitigate such risk in coordination with the BLM.
  - Develop and implement focused public information campaigns providing technical and environmental health information directly to low-income and minority groups or to local agencies and representative groups. Include key information such as any likely impact on air quality, drinking water supplies, subsistence resources, public services, and the relevant preventative/minimization measures to be taken.
  - Provide community health screenings for low-income and minority groups.
  - Provide financial support to local libraries in low-income and minority communities for the development of information repositories on solar energy, including materials on the hazards and benefits of commercial development.
  - Establish vocational training programs for the local low income and minority workforce to promote development of skills for the solar energy industry.

- Develop instructional materials for use in area schools to educate the local communities on the solar energy industry.
- Provide key information to local governments and directly to low-income and minority populations on the scale and timeline of expected solar energy projects and on the experience of other low-income and minority communities that have followed the same energy development path.
- Make information available about planning activities that may be initiated to provide local infrastructure, public services, education, and housing.

Transportation

Site Characterization, Siting and Design, Construction

- Project developers shall coordinate with the BLM and other Federal, State, and local agencies to identify and minimize impacts on transportation. Identifying impacts on transportation may include:
  - Consult land use plans, transportation plans, and local plans as necessary. The developer may be required to perform traffic studies, analyses, or other studies of the capacity of existing and proposed new roads to physically handle the added wear and tear from increased construction commuter and truck traffic.
  - Develop options to minimize risk of increased transportation in coordination with the BLM.
- Methods to minimize impacts on transportation may include:
  - Incorporate site access into the local and regional road network. Incorporation must be done under the supervision of the pertinent Federal, State, and local agencies.
  - Considering public roadway corridors through a site to maintain proper traffic flows and retain more direct routing for the local population.
  - Considering implementing local road improvements, providing multiple site access locations and routes, staggering work schedules, and implementing a ride-sharing or shuttle program to minimize daily commutes of construction workers.
  - Implement traffic control measures to reduce hazards for incoming and outgoing traffic and streamline traffic flow, such as intersection realignment and speed limit reductions; installing signage; and adding acceleration, deceleration, and turn lanes on routes with site entrances.
  - Inspect, monitor, and respond to transportation impacts during construction, operations, and decommissioning of a solar energy development using adaptive management protocols.

Hazardous Materials and Waste

General

- Project developers shall coordinate with the BLM and other Federal, State, and local agencies early in the planning process to assess hazardous material and waste concerns and to minimize potential impacts. Assessing hazardous material and waste concerns may include:
  - Identify expected waste generation streams at the solar energy site and hazardous waste storage locations for the proposed project.
  - Conduct site characterization, construction, operation, and decommissioning activities in compliance with applicable Federal and State laws and regulations, including the Toxic Substances Control Act of 1976, as amended (15 U.S.C. 2601, et seq.). An example of complying with applicable law is reporting any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR Part 117 as required by the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, Section 102b.
- Methods to minimize hazardous material and waste related impacts may include:
  - Develop a Hazardous Materials and Waste Management Plan that addresses the selection, transport, storage, and use of all hazardous materials needed for construction, operations, and decommissioning of the facility for local emergency response and public safety authorities and for the designated BLM land manager. Furthermore, the plan shall address the characterization, on-site storage, recycling, and disposal of all resulting wastes. At minimum, the plan will discuss facility identification; comprehensive hazardous materials inventory; Material Safety Data Sheets for each type of hazardous material; emergency contacts and mutual aid agreements, if any; site map showing all hazardous materials and waste storage and use locations; copies of spill and emergency response plans, and hazardous materials–related elements of a Decommissioning and Site Reclamation Plan.

- The waste management plan will address all solid and liquid wastes that may be generated at the site in compliance with the Clean Water Act requirements to obtain the project's National Pollutant Discharge Elimination System or similar permit.
- Conside fire management in developing hazardous materials and waste management measures.
- Identify and implement prevention measures, including material substitution of less hazardous alternatives, recycling, and waste minimization.
- Establish procedures for fuel storage and dispensing that consider health and safety of personnel and methods for safe use (i.e., fire safety, authorized equipment use).
- Ensure vehicles and equipment are in proper working condition to reduce potential for leaks of motor oil, antifreeze, hydraulic fluid, grease, or other hazardous materials.
- Establish schedules for regular removal of wastes (including sanitary wastewater generated in temporary, portable sanitary facilities) for delivery and removal by licensed haulers to appropriate off-site treatment or disposal facilities.

Site Characterization, Siting and Design, Construction

- Solar facilities shall be characterized, sited and designed, and constructed to minimize hazardous materials and waste management design elements. Methods to minimize hazardous material and waste management impacts may include:
  - Indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste on the facility or associated with facility activities.
  - Provide a copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances to the BLM authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.
  - Design and operate systems containing hazardous materials in a manner that limits the potential for their release.
  - Establish measures for construction with compatible materials in safe conditions.
  - Establish dedicated areas with secondary containment for loading or off loading hazardous materials to transport vehicles.
  - Implement "just-in-time" ordering procedures to limit the amounts of hazardous materials present on the site to quantities minimally necessary to support continued operations. Excess hazardous materials shall be promptly disposed.
  - Survey project sites for unexploded ordnance if projects are within 20 miles of a current DoD installation or formerly utilized defense site.
  - Site refueling areas away from surface waters and drainages and on paved surfaces; features shall be added to direct any spilled materials to sumps or safe storage areas where they can be subsequently recovered.
  - Designate hazardous materials and waste storage areas and facilities. Limit access to designated areas to authorized personnel only.

Operations and Maintenance

- Compliance with the terms and conditions for hazardous materials and waste management shall be monitored by the project developer.
- Consultation with the BLM shall be maintained through the operations and maintenance of the project, employing an adaptive management strategy and modifications, as necessary and approved by the BLM.
- Methods for maintaining compliance with the terms and conditions for hazardous materials and waste management during operations and maintenance of the project may include the following:
  - Installing sensors or other devices to monitor system integrity and
  - Implementing robust site inspection and repair procedures.

Reclamation and Decommissioning

- Project developers shall maintain emergency response capabilities throughout the reclamation and decommissioning period as long as hazardous materials and wastes remain on-site.
- All design features developed for the construction phase shall be applied to similar activities during the reclamation and decommissioning phases.

Health and Safety

General

- Project developers shall coordinate with the BLM and other Federal, State, and local agencies early in the planning process to identify project health and safety risks and methods to minimize those risks. Assessing project health and safety risks may include:
  - Identifying and establishing Federal and State occupational health and safety standards, such as Occupational Safety and Health Administration's (OSHA's) Occupational Health and Safety Standards, 29 CFR Parts 1910 and 1926, respectively, for all phases of the project.
  - Identifying safety zones or setbacks for solar facilities and associated transmission lines from residences and occupied buildings, roads, ROWs, and other public access areas that are sufficient to prevent accidents resulting from various hazards during all phases of development.
- Methods to minimize project health and safety risks may include, but are not limited to, the following:
  - Identifying and accounting for general project injury prevention within the Plan of Development and the Health and Safety Plan, such as established personal protective equipment requirements, respiratory protection, hearing conservation measures, electrical safety considerations, hazardous materials safety and communication, housekeeping and waste handling, confined space identification, and rescue response and emergency medical support, including on-site first aid capability.
  - Implementing training and awareness measures for workers and the general public to minimize and address standard practices (such as OSHA's) for the safe use of explosives and blasting agents; occupational electric and magnetic field exposures; fire safety and evacuation procedures; and safety performance standards (e.g., electrical system standards and lighting protection standards). Consider further training for additional health and safety risks from the solar energy project and its ancillary facilities.
  - Establishing measures to document training activities and reporting of serious accidents to appropriate agencies.
  - Assessing cancer and non-cancer risks to workers and the general public from exposure to facility emission sources that exceed threshold levels.
  - Considering implementation of measures to reduce site emissions and the cancer and non-cancer from exposure to facility emissions.
  - Implementing a reporting structure for accidental release of hazardous substances to the environment where project developers shall document the event, including a root cause analysis, a description of appropriate corrective actions taken, and a characterization of the resulting environmental or health and safety impacts. Documentation of the event shall be provided to the permitting agencies and other Federal and State agencies within 30 days.
  - Considering manufacturer requirements, and Federal and State standards, when establishing safety zones or setbacks for solar facilities and associated transmission lines.
  - Project developers coordinating with the BLM and appropriate agencies (e.g., the Department of Energy and Transportation Security Administration to address critical infrastructure and key resource vulnerabilities at solar facilities in order to minimize and plan for potential risks from natural events, sabotage, and terrorism.

Site Characterization, Siting and Design, Construction

- Solar facilities shall be characterized, sited and designed, and constructed to minimize risk to health and safety. Methods to minimize risk to health and safety may include:
  - Designing electrical systems to meet all applicable safety standards (e.g., National Electrical Code) and to comply with the interconnection requirements of the transmission system operator.
  - Complying with applicable FAA regulations, including lighting requirements, to avoid or minimize potential safety issues associated with proximity to airports, military bases or training areas, or landing strips.
  - Considering temporary fencing and other measures for staging areas, storage yards, and excavations during construction or decommissioning activities to limit public access to health and safety risks.
  - Planning for traffic management of site access to ensure that traffic flow would not be unnecessarily affected and that specific issues of concern (e.g., the locations of school bus routes

and stops) are identified and addressed. Planning may include measures such as informational signs and temporary lane configurations. Planning shall be coordinated with local planning authorities.
  - Considering use of alternative dielectric fluids that do not contain sulfur hexafluoride to reduce the global warming potential.
  - Considering measures to reduce occupational electric and magnetic fields) exposures, such as backing electrical generators with iron to block the electric and magnetic fields, shutting down generators when work is being done near them, and otherwise limiting exposure time and proximity while generators are running.

Operations and Maintenance

- Compliance with the terms and conditions for health and safety shall be monitored by the project developer. Consultation with the BLM shall be maintained through operations and maintenance of the project employing an adaptive management strategy and modifications, as necessary and approved by the BLM.

National Historic Trails

General

- Project developers shall consult with the BLM early in the project planning to help determine the proposed project's conformance with trail management prescriptions and other potential trail-related constraints. Assessing conformance to trail management prescriptions and other potential trail related constraints shall include, but is not limited to:
  - Consider the Oregon National Historic Trail management corridor as an avoidance area in order to prevent substantial interference with the nature and purposes of designated National Historic Trail, and to make efforts to avoid activities incompatible with trail purposes. Residual impacts on trails will be avoided, minimized, and/or mitigated to the extent practicable.
  - Apply on-site or off-site mitigation for any residual adverse impact according to program policy standards.

West Wide Energy Corridors Interagency Operating Procedures

These Interagency Operating Procedures are from the Approved Resource Management Plan Amendments/Record of Decision for Designation of Energy Corridors on Bureau of Land Management Administered Land in the 11 Western States (BLM, 2009a) and are for projects proposed within the Section 368 corridors. Not all operating procedures will be appropriate for all projects; those that apply to pipelines, for instance, are not appropriate to transmission lines. These operating procedures are practicable means to avoid or minimize environmental impacts from future project development that may occur within the designated corridors.

Project Planning

Agency Coordination

- Applicants seeking to develop energy transport projects within corridors located on or near Saylor Creek Training Range or within military operating areas must, early in the planning process and in conjunction with the appropriate agency staff, inform and coordinate with the DoD regarding the characteristics and locations of the anticipated project infrastructure.
- Early in the planning process, applicants seeking a right-of-way (ROW) authorization within a Section 368 energy corridor that is located within five miles of a unit of the National Park Service should contact the appropriate Agency staff and work with the National Park Service regarding the characteristics and locations of anticipated project infrastructure. In those instances where corridors cross lands within the boundaries of a unit of the National Park Service, the National Park Service Organic Act and other relevant laws and policies shall apply.
- For electricity transmission projects, the applicant shall notify the Federal Aviation Administration (FAA) as early as practicable in the planning process in order to identify appropriate aircraft safety requirements.

- All project applications must reflect applicable findings, mitigation, and/or standards contained in regional land management plans, such as the Northwest Forest Plan, when such regional plans have been incorporated into agency planning guidelines and requirements. Modification of some standards may be needed to reasonably allow for energy transport within a corridor.

Government-to-Government Consultation

- The appropriate agency, assisted by the project applicant, must initiate government-to-government consultation with affected tribes at the outset of project planning and shall continue consultation throughout all phases of the project, as necessary. Agencies should determine how to consult in a manner that reflects the cultural values, socioeconomic factors, and administrative structures of the interested tribes.
- The agency point-of-contact (POC) may require the project proponent to prepare an ethnographic study when tribal consultation indicates the need. The study shall be conducted by a qualified professional selected in consultation with the affected tribes.

General

- Applicants seeking to develop an electricity transmission or pipeline project will develop a project-specific Plan of Development (POD). The POD should display the location of the project infrastructure (i.e., towers, power lines) and identify areas of short- and long-term land and resource impacts and the mitigation measures for site-specific and resource-specific environmental impacts. The POD should also include notification of project termination and decommissioning to the agencies at a time period specified by the agencies.
- Applicants, working with the appropriate agencies, shall design projects to comply with all appropriate and applicable agency policies and guidance.
- Project planning shall be based on the current state of knowledge. Where corridors are subject to sequential projects, project-related planning (such as the development of spill-response plans, cultural resource management plans, and visual resource management plans) and project-specific mitigation and monitoring should incorporate information and lessons learned from previous projects.
- Applicants shall follow the best management practices for energy transport project siting, construction, and operations of the States in which the proposed project would be located, as well as Federal agency practices.
- Corridors are to be efficiently used. The applicant, assisted by the appropriate agency, shall consolidate the proposed infrastructure, such as access roads, wherever possible and utilize existing roads to the maximum extent feasible, minimizing the number, lengths, and widths of roads, construction support areas, and borrow areas.
- When concurrent development projects are proposed and implemented within a corridor, the agency POC shall coordinate the projects to ensure consistency with regard to all regulatory compliance and consultation requirements, and to avoid duplication of effort.
- Applicants, assisted by the appropriate agency, shall prepare a monitoring plan for all project-specific mitigation activities.
- Potential cumulative impacts to resources should be considered during the early stages of the project. Agency POCs must coordinate various development projects to consider and minimize cumulative impacts. A review of resource impacts resulting from other projects in the region should be conducted and any pertinent information be considered during project planning.

Project Design

- Applicants shall locate desired projects within energy corridors to promote effective use of the corridors by subsequent applicants and to avoid the elimination of use or encumbrance of use of the corridors by ROW holders. Proposed projects should be compatible with identified energy transport modes and avoid conflicts with other land uses within a corridor.
- Applicant shall identify and delineate existing underground metallic pipelines in the vicinity of a proposed electricity transmission line project and design the project to avoid accelerating the corrosion of the pipelines and/or pumping wells.

Transportation

- The applicant shall prepare an access road siting and management plan that incorporates relevant agency standards regarding road design, construction, maintenance, and decommissioning. Corridors will be closed to public vehicular access unless determined by the BLM authorized officer to be managed as part of an existing travel and transportation network in a land use plan or subsequent travel management plan(s).
- The applicant shall prepare a comprehensive transportation plan for the transport of transmission tower or pipeline components, main assembly cranes, and other large equipment. The plan should address specific sizes, weights, origin, destination, and unique equipment handling requirements. The plan should evaluate alternative transportation routes and should comply with State regulations and all necessary permitting requirements. The plan should address site access roads and eliminate hazards from truck traffic or adverse impacts to normal traffic flow. The plan should include measures such as informational signage and traffic controls that may be necessary during construction or maintenance of facilities.
- Applicants shall consult with local planning authorities regarding increased traffic during the construction phase, including an assessment of the number of vehicles per day, their size, and type. Specific issues of concern (e.g., location of school bus routes and stops) should be identified and addressed in the traffic management plan.

Groundwater

- Applicants must identify and delineate all sole source aquifers in the vicinity of a proposed project and design the project to avoid disturbing these aquifers or to minimize potential risks that the aquifers could be contaminated by spills or leaks of chemicals used in the projects.
- In instances where a project within an energy corridor crosses sole source aquifers, the applicant must notify the Environmental Protection Agency (EPA) and the agencies that administer the land as early as practicable in the planning process. Section 1424(e) of the Safe Drinking Water Act (42 U.S.C. Chapter 6A) and other relevant laws and policies pertinent to the corridors that cross sole source aquifers shall apply.

Surface Water

- Applicants must identify all wild and scenic rivers (designated by act of Congress or by the Secretary of the Interior under Section 3(a) or 2(a)(ii) of the Wild and Scenic Rivers Act (16 U.S.C. 1271-1287), respectively), congressionally authorized wild and scenic study rivers, and agency identified (eligible or suitable) wild and scenic study rivers in the vicinity of a proposed project and design the project to avoid the rivers or mitigate the disturbance to the rivers and their vicinity.
- In instances where a project within an energy corridor crosses a wild and scenic river or a wild and scenic study river, the appropriate Federal permitting agency, assisted by the project applicant, must coordinate and consult with the river-administrating agency regarding the protection and enhancement of the river's free-flowing condition, water quality, and Outstandingly Remarkable Values.
- Applicants shall identify all streams in the vicinity of proposed project sites that are listed as impaired under Section 303(d) of the Clean Water Act (33 U.S.C. Chapter 26) and provide a management plan to avoid or mitigate adverse impacts on those streams.

Paleontological Resources

- The applicant shall conduct an initial scoping assessment to determine whether construction activities would disturb formations that may contain important paleontological resources. Potential impacts to significant paleontological resources should be avoided by moving or rerouting the site of construction or removing or reducing the need for surface disturbance. When avoidance is not possible, a mitigation plan should be prepared to identify physical and administrative protective measures and protocols such as halting work, to be implemented in the event of fossil discoveries. The scoping assessment and mitigation plan should be conducted in accordance with the managing agency's fossil management practices and policies.
- If significant paleontological resources are known to be present in the project area, or if areas with a high potential to contain paleontological material have been identified, the applicant shall prepare a

paleontological resources management and mitigation plan. If adverse impacts to paleontological resources cannot be avoided or mitigated within the designated corridors, the agency may consider alternative development routes to avoid, minimize, or mitigate adverse effects.

- A protocol for unexpected discoveries of significant paleontological resources should be developed. Unexpected discovery during construction should be brought to the immediate attention of the responsible Federal agency's authorized officer. Work should be halted in the vicinity of the discovery to avoid further disturbance of the resource while the resource is being evaluated and appropriate mitigation measures are being developed.

Ecological Resources

- Applicants shall identify important, sensitive, or unique habitats and BLM-special status species and State-listed species in the vicinity of proposed projects and design the project to avoid or mitigate impacts to these habitats and species.
- To restore disturbed habitats, the applicant will prepare a habitat restoration plan that identifies the approach and methods to be used to restore habitats disturbed during project construction activities. The plan will be designed to expedite the recovery to natural habitats supporting native vegetation, and require restoration to be completed as soon as practicable after completion of construction, minimizing the habitat converted at any one time. To ensure rapid and successful restoration efforts, the plan will include restoration success criteria, including time frames, which will be developed in coordination with the appropriate agency and which must be met by the applicant. Bonding to cover the full cost of restoration will be required.
- In consultation with the US Army Corps of Engineers, the appropriate agency, assisted by the project applicant, will identify wetlands (including ephemeral, intermittent, and isolated wetlands), riparian habitats, streams, and other aquatic habitats in the project area and design the project to avoid or mitigate impacts to these habitats.

Vegetation Management

- Applicants shall develop an integrated vegetation management plan consistent with applicable regulations and agency policies for the control of unwanted vegetation, noxious weeds, and invasive species (E.O. 13112). The plan should address monitoring; ROW vegetation management; the use of certified weed-seed-free hay, straw, and/or mulch; the cleaning of vehicles to avoid the introduction of noxious weeds and invasive plants; education of personnel on weed identification, the manner in which weeds spread, and the methods for treating infestations.

Cultural Resources

- Cultural resources management services and individuals providing those services shall meet the Secretary of the Interior's Standards for Archaeology and Historic Preservation, 48 FR 44716 (Sept. 29, 1983).
- The project applicant may, with the approval of the agency POC, assign a Cultural Resource Coordinator to ensure an integrated compliance process across administrative and jurisdictional boundaries. The Cultural Resource Coordinator will facilitate and coordinate compliance with laws, policies, regulations, and existing pertinent agreements (PAs, Memorandums of Agreement, or memoranda of understanding) among multiple agencies and other entities, jurisdictions, and Federally recognized tribes. The coordinator may assist with development of pertinent agreements among concerned parties during the course of the project. The coordinator shall be a qualified professional with experience in cultural resource compliance. Where appropriate, the Cultural Resource Coordinator may also serve as the Tribal Coordinator. Alternatively, the agency POC may assign such coordinators, to be paid for through project cost-recovery funds. The agencies, through the POC, remain responsible for consultation.
- The project applicant may, with the approval of the agency POC, assign a Tribal Coordinator to facilitate and coordinate consultation and compliance with multiple laws, agencies, and tribes in order to ensure effective government-to-government consultation throughout the life of the project. Alternatively, the agency POC may assign such coordinators, to be paid for through project cost-recovery funds. The agencies, through the POC, remain responsible for consultation.

- All historic properties in the Area of Potential Effect (APE) will be identified and evaluated. The APE shall include that area within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties and shall include a reasonable construction buffer zone and laydown areas, access roads, and borrow areas, as well as a reasonable assessment of areas subject to effects from visual, auditory, or atmospheric impacts, or impacts from increased access.
- Project proponents must develop a Cultural Resources Management Plan (CRMP) to outline the process for compliance with applicable cultural resource laws during pre-project planning, management of resources during operation, and consideration of the effect of decommissioning. CRMPs should meet the specifications of the appropriate agency and address compliance with all appropriate laws. CRMPs should include the following, as appropriate: identification of the Federally recognized tribes, State Historic Preservation Officers (SHPOs), and consulting parties for the project; identification of long- and short-term management goals for cultural resources within the APE of the project; the definition of the APE; appropriate procedures for inventory, evaluation, and identification of effects to historic properties; evaluation of eligibility for the the National Register of Historic Places (NRHP) for all resources in the APE; description of the measures to avoid, minimize, or mitigate adverse effects to historic properties; procedures for inadvertent discovery; procedures for considering Native American Graves Protection and Repatriation Act (NAGPRA) issues, monitoring needs, and plans to be employed during construction; curation procedures; anticipated personnel requirements and qualifications; public outreach and interpretation plans; and discussion of other concerns. The draft CRMP should be reviewed and approved by the agency POC in consultation with historic preservation partners, including appropriate SHPOs, tribes, and consulting parties. CRMPs must specify procedures that would be followed for compliance with cultural resource laws, should the project change during the course of implementation.
- Project applicants will provide cultural resources training for project personnel regarding the laws protecting cultural resources, appropriate conduct in the field (such as procedures for the inadvertent discovery of human remains), and other project-specific issues identified in the CRMP. Training plans should be part of the CRMP and should be subject to the approval of the POC. When government-to-government consultation identifies the need and the possibility, tribes may be invited to participate in or contribute to relevant sessions.
- If adverse effects to historic properties will result from a project, a Historic Property Treatment Plan will be developed in consultation with the SHPO, the appropriate Federally recognized tribes, and any consulting parties. The plan will outline how the impacts to the historic properties would be mitigated, minimized, or avoided.
- Cultural resources inventory, evaluation, and mitigation practices should incorporate modeling and sampling strategies to the extent practicable, in concurrence with SHPOs and other relevant parties, and as approved by the agency POC.
- Project applicants shall provide all cultural resources reports and data in an electronic format that is approved by the Agency POC and integrated across jurisdictional boundaries, that meets current standards, and that is compatible with SHPO systems. The Agency will submit this data to the SHPO in a timely fashion. Project proponents should submit cultural resources data on a regular basis to ensure that SHPO systems are kept up to date for reference as the different phases of the project proceed. Paper records may also be required by the agency.
- Cultural resources inventory procedures, specified in the CRMP, will include development of historic contexts based on the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (48 FR 44716) sufficient to support the evaluation of cultural resources encountered in the APE.

Government to Government Consultation

- The appropriate agency, assisted by the applicant, must comply with all laws, policies, and regulations pertaining to government-to-government consultation with Federally recognized tribes. Agencies shall initiate consultation with affected tribes at the outset of project planning and shall continue consultation throughout project planning, construction, operation, and decommissioning. Consultation shall include, but not be limited to, the following:
  - Identification of potentially affected tribes;

  - Identification of appropriate tribal contacts and the preferred means of communication with these tribes;
  - Provision to the tribes of project-specific information (e.g., project proponents, maps, design features, proposed ROW routes, construction methods) at the outset of project planning and throughout the life of the project;
  - Identification of issues of concern specific to affected tribes (e.g., potential impacts to culturally sensitive areas or resources, hazard and safety management plans, treaty reserved rights and trust responsibilities);
  - Identification of areas and resources of concern to tribes; and
  - Resolution of concerns (e.g., actions to avoid, minimize, or mitigate impacts to important resources; Memoranda of Agreement stating what actions would be taken to mitigate project effects; or agreements for tribal participation in monitoring efforts or operator training programs).
- The appropriate agency, assisted by the applicant, must comply with all pertinent laws, policies, and regulations addressing cultural and other resources important to tribes, including the National Historic Preservation Act, the Archaeological Resources Protection Act, the Native American Graves Protection Act (NAGPRA), and other laws and regulations.
- The agencies shall recognize the significance to tribes of traditional cultural places, such as sacred sites, sacred landscapes, gathering grounds, and burial areas, and shall seek to identify such areas through consultation with affected tribes early in the project planning process. Agencies shall seek to avoid, minimize, or mitigate impacts to such places in consultation with the tribes, project proponents, and other relevant parties. Where confidentiality concerning these areas is important to an affected tribe, agencies shall honor such confidentiality unless the tribe agrees to release the information.
- A protocol must be developed for inadvertent discovery of Native American human remains and funerary items to comply with the NAGPRA in consultation with appropriate Federally recognized tribes. Unexpected discovery of Native American human remains and funerary items during construction must be brought to the immediate attention of the BLM authorized officer. Work must be halted in the vicinity of the find of Native American graves and funerary items to avoid further disturbance to the resources while they are being evaluated and appropriate mitigation measures are being developed. The procedures for reporting items covered under NAGPRA must be identified in the CRMP.

Visual Resources

- Applicants shall identify and consider Visual Resource Management (VRM) issues early in the design process to facilitate integration of VRM into the overall site development program and construction documents. Visual management considerations, environmental analyses, mitigation planning, and design shall reference and be in accordance with the land management agency visual management policies and procedures applicable to the jurisdiction the project lies within. Applicants shall coordinate between multiple agencies on visual sensitive issues when projects transition from one jurisdiction to another, especially when transitions occur within a shared viewshed.
- Applicants shall prepare a VRM plan. The applicant's shall include an appropriately trained specialist, such as a landscape architect with demonstrated VRM experience. The VRM specialist shall coordinate with the BLM on the availability of the appropriate visual inventory data, VRM management class delineations, and Federal agency expectations for preparing project plans and mitigation strategies to comply with RMP direction related to visual resources. Applicants shall confirm that a current Visual Resource Inventory is available and that VRM classifications have been designated in the current land management plan. Project plans shall abide by the VRM class designations and consider sensitivities defined within the Visual Resource Inventory. If visual management objectives are absent, then the proper inventory and classification process shall be followed to develop them in accordance with the BLM VRM manual and handbooks. When the VRM classes are absent, then the project alternatives must reflect a range of management options related to visual resources that reflect the values identified in the visual inventory. Responsibility for developing an inventory or VRM classes will remain with the agency, but how to accomplish these tasks will be determined by the BLM authorized officer who will consider the applicant's role and financial participation in completing the work.

- Visual mitigation planning/design and analysis shall be performed through integrated field assessment, applied global positioning system technology, field photo documentation, use of computer-aided design and development software, 3-D modeling geographic information system software, and visual simulation software, as appropriate. Proposed activities, projects, and site development plans shall be analyzed and further developed using these technologies to meet visual objectives for the project area and surrounding areas sufficient to provide the full context of the viewshed. Visual simulations shall be prepared according to BLM Handbook H-8432-1, or other agency requirements, to create spatially accurate depictions of the appearance of proposed facilities, as reflected in the 3-D design models. Simulations shall depict proposed project appearance from sensitive/scenic locations as well as more typical viewing locations. Transmission towers, roads, compressor stations, valves, and other aboveground infrastructure should be integrated aesthetically with the surrounding landscape in order to minimize contrast with the natural environment.
- Applicants shall develop adequate terrain mapping on a landscape/viewshed scale for site planning/design, visual impact analysis, visual impact mitigation planning/design, and for full assessment and mitigation of cumulative visual impacts through applied, state-of-the-art design practices using the cited software systems. The landscape/viewshed scale mapping shall be geo-referenced and at the same Digital Elevation Model resolution and contour interval within the margin of error suitable for engineered site design. This level of mapping shall enable proper placement of proposed developments into the digital viewshed context. Final plans shall be field verified for compliance.
- The full range of visual best management practices (BMPs)shall be considered, and plans shall incorporate all pertinent BMPs. Visual resource monitoring and compliance strategies shall be included as a part of the project mitigation plans.

Public Health and Safety

- An electricity transmission project shall be planned by the applicant to comply with FAA regulations, including lighting regulations, and to avoid potential safety issues associated with proximity to airports, military bases or training areas, or landing strips.
- A health and safety program shall be developed by the applicant to protect both workers and the general public during construction, operation, and decommissioning of an energy transport project. The program should identify all applicable Federal and State occupational safety standards, establish safe work practices for each task (e.g., requirements for personal protective equipment and safety harnesses, Occupational Safety and Health Administration standard practices for safe use of explosives and blasting agents, measures for reducing occupational electric and magnetic fields exposures), and define safety performance standards (e.g., electrical system standards). The program should include a training program to identify hazard training requirements for workers for each task and establish procedures for providing required training to all workers. Documentation of training and a mechanism for reporting serious accidents to appropriate agencies should be established.
- The health and safety program shall establish a safety zone or setback from roads and other public access areas that is sufficient to prevent accidents resulting from various hazards. It should identify requirements for temporary fencing around staging areas, storage yards, and excavations during construction or decommissioning activities. It should also identify measures to be taken during the operations phase to limit public access to those components of energy facilities that present health or safety risks.
- Applicants shall develop a comprehensive emergency plan that considers the vulnerabilities of their energy system to all credible events initiated by natural causes (earthquakes, avalanches, floods, high winds, violent storms, etc.), human error, mechanical failure, cyber-attack, sabotage, or deliberate destructive acts of both domestic and international origin and the potential for and possible consequences of those events. Vulnerability, threat, and consequence assessment methodologies

and criteria in the sector-specific plan for energy[1] will be used and appropriate preemptive and mitigative response actions will be identified. The applicant must coordinate emergency planning with Tribal, State, and local emergency and public safety authorities and with owners and operators of other energy systems collocated in the corridor or in adjacent corridors that could also be impacted.

- In addition to directives contained in other BMPs herein, the applicant must identify all Federal, State, and local regulations pertaining to environmental protection, worker health and safety, public safety, and system reliability that are applicable throughout the construction, operation, and decommissioning phases of their facility's life cycle and must develop appropriate compliance strategies, including securing all necessary permits and approvals.

Hazardous Materials Management

- Applicants for petroleum pipelines and projects involving oil-filled electrical devices shall develop a spill prevention and response plan identifying spill prevention measures to be implemented, training requirements, appropriate spill response actions, and procedures for making timely notifications to authorities. The spill prevention and response plan should include identification of any sensitive biotic resources and locations (such as habitats) that require special measures to provide protection, as well as the measures needed to provide that protection.

Fire Management

- Applicants shall develop a fire management strategy and implement measures to minimize the potential for a human-caused fire during project construction, operation, and decommissioning. The strategy should consider the need to reduce hazardous fuels (e.g., native and non-native annual grasses and shrubs) and to prevent the spread of fires started outside or inside a corridor, and clarify who has responsibility for fire suppression and hazardous fuels reduction for the corridor.
- Applicants must work with the local land management agency to identify project areas that may incur heavy fuel buildups, and develop a long-term strategy on vegetation management of these areas. The strategy may include land treatment during project construction, which may extend outside the planned ROW clearing limits.

Project Construction

General

- To avoid conflict with Federal and non-Federal operations, the applicant shall be aware of liabilities pertaining to environmental hazards, safety standards, and military flying areas.
- The applicant shall locate all stationary construction equipment (i.e., compressors and generators) as far as practicable from nearby residences.
- Applicants shall pay fair market value to the land management agency for any merchantable forest products that will be cut during ROW clearing. The local land management agency will determine the fair market value, which will be paid prior to clearing. The applicant will either remove the forest products from the area or will stack the material at locations determined by the local land management agency. Treatment of unmerchantable products will be determined by the local land management agency.

Soils, Excavation and Blasting

- Applicants shall salvage, safeguard, and reapply topsoil from all excavations and construction activities during restoration.
- All areas of disturbed soil shall be restored by the applicant using weed-free native grasses, forbs, shrubs, and trees as directed by the agency. Restoration should not be unnecessarily delayed. If native species are not available, noninvasive vegetation recommended by agency specialists may be used.

[1] The sector-specifc plan for energy, developed by the Department of Energy's Office of Electricity Delivery and Energy Reliability, is one of seventeen such SSPs that comprise the National Infrastructure Protection Plan. The energy sector-specifc plan (redacted) is available at http://energy.gov/oe/downloads/energy-sector-specific-plan-annex-national-infrastructure-protection-plan. The National Infrastructure Protection Plan is available at http://www.dhs.gov/national-infrastructure-protection-plan.

- The applicant must not create excessive slopes during excavation. Areas of steep slopes, biological soil crusts, erodible soil, and stream channel crossings will often require site-specific and specialized construction techniques by the applicant. These specialized construction techniques should be implemented by adequately trained and experienced employees.
- Blasting activities will be avoided or minimized in the vicinity of sole source aquifer areas to reduce the risk of releasing sediments or particles into the groundwater and inadvertently plugging water supply wells.
- The applicant must backfill foundations and trenches with originally excavated material as much as possible. Excess excavation materials should be disposed of by the applicant only in approved areas.
- The applicant shall obtain borrow (fill) material only from authorized sites. Existing sites should be used in preference to new sites.
- The applicant shall prepare an explosives use plan that specifies the times and meteorological conditions when explosives will be used and specifies minimum distances from sensitive vegetation and wildlife or streams and lakes.
- If blasting or other noisy activities are required during the construction period, the applicant must notify nearby residents in advance.

Mitigation and Monitoring

- All control and mitigation measures established for the project in the Plan of Development (POD) and other required plans shall be maintained and implemented by the applicant throughout construction. Necessary adjustments may be made with the concurrence of the appropriate agency.

Surface and Groundwater Resources

- The applicant shall safeguard against the possibility of dewatering shallow groundwater and/or wetlands in the vicinity of project sites during foundation excavations or excavations for buried pipelines.
- The applicant shall implement erosion controls complying with Federal, State, and county standards, such as jute netting, silt fences, and check dams, and secure all necessary storm water pollution prevention plan (SWPPP) permits.
- The applicant shall minimize stream crossings by access roads to the extent practicable. All structures crossing intermittent and perennial streams should be located and constructed so that they do not decrease channel stability, increase water velocity, or impede fish passage.
- Applicants shall not alter existing drainage systems and should give particular care to sensitive areas such as erodible soils or steep slopes. Soil erosion should be reduced at culvert outlets by appropriate structures. Catch basins, roadway ditches, and culverts should be cleaned and maintained.
- Applicants must not create hydrologic conduits between aquifers.

Paleontological Resources

- Project construction activities will follow the protective measures and protocols identified in the paleontological resources mitigation plan.
- All paleontological specimens found on Federal lands remain the property of the US government. Specimens may only be collected by a qualified paleontologist under a permit issued by the managing agency and must be curated in an approved repository.

Ecological Resources

- Areas that are known to support Endangered Species Act-listed species, BLM-special-status species, and State-listed species or their habitats shall be identified and marked with flagging or other appropriate means to avoid direct impacts during construction activities. Construction activities upslope of these areas should be avoided to prevent indirect impacts of surface water and sediment runoff.
- All construction activities that could affect wetlands or waters of the United States shall be conducted in accordance with the requirements identified in permits issued by the US Army Corps of Engineers.

Visual Resources

- A pre-construction meeting with BLM landscape architects or other designated visual resource specialist shall be held before construction begins to coordinate on the VRM mitigation strategy and confirm the compliance-checking schedule and procedures. Applicants shall integrate interim/final reclamation VRM mitigation elements early in the construction, which may include treatments such as thinning and feathering vegetation along project edges, enhanced contour grading, salvaging landscape materials from within construction areas, special revegetation requirements, etc. Applicants shall coordinate with BLM in advance to haver designated visual resource specialists onsite during construction to work with implementing BMPs.

Cultural Resources

- Project applicants shall provide all cultural resources reports and data in an approved electronic format that is integrated across jurisdictional boundaries, that meets current standards, and that is compatible with State Historic Preservation Officer (SHPO) systems. Project proponents shall submit cultural resources data on a regular basis to ensure that SHPO systems are kept up to date for reference as the different phases of the project proceed.
- When an area is identified as having a high potential for cultural resources but none are found during a pre-construction field survey, a professionally qualified cultural resources specialist will be required to monitor ground-disturbing activities during project construction, and to complete a report when the activities are finished. The protocol for monitoring should be identified in the Cultural Resources Management Plan (CRMP).
- When human remains, funerary objects, sacred objects, or objects of cultural patrimony are inadvertently discovered, the provisions of NAGPRA shall apply and the process identified in the CRMP must be followed.

Hazardous Materials and Wastewater Management

- Any wastewater generated by the applicant in association with temporary, portable sanitary facilities must be periodically removed on a schedule approved by the agency, by a licensed hauler, and introduced into an existing municipal sewage treatment facility. Temporary, portable sanitary facilities provided for construction crews should be adequate to support expected onsite personnel and should be removed at completion of construction activities.
- All hazardous materials (including vehicle and equipment fuels) brought to the project site will be in appropriate containers and will be stored in designated and properly designed storage areas with appropriate secondary containment features. Excess hazardous materials will be removed from the project site after completion of the activities in which they are used.

Air Emissions

- The applicant shall cover construction materials and stockpiled soils if these are sources of fugitive dust.
- To minimize fugitive dust generation, the applicant shall water land before and during surface clearing or excavation activities. Areas where blasting would occur should be covered with mats.

Noise

- The applicant shall limit noisy construction activities (including blasting) to the least noise-sensitive times of day (i.e., daytime only between 7 a.m. and 10 p.m.) and weekdays. The blasting period may be shortened during sage-grouse breeding and nesting or proximity to residences.

Fire Safety

- The applicant must ensure that all construction equipment used is adequately muffled and maintained and that spark arrestors are used with construction equipment in areas with, and during periods of, high fire danger.
- Flammable materials (including fuels) will be stored in appropriate containers.

Project Operation

Mitigation and Monitoring

- All control and mitigation measures established for the project shall be maintained and implemented by the applicant throughout the operation of the project. Necessary adjustments may be made with the concurrence of the BLM authorized officer.

Ecological Resources

- Project staff shall avoid harassment or disturbance of wildlife, especially during reproductive courtship, migratory, and nesting seasons.
- Observations by project staff of potential wildlife problems, including wildlife mortality, will be immediately reported to the applicable agency authorized officer.

Pesticide and Herbicide Use

- If pesticides are used, the applicant shall ensure that pesticide applications as specified in the integrated vegetation management plan are conducted within the framework of agency policies and entail only the use of EPA-registered pesticides that are applied in a manner consistent with label directions and State pesticide regulations. Pesticide use shall be limited to non-persistent immobile pesticides and shall be applied only in accordance with label and application permit directions and stipulations for terrestrial and aquatic applications.
- Pesticide and herbicide uses must be avoided in the vicinity of sole source aquifer areas.

Visual Resources

- Terms and conditions for VRM mitigation compliance shall be maintained and monitored for compliance with visual objectives, with adaptive management adjustments and modifications as necessary, and approved by theBLM authorized officer.

Hazardous Materials, Wastes, and Wastewater Management

- The applicant shall provide secondary containment for all on-site hazardous materials and waste storage areas.
- The applicant shall ensure that wastes are properly containerized and removed periodically for disposal at appropriate offsite permitted disposal facilities.
- In the event of an accidental release to the environment, the applicant shall initiate spill cleanup procedures and document the event, including a cause analysis; appropriate corrective actions taken; and a characterization of the resulting environmental or health and safety impacts. Documentation of the event shall be provided to the BLM authorized officer and other Federal and State agencies, as required.

Air Quality

- Dust abatement techniques (e.g., water spraying) shall be used by the applicant on unpaved, unvegetated surfaces to minimize airborne dust. Water for dust abatement should be obtained and used by the applicant under the appropriate State water use permitting system. Used oil will not be used for dust abatement.

Noise

- The applicant shall ensure that all equipment has sound-control devices no less effective than those provided on the original equipment.

Project Decommissioning

General

- Where applicable, decommissioning activities will conform to agency standards and guidance for mitigation and reclamation (e.g., the Gold Book, 4th Edition, 2007[2]).
- Applicants must receive approval for changes to the ROW authorization prior to any modifications to the ROW required for decommissioning.
- Gravel work pads will be removed; gravel and other borrow material brought to the ROW during construction will be disposed of as approved by the agency.
- Any wells constructed on the ROW to support operations may be removed and properly closed in accordance with applicable local or State regulations.
- All equipment, components, and above-ground structures shall be cleaned and removed from the site for reclamation, salvage, or disposal; all below-ground components shall be removed to a minimum depth of 3 feet to establish a root zone free of obstacles; pipeline segments and other components located at greater depths may be abandoned in place provided they are cleaned (of all residue) and filled with inert material to prevent possible future subsidence.
- Dismantled and cleaned components shall be promptly removed; interim storage of removed components or salvaged materials that is required before final disposition is completed will not occur on Federal land.
- At the close of decommissioning, applicants will provide the BLM authorized officer with survey data precisely locating all below grade components that were abandoned in place.

Mitigation and Monitoring

- All control and mitigation measures established for the project in the POD and other required plans shall be incorporated into a decommissioning plan that shall be approved by the BLM authorized officer); the decommissioning plan shall include a site reclamation plan and a monitoring program and shall be coordinated with owners and operators of other systems on the corridor to ensure no disruption to the operation of those systems.

Surface Water

- A SWPPP permit shall be obtained and its provisions implemented for all affected areas before any ground-disturbance activities commence.

Transportation

- Additional access roads needed for decommissioning shall follow the paths of access roads established during construction to the greatest extent possible; all access roads not required for the continued operation and maintenance of other energy systems present in the corridor shall be removed and their footprints reclaimed and restored.

Restoration

- Topsoil removed during decommissioning activities shall be salvaged and reapplied during final reclamation; all areas of disturbed soil shall be reclaimed using weed-free native shrubs, grasses, and forbs or other plant species approved by the BLM authorized officer; grades shall be returned to pre-development contours to the greatest extent feasible.
- The vegetation cover, composition, and diversity shall be restored to values commensurate with the ecological setting, as approved by the authorized officer.

Hazardous Materials and Waste Management

- All fuels, hazardous materials, and other chemicals shall be removed from the site and properly disposed of or reused.

[2] Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development, 4th Edition, revised 2007. Available electronically at http://www.blm.gov/wo/st/en/prog/energy/oil_and_gas/best_management_practices/gold_book.html.

- Incidental spills of petroleum products and other chemicals shall be removed and the affected area cleaned to meet applicable standards.
- Solid wastes generated during decommissioning shall be accumulated, transported, and disposed in permitted offsite facilities in accordance with State and local requirements; no solid wastes shall be disposed of within the footprint of the ROW or the corridor.
- Hazardous wastes generated as a result of component cleaning shall be containerized and disposed of in permitted facilities.

Minerals

Leasable Minerals

Geothermal Energy Development

The following best management practices (BMPs) are taken from the Record of Decision and Resource Management Plan Amendments for Geothermal Leasing in the Western United States (BLM, 2008c).

Information Collection and Monitoring

General

- Prior to geothermal exploration and development, a complete subsurface geotechnical investigation will be conducted to analyze the soil and geologic conditions. The investigation will evaluate and identify potential geologic hazards and would provide remedial grading recommendations, foundation and slab design criteria, and soil parameters for the design of geothermal power infrastructure.
- The operator will collect available information describing the environmental and socio-cultural conditions in the vicinity of the proposed project and will provide the information to the agency.
- A monitoring program will be developed by the operator to ensure that environmental conditions are monitored during the exploration and well drilling, testing, construction, and utilization and reclamation phases. The monitoring program requirements, including adaptive management strategies, will be established at the project level to ensure that potential adverse impacts of geothermal development are mitigated. The monitoring program will identify the monitoring requirements for each major environmental resource present at the site, establish metrics against which monitoring observations can be measured, identify potential mitigation measures, and establish protocols for incorporating monitoring observations and additional mitigation measures into ongoing activities. The operator will provide results of the monitoring program to the agency in an annual report.

Paleontological and Cultural Resources

- Before any specific permits are issued under leases, treatment of cultural resources will follow the procedures established by the Advisory Council on Historic Preservation for compliance with Section 106 of the National Historic Preservation Act. A pedestrian inventory will be undertaken of all portions that have not been previously surveyed or are identified by BLM as requiring inventory to identify properties that are eligible for the the National Register of Historic Places (NRHP). Those sites not already evaluated for NRHP eligibility will be evaluated based on surface remains, subsurface testing, and archival and/or ethnographic sources. Subsurface testing will be kept to a minimum whenever possible if sufficient information is available to evaluate the site or if avoidance is an expected mitigation outcome. Recommendations regarding the eligibility of sites will be submitted to the BLM, and a treatment plan will be prepared to detail methods for avoidance of impacts or mitigation of impacts. The BLM will make determinations of eligibility and effect and consult with the State Historic Preservation Officer as necessary based on each proposed lease application and project plans. The BLM may require modification to exploration or development proposals to protect such properties, or disapprove any activity that is likely to result in adverse effects that cannot be successfully avoided, minimized, or mitigated. Avoidance of impacts through project design will be given priority over data recovery as the preferred mitigation measure. Avoidance measures include moving project elements away from site locations or to areas of previous impacts, restricting travel to existing roads, and maintaining barriers and signs in areas of cultural sensitivity. Any data recovery will be preceded by

approval of a detailed research design, Native American consultation, and other requirements for BLM issuance of a permit under the Archaeological Resources Protection Act.

- If cultural resources are present at the site, or if areas with a high potential to contain cultural material have been identified, a Cultural Resources Management Plan (CRMP) will be developed. This plan will address mitigation activities to be taken for cultural resources found at the site. Avoidance of the area is always the preferred mitigation option. Other mitigation options include archaeological survey and excavation (as warranted) and monitoring. If an area exhibits a high potential, but no artifacts were observed during an archaeological survey, monitoring by a qualified archaeologist could be required during all excavation and earthmoving in the high potential area. A report will be prepared documenting these activities. The CRMP also will:
    - Establish a monitoring program,
    - Identify measures to prevent potential looting/vandalism or erosion impacts, and
    - Address the education of workers and the public to make them aware of the consequences of unauthorized collection of artifacts and destruction of property on public land.
- Operators will determine whether paleontological resources exist in a project area on the basis of the sedimentary context of the area, a records search for past paleontological finds in the area, and/or, depending on the extent of existing information, a paleontological survey.
- If paleontological resources are present at the site, or if areas with a high potential to contain paleontological material have been identified, a paleontological resources management plan will be developed. This plan will include a mitigation plan for avoidance, removal of fossils, or monitoring. If an area exhibits a high potential but no fossils were observed during survey, monitoring by a qualified paleontologist may be required during excavation and earthmoving in the sensitive area. The operator will submit a report to the agency documenting these activities. The paleontological resources management plan also will:
    - Establish a monitoring program,
    - Identify measures to prevent potential looting/vandalism or erosion impacts, and
    - Address the education of workers and the public to make them aware of the consequences of unauthorized collection of fossils on public land.

Water Resources

- In coordination with State regulatory agencies the operator will comply with all Federal and State surface and ground water rules and regulations for all phases of geothermal exploration, development, and reclamation.
- Operators will develop a storm water management plan for the site to ensure compliance with applicable regulations and prevent off-site migration of contaminated storm water or increased soil erosion.
- Operators will gain a clear understanding of the local hydrogeology. Areas of groundwater discharge and recharge and their potential relationships with surface water bodies will be identified.
- Operators will avoid creating hydrologic conduits between discrete aquifers during foundation excavation and other activities.
- Freshwater-bearing and other usable water aquifers will be protected from contamination by assuring all well casing (excluding the liner) is required to be cemented from the casing shoe to the surface.
- Periodic testing and monitoring via observation wells will be conducted in a manner to assure maximum protection of water resources from geothermal fluids or alterations in reservoir pressure.

Vegetation and Fish and Wildlife

- The operator will conduct surveys for plant and animal species that are listed or proposed for listing as threatened or endangered and their habitats in areas proposed for development where these species could potentially occur, following accepted protocols and in consultation with the US Fish ad Wildlife Service or National Marine Fisheries Service, as appropriate. Particular care should be taken to avoid disturbing listed species during surveys in any designated critical habitat. The operator will monitor activities and their effects on Endangered Species Act-listed species throughout the duration of the project.
- The operator will identify important, sensitive, or unique habitat and biota in the project vicinity and site and should design the project to avoid (if possible), minimize, or mitigate potential impacts on

these resources. The design and siting of the facilities will follow appropriate guidance and requirements from the BLM and other resource agencies, as available and applicable.

National Scenic and Historic Trails

- When any right-of-way application includes remnants of a National Historic Trail, is located within the viewshed of a National Historic Trail's designated centerline, or includes or is within the viewshed of a trail eligible for listing on the National Register of Historic Places, the operator will evaluate the potential visual impacts to the trail associated with the proposed project and identify appropriate mitigation measures for inclusion in the operation plan.

Air Quality and Climate

- The operator will coordinate with the State Air Quality Division to develop and implement an air quality monitoring plan.

Planning, Location, And Design

Traffic Planning

- Operators will consult with local planning authorities regarding increased traffic prior to the construction phase, including an assessment of the number of vehicles per day, their size, and type. Specific issues of concern (e.g., location of school bus routes and stops) will be identified and addressed in the traffic management plan.

Roads and Pads

- To plan for efficient use of the land, necessary infrastructure will be consolidated wherever possible.
- Existing roads and pad sites will be used to the maximum extent feasible, but only if located in a safe and environmentally sound location. No new roads and pad sites will be constructed without agency authorization. If new roads and pad sites have been authorized, they will be designed and constructed by the operator to the appropriate agency standard, no higher than necessary to accommodate their intended function. Roads and pad sites will be routinely maintained by the operator to maintain public safety and to minimize impacts to the environment such as erosion, sedimentation, fugitive dust, and/or loss of vegetation.
- An access road siting and management plan will be prepared incorporating existing Agency standards regarding road design, construction, and maintenance such as those described in the BLM 9113 Manual and the *Surface Operating Standards for Oil and Gas Exploration and Development* (i.e., the Gold Book, 4th Edition, 2007).
- A traffic management plan will be prepared for the site access roads to ensure that no hazards would result from the increased truck traffic and that traffic flow would not be adversely impacted. This plan will incorporate measures such as informational signs, flaggers when equipment may result in blocked throughways, and traffic cones to identify any necessary changes in temporary lane configuration.
- Where possible, access roads will be located to follow natural contours and minimize side hill cuts and fills. Excessive grades on roads, road embankments, ditches, and drainages will be avoided, especially in areas with erodible soils.
- Roads will be designed so that changes to surface water runoff are minimized and new erosion is not initiated.
- Access roads will be located to minimize stream crossings. All structures crossing streams will be located and constructed so that they do not decrease channel stability or increase water velocity. Operators will obtain all applicable Federal and State water crossing permits.
- Roads will be located away from drainage bottoms and avoid wetlands, if practicable.

Geotechnical Analysis

- The operator will perform a detailed geotechnical analysis prior to the construction of any structures; so they will be sited to avoid any hazards from subsidence or liquefaction (i.e., the changing of a saturated soil from a relatively stable solid state to a liquid during earthquakes or nearby blasting).

Visual Design Considerations

- The operator will incorporate visual design considerations into the planning and design of the project to minimize potential visual impacts of the proposal and to meet the VRM objectives including:
  - Construct low-profile structures whenever possible to reduce structure visibility.
  - Select and design materials and surface treatments to repeat or blend with landscape elements.
  - Site projects outside of the viewsheds of publicly accessible vantage points, or if this cannot be avoided, as far away as possible.
  - Site projects to take advantage of both topography and vegetation as screening devices to restrict views of projects from visually sensitive areas.
  - Site facilities away from and not adjacent to prominent landscape features (e.g., knobs and water features).
  - Avoid placing facilities on ridgelines, summits, or other locations such that they will be silhouetted against the sky from important viewing locations.
  - Co-locate facilities to the extent possible to use existing and shared rights-of-way (ROWs), existing and shared access and maintenance roads, and other infrastructure to reduce visual they do not bisect ridge tops or run down the center of valley bottoms.
  - Site linear features (aboveground pipelines, ROWs, and roads) to follow natural land contours rather than straight lines (particularly up slopes) when possible. Fall-line cuts should be avoided.
  - Site facilities, especially linear facilities, to take advantage of natural topographic breaks (i.e., pronounced changes in slope) to avoid siting facilities on steep side slopes.
  - Where available, site linear features such as ROWs and roads to follow the edges of clearings (where they will be less conspicuous) rather than passing through the centers of clearings.
  - Site facilities to take advantage of existing clearings to reduce vegetation clearing and ground disturbance, where possible.
  - Site linear features (e.g., trails, roads, rivers) to cross other linear features at right angles whenever possible to minimize viewing area and duration.
  - Site and design structures and roads to minimize and balance cuts and fills and to preserve existing rocks, vegetation, and drainage patterns to the maximum extent possible.
  - Use appropriately colored materials for structures or appropriate stains and coatings to blend with the project's backdrop. Refer to the Standard Environmental Colors chart available from the BLM.
  - Use non-reflective or low-reflectivity materials, coatings, or paints whenever possible.
  - Paint grouped structures the same color to reduce visual complexity and color contrast.
  - Design and install efficient facility lighting so that the minimum amount of lighting required for safety and security is provided but not exceeded and so that upward light scattering (light pollution) is minimized. This may include, for example, installing shrouds to minimize light from straying off-site, properly directing light to only illuminate necessary areas, and installing motion sensors to only illuminate areas when necessary.
  - Site construction staging areas and laydown areas outside of the viewsheds of publicly accessible vantage points and visually sensitive areas, where possible, including siting in swales, around bends, and behind ridges and vegetative screens.
  - Discuss visual impact mitigation objectives and activities with equipment operators prior to commencement of construction activities.
  - Mulch or scatter slash from vegetation removal and spread it to cover fresh soil disturbances or, if not possible, bury or compost slash.
  - If slash piles are necessary, stage them out of sight of sensitive viewing areas.
  - Avoid installing gravel and pavement where possible to reduce color and texture contrasts with existing landscape.
  - Use excess fill to fill uphill-side swales resulting from road construction in order to reduce unnatural-appearing slope interruption and to reduce fill piles.
  - Avoid downslope wasting of excess fill material.
  - Round road-cut slopes, vary cut and fill pitch to reduce contrasts in form and line, and vary slope to preserve specimen trees and nonhazardous rock outcroppings.
  - Leave planting pockets on slopes where feasible.
  - Combine methods of re-establishing native vegetation through seeding, planting of nursery stock, transplanting of local vegetation within the proposed disturbance areas, and staging of construction enabling direct transplanting.

- Revegetate with native vegetation establishing a composition consistent with the form, line, color, and texture of the surrounding undisturbed landscape.
- Provide benches in rock cuts to accent natural strata.
- Use split-face rock blasting to minimize unnatural form and texture resulting from blasting.
- Segregate topsoil from cut and fill activities and spread it on freshly disturbed areas to reduce color contrast and to aid rapid revegetation.
- Bury utility cables in or adjacent to the road where feasible.
- Minimize signage and paint or coat reverse sides of signs and mounts to reduce color contrast with existing landscape.
- Prohibit trash burning; store trash in containers to be hauled off-site for disposal.
- Undertake interim restoration during the operating life of the project as soon as possible after disturbances. During road maintenance activities, avoid blading existing forbs and grasses in ditches and along roads.
- Randomly scarify cut slopes to reduce texture contrast with existing landscape and to aid in revegetation.
- Cover disturbed areas with stockpiled topsoil or mulch, and revegetate with a mix of native species selected for visual compatibility with existing vegetation.
- Restore rocks, brush, and natural debris whenever possible to approximate preexisting visual conditions.

Air Quality and Climate

- The operator will prepare and submit to the agency an Equipment Emissions Mitigation Plan for managing diesel exhaust. An Equipment Emissions Mitigation Plan will identify actions to reduce diesel particulate, carbon monoxide, hydrocarbons, and nitrogen oxides associated with construction and drilling activities. The Equipment Emissions Mitigation Plan will require that all drilling/construction related engines are maintained and operated as follows:
  - Are tuned to the engine manufacturer's specification in accordance with an appropriate time frame.
  - Do not idle for more than five minutes (unless, in the case of certain drilling engines, it is necessary for the operating scope).
  - Are not tampered with in order to increase engine horsepower.
  - Include particulate traps, oxidation catalysts, and other suitable control devices on all drilling/construction equipment used at the project site.
  - Use diesel fuel having a sulfur content of 15 parts per million or less, or other suitable alternative diesel fuel, unless such fuel cannot be reasonably procured in the market area.
  - Include control devices to reduce air emissions. The determination of which equipment is suitable for control devices should be made by an independent Licensed Mechanical Engineer. Equipment suitable for control devices may include drilling equipment, work over and service rigs, mud pumps, generators, compressors, graders, bulldozers, and dump trucks.

Health and Safety

- Operators will develop a hazardous materials management plan addressing storage, use, transportation, and disposal of each hazardous material anticipated to be used at the site. The plan will identify all hazardous materials that would be used, stored, or transported at the site. It will establish inspection procedures, storage requirements, storage quantity limits, inventory control, nonhazardous product substitutes, and disposition of excess materials. The plan will also identify requirements for notices to Federal and local emergency response authorities and include emergency response plans.
- Operators will develop a waste management plan identifying the waste streams that are expected to be generated at the site and addressing hazardous waste determination procedures, waste storage locations, waste-specific management and disposal requirements, inspection procedures, and waste minimization procedures. This plan will address all solid and liquid wastes that may be generated at the site.
- Operators will develop a spill prevention and response plan identifying where hazardous materials and wastes are stored on site, spill prevention measures to be implemented, training requirements, appropriate spill response actions for each material or waste, the locations of spill response kits on

site, a procedure for ensuring that the spill response kits are adequately stocked at all times, and procedures for making timely notifications to authorities.

- A safety assessment will be conducted to describe potential safety issues and the means that would be taken to mitigate them, including issues such as site access, construction, safe work practices, security, heavy equipment transportation, traffic management, emergency procedures, and fire control.
- A health and safety program will be developed to protect both workers and the general public during construction and operation of geothermal projects.
- The safety program will identify all applicable Federal and State occupational safety standards; establish safe work practices for each task (e.g., requirements for personal protective equipment and safety harnesses; Occupational Safety and Health Administration standard practices for safe use of explosives and blasting agents; and measures for reducing occupational electric and magnetic fields exposures); establish fire safety evacuation procedures; and define safety performance standards (e.g., electrical system standards and lightning protection standards). The program will include a training program to identify hazard training requirements for workers for each task and establish procedures for providing required training to all workers. Documentation of training and a mechanism for reporting serious accidents to appropriate agencies will be established.
- The health and safety program will establish a safety zone or setback for generators from residences and occupied buildings, roads, ROWs, and other public access areas that is sufficient to prevent accidents resulting from the operation of generators. It will identify requirements for temporary fencing around staging areas, storage yards, and excavations during construction or rehabilitation activities. It will also identify measures to be taken during the operation phase to limit public access to hazardous facilities (e.g., permanent fencing would be installed only around electrical substations, and facility access doors would be locked).
- Operators will consult with local planning authorities regarding increased traffic during the construction phase, including an assessment of the number of vehicles per day, their size, and type. Specific issues of concern (e.g., location of school bus routes and stops) will be identified and addressed in the traffic management plan.
- Operators will develop a fire management strategy to implement measures to minimize the potential for a human-caused fire.

Livestock Grazing

- The operator will coordinate with livestock operators to minimize impacts to livestock operations.

Noxious Weeds and Pesticides

- Operators will develop a plan for control of noxious weeds and invasive plant species, which could occur as a result of new surface disturbance activities at the site. The most recent recommendations at the State and local level should be incorporated into any operating plan for the geothermal exploration and development. The plan will address monitoring, education of personnel on weed identification, the manner in which weeds spread, and methods for treating infestations. The use of certified weed-free mulching will be required. If trucks and construction equipment are arriving from locations with known invasive vegetation problems, a controlled inspection and cleaning area will be established to visually noxious weed and inspect construction equipment arriving at the project area and to remove and collect seeds that may be adhering to tires and other equipment surfaces.
- If pesticides are used on the site, an integrated pest management plan will be developed to ensure that applications would be conducted within the framework of all Federal, State, and local laws and regulations and entail only the use of Environmental Protection Agency-registered pesticides.

Vegetation and Fish and Wildlife

- The operator will prepare a habitat restoration plan to avoid (if possible), minimize, or mitigate negative impacts on wildlife while maintaining or enhancing habitat values for other species. The plan will identify revegetation, soil stabilization, and erosion reduction measures that will be implemented to ensure that all temporary use areas are restored. The plan will require that restoration occur as soon as possible after completion of activities to reduce the amount of habitat converted at any one time and to speed up the recovery to natural habitats.

Construction

Traffic Management

- Traffic will be restricted to the roads developed for the project. Use of other unimproved roads will be restricted to emergency situations.
- Signs will be placed along roads to identify speed limits, travel restrictions, and other standard traffic control information. Signs directing vehicles to alternate park access and parking will be posted in the event construction temporarily obstructs recreational parking areas near trailheads. Whenever active work is being performed, the area will be posted with “construction ahead” signs on any adjacent access roads or trails that might be affected.
- Project personnel and contractors will be instructed and required to adhere to speed limits commensurate with road types, traffic volumes, vehicle types, and site-specific conditions, to ensure safe and efficient traffic flow and to reduce wildlife collisions and disturbance and fugitive dust.
- When practical, construction activities will be avoided during high recreational use periods.

Roads and Pads

- The operator will obtain agency authorization prior to using soil or rock material from agency lands. Road use will be restricted during the wet season if road surfacing is not adequate to prevent soil displacement, rutting, etc., and resultant stream sedimentation.
- Access roads and on-site roads will be surfaced with aggregate materials where necessary to provide a stable road surface, support anticipated traffic, reduce fugitive dust, and prevent erosion.
- Dust abatement techniques will be used before and during surface clearing, excavation, or blasting activities. Dust abatement techniques will be used on unpaved, unvegetated surfaces to minimize fugitive dust. Speed limits (e.g., 25 mph) will be posted and enforced to reduce fugitive dust. Construction materials and stockpiled soils will be covered if they are a source of fugitive dust.
- Culvert outlets will be rip-rapped to dissipate water energy at the outlet and reduce erosion. Catch basins, roadway ditches, and culverts will be cleaned and maintained regularly.

Pipelines

- Pipelines constructed above ground due to thermal gradient induced expansion and contraction will rest on cradles above ground level, allowing small animals to pass underneath. Projects should be analyzed to ensure adequate passage for all wildlife species. The pipeline will be raised higher to allow wildlife passage where needed. Because pipeline corridors through certain habitat types can alter local predator-prey dynamics by providing predators with lines of sight and travel corridors, large projects should be analyzed to ensure there will be no significant changes to predator-prey balance.

Utilities

- Underground utilities will be installed to minimize the amount of open trenches at any given time, keeping trenching and backfilling crews close together. Avoid leaving trenches open overnight. Where trenches cannot be back-filled immediately, escape ramps should be constructed at least every 100 feet.

Specific Resources

Cultural and Paleontological Resources

- Unexpected discovery of cultural or paleontological resources during construction will be brought to the attention of the BLM authorized officer immediately. Work will be halted in the vicinity of the find to avoid further disturbance to the resources while they are being evaluated and appropriate mitigation measures are being developed.

Noise

- The operator will take measurements to assess the existing background noise levels at a given site and compare them with the anticipated noise levels associated with the proposed project.
- Within two miles of existing, occupied residences, geothermal well drilling or major facility construction operations will be restricted to non-sleeping hours (7:00 am to 10:00 pm).

- All equipment will have sound-control devices no less effective than those provided on the original equipment. All construction equipment used will be adequately muffled and maintained.
- All stationary construction equipment (i.e., compressors and generators) will be located as far as practicable from nearby residences.
- If blasting or other noisy activities are required during the construction period, nearby residents will be notified by the operator at least one hour in advance.
- Explosives will be used only within specified times and at specified distances from sensitive wildlife or streams and lakes, as established by the Federal and State agencies.

Noxious Weeds and Pesticides

- The use of certified, weed-free mulch will be required when stabilizing areas of disturbed soil.
- If trucks and construction equipment are arriving from locations with known noxious weeds or invasive vegetation problems, a controlled inspection and cleaning area will be established to visually inspect construction equipment arriving at the project area and to remove and collect seeds that may be adhering to tires and other equipment surfaces.
- Fill materials and road surfacing materials that originate from areas with known noxious weeds and invasive vegetation problems will not be used.
- Revegetation, habitat restoration, and weed control activities will be initiated as soon as possible after construction activities are completed.
- Use of pesticides must be approved by the agency. Pesticide use will be limited to agency-approved pesticides and will only be applied in accordance with label and application permit directions and stipulations for terrestrial and aquatic applications.

Waste Management

- All refueling will occur in a designated fueling area that includes a temporary berm to limit the spread of any spill.
- Drip pans will be used during refueling to contain accidental releases.
- Drip pans will be used under fuel pump and valve mechanisms of any bulk fueling vehicles parked at the construction site.
- Any containers used to collect liquids will be enclosed or screened to prevent access to contaminants by wildlife, livestock, and migratory birds.
- Spills will be immediately addressed per the spill management plan, and soil cleanup and removal initiated as soon as feasible.

Wild Horses and Burros

- The operator will ensure employees, contractors, and site visitors avoid harassment and disturbance of wild horses and burros, especially during reproductive (e.g., breeding and birthing) seasons. In addition, any pets will be controlled to avoid harassment and disturbance of wild horses and burros.
- Observations of potential problems regarding wild horses or burros, including animal mortality, will be immediately reported to the agency.

Wildlife

- The operator will ensure that employees, contractors, and site visitors avoid harassment and disturbance of wildlife, especially during reproductive (e.g., courtship and nesting) seasons. In addition, pets will be controlled or excluded to avoid harassment and disturbance of wildlife.
- Ponds, tanks, and impoundments (including but not limited to drill pits) containing liquids can present hazards to wildlife. Any liquids contaminated by substances which may be harmful due to toxicity or fouling of the fur or feathers (detergents, oils), should be excluded from wildlife access by fencing, netting, or covering at all times when not in active use. Liquids at excessive temperature should likewise be excluded. If exclusion is not feasible, such as a large pond, a hazing program based on radar or visual detection, in conjunction with formal monitoring, should be implemented. Clean water impoundments can also present a trapping hazard if they are steep-sided or lined with smooth material. All pits, ponds, and tanks should have escape ramps functional at any reasonably anticipated water level, down to almost empty. Escape ramps can take various forms depending on the configuration of the impoundment. Earthen pits may be constructed with one side sloped 3:1 or

greater; lined ponds can use textured material; straight-sided tanks can be fitted with expanded metal escape ladders.

Operations/Utilization

- "Good housekeeping" procedures will be developed by the operator to ensure that during all phases of operation, the site will be kept clean of noxious weeds, debris, litter, garbage, fugitive trash or waste, and graffiti. Scrap heaps and dumps are prohibited. Storage yards are to be minimized to that which is absolutely necessary.

Reclamation

The following objectives, performance standards, and recommended reclamation BMPs and mitigation measures are based on the standards and guidelines found in the BLM Gold Book, 4th Edition, updated in 2007.

Reclamation Objectives

- The objective of interim reclamation is to restore vegetative cover and a portion of the landform sufficient to maintain healthy, biologically active topsoil; control erosion; and minimize habitat, visual, and forage loss during the life of the well or facilities.
- The long-term objective of final reclamation is to return the land to a condition approximating that which existed prior to disturbance. This includes restoration of the landform and natural vegetative community, hydrologic systems, visual resources, and wildlife habitats. To ensure that the long-term objective will be reached through human and natural processes, actions will be taken to ensure standards are met for site stability, visual quality, hydrological functioning, and vegetative productivity.

Reclamation Performance Standards

The following reclamation performance standards will be met:

Interim Reclamation:

- Includes disturbed areas that may be redisturbed during operations and will be redisturbed at final reclamation to achieve restoration of the original landform and a natural vegetative community.
- Disturbed areas not needed for active, long-term production operations or vehicle travel have been recontoured, protected from erosion, and revegetated with a self-sustaining, vigorous, diverse, native (or as otherwise approved) plant community sufficient to minimize visual impacts, provide forage, stabilize soils, and impede the invasion of noxious, invasive, and non-native weeds.

Final Reclamation:

[ ] Indicates site-specific values to be filled in by the authorized officer

- Includes disturbed areas where the original landform and a natural vegetative community have been restored.
- The original landform has been restored for all disturbed areas including well pads, production facilities, roads, pipelines, and utility corridors.
- **General:** A self-sustaining, vigorous, diverse, native (or otherwise approved) plant community is established on the site, with a density sufficient to control erosion and invasion by noxious weeds and invasive plants and to reestablish wildlife habitat or forage production. At a minimum, the established plant community will consist of species included in the seed mix and/or desirable species occurring in the surrounding natural vegetation.
- **Specific:** No single species will account for more than 30% total vegetative composition unless it is evident at higher levels in the adjacent landscape. Permanent vegetative cover will be determined successful when the basal cover of desirable perennial species is at least [80]% of the basal cover on adjacent or nearby undisturbed areas where vegetation is in a healthy condition; or [80]% of the potential basal cover as defined in the National Resource Conservation Service Ecological Site(s) for the area. Plants must be resilient as evidenced by well-developed root systems and flowers. [Shrubs will be well established and in a "young" age class at a minimum (therefore, not comprised mainly of seedlings that may not survive until the following year).]

- In agricultural areas, irrigation systems and soil conditions are reestablished in such a way as to ensure successful cultivation and harvesting of crops.
- Erosion features are equal to or less than surrounding area and erosion control is sufficient so that water naturally infiltrates into the soil and gullying, headcutting, slumping, and deep or excessive rills (greater than three inches) are not observed.
- The site is free of State- or county-listed noxious weeds, oil field debris and equipment, and contaminated soil. Noxious weeds and invasive plants are controlled.

Reclamation Actions

- During initial well pad, production facility, road, pipeline, and utility corridor construction and prior to completion of the final well on the well pad, pre-interim reclamation stormwater management actions will be taken to ensure disturbed areas are quickly stabilized to control surface water flow and to protect both the disturbed and adjacent areas from erosion and siltation. This may involve construction and maintenance of temporary silt ponds, silt fences, berms, ditches, and mulching.
- When the last well on the pad has been completed, some portions of the well location will undergo interim reclamation and some portions of the well pad will usually undergo final reclamation. Most well locations will have limited areas of bare ground, such as a small area around production facilities or the surface of a rocked road. Other areas will have interim reclamation where workover rigs and fracturing tanks may need a level area to set up in the future. Some areas will undergo final reclamation where portions of the well pad will no longer be needed for production operations and can be recontoured to restore the original landform.
- The following minimum reclamation actions will be taken to ensure that the reclamation objectives and standards are met. It may be necessary to take additional reclamation actions beyond the minimum in order to achieve the Reclamation Standards.

Reclamation - General

Procedure:

- The agency will be notified 24 hours prior to commencement of any reclamation operations.

Housekeeping:

- Immediately upon well completion, the well location and surrounding areas(s) will be cleared of, and maintained free of, all debris, materials, trash, and equipment not required for production.
- No hazardous substances, trash, or litter will be buried or placed in pits. Upon well completion, any hydrocarbons in the pit will be remediated or removed.

Vegetation Clearing:

- Vegetation removal and the degree of surface disturbance will be minimized wherever possible.
  - Example of site-specific requirement: During vegetation clearing activities, trees and woody vegetation removed from the well pad and access road will be moved aside prior to any soil disturbing activities. Care will be taken to avoid mixing soil with the trees and woody vegetation. Trees left for wood gathering will be cut 12 inches or less from the ground, delimbed, and the trunks, 6 inches or more in diameter will be removed and placed either by the uphill side of the access road, or moved to the end of the road, or to a road junction for easy access for wood gatherers and to reduce vehicle traffic on the well pad. Trees with a trunk diameter less than six inches and woody vegetation will be used to trap sediment, slow runoff, or scattered on reclaimed areas to stabilize slopes, control erosion, and improve visual resources.

Topsoil Management:

- Operations will disturb the minimum amount of surface area necessary to conduct safe and efficient operations. When possible, equipment will be stored and operated on top of vegetated ground to minimize surface disturbance.
- In areas to be heavily disturbed, the top eight inches of soil material, will be stripped and stockpiled around the perimeter of the well location to control run-on and run-off, and to make redistribution of topsoil more efficient during interim reclamation. Stockpiled topsoil may include vegetative material. Topsoil will be clearly segregated and stored separately from subsoils.

- Earthwork for interim and final reclamation will be completed within 6 months of well completion or plugging unless a delay is approved in writing by the BLM authorized officer.
- Salvaging and spreading topsoil will not be performed when the ground or topsoil is frozen or too wet to adequately support construction equipment. If such equipment creates ruts in excess of four inches deep, the soil will be deemed too wet.
- No major depressions will be left that would trap water and cause ponding.

Seeding:

Seedbed Preparation

- Initial seedbed preparation will consist of recontouring to the appropriate interim or final reclamation standard. All compacted areas to be seeded will be ripped to a minimum depth of 18 inches with a minimum furrow spacing of two feet, followed by recontouring the surface and then evenly spreading the stockpiled topsoil. Prior to seeding, the seedbed will be scarified and left with a rough surface.
- If broadcast seeding is to be used and is delayed, final seedbed preparation will consist of contour cultivating to a depth of four to six inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to loosen up the soil and create seed germination micro-sites.

Seed Application

- Seeding will be conducted no more than 24 hours following completion of final seedbed preparation. A certified weed free seed mix designed by BLM to meet reclamation standards will be used.
- No seeding will occur from [May 15 to September 15]. Fall seeding is preferred and will be conducted after [September 15] and prior to ground freezing. [Shrub species will be seeded separately and will be seeded during the winter.] Spring seeding will be conducted after the frost leaves the ground and no later than [May 15].

Erosion Control and Mulching:

- Mulch, silt fencing, waddles, hay bales, and other erosion control devices will be used on areas at risk of soil movement from wind and water erosion.
- Mulch will be used if necessary to control erosion, create vegetation micro-sites, and retain soil moisture and may include hay, small grain straw, wood fiber, live mulch, cotton, jute, or synthetic netting. Mulch will be free from mold, fungi, and certified free of noxious or invasive weed seeds.
- If straw mulch is used, it will contain fibers long enough to facilitate crimping and provide the greatest cover.

Pit Closure:

- Reserve pits will be closed and backfilled within 60days of release of the rig. All reserve pits remaining open after 60 days will require written authorization of the authorized officer. Immediately upon well completion, any hydrocarbons or trash in the pit will be removed. Pits will be allowed to dry, be pumped dry, or solidified in-situ prior to backfilling.
- Following completion activities, pit liners will be completely removed or removed down to the solids level and disposed of at an approved landfill, or treated to prevent their reemergence to the surface and interference with long-term successful revegetation. If it was necessary to line the pit with a synthetic liner, the pit will not be trenched (cut) or filled (squeezed) while containing fluids. When dry, the pit will be backfilled with a minimum of five feet of soil material. In relatively flat areas the pit area will be slightly mounded above the surrounding grade to allow for settling and to promote surface drainage away from the backfilled pit.

Management of Noxious Weeds and Invasive Plants:

- All reclamation equipment will be cleaned prior to use to reduce the potential for introduction of noxious weeds or other undesirable non-native species.
- An intensive weed monitoring and control program will be implemented prior to site preparation for planting and will continue until interim or final reclamation is approved by the authorized officer.
- Monitoring will be conducted at least annually during the growing season to determine the presence of any noxious weeds and invasive plant species. Noxious weeds and invasive plant species that have been identified during monitoring will be promptly treated and controlled. A Pesticide Use Proposal will be submitted to the BLM for approval prior to the use of herbicides.

Interim Reclamation Procedures

Recontouring:

- Interim reclamation actions will be completed no later than six months from when the final well on the location has been completed, weather permitting. The portions of the cleared well site not needed for active operational and safety purposes will be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible. Sufficient semi-level area will remain for setup of a workover rig and to park equipment. In some cases, rig anchors may need to be pulled and reset after recontouring to allow for maximum interim reclamation.
- If the well is a producer, the interim cut and fill slopes prior to reseeding will not be steeper than a 3:1 ratio, unless the adjacent native topography is steeper. Note: Constructed slopes may be much steeper during drilling, but will be recontoured to the above ratios during interim reclamation.
- Roads and well production equipment will be placed on location so as to permit maximum interim reclamation of disturbed areas. If equipment is found to interfere with the proper interim reclamation of disturbed areas, the equipment will be moved so proper recontouring and revegetation can occur.

Application of Topsoil and Revegetation:

- Topsoil will be evenly respread and aggressively revegetated over the entire disturbed area not needed for all-weather operations including road cuts and fills and to within a few feet of the production facilities, unless an all-weather, surfaced, access route or small “teardrop” turnaround is needed on the well pad.
- In order to inspect and operate the well or complete workover operations, it may be necessary to drive, park, and operate equipment on restored, interim vegetation within the previously disturbed area. Damage to soils and interim vegetation will be repaired and reclaimed following use. To prevent soil compaction, under some situations, such as the presence of moist, clay soils, the vegetation and topsoil will be removed prior to workover operations and restored and reclaimed following workover operations.

Visual Resources:

- Trees, if present, and vegetation will be left along the edges of the pads whenever feasible to provide screening.
- To help mitigate the contrast of recontoured slopes, reclamation will include measures to feather cleared lines of vegetation and to save and redistribute cleared trees, debris, and rock over recontoured cut and fill slopes.
- To reduce the view of production facilities from visibility corridors and private residences, facilities will not be placed in visually exposed locations (such as ridgelines and hilltops)
- Production facilities will be clustered and placed away from cut slopes and fill slopes to allow the maximum recontouring of the cut and fill slopes.
- All long-term, above-ground structures will be painted [Covert Green] (from the Standard Environmental Colors chart) to blend with the natural color of the late summer landscape background.

Final Reclamation Procedures

- Final reclamation actions will be completed within six months of well plugging, weather permitting.
- All disturbed areas, including roads, pipelines, pads, production facilities, and interim reclaimed areas will be recontoured to the contour existing prior to initial construction or a contour that blends indistinguishably with the surrounding landscape. Resalvaged topsoil will be respread evenly over the entire disturbed site to ensure successful revegetation. To help mitigate the contrast of recontoured slopes, reclamation will include measures to feather cleared lines of vegetation and to save and redistribute cleared trees, woody debris, and large rocks over recontoured cut and fill slopes.
- Water breaks and terracing will only be installed when absolutely necessary to prevent erosion of fill material. Water breaks and terracing are not permanent features and will be removed and reseeded when the rest of the site is successfully revegetated and stabilized.
- If necessary to ensure timely revegetation, the pad will be fenced to BLM standards to exclude livestock grazing for the first two growing seasons or until seeded species become firmly established, whichever comes later. End panels and ‘H’ braces for fencing will meet standards found on page 18

of the BLM Gold Book, 4th Edition. Metal "T" posts should be approximately 16.5 feet apart. Wire spacing for three strand fence would be bottom wire smooth 16 inches above ground, second strand 26 inches above ground, top strand 38 inches above ground. Wire spacing for strand strand fence (bottom wire smooth 16 inches above ground, second strand 22 inches above ground, third strand 28 inches above ground, and top strand not to exceed 40 inches above ground) to allow big game movements. In sage-grouse habitat the top strand will be marked with permanent markers to reduce sage-grouse collisions with the fence. Operational electric fence may be used in lieu of barbed wire fences. The top strand of electric fence would not exceed 42 inches. The the electric fence has multiple wires bottom strand should be 20 inches or more above ground. If exclusion of big game is needed an eight foot tall fence could be constructed.

- Final abandonment of pipelines and flowlines will involve flushing and properly disposing of any fluids in the lines. All surface lines and any lines that are buried close to the surface that may become exposed in the foreseeable future due to water or wind erosion, soil movement, or anticipated subsequent use, must be removed. Deeply buried lines may remain in place unless otherwise directed by the authorized officer.

Reclamation Monitoring and Final Abandonment Approval

- Reclaimed areas will be monitored annually. Actions will be taken to ensure that reclamation standards are met as quickly as reasonably practical.
- Reclamation monitoring will be documented in an annual reclamation report submitted to the authorized officer by [March 1]. The report will document compliance with all aspects of the reclamation objectives and standards, identify whether the reclamation objectives and standards are likely to be achieved in the near future without additional actions, and identify actions that have been or will be taken to meet the objectives and standards. The report will also include acreage figures for: Initial Disturbed Acres; Successful Interim Reclaimed Acres; Successful Final Reclaimed Acres. Annual reports will not be submitted for sites approved by the authorized officer in writing as having met interim or final reclamation standards. Monitoring and reporting continues annually until interim or final reclamation is approved. Any time 30% or more of a reclaimed area is redisturbed, monitoring will be reinitiated.
- The authorized officer will be informed when reclamation has been completed, appears to be successful, and the site is ready for final inspection.

Salable Minerals

Ongoing Authorizations/Activities (i.e., an authorization has been issued)

- Minimize the spread of noxious weed and invasive plant species caused by moving infested gravel and fill material (e.g., close the pit, treat infested areas).

Proposed Authorizations/Activities

- Locate new salable mineral developments in annual or non-native grass communities rather than in native plant communities where practical.
- For gravel pits in big game or sage-grouse winter or breeding habitat, schedule blasting, crushing, screening, and other operations from mid June through November.
- Issue decorative rock permits in big game or sage-grouse winter or breeding habitat so rock gathering occurs between mid June and November. Monitoring of the pit areas in big game or sage-grouse habitat should include the monitoring of unauthorized routes to other areas that have rock. Sign unauthorized routes as closed.

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APPENDIX C: JARBIDGE RMP MAILING LIST

All recipients of the Draft RMP/Environmental Impact Statement (EIS) and all parties who submitted written comments on the Draft RMP/EIS will receive the Proposed RMP/Final EIS in either a hard copy or CD-ROM, or they will be able to download it elctronically from the Idaho BLM Web site.

The following organizations, businesses, and government entities are on the Jarbidge RMP mailing list and will receive a hard copy, CD-ROM, or will be able to download it electronically from the Idaho BLM Web site. Individuals on the mailing list were not included in this appendix as they number over 26,000. The Jarbidge Field Office maintains the complete RMP mailing list in the administrative record, which is available upon request.

Organizations

- “71” Livestock Association
- Advisory Council on Historic Preservation
- American Horse Defense Fund
- American Sportfishing Association
- Animal Welfare Institute
- Archery Trade Association
- Association of Fish and Wildlife Agencies
- Backcountry Hunters and Anglers
- Bear Trust International
- BLM Twin Falls District Resource Advisory Council
- BlueRibbon Coalition
- Boise ATV Trail Riders
- Boise District Grazing Board
- Boone and Crockett Club of America
- Bowhunting Preservation Alliance
- Buhl Chamber of Commerce
- Campfire Club of America
- Center for Biological Diversity
- Committee for the High Desert
- Congressional Sportsman’s Foundation
- Conservation Force
- Dallas Safari Club
- Delta Waterfowl Foundation
- Ducks Unlimited
- Elko Area Chamber of Commerce
- Elko County Cooperative Extension Office
- Elko County Economic Diversification Authority
- Elmore County Agri-Business Coalition, Inc.
- Elmore County Cooperative Extension Office
- Foundation for North American Wild Sheep
- Friends of the Mustang
- Glenns Ferry Chamber of Commerce
- Golden Springs Homeowners
- Goodtime Association
- Grand View Chamber of Commerce
- Great Plains Restoration Council
- Hagerman Valley Chamber of Commerce
- High Desert Back Country Horsemen
- High Desert Coalition, Inc.
- Houston Safari Club

- Idaho Archaeological Society
- Idaho Association of Soil Conservation Districts
- Idaho ATV Association, Inc.
- Idaho Cattle Association
- Idaho Conservation League
- Idaho Environmental Council
- Idaho Fish and Wildlife Foundation
- Idaho Migrant Council
- Idaho Museum of Natural History
- Idaho Native Plant Society
- Idaho Native Plant Society, Loasa Chapter
- Idaho Outfitters and Guides Association
- Idaho Professional Archaeological Council, Inc.
- Idaho Rivers United
- Idaho State 4X4 Association
- Idaho State Snowmobile Association
- Idaho Wild Sheep Foundation
- Idaho Wool Growers Association
- International Mountain Bike Association
- Izaak Walton League of America
- Jarbidge Sage-Grouse Local Working Group
- Magic Valley ATV Riders, Inc.
- Magic Valley Cattlemen's Association
- Magic Valley Gem Club
- Magic Valley Trail Machine Association
- Mountain Home ATV Club
- Mountain Home Chamber of Commerce
- Mule Deer Foundation
- Mule Deer Foundation, Idaho
- Mule Deer Foundation, Nevada
- National Assembly of Sportsmen's Caucuses
- National Association for the Advancement of Colored People
- National Association for the Advancement of Colored People, Treasure Valley Branch
- National Audubon Society, Prairie Falcon Chapter
- National Rifle Association of America
- National Shooting Sports Foundation
- National Trapper's Association
- National Trust for Historic Preservation
- National Wild Turkey Federation
- Nevada Bureau of Mines
- Nevada Cattlemen's Association
- Nevada Mining Association
- North American Bear Foundation
- North American Grouse Partnership
- Northwest Power Planning Council
- Oregon-California Trails Association
- Oregon-California Trails Association, Idaho Chapter
- Orion-The Hunters Institute
- Owyhee Cattlemen's Association
- Owyhee County Cooperative Extension Office
- Owyhee County Historical Society
- Owyhee Gem and Mineral Society, Inc.
- Pheasants Forever

- Pheasants Forever, Region 7
- Pope and Young Club
- Preservation Idaho-Idaho Historic Preservation Council
- Public Lands Foundation
- Quail Unlimited
- Quality Deer Management Association
- Recreational Boating and Fishing Foundation
- Rocky Mountain Elk Foundation
- Ruffed Grouse Society
- Safari Club International
- Sage Community Resources
- Sagebrush Sea Campaign
- Sand County Foundation
- Sierra Club, Middle Snake Group
- Snake River Canyon Krawlers
- Society for Range Management, Idaho Section
- South Central Idaho Tourism and Recreation Development Association
- Southern Idaho Off-Road Association
- Southwestern Idaho Desert Racing Association
- Sporting Arms and Ammunition Manufacturers Institute
- Sportsmen for Fish and Wildlife
- Students Promoting Environmental Action and Knowledge, Cookeville High Chapter
- Texas Wildlife Association
- The College of Idaho
- The Nature Conservancy
- The Wilderness Society
- The Wilderness Society, BLM Action Center
- Theodore Roosevelt Conservation Partnership
- Treasure Valley Trail Machine Association
- Trout Unlimited
- Twin Falls Chamber of Commerce
- Twin Falls Research and Extension Center
- University of Idaho
- University of Idaho Extension
- US Sportsmen's Alliance
- Wake Forest University
- Western Watersheds Project
- Whitetails Unlimited
- Wild West Off Roaders
- Wildlife Forever
- Wildlife Management Institute
- Wood River Land Trust

Businesses

- Ace Black Ranches
- Advocates for the West
- American Tower Corp.
- AT&T Mobility Corporation
- Barker River Expeditions
- Bell Rapids Mutual Irrigation
- Black Mesa Farms
- Blue Butte Grazing Association LLC

- Brackett Ranches
- Brackett Ranches LTD
- Buhl Herald
- C.E. Brackett Cattle Company
- Camas Creek Cattle Association LLC
- Cedar Creek Farms
- Cedar Mesa Reservoir and Canal
- Cellular One
- Chevron Pipeline Company
- Conservation Geography
- Conservation Seeding and Restoration, Inc.
- Cooper Norman
- Devil Creek Ranch, Inc.
- Driscoll Brothers Partnership
- Ecology and Environment, Inc.
- Elmore County Farm Bureau
- Far and Away Adventures
- Farm Development Corp.
- Flying Triangle, Inc.
- Frog Hollow Ranch
- Guerry, Inc.
- Half Moon Ranches
- Hammett Livestock Company
- High Desert Ecology
- House Creek Grazing Association LLC
- ID Holding LLC, C/O AllTell Communication
- Idaho Guide Service, Inc.
- Idaho Mountain Express
- Idaho Power Company
- Intermountain Range Consultants
- J.R. Simplot Company
- Joe Black and Sons
- King Hill Irrigation District
- Kinyon & Kinyon
- KLIX 96.5 FM/KEZJ 95.7 FM
- KMVT Channel 11
- KSAW Channel 51/KTFT Channel 38
- National Public Lands News
- Nevada Power Company
- Nextel WIP Lease Corp.
- Northwest Pipeline
- Owyhee County Farm Bureau
- Pacificorp Property Management
- Progressive Rancher
- Redwillow Research, Inc.
- RES America Developments, Inc.
- Ringert Clark Chartered
- River Odysseys West
- Rockin S Ranch
- Roseworth Farms LLC
- Rural Telephone Co.
- Sage Ecosystem Science
- Salmon Falls Land and Livestock Co.

- Schroeder and Lezamiz Law Offices
- Seawest Windpower, Inc.
- Simplot Livestock Company
- Stetson & Jordan
- Stowell Ranches
- Tews Land and Livestock, Inc.
- The Idaho Statesman
- The Times-News
- Trinity Exploration, Inc.
- Twin Falls County Farm Bureau
- URS Corporation
- Verizon Business
- Verizon Wireless
- Wells Livestock, Inc.
- Wilderness River Outfitters
- Wintercamp Livestock Company
- Wood River Ranches
- Y-3 Ranch

Government Entities

- Animal and Plant Health Inspection Service, Wildlife Services, Gooding Office
- Animal and Plant Health Inspection Service, Wildlife Services, Idaho Office
- Animal and Plant Health Inspection Service, Deputy Director's Office
- Balanced Rock Soil Conservation District
- BLM Boise District Office
- BLM Bruneau Field Office
- BLM Elko District Office
- BLM Fire and Aviation, National Interagency Fire Center
- BLM Idaho State Office
- BLM Washington Office
- BLM Wells Field Office
- Bruneau Dunes State Park
- Bruneau River Soil Conservation District
- Buhl Highway District
- Bureau of Reclamation, Pacific Northwest Regional Office
- Bureau of Reclamation, Snake River Area Office-East
- Bureau of Reclamation, Snake River Area Office-West
- City of Bliss
- City of Buhl
- City of Castleford
- City of Filer
- City of Glenns Ferry
- City of Grand View
- City of Hagerman
- City of Mountain Home
- City of Twin Falls
- Elko County Board of Commissioners
- Elko County Highway Department
- Elko County Manager's Office
- Elko County Planning Commission
- Elko County Public Land Use Advisory Commission
- Elko County Weed Control

- Elmore County Board of Commissioners
- Elmore County Growth and Development Department
- Elmore County Weed Control
- Elmore Soil Conservation District
- Environmental Protection Agency, Region 10
- Federal Aviation Administration, Northwest Mountain Region
- Federal Highway Administration
- Glenns Ferry Highway District
- Hagerman Highway District
- Hagerman Translator District
- Idaho Beef Council
- Idaho Commission on Hispanic Affairs
- Idaho Conservation Data Center (Idaho Natural Heritage Program)
- Idaho Department of Commerce
- Idaho Department of Education
- Idaho Department of Environmental Quality
- Idaho Department of Fish and Game
- Idaho Department of Lands
- Idaho Department of Parks and Recreation
- Idaho Department of Transportation
- Idaho Department of Water Resources
- Idaho Fish and Game Commission
- Idaho Governor's Office of Species Conservation
- Idaho House of Representatives, Office of the District 22 Representative, House Seat A
- Idaho House of Representatives, Office of the District 22 Representative, House Seat B
- Idaho House of Representatives, Office of the District 23 Representative, House Seat A
- Idaho House of Representatives, Office of the District 23 Representative, House Seat B
- Idaho House of Representatives, Office of the District 24 Representative, House Seat A
- Idaho House of Representatives, Office of the District 24 Representative, House Seat B
- Idaho Office of Energy Resources
- Idaho Office of the Attorney General
- Idaho Office of the Governor
- Idaho Office of the Lieutenant Governor
- Idaho Outfitters and Guides Licensing Board
- Idaho Park and Recreation Board
- Idaho Rangeland Resource Commission
- Idaho Rural Partnership
- Idaho Secretary of State's Office
- Idaho Senate, Office of the District 22 Senator
- Idaho Senate, Office of the District 23 Senator
- Idaho Senate, Office of the District 24 Senator
- Idaho Sheep Commission
- Idaho Soil Conservation Commission
- Idaho Soil Conservation Districts, Division III
- Idaho Soil Conservation Districts, Division IV
- Idaho State Department of Agriculture
- Idaho State Historic Preservation Office
- Idaho State Historical Society
- Idaho State Historical Society, District 4
- Idaho State Historical Society, District 5
- Idaho Transportation Department
- Jackpot Advisory Board
- Jarbidge Advisory Board

- Malad Gorge State Park
- Mountain Home Air Force Base, 366 CES/CEVA
- National Oceanic and Atmospheric Administration, National Marine Fisheries Service
- National Park Service, Hagerman Fossil Beds National Monument
- National Park Service, Mojave National Preserve
- National Park Service, National Trails System
- Natural Resources Conservation Service, Elko Service Center
- Natural Resources Conservation Service, Marsing Service Center
- Natural Resources Conservation Service, Mountain Home Service Center
- Natural Resources Conservation Service, Twin Falls Service Center
- Natural Resources Conservation Service, Washington Office
- Nevada Department of Agriculture
- Nevada Department of Transportation
- Nevada Division of Environmental Protection
- Nevada Division of Forestry, Region 2
- Nevada Division of State Lands
- Nevada Division of Wildlife, Region 2
- Nevada Natural Heritage Program
- Nevada Office of the Governor
- Nevada Rangeland Resources Commission
- Nevada State Historic Preservation Office
- Nevada State Land Use Planning Agency
- Northeast Elko Conservation District
- Owyhee Conservation District
- Owyhee County Board of Commissioners
- Owyhee County Natural Resources Committee
- Owyhee County Planning and Zoning Commission
- Owyhee County Road and Bridge
- Owyhee County Weed Control
- Shoshone-Bannock Tribes
- Shoshone-Paiute Tribes
- Snake River Soil Conservation District
- Thousand Springs State Park
- Three Creek Good Road District
- Three Island Crossing State Park
- Twin Falls County Board of Commissioners
- Twin Falls County Planning and Zoning Commission
- Twin Falls County Weed Control
- Twin Falls Highway District
- Twin Falls Soil and Water Conservation District
- US Army Engineer, Northwestern Division
- US Coast Guard
- US Department of Agriculture, Agricultural Research Service, Northwest Irrigation and Soils Research Lab
- US Department of Agriculture, National Agriculture Library
- US Department of Energy
- US Department of Justice, US Attorney's Office for the District of Idaho
- US Department of the Interior, Office of Environmental Policy and Compliance
- US Department of the Interior, Office of the Solicitor, Pacific NW Region
- US Fish and Wildlife Service, Pacific Northwest Region, Idaho Fish and Wildlife Office
- US Fish and Wildlife Service, Pacific Southwest Region, Nevada Fish and Wildlife Office
- US Forest Service, Humboldt-Toiyabe National Forest
- US Forest Service, Ruby Mountains/Jarbidge Ranger District

- US Forest Service, Sawtooth National Forest
- US Forest Service, Washington Office
- US Geological Survey, Water Resources Division, Twin Falls Field Office
- US House of Representatives, Office of the Representative of Idaho's 1st Congressional District,
- US House of Representatives, Office of the Representative of Idaho's 2nd Congressional District
- US House of Representatives, Office of the Representative of Nevada's 2nd Congressional District
- US Senate, Offices of the Senators of the State of Idaho
- US Senate, Offices of the Senators of the State of Nevada

APPENDIX D: AQUATIC AND RIPARIAN MANAGEMENT STRATEGY

Introduction

The Aquatic and Riparian Management Strategy (ARMS) consolidates the Bureau of Land Management (BLM) Jarbidge Field Office guidance and programmatic direction for watershed and sub-watershed riparian and aquatic conservation and restoration. This strategy conforms to the direction issued on August 21, 2008 for implementation of the Aquatic and Riparian Habitat component of the Interior Columbia Basin Strategy and Aquatic Framework (USFS et al., 2008). Conservation of aquatic wildlife, plants, and habitats are considered together with the full array of broad-scale ecosystem components addressed by the strategy, which includes landscape dynamics, terrestrial source habitats, aquatic species, and riparian and hydrologic processes. The proposed Jarbidge RMP balances short-term risks to aquatic and other resources with long-term benefits through goals, objectives, and management actions designed to move these resources toward a natural variability of conditions or desired conditions. The Guidance for Developing Aquatic Conservation Strategies for BLM Resource Management Plans in the Interior Columbia Basin (BLM, 2008a) was referred to during the creation of the ARMS.

The ARMS contains the following key components:

- Establishment of Riparian Conservation Areas where aquatic and riparian-dependent resources receive management emphasis;
- Priorities for Conservation and Restoration of Special Status Species Habitat and Riparian Areas;
- Identification of population strongholds of special status fish and areas with priority for restoration of aquatic and riparian habitats;
- Aquatic and riparian management direction including goals, objectives, and management actions;
- Provisions for multi-scale analysis and how it will be used in project-level decisions; and
- Monitoring and adaptive management for determining if the plan is being implemented and is achieving desired results.

The guidance in this strategy was created to support the goals, objectives, and management actions identified in Chapter 2 for *Water Resources*, *Riparian Areas and Wetlands*, *Fish*, and *Special Status Species* (specifically the *Management for Special Status Species in Riparian Areas, Wetlands, and Streams* section). The BLM adopted the Inland Native Fish Strategy (INFISH) (USDA, 1995) in bull trout occupied watersheds in an Instruction Memorandum (IM-ID-96-010). The justification for BLM to apply the the ARMS to watersheds containing other special status aquatic species, such as redband trout, is included in the BLM Policy Manual 6840 and the BLM Land Use Planning Handbook (H-1610-1, Appendix C).

Riparian Conservation Areas[1]

Riparian Conservations Areas (RCAs) are portions of watersheds where riparian-dependent resources receive management emphasis and they are likely to affect aquatic habitat condition or function. RCAs include riparian corridors, wetlands, intermittent headwater streams, and other areas where proper ecological function is essential for maintaining water, sediment, woody debris, and nutrient delivery to streams and either contain or are tributaries to streams that contain special status species or their habitat. Functionally, RCAs 1) influence the delivery of coarse sediment, organic matter, and woody debris to streams; 2) accommodate vegetation that provides root strength for channel stability; 3) provide streamside shade; and 4) protect water quality. Management of RCAs is designed to maintain and restore riparian structure and function; benefit fish and riparian-dependent resources; enhance conservation of organisms dependent on the transition zone between upslope and instream habitats; and improve connectivity of travel and dispersal corridors for terrestrial animals, plants, and aquatic organisms.

[1] This section addresses material for Component I, Riparian Conservation Areas, in the Guidance for Developing Aquatic Conservation Strategies (BLM, 2008a).

The values considered when identifying and managing RCAs may be specific to the riparian area or stream channel. The ARMS allows for adjusting management of RCAs to reflect site-specific conditions (e.g., conditions of specific stream channels, the life stage of specific fish), while also recognizing watershed (e.g., watershed characteristics and land uses) and riparian conditions and trends. RCAs are not intended to be treated as “no management zones” since treatments may be essential to achieving or maintaining desired riparian conditions.

Riparian Conservation Area Widths

RCA widths are to be adequate to protect the stream from non-channelized sediment inputs, to deliver organic matter and woody debris, and to provide stream shade and streambank stability. In the absence of a watershed or site-specific analysis, the default RCA widths for the stream categories described below will be applied. These default widths were recommended in INFISH (USDA, 1995) and the Interior Columbia Basin Science Assessment and literature review (Quigley and Arbelbide, 1997), which concluded that these prescribed RCA widths are sufficient to provide for riparian function.

Category 1—Fish-bearing Streams:

Category 1 RCAs contain the stream and the area from the edges of the active channel, on either edge of the stream, to the top of the inner gorge, the outer edges of the 100-year floodplain, the outer edges of the riparian vegetation, or 300 feet slope distance (600 feet, including both sides of the stream channel), whichever is widest.

Category 2—Permanently Flowing Non Fish-bearing Streams:

Category 2 RCAs contain the stream and the area from the edges of the active channel, on either edge of the stream, to the top of the inner gorge, the outer edges of the 100-year floodplain, the outer edges of the riparian vegetation, or 150 feet slope distance (300 feet, including both sides of the stream channel), whichever is widest.

Category 3—Ponds, Lakes, Reservoirs, and Wetlands Greater than One Acre:

Category 3 RCAs contain the body of water or wetland and the area from the edges of the body of water or wetland to the outer edges of the riparian vegetation, the extent of the seasonally saturated soil, or to the extent of moderately or highly unstable areas, or 150 feet slope distance from the edge of the maximum pool elevation of constructed ponds and reservoirs or from the edge of the wetland, pond, or lake, whichever is widest.

Category 4—Seasonally Flowing or Intermittent Streams and Wetlands Less than One Acre; Landslides and Landslide-prone Areas:

This category includes features with high variability in size and site-specific characteristics. Category 4 RCAs for intermittent streams contain the intermittent stream channel and the area from the edges of the channel to the top of the inner gorge, the outer edges of the riparian vegetation, or 50 feet slope distance, whichever is greatest. Category 4 RCAs for wetlands less than one acre contain the wetland and the area from the edges of the wetland to the outer edges of the riparian vegetation or 50 feet slope distance, whichever is greatest. Category 4 RCAs for landslides or landslide-prone areas contain the landslide or landslide-prone area and the area within 50 feet slope distance, whichever is widest.

Modification of Riparian Conservation Area Widths

Modification of RCA widths requires a watershed- or reach-specific analysis to provide the ecological basis for the change (see the *Watershed Analysis* section below). The RCAs may be modified in the absence of watershed analysis where stream reach or site-specific data support the change. A watershed or reach-specific determination is not a decision process; it provides information that would support RCA width modification. Modifying RCA widths will be determinedusing scientific information in combination with local knowledge and information on riparian and aquatic processes and functions, resource values, and risks. Because stream channel characteristics can vary substantially between geographic areas, RCA modification needs to consider ecological and geomorphic factors of the specific reach.

Modification of RCA widths may occur during project-level planning or implementation of management activities that could affect attainment of the riparian objectives. Changes to RCA widths, along with information that explains the change, would be documented in the project file. Pertinent site-specific, stream reach, and watershed values (e.g., specific riparian or aquatic characteristics, slope, soils, etc.) would be addressed in the rationale for modifying RCAs.

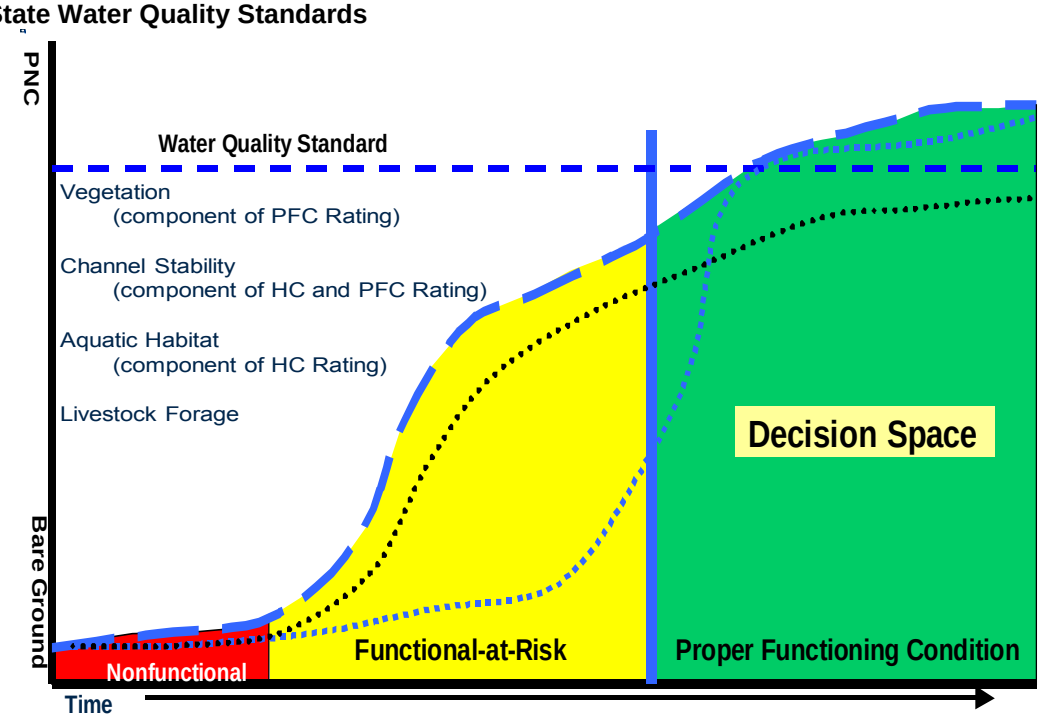
Priorities for Conservation and Restoration of Special Status Species Habitat and Riparian Areas[2]

Introduction

Relationship between Measures of Instream and Riparian Habitat Condition

Conditions within and near streams can be described from various perspectives. Assessments can focus on the condition of riparian areas, instream habitat for specific species, as well as water quality, and can be based on qualitative or quantitative data. Within the Jarbidge Field Office, data are available to describe riparian conditions in terms of proper functioning condition (PFC), special status fish habitat conditions in terms of habitat condition (HC), and water quality impaired streams as identified by Idaho Department of Environmental Quality and Nevada Division of Environmental Protection. These measures are all interrelated; some measures are even based on similar types of data. The relationships between these condition measures are displayed in Figure D-1.

Figure D-1. The Relationship between Riparian Functional Condition, Aquatic Habitat Condition, and State Water Quality Standards



As vegetation improves from non-functional to functional at risk, there is little improvement in the other resource values (e.g, vegetation, channel stability). There is an increased recovery rate of all the resource values within the FAR range as the streamchannel begins to stabilize and vegetation and aquatic habitat values improve. At PFC, the stream channel stabilizes at a point when the vegetation, water, and landform are in a relative balance. After a stream reach has reached PFC, vegetation continues toward the potential natural community, livestock forage increases, and aquatic habitat improves. Improvement in

[2] This section addresses material for Component II, Protection of Population Strongholds, and Component IV, Restoration Priorities and Guidance, in Guidance for Developing Aquatic Conservation Strategies (BLM, 2008a).

water quality to levels that would result in the delisting of water quality impaired streams and attainment of designated beneficial uses would not occur until riparian condition improved beyond the initial rating of PFC. When the riparian area is functioning properly, there is an opportunity to make decisions as to the use or uses that will be emphasized.

Indicators of Instream and Riparian Habitat Condition

Indicators of instream and riparian habitat conditions form the basis for instream HC ratings and riparian PFC ratings. HC ratings were used to identify population strongholds for special status fish and determine priorities for special status fish habitat restoration (see *Special Status Fish Habitat* section), while PFC ratings were used to assess priority for riparian restoration (see *Riparian Habitat* section).

The indicators used to develop these ratings include an integrated suite of aquatic (including a biological component), riparian (including riparian-associated terrestrial species), and hydrologic (including uplands) condition measures that are primarily intended to be used at the watershed and sub-watershed scale and include both quantitative and qualitative measures. These watersheds and sub-watersheds are typically 5th to 6th field Hydrologic Unit Codes; both will be referred to as “watersheds” in the ARMS. These indicators are intended to serve three main purposes:

- To establish priorities and objectives for conservation or restoration of stream reaches;
- To design projects and determine the appropriateness of management activities with respect to aquatic, riparian, and hydrologic goals and objectives; and
- To serve as measures of the effectiveness of management in attaining broad-scale aquatic, riparian, and hydrologic goals and objectives.

The values for an indicator to be rated as functioning appropriately are not absolute criteria and are rated in comparison to the functional, ecological, or biological conditions of specific stream reaches. The indicators should be used as a suite of integrated indicators and should not be used individually as fixed targets to manage toward or as specific thresholds from which to make project implementation decisions. The indicators should be used to design or mitigate ongoing and proposed activities in order to move watersheds toward desired resource objectives. If certain indicators highlight a concern in a watershed, proposed activities could be modified or designed to take into account the resource concerns or determine when an action is needed to achieve goals and objectives.

HC ratings, PFC ratings, and the values for the indicators on which these ratings are based can be updated based on monitoring, inventory, scientific literature, or watershed analysis by local experts (e.g., fisheries biologist, ecologist, botanist, and/or hydrologist). Updates may be necessary to more accurately depict the characteristics and range of natural variability of aquatic and riparian habitats in the planning area or to reflect changes in condition on the ground. Instream and riparian indicators and thresholds may be refined at the watershed scale to illustrate the variability of conditions among watersheds within a landscape context.

The current status of instream and riparian habitat condition indicators is based on BLM stream survey data collected between 1999 and 2007; the majority of these data were collected between 2002 and 2006. BLM-managed lands in the planning area are continuous across watershed and sub-watershed boundaries except in a few areas of private and State inholdings and military withdrawals. This land ownership pattern allows for inventory and monitoring efforts to be conducted across broad areas where public land comprises the majority of the land base. Additional details on the methods used to collect and analyze the baseline data can be found in the Analysis of the Management Situation of the BLM Twin Falls District, Jarbidge Field Office (BLM, 2007a). How these indicators were used to develop priorities for special status fish habitat restoration and riparian restoration are described below.

Special Status Fish Habitat

Identifying Conservation and Restoration Reaches provides a means for prioritizing management and for establishing goals, objectives, and management actions for stream reaches containing special status fish habitat. It also provides a process that considers opportunities for conservation and restoration, with consideration for the availability of staff and budgetary resources. Some stream reaches will not be

restored to physical or biological potential within the life of the plan because of effects of past land management actions or activities outside the authority of the BLM. These stream reaches would have reduced priority for restoration treatment.

Conservation Reaches

Conservation Reaches are managed to maintain the condition of habitats in these reaches. Conservation Reaches are often associated with aquatic species strongholds and contain populations or subpopulations of high genetic integrity, connectivity, or potential for expansion into nearby stream reaches. Conservation Reaches are located in watersheds that often have watershed processes or functions that are relatively undisturbed and natural in setting. Hydrologic function, such as sediment routing and flow regimes, are within the natural range of frequency, duration, and intensity. Water quality generally meets the designated beneficial uses. Land uses and human activities minimally influence aquatic and hydrologic function, as indicated by low road density and few stream crossings. Examples of areas containing Conservation Reaches include wilderness, roadless areas, and undeveloped sub-watersheds; however, Conservation Reaches or portions thereof may be subject to management that allows land uses while maintaining natural processes. The goal is to maintain the existing condition of the habitats within these reaches.

In Conservation Reaches, management allows natural disturbance because vegetation composition and structure that trend outside the historic range of variability due to fire suppression may pose a risk to ecological processes. Management in Conservation Reaches may rely on active management to conserve physical and biological processes and patterns. For example, active management to conserve hydrologic and biological processes maintains roads and trails in a condition that minimizes erosion and sedimentation to nearby streams and water bodies. Passive management can also be effective for meeting habitat objectives. As a general rule, minimal investment in these watersheds over time is necessary to maintain function and critical elements on instream and upland habitat in these watersheds.

The criteria for identifying Conservation Reaches, which have important value for protecting populations of special status fish, are described in the *Habitat Dependency Network (Decision Support Model) and Habitat Condition Ratings* section below. There are currently several stream reaches in the planning area meeting the criteria for designation as Conservation Reaches for special status species. The intent of this designation and management for these watersheds is to provide high-quality habitat for species and support the expansion and recolonization of species into adjacent watersheds. These areas should conserve key processes likely to influence the persistence of metapopulations (core populations) and interconnected sub-populations of special status fish.

Restoration Reaches

Restoration Reaches are identified where biological and physical processes and functions do not reflect natural conditions because of past and on-going land disturbances. Common effects of disturbances to Restoration Reaches may include long-term (e.g., decades) increases of sediment input to streams, loss of large woody debris recruitment potential, altered hydrologic (e.g., streamflow) patterns, and elevated water temperatures. Cumulative impacts and natural disturbances such as large fires, landslides, and floods exacerbate altered watershed and biological conditions. The goal for these stream reaches is to restore habitat condition to an identified desired condition.

Active management may be necessary to restore the physical and biological function of systems to their natural range of variability. Identifying and assessing the impacts of management on habitat focuses restoration efforts to achieve goals and objectives for hydrologic and biological recovery. Within some Restoration Reaches, opportunities for active restoration management may be limited. In those cases, management that reduces or avoids adverse effects and does not delay the achievement of desired resource objectives in the long term also supports the restoration goal. In some instances, BLM managers will exercise individual discretion to balance short-term risks to aquatic and other resources with long-term benefits for multiple resources in order to move these reaches toward the natural range of variability.

The criteria used to identify Restoration Reaches and priorities for restoration of those reaches are described in the *Habitat Dependency Network (Decision Support Model) and Habitat Condition Ratings* section below. Priority ranking (high, moderate, and low) for each Restoration Reach was based on habitat condition indicators, Endangered Species Act status, restoration feasibility, the extent of habitat, and relative fish abundance. Characteristics of Restoration Reaches within the three priority types are described below.

High Priority

High Priority Restoration Reaches have potential for highly productive or unique fish communities with restoration efforts. Loss of connected populations or competition or hybridization with non-native species has caused the loss of diversity of some unique populations of special status fish. The assumption is that the aquatic community is largely intact but is not resilient to landscape disturbance events, nor does it provide a source of individuals to nearby recovering populations.

Water quality may not support all designated beneficial uses or municipal water supplies.

Moderate Priority

Moderate Priority Restoration Reaches have potential for moderately productive fish habitat with restoration efforts. Long-term loss of connected populations or competition or hybridization with non-native species has caused the loss of diversity of some unique special status fish populations. The assumption is that the aquatic community is largely intact but is not resilient to landscape disturbance events, nor does it provide a source of individuals to nearby recovering populations.

Water quality may not support all designated beneficial uses or municipal water supplies.

Low Priority

Low Priority Restoration Reaches have a minor amount of fish habitat. Long-term loss of connected populations or competition or hybridization with non-native species has caused the loss of diversity of special status fish populations. The assumption is that the aquatic community is not intact, is not resilient to natural events, and does not provide a source of individuals to nearby recovering populations. Low priority restoration reaches also include reaches that are rated as PFC.These reaches are in a condition where the stream channel is functioning properly and therefore are a low priority for restoration.

Water quality may not support all designated beneficial uses, and municipal water is not considered as a future use.

Habitat Dependency Network (Decision Support Model) and Habitat Condition Ratings

Habitat dependency networks are used in decision support models to prioritize stream reaches containing special status species habitat based on instream and riparian habitat indicators, which reflect overall watershed condition. NetWeaver[3] was used as the decision support model for identifying Conservation and Restoration Reaches in the planning area. Thresholds for habitat functionality for each riparian and stream indicator were developed based on scientific literature, information gathered in the 2006 Jarbidge fish survey, and other habitat data for bull trout. The indicators and thresholds for bull trout and redband trout used in the NetWeaver analysis are provided in Table D-1 and Table D-2; these tables are based on the Matrix of Diagnostics/Pathways and Indicators of watershed and aquatic conditions developed by the National Marine Fisheries Service and adapted by the US Fish and Wildlife Service for use in watersheds containing bull trout (FWS, 1998). Indicator thresholds were validated using habitat and fish abundance data for stream reaches within the planning area.

[3] NetWeaver was developed by The Heron Group LLC.

Table D-1. Bull Trout Habitat Condition Indicators and Thresholds

Indicator Category	Indicator	Thresholds		
		Functioning Appropriately	Functioning at Risk	Functioning at Unacceptable Risk
Indicators for Species Characteristics				
Subpopulation Characteristics within Subpopulation Watersheds	Subpopulation Size	Mean total subpopulation size or local habitat capacity more than several thousand individuals. All life stages evenly represented in the subpopulation.[A]	< 500 but > 50 adults in subpopulation[A]	< 50 adults in subpopulation[A]
	Growth and Survival	Subpopulation has the resilience to recover from short-term disturbances (e.g., catastrophic events) or subpopulation declines within one to two generations (5 to 10 years).[A] The subpopulation is characterized as increasing or stable. At least 10 years of data support this estimate.[B]	When disturbed, the subpopulation will not recover to pre-disturbance conditions within one generation (5 years). Survival or growth rates have been reduced from those in the best habitats. The subpopulation is reduced in size, but the reduction does not represent a long-term trend.[A] At least 10 years of data support this characterization.[B] If less data are available and a trend cannot be confirmed, a subpopulation will be considered "at risk" until enough data are available to accurately determine trend.	The subpopulation is characterized as in rapid decline or is maintaining at alarmingly low numbers. Under current management, the subpopulation condition will not improve within two generations (5 to 10 years).[A] This is supported by a minimum of 5 years of data.
	Life History Diversity and Isolation	The migratory form is present, and the subpopulation exists in close proximity to other spawning and rearing groups. Migratory corridors and rearing habitat (lakes or large rivers) are in good to excellent condition for the species. Neighboring subpopulations are large with high likelihood of producing surplus individuals or straying	The migratory form is present but the subpopulation is not close to other subpopulations or habitat disruption has produced a strong correlation among subpopulations that do exist in proximity to each other.[A]	The migratory form is absent and the subpopulation is isolated to the local stream or small watershed not likely to support more than 2,000 fish.[A]

Indicator Category	Indicator	Thresholds		
		Functioning Appropriately	**Functioning at Risk**	**Functioning at Unacceptable Risk**
Subpopulation Characteristics within Subpopulation Watersheds		adults that will mix with other subpopulations.[A]		
	Persistence and Genetic Integrity	Connectivity is high among multiple (5 or more) subpopulations with at least several thousand fish each. Each of the relevant subpopulations has low risk of extinction.[A] The probability of hybridization or displacement by competitive species is low to nonexistent.	Connectivity among multiple subpopulations does occur, but habitats are more fragmented. Only one or two of the subpopulations represent most of the fish production.[A] The probability of hybridization or displacement by competitive species is imminent, although few documented cases have occurred.	Little or no connectivity remains for reestablishing subpopulations in low numbers, in decline, or nearing extirpation. Only a single subpopulation or several local populations that are very small or that otherwise are at high risk remain.[A] Competitive species readily displace bull trout. The probability of hybridization is high and documented cases have occurred.
Indicators for Habitat Characteristics				
Water Quality	Temperature	Mean maximum weekly temperature in a reach during the following life history stages:[A,C]		
		Incubation		
		2 - 5ºC	< 2ºC or = 6ºC	< 1ºC or > 6ºC
		Rearing		
		4 - 12ºC	< 4ºC or 13 - 15ºC	> 15ºC
		Spawning		
		4 - 9ºC	< 4ºC or = 10ºC	< 4ºC or > 10ºC
		Also, temperatures in areas used by adults during migration do not exceed 15ºC (no thermal barriers).	Also, temperatures in areas used by adults during migration sometimes exceed 15ºC.	Also, temperatures in areas used by adults during migration regularly exceed 15ºC (thermal barriers present).
	Sediment[D]	Similar to chinook salmon[A] (e.g., < 12% fines (< 0.85 mm) in gravel[E]); < 12% surface fines[F] (≤ 6 mm[G,H])	Similar to chinook salmon[A] (e.g., 12 - 17% fines (< 0.85 mm) in gravel[E]); 12-20% surface fines[F] (≤ 6 mm[G,H])	Similar to chinook salmon[A] (e.g., > 17% fines (< 0.85 mm) in gravel[E]); > 20% fines at surface or depth in spawning habitat[F] (≤ 6 mm[G,H])
	Chemical Contamination/ Nutrients	Low levels of chemical contamination from agricultural, industrial, and other sources; no excess nutrients; and no water quality impaired reaches.[I]	Moderate levels of chemical contamination from agricultural, industrial, and other sources; some excess nutrients; and one water quality impaired reach.[I]	High levels of chemical contamination from agricultural, industrial, and other sources; high levels of excess nutrients; and more than one water quality impaired reach.[I]

Indicator Category	Indicator	Thresholds		
		Functioning Appropriately	Functioning at Risk	Functioning at Unacceptable Risk
Habitat Access	Physical Barriers[J]	Man-made structures present in watershed allow upstream and downstream fish passage at all flows.	Man-made structures present in watershed do not allow upstream and/or downstream fish passage at base/low flows.	Man-made structures present in watershed do not allow upstream and/or downstream fish passage at a range of flows.
Habitat Elements	Substrate Embeddedness[K]	Reach embeddedness < 20%.[F,L]	Reach embeddedness 20 - 30%.[F,L]	Reach embeddedness > 30%.[F,L]
	Large Woody Debris (LWD)[S]	LWD levels are commensurate with the vegetation potential of the surrounding landscape and contributing to high quality and complex habitat including deep pools and stable streambanks. Future LWD recruitement is occurring at a natural rate and not reduced by land management activities.	LWD is contributing to high quality and complex habitat commensurate with the vegetation potential of the surrounding landscape, but at rates below natural recruitement. Future LWD recruitement to the RCA is locally reduced by land management activities.	LWD contribution to habitat complexity is well below what is expected from the natural recruitement potential of the surrounding landscape. Future LWD recruitement to the RCA is reduced at a landscape scale by land management activities.
	Pool Frequency and Quality	Pool frequency in a reach closely approximated:[G] Wetted Width (ft) / # Pools/ Mile 0-5 / 39 5-10 / 60 10-15 / 48 15-20 / 39 20-30 / 23 30-35 / 18 35-40 / 10 40-65 / 9 65-100 / 4 Pools have good cover and cool water[E]; only minor reduction of pool volume by fine sediment.	Pool frequency is similar to values in "functioning appropriately," but pools have inadequate cover/temperature,[E] and/or there has been a moderate reduction of pool volume by fine sediment.	Pool frequency is considerably lower than values desired for "functioning appropriately;" also, cover/temperature is inadequate,[E] and there has been a major reduction of pool volume by fine sediment.
	Large Pools[N]	Each reach has many large pools > 1 meter deep.[E]	Each reach has few large pools > 1 meter deep.[E]	Reaches have no large pools > 1 meter deep.[E]

Indicator Category	Indicator	Thresholds		
		Functioning Appropriately	Functioning at Risk	Functioning at Unacceptable Risk
Habitat Elements	Off-Channel Habitat	Watershed has many ponds, oxbows, backwaters, and other off-channel areas with cover, and side-channels are low-energy areas.[E]	Watershed has some ponds, oxbows, backwaters, and other off-channel areas with cover, but side-channels are generally high-energy areas.[E]	Watershed has few or no ponds, oxbows, backwaters, or other off-channel areas.[E]
	Refugia	Habitats capable of supporting strong and significant populations are protected and are well distributed and connected for all life stages and forms of the species.[O,P]	Habitats capable of supporting strong and significant populations are insufficient in size, number and connectivity to maintain all life stages and forms of the species.[O,P]	Habitat refugia do not exist.[O]
Channel Condition and Dynamics	Average Wetted Width/ Maximum Depth Ratio in Scour Pools in a Reach	≤ 10[F,G]	11 - 20[G]	> 20[G]
	Streambank Condition	> 80% of any stream reach has ≥ 90% stability.[G]	50 - 80% of any stream reach has ≥ 90% stability.[G]	< 50% of any stream reach has ≥ 90% stability.[G]
	Floodplain Connectivity	Off-channel areas are frequently hydrogically linked to main channel; overbank flows occur and maintain wetland functions and riparian vegetation/ succession.	Reduced linkage of wetland, floodplains, and riparian areas to main channel; overbank flows are reduced relative to historic frequency, as evidenced by moderate degradation of wetland function and riparian vegetation/ succession.	Severe reduction in hydrologic connectivity between off-channel, wetland, floodplain, and riparian areas; wetland extent drastically reduced and riparian vegetation/succession altered significantly.
Flow/ Hydrology	Change in Peak/Base Flows	Watershed hydrograph indicates peak flow, base flow, and flow timing characteristics comparable to an undisturbed watershed of similar size, geology, and geography.	Some evidence of altered peak flow, base flow, and/or flow timing relative to an undisturbed watershed of similar size, geology, and geography.	Pronounced changes in peak flow, base flow, and/or flow timing relative to an undisturbed watershed of similar size, geology, and geography.

Indicator Category	Indicator	Thresholds		
		Functioning Appropriately	Functioning at Risk	Functioning at Unacceptable Risk
Flow/ Hydrology	Increase in Drainage Network	Zero or minimum increases in active channel length correlated with human caused disturbance.	Low to moderate increase in active channel length correlated with human caused disturbance.	Greater than moderate increase in active channel length correlated with human caused disturbance.
Watershed Condition	Road Density and Location	< 1mi/mi^{2} [P]; no valley bottom roads.	1 - 2.4 mi/mi^{2} [P]; some valley bottom roads.	> 2.4 mi/mi^{2} [P]; many valley bottom roads.
	Disturbance History	< 15% of entire watershed with no concentration of disturbance in unstable or potentially unstable areas, refugia, and/or riparian areas.[Q]	< 15% of entire watershed but disturbance concentrated in unstable or potentially unstable areas, refugia, and/or riparian areas.[Q]	> 15% of entire watershed and disturbance concentrated in unstable or potentially unstable areas, refugia, and/or riparian areas.
Watershed Condition	Riparian Conservation Areas (RCAs)	RCAs provide adequate shade, large woody debris recruitment, and habitat protection and connectivity in sub-watersheds and buffers or include known refugia for Sensitive aquatic species (> 80% intact) and adequately buffer impacts on rangelands. Percent similarity of riparian vegetation to the potential natural community(PNC)/ composition is > 50%.[R]	RCAs have moderate loss of connectivity or function (shade, LWD recruitment, etc.) or provide incomplete protection of habitats and refugia for Sensitive aquatic species (70 - 80% intact) and adequately buffer impacts on rangeland. Percent similarity of riparian vegetation to the PNC/composition is 25 - 50% or better.[R]	RCAs are fragmented or poorly connected or provide inadequate protection of habitats for Sensitive aquatic species (< 70% intact, refugia do not occur) and inadequately buffer impacts on rangelands. Percent similarity of riparian vegetation to the PNC/ composition is < 25%.[R]
	Disturbance Regime	Environmental disturbance is short lived; predictable hydrograph, high-quality habitat and watershed complexity providing refuge and rearing space for all life stages or multiple life-history forms.[A] Natural processes are stable.	Scour events, debris torrents, or catastrophic fire are localized events that occur in several minor parts of the watershed. Resiliency of habitat to recover from environmental disturbances is moderate.	Frequent flood or drought, producing highly variable and unpredictable flows, scour events, debris torrents, or high probability of catastrophic fire exists throughout a major part of the watershed. The channel is simplified, providing little hydraulic complexity in the form of pools or side channels.[A] Natural processes are unstable.

Indicator Category	Indicator	Thresholds		
		Functioning Appropriately	Functioning at Risk	Functioning at Unacceptable Risk
Summary of Species and Habitat Conditions	NA	Habitat quality and connectivity among subpopulations is high. The migratory form is present. Disturbance has not altered channel equilibrium. Fine sediments and other habitat characteristics influencing survival or growth are consistent with pristine habitat. The subpopulation has the resilience to recover from short-term disturbance within one to two generations (5 to 10 years). The subpopulation is fluctuating around equilibrium or is growing.[A]	Fine sediments, stream temperatures, or the availability of suitable habitats have been altered and will not recover to pre-disturbance conditions within one generation (5 years). Survival or growth rates have been reduced from those in the best habitats. The subpopulation is reduced in size, but the reduction does not represent a long-term trend. The subpopulation is stable or fluctuating in a downward trend. Connectivity among subpopulations occurs, but habitats are fragmented.[A]	Cumulative disruption of habitat has resulted in a clear declining trend in the subpopulation size. Under current management, habitat conditions will not improve within two generations (5 to 10 years). Little or no connectivity remains among subpopulations. The subpopulation survival and recruitment responds sharply to normal environmental events.[A]

[A] (Rieman and McIntyre, 1993).
[B] (Rieman and Meyers, 1997).
[C] (Buchanan and Gregory, 1997).
[D] Applies to areas of spawning and incubation. Rearing areas are addressed under Substrate Embeddedness indicator.
[E] (WTFWCMERC, 1993).
[F] Inland Native Fish Strategy (USDA, 1995).
[G] (Overton et al., 1995).
[H] (Overton et al., 1997).
[I] (Regional Interagency Executive Committee and Intergovernmental Advisory Committee, 1995).
[J] Subsurface flows impeding fish passage are addressed under the Flow/Hydrology indicator category.
[K] Spawning and incubation areas are addressed under the Sediment indicator.
[L] (Shepard et al., 1984).
[M] (Quigley and Arbelbide, 1997).
[N] Applies to adult holding, juvenile rearing, and overwintering reaches where streams are >3m in wetted width at base flow.
[O] (Frissell et al., 1993).
[P] (Lee et al., 1997).
[Q] (USDI and USDA, 1994).
[R] (Winward, 1989).
[S] (Forster, 2014)

Table D-2. Redband Trout Habitat Condition Indicators and Thresholds

Indicator Category	Indicator	Thresholds		
		Functioning Appropriately	**Functioning at Risk**	**Functioning at Unacceptable Risk**
Habitat Elements	Pools/Pool Frequency[A,D]	Pool frequency falls within described natural conditions[G]: All streams: Geology-Volcanic	75 - 99% of natural condition for given stream width, geology, and channel type	< 75% of natural condition for given stream width, geology, and channel type
		Average Width (ft) / Pools per mile		
		Channel Type A		
		0-15 / 33		
		15-20 / 3		
		Channel Type B		
		0-10 / 28		
		10-15 / 59		
		15-20 / 24		
		20-25 / 21		
		Channel Type C		
		0-10 / 6		
		10-15 / 19		
		15-20 / 24		
		20-25 / 22		
	Large Pools[D,E,G]	At a minimum; > 75% of pools have a maximum pool depth appropriate for the stream's natural conditions based on geomorphology and stream width: Geology- Volcanic	At a minimum, 50 - 75% of pools have a maximum pool depth appropriate for the stream's natural conditions based on geomorphology and stream width.	At a minimum, < 50% of pools have a maximum pool depth appropriate for the stream's natural conditions based on geomorphology and stream width.
		Average Width (ft) / Max Depth (ft)		
		0-10 / 1.0		
		> 10 / 1.3		
	Streambank Condition[A,H]	> 80% of of any stream reach is stable	50 - 80% of any stream reach is stable	< 50% of any stream reach is stable
Water Quality	Temperature[C,F,J]	Mean maximum weekly temperature is always < 65ºF (10 - 18°C) during summer months	Mean maximum weekly temperature within 65 - 75ºF during summer months	Mean maximum weekly temperature > 75ºF during summer months
Life History Diversity and Isolation	Connectivity/ Barriers[B,K]	Subpopulation is connected (barrier-free) to other sub-populations in the watershed throughout the year.	Subpopulation has seasonal barriers due to low water levels or drying of the stream bed.	Subpopulation is completely isolated throughout the entire year.

Indicator Category	Indicator	Thresholds		
		Functioning Appropriately	Functioning at Risk	Functioning at Unacceptable Risk
Watershed Condition	Functional Condition[I]	Adequate vegetation and land form is present to dissipate stream energy associated with high flow.	Riparian/wetland area is in functional condition but an existing soil, water, or vegetation attribute makes the area susceptible to degradation.	Riparian/wetland areas are non-functional and are not providing adequate vegetation and land form to dissipate stream energy associated with high stream flows.

[A] (Buffington et al., 2002).
[B] (Cegelski et al., 2004).
[C] (Meyer et al., 2010).
[D] (Muhlfeld et al., 2001a).
[E] (Muhfeld et al., 2001b).
[F] (Muhlfeld, 2002).
[G] (Overton et al., 1995).
[H] (USDA and USDI, 1995).
[I] (Prichard et al., 1998a).
[J] (Raleigh et al., 1984).
[K] (Zoellick et al., 2005).

For each stream reach, values for each indicator were compared to the thresholds for that indicator and given a score that ranged between +1.0 and –1.0, where +1.0 reflects conditions functioning properly for fish and –1.0 reflects conditions functioning at an unacceptable risk for fish. Scores between +0.5 and -1.0 reflect stream reaches with reduced functional condition for fish.

Where indicators described different components of the same stream characteristic (e.g., pools per mile and large pools both describe pools), the NetWeaver model calculated the mean of the scores for those indicators to yield an overall score for that stream indicator. Finally, the NetWeaver model calculated the mean of the stream indicator scores to yield an overall NetWeaver ranking for each stream reach. The stream indicator scores were weighted equally in calculating the mean as scientific literature and field data suggest the indicators used in the model are all important in determining habitat functionality for special status fish.

The results of the analysis allow the identification of stream reaches not meeting desired conditions (Restoration Reaches) and those mostly meeting desired conditions (Conservation Reaches). Although indicator data are aggregated for the overall NetWeaver ranking, the model output also shows the relative condition of each individual indicator.

HC ratings for special status fish were based on the NetWeaver analysis combined with an evaluation of restoration feasibility, the extent of the habitat, and relative fish abundance. Stream reaches were classified as either Conservation Reaches or Restoration Reaches; restoration priorities for Restoration Reaches, as well as any indicators in a degraded condition (i.e., NetWeaver score <0.0), were identified as well. The process for determining the HC rating for a stream reach is outlined below:

Step 1: Assign an initial HC rating based on NetWeaver rankings:

Conservation Reaches: +0.5 to +1.0

Restoration Reaches: -1.0 to +0.5

- High Priority Restoration Reaches: 0.0 to +0.5
- Moderate Priority Restoration Reaches: -0.5 to 0.0
- Low Priority Restoration Reaches: -1.0 to -0.5

Step 2: For Restoration Reaches, increase or decrease restoration priority according to the following guidelines:

Restoration feasibility: Increase restoration priority where BLM can address the limiting indicator (e.g., replacing a culvert, modifying livestock grazing season of use) or decrease restoration priority where BLM cannot address the limiting indicator (e.g., removing diversions).

Extent of habitat: Increase restoration priority if stream reach is longer than 0.6 miles and is primarily comprised of public lands.

Relative fish abundance: Increase restoration priority if the reach has high abundance of bull trout or redband trout.

Conservation and Restoration Reaches with Special Status Fish

As described above, HC ratings were used to describe priorities for restoration of special status fish habitat. Table D-3 displays the conservation and restoration priorities for streams occupied by special status fish; for Restoration Reaches, the indicators in a degraded condition (i.e., NetWeaver score -1.0 to +0.5) are identified. These indicators can help focus restoration efforts toward those indicators most in need of improvement with respect to habitat for special status fish. For Conservation Reaches, the indicators are in good condition (i.e., NetWeaver score +0.5 to +1.0). Maps D-1 through D-9 (in the *Maps* section below) display the locations of these reaches. HC data is available for 21% of the approximated 250 miles of streams containing special status speciesl habitat. Restoration priorites would continue to focus on reaches containing special status fish but may be adjusted as additional HC inventories are completed.

Table D-3. HC Ratings and Indicators in a Degraded Condition for Stream Reaches Containing Special Status Fish

Stream	Reach	Miles	Indicators in a Degraded Condition
Streams Containing Bull Trout, Critical Habitat for Bull Trout, and Redband Trout			
Conservation Reaches			
Jack Creek[A]	Reach 1	0.1	None identified
Jarbidge River, East Fork[A]	Reach 3	2.3	None identified
	Reach 4	1.9	None identified
Jarbidge River, West Fork[A]	Reach 1	0.7	None identified
	Reach 2	2.1	None identified
	Reach 3	5.8	None identified
Total		**12.9**	
Restoration Reaches – High Priority			
Buck Creek	Reach 1	2.5	Spawning substrate (redband trout)
Dave Creek[A]	Reach 2	0.9	Habitat complexity, spawning substrate (bull trout)
Deer Creek[A] (NV)	Reach 1	0.9	Spawning substrate (redband trout)
Jarbidge River, East Fork[A]	Reach 1	1.9	Water temperature, spawning substrate (redband trout)
Total		**6.2**	
Restoration Reaches – Moderate Priority			
Dave Creek[A]	Reach 1	1.7	Habitat complexity, spawning substrate
Total		**1.7**	
Restoration Reaches – Low Priority			
Jarbidge River[A]	Reach 1	0.5	Water temperature – juvenile rearing, spawning substrate (redband trout)
	Reach 2	1.2	Water temperature – juvenile rearing, spawning substrate (redband trout)
	Reach 3	1.2	Water temperature – juvenile rearing (redband trout)

Stream	Reach	Miles	Indicators in a Degraded Condition
Restoration Reaches – Low Priority			
Jarbidge River[A]	Reach 4	0.9	Water temperature – juvenile rearing, spawning substrate (redband trout)
Jarbidge River, East Fork[A]	Reach 2	1.3	Pools/mile, water temperature – juvenile rearing
Total		**5.1**	
Streams Containing Redband Trout but not Bull Trout or Critical Habitat for Bull Trout			
Conservation Reaches			
Cedar Creek	Reach 1	0.2	None identified
	Reach 3	1.0	None identified
	Reach 4	1.2	None identified
	Reach 5	0.8	None identified
	Reach 6	2.1	None identified
Total		**5.3**	
Restoration Reaches – High Priority			
Deer Creek (ID)	Reach 3	0.6	Streambank stability, cover
	Reach 4	1.1	Pool volume
Flat Creek	Reach 2	1.1	Water temperature – juvenile rearing (redband trout)
House Creek, Lower	Reach 1	0.4	Pool volume
Three Creek, Lower	Reach 1	0.4	Water temperature, migration barrier
Total		**3.6**	
Restoration Reaches – Moderate Priority			
Bear Creek	Reach 1	0.4	Pool quality, volume
	Reach 2	0.4	Pool quality, volume
China Creek, Upper	Reach 1	0.1	Pool volume, quality, migration barrier
Deer Creek (ID)	Reach 1	0.8	Pool quality, streambank stability, cover
	Reach 2	0.2	Pool quality, streambank stability, cover, substrate
	Reach 5	0.7	Streambank stability, cover
Deadwood Creek	Reach 1	0.5	Streambank stability, pool volume
	Reach 2	0.5	Pool volume
House Creek, Lower	Reach 2	0.4	Pool volume, streambank stability, pool quality
	Reach 3	0.4	Pool volume, quality
House Creek, Upper	Reach 1	0.1	Streambank stability, pool volume, quality
	Reach 2	0.2	Pool volume, quality
	Reach 3	0.4	Pool volume
	Reach 4	0.3	Streambank stability, substrate, pool quality
Rocky Canyon Creek	Reach 1	0.8	Pool quality, substrate
	Reach 2	0.3	Pool quality, substrate
	Reach 3	0.5	Pool volume, quality
Total		**7.0**	
Restoration Reaches – Low Priority			
Cedar Creek	Reach 2	0.3	Streambank cover, stability
	Reach 7	1.2	Pool volume
Chimney Creek	Reach 1	0.1	Pool volume, quality
China Creek, Lower	Reach 1	0.3	Streambank stability, cover, substrate
	Reach 2	1.0	Streambank cover, stability, substrate, pool quality
	Reach 3	1.0	Streambank stability, substrate, pool quality
	Reach 4	0.4	Substrate, pool quality
Deadwood Creek, East Fork	Reach 1	0.1	Pool volume, quality
Deadwood Creek, West Fork	Reach 1	0.2	Pool volume, quality
Flat Creek	Reach 1	0.5	Substrate
	Reach 3	0.6	Pool quality
House Creek, Little	Reach 1	0.3	Streambank stability, pool volume

Stream	Reach	Miles	Indicators in a Degraded Condition
Restoration Reaches – Low Priority			
Pole Creek	Reach 1	0.8	Streambank stability, cover, pool volume, quality
	Reach 2	0.9	Streambank stability, cover, substrate, pool volume
Shack Creek	Reach 1	0.2	Pool quality, volume
	Reach 2	0.6	Pool quality, substrate
Three Creek, Lower	Reach 2	0.3	Substrate, pool quality
	Reach 3	0.3	Streambank stability, cover, substrate
Three Creek, Middle	Reach 1	0.3	Streambank cover, stability
Three Creek, Upper	Reach 1	0.1	Streambank stability, cover, pool volume, quality
Timber Canyon Creek	Reach 1	0.8	Streambank stability, pool volume
	Reach 2	1.1	Streambank stability, pool volume
Total		**11.4**	
Grand Total HC Rated Streams		**53.2**	

[A] Streams containing critical habitat for Jarbidge River bull trout.

Riparian Habitat

Proper functioning condition (PFC) ratings were used to assess priority for riparian restoration. Riparian restoration priorities focus on reaches that are functioning-at-risk with no apparent trend (FAR-NA) or functioning-at-risk with a downward trend (FAR-DN). Once an area is rated as non-functioning (NF), the effort, cost, and time required for recovery is dramatically increased (Prichard et al., 1998a). Areas that are at PFC are usually not the highest priority for restoration because they are more resilient than the functional-at-risk reaches. Consequently, stream reaches rated as FAR-NA and FAR-DN were prioritized as Priority 1 for restoration, streams rated as functioning-at-risk with an upward trend (FAR-UP) and NF were prioritized as Priority 2, and streams rated as PFC were prioritized as Priority 3.

For the stream reaches with 2006 PFC and HC data, the PFC data were validated using the quantitative HC data for individual stream reaches. The PFC evaluation was used to assess riparian function at a watershed scale (general qualitative assessment), and the HC data were used to assess stream channel condition (i.e., hydrology, riparian vegetation, erosion, and deposition) at a site-specific scale (detailed quantitative assessment). The validation process used the HC data to answer PFC questions 3, 8, 9, 11, 14, and 15 (Prichard et al., 1998a) to ensure consistency between the HC and PFC determination of functional condition.

Management of stream reaches is prioritized based on instream (HC) and riparian habitat condition (PFC) ratings, which are based on instream and riparian indicators; the relationship between habitat and riparian priorities are displayed in Table D-4. Where streams have both HC and PFC ratings, the priority based on the HC rating takes precedence.

Table D-4. Crosswalk between Priority Rankings for Special Status Fish Habitat Management and Riparian Area Management

HC Rating	PFC Rating
Conservation Reach	NA
High Priority Restoration Reach	Priority 1 (FAR-NA, FAR-DN)
Moderate Priority Restoration Reach	Priority 2 (FAR-UP, NF)
Low Priority Restoration Reach	Priority 3 (PFC)

The validated PFC ratings were used to prioritize riparian reaches for restoration or conservation (maintenance). The priorities for riparian restoration are summarized in Table D-5. PFC data is available for 71% of the perennial streams within the planning area. Restoration priorites may be adjusted as additional PFC assessments are completed.

Table D-5. Riparian PFC Ratings and Restoration Priorities

Stream	Stream Reach	Miles
Restoration Priority 1		
Antelope Springs	0.0 - 0.3	0.4
	1.4 - 2.7	1.3
Bear Creek	4.2 - 4.3	0.1
	4.3 - 4.6	0.3
	4.6 - 5.4	0.8
Bear Creek, East Fork	0.6 - 1.5	1.0
Bear Creek, Middle Fork	0.2 - 0.4	0.2
Browns Creek	1.4 - 3.1	1.7
Cedar Creek	15.2 - 15.7	0.5
	30.0 - 30.7	0.7
Cherry Creek	1.5 - 1.8	0.3
	5.1 - 5.2	0.1
	12.3 - 13.4	1.1
China Creek	1.4 - 1.8	0.4
	2.0 - 2.8	0.8
China Creek, East Fork	0.0 - 3.5	3.4
Clover Creek	0.7 - 3.4	2.7
	0.0 - 0.7	0.6
	3.4 - 7.8	4.4
	7.8 - 9.3	1.5
	11.0 - 12.3	1.3
	18.5 - 21.9	3.4
	21.9 - 22.5	0.6
	30.9 - 31.1	0.2
	33.0 - 33.6	0.6
	40.2 - 41.8	1.6
Columbet Creek	0.0 - 1.2	1.5
	9.8 - 9.9	0.1
Cougar Creek	0.0 - 3.0	3.0
Deadwood Creek	1.8 - 2.7	0.9
	2.7 - 3.0	0.3
	16.8 - 17.8	1.0
Deep Creek	2.3 - 2.8	0.4
	2.8 - 3.2	0.4
Deer Creek (ID)	3.2 - 5.1	1.9
	5.7 - 6.3	0.6
	6.3 - 6.5	0.2
	6.5 - 7.7	1.2
Devil Creek	35.5 - 36.2	0.6
	34.7 - 35.5	0.8
	32.8 - 34.7	1.9
	28.7 - 32.8	0.4
	33.2 - 33.4	0.2
	33.4 - 34.0	0.6
	34.0 - 34.7	0.8
Hayes Canyon	1.0 - 2.4	1.3
	2.4 - 3.7	1.3
House Creek	0.0 - 0.3	0.3
Jarbidge River[A]	29.4 - 30.1	0.7
	30.1 - 30.7	0.6
	31.1 - 32.1	1.0

Stream	Stream Reach	Miles
Restoration Priority 1		
Jarbidge River[A]	32.1 - 32.5	0.4
	32.5 - 33.2	0.7
	33.2 - 33.4	0.2
	33.4 - 37.5	4.0
	37.6 - 38.7	1.0
	38.7 - 39.8	1.0
Jarbidge River, East Fork[A]	0.0 - 1.2	1.1
	1.2 - 2.2	1.0
	2.9 - 4.7	1.8
Little House Creek	4.2 - 5.6	1.4
Pole Creek	0.4 - 0.7	0.3
Ross Pasture Creek	0.0 - 2.1	2.1
Shack Creek	3.6 - 3.8	0.2
	3.8 - 4.2	0.4
Sheep Creek	0.1 - 0.3	0.2
Spring Creek	5.6 - 7.0	1.4
Three Creek	0.3 - 1.5	1.2
	4.7 - 5.8	1.1
	11.8 - 12.1	0.3
	12.1 - 12.3	0.2
Timber Canyon	2.0 - 2.3	0.3
	0.7 - 2.0	1.3
Tuana Gulch	5.9 - 6.9	1.0
Whiskey Slough	0.0 - 1.3	1.3
Yahoo Creek	3.3 - 3.4	0.1
Total		**76.0**
Restoration Priority 2		
Big Flat Creek	0.3 - 1.2	1.0
	12.6 - 12.8	0.2
Cedar Creek	16.7 - 17.3	0.6
	24.9 - 25.6	0.7
	25.6 - 26.1	0.5
	26.1 - 26.7	0.6
	28.2 - 28.4	0.2
	28.4 - 29.0	0.6
	29.0 - 30.0	1.0
Cherry Creek	9.3 - 10.1	0.9
	13.4 - 14.1	0.8
China Creek	0.0 - 0.2	0.2
	0.2 - 0.7	0.6
	0.7 - 1.4	0.7
	2.8 - 3.2	0.4
Clover Creek	12.3 - 13.5	1.0
	13.5 - 15.7	2.5
	17.4 - 18.3	1.1
	18.3 - 18.5	0.2
	23.0 - 23.8	0.9
	26.8 - 27.6	0.8
	27.6 - 29.2	1.4
	29.2 - 29.9	0.7
	29.9 - 30.2	0.3

Stream	Stream Reach	Miles
Restoration Priority 2		
Clover Creek	30.2 - 30.9	0.7
	31.1 - 32.8	1.7
	32.8 - 33.0	0.2
	35.5 - 36.4	0.9
	36.4 - 38.0	1.6
	38.0 - 40.2	2.2
	41.8 - 46.0	4.2
	46.3 - 47.5	1.4
	52.0 - 52.2	0.3
	52.2 - 52.7	0.6
	52.7 - 53.5	0.8
Columbet Creek	2.3 - 3.4	1.2
	3.4 - 3.7	0.3
	3.7 - 5.0	1.4
	9.0 - 9.3	0.3
Deadman Creek (NV)	0.0 - 0.8	0.8
Deadwood Creek	3.0 - 4.2	1.2
Deer Creek (ID)	3.2 - 4.3	0.9
House Creek	3.6 - 4.4	0.8
Little Spring Creek	2.5 - 2.8	0.3
	2.8 - 3.0	0.2
Pole Creek	0.7 - 1.3	0.7
	3.4 - 4.9	1.5
Ring Springs	0.9 - 1.5	0.9
	0.0 - 0.6	0.6
	0.6 - 0.9	0.3
Rocky Canyon	0.7 - 1.7	1.1
	1.7 - 2.0	0.6
Shack Creek, East Fork	0.0 - 0.2	0.2
Snake River	539.7 - 540.7	0.9
	563.4 - 567.7	4.0
	556.6 - 557.1	0.5
Three Creek	6.3 - 6.8	0.5
Tuana Gulch	2.5 - 3.5	1.0
	3.5 - 5.2	1.7
Total		**63.4**
Restoration Priority 3		
Big Flat Creek	7.7 - 8.6	0.9
	8.6 - 8.9	0.3
	12.0 - 12.6	0.7
	12.8 - 13.2	0.4
Browns Creek	3.1 - 4.2	1.1
Buck Creek	0.0 - 2.5	2.5
Cedar Creek	15.7 - 16.7	1.0
	17.3 - 18.8	2.0
	26.7 - 27.4	0.7
	27.4 - 27.9	0.6
	30.7 - 31.1	0.4
Cherry Creek	10.1 - 10.9	0.6
	10.9 - 12.3	1.3
	14.1 - 14.6	0.5

Stream	Stream Reach	Miles
Restoration Priority 3		
China Creek	4.5 - 4.7	0.2
	4.7 - 5.0	0.3
	5.0 - 5.2	0.4
China Creek, Middle Fork	1.8 - 2.0	0.7
Clover Creek	49.5 - 52.0	2.5
Columbet Creek	5.0 - 6.0	1.0
	8.3 - 9.0	0.7
Corral Creek	0.4 - 1.1	0.6
Crawfish Springs Creek	0.5 - 0.9	0.3
Dave Creek[A]	0.0 - 2.2	2.3
	2.4 - 2.7	0.3
Deep Creek	0.0 - 2.3	2.4
	3.2 - 4.5	1.4
Deer Creek[A] (NV)	0.7 - 1.6	0.8
Deer Creek (ID)	5.1 - 5.7	0.6
Dorsey Creek	14.2 - 14.7	0.4
Flat Creek	13.2 - 14.4	1.2
	15.7 - 16.6	0.9
House Creek	3.4 - 3.6	0.2
	16.8 - 17.5	0.7
	17.6 - 17.8	0.2
	17.8 - 18.1	0.3
	18.4 - 19.6	1.2
Jarbidge River[A]	0.0 - 2.6	2.6
	2.6 - 9.6	6.3
	9.6 - 13.0	3.3
	13.0 - 15.6	1.8
	15.6 - 21.7	6.2
	21.7 - 28.6	7.0
	28.6 - 29.1	0.5
	29.1 - 29.4	0.3
Jarbidge River, East Fork[A]	4.9 - 8.7	3.7
Little House Creek	5.6 - 6.2	0.7
Meadow Springs Creek	0.6 - 1.0	0.4
Player Creek	1.9 - 3.4	1.5
	trib. 1	0.3
	trib. 2	0.2
Pole Creek	0.0 - 0.4	0.4
	1.3 - 1.8	0.5
	1.8 - 3.4	1.5
Snake River	551.7 - 554.5	1.5
	541.4 - 545.6	0.3
	533.6 - 535.5	1.8
	530.2 - 532.5	2.3
	558.8 - 561.6	0.3
	558.8 - 561.6	1.8
	571.1 - 577.9	1.1
Taylor Canyon Creek	0.0 - 1.0	1.0
Three Creek	12.3 - 14.4	2.1
	14.4 - 15.3	1.0

Stream	Stream Reach	Miles
Restoration Priority 3		
Tuana Gulch	5.2 - 5.6	0.4
	5.6 - 5.9	0.3
Yahoo Creek	0.6 - 0.9	0.3
	0.9 - 1.1	0.2
	1.1 - 2.1	1.0
Total		**85.2**
Grand Total PFC Rated Streams		**225.0**

[A] Streams containing critical habitat for Jarbidge River bull trout.

Management Direction[4]

Goals

The goals for aquatic resources (*Water Resources*, *Riparian Areas and Wetlands*, *Fish*, and *Special Status Fish and Aquatic Invertebrates*) establish an expectation of the characteristics of healthy, functioning watersheds, riparian areas, and associated fish habitats. Because the quality of water and condition of riparian and fish habitat is directly influenced by the integrity of upland and riparian areas within the watersheds, the aquatic resource goals are to move towards or accomplish the goals, as displayed in Table D-6.

Table D-6. Goals for Aquatic Resources

Goal Number	Goal
Water Resources	
WR-CA-G-1.	Maintain or improve the chemical, physical, and biological integrity of water resources.
Riparian Areas and Wetlands	
RI-CA-G-1.	Achieve healthy, functioning watersheds, riparian areas, wetlands, and associated aquatic habitats.
RI-CA-G-2.	Provide habitat to support populations of well-distributed native and desired non-native plant, vertebrate, and invertebrate populations that contribute to the sustainability of riparian-dependent communities.
RI-CA-G-3.	Maintain or improve naturally functioning vegetation communities that include natural timing and variability of surface and groundwater in riparian areas and wetlands, and diversity and productivity of native and desired non-native plant communities.
Fish	
FI-I-G-1. **FI-IV-G-1.** **FI-V-G-1.** **FI-VI-G-1.**	Manage public lands to promote diverse, structured, resilient, and connected habitats for fish.
FI-II-G-1.	Manage public lands to maintain or improve habitat for fish.
FI-III-G-1.	Manage public lands to maintain habitat for fish while reducing wildland fire size and intensity.
Special Status Fish and Aquatic Invertebrates	
SS-CA-G-1.	Manage public lands to contribute to the conservation and recovery of sage-grouse and other special status species.

Objectives

The ARMS is intended to guide management toward desired outcomes comprised of goals and objectives. The objectives for aquatic resources (*Water Resources, Riparian Areas and Wetlands, Fish, and Special Status Aquatic Fish and Aquatic Invertebrates*) are based on indicators that are measurable

[4] This section addresses material for Component V, Management Direction – Adaptive Management, related to management direction in the Guidance for Developing Aquatic Conservation Strategies (BLM, 2008a).

and relate to the specific resource or species of interest. Bull trout and redband trout population and habitat objectives that are appropriate for the watershed scale can be described in terms of the habitat condition indicators displayed in Table D-1 and Table D-2. The objective for streams containing bull trout or redband trout habitat is a rating of "Functioning Properly" for the indicators listed in Table D-1 and Table D-2, which reflect desired aquatic, riparian, and watershed conditions that are adapted locally. Optimum conditions may not always be achievable for every indicator in every stream reach because of historic land uses, land ownership patterns (e.g., private and other non-BLM managed lands), and specific watershed characteristics. Table D-7 describes objectives for stream reaches containing special status fish habitat relative to the NetWeaver rankings that formed the basis for the HC ratings as Conservation or Restoration reaches.

Table D-7. Objectives for Aquatic Resources

Objective Number	Objective
Water Resources	
WR-CA-O-1.	Make progress towards meeting Federal and State water quality standards.
Riparian Areas and Wetlands	
RI-I-O-1.	Maintain 85 miles of Priority 3 streams at proper functioning condition (PFC); improve 60 miles of Priority 1 streams to achieve PFC; and improve the remaining 17 miles of Priority 1 streams and 63 miles of Priority 2 streams to be moving toward PFC over the life of the plan.
RI-II-O-1.	Maintain 85 miles of Priority 3 streams at proper functioning condition (PFC) and manage Priority 1 and 2 streams to move toward PFC over the life of the plan.
RI-III-O-1. **RI-IV-O-1.** **RI-V-O-1.** **RI-VI-O-1.**	Maintain 85 miles of Priority 3 streams at proper functioning condition (PFC); improve 77 miles of Priority 1 streams and 21 miles of Priority 2 streams to achieve PFC; and improve the remaining 42 miles of Priority 2 streams to be moving toward PFC over the life of the plan.
RI-I-O-2. **RI-II-O-2.** **RI-III-O-2.** **RI-IV-O-2.** **RI-V-O-2.**	Manage wetlands to move toward PFC.
RI-VI-O-2.	Manage wetlands not associated with streams (springs, seeps, playas) to achieve PFC.
Fish	
FI-I-O-1.	Maintain or improve streams so 70% of the miles of non-game fish-bearing streams are managed for properly functioning condition. The remaining 30% of non-game fish-bearing streams would be moving toward properly functioning condition.
FI-II-O-1. **FI-III-O-1.**	Maintain or improve all non-game fish-bearing streams so they remain or are moving toward properly functioning condition.
FI-IV-O-1. **FI-V-O-1.**	Maintain or improve streams so 70% of the miles of non-game fish-bearing streams and their perennial tributaries are managed for properly functioning condition. The remaining 30% of miles of non-game fish-bearing streams and their perennial tributaries would be moving toward properly functioning condition.
FI-VI-O-1.	Maintain 85 miles of Priority 3 streams at proper functioning condition (PFC); improve 77 miles of Priority 1 streams and 21 miles of Priority 2 streams to achieve PFC; and improve the remaining 42 miles of Priority 2 streams and 20 miles of streams with unknown PFC rating to move towards PFC over the life of the plan.
FI-VI-O-2.	Manage the 72 miles of stream containing only native non-game fish to maintain or improve habitat condition.
Status Special Fish and Aquatic Invertebrates	
SS-I-O-1. **SS-IV-O-1.** **SS-V-O-1.** **SS-VI-O-1.**	Maintain or improve the quality and quantity of habitat for sage-grouse and other special status species by managing public land activities to sustain or benefit those species.

Objective Number	Objective
Status Special Fish and Aquatic Invertebrates	
SS-II-O-1. **SS-III-O-1.**	Maintain or improve the quality of habitat for sage-grouse and other special status species by managing public land activities to sustain or benefit those species.

Management Approaches

Four general types of management approaches that may be considered for achieving the aquatic and riparian objectives.

Protection

This management strategy would conserve aquatic and riparian areas that are ecologically intact and fully functional. Human activities that influence instream and riparian ecological functions are restricted. This management strategy strives to protect aquatic and riparian ecosystems currently in good condition so that naturally regenerative processes can continue to operate. Conservation designations that typically include wilderness and minimally developed watersheds would fall within this management strategy. High priority restoration projects do exist within portions of some Conservation Reaches. Also, some Restoration Reaches may have a stream segment or watershed area that is ecologically intact and functional.

Passive Restoration

This management strategy emphasizes preventing further decline in aquatic and riparian ecosystem integrity. To the extent possible, human disturbances to altered aquatic and riparian ecosystems would be removed or minimized in order to allow natural processes to be the primary agents of recovery. This management strategy would allow the natural disturbance regime to dictate the speed of recovery in areas that have a high probability of returning to a fully functional condition without human intervention. This management strategy can be applied to the low and moderate priority Restoration Reaches and Priority 2 and 3 riparian reaches. The rate of recovery may be several decades or more.

Active Restoration

This management strategy would focus on returning functionally impaired aquatic and riparian ecosystems to a state that would occur naturally at the site by actively managing certain aspects of habitat recovery. It uses a combination of elements of natural recovery along with management activities directed at accelerating development of self-sustaining, ecologically healthy riparian ecosystems. This management strategy applies to the high and some moderate priority Restoration Reaches and Priority 1 and 2 riparian reaches. Many watershed, riparian, and stream restoration projects fall into this category, including vegetation treatments, stream channel restoration, stream crossings removal or improvement, reducing road densities, and improving road condition. The rate of recovery may be one to two decades.

Rehabilitation

This management strategy would re-establish naturally self-sustaining riparian ecosystems to the extent possible, while acknowledging that irreversible changes, such as dams, permanent channel changes due to urbanization and streamside roads, stream channel incision, and human development within the RCA, would only result in partial restoration of ecological functions. This management strategy applies to the high and some moderate and low priority Restoration Reaches and Priority 1 and 2 riparian reaches. It would use a combination of passive and active management approaches where fully functional ecological conditions cannot occur.

Management for Riparian Conservation Areas

Used in conjunction with adaptive management, the following management actions are designed to achieve aquatic and riparian goals (Table D-6) and objectives (Table D-7). This management is derived from the management direction contained in the Inland Native Fish Stragegy (INFISH) (USDA, 1995) and the Interior Columbia Basin Ecosystem Management Project (Quigley et al., 1997) and is consistent with

existing conservation and recovery plans for special status aquatic species within the planning area (Table D- 9). The management actions in Table D-8 apply to all RCAs and to projects and activities in areas outside of RCAs that are identified through the NEPA analysis process as having the potential to degrade RCAs. Management to be applied to a specific project will be identified during project planning on a site- and project-specific basis.

Table D-8. Management Actions for Activities In or Affecting Riparian Conservation Areas

Management Action Number	Management Actions
Water Resources	
WR-CA-MA-6.	Consult or coordinate with the tribes and with Federal, State, and local agencies when determining location and designs for water development projects.
WR-CA-MA-10.	Consult or coordinate as appropriate with Tribal, Federal, State, and local governments to identify and secure instream flows needed to maintain riparian resources, channel conditions, and aquatic habitat.
WR-CA-MA-11.	Apply chemicals (i.e., herbicides, pesticides, insecticides, and other toxicants) in a manner that does not impair water quality or prevent attainment of objectives for riparian areas and wetlands and avoids adverse effects on inland non-game fish and their habitat. When applying chemicals in a Riparian Conservation Area (RCA), a spill kit would be onsite as appropriate. Prohibit storing and mixing chemicals within RCAs unless there are no other practical alternatives.
WR-CA-MA-12.	Prohibit storage of fuels and other toxicants and refueling within RCAs unless there are no other practical alternatives. Any refueling sites and/or storage areas within an RCA would have an approved refueling and spill containment plan.
Riparian Areas and Wetlands	
RI-CA-MA-8.	Modify existing management activities and authorized uses in RCAs to attain PFC and ensure that habitat conditions of streams, riparian areas, and wetlands are moving toward achieving the goals and objectives for riparian areas and wetlands.
RI- CA-MA-9.	Conduct new management activities within or affecting RCAs only if they are consistent with achieving the goals and objectives for riparian areas and wetlands. New management activities would avoid or reduce adverse effects on inland non-game fish, their habitats, and RCAs.
RI- CA-MA-10.	Trees may be felled in RCAs when they pose a safety risk. Keep felled trees on-site when needed to maintain or improve riparian or instream conditions.
RI-CA-MA-11.	Cooperate with Tribal, Federal, State, and local agencies and private landowners to develop watershed-based coordinated resource management plans or other cooperative agreements to achieve the goals and objectives for riparian areas and wetlands.
Fish and Wildlife Resources	
FI-CA-MA-4.	To avoid adverse effects on non-game fish and instream flows, locate water drafting sites in upland areas (e.g., stock ponds, storage tanks, hydrants). Where these water sources are not available, locate water drafting sites at existing stream road crossings (e.g., bridges, culverts, fords) to divert water in a manner that does not retard or prevent achievement of the goals and objectives for riparian areas and wetlands.
FI-CA-MA-5.	Design and implement watershed restoration projects in a manner that promotes the long-term ecological integrity of ecosystems, conserves the genetic integrity of non-game fish species, and contributes to the achievement of the goals and objectives for riparian areas and wetlands.
FI-CA-MA-6.	New fisheries and instream channel restoration projects would avoid or minimize adverse effects on non-game fish, their habitats, and RCAs.
FI-CA-MA-7.	Cooperate with Federal and State fish management agencies to identify and reduce adverse effects on non-game fish associated with habitat manipulation, fish stocking, fish harvest, and illegal harvest.

Management Action Number	Management Actions
Wildland Fire Ecology and Management	
WFM-CA-MA-10.	Fire suppression strategies, practices, and actions in RCAs should be designed to minimize disturbance to riparian vegetation.
WFM-CA-MA-11.	Minimum Impact Suppression Tactics would be used within RCAs unless safety to human life or property is an issue.
WFM-CA-MA-12.	Incident bases, camps, helibases, staging areas, helispots, and other centers for incident activities would be located outside of RCAs. If the only suitable location for these activities is within the RCA, an exemption may be granted by the BLM authorized officer.
WFM-CA-MA-13.	Avoid delivery of chemical retardant, foam, or additives into surface waters. An exception is warranted where overriding immediate safety imperatives exist or when the BLM determines a fire would cause more long-term damage to fish habitats than chemical delivery to surface waters.
FE-CA-MA-5.	Fuels treatments in RCAs would be designed to maintain or improve riparian vegetation.
FE-CA-MA-7.	Implement the Programmatic Emergency Stabilization and Burned Area Rehabilitation (ES&BAR) Plan and update as needed. Individual ES&BAR plans would be completed through the interdisciplinary process to reduce impacts of wildland fire and suppression and to achieve resource objectives.
Livestock Grazing	
LG-CA-MA-11.	Grazing management activities (e.g., grazing, trailing, bedding, watering, salting, loading, other handling efforts) would be modified, discontinued, or relocated if they are not maintaining aquatic and riparian conditions.
LG-CA-MA-12.	In areas that are readily accessible to cattle and known or suspected special status fish spawning habitat, develop and implement grazing practices to avoid or restrict trampling of redds (eggs) and other direct and indirect effects that may result in adverse impacts to the species.
LG-CA-MA-14.	Grazing facilities and infrastructure (e.g., livestock handling and management facilities, fences, watering facilities) would be modified, discontinued, or relocated if they are not maintaining aquatic and riparian conditions.
Recreation	
REC-CA-MA-3.	New and existing recreation-related activities and facilities within or affecting RCAs would be designed, modified, relocated, or discontinued if they are not maintaining aquatic and riparian conditions.
Transportation and Travel	
TR-CA-MA-9.	Cooperate with tribes, Federal, State, and county agencies to reduce adverse effects and support the achievement of the goals and objectives for riparian areas and wetlands in the long term.
TR-CA-MA-10.	Minimize locating new roads or road-related facilities in RCAs. Before building new roads or other road-related facilities in RCAs, complete a watershed or site-specific analysis. The level of analysis should be commensurate with the scope and issues of the project and related aquatic resources. Analysis should identify how road design features would minimize or avoid adverse effects to aquatic and riparian resources at site-specific, reach, and watershed scales.
TR-CA-MA-11.	Temporary roads within or affecting RCAs would be fully decommissioned and rehabilitated once the road is no longer needed to meet the intended purpose.
TR-CA-MA-12.	Avoid or minimize sediment delivery to streams from the road surface to allow the achievement of the goals and objectives for riparian areas and wetlands.
TR-CA-MA-13.	Avoid sidecasting road surface material into areas where it may reach RCAs.

Management Action Number	Management Actions
Transportation and Travel	
TR-CA-MA-14.	Design new, replacement, and reconstructed stream crossings (culverts, bridges, and other stream crossings) to: • Accommodate a 100-year flood, including associated bedload and debris in bull trout occupied watersheds. In watersheds containing other non-game fish, design new, replacement and reconstructed stream crossings to accommodate a 100-year flood event, unless a site-specific analysis determines the goals and objectives for riparian areas and wetlands could be achieved with fewer impacts to the RCA; • Provide and maintain fish passage at all road crossings of existing and potential fish-bearing streams; and • Accommodate mean bankfull channel widths to maintain channel integrity.
Leasable Minerals	
LE-CA-MA-8.	For those leasable mineral development activities conducted pursuant to valid existing rights that pose risks to achievement of management objectives, use existing authorities to mitigate and/or require, to the extent authorized, design features that would contribute to the maintenance of streambanks, shorelines, streambed configuration, water quality, amount and distribution of woody debris, thermal regulation, characteristic erosion rates, and amount and distribution of source habitats.
LE-CA-MA-9.	Locate leasable mineral project related infrastructure outside RCAs. Where there is no alternative, locate and construct the infrastructure to avoid impacts on RCAs. Keep the number of roads to the minimum necessary for the approved mineral activity. Decommission and revegetate roads no longer required for mineral management and related activities.
LE-CA-MA-10.	New leasable mineral management projects and operations would avoid or minimize adverse effects on non-game fish, their habitats, and RCAs.
LE-CA-MA-11.	Develop inspection, monitoring, and reporting requirements for leasable mineral activities within or affecting RCAs. Evaluate and apply the results of inspection and monitoring to modify mineral plans, leases, or permits as needed to achieve the goals and objectives for riparian areas and wetlands.
Salable Minerals	
SA-CA-MA-5.	For those salable mineral development activities conducted pursuant to valid existing rights that pose risks to achievement of goals and objectives for riparian areas and wetlands, use existing authorities to mitigate and/or require, to the extent authorized, design features that would contribute to the maintenance of streambanks, shorelines, streambed configuration, water quality, amount and distribution of woody debris, thermal regulation, characteristic erosion rates, and amount and distribution of source habitats.
SA-CA-MA-6.	Locate salable mineral project related infrastructure outside RCAs. Where there is no alternative, locate and construct the infrastructure to avoid impacts on RCAs. Keep the number of roads to the minimum necessary for the approved mineral activity. Decommission and revegetate roads no longer required for mineral management and related activities.
SA-CA-MA-7.	New salable mineral management projects and operations would avoid or minimize adverse effects on non-game fish, their habitats, and RCAs.
Locatable Minerals	
LO-CA-MA-2.	Locate mineral project related infrastructure outside RCAs. Where there is no alternative, locate and construct the infrastructure to avoid impacts on RCAs. Keep the number of roads to the minimum necessary for the approved mineral activity. Decommission and revegetate roads no longer required for mineral management and related activities.

Management Action Number	Management Actions
Locatable Minerals	
LO-CA-MA-3.	New locatable mineral management projects and operations would avoid or minimize adverse effects on non-game fish, their habitats, and RCAs.
LO-CA-MA-4.	Develop inspection, monitoring, and reporting requirements for locatable mineral activities within or affecting RCAs. Evaluate and apply the results of inspection and monitoring to modify mineral plans, leases, or permits as needed to achieve the goals and objectives for riparian areas and wetlands.
Land Use Authorizations	
LA-CA-MA-13.	New land use authorizations would avoid or minimize adverse effects on non-game fish, their habitats, and RCAs.
LA-CA-MA-14.	For existing land use authorizations that prevent the achievement of the goals and objectives for riparian areas and wetlands, use existing authorities to redesign, modify, or apply mitigations to reduce impacts to non-game fish, their habitats and RCAs.
LA-CA-MA-15.	During Federal Energy Regulatory Commission (FERC) licensing or relicensing of hydroelectric projects, terms and conditions that achieve the goals and objectives for riparian areas and wetlands over the new license term should be submitted to the FERC.
Land Tenure	
LT-CA-MA-7.	Use land acquisition, exchanges, and conservation easements to support achievement of the goals and objectives for riparian areas and wetlands and facilitate restoration of native species and their habitat.

Note: These conservation measures are derived from those contained in INFISH (USDA, 1995). These measures promote the attainment of the Goals, Objectives,and Management Actions identified in Chapter 2 for *Water Resources, Riparian Areas and Wetlands, Fish,* and *Special Status Fish and Aquatic Invertebrates*.

Management for Aquatic Species

Management for Non-Special Status Aquatic Species

The following management applies to aquatic species other than those listed under Endangered Species Act (ESA) or designated as Sensitive species under BLM's policy for special status species. In the planning area, these include sculpins (Cottidae), suckers (Catostomidae), and minnows (Cyprinidae). These non-special status fish, commonly referred to as native non-game fish, occur independent of special status fish in five streams in the planning area, including portions of Barbour Creek, Tuana Gulch, Big Flat Creek, Clover Creek, and Salmon Falls Creek. Clover Creek, which is identified as a stream containing only native non-game fish, is identified as a water quality impaired stream by the Idaho Department of Environmental Quality. Sediment and bacteria were identified as the factors limiting water quality. The goals, objectives, and management actions specific to non-special status fish are provided in Chapter 2, Fish and Wildlife and displayed above in Tables D-6, D-7, and D-8. Where these fish occur in streams containing special status species, the goals, objectives, and management actions in for Special Status Fish and Aquatic Invertebrates would also achieve the habitat requirement needs of non-special status fish.

Indicators for riparian habitat condition (HC) and proper functioning condition (PFC) ratings are used to determine if the desired riparian goals, objectives, and desired conditions are being met for native non-game fish. PFC addresses a variety of factors that are linked to water quality. Any improvement in riparian function (i.e., the PFC rating) would improve water quality and instream habitat condition for native non-game fish.

In order to protect water quality resources in streams containing native non-game fish, the Idaho Stream Channel Alteration Rules (IDWR, 1993) would be applied to actions involving construction activities within the high water lines of streams in the planning area. These standards are intended to cover the ordinary type of stream channel alteration and to prescribe minimum conditions for approval of such construction.

For grazing management, these streams should be managed according to the management processes and strategies as described in Grazing Management Processes and Strategies for Riparian-Wetland Areas (Wyman et al., 2006).

Management for Special Status Aquatic Species

BLM Manual 6840, Special Status Species Management, provides policy and direction, consistent with appropriate laws, for the conservation of special status plants, fish, and wildlife and the ecosystems on which they depend. The special status aquatic species in the planning area are currently managed according to four special status aquatic species conservation or recovery plans as well as conservation requirements derived through ESA consultation with the US Fish and Wildlife Service (FWS). Recovery plans are developed by FWS to establish recovery objectives for a species, provide a list of tasks necessary to achieve those objectives, and recommend assignments to involve agencies to carry out these tasks. A primary function of recovery plans is to combine programs of all agencies involved in managing a species into a coordinated management effort. The BLM may adopt recovery plans. Even if a recovery plan is not officially adopted, BLM Manual 6840 directs the BLM to incorporate the objectives of the recovery plan into appropriate land use activity plans (BLM Manual 6840.04.E.5). These plans provide guidance and direction for protecting special status aquatic species and their habitat to ensure their long-term survival and recovery. The conservation and recovery plans for special status aquatic species in the planning area are identified in Table D-9; these plans will guide the protection and conservation of stronghold populations. For species for which there is an existing recovery plan, such as Snake River snails and Bruneau hot springsnail, or for which there is a draft recovery plan, such as Jarbidge River bull trout, the conservation measures identified in those plans will also be incorporated in restoration and recovery planning efforts at the watershed or site-specific scale.

Table D-9. Conservation and Recovery Plans for Special Status Aquatic Species in the Planning Area

Conservation/Recovery Plan	Date	Species Addressed	
		Common Name	Scientific Name
Snake River Aquatic Species Recovery Plan	1995	Idaho springsnail[A]	*Pyrgulopsis idahoensis*
		Utah valvata[B]	*Valvata utahensis*
		Snake River physa snail	*Physa natricina*
		Bliss Rapids snail	*Taylorconcha serpenticola*
		California floater	*Anodonta californiensis*
		Columbia pebblesnail	*Fluminicola columbianus*
		Shoshone sculpin	*Cottus greenei*
		Redband trout	*Oncorhynchus mykiss gairdeneri*
		Snake River white sturgeon	*Acipenser transmontanus*
Snake River White Sturgeon Conservation Plan	2003	Snake River white sturgeon	*Acipenser transmontanus*
Recovery Plan for the Jarbidge River Distinct Population Segment of Bull Trout (Draft)[C]	2004	Jarbidge River bull trout	*Salvelinus confluentus*
Recovery Plan for the Bruneau Hot Springsnail	2006	Bruneau hot springsnail	*Pyrgulopsis bruneauensis*

[A] Idaho springsnail was removed from the Endangered Species list in September 2007.
[B] Utah Valvata was removed from the Endangered Species list in August 2010.
[C] The recovery plan for the Jarbidge River Distinct Population Segment of Bull Trout has not been finalized by FWS.

Additional management for ESA-listed aquatic species include conservation requirements derived through ESA consultation with FWS; these requirements are intended to allow for activities to occur at levels that would not result in a decline in the ESA-listed species or their habitat. These conservation requirements are contained in Biological Opinions as well as Biological Assessments with letters of concurrence. Table D-10 displays those consultation documents currently in effect; these may be

superseded through future consultation with the FWS. The conservation measures as derived through ESA consultation with the FWS are displayed in Appendix E.

Table D-10. FWS Biological Opinions and Letters of Concurrence for ESA-Listed Aquatic Species in the Planning Area

Document Name	Date	Species Addressed	Action(s) Addressed
Letter of Concurrence – BLM Twin Falls District Programmatic Emergency Stabilization and Rehabilitation Plan – Blaine, Cassia, Camas, Elmore, Gooding, Jerome, Lincoln, Minidoka, Oneida, Owyhee, Power, and Twin Falls Counties, Idaho and Elko County, Nevada.	May 10, 2013	Bull trout and Designated Critical Habitat, Bliss Rapids snail, Snake River physa snail, and Bruneau hot springsnail.	Post wildland fire rehabilitation and emergency stabilization actions.
Biological Opinion - Bureau of Land Management Ongoing Actions and Livestock Trailing – Bull Trout Critical Habitat – Benewah, Bonner, Boundary, Kootenai, Owyhee, and Shoshone Counties, Idaho and Elko County, Nevada	November 2, 2012	Bull trout and Designated Critical Habitat.	RMP amended by INFISH, ongoing wildfire suppression, livestock grazing, and livestock trailing.
Biological Opinion – Restoration Activities at Stream Crossings (Stream Crossing Programmatic).	June 15, 2012.	Bull trout and Designated Critical Habitat.	Stream crossing replacements (culverts and bridges) and maintenance, road and trail decommissioning.
Letter of Concurrence – Idaho BLM Ongoing Actions (Bull Trout Critical Habitat).	May 25, 2011	Bull trout Critical Habitat.	Ongoing livestock grazing, irrigation diversion, normal wildfire rehabilitation plan, noxious weeds treatments, recreational special use permits, rights-of-way, and juniper thinning.
Biological Opinion – Existing BLM Land Use Plans	March 10, 2008	Bliss Rapids snail, Snake River physa snail, and Bruneau hot springsnail.	1987 Jarbidge Resource Management Plan.
Letter of Concurrence – Noxious and Invasive Weed Treatment Program for the Boise District and the Jarbidge Field Office of the Twin Falls District	September 21, 2005	Bull trout, Bliss Rapids snail, Snake River physa snail, and Bruneau hot springsnail.	Noxious weed and invasive plant treatments.
Biological Opinion – Biological Assessment of the BLM Boise District and the Jarbidge Field Office of the Twin Falls District, Ongoing Permitted Grazing Activities in 36 Allotments	August 15, 2005	Bliss Rapids snail and Snake River physa snail.	Livestock grazing on allotments in the Snake River watershed.

Document Name	Date	Species Addressed	Action(s) Addressed
Biological Opinion – Ongoing Grazing Activities in the Bruneau Arm Allotment, the Hagerman Allotment, and Flat Iron Allotment, Owyhee County, Idaho	March 23, 2005	Bliss Rapids snail and Snake River physa snail.	Livestock grazing in the named allotments.
Biological Opinion on BLM's Ongoing Activities in the Jarbidge River Watershed in Owyhee County, Idaho, and Elko County, Nevada	November 17, 2004	Bull trout	Livestock grazing, pipelines, and fire suppression in the Jarbidge River Watershed.
Letter of Concurrence – Allocation of Forage in the 71 Desert, Blackrock Pocket, Bruneau Hill, Crawfish, North Fork, and Winter Camp Allotments for the Jarbidge Field Office	November 12, 2004	Bull trout	Forage allocation in named allotments.
Letter of Concurrence – Excess Forage Allocation and Grazing Permit Renewal for the Yahoo Allotment, Twin Falls County, Idaho	April 13, 2004	Bull trout, Bliss Rapids snail, Snake River physa snail, and Bruneau hot springsnail.	Forage allocation and permit renewal in the Yahoo allotment.

Multi-Scale Assessments and Ecosystem Analysis at the Watershed Scale[5]

Multi-Scale Assessments

Generally, no single assessment will adequately address the complex issues facing resource managers today. Fine-scale assessments provide context for management and project planning, but they cannot adequately address broad patterns and processes, such as habitat conditions for wide-ranging species. Broad-scale assessments provide context for policy formulation and for mid- and fine-scale assessment, but they cannot by themselves provide detailed information, such as site-specific habitat conditions. Together, multi-scale assessments provide comprehensive information for land management.

Multiple scales of review and assessment provide the context to implement broad-scale decisions within individual BLM District and Field Offices. As needed, multi-scale analysis may be used for future plan amendments or revisions and for subsequent project-level decisions. Analysis at the appropriate scale is generally recognized to provide the needed context for decision making. The four levels of review or assessment that may be used for multi-scale analysis are:

- Broad-scale (e.g., analysis at the basin scale, such as the Interior Columbia River Basin);
- Mid-scale (e.g., analysis at the subbasin scale, such as the Snake River subbasin);
- Fine-scale (e.g., analysis at the watershed scale, such as the Salmon Falls Creek Watershed); and
- Site-scale (e.g., analysis at the stream reach or project scale, such as China Creek).

[5] This section addresses material for Component III, Multi-Scale Analysis, in the Guidance for Developing Aquatic Conservation Strategies (BLM, 2008a).

Management considerations for multi-scale analysis include the following:

- Land Use Plans are generally developed and analyzed at the scale of the land management unit, normally analogous to a subbasin (or group of subbasins) scale.
- Subsequent finer-scale analysis, such as to support restoration prioritization and monitoring strategy development, should include interagency coordination.
- Assessments should include evaluation of existing conditions, factors limiting aquatic species populations, resource risks, management needs, and restoration opportunities.
- Information developed at the finer scale should be considered in implementing aquatic conservation or restoration measures and used to make adjustments or modifications to appropriate management actions, as warranted.
- Multi-scale analysis provides a basis for integrating and prioritizing conservation measures for wide-ranging species.

Watershed Analysis

The purpose of an ecosystem analysis at the watershed scale is to develop and document an understanding of the ecological structures, functions, processes, and interactions occurring at the watershed scale by systematically characterizing the watershed's human, aquatic, riparian, and terrestrial features, conditions, processes, and interactions. This process is designed to describe past and current conditions and develop restoration and management recommendations. The ultimate goal is to provide guidance for management activities that would sustain or improve the health and productivity of natural resources.

Objectives of Watershed Analysis

The following are the objectives of a watershed analysis:

- **Provide sufficient watershed context for understanding and carrying out land use activities in a geomorphic context –** Watershed analysis is an important tool used to meet ecosystem management objectives at larger scales.
- **Evaluate cumulative watershed effects –** Watershed analysis enhances the ability to estimate direct, indirect, and cumulative effects of management activities.
- **Define watershed restoration needs, goals, and objectives –** Watershed analysis provides guidance on the general type, location, and sequence of appropriate activities within a watershed.
- **Monitor the effectiveness of watershed protection measures –** Watershed analysis provides an iterative process for the adaptive management feedback loop.

Methodology for Watershed Analysis

The Federal Guide for Watershed Analysis-Ecosystem Analysis at the Watershed Scale, Version 2.2 (Regional Interagency Executive Committee and Intergovernmental Advisory Committee, 1995) was used as a guide; the process outlined in this guide provides resource managers with the flexibility to focus watershed analysis as necessary to meet management objectives. This six-step process is issue-driven; it focuses on analysis topics, along with specific watershed problems and concerns. Management discretion applies to defining the number and scope of topics and concerns to be analyzed, illustrating that "…It should be emphasized that watershed analyses can be a very simple and straightforward process taking a few days or weeks to develop or a complicated process. The complexity is intertwined with the issues and questions being addressed" (BLM Instruction Memorandum OR-2007-071). This analysis is not a decision-making process but helps identify opportunities for future management activities, including planning, project development, and regulatory compliance. The six-step process may also be used to guide analysis at the reach scale, including modification of Riparian Conservation Area (RCA) widths. Below is a summary of each of the six steps taken to develop an ecosystem analysis at the watershed scale.

Step 1 - Characterize the Watershed

The purpose of Step 1 is to identify the dominant physical, biological, and human processes or features of the watershed that affect ecosystem functions or conditions, including the relationship between these

ecosystem elements and those occurring in the river basin and/or watersheds. When characterizing the watershed, team members identify the most important land allocations, plan objectives, and regulatory constraints that influence resource management in the watershed. At the reach scale, the RCA and stream are characterized, including aquatic and riparian habitats, channel type, valley type, and stream gradient.

Step 2 - Identify Issues and Key Questions

The purpose of Step 2 is to focus the analysis on the key elements of the ecosystem that are most relevant to the management questions and objectives, human values, or resource conditions within the watershed. Key analysis questions are formulated from instream and riparian indicators used to measure or interpret key ecosystem elements. At the reach scale, the issue(s) are described, including which instream and riparian indicators are affected by the proposed or past management action(s).

Step 3 - Describe Current Conditions

The purpose of Step 3 is to develop more detailed information relevant to the issues and key questions identified in Step 2. Step 3 is where the current range, distribution, and condition of the relevant ecosystem elements are documented. At the reach scale, this section describes the current condition of the RCA and may include a discussion of riparian function using proper functioning condition and quantitative stream and riparian condition assessments such as multiple indicator monitoring (Burton et al., 2011).

Step 4 - Describe Reference Conditions

Step 4 explains how ecological conditions have changed over time with respect to historic or reference conditions as a result of human influence and natural disturbances. At the reach scale, if an undisturbed reference reach similar in channel, valley, and vegetation type is available, current conditions are measured to establish reference conditions for future comparison. This section establishes objectives for the desired future condition.

Step 5 - Synthesize and Interpret Information

The purpose of Step 5 is to compare existing and reference conditions of specific ecosystem elements and to explain significant differences, similarities, or trends and their causes. The capability of the system to achieve key management plan objectives is also evaluated.

Step 6 - Identify Recommendations

The purpose of Step 6 is to bring the results of the previous steps to conclusion by addressing each of the issues and answering the key questions, focusing on recommendations that are responsive to watershed or reach-scale processes identified in the analysis. Step 6 identifies recommendations that address resource problems noted in this analysis in order to change the current watershed or reach conditions toward the desired future condition. Monitoring needs and data gaps are also identified and described.

Watershed Analysis for the Jarbidge Planning Area

BLM-managed lands in the planning area include large, contiguous blocks of public land interspersed with State lands, private lands, and two military withdrawal areas. Portions of the planning area are located in northern Nevada and are adjacent to land managed by the Humboldt-Toiyabe National Forest and other BLM Field Offices; these lands include the upper reaches of the Jarbidge River and its East Fork, the Bruneau River, and several headwater reaches of perennial streams in the Jarbidge Foothills. For analyses of these watersheds, the BLM Jarbidge Field Office will collaborate with the Forest Service and other BLM FOs to complete watershed analyses and subbasin assessments or updates, as appropriate. The level of site-specific or focused analysis will be commensurate with the scope, magnitude, and issues related to BLM activities or projects and related aquatic resources and values.

The BLM and Forest Service have completed two watershed analyses within the planning area; the Jarbidge Ranger District of the Humboldt-Toiyabe National Forest was the lead agency for both of these analyses. The Jarbidge Canyon Watershed Analysis (McNeill et al., 1997) included the upper West Fork of the Jarbidge River on USFS managed lands. The Watershed Analysis for the East Fork Jarbidge River

(USDA, 2004) encompassed the East Fork Jarbidge River watershed above the confluence of Dave Creek and included a small portion of BLM managed land (3,640 acres). Both of these documents provide guidance for cumulative effects analysis, prioritization for restoration and management actions, and direction and information for landscape and ecosystem management in the Jarbidge Watershed.

Although no other watershed analyses have been completed in the planning area using the six-step process in the Federal Guide for Watershed Analysis, there have been several other multi-scale reviews that assessed aquatic resources in the planning area (Table D-10). Through these broad-scale (FWS, 1995) and mid-scale (FWS, 1998, 2002; Idaho Power Company, 2005) analyses, habitat was characterized, issues affecting the species were identified, current and reference conditions were described, and data were used to identify changes to reduce threats to the ESA-listed and BLM Sensitive aquatic species in the planning area. The ARMS, which uses site-specific data to identify conservation and restoration priorities, provides the framework for a fine-scale assessment for the planning area. Future watershed analysis in the planning area may be completed depending on the intensity, scope, or scale of issues that drive the need for additional fine-scale assessments.

Monitoring and Adaptive Management[6]

Monitoring

Monitoring provides a mechanism for observation and measurement to ensure that project design criteria and mitigation are being implemented and to determine if project and program goals and objectives are being achieved. The basics of plan-level monitoring should:

- Determine if the plan, project, or activity is being implemented correctly and is achieving desired results;
- Provide a mechanism for accountability and oversight;
- Evaluate the effectiveness of recovery and restoration efforts; and
- Provide a feedback loop so that management direction may be evaluated and modified (i.e., adaptive management).

Implementation monitoring is used to determine if management practices are implemented as identified in an activity plan, Environmental Assessment (EA), EIS, Biological Assessment (BA) with a letter of concurrence, or Biological Opinion (BO). Effectiveness monitoring is used to determine if management practices, as designed and executed, are effective in meeting project goals and objectives as defined in an activity plan, EA, EIS, BA with a letter of concurrence, or BO.

The results of monitoring will be summarized and shared, as requested, with the tribes and Federal and State agencies. Management considerations for monitoring include the following:

- Monitoring should be focused on key questions that inform decision making and allow timely adjustments to management.
- Monitoring emphasis and intensity should be commensurate with the importance of the question being asked. For example, if adaptive management is being used, it is important to monitor the key parameters to the degree necessary to support the current course of action or to trigger an alternate approach.
- Plan-level monitoring should make use of and not duplicate broad-scale monitoring programs. To the extent practicable, monitoring done at the plan scale should be compatible with and complementary to broader- and finer-scale monitoring.
- Monitoring should be coordinated with and, where possible, consolidated with similar efforts of other agencies.
- Outcome-based management approaches rely on monitoring for their success. These approaches typically require a different level and type of monitoring than prescriptive approaches.

[6] This section addresses material for Component V, Management Direction – Adaptive Management, related to adaptive management and Component VI, Monitoring, Adaptive Management, and Oversight, in the Guidance for Developing Aquatic Conservation Strategies (BLM, 2008a).

- Monitoring commitments in plans should be feasible and achievable.

The implementation and effectiveness monitoring protocols will be in accordance with appropriate BLM Technical Bulletins or other acceptable monitoring methods that would address the bull trout and redband trout habitat condition indicators in Table D-1 and Table D-2.

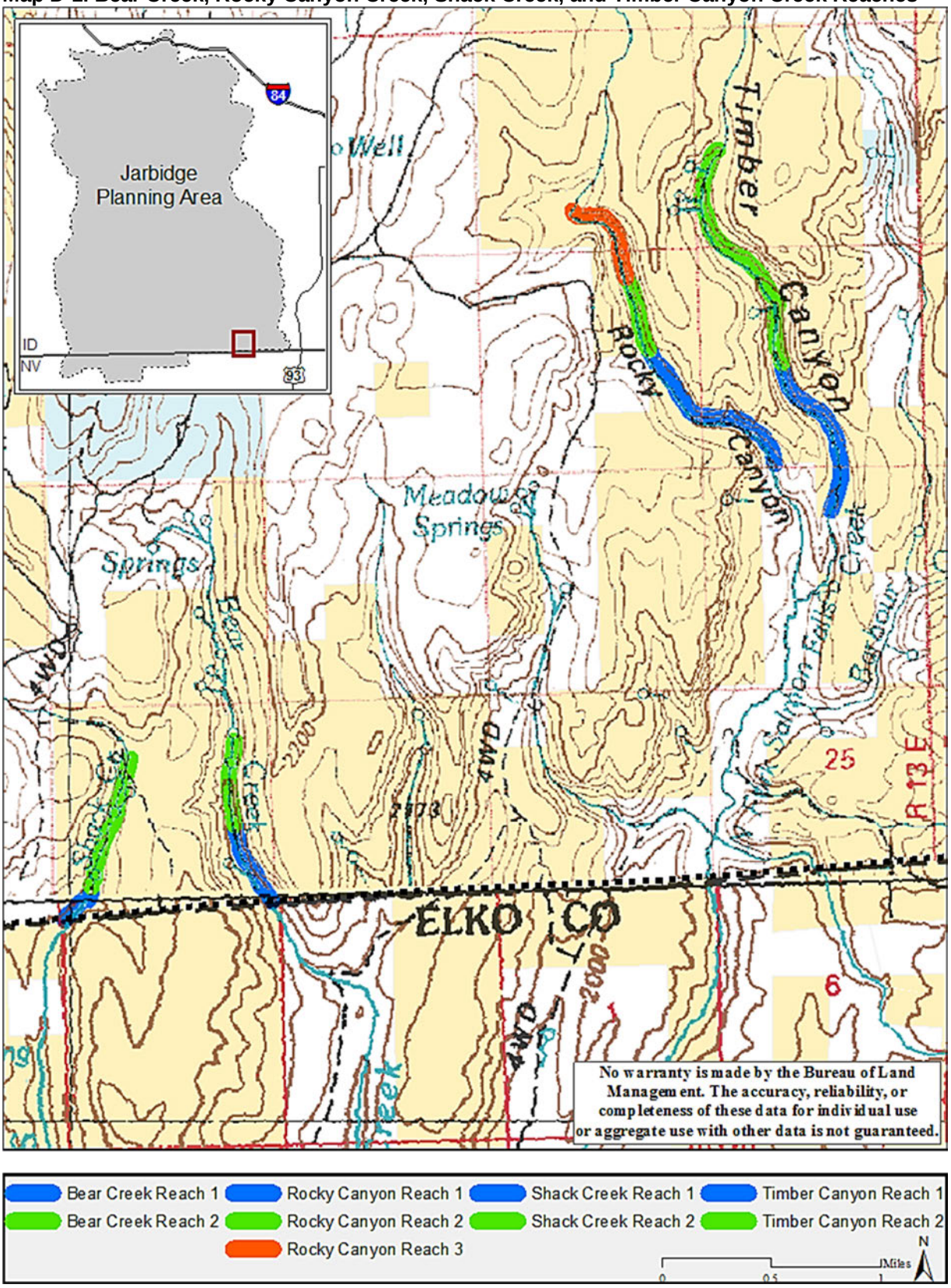
Adaptive Management

The ARMS allows for adaptive management, a continuing process of planning, implementation, monitoring, and evaluation to adjust management to meet goals and objectives of ecosystem-based management. Adaptive Management is a decision process that promotes decision making in the face of uncertainty as outcomes from management activities become better understood. The approach improves resource management by learning from prior management outcomes. The process of adaptive management uses the latest scientific information, site-specific information and monitoring data, and professional judgment to select the management strategy most likely to meet goals and objectives. By continually adjusting management strategies as needed, supported by monitoring or additional information, adaptive management will result in achievement of short- and long-term trends toward meeting objectives. Adaptive management provides the capability to respond quickly to monitoring data with consideration given to past season monitoring or preseason conditions. It also allows changes needed to meet long-term objectives of the RMP including direction from ESA, the Clean Water Act, and Fundamentals for Rangeland Health. The USDI guidance on using adaptive management can be found in Williams and others (2009).

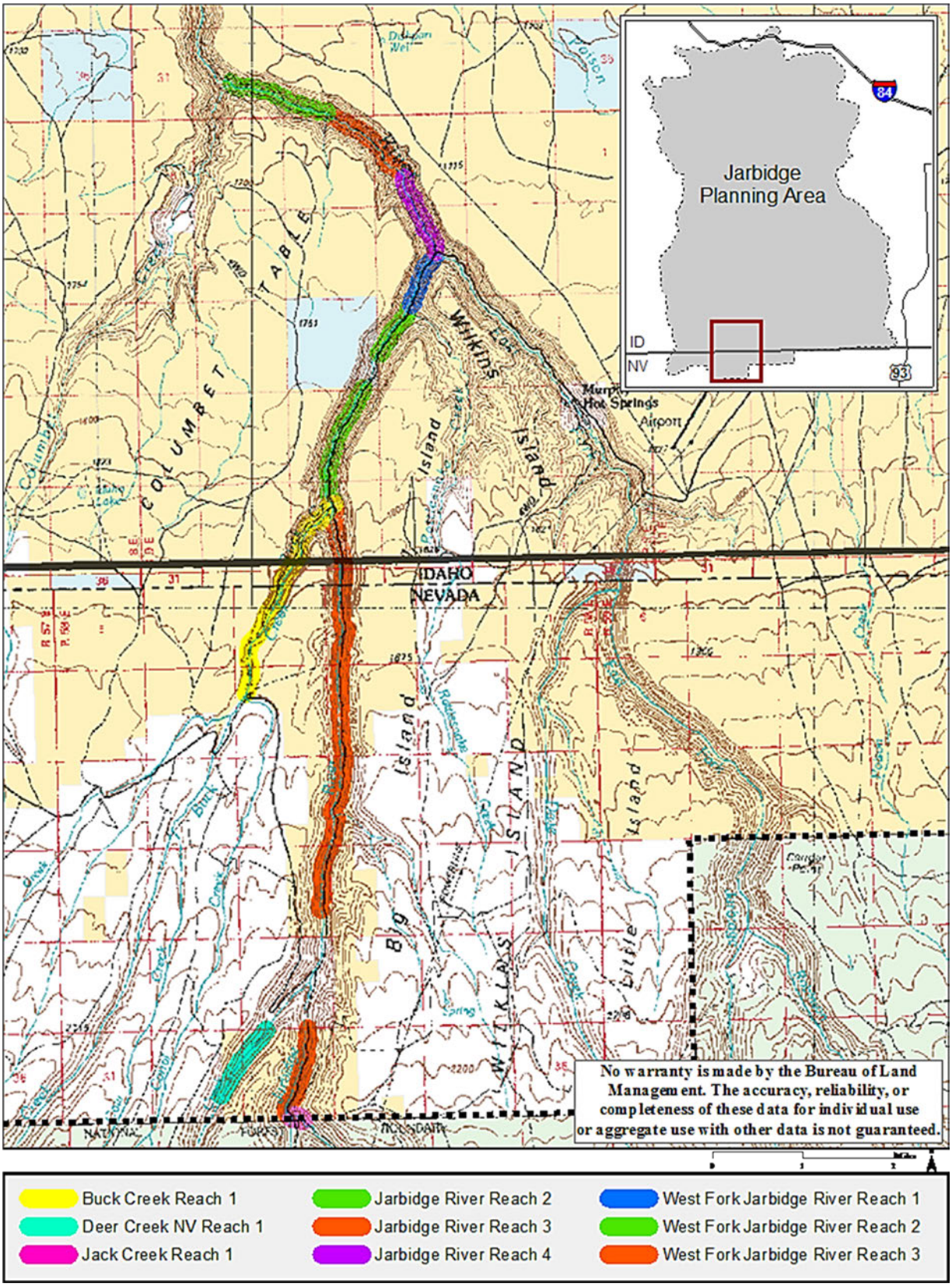
Adaptive management requires knowledge of the current conditions, potential or capability of riparian sites and streams, current management and effects of the management on the resources, and management changes that may be made to move the current condition toward the desired condition. Single indicators of conditions or trend are usually not adequate to make good decisions. Information on the condition and trend of the vegetation, streambanks, and aquatic resources and knowledge of current management practices can help establish cause-and-effect relationships that are important for making appropriate decisions. Such information allows refinement and development of locally-derived project or activity design standards or criteria.

Maps

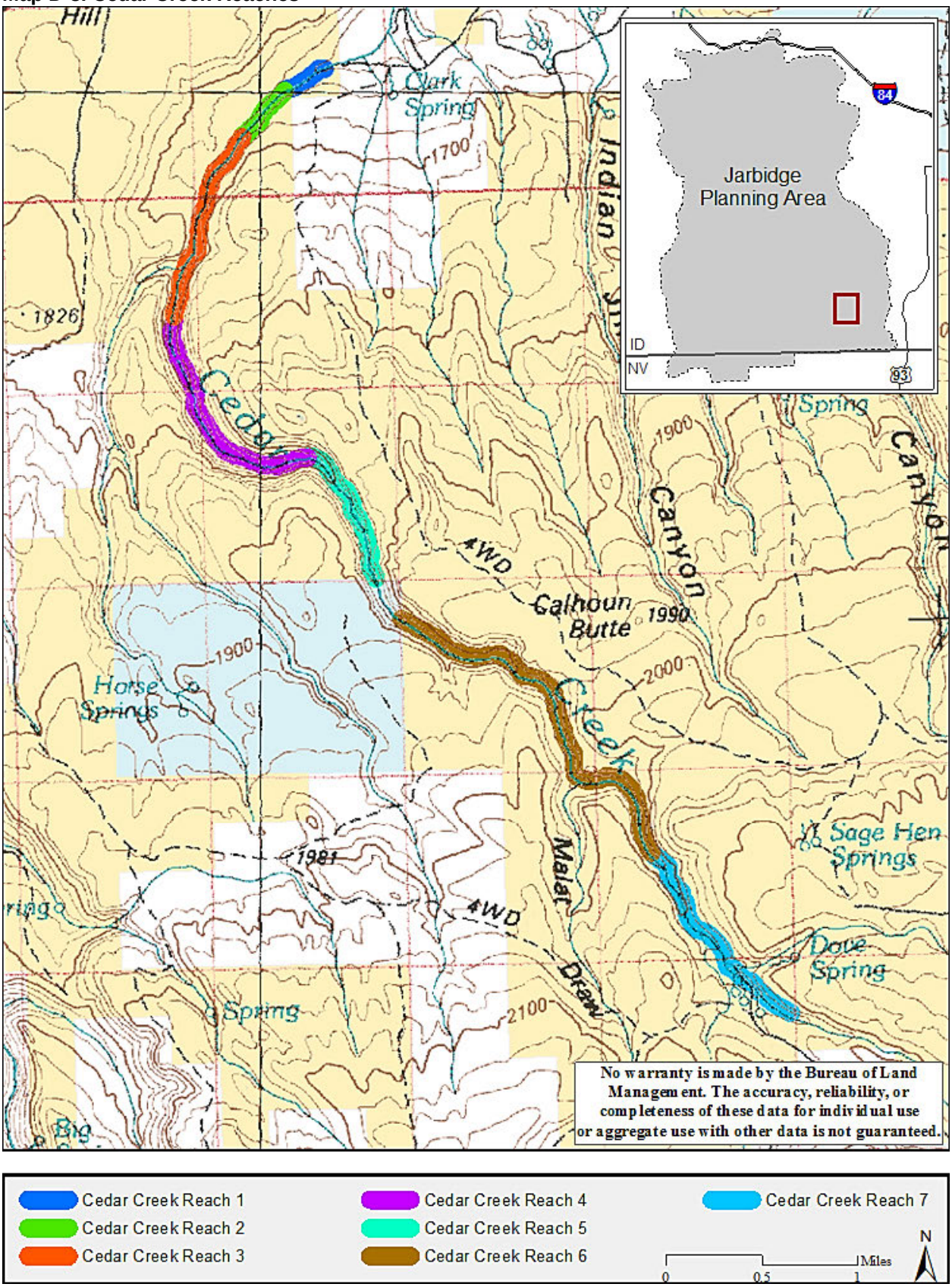
Map D-1. Bear Creek, Rocky Canyon Creek, Shack Creek, and Timber Canyon Creek Reaches



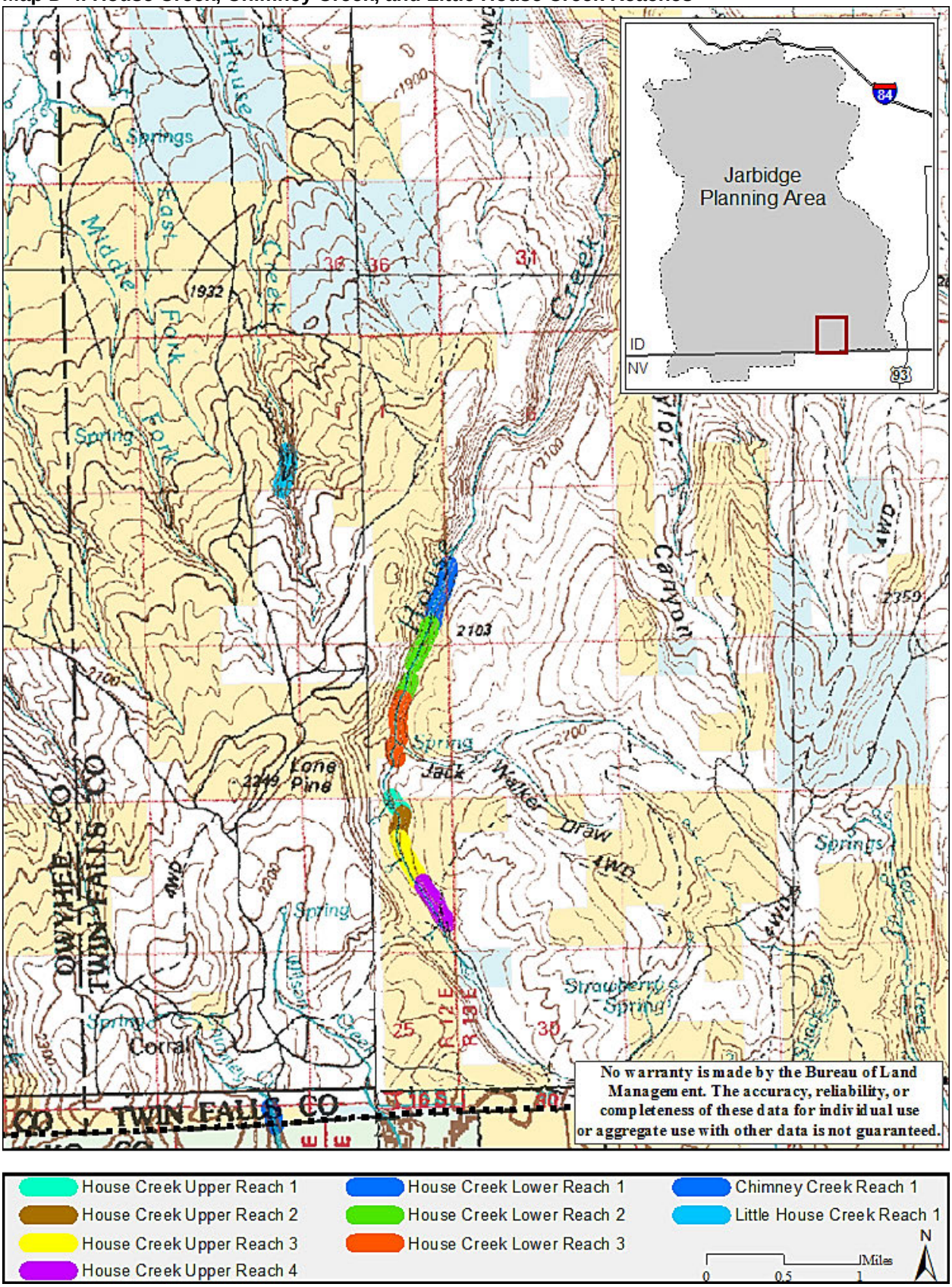
Map D-2. Buck Creek, Deer Creek (NV), Jack Creek, Jarbidge River, and West Fork Jarbidge River Reaches.



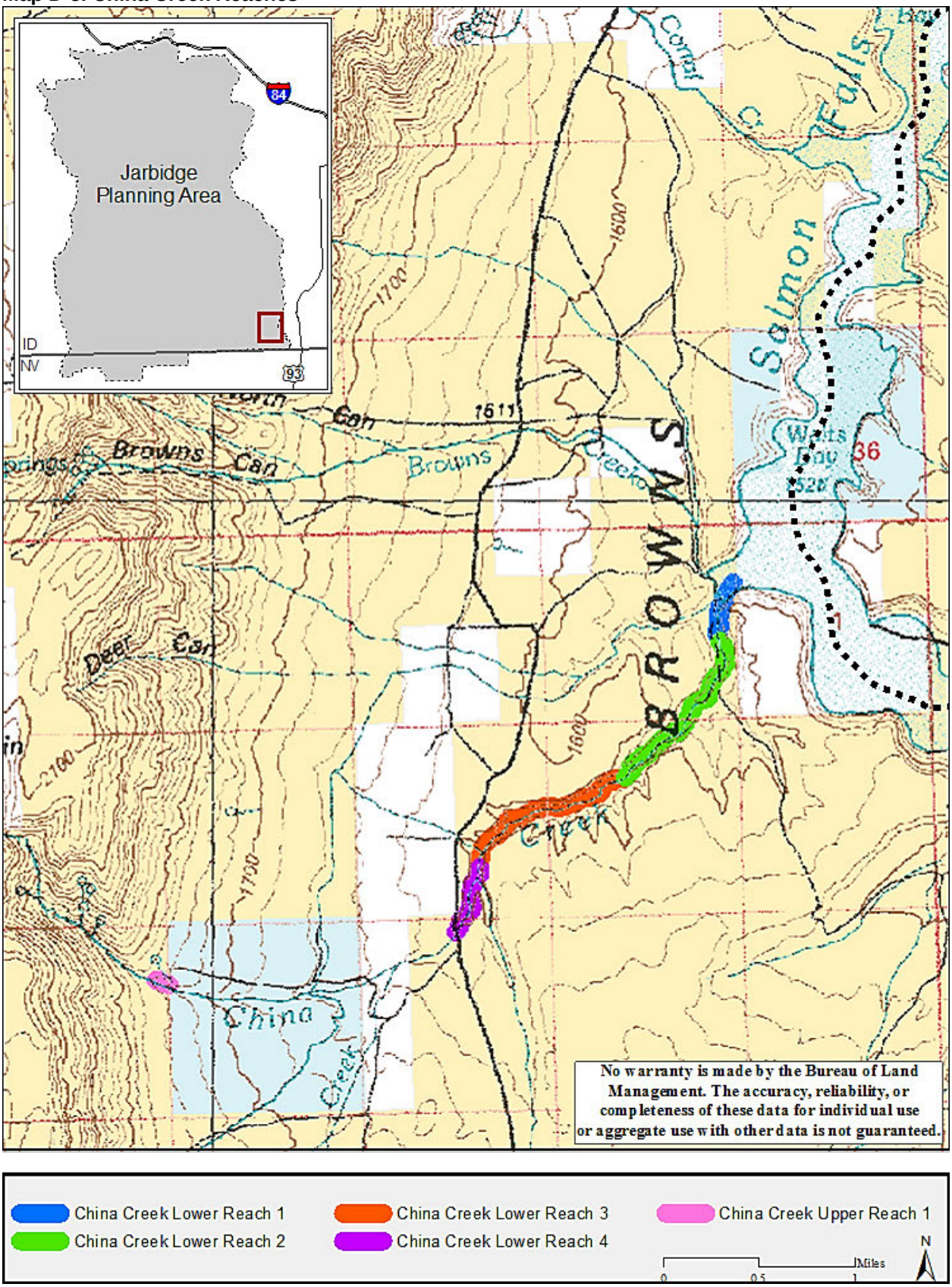
Map D-3. Cedar Creek Reaches



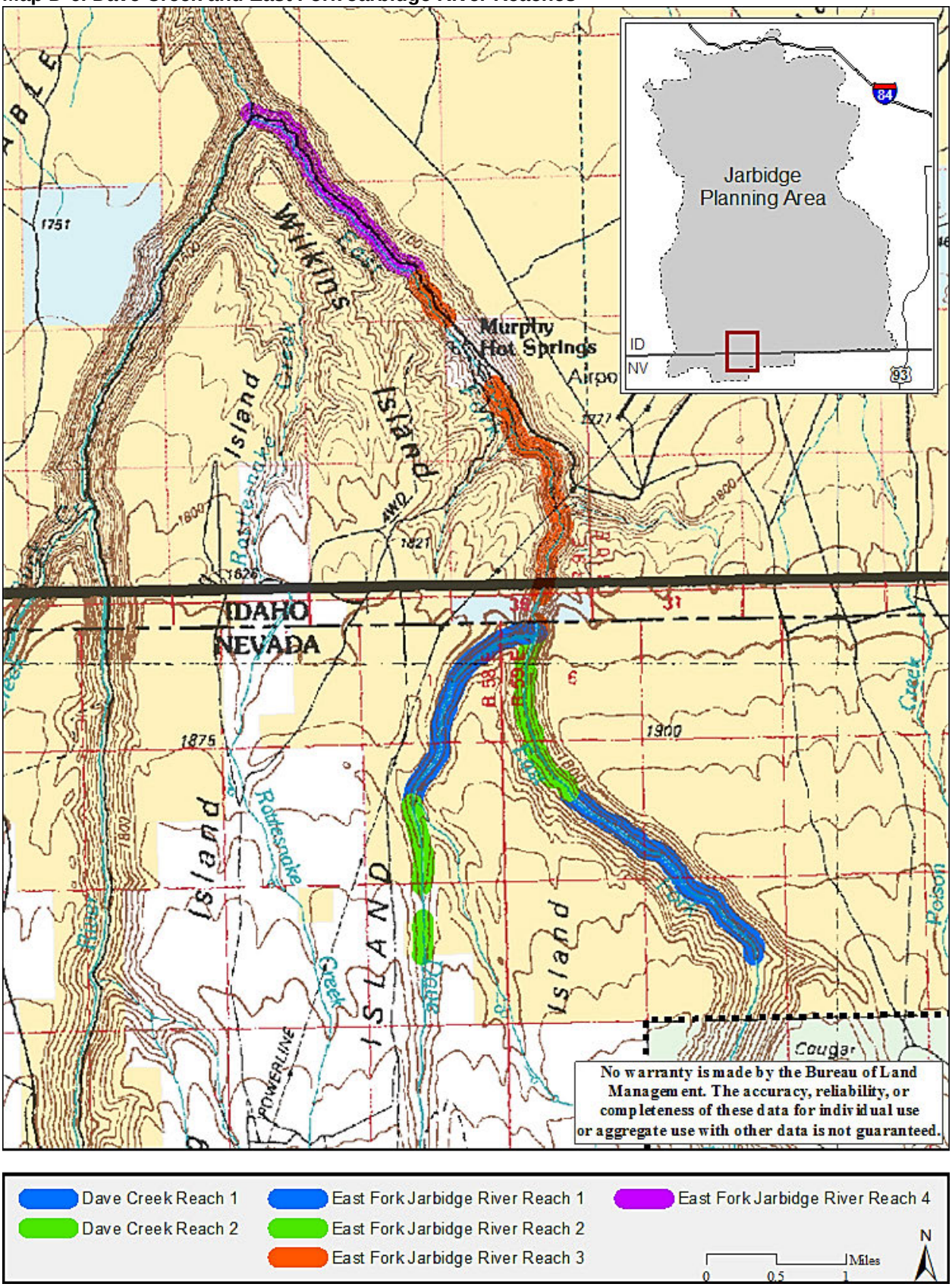
Map D-4. House Creek, Chimney Creek, and Little House Creek Reaches



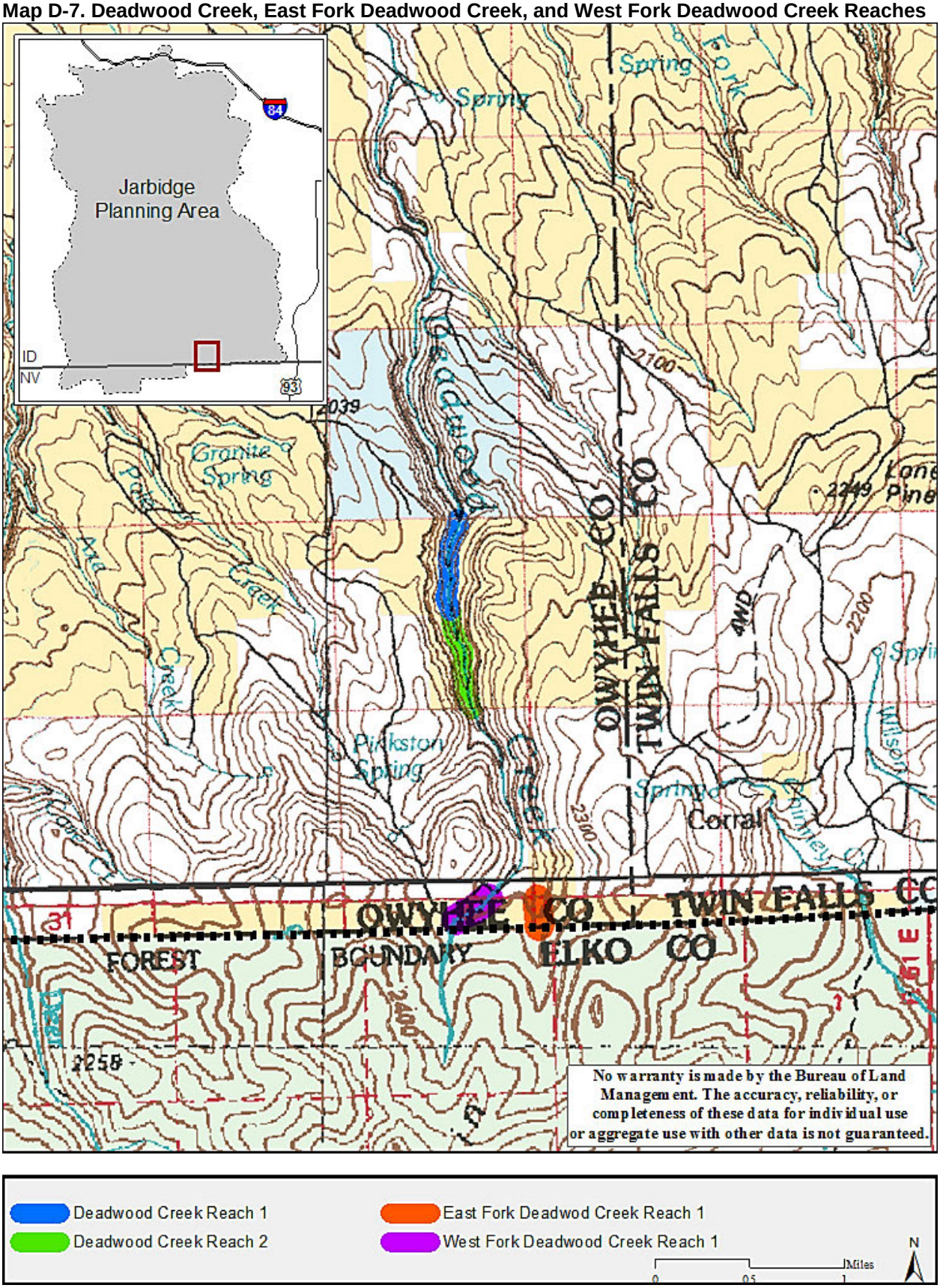
Map D-5. China Creek Reaches



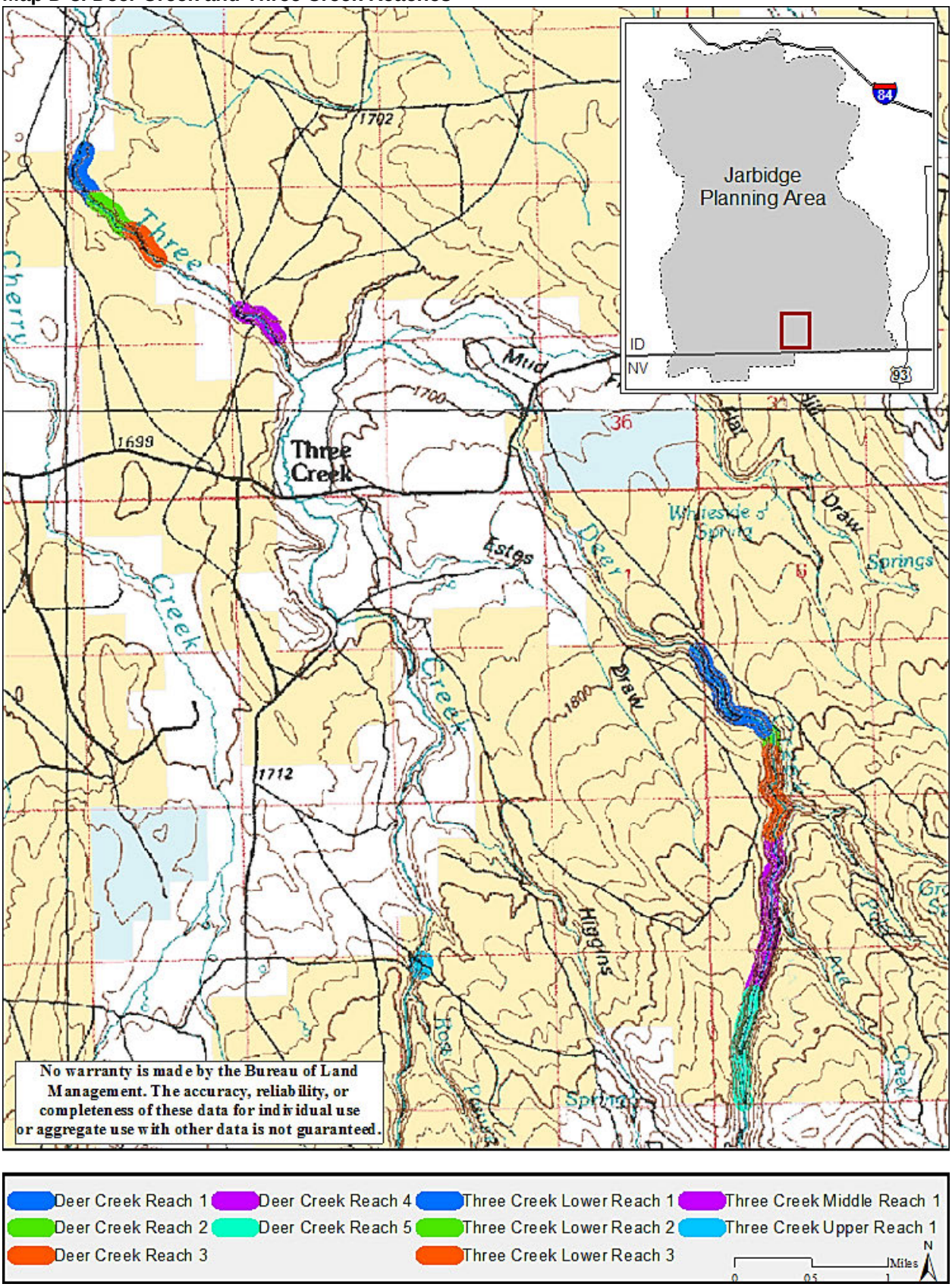
Map D-6. Dave Creek and East Fork Jarbidge River Reaches



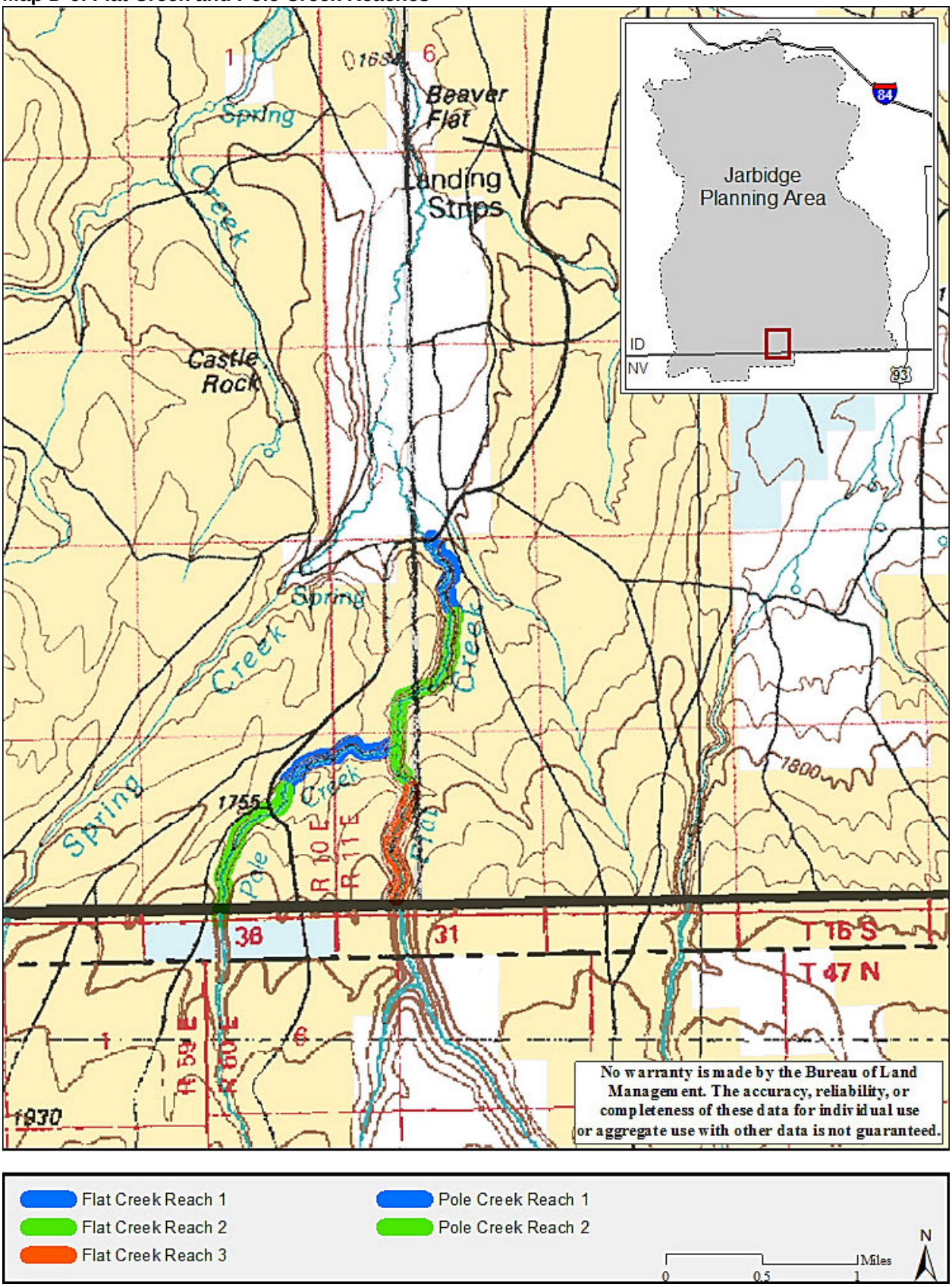
Map D-7. Deadwood Creek, East Fork Deadwood Creek, and West Fork Deadwood Creek Reaches



Map D-8. Deer Creek and Three Creek Reaches



Map D-9. Flat Creek and Pole Creek Reaches



APPENDIX E: CONSERVATION MEASURES

The BLM Manual for Special Status Species Management (Section 6840) provides policy and guidance for the conservation of special status species, plants and animals, and the ecosystems upon which they depend on BLM-managed lands.

The following tables identify conservation measures to bring the species and their habitat to the condition under which the provisions of the Endangered Species Act (ESA) are not necessary, current listings under special status species categories are no longer needed, and future listings under special status species categories would not be necessary. The sources of these conservation measures (i.e. land use plan consultations or existing species recovery plans) are identified.

The following comprise the conservation plans, strategies, and agreements in place for species in the planning area. This list will be updated as new plans, strategies, and agreements are adopted and existing plans, strategies, and agreements become obsolete, expire, or are replaced.

The BLM intends that the species-specific conservation measures included in the documents identified below will be implemented. While a high priority for BLM, both the BLM and US Fish and Wildlife Service (FWS) recognize that funding constraints may affect the ability to implement specific conservation measures as planned. Where funding is lacking, BLM and FWS will cooperate to set priorities and timelines for accomplishing recovery objectives for listed, proposed, and candidate species.

Conservation Agreements

- **Conservation Agreement between BLM Idaho State Office and the US Fish and Wildlife Service Snake River Fish and Wildlife Office. Janaury 2014 –** The purpose of the Conservation Agreement is to provide for the conservation of slickspot peppergrass related to existing Idaho BLM land use plans and a subset of ongoing actions.
- **Conservation Agreement for Bureau of Land Management – Idaho State Office, US Fish and Wildlife Service – Snake River Basin and Spokane Field Offices: Idaho Bureau of Land Management Existing Land Use Plans Consultation. Signed by Idaho BLM State Director. December 2005** – This Conservation Agreement is intended to promote the conservation of Listed, Proposed, and Candidate species that have not previously undergone land use plan-level consultation under the ESA.
- **Candidate Conservation Agreement for Slickspot Peppergrass (*Lepidium papilliferum*). 2006. Governor's Office of Species Conservation, et al. 158 pp. –** The purpose of this Candidate Conservation Agreement is to expedite implementation of conservation measures for slickspot peppergrass in Idaho. Threats that warrant listing should be significantly reduced, mitigated, or eliminated through implementation of this Candidate Conservation Agreement, and additional measures to enhance slickspot peppergrass occurrences and habitat are provided for.

Memoranda of Understanding

- **Interagency Memorandum of Understanding to Implement the Interior Columbia Basin Strategy. November 2002** – This Memorandum of Understanding (MOU) provides guidance to all BLM offices to implement the Interior Columbia Basin Strategy to ensure an ecosystem-based process is used in resource management plan (RMP) revisions within the Columbia River Basin (IB-ID-2003-062).
- **Memorandum of Understanding to Support and Implement to the Extent Practicable and Where Appropriate the Intent and Actions Contained in the 2006 Conservation Plan for the Greater Sage-grouse in Idaho. July 2006** – This MOU was signed by Idaho Department of Fish and Game, Idaho Department of Lands, Idaho State Department of Agriculture, Office of Species Conservation, Idaho BLM, United States Forest Service Region 4, Animal and Plant Health Inspection Service-Wildlife Service, and Natural Resource Conservation Service to support and implement the sage-grouse conservation plan. This candidate species is not addressed under Section 7 consultation but is covered under this MOU between the BLM and FWS.

Memoranda of Agreement

- **Memorandum of Agreement for Endangered Species Act Section 7 Programmatic Consultation and Coordination among Bureau of Land Management, Forest Service, National Marine Fisheries Service, and US Fish and Wildlife Service. August 30, 2000 –** This agreement outlines consultation procedures for the BLM and other Federal agencies.

Conservation Strategies

- **Interior Columbia Basin Strategy. 2002. A Strategy for Applying the Knowledge gained by the Interior Columbia Basin Ecosystem Management Project to the Revision of Forest and Resource Management Plans and Project Implementation. Included as Attachment 1 in Bureau of Land Management IB No. ID-2003-062. 11 pp. –** The strategy will be used to guide the amendment and revision of this land and resource management plan. The Strategy includes guidance for terrestrial and aquatic ecosystems and to use multi-scale analysis in resource management planning. It also identified emphasis areas for preparing an Aquatic Conservation Strategy as a component of the RMP. An Aquatic Conservation Strategy was incorporated into the Jarbidge RMP and Final EIS (see Appendix D).
- **National Sage-Grouse Habitat Conservation Strategy. 2004. Prepared by the Bureau of Land Management. 25 pp. –** This strategy sets goals and objectives, assembles guidance and resource materials, and provides comprehensive management direction for the BLM's contributions to the on-going multi-state greater sage-grouse conservation effort.

Recovery Plans

- **Snake River Aquatic Species Recovery Plan. 1995. US Fish and Wildlife Service, Snake River Basin Office, Ecological Services, Boise, Idaho. 92 pp. –** The recovery plan includes short- and long-term objectives to protect known live colonies of Federally listed snails, as well as redband trout, Snake River white sturgeon, and Shoshone sculpin, by eliminating or reducing known threats to these species and their habitat.
- **Recovery Plan for the Bruneau Hot Springsnail (*Pyrgulopsis bruneauensis*). 2002. US Fish and Wildlife Service, Region 1, Portland, Oregon. 52 pp. –** The primary objective of the recovery plan is to recover the species to a point where listing is no longer warranted by implementing groundwater management activities and monitoring species recovery.
- **Draft Recovery Plan for the Jarbidge River Distinct Population Segment of Bull Trout (*Salvelinus confluentus*). 2004. US Fish and Wildlife Service, Portland, Oregon. –** The primary objective of the plan is to reduce threats to bull trout and their habitat and to increase population numbers to habitat potential.

Conservation Measures

Slickspot Peppergrass

Table E-1. Conservation Measures for Slickspot Peppergrass.

Conservation Measures	BLM Implementation Actions
Special Status Animal and Plant Management: Common to All Programs	
The conservation measures contained throughout this table implement important elements included in the Candidate Conservation Agreement for slickspot peppergrass. The conservation measures reflect BLM's commitment to support species conservation.	The implementation actions reflect BLM's commitment to support species conservation and meet ESA objectives. Actions apply to BLM managed lands and activities only and will be implemented as staffing and funds allow.
Special Status Animal and Plant Management: Common to All Programs Special Status Animal and Plant Management conservation measures for slickspot peppergrass apply to all program areas listed below.	
1) In cooperation with Idaho Department of Fish and Game, Idaho Natural Heritage Program (INHP), US Fish and Wildlife Service (FWS), Idaho Army National Guard (IDARNG), the US Air Force, and others:	1) Following actions to be completed in cooperation with others:
a) Use survey protocols consistent with the FWS Rare Plant Survey Guidelines to conduct Stage 1, 2, and 3 surveys (see Figure E-2 at the end of this table for the general survey process).	a) Apply current survey methods, and assure that inventories are done at the appropriate time of the year by qualified botanists or by persons who are under the guidance of qualified botanists.
b) Cooperate to refine slickspot peppergrass habitat and potential habitat maps (Stage 1 survey, Figure E-2), and to identify and map slickspot peppergrass occurrences (Stage 2 survey, Figure E-2).	b) Surveys, mapping, and data management (refer to Figure E-2, Survey Flowchart for Slickspot Peppergrass): i). Cooperate with CDC and FWS to record, refine, and map all habitat features including potential habitat, slickspot peppergrass habitat, non-habitat, occupied habitat, and element occurrences (EOs) on BLM-managed lands. Use current geographic information system standards for mapping and database management. In cooperation with CDC, maintain a spatial database of species population and habitat information for BLM-managed lands. ii). BLM will continue to conduct Stage 1 and 2 surveys, report survey information to the CDC, and incorporate the information into the adaptive management strategy. iii). BLM's intent will be to conduct Stage 1 surveys (slickspot survey) for at least 25,000 acres of potential habitat averaged over 10 years. BLM will work collaboratively with FWS to prioritize surveys during the first 5 years to areas that have a high likelihood of species occurrence, or that are needed for BLM

Conservation Measures	BLM Implementation Actions
	project purposes. BLM will also target at least 10,000 acres of Stage 2 surveys (slickspot peppergrass plant surveys) that can be done concurrently with the Stage 1 surveys. The amount of habitat to be surveyed each year will be based on available annual funding. Stage 3 plant surveys will be conducted as necessary and desired. iv). Prioritize Stage 1 and 2 surveys to address slickspot peppergrass habitat with a high likelihood of species occurrence. Surveys should be scheduled to complement other program needs.
c) Cooperate in regular monitoring of slickspot peppergrass population trends and land health conditions on BLM-managed lands, and follow current monitoring protocols. Land health conditions include forb diversity to support pollinators and habitat for slickspot peppergrass.	c) Follow the Habitat Integrity and Population (HIP) monitoring protocol or other accepted monitoring methodology. BLM will cooperate with others to conduct annual monitoring within all EOs on BLM-managed lands to assess the effectiveness of the conservation measures as part of the adaptive management strategy. i). Establish permanent ecological reference areas (ERAs) in selected EOs to evaluate land health conditions associated with slickspot peppergrass. ii). Use data from the ERAs to assist in completing land health assessments. This information will be used to evaluate permitted management actions and to design restoration projects for slickspot peppergrass.
d) Participate in research essential to conservation of the species.	d) BLM will participate in research as funding allows. Areas to focus on include, but are not limited to, the following: i). Elimination and control of invasive species. ii). Pollination, forb restoration, and effects of ground disturbance on the species. iii). Determination of specific limiting factors in terms of habitat needs and characteristics. iv). Population viability analyses.
e) Continue to support seed banks in a long-term seed storage facility.	e) As needed, make seed available to a suitable repository to support a seed bank.
f) Support the establishment and maintenance of new populations in habitat categories for slickspot peppergrass. The goal of these activities is to maintain or enhance viable populations.	f) Reintroduce slickspot peppergrass at selected experimental reintroduction or historic sites as funding allows.
2) Ensure that ongoing Federal actions support or do not preclude species conservation in habitat categories for slickspot peppergrass.	2) Ongoing BLM authorized activities: a) Based on the results of Stage 1 and 2 surveys, review ongoing activities in s habitat categories

Conservation Measures	BLM Implementation Actions
	for slickspot peppergrass. The Level 1 Team will conduct these reviews in a manner consistent with streamlining procedures where local section 7 compliance activities with FWS (if necessary) have not yet been completed. b) If reviews indicate that direct or indirect negative impacts to the species or its habitat are occurring as a result of ongoing discretionary BLM actions, the activity will be modified to avoid or minimize anticipated negative impacts and, where feasible, promote species conservation. c) Where habitat categories for slickspot peppergrass exist, BLM will conserve remaining stands of sagebrush and native vegetation in making activity plan and project-level decisions.
3) Ensure that new Federal actions support or do not preclude species conservation in habitat categories for slickspot peppergrass.	3) New proposed BLM authorized activities: a) Consistent with streamlining procedures, BLM will require project-level inventories for any project in slickspot peppergrass habitat and in potential habitat during project planning if inventory information is not available or adequate. BLM will use the protocols described in (1) (a). b) If direct or indirect negative impacts to the species or its habitat are anticipated as a result of new BLM actions, the activity will be modified to avoid or minimize negative impacts and, where feasible, promote species conservation. c) Where needed, complete section 7 compliance for new activities that may affect this species and its habitat. d) Where slickspot peppergrass habitat exists, BLM will conserve remaining stands of sagebrush and native vegetation in making activity plan and project-level decisions.
4) Implement adaptive management as needed to achieve conservation objectives.	4) Conduct site-specific implementation and effectiveness monitoring of management actions. Adjust management as needed to ensure that objectives are met. See additional details within other programs.
5) Support programs to conserve and enhance slickspot peppergrass on non-Federal lands.	5) Take advantage of opportunities to support conservation of slickspot peppergrass through easements, cooperative management efforts, and other programs.
6) Include language in all land use authorizations to require rehabilitation of s habitat categories for slickspot peppergrass in case of trespass or permit violations, if damage occurs.	6) As a part of management authorizations, require rehabilitation to native vegetation in habitat categories for slickspot peppergrass if trespass or permit violation occurs and the habitat is damaged.

Conservation Measures	BLM Implementation Actions
	If ecological site conditions preclude the use of native species, use non-invasive, non-native plant species for rehabilitation in trespass or permit violation situations.
Air Resources	
None	None
Soil Resources, Water Resources, and Riparian Areas and Wetlands	
None	None
Upland Vegetation (includes noxious weed management)	
1) Although non-chemical methods will be the preferred approach in occupied habitat, when appropriate, projects involving the application of pesticides (including herbicides, fungicides, and other related chemicals) in slickspot peppergrass habitat and potential habitat that may affect the species will be analyzed at the project level and designed such that pesticide applications will support conservation and minimize risks of exposure.	1) Site-specific stipulations will be developed locally using these criteria: a) Evaluate the benefits and risks of vegetation treatment including the following: application methods; pesticides, carriers, and surfactants used; needed treatment buffers; and use of non-chemical noxious weed control (for example, bio-controls, hand pulling). b) Apply appropriate spatial and temporal buffers to avoid species' exposure to harmful chemicals. c) Explore opportunities to eradicate competing non-native invasive plants in occupied habitat where slickspots are being invaded by such plants. d) Implement revegetation and noxious weed control measures to reduce the risks of non-native invasive plant infestations following ground/soil disturbing actions in slickspot peppergrass habitat. e) BLM will provide the US Department of Agriculture Animal and Plant Health Inspection Service with the location of habitat categories for slickspot peppergrass. Mormon cricket, grasshopper, or other insect control in habitat categories for slickspot peppergrass will only include those methods that minimize impacts to the plant's pollinators.
2) Where needed and feasible, coordinate with adjacent land owners and local governments regarding control of invasive plants in upland areas through cooperative weed management programs. One of BLM's priorities within the cooperative weed management program is the protection of special status plants on BLM-managed lands.	2) Take advantage of coordination opportunities as they arise.
3) BLM will promote diversity, richness, and health of native plant communities to support pollinators and habitat for slickspot peppergrass.	3) BLM will focus slickspot peppergrass habitat conservation and restoration efforts in or adjacent to occupied habitat to encourage connectivity among populations through the following measures: a) Where habitat categories for slickspot peppergrass exist, BLM will conserve

Conservation Measures	BLM Implementation Actions
	remaining stands of sagebrush and native vegetation in making activity plan and project-level decisions. b) Vegetation treatment projects undertaken in habitat categories for slickspot peppergrass will be compatible with species habitat restoration objectives, as described in item (d) below. c) BLM will select and implement specific projects to restore habitat categories for slickspot peppergrass in degraded areas as funding allows, such as planting shrubs and forbs and controlling noxious weeds, within and adjacent to occupied habitat. Apply methods described in item (d) below. d) When conducting vegetation treatment projects, BLM will use seeding techniques that minimize soil disturbance such as minimum-till drills and rangeland drills equipped with depth bands, use native plant materials and seed during restoration activities, and select native forbs that benefit slickspot peppergrass insect pollinators.
Forest and Woodland Management	
None	None
Wildlife	
1) Manage facilities installed for wildlife to promote maintenance of habitat categories for slickspot peppergrass.	1) For review of ongoing actions, see Special Status Animal and Plant Management program section item (2). For new actions, see Special Status Animal and Plant Management program section item (3). As appropriate to avoid or minimize negative impacts, modify existing and avoid placement of new wildlife facilities in occupied habitat.
2) Restore wildlife habitat while promoting slickspot peppergrass conservation.	2) Any restoration efforts for wildlife within habitat categories for slickspot peppergrass will be compatible with the species' habitat requirements.
Fish and Aquatic Habitat	
None	None
Livestock Grazing: Permits and Leases	
1) Manage livestock grazing and trailing to conserve suitable habitat conditions for slickspot peppergrass while implementing rangeland health standards and guidelines. Apply the Implementation of Annual Grazing Adaptive Management (Figure E-1), located at the end of this conservation measures table, to adjust livestock use as appropriate.	1) Permit or lease renewal actions and annual authorizations: a) For review of ongoing actions, see Special Status Animal and Plant Management program section item (2). b) Schedule surveys in habitat categories for slickspot peppergrass as needed for rangeland health assessments associated with permit and lease renewals. Surveys will be prioritized for habitat with a medium to high potential for species occurrence. Unsurveyed habitat with a low potential for species occurrence will be treated as unoccupied by slickspot

Conservation Measures	BLM Implementation Actions
	peppergrass until surveys can be completed. The BLM Slickspot Peppergrass Occurance Potential Map will be used to determine potential for occurance within the Jarbidge planning area. Use survey procedures and flowchart (Figure E-1, Implementation of Annual Grazing Adaptive Management) referenced in Special Status Animal and Plant Management program section 1(b). c) For new actions, see Special Status Animal and Plant Management program section item (3). d) As part of adaptive management to avoid or minimize negative impacts, modify livestock grazing activities as outlined in Figure E-1, Implementation of Annual Grazing Adaptive Management, located at the end of this conservation measures table. In addition, the following measures will be implemented, as appropriate: i). As part of range readiness assessments, delay livestock turnout when soils are saturated. ii). Minimize gathering livestock in EOs. iii). Avoid impacts to EOs from heard movementthrough rested and deferred pastures. iv). Trailing permits will not be authorized through EOs. v). Sheep grazing permits will be modified to restrict bedding, trailing or watering herds within ½ mile of EOs. vi). Supplements will be placed at least ½ mile from EOs. Supplements will be placed so that livestock will be drawn away from the EO and avoid traveling through the EO en route to the supplement or water source. Management requirments will be adjusted to maintain an appropriate distance between supplements and existing EOs to avoid impacts. vii). No new domestic horse AUMs will be authorizedin pastures containing EOs to avoid trampling impacts.
2) As part of adaptive management, BLM will conduct scheduled compliance inspections in pastures with occupied habitat as part of BLM range use supervision to minimize impacts.	2) BLM, in coordination with the FWS, will create a schedule to prioritize compliance inspections associated with livestock grazing permits in occupied habitat areas. These compliance inspections are a complement to the HIP monitoring listed under Special Status Animal and Plant Management and where practical the efforts may be combined. BLM staff will conduct inspections as determined by the schedule.

Conservation Measures	BLM Implementation Actions
	a) BLM range staff will conduct pre-season range readiness checks for soil moisture conditions in allotments with occupied habitat. b) BLM will conduct post-use monitoring for trampling in slickspots within EOs (could be done in conjunction with utilization compliance checks). c) Monitoring results will be documented in a standard format (to be developed by BLM) in the grazing allotment files. Copies will be provided to the FWS as completed. d) Apply Grazing Adaptive Management Implementation Flowchart, Figure E-1.
3) Provide adequate rest from livestock use for areas treated after major disturbances in habitat categories for slickspot peppergrass. Major disturbances include fire, fire rehabilitation, or other soil-disturbing occurrences.	3) Protect treated areas by using temporary livestock closures or other measures. The length of rest will be determined by achieving certain goals associated with plant establishment outlined in the restoration, fire rehabilitation, or other plan.
4) BLM will work cooperatively with the livestock permittees to promote slickspot peppergrass conservation.	4) BLM will train permittees on slickspot peppergrass habitat and plant recognition. BLM will also work with permittees to use the Idaho Natural Heritage Program rare plant observation form to report survey information in a standard format.
Livestock Grazing: Livestock Management Facilities	
1) Manage livestock facilities to promote slickspot peppergrass conservation while implementing rangeland health standards and guidelines.	1) For review of ongoing actions, see Special Status Animal and Plant Management program section item (2). For new actions, see Special Status Animal and Plant Management program section item (3). As appropriate to avoid or minimize negative impacts, modify existing and avoid placement of new livestock facilities in occupied habitat areas. a) Within pastures, place water facilities to support slickspot peppergrass conservation: i). Existing water troughs (includes troughs that are tied into pipelines, as well as both permanent and movable troughs to which water is delivered throughout the grazing season) will be moved at least 1/2 mile from EOs, when feasible. Where troughs cannot be moved (for example, because of topographical constraints, additional disturbance, or impacts to sensitive species), management will be adjusted to mitigate the impacts during the periods of critical concern for slickspot peppergrass (such as when soils are saturated and subject to trampling impacts). Management adjustments could include shutting the water off seasonally, changing pasture boundary fences, or other appropriate measures.

Conservation Measures	BLM Implementation Actions
	ii). New water troughs (not including existing water troughs moved in [2][a][i], above) will be placed at least 1 mile from EOs. A deviation from this standard may be developed on a case-by-case basis through collaboration with the FWS. New water troughs will be placed so that cattle are drawn away from the EO and avoid trailing through an EO en route to a water source. iii). Temporary water troughs (short-term, emergency, or single-season use) will be located at least 1 mile from EOs. A deviation to this standard may be developed on a case-by-case basis through collaboration with the FWS. New water troughs will be placed so that cattle are drawn away from the EO and avoid trailing through an EO en route to a water source. b) Placement of new livestock infrastructure will be compatible with slickspot peppergrass habitat conservation. Avoid placement of new fences within EOs.
Wild Horses	
1) If the range of wild horses and occupied habitat for slickspot peppergrass overlaps now or in the future, protect these areas from wild horses by including applicable conservation measures in herd management plans.	1) Manage wild horse herd size to minimize conflicts with slickspot peppergrass. Limit trampling in occupied habitat by implementing appropriate range management practices, such as fencing and water trough placement.
Recreation	
1) Developed facilities (paved campgrounds, vault toilets, interpretive kiosks, etc.): Manage existing and new recreation facilities to promote conservation of species habitat.	1) Management of existing and new facilities: a) For review of existing facilities, see Special Status Animal and Plant Management program section item (2). As appropriate to avoid or minimize negative impacts, modify existing facilities. b) For new facilities, or for expansion of uses at existing facilities, see Special Status Animal and Plant Management program section item (3). In addition, avoid development of new recreation facilities or expansion of existing facilities in habitat categories for slickspot peppergrass if negative impacts are anticipated.
2) Dispersed use areas (informal areas, including camping areas and tie-up areas for pack animals): Manage dispersed use sites to promote conservation of species habitat. This includes limiting disturbances to the species resulting from human uses.	2) For review of ongoing activities, see Special Status Animal and Plant Management program section item (2). In addition, minimize human activity in and adjacent to occupied habitat if negative impacts are occurring. Close areas, either seasonally or year-round, as needed to protect the species and its habitat.

Conservation Measures	BLM Implementation Actions
3) Commercial and noncommercial recreation permits, including hunting guides and outfitter camps: issue commercial and noncommercial recreation permits to promote conservation of habitat categories for slickspot peppergrass. This includes management of physical facilities (such as camps), as well as disturbances to habitat categories for slickspot peppergrass resulting from human uses.	3) Issuance and review of existing and new permits: a) For review of existing permits, see Special Status Animal and Plant Management program section item (2). If needed, modify existing permits that negatively impact habitat for this species. b) For new permits, see Special Status Animal and Plant Management program section item (3). Avoid issuing recreation permits in habitat categories for slickspot peppergrass if negative impacts are expected. In particular, avoid permitting new recreation activities in and adjacent to occupied habitat. If a recreation permit is to be issued, apply stipulations to the permit to support or to not preclude species conservation and educate permit holders about species' biology and needs. c) BLM will not authorize organized recreation activities in habitat categories for slickspot peppergrass if negative impacts are anticipated (for example, off-highway vehicle [OHV] races, equestrian events, and other events).
Transportation and Travel	
1) Manage roads, OHV routes and areas, as well as non-motorized trails, to promote species habitat conservation. This includes management of roads and trails, as well as ground disturbance resulting from human uses.	1) Review of existing and new roads, OHV routes and areas, and non-motorized trails: a) For existing roads, designated OHV routes and areas, and designated non-motorized trails, see Special Status Animal and Plant Management program section item (2). Modify roads and routes in and adjacent to habitat categories for slickspot peppergrass if negative impacts are occurring. Implement restrictions to reduce ground disturbance. Seek opportunities to close and revegetate roads, OHV routes, or non-motorized trails and use areas in and adjacent to habitat if negative impacts are occurring. b) For new roads, OHV routes and areas, and non-motorized trails, see Special Status Animal and Plant Management program section item (3). Avoid creating new roads, trails, routes, and areas if negative impacts are expected in and adjacent to habitat categories for slickspot peppergrass. c) Evaluate off-road vehicle use in occupied habitat, and where needed, limit access or close areas to motorized and mechanized vehicles to promote species conservation.

Conservation Measures	BLM Implementation Actions
2) Perform compliance checks on OHV closures to protect occupied habitat, identify problems as soon as possible, and take immediate corrective measures.	2) See Special Status Animal and Plant Management program section item (2).
Visual Resource	
None	None
Special Designations	
1) Explore the potential for new designations that would enhance species conservation.	1) Evaluate establishing Areas of Critical Environmental Concern for several stronghold populations of slickspot peppergrass during land use plan amendments.
Wildland Fire Ecology and Management: Fire Suppression	
1) Fire suppression efforts will be conducted, as possible, to protect s habitat categories for slickspot peppergrass. Place a high priority on protecting habitat categories for slickspot peppergrass.	1) Fire management activities: a) Fire Management Plans will include Standard Operating Procedures that address conservation of slickspot peppergrass. i). BLM will provide adequate fire suppression coverage at all stations to meet objectives with the intent to suppress 90% of fires to the acreages specified in the fire management plans for slickspot peppergrass. BLM will maintain existing remote fire guard stations easily accessible to occupied habitat (for example, Juniper Butte fire guard station) and explore opportunities to establish additional stations to provide better initial attack and reduced response times for wildfires in habitat categories for slickspot peppergrass. ii). Apply Minimum Impact Suppression Tactics (MIST) in habitat categories for slickspot peppergrass, as appropriate. Consult with resource advisors to determine where MIST tactics should be applied to avoid or minimize negative impacts. iii). Although MIST are preferred, aggressive fire suppression tactics (e.g., blade lines, back fires) may be applied in habitat if EOs are threatened. b) Do not locate fire base camps, staging areas, and fueling areas within occupied habitat.
2) As needed, coordinate with appropriate agency personnel regarding fire suppression activities in or adjacent to habitat categories for slickspot peppergrass.	2) Ongoing interagency coordination. a) BLM and cooperators will expand on and continue to provide special status plant and habitat awareness training to fire resource advisors, Incident Commanders, Engine Operators, and Fire Operations Supervisors. b) BLM and cooperators will distribute maps and inform fire crews on locations of the EOs to maximize fire protection and to avoid or

Conservation Measures	BLM Implementation Actions
	minimize impacts from fire suppression activities.
Wildland Fire Ecology and Management: Emergency Stabilization and Burned Area Rehabilitation	
1) Implement Emergency Stabilization and Burned Area Rehabilitation (ES&BAR) activities to consider slickspot peppergrass in and adjacent to slickspot peppergrass habitat rehabilitation.	1) The following measures will be applied: a) All wildfires within habitat categories for slickspot peppergrass will be evaluated for ES&BAR treatments, regardless of size. b) As needed, protect disturbed and recovering areas using temporary closures or other measures. BLM will continue to rest areas from land use activities to meet ES&R objectives, defined through the ES&BAR plans. c) BLM will initiate and complete ES&BAR efforts for slickspot peppergrass, such as planting shrubs and forbs, within habitat categories for slickspot peppergrass. BLM will implement the following measures during fire ES&BAR efforts: i). BLM will use seeding techniques that minimize soil disturbance such as minimum-till drills and rangeland drills equipped with depth bands when ES&BAR projects have the potential to impact slickspot peppergrass habitat. ii). BLM will use native plant materials and seed during ES&BAR activities. BLM will include native forbs in seed mixtures that will benefit slickspot peppergrass insect pollinators. iii). If native plant materials and seed are not available, non-invasive, non-native species may be used for stabilization activities in habitat categories for slickspot peppergrass. iv). In areas adjacent to habitat categories for slickspot peppergrass, if natives are not available, non-invasive non-native species are acceptable for stabilization activities.
2) Fire rehabilitation projects involving the application of pesticides in habitat categories for slickspot peppergrass will be analyzed and implemented in accordance with the approach described in the Upland Vegetation Management: Rangelands program section.	2) See Upland Vegetation Management: Rangelands program section.
Wildland Fire Ecology and Management: Wildland Fire Use	
1) Wildland fire use projects will not be allowed in slickspot peppergrass habitat.	1) Wildland fire use is not an option in the planning area per WFM-CA-A-1 in chapter 2.
Wildland Fire Ecology and Management: Prescribed Fire	
1) Prescribed fire projects will be designed to conserve and enhance slickspot peppergrass habitat.	1) Prescribed fire in slickspot peppergrass habitat will only be used as a tool for assisting with species conservation (for example, a burn in preparation to decrease cheatgrass litter before herbicide application, or to clear fence lines of accumulated windblown weeds).

Conservation Measures	BLM Implementation Actions
Wildland Fire Ecology and Management: Non-Fire Fuels Management	
1) Implement projects involving the application of pesticides in accordance with the approach described in the Upland Vegetation Management: Rangelands program section.	1) See Upland Vegetation management: Rangelands program section.
2) Fuels management projects conducted in habitat categories for slickspot peppergrass should have long-term benefits to slickspot peppergrass.	2) Avoid fuels management projects in occupied habitat, unless such projects would enhance species conservation or are necessary for hazardous fuels reduction near the urban interface. Implement protection measures to avoid or minimize negative impacts to the species. In habitat categories for slickspot peppergrass, design native seed mixes that emphasize local stock and will promote species conservation. a) Because of potential negative impacts to habitat categories for slickspot peppergrass from linear fuel breaks, which can act as weed dispersal corridors, the following measures will be applied in or adjacent to habitat categories for slickspot peppergrass: i). BLM will evaluate the effectiveness of existing fuel breaks (location, dry fuel load, and noxious weed and invasive plant composition) in protecting habitat categories for slickspot peppergrass. ii). BLM may create and maintain fuel breaks where frequent fires can threaten habitat categories for slickspot peppergrass. New fuel breaks in habitat categories for slickspot peppergrass will be designed to conserve and enhance species habitat. Where appropriate and where objectives will be met, native vegetation should be emphasized in the creation of new fuel breaks. If native vegetation or seed is not available or if objectives would be met through their use, fuel breaks may include non-native, non-invasive, species that will not invade slickspots. In areas adjacent to habitat categories for slickspot peppergrass, fuel breaks may include potentially invasive non-native species such as intermediate wheatgrass and forage kochia as a last resort if the benefits of their use are demonstrated to outweigh the risks to slickspot peppergrass and its habitat. If potentially invasive non-native species are used, monitoring for spread will occur. If spread is found to occur outside the original treatment area, control measures will be applied to elimante further spread. Apply conservation measure (2) in the Fire Management: ES&BAR program section

Conservation Measures	BLM Implementation Actions
	and conservation measure (4) in the Upland Vegetation Management program. iii). Consider actions to repair or restore fuel breaks so they function as desired. Apply conservation measure (2) in the Fire Management: ES&BAR program section and conservation measure (4) in the Upland Vegetation Management program. b) In addition to the reduction in fuels associated with managed livestock grazing (see relevant conservation measures from Livestock Grazing Management section), BLM may create fuel breaks using techniques such as mowing or targeted grazing to strategically reduce fuel loads where frequent fires can threaten habitat categories for slickspot peppergrass if the benefit of these actions can be demonstrated to outweigh the risks to slickspot peppergrass and its habitat.
Wildland Fire Ecology and Management: Community Assistance	
1) Follow all measures included throughout the Fire Management program sections.	1) See actions within Fire Management program sections. Incorporate into community assistance agreements.
Land Tenure (sale, exchanges, withdrawals, etc.)	
1) Where feasible and funding is available, acquire through land exchange or purchase private lands that contain habitat categories for slickspot peppergrass.	1) BLM will opportunistically acquire habitat categories for slickspot peppergrass, particularly occupied habitat and critical habitat, in land exchanges and purchases.
2) Retain occupied habitat and critical habitat for slickspot peppergrass Federal ownership unless such a transfer would result in a net benefit to the species.	2) Occupied habitat and critical habitat for slickspot peppergrass within the planning area are allocated as land tenure zone 1, lands for retention that are not available for disposal.
Lands and Realty Management: Land Use Permits and Leases	
1) Issue new land use permits and leases and review existing permits and leases at renewal to conserve species habitat. This includes management of physical facilities, as well as ground disturbance resulting from human uses.	1) For new authorizations, as well as those being renewed, see Special Status Animal and Plant Management program section item (3). Avoid issuing new authorizations, or renewing existing authorizations, in or adjacent to habitat categories for slickspot peppergrass if negative impacts are expected. If an authorization is to be issued or re-issued in such areas, apply stipulations to the authorization that support species conservation and that avoid or minimize negative impacts. BLM will require control of invasive non-native plant or noxious weed species on new, renewing, or amending land use permits and leases in habitat categories for slickspot peppergrass. a) Conduct periodic project compliance inspections during implementation of projects involving soil disturbance. BLM may require a qualified botanist to monitor slickspots to avoid ground disturbing activities in habitat categories for slickspot peppergrass.

Conservation Measures	BLM Implementation Actions
	b) BLM will require that new or renewing permit or lease holders establish at least 50% perennial cover after all ground-disturbing activities, unless ecological site conditions preclude that level of cover. If a native species component existed prior to the ground disturbance, then the native species component of the perennial cover should be restored.
Land Use Authorizationss: Rights-of-Way	
1) Issue new rights-of-way (ROWs) and review existing ROWs at renewal to conserve species habitat. This includes management of physical facilities, as well as disturbances to the species resulting from human uses.	1) For new rights-of-way and renewal of existing rights-of-way, see Special Status Animal and Plant Management program section item (3) Avoid issuing new rights-of-way, or renewing rights-of-way, in or adjacent to habitat categories for slickspot peppergrass if negative impacts are expected. In habitat categories for slickspot peppergrass, only issue or re-issue rights-of-way with stipulations to avoid negative impacts to the habitat. BLM will require control of invasive non-native plants or noxious weed species on new, renewing, or amending right of way authorizations in habitat categories for slickspot peppergrass. a) BLM will require that new or renewing permit or lease holders establish at least 50% perennial cover after all ground-disturbing activities, unless ecological site conditions preclude that level of cover. If a native species component existed prior to the ground disturbance, then the native species component of the perennial cover should be restored. b) As appropriate, BLM may require a qualified botanist to monitor slickspots to avoid or minimize impacts during BLM-authorized activities that occur in habitat categories for slickspot peppergrass.
Minerals: Locatable Minerals	
1) Approve plans of operations or allow notice-level operations so as not to preclude species habitat conservation. This includes management of physical facilities, as well as disturbances to the species resulting from human uses.	1) Approval of plans of operations and notice-level operations: a) For review of existing plans of operation and notice-level operations, see Special Status Animal and Plant Management program section item (2). To the extent allowed by law, modify plans of operation or notice-level operations that may have negative impacts on the species or its habitat. For notice-level operations, notify the operator that modifications to proposed activities will be required to avoid negative impacts. b) For new plans of operation and notice-level operations, see Special Status Animal and Plant Management program section item (3). To the extent allowed by law, avoid approving plans of operation or notice-level operations that may have negative impacts on the species

Conservation Measures	BLM Implementation Actions
	or its habitat. For notice-level operations, notify the operator that modifications to proposed activities will be required to avoid negative impacts. If a plan of operations is to be approved in or adjacent to habitat categories for slickspot peppergrass, apply stipulations to support or to not preclude species conservation. A notice will require modification by the operator until BLM determines that it will not result in undue or unnecessary degradation.
Minerals: Salable and Leasable Minerals	
1) Approve development of salable or leasable minerals so as not to preclude species habitat conservation. This includes management of physical facilities, as well as disturbances to the species resulting from human uses.	1) Approval of salable and leasable minerals: a) For review of existing mineral leases, see Special Status Animal and Plant Management program section item (2). Modify existing mineral leases if negative impacts are occurring. b) For new sales or leases, see Special Status Animal and Plant Management program section item (3). Avoid development of salable or leasable minerals in or adjacent to habitat categories for slickspot peppergrass if negative impacts are expected. If a minerals lease or sale is to be issued in or adjacent to habitat, apply stipulations to support or to not preclude species conservation.
Cultural Resources	
1) Activities within the Cultural Management program will implement relevant conservation measures as described in the Special Status Animal and Plant Management program section to promote conservation.	1) Apply relevant conservation measures from the Special Status Animal and Plant Management program section at the beginning of this table.
Paleontological Resources	
1) Activities within the Paleontology program will implement relevant conservation measures as described in the Special Status Animal and Plant Management program section to promote conservation.	1) Apply relevant conservation measures from the Special Status Animal and Plant Management program section at the beginning of this table.

Figure E-1. Implementation of Annual Grazing Adaptive Management

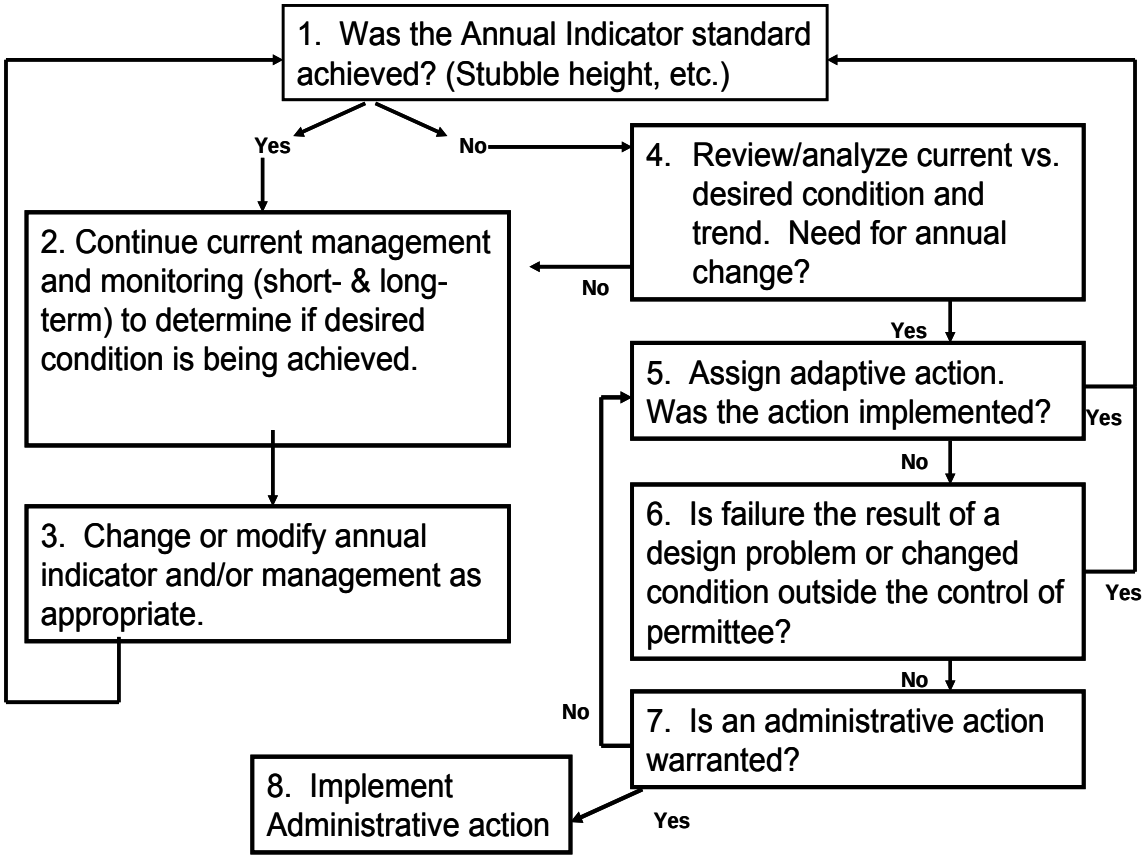
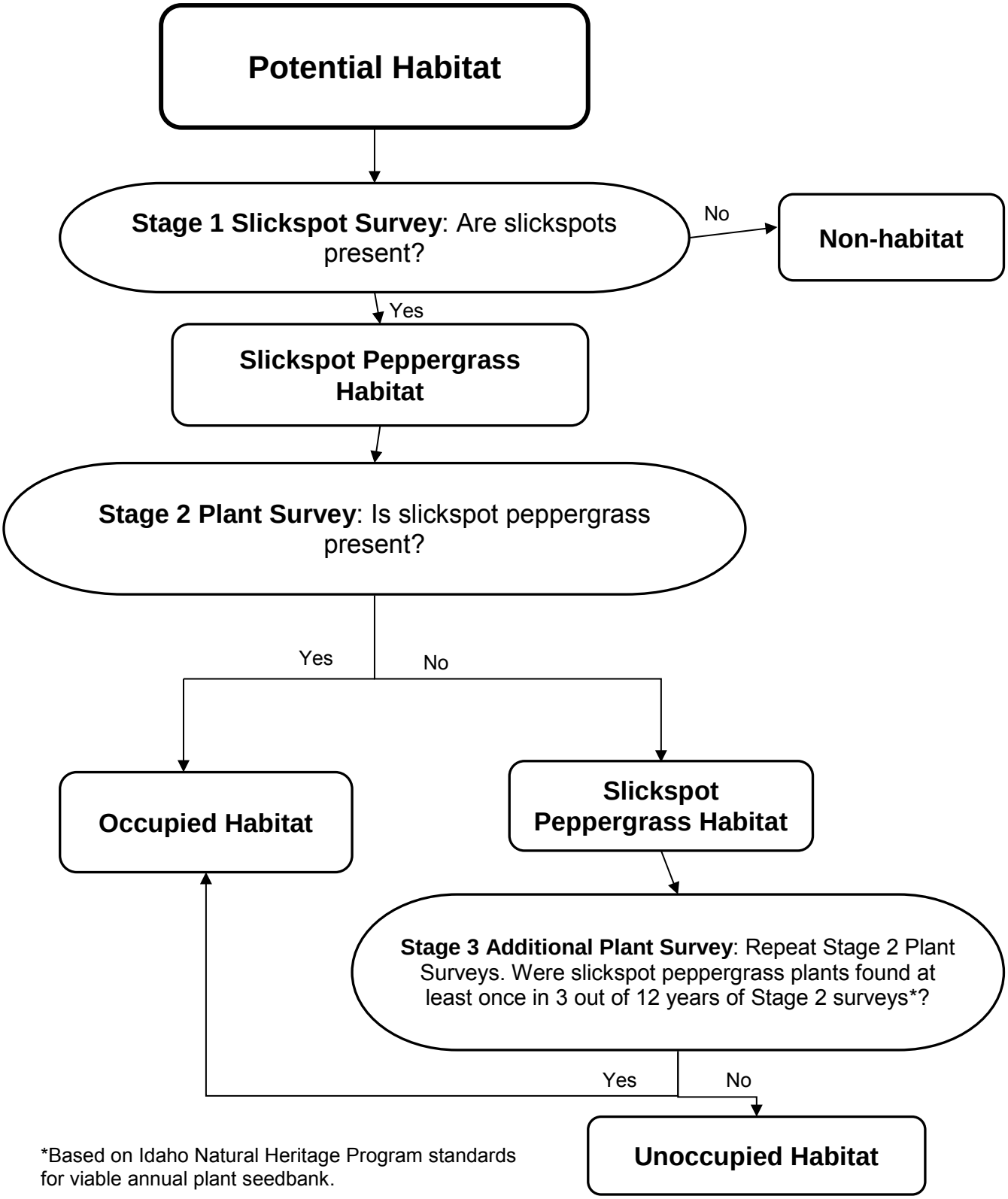


Figure E-2. BLM Survey Flow Chart for Slickspot Peppergrass.



*Based on Idaho Natural Heritage Program standards for viable annual plant seedbank.

Proposed Critical Habitat for Slickspot Peppergrass

The FWS has identified Primary Constituent Elements (PCEs), those physical and biological features essential to the conservation of the species and its habitat, and within areas occupied by the species at the time of listing, that may require special management considerations and protection.The conservation measures from Table E-1. Conservation Measures for Slickspot Peppergrass are designed to enhance slickspot peppergrass occurrences and habitat. The following table contains a crosswalk between PCEs for slickspot peppergrass proposed critical habitat and Corresponding Pathway Indicators for making effects determinations on the species and its habitat. The most effective way to evaluate the impact an activity will have on slickspot peppergrass proposed critical habitat is to analyze the effects that the activity will have on the PCEs.

Table E-2. PCEs for Proposed Critical Habitat for Slickspot Peppergrass and the Associated Matrix Indicators.

PCE	PCE Description	Corresponding Pathway Indicator
1	Ecologically functional microsites or “slickspots” that are characterized by: (a) a high sodium and clay content and a three-layer soil horizonation and (b) sparse vegetation with low to moderate invasive non-native plant species cover	A-1. Density of non-native annual and/or non-native perennial plants established within slickspots A-2. Level of ground disturbance within slickspots A-3. Level of organic debris (litter or feces) and/or soil deposition and accumulation within slickspots
2	Relatively intact native Wyoming big sagebrush vegetation assemblages within 820 feet (250 meters) of slickspot peppergrass EOs	B-1. Level of ground disturbance within the action area B-2. Condition of native vegetation within the action area - level of habitat fragmentation B-3. Condition of native vegetation within the action area - presence of non-native annuals and/or non-native perennial plants B-4. Condition of native vegetation within the action area - percent cover of biological soil crusts B-5. Condition of native vegetation within the action area - percent cover of native forbs
3	A diversity of native plants to provide for insect pollinator foraging, nesting, and sheltering	B-3. Condition of native vegetation within the action area - presence of non-native annuals and/or non-native perennial plants B-5. Condition of native vegetation within the action area - percent cover of native forbs
4	Sufficient pollinators for successful fruit and seed production	B-1. Level of ground disturbance within the action area B-2. Condition of native vegetation within the action area - level of habitat fragmentation B-3. Condition of native vegetation within the action area - presence of non-native annuals and/or non-native perennial plants B-5. Condition of native vegetation within the action area - percent cover of native forbs

Listed Snake River Aquatic Snails

Table E-3. Conservation Measures for Listed Snake River Aquatic Snails (Snake River Physa and Bliss Rapids Snail).

Conservation Measures	BLM Implementation Actions
Special Status Animal and Plant Management: Common to All Programs	
1) In cooperation with Idaho Department of Fish and Game, US Fish and Wildlife Service, Bureau of Reclamation, hydroelectric power companies, and others: a) Cooperate in gathering existing information to understand the distribution of known populations, and contribute new information as opportunities arise.	1) Following actions to be completed: a) Provide new occurrence information to Idaho Natural Heritage Program as project-level clearance inventories are completed. Cooperate with other agencies to develop and update a map or spatial database of known listed Snake River snail locations.
2) Ensure that ongoing Federal actions support or do not preclude species recovery.	2) Ongoing BLM activities: a) As needed, review ongoing activities in and adjacent to occupied suitable habitat where local consultation has not yet been completed. b) Determine if direct or indirect negative impacts to the species or its habitat are occurring as a result of ongoing discretionary BLM actions. If so, modify the activity to avoid or minimize anticipated negative impacts and, where feasible, promote species recovery. c) Where needed, complete section 7 consultation for ongoing activities that may affect any of these species and their habitat.
3) Ensure that new Federal actions support or do not preclude species recovery.	3) New BLM activities: a) Project-level inventories will be completed in suitable habitat during project planning if inventory information is not available or adequate. b) b) If direct or indirect negative impacts to the species or their habitats are anticipated as the result of new BLM actions, modify the activity to avoid or minimize negative impacts and, where feasible, promote species recovery. c) Where needed, complete section 7 consultation for new activities that may affect any of these species and their habitats.
4) Implement adaptive management as needed to achieve conservation objectives.	4) Conduct site-specific implementation and effectiveness monitoring. Adjust management as needed to ensure that management objectives are met.
5) Support conservation easements, cooperative management efforts, and other programs on adjacent non-Federal land to support recovery of the listed Snake River snails.	5) Take advantage of opportunities as they arise.
Air Resources	
None	None

Conservation Measures	BLM Implementation Actions
Soil and Water Resources: Riparian/Wetland Areas (includes noxious weed management)	
1) Projects involving the application of pesticides (herbicides, insecticides, etc.) that may affect the species will be analyzed at the project level and designed such that pesticide applications will support conservation and recovery and minimize risks of exposure.	1) Site-specific stipulations will be developed locally using the following criteria: a) Evaluate the benefits and risks of vegetation treatment, including the following: application methods; pesticides, carriers, and surfactants used; needed treatment buffers; and use of non-chemical weed control (for example, bio-controls, hand pulling). If objectives can be effectively accomplished using non-chemical methods, such is the preferred alternative. b) Apply appropriate spatial and temporal buffers to avoid species' exposure to harmful chemicals. c) Implement appropriate revegetation measures to reduce the risks of soil erosion and water quality impacts adjacent to suitable habitat.
2) Where needed and feasible, coordinate with adjacent landowners and local governments regarding control of noxious weeds and invasive plants in riparian areas through cooperative weed management programs.	2) Take advantage of opportunities as they arise.
3) Where needed, improve watershed conditions adjacent to suitable habitat to prevent soil erosion and negative water quality impacts. Conserve riparian vegetation near suitable habitat to minimize potential for erosion and sediment delivery to springs.	3) Management actions: a) Identify areas with unsuitable watershed conditions that are negatively impacting suitable habitat. Develop and implement a restoration plan to reduce or eliminate negative impacts. b) Emphasize soil stabilization and avoid ground disturbance when risks of erosion and sediment delivery are high.
Upland Vegetation Management: Rangelands (includes noxious weed management)	
1) Projects involving the application of pesticides in uplands adjacent to riparian areas located near suitable listed Snake River snail habitat will be designed and implemented in accordance with the approach described in the Soils and Water Resources: Riparian and Wetland Areas program.	1) See Soil and Water Resources: Riparian/Wetland Areas (includes weed management) program section.
2) Manage upland areas to minimize sediment delivery into suitable habitat.	2) Emphasize soil stabilization and avoid ground disturbance when risks of erosion and sediment delivery to suitable habitat are high.
Forest and Woodland Management	
None	None
Wildlife and Wildlife Habitat Management	
1) Activities within the Wildlife and Wildlife Habitat Management Program will implement relevant conservation measures as described in the Special Status Plant and Animal Management program section to promote recovery.	1) Apply relevant conservation measures from the Special Status Animal and Plant Management program section at the beginning of this table.

Conservation Measures	BLM Implementation Actions
Fish and Aquatic Habitat Management	
1) Activities within the Fish and Aquatic Habitat Management program will implement relevant conservation measures as described in the Special Status Animal and Plant Management program section to promote recovery.	1) Apply relevant conservation measures from the Special Status Animal and Plant Management program section at the beginning of this table.
Livestock Grazing Management: Permits and Leases	
1) Manage livestock grazing and trailing adjacent to suitable listed Snake River snail habitat to promote healthy watershed conditions while implementing rangeland health standards and guidelines.	1) Permit or lease renewal actions: a) For review of ongoing actions, see Special Status Animal and Plant Management program section item (2). b) For new actions, see Special Status Animal and Plant Management program section item (3). c) As appropriate to avoid or minimize negative impacts, modify livestock grazing permits and leases.
2) Promote restoration of areas adjacent to suitable habitat following fire, fire rehabilitation, restoration treatments, or other major disturbances.	2) As needed, protect disturbed areas using temporary closures or other measures until vegetation is re-established and self-sustaining.
3) Maintain regular compliance checks on grazing allotments with suitable habitat to identify problems as soon as possible and take immediate corrective measures.	3) Ongoing, day-to-day BLM action.
Livestock Grazing Management: Livestock Management Facilities	
1) Manage livestock facilities to promote healthy riparian communities or to prevent erosion, or a combination of these objectives, while implementing rangeland health standards and guidelines.	1) For review of ongoing actions, see Special Status Animal and Plant Management program section item (2). For new actions, see Special Status Animal and Plant Management program section item (3). As appropriate to avoid or minimize negative impacts, modify existing and avoid placement of new livestock facilities adjacent to suitable habitat. Consider fencing livestock away from suitable habitat, and developing water gaps for livestock.
2) Protect springs in or adjacent to suitable habitat to conserve and recover listed Snake River snail habitat.	2) Avoid development of springs or other water sources in or adjacent to suitable habitat unless the activity will have beneficial long-term or neutral effects on listed Snake River snail populations. If a spring or water site is to be developed, install facilities as needed to avoid or minimize negative impacts.
Wild Horse Management	
1) Activities within the Wild Horse Management program will implement relevant conservation measures as described in the Special Status Animal and Plant Management program section to promote recovery.	1) Apply relevant conservation measures from the Special Status Animal and Plant Management program section at the beginning of this table.

Conservation Measures	BLM Implementation Actions
Recreation Management	
1) Developed facilities (boat access, paved campgrounds, vault toilets, interpretive kiosks, etc.): Manage existing and new recreation facilities so as not to preclude species habitat conservation and recovery. This includes management of the physical facilities, as well as disturbances to the species resulting from human uses.	1) Management of existing and new facilities: a) For review of existing facilities, see Special Status Animal and Plant Management program section item (2). As appropriate to avoid or minimize negative impacts, modify existing facilities. b) For new facilities, or for expansion of uses at existing facilities, see Special Status Animal and Plant Management program section item (3). In addition, modify new recreation facilities in or adjacent to suitable habitat if negative impacts are anticipated.
2) Dispersed use areas (informal areas including camping, spring access, and tie-up areas for pack animals and boats): Manage dispersed use sites so as not to preclude species habitat conservation and recovery. This includes limiting disturbance to the species resulting from human uses.	2) For review of ongoing activities, see Special Status Animal and Plant Management program section item (2). In addition, minimize human activity in and adjacent to known populations, if negative impacts are occurring. Close areas, either seasonally or year-round, as needed, and post and monitor the closure.
3) Commercial and non-commercial recreation permits including outfitter camps: Issue commercial and non-commercial recreation permits so as not to preclude species habitat conservation and recovery. This includes management of physical facilities (such as camps), as well as disturbance to the species resulting from human uses.	3) Issuance and review of existing and new permits: a) For review of existing permits, see Special Status Animal and Plant Management program section item (2). If needed, modify existing permits if the permitted activity is causing negative impacts. b) For new permits, see Special Status Animal and Plant Management program section item (3). If a recreation permit is to be issued in or adjacent to suitable habitat, apply stipulations to the permit to support or to not preclude species conservation and recovery.
4) Protect springs with known populations to conserve listed Snake River snail habitat.	4) Discourage or prohibit human entry in springs with known listed Snake River snail populations, if such entry causes negative impacts.
5) Educate the public on the listed Snake River snails' unique ecological requirements, sensitivity to habitat alteration and need for protection.	5) Take advantage of opportunities as they arise.
Recreation Management: Travel Management	
1) Manage roads, off-highway vehicle (OHV) routes and areas, and non-motorized trails, so as not to preclude species habitat conservation and recovery. This includes management of physical facilities, as well as disturbances to the species resulting from human uses.	1) Review of existing and new roads, OHV routes, and areas and non-motorized trails: a) For existing roads, OHV routes and areas, and non-motorized trails, see Special Status Animal and Plant Management program section item (2). Limit OHV activities in areas adjacent to suitable habitat that are particularly susceptible to erosion and thus sediment delivery. Seek opportunities to close and revegetate OHV

Conservation Measures	BLM Implementation Actions
	routes or non-motorized trails and use areas if negative impacts are occurring. b) For new roads, OHV routes and areas, and non-motorized trails, see Special Status Animal and Plant Management program section item (3). Avoid constructing new roads, trails, routes, and areas if negative impacts are expected. In particular, avoid opening new roads, trails, routes, and areas adjacent to suitable habitat particularly susceptible to erosion and thus sediment delivery.
2) Maintain regular compliance checks on OHV closures to protect known populations and to identify problems as soon as possible and take immediate corrective measures.	2) Ongoing, day-to-day BLM activities.
Visual Resource Management	
None	None
Special Designation Area Management	
1) Explore the potential for new designations that would enhance species recovery.	1) Take advantage of opportunities as they arise.
Fire Management: Fire Suppression	
1) Fire suppression efforts will be conducted, as possible, to protect listed Snake River snail habitat. Place a high priority on protecting highly erosive areas adjacent to suitable habitat from wildfire.	1) Fire management activities: a) Review Fire Management Plan for adequacy in addressing conservation measures. Modify the plan if needed. b) Apply Minimum Impact Suppression Tactics (MIST) adjacent to suitable habitat, as appropriate. Consult with resource advisors to determine where MIST tactics should be applied to avoid or minimize negative impacts. c) Avoid fire base camps, staging areas, fueling areas, or other related activities in highly erosive areas adjacent to suitable habitat.
2) Coordinate with US Forest Service, Idaho Department of Lands, or other applicable agency personnel regarding fire suppression activities in or near suitable habitat.	2) Ongoing interagency coordination.
Fire Management: Emergency Stabilization and Burned Area Rehabilitation	
1) Implement Emergency Stabilization and Burned Area Rehabilitation (ES&BAR) activities to promote restoration of areas adjacent to suitable listed Snake River snail habitat.	1) ES&BAR activities: a) If needed and if natural recovery would not achieve habitat objectives, implement ES&BAR activities to promote rehabilitation of areas adjacent to suitable habitat. Plant locally appropriate vegetation to prevent erosion, if natural recovery of such vegetation is doubtful. Include requirements that protect listed Snake River snail habitat, for example, sediment barriers. b) As needed, protect disturbed areas using temporary closures or other measures until site specific stabilization, rehabilitation, and

Conservation Measures	BLM Implementation Actions
	revegetation plan goals are met.
2) Fire rehabilitation projects involving the application of pesticides will be analyzed and implemented in accordance with the approach described in Soil and Water Resources: Riparian/Wetland areas.	2) See Soil and Water Resources: Riparian/Wetland Areas program section.
Fire Management: Wildland Fire Use	
1) Wildland fire use projects will be designed to conserve suitable listed Snake River snail habitat.	1) When developing wildland fire use plans, avoid burning lands adjacent to suitable habitat.
Fire Management: Prescribed Fire	
1) Prescribed fire projects will be designed to conserve suitable listed Snake River snail habitat.	1) When developing and implementing prescribed fire plans, avoid or minimize negative impacts to suitable habitat. Avoid prescribed fire use adjacent to suitable habitat, unless adequate erosion protections are implemented.
Fire Management: Non-Fire Fuels Management	
1) Projects involving the application of pesticides will be designed in accordance with the approach described in Soil and Water Resources: Riparian/Wetland program section.	1) See Soil and Water Resources: Riparian/Wetland Areas program section.
2) Promote the establishment of plant species needed to control erosion adjacent to suitable habitat.	2) Incorporate conservation actions into the fuels projects, as needed, to control erosion and prevent sediment delivery to suitable habitat.
Fire Management: Community Assistance	
1) Follow all measures included throughout the Fire Management program sections.	1) See actions within Fire Management program sections. Incorporate into community assistance agreements.
Lands and Realty Management: Land Tenure Adjustment (sale, exchanges, withdrawals, etc.)	
1) Where feasible and funding is available, acquire through land exchange or purchase, private lands that support known populations or could enhance habitat for listed Snake River snails.	1) Take advantage of opportunities as they arise. Priority should be given to lands that are adjacent to or near public lands.
2) Retain listed Snake River snail habitat in Federal ownership to the extent possible, while balancing other needs.	2) Review each land tenure decision in terms of species habitat. Avoid the loss of riparian habitat along the Snake River from Federal ownership. If property is to be transferred out of Federal ownership, permanent conservation easements may be attached to the transfer that would result in equal or greater protection than under Federal management. Such measures must be approved by the State Director.
Lands and Realty Management: Land Use Permits and Leases	
1) Issue new land use permits and leases and review existing permits and leases at renewal so as not to preclude species habitat conservation and recovery. This includes management of physical facilities, as well as disturbances to the species resulting from human uses.	1) For new permits and renewal of existing permits, see Special Status Animal and Plant Management program section item (3). Avoid issuing new permits or leases, or renewing existing permits or leases, adjacent to suitable habitat if negative impacts are expected. If a permit or lease is to be issued or re-issued adjacent to suitable habitat, apply stipulations to the permit that support or do not preclude species recovery and that avoid or minimize negative impacts.

Conservation Measures	BLM Implementation Actions
2) Protect the watershed contributing to listed Snake River snail habitat.	2) Conduct appropriate hydrologic studies or analysis before permitting developments on BLM-managed lands where the extraction of groundwater may negatively impact suitable habitat. Depending on the scope of the activity, this may require coordination and cooperation with other agencies.
Lands and Realty Management: Rights-of-Way	
1) Issue new rights-of-way (ROWs) and review existing ROWs at renewal so as not to preclude species habitat conservation and recovery. This includes management of physical facilities, as well as disturbances to the species resulting from human uses.	1) For new ROWs and renewal of existing ROWs, see Special Status Animal and Plant Management program section item (3). Avoid issuing ROWs, or renewing existing ROWs, in or adjacent to suitable habitat if negative impacts are expected. If a ROW is to be issued or re-issued in or adjacent to suitable habitat, apply stipulations to the ROW that support or do not preclude species recovery and that avoid or minimize negative impacts.
Mineral Management: Locatable Minerals	
1) Approve plans of operations or allow notice-level operations so as not to preclude species habitat conservation and recovery. This includes management of physical facilities, as well as disturbances to the species resulting from human uses.	1) Approval of plans of operations and notice-level operations: a) For review of existing plans of operation and notice-level operations, see Special Status Animal and Plant Management program section item (2). To the extent allowed by law, modify plans of operation or notice-level operations that negatively impact Snake River snail habitat. For notice-level operations, notify the operator that modifications to proposed activities will be required to avoid negative impacts. b) For new plans of operation and notice-level operations, see Special Status Animal and Plant Management program section item (3). To the extent allowed by law, avoid approving plans of operation or notice-level operations that negatively impact listed Snake River snail habitat. For notice-level operations, notify the operator that modifications to proposed activities will be required to avoid negative impacts. If a plan of operations is to be approved in suitable habitat, apply stipulations to support or to not preclude species recovery. A notice will require modification by the operator until BLM determines that it will not result in undue or unnecessary degradation.
Mineral Management: Salable and Leasable Minerals	
1) Approve development of salable or leasable minerals so as not to preclude species habitat conservation and recovery. This includes management of physical facilities, as well as disturbances to the species resulting from human uses.	1) Approval of salable and leasable minerals: a) For review of existing mineral leases, see Special Status Animal and Plant Management program section item (2). Modify existing mineral leases if negative impacts are occurring.

Conservation Measures	BLM Implementation Actions
	b) For new sales or leases, see Special Status Animal and Plant Management program section item (3). Avoid development of salable or leasable minerals adjacent to suitable habitat if negative impacts are expected. If a minerals lease or sale is to be issued adjacent to suitable habitat, apply stipulations to support or to not preclude species recovery.
2) Protect the watershed contributing to listed Snake River snail habitat.	2) Conduct appropriate hydrologic studies or analysis before permitting developments on BLM-managed lands where the extraction of groundwater may negatively impact suitable habitat. Depending on the scope of the activity, this may require coordination and cooperation with other agencies.
Cultural Management	
1) Activities within the cultural management program will implement relevant conservation measures as described in the Special Status Animal and Plant Management program section to promote recovery of Snake River snails.	1) Apply relevant conservation measures from the Special Status Animal and Plant Management program section at the beginning of this table.
Paleontology	
1) Activities within the paleontology program will implement relevant conservation measures as described in the Special Status Animal and Plant Management program section to promote recovery of Snake River snails.	1) Apply relevant conservation measures from the Special Status Animal and Plant Management program section at the beginning of this table.

Bruneau Hot Springsnail

Table E-4. Conservation Measures for Bruneau Hot Springsnail.

Conservation Measures	BLM Implementation Actions
Special Status Animal and Plant Management: Common to All Programs	
1) In cooperation with Idaho Department of Fish and Game (IDFG), US Fish and Wildlife Service (FWS), Bureau of Reclamation, hydroelectric power companies, and others:	1) Following actions to be completed in cooperation with others:
a) Continue to cooperate to identify and map all known populations and suitable habitat.	a) Mapping and data inventory: i). Cooperate with IDFG, Idaho Natural Heritage Program (IDHP), and FWS to update maps of all known populations and suitable habitat on BLM-managed lands. ii). In cooperation with IDHP, maintain a spatial database of species population and habitat information for BLM-managed lands.
b) Follow current monitoring protocols and cooperate in monitoring Bruneau hot springsnail population trends and habitat conditions.	b) Cooperate with FWS, IDFG, and IDHP to conduct regular monitoring of populations on BLM-managed lands.
c) Manage BLM lands with or adjacent to suitable habitat and populations to promote species recovery and support re-colonization of suitable habitat.	c) Develop a habitat management plan, as funding allows.
d) Participate in research essential to recovery of the species. Support the geothermal aquifer groundwater modeling and monitoring program. Cooperate in determining specific limiting factors in terms of habitat needs and characteristics. Cooperate in population viability analyses to ensure that recovery criteria objectives are being met.	d) BLM will participate as funding allows.
e) Cooperate in incorporating geothermal aquifer conservation measures.	e) As opportunities arise, work with FWS and Idaho Department of Water Resources to pursue the permanent acquisition of non-use groundwater rights from current groundwater rights holders and protect these rights to support species conservation.
f) Working with other agencies, pursue funding for implementation of recovery tasks.	f) Cooperate with other agencies to identify potential sources of funding for actions that promote recovery, such as monitoring.
2) Ensure that ongoing Federal actions support or do not preclude species recovery.	2) Ongoing BLM activities: a) As needed, review ongoing activities within and adjacent to suitable habitat, where local consultation has not yet been completed. b) Determine if direct or indirect negative impacts to the species or its habitat are occurring as a

Conservation Measures	BLM Implementation Actions
	result of ongoing discretionary BLM actions. If so, modify the activity to avoid or minimize anticipated negative impacts and, where feasible, promote species recovery. c) Where needed, complete section 7 consultation for ongoing activities that may affect this species and its habitat.
3) Ensure that new Federal actions support or do not preclude species recovery.	3) New BLM activities: a) Project-level inventories will be completed in suitable habitat during project planning if inventory information is not available or adequate. b) If direct or indirect negative impacts to the species or its habitat are anticipated as a result of new BLM actions, modify the activity to avoid negative impacts and, where feasible, promote species recovery. c) Where needed, complete section 7 consultation for new activities that may affect this species and its habitat.
4) Implement adaptive management for conservation actions.	4) Conduct site-specific implementation and effectiveness monitoring. Adjust management as needed to ensure that management objectives are met.
5) Support conservation easements, cooperative management efforts, and other programs on adjacent non-Federal lands to support conservation of suitable habitat.	5) Take advantage of opportunities as they arise.
Air Resources	
None	None
Soil and Water Resources: Riparian/ Wetland Areas (includes noxious weed management)	
1) Projects involving the application of pesticides (herbicides, insecticides, etc.) that may affect the species will be analyzed at the project level and designed such that pesticide applications will support conservation and recovery and minimize risks of exposure.	1) Site specific stipulations will be developed locally using the following criteria: a) Evaluate the benefits and risks of vegetation treatment, including the following: application methods; pesticides, carriers, and surfactants used; needed treatment buffers; and use of non-chemical weed control (for example, bio-controls, hand pulling). If objectives can be effectively accomplished using non-chemical methods, such is the preferred alternative. b) Apply appropriate spatial and temporal buffers to avoid species' exposure to harmful chemicals. c) Implement appropriate revegetation and noxious weed control measures to reduce the risks of non-native species infestations and soil erosion following any ground or vegetation disturbing actions in or adjacent to suitable habitat.

Conservation Measures	BLM Implementation Actions
2) Where needed and feasible, coordinate with adjacent landowners and local governments regarding control of noxious weeds and invasive plants in riparian area through cooperative weed management programs.	2) Take advantage of opportunities as they arise.
3) Where needed, improve watershed conditions adjacent to suitable habitat to prevent soil erosion and negative water quality impacts. Conserve riparian vegetation near suitable habitat to minimize potential for erosion and sediment delivery to springs.	3) Management actions: a) Identify areas with unsuitable watershed conditions that are negatively impacting suitable habitat. Restore to reduce or eliminate negative impacts. b) Emphasize soil stabilization and avoid ground disturbance when risks of erosion and sediment delivery are high.
Upland Vegetation Management: Rangelands (includes noxious weed management)	
1) Projects involving the application of pesticides in uplands adjacent to riparian areas located near suitable habitat for the Brueau hot springsnail will be designed and implemented in accordance with the approach described in the Soils and Water Resources: Riparian and Wetland Areas program.	1) See Soil and Water Resources: Riparian and Wetland Areas program section.
2) Protect upland areas adjacent to riparian areas where management activities could affect suitable habitat.	2) Emphasize soil stabilization and avoid ground disturbance when risks of erosion and sediment delivery to springs are high.
Forest and Woodland Management	
None	None
Wildlife and Wildlife Habitat Management	
1) Activities within the Wildlife and Wildlife Habitat Management Program will implement relevant conservation measures as described in the Special Status Plant and Animal Management program section to promote recovery.	1) Apply relevant conservation measures from the Special Status Animal and Plant Management program section at the beginning of this table.
Fish and Aquatic Habitat Management	
1) Cooperate with IDFG in protecting Bruneau hot springsnails from competition and predation from non-native species.	1) Protection from predators and competition actions: a) Cooperate in seeking opportunities to remove non-native competitive or predatory fish from watersheds with suitable habitat. b) Work with IDFG to inform the public of the adverse effects of introducing non-native predator and competitive species to Bruneau hot springsnail-occupied thermal springs and seeps.
2) Cooperate in restoring habitat for possible reintroduction of the species.	2) Participate with other agencies in restoring habitats for potential re-colonization, as opportunities allow.
Livestock Grazing Management: Permits and Leases	
1) Manage livestock grazing and trailing adjacent to suitable Bruneau hot springsnail habitat to promote healthy watershed conditions. Maintain and promote suitable habitat conditions for the	1) Permit or lease actions: a) For review of ongoing actions, see Special Status Animal and Plant Management program

Conservation Measures	BLM Implementation Actions
Bruneau hot springsnail while implementing rangeland health standards and guidelines.	section item (2). b) For new actions, see Special Status Animal and Plant Management program section item (3). c) As appropriate to avoid or minimize negative impacts, modify livestock grazing permits and leases.
2) Promote restoration in or adjacent to suitable habitat following fire, fire rehabilitation, restoration treatments, or other major disturbances.	2) As needed, issue temporary pasture closures until vegetation is re-established, self-sustaining, and on an upward trend for controlling erosion and preventing sediment delivery.
3) Maintain regular compliance checks on grazing allotments within or adjacent to suitable habitat to identify problems as soon as possible and take immediate corrective measures.	3) Ongoing, day-to-day BLM action.
4) Protect suitable Bruneau Hot springsnail habitat in the Bruneau Canyon.	4) Continue to exclude grazing in the portion of the Bruneau canyon that contains springs and seeps occupied by the Bruneau hot springsnail and formalize this by modifying the appropriate grazing decisions.
Livestock Grazing Management: Livestock Management Facilities	
1) Manage livestock facilities to promote healthy riparian communities or to prevent erosion, or a combination of these objectives, while implementing rangeland health standards and guidelines.	1) For review of ongoing actions in or adjacent to suitable habitat, see Special Status Animal and Plant Management program section item (2). For new actions in or adjacent to suitable habitat, see Special Status Animal and Plant Management program section item (3). As appropriate to avoid or minimize negative impacts, modify existing and avoid placement of new livestock facilities.
2) Protect all springs in or adjacent to suitable habitat to conserve and recover Bruneau Hot springsnail habitat.	2) Facilities management actions: a) On BLM managed lands, prohibit development of springs or other water sources in or adjacent to suitable habitat unless the activity will have beneficial long-term or neutral effects on Bruneau hot springsnail populations. b) Continue to maintain livestock exclosure fencing annually and assess the need for additional measures to promote species recovery.
Wild Horse Management	
None	None
Recreation Management	
1) Developed facilities (boat access, paved campgrounds, vault toilets, interpretive kiosks, etc.): Manage existing and new recreation facilities so as not to preclude species habitat conservation and recovery. This includes management of the physical facilities, as well as disturbances to the species resulting from human uses.	1) Management of existing and new facilities: a) For review of existing facilities near known populations, see Special Status Animal and Plant Management program section item (2). As appropriate to avoid or minimize negative impacts, modify existing facilities. b) Prohibit development of new recreation

Conservation Measures	BLM Implementation Actions
	facilities in or adjacent to suitable habitat.
2) Dispersed use areas (informal areas, including camping, spring access, and tie-up areas for pack animals and boats): Protect thermal springs in or adjacent to suitable habitat to conserve Bruneau hot springsnail habitat. Manage dispersed use sites so as not to preclude species habitat conservation and recovery. This includes limiting disturbance to the species resulting from human uses.	2) Dispersed use areas: a) Minimize human activity in suitable habitat. Close areas, either seasonally or year-round, as needed if negative impacts are occurring to protect the species and its habitat, and post and monitor the closure. b) Discourage human entry in springs in suitable habitat. Post and monitor needed closures.
3) Commercial and non-commercial recreation permits including outfitter camps: Issue commercial and non-commercial recreation permits in accordance with goals for promoting species habitat conservation and recovery. This includes management of physical facilities (such as camps), as well as disturbance to the species resulting from human uses.	3) Issuance and review of existing and new permits: a) For review of existing permits near known populations, see Special Status Animal and Plant Management program section item (2). If needed, modify existing permits if the permitted activity is causing negative impacts. b) For new permits in or adjacent to suitable habitat, see Special Status Animal and Plant Management program section item (3). Avoid issuing recreation permits if negative impacts are expected. In particular, avoid permitting new recreation activities in or adjacent to suitable habitat. If a recreation permit is to be issued, apply stipulations to the permit to support or to not preclude species conservation and recovery.
4) Educate the public on the springsnail's unique ecological requirements, sensitivity to habitat alteration and need for protection.	4) Take advantage of opportunities as they arise.
Recreation Management: Travel Management	
1) Manage roads, off-highway vehicle (OHV) routes and areas, and non-motorized trails, so as not to preclude species habitat conservation and recovery. This includes management of physical facilities, as well as disturbances to the species resulting from human uses.	1) Review of existing and new roads, OHV routes and areas, and non-motorized trails: a) For existing roads, designated OHV routes and areas, and designated non-motorized trails near known populations, see Special Status Animal and Plant Management program section item (2). Limit OHV activities in areas particularly susceptible to erosion and thus sediment delivery to springs. Seek opportunities to close and revegetate OHV routes or non-motorized trails and use areas if negative impacts are occurring. b) For new roads, OHV routes and areas, and non-motorized trails, see Special Status Animal and Plant Management program section item (3). Avoid constructing new roads, trails, routes, and areas if negative impacts are expected. Avoid opening new roads, trails, routes, and areas in or adjacent to suitable

Conservation Measures	BLM Implementation Actions
	habitat particularly susceptible to erosion and thus sediment delivery to springs.
2) Seek opportunities to close and revegetate designated and user-created OHV routes or non-motorized trails and use areas, if such use causes negative impacts to suitable habitat.	2) See Special Status Animal and Plant Management program section item (2).
3) Maintain regular compliance checks on OHV closures to protect known populations and to identify problems as soon as possible and take immediate corrective measures.	3) Ongoing, day-to-day BLM activities.
Visual Resource Management	
None	None
Special Designation Area Management	
1) Explore the potential for new designations that would enhance species recovery.	1) As opportunities arise, recommend suitable habitat for Area of Critical Environmental Concern designation.
Fire Management: Fire Suppression	
1) Fire suppression efforts will be conducted, as much as possible, to protect Bruneau hot springsnail habitat. Place a high priority on protecting highly erosive areas in or adjacent to suitable habitat.	1) Fire management activities: a) Review Fire Management Plan for adequacy in addressing conservation measures. Modify the plan if needed. b) Apply Minimum Impact Suppression Tactics (MIST) in or adjacent to suitable habitat, as appropriate. Consult with resource advisors to determine where MIST tactics should be applied to avoid or minimize negative impacts. c) Do not locate fire base camps, staging areas, fueling areas, or other related activities in highly erosive areas in or adjacent to suitable habitat.
2) Coordinate with Idaho Department of Lands or other applicable agency personnel regarding fire suppression activities in or adjacent to suitable habitat.	2) Ongoing interagency coordination.
Fire Management: Emergency Stabilization and Burned Area Rehabilitation	
1) Implement Emergency Stabilization and Burned Area Rehabilitation (ES&BAR) activities to promote restoration in or adjacent to suitable Bruneau hot Springsnail habitat.	1) ES&BAR activities: a) If needed and if natural recovery would not achieve habitat objectives, implement ES&BAR activities to promote rehabilitation in or adjacent to suitable habitat. Plant locally appropriate vegetation to prevent erosion, if the natural drainage regime has been altered or if natural recovery of such vegetation is doubtful. Include requirements that protect Bruneau hot springsnail habitat, for example, sediment barriers. b) As needed, protect disturbed areas using temporary closures or other measures until site-specific stabilization, rehabilitation, and revegetation plan goals are met.

Conservation Measures	BLM Implementation Actions
2) Fire rehabilitation projects involving the application of pesticides will be analyzed and implemented in accordance with the approach described in Soil and Water Resources: Riparian and Wetland areas.	2) See Soil and Water Resources: Riparian and Wetland Areas program section.
Fire Management: Wildland Fire Use	
1) Wildland fire use projects will be designed to conserve suitable Bruneau hot Springsnail habitat.	1) When developing wildland fire use plans, do not include suitable habitat or adjacent areas in any wildland fire use area.
Fire Management: Prescribed Fire	
1) Prescribed fire projects will be designed to conserve suitable Bruneau hot Springsnail habitat.	1) When developing and implementing prescribed fire plans, avoid negative impacts in or adjacent to suitable habitat.
Fire Management: Non-Fire Fuels Management	
1) Implement projects involving the application of pesticides in accordance with the approach described in the Soil and Water Resources: Riparian/Wetland Areas program section.	1) See Soil and Water Resources: Riparian/Wetland Areas program section.
Fire Management: Community Assistance	
1) Follow all measures included throughout the Fire Management program sections.	1) See actions within Fire Management program sections. Incorporate into community assistance agreements.
Lands and Realty Management: Land Tenure Adjustment (sale, exchanges, withdrawals, etc.)	
1) Where feasible and funding is available, acquire through land exchange or purchase, private lands that support known populations or could enhance habitat for Bruneau hot springsnails.	1) Take advantage of opportunities as they arise. Priority should be given to lands that are adjacent to or near public lands.
2) Retain Bruneau hot springsnail habitats in Federal ownership.	2) Land tenure adjustments: a) Retain all suitable habitat in Federal ownership. b) Within areas adjacent to suitable habitat review each land tenure decision in terms of species recovery. Retain these areas in Federal ownership unless the land tenure adjustment results in a long-term benefit to species recovery.
Lands and Realty Management: Land Use Permits and Leases	
1) Issue new land use permits and leases and review existing permits and leases at renewal so as not to preclude species habitat conservation and recovery. This includes management of physical facilities, as well as disturbances to the species resulting from human uses.	1) For new permits and renewal of existing permits near known populations and suitable habitat, see Special Status Animal and Plant Management program section item (3). Avoid issuing new permits or leases, or renewing existing permits or leases, in or adjacent to suitable habitat if negative impacts are expected. If a permit or lease is to be issued or re-issued in suitable habitat, apply stipulations to the permit that support or do not preclude species recovery and that avoid negative impacts.

Conservation Measures	BLM Implementation Actions
2) Protect the groundwater contributing to Bruneau hot springsnail habitat.	2) Conduct appropriate hydrologic studies or analysis before permitting developments on BLM-managed lands where the extraction of groundwater may reduce or eliminate flows in suitable habitat. Depending on the scope of the activity, this may require coordination and cooperation with other agencies.
Lands and Realty Management: Rights-of-Way	
1) Issue new rights-of-way (ROWs) and review existing ROWs at renewal so as not to preclude species habitat conservation and recovery. This includes management of physical facilities, as well as disturbances to the species resulting from human uses.	1) For new ROWs and renewal of existing ROWs in and adjacent to suitable habitat, see Special Status Animal and Plant Management program section item (3). Avoid issuing ROWs, or renewing existing ROWs, in and adjacent to suitable habitat if negative impacts are expected. If a ROW is to be granted or renewed in or adjacent to suitable habitat, apply stipulations to the ROW that support or do not preclude species recovery and that avoid negative impacts.
Mineral Management: Locatable Minerals	
1) Approve plans of operations or allow notice-level operations so as not to preclude species habitat conservation and recovery. This includes management of physical facilities, as well as disturbances to the species resulting from human uses.	1) Approval of plans of operations and notice-level operations: a) For review of existing plans of operation and notice-level operations near known populations, see Special Status Animal and Plant Management program section item (2). To the extent allowed by law, modify plans of operation or notice-level operations that conflict with Bruneau hot springsnail objectives in or adjacent to suitable habitat. For notice-level operations, notify the operator that modifications to proposed activities will be required to avoid negative impacts. b) For new plans of operation and notice-level operations in or adjacent to suitable habitat, see Special Status Animal and Plant Management program section item (3). To the extent allowed by law, avoid approving plans of operation or notice-level operations that conflict with Bruneau hot springsnail objectives in or adjacent to suitable habitat. For notice-level operations, notify the operator that modifications to proposed activities will be required to avoid negative impacts. If a plan of operations is to be approved in or adjacent to suitable habitat, apply stipulations to support or to not preclude species recovery. A notice will require modification by the operator until BLM determines that it will not result in undue or unnecessary degradation.

Conservation Measures	BLM Implementation Actions
Mineral Management: Salable and Leasable Minerals	
1) Approve development of salable or leasable minerals so as not to preclude species habitat conservation and recovery. This includes management of physical facilities, as well as disturbances to the species resulting from human uses.	1) Approval of salable and leasable minerals: a) For review of existing mineral leases, see Special Status Animal and Plant Management program section item (2). Modify existing mineral leases if negative impacts are occurring. b) For new sales or leases in or adjacent to suitable habitat, see Special Status Animal and Plant Management program section item (3). Avoid development of salable or leasable minerals in or adjacent to suitable habitat if negative impacts are expected. If a minerals lease or sale is to be issued in or adjacent to suitable habitat, apply stipulations to support or to not preclude species recovery.
2) Protect the groundwater sources that contribute to Bruneau hot springsnail habitat.	2) Conduct appropriate hydrologic studies or analysis before permitting developments on BLM-managed lands where the extraction of groundwater may reduce or eliminate flows in or adjacent to habitats. Depending on the scope of the activity, this may require coordination and cooperation with other agencies.
Cultural Management	
1) Activities in the Cultural Management Program will implement relevant conservation measures as described in the Special Status Animal and Plant Management program section to promote recovery.	1) Apply relevant conservation measures from the Special Status Animal and Plant Management program section at the beginning of this table.
Paleontology	
1) Activities in the Paleontology Program will implement relevant conservation measures as described in the Special Status Animal and Plant Management program section to promote recovery.	1) Apply relevant conservation measures from the Special Status Animal and Plant Management program section at the beginning of this table.

Jarbidge River Bull Trout

Recovery plans are developed by the US Fish and Wildlife Service (FWS) and/or National Marine Fisheries Service and establish recovery objectives for a species, provide a listing of tasks necessary to achieve those objectives, and recommend assignments to involve agencies to carry put these tasks. A primary function of recovery plans is to combine programs of all agencies involved in managing a species into a coordinated management effort. The BLM has incorporated conservation measures for Jarbidge River bull trout into the Jarbidge RMP to promote the attainment of the objectives from the Draft Recovery Plan for the Jarbidge River Distinct Population Segment of Bull Trout (FWS, 2004). These recovery objectives and implementation actions conform to the goals, objectives and management actions common to all action alternatives in Chapter 2 of the Jarbidge Proposed RMP/Final EIS. Conservation measures are subject to revision in cooperation with the Federal and State agencies identified below.

Table E-5. Conservation Measures for Jarbidge River Bull Trout.

Conservation Measures	BLM Implementation Actions
Interagency Cooperation and Coordination	
1) In cooperation with Nevada Department of Wildlife, Idaho Department of Fish and Game, US Department of Agriculture Forest Service, Idaho Department of Environmental Quality (DEQ), Nevada Division of Environmental Protection (NDEP), Duck Valley Paiute-Shoshone Tribes, US Geologic Survey, and FWS (Boise, ID and Reno, NV), provide long-term habitat protection for bull trout on BLM managed land.	1) Cooperate with other Federal and State agencies as BLM staffing and budgets allow. Support opportunities for interagency conservation and restoration actions on BLM managed land as they become available. 2) Support collaborative efforts by local watershed groups to implement bull trout recovery actions and provide long-term habitat protection for Jarbidge River bull trout.
Population Characteristics	
1) Cooperate with other Federal and State agencies as BLM staffing and budgets allow. Support opportunities for interagency conservation and restoration actions on BLM managed land as they become available.	a) Identify and implement a standardized, statistically sound bull trout population monitoring program on BLM-managed land. Increase bull trout surveys to locate and assess bull trout spawning habitats on BLM land. b) Coordinate and evaluate scientific data collection to determine seasonal movement patterns and habitat use of migratory bull trout on BLM-managed land. c) Determine basic genetic and resident and migratory life history characteristics for bull trout on BLM-managed land. d) Determine range of water temperature tolerances for bull trout life stages and life history forms on BLM-managed land.
Habitat Condition Assessment	
1) Cooperate with other Federal and State agencies as BLM staffing and budgets allow. Support opportunities for interagency conservation and restoration actions on BLM managed land as they become available.	a) Assess, restore and maintain riparian habitat and stream channels on BLM-managed land. Minimize stream channel degradation on BLM-managed land. b) Assess and reduce sources of thermal loading, sediment delivery, and nutrient delivery to streams on BLM-managed land. Reduce instream and riparian wood harvest on BLM-managed land. Determine the effect of water withdrawals on stream temperatures and flows on streams. c) Work cooperatively with DEQ and NDEP to attain water quality objectives for streams on

Conservation Measures	BLM Implementation Actions
	BLM-managed land.
Habitat Restoration	
1) Cooperate with other Federal and State agencies as BLM staffing and budgets allow. Support opportunities for interagency conservation and restoration actions on BLM managed land as they become available.	a) Assess habitat restoration techniques and effectiveness on BLM managed land. b) Assess and minimize livestock grazing and recreation related impacts on BLM managed lands. c) Assess suitability of degraded and unoccupied habitats for expanding distribution and abundance of bull trout on BLM managed land.

Critical Habitat for Bull Trout

The FWS has identified Primary Constituent Elements (PCEs) as those physical and biological features essential to the conservation of the species, and within areas occupied by the species at the time of listing, that may require special management considerations and protection (Endangered and Threatened Wildlife and Plants, 2010). These include space for individual and population growth and for normal behavior; food, water, air, light, minerals or other nutritional or physiological requirements; cover or shelter; sites for breeding, reproduction, rearing of offspring; and habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of a species. The PCEs and their associated matrix indicator are displayed in Table E-6.

The FWS evaluates the impacts of activities on critical habitat for bull trout by determining the impact of the activity on the PCEs of critical habitat. The impacts of BLM land management activities were evaluated using the Bull Trout Matrix of Pathways and Indicators (matrix) (FWS, 1998). The matrix of pathways and indicators for Jarbidge River bull trout is displayed in Appendix D, Table D-1). The matrix indicators correspond to the critical habitat for bull trout PCEs. The matrix contains 23 indicators, four of which are tied to subpopulation characteristics and 19 of which are tied to habitat. Twenty of the 23 indicators are directly or indirectly related to one or more of the nine PCEs, and each PCE corresponds to one or more indicators. Essentially, if an action results inpacts to one of the 23 indicators in the matrix, than at least one of the PCEs for critical habitat would also be impacted.

Table E-6. PCEs for Critical Habitat for Bull Trout and the Associated Matrix Indicators.

PCE	PCE Description	Associated Matrix Indicators
1	Springs, seeps, groundwater sources, and sub-surface water to contribute to water quality and quantity as a cold water source.	Floodplain connectivity, sediment, substrate embeddedness, chemical contamination and nutrients, off-channel habitat, streambank condition, change in peak/base flows, increase in drainage network, road density and location, disturbance history, riparian conservation areas, and refugia.
2	Migratory corridors with minimal physical, biological, or water quality impediments between spawning, rearing, overwintering, and foraging habitats, including intermittent or seasonal barriers induced by high water temperatures or low flows.	Physical barriers, substrate embeddedness, average wetted width/maximum depth ratio, change in peak/base flows, persistence and genetic integrity, temperature, chemical contamination and nutrients, and refugia.
3	An abundant food base, including terrestrial organisms of riparian origin, aquatic macro invertebrates, and forage fish.	Sediment, substrate embeddedness, chemical contamination/nutrients, large woody debris, off-channel habitat, floodplain connectivity, streambank condition, riparian conservation areas, and refugia.

PCE	PCE Description	Associated Matrix Indicators
4	Complex stream channels with features such as woody debris, side channels, pools, and undercut banks to provide a variety of depths, velocities, and instream structures.	Sediment, substrate embeddedness, large woody debris, pool frequency and quality, large pools, off-channel habitat, average wetted width/maximum depth ratio, streambank condition, riparian conservation areas, floodplain connectivity, road density and location, disturbance regime, and refugia.
5	Water temperatures that support bull trout use. Bull trout have been documented in streams with temperatures from 32 to 72°F (0 to 22°C) but are found more frequently in temperatures ranging from 36 to 59°F (2 to 15 °C). These temperature ranges may vary depending on bull trout life history stage and form, geography, elevation, diurnal and seasonal variation, shade, such as that provided by riparian habitat, and local groundwater influence.	Temperature, off-channel habitat, floodplain connectivity, average wetted width/maximum depth ratio, streambank condition, change in peak/base flows, road density and location, disturbance history, riparian conservation areas, and refugia.
6	Substrates of sufficient amount, size, and composition to ensure success of egg and embryo overwinter survival, fry emergence, and young-of-the-year and juvenile survival. This should include a minimal amount of fine substrate less than 0.25 inch in diameter. The size and amounts of fine sediment suitable to bull trout will likely vary from system to system.	Sediment, substrate embeddedness, streambank condition, riparian conservation areas, floodplain connectivity, increase in drainage network, road density and location, disturbance regime, and refugia.
7	A natural hydrograph, including peak, high, low, and base flows within historic ranges or, if regulated, that operates under a Biological Opinion that addresses bull trout or a hydro graph that demonstrates the ability to support bull trout populations by minimizing daily and day-to-day fluctuations and minimizing departures from the natural cycle of flow levels corresponding with seasonal variation.	Change in peak/base flows, streambank condition, floodplain connectivity, increase in drainage network, road density and location, disturbance history, riparian conservation areas, and refugia.
8	Permanent water of sufficient quantity and quality such that normal reproduction, growth, and survival are not inhibited.	Temperature, chemical contamination/nutrients, streambank condition, riparian conservation areas, floodplain connectivity, increases in drainage network, road density and location, disturbance regime, and refugia.
9	Sufficiently low levels of occurrence of non-native predatory (e.g., lake trout, walleye, northern pike, smallmouth bass); interbreeding (e.g., brook trout); or competing (e.g., brown trout) species that, if present, are adequately temporally and spatially isolated from bull trout.	Persistence and genetic integrity.

The BLM consults with the FWS on actions that may affect Endangered Species Act (ESA)-listed species or their habitat according to the Streamlined Consultation Procedures for Section 7 of the Endangered Species Act (USFS et al., 1999). Actions that “may affect, but are not likely to adversely affect” ESA-listed species or their habitat are implemented under letters of concurrence provided by the FWS. Actions that

"may affect, and are likely to adversely affect" ESA-listed species or their habitat are implemented under FWS Biological Opinions which include reasonale and prudent measures and mandatory terms and conditions that are to be applied to implemented actions to avoid jeopardizing the species. There are three Bioloical Opinions for bull trout and their critical habitat in the Jarbidge planning area; one is for stream crossing replacements and the other is for livestock trailing. The terms and conditions specific to these consultations are displayed in Table E-7. This list of terms and condition is dynamic and subject to change with future actions that may result in adverse impacts to ESA-listed species or their habitat.

Table E-7 Conservation Measures for Jarbidge River Bull Trout Derived from ESA Consultation

Reasonable and Prudent Measures	Terms and Conditions
Biological Opinion – Restoration Activities at Stream Crossings (Stream Crossing Programmatic; Terms and Conditions)	
1) Minimize incidence of take and site disturbance during stream crossing installations and replacement.	1) Ensure the stream crossing project design team seeks input and agreement from the Level 1 team during the design process and during pre-project reviews. The project design team shall remain flexible in the design process in order to adapt to various and unique site conditions and ensure the likelihood that completed projects meet programmatic objectives.
2) Minimize the incidence of take that occurs as a result of programmatic stream crossing replacements.	2) Ensure the following: a) Implement the following best management practices in addition to implementing all programmatic activities consistent with the project design criteria, activity types, and mitigation measures presented in the proposed action: i). Determine, based on site characteristics, whether or not reducing streamflow in order to passively move fish out of the construction site prior to electroshocking would reduce the potential for take of bull trout associated with electroshocking. Prioritize this passive movement of fish as appropriate. ii). Electroshocking, where utilized, will be conducted with a three pass methods to ensure the greatest level of fish salvage unless previously approved by the Level 1 Team to perform more or fewer passes. iii). Ensure that holding conditions for any transported fish provide the lowest level of stress to captures individuals by ensuring the availability of cold, well oxygenated water in holding vessels, minimizing holding time, and avoiding any predation in holding vessels. To avoid predation, consider separate holding vessels for different age classes of bull trout. iv). While block nets are set, inspect them regularly for fish and remove any living to an area far enough away from the crossing to void additional impingement risk. v). Stream dewatering is not expected to last more than two weeks. If site specific conditions require dewatering and diverting the stream channel for longer than two weeks, Level 1 teams shall be consulted to determine if additional measures are necessary to ensure that project effects are within those described in the Biological Opinion (BO).

Reasonable and Prudent Measures	Terms and Conditions
	vi). For project in bull trout spawning and rearing habitat, if instream work is required, it shall be completed by August 15th and instream work may not commence until May 1, to avoid potential effects to spawning bull trout, eggs, alevins, and fry. If site specific information and rationale shows that these time frames can be adjusted without additional harm to bull trout, the Level 1 team has the discretion to do so. Rationale for work in spawning areas in the spring prior to May 1 should also include site specific survey data that indicates bull trout dis not span there the previous year. b) The NOAA (2009) guidelines shall be used for any installation of treated wood if copper or creosote-based treatments are used. For other treated wood products, adhere to guidelines in Preservative-Treated Wood and Alternative Products in the Forest Service (Groenier and Lebow, 2006) and Best Management Practices for the Use of Treated Wood in Aquatic Environments (Western Wood Preservers Institute, 1996). c) Survey all proposed ford sites prior to design and implementation to evaluate the stream for potential bull trout spawning habitat and to ensure project design does not promote spawning at or immediately downstream of the proposed ford site. d) Provide Level 1 Teams with a written rationale statement (attached to project checklist) supporting any determination that overall impacts to stream channels will be reduced at crossing sites proposed for conversion to a ford. e) If a temporary crossing is needed, the project design team will ensure that the designated temporary crossing area minimizes effects to bull trout and critical habitat. i). Provide Level 1 Teams with a written rationale statement (attached to the pre-project checklist) as to why the temporary crossing is necessary and what steps are being taken to ensure effects are minimized. ii). The area shall be cleared of bull trout prior to equipment crossing, and the block nets will be removed immediately after equipment crosses. iii). Minimize the frequency of crossings by equipment: only allow equipment and vehicles to cross that are absolutely necessary. iv). Width of temporary crossings will be approximately 14 feet wide, the average road width of Forest Service roads.
3) Establish a monitoring plan to confirm projects implemented under the programmatic BO meet the objectives of the programmatic BO and are also not exceeding the amount and/or extent of take from permitted activities.	a) Ensure the following: i). All captured, handled and killed ESA-listed fish shall be identified, counted, and reported on the “post-project checklist” in Appendix A of the BO. ii). The BLM will implement a suspended sediment/turbidity monitoring program. Under the monitoring plan, a reasonable sample of project implemented under this consultation will be assessed

Reasonable and Prudent Measures	Terms and Conditions
	to assure that the incidental take associated with suspended sediment and exempted in the BO has not been exceeded. At a minimum, 25 percent of the project completed under the BO will have monitoring completed that assesses the duration and intensity of turbidity. Monitoring can be adjusted as needed, but should consider the following recommendations: a. Monitoring should occur above the site once for reference conditions before project begins and prior to stream re-watering. b. Monitoring should occur below the construction site where the bypass or stream diversion enters the stream and 600 feet below the site. Alternative sites may be chosen if 600 feet is excessive for a particular site. c. Measurements shall be recorded at the following times: i. Prior to re-watering the stream and ii. Every 30 minutes after re-watering for 4 hours or until turbidity decreases to background levels.
Biological Opinion - Bureau of Land Management Ongoing Actions and Livestock Trailing – Bull Trout Critical Habitat – Benewah, Bonner, Boundary, Kootenai, Owyhee, and Shoshone Counties, Idaho and Elko County, Nevada	
1) Minimize the potential for harassment of bull trout and disruption of riparian and aquatic habitat from project activities.	1) Ensure the following: a) Livestock trailing activities occur as described in the livestock trailing EA (DOI-BLM-ID-T010-2012-0004-EA) and associated trailing permits. b) Individual livestock stream crossing events shall be completed in the minimum amount of time possible within the allowable 1 hour stream crossing time window.

Columbia Spotted Frog

Table E-8. Conservation Measures and Implementation Actions for Columbia Spotted Frog.

Conservation Measures	BLM Implementation Actions
Special Status Animal and Plant Management: Common to All Programs	
1) In cooperation with Idaho Department of Fish and Game (IDFG), US Fish and Wildlife Service (FWS), and others:	1) Following actions to be completed in cooperation with others:
a) Continue to cooperate to identify and map all known populations and suitable habitat.	a) Mapping and data inventory: i). Use Idaho Natural Heritage Program and other data to identify, record, and map known populations and suitable habitat on BLM managed land. ii). Participate in surveys and map new populations as found. Systematic inventories will continue to be conducted in cooperation with other agencies. iii). Maintain a spatial database of species population and habitat information for BLM managed lands.
b) Following current monitoring protocols, cooperate in monitoring Columbia spotted frog population trends and habitat conditions.	b) Continue to cooperate with IDFG and FWS to conduct regular monitoring of populations on BLM managed lands.
c) Promote species conservation by maintaining or improving habitat conditions in occupied sub-watersheds.	c) Habitat management and species conservation in occupied sub-watersheds: i). Develop and implement habitat management plans for sub-watersheds, as funding allows. ii). Identify barriers or impediments to seasonal movements or dispersal. This could include nonfunctioning stream sections or poor watershed conditions adjacent to suitable habitat within the scope of the sub-watershed plans. iii). Identify restoration areas where habitat improvements will be emphasized within the scope of the sub-watershed plans. iv). Cooperate with IDFG and others to improve habitat, as funding and opportunities allow.
d) Cooperate to expand the distribution of Columbia spotted frogs.	d) Cooperate with IDFG and others to reintroduce spotted frogs into suitable habitat.
e) Participate in research essential to recovery of the species. Cooperate in determining specific limiting factors in terms of habitat needs and characteristics. Cooperate in population viability analyses.	e) BLM will participate as funding allows.
2) Ensure that ongoing Federal actions support species conservation.	2) Ongoing BLM activities: a) As needed, review ongoing activities in areas with known populations and associated

Conservation Measures	BLM Implementation Actions
	suitable habitat. b) Determine if direct or indirect negative impacts to the species or its habitat are occurring as a result of ongoing discretionary BLM actions. If so, modify the activity to avoid or minimize anticipated negative impacts and, where feasible, promote species conservation.
3) Ensure that new Federal actions support or do not preclude species conservation.	3) New BLM activities: a) Project-level inventories will be completed using currently accepted survey protocols in suitable habitat during project planning if inventory information is not available or adequate. b) If direct or indirect negative impacts to the species or its habitat are anticipated as a result of new BLM actions, modify the activity to avoid or minimize negative impacts and, where feasible, promote species conservation.
4) Implement adaptive management as needed to achieve conservation objectives.	4) Conduct site-specific implementation and effectiveness monitoring. Adjust management as needed to ensure that management objectives are met.
5) Support conservation easements, cooperative management efforts, and other programs on adjacent non-Federal lands to support conservation of the Columbia spotted frog.	5) Take advantage of opportunities as they arise.
Air Resources	
None	None
Soil and Water Resources: Riparian/ Wetland Areas (includes noxious weed management)	
1) Projects involving the application of pesticides (herbicides, insecticides, etc.) that may affect the species will be analyzed at the project level and designed such that pesticide applications will support conservation and minimize risks of exposure.	1) Site-specific stipulations will be developed locally using the following criteria: a) Evaluate the benefits and risks of vegetation treatment, including the following: application methods; pesticides, carriers, and surfactants used; needed treatment buffers; and use of non-chemical weed control (for example, bio-controls, hand pulling). If objectives can be effectively accomplished using non-chemical methods, such is the preferred alternative. b) Apply appropriate spatial and temporal buffers to avoid species' exposure to harmful chemicals. c) Implement appropriate revegetation and noxious weed control measures to reduce the risks of non-native species infestations following any ground/soil-disturbing actions in or near suitable habitat within occupied sub-watersheds.

Conservation Measures	BLM Implementation Actions
2) Where needed and feasible, coordinate with adjacent landowners and local governments regarding control of noxious weeds and invasive plants in occupied sub-watersheds through cooperative weed management programs.	2) Take advantage of opportunities as they arise.
3) Conserve and, where possible, enhance watershed conditions for Columbia spotted frogs to prevent soil erosion, promote riparian health, and prevent negative impacts to water quality.	3) Implementation actions in occupied sub-watersheds: a) Identify riparian and upland areas with unsuitable watershed conditions near occupied habitat. Restore to improve habitat and habitat connectivity. b) Emphasize soil stabilization and avoid ground disturbance when risks of erosion and sediment delivery are high. c) Seek opportunities, as funding allows, to expand suitable habitat by restoring riparian and wetland habitats.
Upland Vegetation Management: Rangelands (includes noxious weed management)	
1) Within occupied sub-watersheds, projects involving the application of pesticides in uplands adjacent to riparian areas that provide suitable Columbia spotted frog habitat or in restoration areas will be designed and implemented in accordance with the approach described in the Soil and Water Resources: Riparian/Wetland Areas program section.	1) See Soil and Water Resources: Riparian/Wetland Areas program section.
2) Protect upland areas adjacent to riparian areas where management activities could affect known populations.	2) Emphasize soil stabilization and avoid ground disturbance when risks of erosion and sediment delivery to suitable habitat are high.
Forest and Woodland Management	
1) Manage woodland areas adjacent to riparian areas where management activities could affect suitable habitat and restoration areas.	1) Implementation actions in occupied sub-watersheds: a) Emphasize soil stabilization and avoid ground disturbance when risks of erosion and sediment delivery to suitable habitat are high. b) Control juniper that encroach into suitable habitat or restoration areas if the trees are affecting spring recharge or degrading Columbia spotted frog habitat.
Wildlife and Wildlife Habitat Management	
1) Cooperate in protecting Columbia spotted frogs from competition and predation.	1) Work with IDFG to avoid introduction of competitive or predatory species into sub-watersheds with known populations of Columbia spotted frogs. Cooperate in seeking opportunities to remove non-native competitive or predatory species (for example, bullfrogs) from sub-watersheds with known populations of Columbia spotted frogs.
2) Cooperate in creating opportunities for Columbia spotted frog occupancy by enhancing habitat.	2) Work with IDFG to transplant beavers to enhance suitable habitat and restoration areas in occupied sub-watersheds, where appropriate.

Conservation Measures	BLM Implementation Actions
Fish and Aquatic Habitat Management	
1) Cooperate with IDFG in protecting Columbia spotted frogs from competition and predation by non-native species.	1) If needed, work with IDFG to avoid introduction of competitive or predatory species into watersheds with known populations of Columbia spotted frogs. Cooperate in seeking opportunities to remove non-native competitive or predatory species (for example, smallmouth bass) from watersheds with known populations of Columbia spotted frogs.
Livestock Grazing Management: Permits and Leases	
1) Manage livestock grazing and trailing to promote healthy riparian communities in sub-watersheds occupied by Columbia spotted frogs. Maintain and promote suitable habitat and restore areas for the Columbia spotted frog while implementing rangeland health standards and guidelines.	1) Permit or lease renewal actions: a) For review of ongoing actions, see Special Status Animal and Plant Management program section item (2). In unsurveyed suitable habitat, schedule surveys so Columbia spotted frog occurrence information is available for rangeland health assessments associated with permit and lease renewals. b) For new actions, see Special Status Animal and Plant Management program section item (3). c) As appropriate to avoid or minimize negative impacts, modify livestock grazing permits and leases.
2) Promote restoration of suitable habitat following fire, fire rehabilitation, restoration treatments, or other major disturbances.	2) As needed to protect disturbed areas in occupied sub-watersheds, use temporary closures or other measures until desired riparian or wetland vegetation species are re-established and self-sustaining.
3) Maintain regular compliance checks on grazing allotments with known populations to identify problems as soon as possible and take immediate corrective measures.	3) Ongoing, day-to-day BLM action.
Livestock Grazing Management: Livestock Management Facilities	
1) Manage livestock facilities to promote healthy riparian communities. Maintain and promote suitable habitat and restore areas for the Columbia spotted frog while implementing rangeland health standards and guidelines.	1) For review of ongoing actions, see Special Status Animal and Plant Management program section item (2). For new actions, see Special Status Animal and Plant Management program section item (3). a) As appropriate to avoid or minimize negative impacts to Columbia spotted frogs in occupied sub-watersheds, modify existing and avoid placement of new livestock facilities in or adjacent to areas with known populations. b) Protect hibernacula and water sources from spring or other water developments in occupied sub-watersheds unless the activity will have beneficial long-term or neutral effects on Columbia spotted frogs and their habitat. c) Construct livestock exclosures to protect locally important habitats in occupied sub-watersheds.

Conservation Measures	BLM Implementation Actions
Wild Horse Management	
1) If the range of wild horses and Columbia spotted frogs is found to overlap in the future, protect suitable habitat areas in occupied sub-watersheds from damage by wild horses by including applicable conservation measures in herd management plans.	1) Apply relevant conservation measures from the Special Status Animal and Plant Management program section at the beginning of this table.
Recreation Management	
1) Developed facilities (boat access, paved campgrounds, vault toilets, interpretive kiosks, etc.): Manage existing and new recreation facilities so as not to preclude species habitat conservation. This includes management of the physical facilities, as well as disturbances to the species resulting from human uses.	1) Management of existing and new facilities in occupied sub-watersheds: a) For review of existing facilities, see Special Status Animal and Plant Management program section item (2). As appropriate to avoid or minimize negative impacts, modify existing facilities. b) For new facilities, or for expansion of uses at existing facilities, see Special Status Animal and Plant Management program section item (3). In addition, avoid development of new recreation facilities or expansion of existing facilities in or adjacent to areas with known populations, if negative impacts are anticipated.
2) Dispersed use areas (informal areas, including camping areas and tie-up areas for pack animals and boats): Manage dispersed use sites so as not to preclude species and habitat conservation. This includes limiting disturbances to species habitat resulting from human uses.	2) For review of ongoing activities, see Special Status Animal and Plant Management program section item (2). In addition, minimize human activity in and adjacent to known populations, if negative impacts are occurring. Close areas, either seasonally or year-round, as needed to protect the species and its habitat, and post and monitor the closure.
3) Commercial and non-commercial recreation permits, including outfitter camps: Issue commercial and non-commercial recreation permits so as not to preclude species habitat conservation. This includes management of physical facilities (such as camps), as well as disturbances to habitat resulting from human uses.	3) Issuance and review of existing and new permits in occupied sub-watersheds: a) For review of existing permits, see Special Status Animal and Plant Management program section item (2). If needed, modify existing permits if the permitted activity is causing negative impacts. b) For new permits, see Special Status Animal and Plant Management program section item (3). Avoid issuing recreation permits in and adjacent to areas with known populations if negative impacts are expected. If a recreation permit is to be issued, apply stipulations to the permit to support or to not preclude species conservation.

Conservation Measures	BLM Implementation Actions
4) Coordinate with the IDFG to educate the public on the frog's unique ecological requirements, sensitivity to habitat alteration, and need for protection in order to reduce recreation impacts and stop collection of frogs.	4) Take advantage of opportunities as they arise.
Recreation Management: Travel Management	
1) Manage roads, off-highway vehicle (OHV) routes and areas, as well as non-motorized trails, so as not to preclude species habitat conservation. This includes management of physical facilities, as well as disturbances to habitat resulting from human uses.	1) Review of existing and new roads, OHV routes and areas, and non-motorized trails in occupied sub-watersheds: a) For existing roads, designated OHV routes and areas, and designated non-motorized trails, see Special Status Animal and Plant Management program section item (2). Modify routes in and adjacent to areas with known populations if negative impacts are occurring. Seek opportunities to close and revegetate roads, OHV routes, or non-motorized trails and use areas in and adjacent to suitable habitat, if negative impacts are occurring. b) For new roads, OHV routes and areas, and non-motorized trails, see Special Status Animal and Plant Management program section item (3). Avoid constructing new roads, trails, routes, and areas in suitable habitat if negative impacts to riparian or wetland habitat are expected. In particular, avoid opening new roads, trails, routes, and areas adjacent to suitable habitat particularly susceptible to erosion and thus sediment delivery to suitable habitat.
2) Maintain regular compliance checks on OHV closures to protect suitable habitat and to identify problems as soon as possible and take immediate corrective measures.	2) Ongoing, day-to-day BLM activities.
Visual Resource Management	
None	None
Special Designation Area Management	
1) Explore the potential for new designations that would enhance species conservation, such as healthy riparian and emergent aquatic vegetation.	1) Take advantage of opportunities as they arise.
Fire Management: Fire Suppression	
1) Fire suppression efforts will be conducted, as possible, to protect occupied Columbia spotted frog habitat.	1) Fire management activities in occupied sub-watersheds: a) Review Fire Management Plan for adequacy in addressing conservation measures. Modify the plan if needed. b) Apply Minimum Impact Suppression Tactics (MIST) in suitable habitat, as appropriate. Consult with resource advisors to determine where MIST tactics should be applied to avoid or minimize negative impacts.

Conservation Measures	BLM Implementation Actions
	c) Avoid fire base camps, staging areas, fueling areas, or other related activities in or adjacent to areas with known populations. d) Avoid drawing water from springs, streams, and ponds occupied by Columbia spotted frogs unless required to do so to protect life or property.
2) Coordinate with Idaho Department of Lands or other applicable agency personnel regarding fire suppression activities in or near suitable habitat.	2) Ongoing interagency coordination.
Fire Management: Emergency Stabilization and Burned Area Rehabilitation	
1) Implement Emergency Stabilization and Burned Area Rehabilitation (ES&BAR) activities to promote spotted frog habitat rehabilitation.	1) ES&BAR activities in occupied sub-watersheds: a) If needed and if natural recovery would not achieve habitat objectives, implement ES&BAR activities to promote rehabilitation of suitable habitat. In areas where the natural drainage regime has been altered, plant locally appropriate vegetation to reestablish suitable habitat. b) As needed, protect disturbed areas using temporary closures or other measures until riparian vegetation is re-established and self-sustaining.
2) Fire rehabilitation projects involving the application of pesticides will be analyzed and implemented in accordance with the approach described in the Soil and Water Resources: Riparian/Wetland Areas program section.	2) See Soil and Water Resources: Riparian/Wetland Areas program section.
Fire Management: Wildland Fire Use	
1) Wildland fire use projects (where allowed) will be designed to conserve suitable Columbia spotted frog habitat.	1) When developing wildland fire use plans in occupied sub-watersheds, avoid burning in and adjacent to suitable habitat and develop burn prescriptions that promote habitat conservation.
Fire Management: Prescribed Fire	
1) Prescribed fire projects will be designed to conserve suitable Columbia spotted frog habitat.	1) When developing and implementing prescribed fire plans, avoid or minimize negative impacts to suitable habitat, and use prescribed fire as a tool for assisting with species conservation. Consider allowing prescribed fires to burn in and adjacent to suitable habitat if it is likely to benefit Columbia spotted frog habitat or have a neutral effect. Management actions in occupied sub-watersheds: a) Emphasize soil stabilization and avoid ground disturbance when risks of erosion and sediment delivery to suitable habitat are high. b) Control juniper that encroach into suitable habitat or restoration areas, if the trees are affecting spring recharge or degrading Columbia spotted frog habitat.

Conservation Measures	BLM Implementation Actions
Fire Management: Non-Fire Fuels Management	
1) Implement projects involving the application of pesticides in accordance with the approach described in the Soil and Water Resources: Riparian/ Wetland Areas program section.	1) See Soil and Water Resources: Riparian/Wetland Areas program section.
2) Non-fire fuels management projects will be designed to conserve Columbia spotted frog habitat.	2) Incorporate conservation actions into the fuels projects, as needed. Avoid non-fire fuels management activities in or adjacent to suitable habitat, if negative impacts may occur. Management actions in occupied sub-watersheds: a) Emphasize soil stabilization and avoid ground disturbance when risks of erosion and sediment delivery to suitable habitat are high. b) Control juniper that encroach into suitable habitat or restoration areas if the trees are affecting spring recharge or degrading Columbia spotted frog habitat.
Fire Management: Community Assistance	
1) Follow all measures included throughout the Fire Management program sections.	1) See actions within Fire Management program sections. Incorporate into community assistance agreements.
Lands and Realty Management: Land Tenure Adjustment (sale, exchanges, withdrawals, etc.)	
1) Where feasible and funding is available, acquire through land exchange or purchase private lands in suitable habitat areas that could enhance habitat for Columbia spotted frogs.	1) Take advantage of opportunities as they arise. Priority should be given to lands that are adjacent to or near public lands and/or a population occurring on BLM and private lands.
2) Retain spotted frog habitat in Federal ownership to the extent possible, while balancing other needs.	2) Review each land tenure decision in terms of species habitat. Retain areas with known populations in public ownership unless compelling circumstances necessitate the land tenure adjustment. Avoid the loss of suitable habitat from Federal ownership. If property with known populations is to be transferred out of Federal ownership, permanent conservation easements may be attached to the transfer that would result in equal or greater protection than under Federal management. Such measures must be approved by the State Director.
Lands and Realty Management: Land Use Permits and Leases	
1) Issue new land use permits and leases and review existing permits and leases at renewal so as not to preclude species habitat conservation. This includes management of physical facilities, as well as disturbances to the species or its habitat resulting from human uses.	1) For new permits and renewal of existing permits, see Special Status Animal and Plant Management program section item (3). In occupied sub-watersheds avoid issuing new permits or leases, or renewing existing permits or leases, in or adjacent to areas with known populations if negative impacts are expected. If a permit or lease is to be issued or reissued in suitable habitat, apply stipulations to the permit that promote species conservation and that avoid or minimize negative impacts.

Conservation Measures	BLM Implementation Actions
2) Protect the groundwater sources that contribute to Columbia spotted frog habitat.	2) In occupied sub-watersheds, conduct appropriate hydrologic studies or analysis before permitting developments on BLM-managed lands where the extraction of groundwater may reduce or eliminate water in suitable habitat. Depending on the scope of the activity, this may require coordination and cooperation with other agencies.
Lands and Realty Management: Rights-of-Way	
1) Issue new rights-of-way (ROWs) and review existing ROWs at renewal so as not to preclude species habitat conservation. This includes management of physical facilities, as well as disturbances to the species resulting from human uses.	1) For new ROWs and renewal of existing ROWs, see Special Status Animal and Plant Management program section item (3). In occupied sub-watersheds, avoid issuing ROWs, or renewing existing ROWs, in or adjacent to suitable habitat if negative impacts are expected. If a ROW is to be issued or re-issued, apply stipulations to the ROW that support or do not preclude species conservation and that avoid or minimize negative impacts.
Mineral Management: Locatable Minerals	
1) Approve plans of operations or allow notice-level operations so as not to preclude species habitat conservation. This includes management of physical facilities, as well as disturbances to the species resulting from human uses.	1) Approval of plans of operations and notice-level operations: a) For review of existing plans of operation and notice-level operations, see Special Status Animal and Plant Management program section item (2). To the extent allowed by law, in occupied sub-watersheds modify plans of operation or notice-level operations that conflict with Columbia spotted frog objectives in suitable habitat. For notice-level operations, notify the operator that modifications to proposed activities will be required to avoid negative impacts. b) For new plans of operation and notice-level operations, see Special Status Animal and Plant Management program section item (3). To the extent allowed by law, in occupied sub-watersheds avoid approving plans of operation or notice-level operations that conflict with Columbia spotted frog objectives in suitable habitat. For notice-level operations, notify the operator that modifications to proposed activities will be required to avoid negative impacts. If a plan of operations is to be approved in suitable habitat, apply stipulations to conserve Columbia spotted frogs. A notice will require modification by the operator until BLM determines that it will not result in undue or unnecessary degradation.
Mineral Management: Salable and Leasable Minerals	
1) Approve plans of operations or allow notice-level operations so as not to preclude species habitat conservation. This includes management of physical facilities, as well as disturbances to the	1) Approval of plans of operations and notice-level operations: a) For review of existing plans of operation and

Conservation Measures	BLM Implementation Actions
species resulting from human uses.	notice-level operations, see Special Status Animal and Plant Management program section item (2). To the extent allowed by law, in occupied sub-watersheds modify plans of operation or notice-level operations that conflict with Columbia spotted frog objectives in suitable habitat. For notice-level operations, notify the operator that modifications to proposed activities will be required to avoid negative impacts. b) For new plans of operation and notice-level operations, see Special Status Animal and Plant Management program section item (3). To the extent allowed by law, in occupied sub-watersheds avoid approving plans of operation or notice-level operations that conflict with Columbia spotted frog objectives in suitable habitat. For notice-level operations, notify the operator that modifications to proposed activities will be required to avoid negative impacts. If a plan of operations is to be approved in suitable habitat, apply stipulations to conserve Columbia spotted frogs. A notice will require modification by the operator until BLM determines that it will not result in undue or unnecessary degradation.
2) Protect the groundwater sources that contribute to Columbia spotted frog habitat.	2) Conduct appropriate hydrologic studies or analysis before permitting mineral extraction on BLM managed lands where the extraction of groundwater may reduce or eliminate flows in occupied sub-watersheds. Depending on the scope of the activity, this may require coordination and cooperation with other agencies.
Cultural Management	
1) Activities within the Cultural Management program will implement relevant conservation measures as described in the Special Status Animal and Plant Management program section to promote conservation.	1) Apply relevant conservation measures from the Special Status Animal and Plant Management program section at the beginning of this table.
Paleontology	
1) Activities within the Paleontology program will implement relevant conservation measures as described in the Special Status Animal and Plant Management program section to promote conservation.	1) Apply relevant conservation measures from the Special Status Animal and Plant Management program section at the beginning of this table.

Yellow-Billed Cuckoo

Table E-8. Conservation Measures and Implementation Actions for Yellow-Billed Cuckoo.

Conservation Measures	BLM Implementation Actions
Special Status Animal and Plant Management: Common to All Programs	
1) In cooperation with Idaho Department of Fish and Game (IDFG), US Fish and Wildlife Service (FWS), and others:	1) Following actions to be completed in cooperation with others:
a) Continue to cooperate in determining the distribution of known populations and suitable habitats.	a) Mapping and data inventory: i). Use IDFG, Idaho Natural Heritage Program, FWS, and other data to identify, record, and map known populations and suitable habitat on BLM managed lands. ii). Maintain a spatial database of species population and habitat information for BLM managed lands. iii). Participate in surveys and map new populations as found. Systematic inventories will continue to be conducted in cooperation with other agencies.
b) Follow current monitoring protocols and continue to cooperate in monitoring for species presence on a regular basis.	b) Cooperate with IDFG and FWS to conduct regular monitoring of populations on BLM managed lands. Assist in documenting whether cuckoos are using habitats and the type of use.
c) Participate in research essential to conservation of the species. Cooperate in determining specific limiting factors in terms of habitat needs and characteristics.	c) BLM will participate as funding allows.
d) Cooperate in the management and improvement of suitable habitat to promote species conservation.	d) Where appropriate, update or develop management plans for suitable habitat, particularly in areas with known populations, as well as in restoration areas.
e) Working with other agencies, compile a general list of BMPs that would apply to all programs, to the extent that such a list would assist with species and habitat conservation. The intent of implementing BMPs is to avoid or minimize negative impacts.	e) BMPs: i). State Office to coordinate development of BMPs with Field Office, District Office, FWS, and IDFG. Instruction memorandum to be issued by State Office. ii). Field Office to implement BMPs.
2) Ensure that ongoing Federal actions support or do not preclude species conservation.	2) Ongoing BLM activities: a) Review ongoing activities in locations with known populations. b) Determine if direct or indirect negative impacts to the species or its habitat are occurring as a result of ongoing discretionary BLM actions. If so, modify the activity to avoid or minimize negative impacts and, where feasible, promote species conservation.

Conservation Measures	BLM Implementation Actions
3) Ensure that new Federal actions support or do not preclude species conservation.	3) New BLM activities: a) Project-level inventories will be completed in suitable habitat during project planning if inventory information is not available or adequate. The State Office will issue instruction memorandum concerning special status species project-level inventories and assessment. b) If direct or indirect negative impacts to the species or its habitat are anticipated as a result of new BLM actions, modify the activity to avoid or minimize negative impacts and, where feasible, promote species conservation. c) Avoid implementing activities that have the potential to disturb or displace known populations of cuckoos during the breeding season (May through September).
4) Implement adaptive management as needed to achieve conservation objectives.	4) Conduct site-specific implementation and effectiveness monitoring. Adjust management as needed to ensure that management objectives are met.
5) Support conservation easements, cooperative management efforts, and other programs on adjacent non-Federal lands to support conservation of the yellow-billed cuckoo.	5) Take advantage of opportunities as they arise.
Air Resources	
None	None
Soil and Water Resources: Riparian/ Wetland Areas (includes noxious weed management)	
1) Projects involving the application of pesticides (herbicides, insecticides, etc.) that may affect the species will be analyzed at the project level and designed such that pesticide applications will support conservation and minimize risks of exposure.	1) Site-specific stipulations will be developed locally using the following criteria: a) Evaluate the benefits and risks of vegetation treatment, including the following: application methods; pesticides, carriers, and surfactants used; needed treatment buffers; and use of non-chemical noxious weed control (for example, bio-controls, hand pulling). If objectives can be effectively accomplished using non-chemical methods, such is the preferred alternative. b) Apply appropriate spatial and temporal buffers to avoid species' exposure to harmful chemicals. c) Implement appropriate revegetation and noxious weed control measures to reduce the risks of invasive plant species infestations following any ground/soil-disturbing actions in or near suitable habitat.

Conservation Measures	BLM Implementation Actions
2) Where needed and feasible, coordinate with adjacent landowners and local governments regarding control of noxious weeds and invasive plants in riparian areas through cooperative weed management programs.	2) Take advantage of opportunities as they arise.
3) Conserve riparian vegetation in suitable habitat (for example, healthy willow stands and cottonwood trees) to maintain their integrity for use by yellow-billed cuckoos, and initiate management in restoration areas.	3) Implementation actions: a) Emphasize eradication of non-native invasive species in riparian areas that compete with willow and cottonwood tree regeneration. Continue to identify problem areas (such as false indigo) and implement appropriate noxious weed control measures. b) Avoid issuing commercial firewood cutting permits in suitable habitats in riparian forests. If permits are issued, ensure that such activities are consistent with the long-term maintenance of suitable habitat and enhancement of restoration areas. c) As needed, close suitable habitat in riparian forests to non-commercial firewood cutting and post the closure.
Upland Vegetation Management: Rangelands	
1) Projects involving the application of pesticides in uplands adjacent to suitable yellow-billed cuckoo habitat or in restoration areas will be designed and implemented in accordance with the approach described in the Soil and Water Resources: Riparian/Wetland Areas program section.	1) See Soil and Water Resources: Riparian/Wetland Areas program section.
Forest and Woodland Management)	
1) Projects involving the application of pesticides in forested areas and woodlands adjacent to suitable yellow-billed cuckoo habitat or in restoration areas will be designed and implemented in accordance with the approach described in the Soil and Water Resources: Riparian/Wetland Areas program section.	1) See Soil and Water Resources: Riparian/Wetland Areas program section.
Wildlife and Wildlife Habitat Management	
1) In restoration areas, cooperate in creating opportunities for yellow-billed cuckoo occupancy by enhancing habitat.	1) Consider planting or other habitat enhancement measures to improve yellow-billed cuckoo habitat.
Fish and Aquatic Habitat Management	
1) Activities within the Fish and Aquatic Habitat Management program will implement relevant conservation measures as described in the Special Status Animal and Plant Management program section to promote conservation.	1) Apply relevant conservation measures from the Special Status Animal and Plant Management program section at the beginning of this table.
Livestock Grazing Management: Permits and Leases	
1) Manage livestock grazing and trailing to promote growth and recruitment of healthy riparian vegetation communities (for example, willows and cottonwood trees). Maintain and promote suitable	1) Permit or lease renewal actions: a) For review of ongoing actions, see Special Status Animal and Plant Management program section item (2).

Conservation Measures	BLM Implementation Actions
habitat and restore areas for the yellow-billed cuckoo while implementing rangeland health standards and guidelines.	b) For new actions, see Special Status Animal and Plant Management program section item (3). c) As appropriate to avoid or minimize negative impacts, modify livestock grazing permits and leases.
2) Promote restoration of suitable habitat following fire, fire rehabilitation, restoration treatments, or other major disturbances.	2) As needed, protect disturbed areas using temporary closures or other measures until the willow shrubs and cottonwood saplings (or other target riparian species) are re-established and self-sustaining.
3) Maintain regular compliance checks on grazing allotments with known populations to identify problems as soon as possible and take immediate corrective measures.	3) Ongoing, day-to-day BLM action.
Livestock Grazing Management: Livestock Management Facilities	
1) Manage livestock facilities to promote healthy riparian vegetation communities (for example, willows and cottonwood trees). Maintain and promote suitable habitat and restore areas for the yellow-billed cuckoo while implementing rangeland health standards and guidelines.	1) For review of ongoing actions, see Special Status Animal and Plant Management program section item (2). For new actions, see Special Status Animal and Plant Management program section item (3). As appropriate to avoid or minimize negative impacts, modify existing and avoid placement of new livestock facilities.
Wild Horse Management	
1) Activities within the Wild Horse Management program will implement relevant conservation measures as described in the Special Status Animal and Plant Management program section to promote conservation.	1) Apply relevant conservation measures from the Special Status Animal and Plant Management program section at the beginning of this table.
Recreation Management	
1) Developed facilities (boat access, paved campgrounds, vault toilets, interpretive kiosks, etc.): Manage existing and new recreation facilities so as not to preclude species habitat conservation. This includes management of the physical facilities, as well as disturbances to the species resulting from human uses.	1) Management of existing and new facilities: a) For review of existing facilities, see Special Status Animal and Plant Management program section item (2). As appropriate to avoid or minimize negative impacts, modify existing facilities. b) For new facilities, or for expansion of uses or seasons of use at existing facilities, see Special Status Animal and Plant Management program section item (3). In addition, avoid development of new recreation facilities or expansion of existing facilities in suitable habitat, if negative impacts are anticipated.
2) Dispersed use areas (informal areas, including camping areas and tie-up areas for pack animals and boats): Manage dispersed use sites so as not to preclude species habitat conservation. This includes limiting disturbances to the species resulting from human uses.	2) For review of ongoing actions, see Special Status Animal and Plant Management program section item (2). In addition, minimize human activity in suitable habitat if negative impacts are occurring. Close areas, either seasonally or year-round, as needed to protect the species and its habitat, and post and monitor the closure.

Conservation Measures	BLM Implementation Actions
3) Commercial and noncommercial recreation permits, including outfitter camps: Issue commercial and non-commercial recreation permits in accordance with goals for promoting species habitat conservation. This includes management of physical facilities (such as camps), as well as disturbances to the species resulting from human uses.	3) Issuance and review of existing and new permits: a) For review of existing permits, see Special Status Animal and Plant Management program section item (2). If needed, modify existing permits that conflict with achieving or maintaining suitable habitat conditions. b) For new permits, see Special Status Animal and Plant Management program section item (3). Avoid issuing recreation permits if negative impacts are expected. Consider the seasonal nature of the proposed activities, and whether this conflicts with yellow-billed cuckoo conservation needs. In particular, avoid permitting new recreation activities in suitable habitat. If a recreation permit is to be issued, apply stipulations to the permit to support or to not preclude species conservation.
4) Coordinate with the IDFG to educate recreation users at boat ramps and at designated camp areas about the need to conserve yellow-billed cuckoo habitat.	4) Take advantage of opportunities as they arise
Recreation Management: Travel Management	
1) Manage roads, off-highway vehicle (OHV) routes and areas, as well as non-motorized trails, so as not to preclude species habitat conservation. This includes management of physical facilities, as well as disturbances to the species resulting from human uses.	1) Review of existing and new roads, OHV routes, and areas and non-motorized trails: a) For existing roads, designated OHV routes and areas, and designated non-motorized trails, see Special Status Animal and Plant Management program section item (2). Modify routes in locations with known populations, if negative impacts are occurring. Evaluate the need for seasonal OHV use restrictions in suitable habitat and, if needed, implement restrictions to reduce disturbance to the species and its habitat. Seek opportunities to close and revegetate OHV routes or non-motorized trails and use areas in suitable habitat, if negative impacts are occurring. b) For new roads, OHV routes and areas, and trails, see Special Status Animal and Plant Management program section item (3). Avoid constructing new roads, trails, routes, and areas if negative impacts are expected. Consider the seasonal nature of the proposed activities, and whether this conflicts with yellow-billed cuckoo conservation needs. In particular, avoid opening new roads, trails, routes, and areas in suitable habitat.
2) Maintain regular compliance checks on OHV closures to protect known populations and to identify problems as soon as possible and take immediate corrective measures.	2) Ongoing, day-to-day BLM activities.

Conservation Measures	BLM Implementation Actions
Visual Resource Management	
None	None
Special Designation Area Management	
1) Explore the potential for new designations that would enhance species conservation, such as good-condition cottonwood/willow riparian forest.	1) Take advantage of opportunities as they arise.
Fire Management: Fire Suppression	
1) Fire suppression efforts will be conducted, as possible, to protect yellow-billed cuckoo habitat.	1) Fire management activities: a) Review Fire Management Plan for adequacy in addressing conservation measures. Modify the plan if needed. b) Apply Minimum Impact Suppression Tactics (MIST) in suitable habitat, as appropriate. Consult with resource advisors to determine where MIST tactics should be applied to avoid or minimize negative impacts. c) Do not locate fire base camps, staging areas, and fueling areas in suitable habitat. Avoid locating these and other related activities in suitable habitat.
2) Coordinate with US Forest Service, Idaho Department of Lands, or other applicable agency personnel regarding fire suppression activities in or near suitable habitat.	2) Ongoing interagency coordination.
Fire Management: Emergency Stabilization and Burned Area Rehabilitation	
1) Implement Emergency Stabilization and Burned Area Rehabilitation (ES&BAR) activities to promote yellow-billed cuckoo habitat rehabilitation.	1) ES&BAR activities: a) If needed and if natural recovery would not achieve habitat objectives, implement ES&BAR activities to promote rehabilitation of suitable habitat. Plant locally appropriate trees and shrubs, if natural recovery of such vegetation is doubtful. b) As needed, protect disturbed areas using temporary closures or other measures until the cottonwood saplings (and other target tree and shrub species) are re-established and self-sustaining.
2) Fire rehabilitation projects involving the application of pesticides in or adjacent to suitable habitat areas will be analyzed and implemented in accordance with the approach described in the Soil and Water Resources: Riparian/Wetland Areas program section.	2) See Soil and Water Resources: Riparian/Wetland Areas program section.
Fire Management: Wildland Fire Use	
1) Wildland fire use projects (where allowed) will be designed to conserve suitable yellow-billed cuckoo habitat.	1) When developing wildland fire use plans, avoid burning suitable habitat, and develop appropriate burn prescriptions that maximize conservation for suitable habitat.

Conservation Measures	BLM Implementation Actions
Fire Management: Prescribed Fire	
1) Prescribed fire use projects will be designed to conserve suitable yellow-billed cuckoo habitat and restoration areas.	1) When developing and implementing prescribed fire plans, avoid or minimize negative impacts to suitable habitat, and use prescribed fire as a tool for enhancing restoration areas.
Fire Management: Non-Fire Fuels Management	
1) Implement projects involving the application of pesticides in or adjacent to suitable habitat or restoration areas in accordance with the approach described in the Soil and Water Resources: Riparian/Wetland Areas program section.	1) See Soil and Water Resources: Riparian/Wetland Areas program section.
2) Promote establishment of vegetation needed to achieve suitable yellow-billed cuckoo habitat.	2) Incorporate conservation actions into the fuels projects, as needed. For example, design seed mixes that will enhance or promote the growth of willows, cottonwoods, or other target shrub and tree species.
Fire Management: Community Assistance	
1) Follow all measures included throughout the Fire Management program sections.	1) See actions within Fire Management program sections. Incorporate into community assistance agreements.
Lands and Realty Management: Land Tenure Adjustment (sale, exchanges, withdrawals, etc.)	
1) Where feasible and funding is available, acquire through land exchange or purchase private lands that support known populations or could enhance habitat for yellow-billed cuckoo.	1) Take advantage of opportunities as they arise. Priority should be given to lands that are adjacent to or near public lands.
2) Retain yellow-billed cuckoo habitat in Federal ownership to the extent possible, while balancing other needs.	2) Review each land tenure decision in terms of species habitat. Retain suitable habitat in public ownership unless compelling circumstances necessitate the land tenure adjustment. If property with suitable habitat is to be transferred out of Federal ownership, permanent conservation easements may be attached to the transfer that would result in equal or greater protection than under Federal management. Such measures must be approved by the State Director.
Lands and Realty Management: Land Use Permits and Leases	
1) Issue new land use permits and leases and review existing permits and leases at renewal so as not to preclude species habitat conservation. This includes management of physical facilities, as well as disturbances to the species resulting from human uses.	1) For new permits and renewal of existing permits, see Special Status Animal and Plant Management program section item (3). Avoid issuing new permits or leases, or renewing existing permits or leases, in suitable habitat if negative impacts are expected. Consider the seasonal nature of the proposed activities, and whether this conflicts with yellow-billed cuckoo conservation needs. If a permit or lease is to be issued or re-issued in suitable habitat, apply stipulations to the permit that support or do not preclude species conservation and that avoid or minimize negative impacts.
Lands and Realty Management: Rights-of-Way	
1) Issue new rights-of-way (ROWs) and review existing ROWs at renewal so as not to preclude species habitat conservation. This includes management of physical facilities, as well as	1) For new ROWs and renewal of existing ROWs, see Special Status Animal and Plant Management program section item (3). Avoid issuing ROWs, or renewing existing ROWs, in suitable habitat if

Conservation Measures	BLM Implementation Actions
disturbances to the species resulting from human uses.	negative impacts are expected. Consider the seasonal nature of the proposed activities, and whether this conflicts with yellow-billed cuckoo conservation needs. If a ROW is to be issued or re-issued in suitable habitat, apply stipulations to the ROW that support or do not preclude species conservation and that avoid or minimize negative impacts.
Mineral Management: Locatable Minerals	
1) Approve plans of operations or allow notice-level operations so as not to preclude species habitat conservation. This includes management of physical facilities, as well as disturbances to the species resulting from human uses.	1) Approval of plans of operations and notice-level operations: a) For review of existing plans of operation and notice-level operations, see Special Status Animal and Plant Management program section item (2). To the extent allowed by law, modify plans of operation or notice-level operations that conflict with yellow-billed cuckoo objectives in suitable habitat. For notice-level operations, notify the operator that modifications to proposed activities will be required to avoid negative impacts. b) For new plans of operation and notice-level operations, see Special Status Animal and Plant Management program section item (3). To the extent allowed by law, avoid approving plans of operation or notice-level operations that conflict with yellow-billed cuckoo objectives in suitable habitat. Consider the seasonal nature of the proposed activities, and whether they conflict with yellow- billed cuckoo conservation needs. For notice-level operations, notify the operator that modifications to proposed activities will be required to avoid negative impacts. If a plan of operations is to be approved in suitable habitat, apply stipulations to support or to not preclude species conservation. A notice will require modification by the operator until BLM determines that it will not result in undue or unnecessary degradation.
Mineral Management: Salable and Leasable Minerals	
1) Approve development of salable or leasable minerals so as not to preclude species habitat conservation. This includes management of physical facilities, as well as disturbances to the species resulting from human uses.	1) Approval of salable and leasable minerals: a) For review of existing mineral leases, see Special Status Animal and Plant Management program section item (2). Modify existing mineral leases if negative impacts are occurring. b) For new sales or leases, see Special Status Animal and Plant Management program section item (3). Avoid development of salable or leasable minerals in suitable habitat if negative impacts are expected. Consider the seasonal nature of the proposed activities, and

Conservation Measures	BLM Implementation Actions
	whether this conflicts with yellow-billed cuckoo conservation needs. If a minerals lease or sale is to be issued in suitable habitat, apply stipulations to support or to not preclude species conservation.
Cultural Management	
1) Activities within the Cultural Management program will implement relevant conservation measures as described in the Special Status Animal and Plant Management program section to promote conservation.	1) Apply relevant conservation measures from the Special Status Animal and Plant Management program section at the beginning of this table.
Paleontology	
1) Activities within the Paleontology program will implement relevant conservation measures as described in the Special Status Animal and Plant Management program section to promote conservation.	1) Apply relevant conservation measures from the Special Status Animal and Plant Management program section at the beginning of this table.

APPENDIX F: DROUGHT MANAGEMENT GUIDELINES

Implementation of management actions may be necessary when it is anticipated or evident that, in addition to existing terms and conditions of livestock grazing permits, temporary measures are necessary to protect public land resources due to developing or existing drought conditions.

Dry or drought conditions can occur seasonally or over long time periods. Mounting drought conditions can be can be gradual and difficult to recognize (Wilhite and Glantz, 1985). Drought is defined by the Society for Range Management as a period of time when the precipitation is less than 75% of normal (Holecheck et al., 1998); normal precipitation is based on the median of 30 years or more of precipitation (Thurow and Taylor Jr., 1999; Wilhite and Glantz, 1985). Regional indicators such as the US Drought Monitor (http://droughtmonitor.unl.edu/) and the Vegetation Drought Response Index (VegDRI) (http://vegdri.unl.edu/) will be used to provide regional depictions of existing or developing climatic conditions. However, because drought can occur at a range of spatial scales these tools may or may not accurately represent local conditions.

Within the planning area average annual precipitation varies substantially from north to south (see the Air and Atmospheric Values: Climate and Meteorology section in Chapter 3). Additionally, plant growth is dependent on timing of precipitation as well as quantity. The April-May-June precipitation period is most important for determining vegetation production and making annual adjustments to livestock stocking rates (Comstock and Ehleringer, 1992; Sharp et al., 1990). However, the October-through-March precipitation period is important for maintenance of vegetation communities through soil moisture recharge and initiation of early spring plant growth (Comstock and Ehleringer, 1992). Therefore, to the extent possible local climate data should be used to provide site-specific information on the amount and timing of precipitation, as well as other environmental factors such as temperature and wind that affect the occurrence and severity of drought. In addition to climate data, site visits to allotments would be used to evaluate the current condition of water resources and forage production to better define drought affected areas.

Wang and others (2012) found wet-dry cycles in the Great Basin to be about six to nine years, making it reasonable to expect that during the life of a 10-year grazing permit some level of drought could occur. Relative to the effects of livestock grazing, the degree to which drought impairs the range's potential for future forage production depends on the intensity, frequency, and timing of grazing (Howery, 1999). Properly stocked rangelands should maintain rangeland conditions (Martin and Cable, 1974) and require fewer adjustments to grazing operations during drought. Therefore, drought management should begin with the determination of livestock stocking rates, seasons of use, and utilization levels for an allotment during the permitting process. The likelihood that drought could occur during the period of the permit should be considered and stocking rates set at a level that would not require frequent annual adjustments in order to provide for watershed protection through retention of litter for watershed protection, physiological function of vegetation communities, and wildlife habitat.

Implementation

When drought conditions develop, and it is determined additional temporary measures are necessary to maintain resource values, one or more of the following actions should be implemented. The selection of temporary actions will consider the severity of drought, vegetation type, and soil characteristics of the affected area.

The term of temporary measures would reflect the severity of the drought and ensure adequate protection of resources during the drought as well as allow for resource recovery following resumption of non-drought climate conditions. As the length and severity of the drought increase, livestock grazing management would be more constrained to reduce impacts to soil, water, upland and riparian vegetation, and fish and wildlife habitat. Pre-drought grazing levels should not be implemented too rapidly following a return to normal precipitation levels as drought-stressed plants require time to regain vigor and be able to resist normal grazing pressure (Vallentine, 2001).

Triggers for implementation of temporary actions:

The following list of actions is not exclusive and can be used singularly or in combinations as field conditions require. Persistence of drought through multiple years could result in additional and more restrictive actions taken to protect resource values.

- If precipitation between October and January is less than 75% of normal, initiate communication with affected permittees to coordinate potential changes to their grazing operations if drought conditions persist.
- If drought continues to the April-May-June precipitation period, and allotment inspections identify resource concerns such as reduced production that would limit maintenance of achievement of resource objectives, implement the following measures as appropriate. The specific measures to be implemented would depend on the length and severity of the drought as well as vegetation and soil characteristics.
    - Adjust stocking rate using April-May-June precipitation to match current forage production available for livestock (Heitschmidt et al., 2005) and ensure adequate residual ground cover for watershed protection and wildlife habitat needs.
    - Adjust timing and duration of grazing to reduce utilization of key native grasses and riparian vegetation.
    - Monitor utilization closely and remove livestock from pastures or the allotment if allowable use criteria will be exceeded early.
    - Adjust timing and duration of grazing to reduce the opportunity for upland and riparian plants to be grazed repeatedly during the growing season[1].
    - During the growing season, shift use to pastures managed as non-native to defer grazing of native pastures until after the growing season.
    - Encourage permittees to closely manage livestock watering systems (e.g., turn off troughs when not needed by livestock, eliminate overflow) to facilitate conservation of water within streams and springs.
    - Consistent with water rights, consider authorizing water hauling or temporary pipelines to reduce impacts to riparian areas and wetlands.
    - Pastures which are managed as native that are grazed during the growing season one year would be deferred until after the end of the growing season the following year.
    - Defer spring grazing until end of growing season.
    - Do not allow spring grazing.
    - Close pasture and/or allotment.

[1] The growing season is defined as the portion of the year during which temperature and moisture typically enable plant growth (Vallentine, 2001). For key species in the planning area, this period typically falls between April 1 and July 15; however, drought conditions typically shorten the growing period.

APPENDIX G: CULTURAL RESOURCE USE CATEGORIES

All cultural properties in the planning area, whether already recorded or projected to occur, are allocated to one or more of the uses described below. Allocations apply to individual properties and to classes of similar properties. The purpose of these allocations is to provide up-front management direction to aid the authorized officer in responding to conflicts between specific cultural resources and land uses and to enable the authorized officer to analyze needs and develop appropriate mitigation and treatment options during the compliance process for proposed actions. Managing cultural properties according to use categories does not relieve the Bureau of Land Management (BLM) of its obligations to consult with the tribes, the State Historic Preservation Officer (SHPO), or the Advisory Council on Historic Preservation (ACHP) regarding the specific treatment of historic properties, or the potential effects of land use proposals on cultural resources.

Allocations of individual sites may be revised when site conditions change or new information becomes available. Changes that may warrant revision of a site's use allocation include:

- Destruction of a site's primary use values due to natural or human-caused disturbance.
- When ethnographic, historical, or archaeological research reveals important but previously unrecognized values that may be damaged or destroyed under the current allocation or that may more effectively meet Resource Management Plan (RMP) goals and objectives if used in another way.
- When a site's primary values are legitimately expended or its use potential is fully realized.
- Following consultation with the tribes, SHPO, or ACHP, as appropriate for the resource and use category being revised.

Traditional Use

The Traditional Use category applies to any cultural resource in the planning area known to be perceived by the Shoshone-Paiute Tribes or the Shoshone-Bannock Tribes as important in maintaining their cultural identity, heritage, or well-being. Cultural properties assigned to this category are managed in ways that recognize the importance ascribed to them and seek to accommodate their continuing traditional use.

Management Direction

- Avoidance is the preferred treatment.
- If impacts are unavoidable, data recovery and/or other measures will be implemented after appropriate consultation and before implementation of a proposed activity.
- Sites in this category are available for use by members of the Shoshone-Paiute Tribes and the Shoshone-Bannock Tribes for traditional uses. Access to these sites will be accommodated to the extent practicable.
- Ethnographic studies may be initiated when funding is available to identify these types of properties and to ensure that they receive the appropriate level of management.

The following property types in the planning area are allocated to Traditional Use:

- Historic/Ethnographic Tribal Sites,
- Ceremonial Locations,
- Burial Sites[1],
- Sacred Sites,
- Natural Resource Collection Sites, and
- Native American Trails.

[1] Native American burials on public lands would normally be subject to the Native American Graves Protection and Repatriation Act of 1990 (NAGPRA).

Conservation for Future Use

The Conservation for Future Use category is reserved for any cultural property in the planning area that is unusual because of scarcity or has a research potential that surpasses the current state of the art, singular historic importance, cultural importance, architectural interest, or comparable reasons. These properties are not currently available for consideration as the subject of scientific or historical study that would result in their physical alteration.

Management Direction

- Avoidance is the preferred mitigation measure. Discretionary activities will usually be denied within the boundaries of these resources if such activities are likely to result in adverse effects to the cultural property.
- If impacts are unavoidable, data recovery or other measures may be allowed after going through the required consultation processes. Avoidance should be possible in most cases.
- Sites in this category have the highest priority for protection and preservation and will generally not be available for other uses.
- A resource listed in the Conservation for Future Use category may be placed in another use management category if: (a) BLM identifies the specific criteria underlying this classification (e.g., outstanding research potential), (b) the specific reasons for prohibitions or limitations are identified, and (c) BLM identifies or accepts methodological, technological, or other criteria that, if met or implemented, justify alterations to the integrity of the resource and placement in another use category.
- Protective actions may be taken to ensure preservation of those qualities providing the basis for classification. These actions, such as fencing, installation of erosion control structures, road closures, etc., must not impinge on the values and integrity of the site. Sites in this category are generally the highest priority for monitoring of potential threats.

The following property types in the planning area are allocated to Conservation for Future Use:

- Oregon Trail (Main Route and South Alternate) – Undisturbed Ruts,
- Kelton Freight Road – Undisturbed Ruts,
- Toana Freight Road – Undisturbed Ruts, and
- Cemeteries and Grave Sites.

Scientific Use

The Scientific Use category applies to any cultural property in the planning area available for consideration as the subject of scientific or historical study at the present time, using currently available research techniques. Study includes methods that would result in the property's physical alteration or destruction. This category applies almost entirely to archaeological properties, where the method of use is generally archaeological excavation, controlled surface collection, and/or controlled recordation (data recovery). Recommendations to allocate individual properties to this use must be based on documentation of the kinds of data the property is thought to contain and the data's importance for pursuing specified research topics. Properties in this category need not be conserved in the face of a research or data recovery (mitigation) proposal that would make adequate and appropriate use of the property's research importance.

Management Direction

- Data recovery rather than avoidance is the preferred option; although sites should be preserved until research potential is realized. Data recovery should be accomplished prior to impacts from conflicting uses or natural or human-caused deterioration and may be undertaken to mitigate impacts that have already occurred.
- Resources in this category are available for testing and excavation by qualified researchers operating under valid permits with acceptable research designs. Resources in this category may be discharged from use or assigned to a category other than Conservation for Future Use once the resource has no further scientific use.

The following property types in the planning area are allocated to Scientific Use:

- Fur Trade Camps;
- Cabins/Line Shacks, including Ruins;
- Abandoned Homesteads, including Ruins;
- Historic Cairns;
- Trash Dumps – Community;
- Irrigation Project Construction Camps;
- Moonshine Distilleries; and
- Archaeological Sites that are not identified through research or consultation as traditional cultural properties or sacred sites.

Public Use

This category may be applied to any cultural property in the planning area found to be appropriate for use as an interpretive exhibit in place or for related educational and recreational uses by members of the general public. This category may also be applied to historic features (e.g., roads, dams, canals) that are still in use.

Management Direction

- Interpretation through the development of on-site facilities and/or published materials made available to the public is the preferred treatment. Interpretation will be based on appropriate archaeological, historic, or ethnographic research and will reflect consultation with the Shoshone-Paiute Tribes and the Shoshone-Bannock Tribes when Native American information is included.
- These sites are available for educational and recreational use by the general public. Testing, data recovery, historic research, oral histories, ethnographic research, and other treatments may be necessary to gather sufficient information for suitable educational and interpretive uses and to prevent damage from proposed recreational or educational uses.
- Interpretive facility designs will be consistent with the area's Visual Resource Management class and compatible with the physical setting of the interpreted site.
- Fences, erosion control devices, vehicle barriers, parking areas, and other protective structures may be constructed to prevent or limit site damage.

The following property types in the planning area are allocated to Public Use:

- Crippen Grade;
- Portions of Historic Roads and Trails that are improved for Modern Use;
- Civilian Conservation Corps (CCC) Dams, Roads, and Related Sites – Still in Use;
- Non-CCC Reservoirs – Still in Use; and
- Irrigation Canals and Ditches – Still in Use.

Experimental Use

This category may be applied to a cultural property in the planning area determined to be well-suited for controlled experimental study, conducted by BLM or others concerned with the techniques of managing cultural properties, which would result in the property's alteration, possibly including loss of integrity and destruction of physical elements. Committing cultural properties or the data they contain to loss must be justified in terms of specific information that would be gained and how it would aid in the management of other cultural properties. Experimental study should aim toward understanding the kinds and rates of natural or human-caused deterioration, testing the effectiveness of protection measures, or developing new research or interpretation methods and similar kinds of practical management information. It would not be applied to cultural properties with traditional cultural importance, research potential, or public use potential.

Management Direction

- These sites are reserved for studies concerning the effects of erosion, fire, land treatments, or other site formational processes on cultural resources. The preferred treatment for sites placed in an Experimental Use category will be avoidance unless the proposed impacts are related to the study being conducted.
- If impacts unrelated to the study are unavoidable, then the site may be placed in the Discharged from Management category, or may undergo data recovery or other treatment depending on eligibility for the National Register of Historic Places (NRHP) or other factors and after appropriate consultation.
- If BLM determines the useful experimental life of the site is exhausted, then it can be placed into the Discharged from Management or other appropriate category.

Individual sites within the following property types in the planning area may be allocated to Experimental Use as needed:

- Temporary Camps – Livestock Industry and
- Trash Dumps – Unassociated Household Refuse.

Discharged from Management

This category is assigned to cultural properties in the planning area that have no remaining identifiable use. These are most often prehistoric and historic properties, such as small surface scatters of artifacts or debris, whose limited research potential is effectively exhausted during documentation. More complex archaeological properties that have had their salient information collected and preserved through mitigation or research may be discharged from management, as should cultural properties destroyed by any natural or human activity. Properties discharged from management remain in the inventory, but are removed from further management attention and do not constrain other land uses. Particular classes of unrecorded cultural resources may be named and described in advance as dischargeable upon documentation, but specific cultural properties must be inspected in the field and recorded before they may be discharged from management.

Management Direction

- Preservation is not required.
- Tribal consultation is required before any site of cultural or religious significance to the tribes is placed in this category.
- SHPO consultation is required before any property previously determined eligible for the the National Register of Historic Places (NRHP) or any unevaluated property is placed in this category.

The following property types in the planning area are Discharged from Management:

- General Transportation Routes (e.g., ranching, recreation, farming);
- Temporary Camps – Livestock Industry;
- Generic Range Developments (e.g., fences, corrals, water tanks, ponds);
- Irrigation Canals and Ditches – No Longer Used and Not Eligible for NRHP Listing;
- Trash Dumps – Unassociated Household Refuse;
- Non-CCC Reservoirs – Breached;
- Military – Aircraft Debris;
- Military – Expended Ordnance;
- Small, Non-Diagnostic Lithic Scatters;
- Isolated Artifacts; and
- Modern Period (post 1960) Sites, Facilities, and Features.

Traditional/Scientific Use

This category is assigned to cultural properties in the planning area important because of their links to traditional values, but also important for the archaeological information they contain.

Management Direction

- Access for traditional use will be accommodated to the extent and manner practicable.
- Non-destructive recordation, photography, mapping, and analysis, as well as actions needed to protect artifacts and sites threatened by theft or physical destruction will be allowed, including research and stabilization related to investigations of criminal violations of the Archaeological Resources Protection Act.
- Research that does not conflict with traditional use may be allowed after consultation with the tribes, SHPO, and the Advisory Council on Historic Preservation, as appropriate.
- Public dissemination of research results will take into account the confidentiality and privacy concerns of the tribes.
- Cultural resource data recovery, using standard archaeological methods, may be allowed, after appropriate consultation, if impacts to sites are unavoidable and non-destructive conservation measures are not adequate or feasible, or when necessary to determine a site's eligibility for the the National Register of Historic Places (NRHP) or mitigate adverse effects to NRHP-eligible or -listed properties.

The following property types in the planning area are allocated to Traditional/Scientific Use:

- Native American Rock Art Sites (petroglyphs and pictographs);
- Native American Cave and Rock Shelter Sites;
- Native American Open Habitation Sites;
- Lithic Scatters;
- Tool Stone Quarries; and
- Native American Rock Features (e.g., hunting blinds, rock circles, linear rock alignments, and cairns)
- Isolated Native American Artifacts.

Public/Scientific Use

This category is assigned to cultural properties in the planning area that are most valuable for public use, but that may require scientific data collection to enhance their interpretive potential.

Management Direction

- Sites assigned to this category will be available for educational and recreational use by the general public. Interpretive and educational actions, including but not limited to on-site interpretation, signage, or publications, are the preferred management actions.
- Data recovery or other treatments deemed necessary to provide sufficient information for suitable educational and interpretive uses, or to treat damage from recreational uses, may be authorized providing they do not diminish the public use potential of the site.
- Data recovery and stabilization actions for investigations and treatments related to criminal violations of the Archaeological Resources Protection Act will be allowed.
- To the extent practical, data recovery and other treatment actions will involve volunteers.

The following property types in the planning area are allocated to Public/Scientific Use:

- Oregon Trail Campsites;
- Pilgrim Stage Station;
- Historic School Sites;
- Historic Inscriptions;
- CCC Dams, Roads, and Related Sites – No Longer Used; and
- Irrigation Canals and Ditches – No Longer Used and the National Register of Historic Places Eligible.

Conservation/Public Use

This category includes cultural resources in the planning area that are suitable for long-term preservation, but also possess high public use values.

Management Direction

- Sites in this category will be managed to avoid degradation from competing land uses and from natural processes.
- Sites may be used for interpretation or other public purposes and for data recovery and other treatments if these uses do not conflict with conservation of the property.

The following property types in the planning area are allocated to Conservation/Public Use:

- Oregon Trail (Main Route and South Alternate) – the National Register of Historic Places (NRHP) Contributing Segments,
- Kelton Freight Road – NRHP Contributing Segments,
- Toana Freight Road – NRHP Contributing Segments, and
- Wilkins Rock Fence.

Summary of Cultural Resource Use Allocations

Table G-1 summarizes the cultural resource use categories to which properties of cultural and religious importance and prehistoric and historic sites would be allocated under the action alternatives.

Table G-1. Cultural Resource Property Types and Use Allocations

Property Type	Use Category
Properties of Cultural and Religious Importance to Native American Tribes	
Historic/Ethnographic Tribal Sites	Traditional
Ceremonial Locations	Traditional
Burial Sites	Traditional
Sacred Sites	Traditional
Natural Resource Collection Sites	Traditional
Native American Trails	Traditional
Native American Archaeological Sites	
Petroglyphs	Traditional/Scientific
Pictographs	Traditional/Scientific
Caves and Rock Shelters	Traditional/Scientific
Open Habitation Sites	Traditional/Scientific
Lithic Scatters with potential for subsurface deposits, diagnostic artifacts, surface patterning of cultural debris, or evidence of cultural features	Traditional/Scientific
Lithic Scatters with no or little potential for subsurface deposits, and no diagnostic artifacts, surface artifact patterning, or evidence of cultural features	Traditional/Scientific or Discharged from Management
Tool Stone Quarries	Traditional/Scientific
Hunting Blinds	Traditional/Scientific
Rock Circles	Traditional/Scientific
Linear Rock Alignments	Traditional/Scientific
Cairns	Traditional/Scientific
Isolated Artifacts	Traditional/Scientific or Discharged from Management
Archaeological sites that are not identified through research or consultation as traditional cultural properties or sacred sites	Scientific

Property Type	Use Category
Historic Sites	
Fur Trade Camps	Scientific
Oregon Trail (Main Route)	Conservation or Conservation/Public
Oregon Trail (South Alternate)	Conservation or Conservation/Public
Oregon Trail Campsites	Public/Scientific
Kelton Freight Road	Conservation or Conservation/Public
Pilgrim Stage Station	Public/Scientific
Toana Freight Road	Conservation or Conservation/Public
Crippen Grade	Public
General Transportation Routes (Ranching, Recreation, Farming, etc.)	Discharged from Management
Portions of Historic Roads and Trails that are Improved for Modern Use	Public
Cabins/Line Shacks, including Ruins	Scientific
Temporary Camps – Livestock Industry	Experimental or Discharged from Management
Historic School Sites	Public/Scientific
Abandoned Homesteads, including Ruins	Scientific
Cemeteries and Grave Sites	Conservation
Cairns	Scientific
Wilkins Rock Fence	Conservation/Public
Generic Range Developments (Fences, Corrals, Water Tanks, Ponds, etc.)	Discharged from Management
Trash Dumps – Community	Scientific
Trash Dumps – Unassociated Household Refuse	Experimental or Discharged from Management
Historic Inscriptions	Public/Scientific
Irrigation Project Construction Camps	Scientific
Irrigation Canals and Ditches – Still in Use	Public
Irrigation Canals and Ditches – No Longer Used	Public/Scientific or Discharged from Management
CCC Dams, Roads, and Related Sites – Still in Use	Public
CCC Dams, Roads, and Related Sites – No Longer Used	Public/Scientific
Non-CCC Reservoirs – Still in Use	Public
Non-CCC Reservoirs – Breached	Discharged from Management
Moonshine Distilleries	Scientific
Military – Aircraft Debris	Discharged from Management
Military – Expended Ordnance	Discharged from Management
Isolated Artifacts	Discharged from Management
Modern Period (post 1960) Sites, Facilities, and Features	Discharged from Management

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APPENDIX H: RECREATION MANAGEMENT AREAS

Recreation Setting Characteristics

Recreation settings are the collective, distinguishing attributes of landscapes that influence and sometimes determine what kinds of recreation opportunities are produced. Recreation setting characteristics are objectively defined along a continuum ranging from primitive to urban landscapes, expressed in terms of the nature of the component parts of its physical, social, and administrative attributes; recreation setting characteristics are described for both the existing and desired condition of a landscape.

The physical setting addresses the land and facilities and describes the character of the natural landscape; remoteness, naturalness, and facilities are all components of the physical setting. The continuum of setting characteristics for physical setting is displayed in Table H-1.

Table H-1. Physical Setting

		Remoteness	Naturalness	Facilities
Primitive	**Pristine**	More than 10 miles from any road.	Undisturbed natural landscape.	None.
	Transition	More than 3 miles from any road.		
Back Country		More than .5 mile from any kind of road, but not as distant as 3 miles, and no road is in sight.	Naturally-appearing landscape having modifications not readily noticeable.	Structures are rare and isolated.
Middle Country		On or near four-wheel drive roads, but at least 1/2 mile from all improved roads, though they may be in sight.	Naturally-appearing landscape except for obvious primitive roads.	Maintained and marked trails, simple trailhead development and basic toilets.
Front Country		On or near improved country roads, but at least 1/2 mile from all highways.	Landscape partially modified by roads, utility lines, etc., but none overpower natural landscape features.	Rustic facilities such as campsites, restrooms, trailheads, and interpretive displays.
Rural		On or near primary highways, but still within a rural area.	Natural landscape substantially modified by agriculture or industrial development.	Modern facilities such as campgrounds, boat launches, and group shelters.
Urban		On or near primary highways, municipal streets, and roads within towns or cities.	Urbanized developments dominate landscape.	Elaborate full-service facilities.

The social setting addresses visitor use and users and describes the character of recreation and tourism use; the number of contacts with other groups, group size, and evidence of use are all components of the social setting. The continuum of setting characteristics for social setting is displayed in Table H-2.

The administrative setting addresses recreation administration and services and describes how public land managers, county commissioners and municipal governments, and local businesses care for the area and serve visitors and local residents. The amount and type of mechanized use, visitor services, and management controls are all components of the administrative setting. The continuum of setting characteristics for administrative setting is displayed in Table H-3.

Table H-2. Social Setting

		Contacts with Other Groups	Group Size	Evidence of Use
Primitive	**Pristine**	Fewer than 3 encounters per day at camp sites and fewer than 6 encounters per day on travel routes.	Fewer than or equal to 3 people per group.	Only footprints observed. No noise or litter.
	Transition			
Back Country		3-6 encounters per day off travel routes (e.g., campsites) and 7-15 encounters per day on travel routes.	4-6 people per group.	Footprints and bicycle tracks observed. Noise and litter infrequent. Slight vegetation trampling at campsites and popular areas. Fire rings seen.
Middle Country		7-14 encounters per day off travel routes (e.g., staging areas) and 15-29 encounters per day en route.	7-12 people per group.	Vehicle tracks observed. Occasional noise and litter. Vegetation and soils becoming worn at campsites and at high-use areas.
Front Country		15-29 encounters per day off travel routes (e.g., campgrounds) and 30 or more encounters per day en route.	13-25 people per group.	Vehicle tracks common. Some noise and litter. Vegetation and soils commonly worn at campsites, along travel routes, and at popular areas.
Rural		People seem to be generally everywhere.	26-50 people per group.	Frequent noise and litter. Large but localized areas with vegetation damage and soil compaction.
Urban		Busy place with other people constantly in view.	More than 50 people per group.	Unavoidable noise and litter. Widespread vegetation damage and soil compaction.

Table H-3. Administrative Setting

		Mechanized Use	Visitor Services	Management Controls
Primitive	**Pristine**	None whatsoever.	None is available on-site.	No visitor controls apparent. No use limits. Enforcement presence very rare.
	Transition			
Back Country		Mountain bikes and perhaps other mechanized use, but all is non-motorized.	Basic maps, but area personnel seldom available to provide on-site assistance.	Signs at key access points on basic user ethics. May have back country use restrictions. Enforcement presence rare.

	Mechanized Use	Visitor Services	Management Controls
Middle Country	Four-wheel drives, all-terrain vehicles, dirt bikes, or snowmobiles in addition to non-motorized, mechanized use.	Area brochures and maps, plus area personnel occasionally present to provide on-site assistance.	Occasional regulatory signing. Motorized and mechanized use restrictions. Random enforcement presence.
Front Country	Two-wheel drive vehicles predominant, but also four-wheel drive vehicles and non-motorized, mechanized use.	Information materials describe recreation areas and activities. Area personnel are periodically available.	Rules clearly posted with some seasonal or day-of-week use restrictions. Periodic enforcement presence.
Rural	Ordinary highway auto and truck traffic is characteristic.	Information materials same as described in Front Country, plus experience and benefit descriptions, staff reguraly present.	Regulations prominent. Total use limited by permit, reservation, etc. Routine enforcement presence.
Urban	Wide variety of street vehicles and highway traffic is ever-present.	Information described to the left, plus regularly scheduled on-site outdoor skills demonstrations and clinics.	Continuous enforcement to redistribute use and reduce user conflicts, hazards, and resource damage.

Special Recreation Management Areas

The Special Recreation Management Area (SRMA) is an administrative unit where the existing or proposed recreation opportunities and recreation setting characteristics are recognized for their unique value, importance, and/or distinctiveness, especially as compared to other areas used for recreation. The SRMA is managed to protect and enhance a targeted set of activities, experiences, benefits, and desired recreation setting characteristics. The RMP may subdivide the SRMA into Recreation Management Zones (RMZs) to further delineate specific recreation opportunities. Within an SRMA, recreation and visitor services management is recognized as the predominant RMP focus, where specific recreation opportunities and recreation setting characteristics are managed and protected on a long-term basis. Below are management strategies for SRMAs that would be designated under one or more of the action alternatives. The existing and prescribed setting characteristics for the physical, social, and administrative settings as described in Table H-1, Table H-2, and Table H-3 are identified for each SRMA.

Balanced Rock Special Recreation Management Area

Supporting Information		
Appreciation of an area important to the local community.		
SRMA/RMZ Objective(s)		
Objective Statement: Manage the Balanced Rock SRMA to provide opportunities for visitors to engage in activities in an area of importance to the local communities so they realize a "moderate" level of the targeted experience and benefit outcomes. **Activities:** Hiking, viewing wildlife/natural scenery, non-motorized boating. **Experiences:** Enjoying natural scenery and wildlife, escaping everyday responsibilities, enjoying solitude, and being with friends and family. **Benefits:** Personal: Nature/aesthetic appreciation, improved mental wellbeing, and opportunity to view wildlife close-up. Community/Social: Improved image of the area and its recreational opportunities, improved perceived quality of life, and family bonding/better family life. Environmental: Creates sense of "ownership" and stewardship of the area, provides natural habitat and open space. Economic: Increased desirability of a place to live and work.		
Recreation Setting Characteristics		
Physical Components: Remoteness – Front Country Naturalness – Front/Middle Country Facilities – Middle Country	**Social Components:** Contacts – Middle Country Group Size – Back Country Evidence of Use – Middle Country	**Administrative Components:** Mechanized Use – Back Country Visitor Services – Middle Country Management Controls – Middle Country
Management Actions and Allowable Use Decisions		
Recreation and Visitor Services Program: Focus on developing a hiking trail to enhance existing facilities. Improvements will be preceded by formal site plans and will adhere to guidelines developed for the area. **Other Programs:** Manage as Visual Resource Management (VRM) Class III.		
Implementation Decisions		
Encourage and develop cooperative partnerships with volunteer groups, State, County, and local agencies to facilitate management and additional development of the area. Marketing activities will include directional signing, interpretation, and brochures. Support active volunteer programs and develop new partnerships (e.g., National Public Lands Day and National Trails Day events and volunteer projects for local groups). Routine monitoring of area and facilities, periodic visitor contact, and monitoring to assess achievement of objectives.		

Jarbidge Forks Special Recreation Management Area

Supporting Information		
Fishing and camping in a remote area with few contacts with other people.		
SRMA/RMZ Objective(s)		
Objective Statement: Manage the Jarbidge Forks SRMA to provide opportunities for visitors to engage in fishing and camping so they achieve a "moderate" level of the targeted experiences and benefits outcomes. **Activities:** Rafting, fishing, camping, picnicking, viewing wildlife, and viewing natural scenery. **Experiences:** Engaging in preferred activities with family and friends, relaxing physically, enjoying natural scenery and wildlife, and enjoying leisure activities. **Benefits:** Personal: Nature/aesthetic appreciation, positive change in mood and emotion, social bonding/cohesion/cooperation, and identification with a special place. Community/Social: Improved image of the area and its recreational opportunities, improved image of land management agencies, and family/friends bonding. Environmental: Better preservation of riparian environment, creates sense of "ownership" and stewardship of the area. Economic: Retain recreation spending in local area and increase desirability of a place to live and work.		
Recreation Setting Characteristics		
Physical Components: Remoteness – Front Country Naturalness – Middle Country Facilities – Front Country	**Social Components:** Contacts – Back Country Group Size – Back Country Evidence of Use – Middle Country	**Administrative Components:** Mechanized Use – Front Country Visitor Services – Front Country Management Controls – Middle Country
Management Actions and Allowable Use Decisions		
Recreation and Visitor Services Program: Focus on access, whitewater boat launch, parking, resource protection, and sanitation. Maintain or upgrade existing facilities. **Other Programs:** Manage Jarbidge River portion as VRM Class I (eligible Wild and Scenic River segments with a scenic Outstandingly Remarkable Value) and manage the East Fork of the Jarbidge River portion as VRM Class II.		
Implementation Decisions		
Seek cooperative relationships with local groups and other agencies to facilitate management. Occasional visitor contact and law enforcement. Marketing activities would include word of mouth, brochures, and interpretative and directional signing. Routine monitoring of physical facilities; visitor number collections will continue to include whitewater boating registration forms; periodic visitor surveys to assess achievement of objectives.		

Little Pilgrim Special Recreation Management Area

Supporting Information		
Vehicle-accessible fishing.		
SRMA/RMZ Objective(s)		
Objective Statement: Manage the Little Pilgrim SRMA to provide opportunities for visitors to engage in sturgeon fishing so they realize a "moderate" level of the targeted experiences and benefit outcomes. **Activities:** Fishing and bird hunting. **Experiences:** Enjoying activities in a natural setting, enjoying natural scenery and wildlife, engaging in preferred activities with family and friends, and testing and improving outdoor skills. **Benefits:** Personal: Nature/aesthetic appreciation, positive change in mood and emotion, social bonding/cohesion/cooperation, and identification with a special place. Community/Social: Lifestyle improvement or maintenance, family and friends bonding, improved image of the area and its recreational opportunities. Environmental: Protection of wildlife and fish habitat and provide natural habitat and open space. Economic: Retain recreation spending in local area and increase desirability of a place to live and work.		
Recreation Setting Characteristics		
Physical Components: Remoteness – Middle Country Naturalness – Middle Country Facilities – Middle Country	**Social Components:** Contacts – Back Country Group Size – Back Country Evidence of Use – Middle Country	**Administrative Components:** Mechanized Use – Front Country Visitor Services – Middle Country Management Controls – Middle Country
Management Actions and Allowable Use Decisions		
Recreation and Visitor Services Program: Focus on public access, parking, resource protection, and sanitation. Develop facilities for parking, camping, and sanitation. Improvements will be preceded by a formal site plan and will adhere to guidelines developed for the area. **Other Programs:** Manage areas outside the Oregon National Historict Trail protective zone (VRM Class II) as VRM Class III.		
Implementation Decisions		
Encourage and develop cooperative relationships with land owners and other entities to facilitate responsible recreational use of the area. Marketing activities would include word of mouth and brochures. Routine monitoring of physical facilities and periodic visitor contact to assess achievement of objectives.		

Salmon Falls Reservoir Special Recreation Management Area

Antelope Bay Recreation Management Zone

Supporting Information

Fishing, camping, and boating on a reservoir with consistent water levels and within proximity to major transportation routes.

SRMA/RMZ Objective(s)

Objective Statement: Manage the Antelope Bay RMZ to provide opportunities for visitors to engage in fishing, camping, and boating so they realize a "moderate" level of the targeted experience and benefit outcomes.

Activities: Fishing, camping, water sports, hunting, boat launching and take out, equestrian, hiking, all-terrain vehicle (ATV) riding, and motorcycle riding.

Experiences: Enjoying having easy access to natural landscapes, engaging in preferred activities with family and friends, enjoying activities in a natural setting, relaxing physically, and feeling good about how natural resources and facilities are being managed.

Benefits:
Personal: Positive change in mood and emotion, identification with a special place, and nature/aesthetic appreciation.

Community/Social: Improved image of the area and its recreational opportunities, improved image of land management agencies, and family and friends bonding/ better family life.

Environmental: Greater protection of fish, wildlife, and plant habitat from public use impact, creates sense of "ownership" and stewardship of the area.

Economic: Contribution to Recreation and Tourism sector of the local economy and retain recreation spending in local area.

Recreation Setting Characteristics

Physical Components:	Social Components:	Administrative Components:
Remoteness – Front Country Naturalness – Middle/Front Country Facilities – Front/Rural Country	Contacts – Middle/Front Country Group Size – Middle Country Evidence of Use – Middle/Front Country	Mechanized Use – Front Country Visitor Services – Front Country Management Controls – Front Country

Management Actions and Allowable Use Decisions

Recreation and Visitor Services Program: Focus on access, boat launch, parking, resource protection, and sanitation.

Develop facilities to provide for access, visitor parking, boat launching and take out, and sanitation.

Develop multiple-use designated trail system.

Facility development will be preceded by project planning and will adhere to guidelines developed for the area.

Other Programs: Manage as VRM Class II (Alternative I and IV) or VRM Class III (Alternative II and III).

Implementation Decisions

Develop cooperative relationships with volunteer groups, State and county agencies to facilitate responsible planning and use of the area.

Marketing activities would include directional signing, interpretative signing, brochures, and word of mouth.

Provide information and a regular management presence to allow the visitors to enjoy the area while protecting its natural resources.

Cedar Creek Recreation Management Zone

Supporting Information		
Easily accessed fishing and camping on a stocked reservoir.		
SRMA/RMZ Objective(s)		
Objective Statement: Manage the Cedar Creek RMZ to provide opportunities for visitors to engage in fishing and camping so they realize a "moderate" level of the targeted experience and benefit outcomes. **Activities:** Fishing, camping, boat launching and take out. **Experiences:** Being with friends and family, engaging in preferred activities, relaxing physically, and enjoying activities in a natural setting. **Benefits:** Personal: Positive change in mood and emotion and nature/aesthetic appreciation. Community/Social: Improved image of the area and its recreational opportunities and bonding with family and friends. Environmental: Creates sense of "ownership" and stewardship of the area. Economic: Retain recreation spending in local area and increase desirability of a place to live and work.		
Recreation Setting Characteristics		
Physical Components: Remoteness – Front Country Naturalness – Front Country Facilities – Front Country	**Social Components:** Contacts – Back Country Group Size – Back/Middle Country Evidence of Use – Front Country	**Administrative Components:** Mechanized Use – Front Country Visitor Services – Middle Country Management Controls – Middle Country
Management Actions and Allowable Use Decisions		
Recreation and Visitor Services Program: Focus on access, boat launch facilities, parking, resource protection, and sanitation. Develop and upgrade existing facilities to provide for access, visitor parking, and sanitation. Facility development will be preceded by project planning and will adhere to guidelines developed for the area. **Other Programs:** Manage as VRM Class II (Alternative I) or VRM Class III (Alternative II, III, and IV).		
Implementation Decisions		
Develop cooperative relationships with land owners and Twin Falls County Parks and Waterways. Marketing activities would include directional signing, brochures, and word of mouth. Routine monitoring of physical facilities and periodic visitor contact to assess achievement of objectives. Provide information and a regular management presence to allow the visitors to enjoy the area while protecting its natural resources.		

Luds Point Recreation Management Zone

Supporting Information		
Fishing, primitive camping, and hunting activities for individuals seeking seclusion and little contact with other users.		
SRMA/RMZ Objective(s)		
Objective Statement: Manage the Luds Point RMZ to provide opportunities for visitors to engage in fishing, primitive camping, and hunting so they realize a "moderate" level of the targeted experience and benefit outcomes. **Activities:** Fishing; primitive, boat-in camping; hunting; and viewing wildlife and natural scenery. **Experiences:** Engaging in preferred activities with friends and family, testing and improving outdoor skills, enjoying natural scenery and wildlife, and enjoying activities in a natural setting. **Benefits:** Personal: Nature/aesthetic appreciation, positive change in mood and emotion, and identification with a special place. Community/Social: Improved image of the area and its recreational opportunities, improved image of land management agencies, and bonding with family and friends. Environmental: Greater protection of fish, wildlife, and plant habitat from public use, create sense of "ownership," and create sense of stewardship of the area. Economic: Retain recreation spending in local area and increase desirability of a place to live and work.		
Recreation Setting Characteristics		
Physical Components: Remoteness – Middle Country Naturalness – Middle Country Facilities – Middle Country	**Social Components:** Contacts – Back Country Group Size – Back Country Evidence of Use – Middle Country	**Administrative Components:** Mechanized Use – Middle Country Visitor Services – Middle Country Management Controls – Middle Country
Management Actions and Allowable Use Decisions		
Recreation and Visitor Services Program: Focus on public access, resource protection, and sanitation. Improvements will be preceded by project planning and will adhere to guidelines developed for the area. **Other Programs:** Manage as VRM Class II (Alternative I and IV) or VRM Class III (Alternative II and III).		
Implementation Decisions		
Encourage and develop cooperative relationships with user groups and State and county agencies to facilitate responsible recreational use of the area. Occasional visitor contact and law enforcement. Marketing activities would include directional and interpretative signing, brochures, and word of mouth. Routine monitoring of facilities and periodic visitor contact to assess achievements of objectives.		

Yahoo Special Recreation Management Area

Supporting Information		
Off-highway vehicle (OHV) riding in sand washes within proximity to major transportation systems and available during the winter season.		
SRMA/RMZ Objective(s)		
Objective Statement: Manage the Yahoo SRMA to provide opportunities for visitors to engage in OHV riding so they realize a "moderate" level of the targeted experience and benefit outcomes. **Activities:** OHV riding (e.g., ATV, motorcycle, UTV). **Experiences:** Exhilaration and excitement, testing and improving riding skills, being with friends and family, enjoying preferred activities in an appropriate setting, and risk taking. **Benefits:** Personal: Positive change in mood and emotion, social bonding/cohesion/ cooperation, and improve skills for outdoor enjoyment. Community/Social: Improved image of the area and its recreational opportunities creates a positive image of OHV motorized activities. Environmental: Creates a sense of "ownership" and stewardship of the area. Increased awareness and protection of landscapes. Economic: Retains recreation spending in the local area and increases attractiveness of southern Idaho as a place to live.		
Recreation Setting Characteristics		
Physical Components: Remoteness – Front Country Naturalness – Front Country Facilities – Front Country	**Social Components:** Contacts – Middle/Front Country Group Size – Middle Country Evidence of Use – Front Country	**Administrative Components:** Mechanized Use – Front Country Visitor Services – Front Country Management Controls – Front Country
Management Actions and Allowable Use Decisions		
Recreation and Visitor Services Program: Improvements geared toward facilitating parking, sanitation, and reducing sediment into Yahoo Creek. Designated open/play areas and trail system. **Other Programs:** Manage as VRM Class III.		
Implementation Decisions		
Encourage and pursue cooperative partnerships with user groups, land owners, and Idaho Department of Parks and Recreation (IDPR) to facilitate responsible recreational use of the area. Pursue partnerships with user groups and IDPR for a formal site plan. Marketing activities will include word-of-mouth, directional signing, and brochures. Routine monitoring of area and facilities and periodic visitor contact and monitoring to assess achievement of objectives.		

Canyonlands Special Recreation Management Area

Supporting Information		
A natural setting necessary to provide quality non-motorized hunting and other recreation experiences.		
SRMA/RMZ Objective(s)		
Objective Statement: Manage the Canyonlands SRMA to provide opportunities for visitors to engage in non-motorized recreation experiences including hunting, hiking, and equestrian so they realize a "moderate" level of the targeted experience and benefit outcomes. **Activities:** Hunting, viewing wildlife/natural scenery, hiking, equestrian, and fishing. **Experiences:** Enjoying risk-taking adventure, solitude, and natural scenery and wildlife. Testing and improving outdoor skills and engaging in preferred activities with family and friends. **Benefits:** Personal: Improved outdoor recreation skills, nature/aesthetic appreciation, and greater sense of adventure. Community/Social: Improved image of the area and its recreational opportunities and improved skills for outdoor enjoyment with family/friends. Environmental: Provides natural habitat and open space and protection of wildlife and fish habitat. Economic: Increased desirability of a place to live and work.		
Recreation Setting Characteristics		
Physical Components: Remoteness – Back Country Naturalness – Back Country Facilities – Back Country	**Social Components:** Contacts – Primitive Group Size – Back Country Evidence of Use – Primitive/Back Country	**Administrative Components:** Mechanized Use – Middle Country Visitor Services – Back Country Management Controls – Back Country
Management Actions and Allowable Use Decisions		
Recreation and Visitor Services Program: Maintain the backcountry character and primarily undisturbed natural landscape to allow visitors to enjoy opportunities for solitude. Marketing activities will include word of mouth, Owyhee & Bruneau River Systems Boating Guide, interpretive and educational signing, and directional signing. Visitor number collections will continue to include registration forms for whitewater boating. Complete periodic visitor surveys to assess achievement of objectives. **Other Programs:** None		
Implementation Decisions		
Primarily manage for backcountry recreation opportunities, including non-motorized hunting and whitewater boating. Maintain and protect natural and cultural resource values. Any improvements will be preceded by site/area plans.		

Deadman Special Recreation Management Area

Supporting Information		
Off-highway vehicle (OHV) riding within proximity to major transportation systems and available during the winter season.		
SRMA/RMZ Objective(s)		
Objective Statement: Manage the Deadman SRMA to provide opportunities for visitors to engage in OHV riding so they realize a "moderate" level of the targeted experience and benefit outcomes. **Activities:** OHV riding (e.g., ATV, motorcycle, UTV). **Experiences:** Exhilaration and excitement, testing and improving riding skills, being with friends and family, enjoying preferred activities in an appropriate setting, and risk taking. **Benefits:** Personal: Positive change in mood and emotion, social bonding/cohesion/ cooperation, and improve skills for outdoor enjoyment. Community/Social: Improved image of the area and its recreational opportunities creates a positive image of OHV motorized activities. Environmental: Creates a sense of "ownership" and stewardship of the area. Increased awareness and protection of landscapes. Economic: Retains recreation spending in the local area and increases attractiveness of southern Idaho as a place to live.		
Recreation Setting Characteristics		
Physical Components: Remoteness – Front Country Naturalness – Front Country Facilities – Front Country	**Social Components:** Contacts – Middle/Front Country Group Size – Middle Country Evidence of Use – Front Country	**Administrative Components:** Mechanized Use – Front Country Visitor Services – Front Country Management Controls – Front Country
Management Actions and Allowable Use Decisions		
Recreation and Visitor Services Program: Improvements geared toward facilitating parking, sanitation for users, and developing an OHV training area. Designated Open/Play areas and trail system. **Other Programs:** None.		
Implementation Decisions		
Encourage and pursue cooperative partnerships with user groups, land owners, and IDPR to facilitate responsible recreational use of the area. Pursue partnerships with user groups and IDPR for a formal site/layout/facility plan. Marketing activities will include word-of mouth, directional signing, and brochures. Routine monitoring of area and facilities and periodic visitor contact and monitoring to assess achievement of objectives.		

Deadman/Yahoo Special Recreation Management Area

Deadman Recreation Management Zone (including Pasadena Recreation Management Zone, Alternative I)

Supporting Information		
Off-highway vehicle (OHV) riding within proximity to major transportation systems and available during the winter season.		
SRMA/RMZ Objective(s)		
Objective Statement: Manage the Deadman SRMA to provide opportunities for visitors to engage in OHV riding so they realize a "moderate" level of the targeted experience and benefit outcomes. **Activities:** OHV riding (e.g., ATV, motorcycle, UTV). **Experiences:** Exhilaration and excitement, testing and improving riding skills, being with friends and family, enjoying preferred activities in an appropriate setting, and risk taking. **Benefits:** Personal: Positive change in mood and emotion, social bonding/cohesion/ cooperation, and improve skills for outdoor enjoyment. Community/Social: Improved image of the area and its recreational opportunities creates a positive image of OHV motorized activities. Environmental: Creates a sense of "ownership" and stewardship of the area. Increased awareness and protection of landscapes. Economic: Retains recreation spending in the local area and increases attractiveness of southern Idaho as a place to live.		
Recreation Setting Characteristics		
Physical Components: Remoteness – Front Country Naturalness – Front Country Facilities – Front Country	**Social Components:** Contacts – Middle/Front Country Group Size – Middle Country Evidence of Use – Front Country	**Administrative Components:** Mechanized Use – Front Country Visitor Services – Front Country Management Controls – Front Country
Management Actions and Allowable Use Decisions		
Recreation and Visitor Services Program: Improvements geared toward facilitating parking, sanitation for users, and developing an OHV training area. Designated Open/Play areas and trail system. **Other Programs:** None		
Implementation Decisions		
Encourage and pursue cooperative partnerships with user groups, land owners, and IIDPR to facilitate responsible recreational use of the area. Pursue partnerships with user groups and IDPR for a formal site/layout/facility plan. Marketing activities will include word-of mouth, directional signing, and brochures. Routine monitoring of area and facilities. Periodic visitor contact and monitoring to assess achievement of objectives.		

Yahoo Recreation Management Zone

Supporting Information		
Off-highway vehicle (OHV) riding in sand washes within proximity to major transportation systems and available during the winter season.		
SRMA/RMZ Objective(s)		
Objective Statement: Through the life of the plan, manage the Yahoo SRMA to provide opportunities for visitors to engage in OHV riding so they realize a "moderate" level of the targeted experience and benefit outcomes. **Activities:** OHV riding (e.g., ATV, motorcycle, UTV). **Experiences:** Exhilaration and excitement, testing and improving riding skills, being with friends and family, enjoying preferred activities in an appropriate setting, risk taking. **Benefits:** Personal: Positive change in mood and emotion, social bonding/cohesion/ cooperation, improve skills for outdoor enjoyment. Community/Social: Improved image of the area and its recreational opportunities, creates a positive image of OHV motorized activities. Environmental: Creates a sense of "ownership" and stewardship of the area, Increased awareness and protection of landscapes. Economic: Retains recreation spending in the local area, increased attractiveness of southern Idaho as a place to live.		
Recreation Setting Characteristics		
Physical Components: Remoteness – Front Country Naturalness – Front Country Facilities – Front Country	**Social Components:** Contacts – Middle/Front Country Group Size – Middle Country Evidence of Use – Front Country	**Administrative Components:** Mechanized Use – Front Country Visitor Services – Front Country Management Controls – Front Country
Management Actions and Allowable Use Decisions		
Recreation and Visitor Services Program: Improvements geared toward facilitating parking, sanitation, and reducing sediment into Yahoo Creek. Designated Open/Play areas and trail system. **Other Programs:** Manage as VRM Class III.		
Implementation Decisions		
Encourage and pursue cooperative partnerships with user groups, land owners, and Idaho State Department of Parks and Recreation (IDPR) to facilitate responsible recreational use of the area. Pursue partnerships with user groups and IDPR for a formal site plan. Marketing activities will include word-of-mouth, directional signing, and brochures. Routine monitoring of area and facilities; periodic visitor contact and monitoring to assess achievement of management of management objectives.		

Rosevear Gulch Recreation Management Zone

Supporting Information		
Easily accessed designated trail system off-highway vehicles (OHVs) available for use during the winter.		
SRMA/RMZ Objective(s)		
Objective Statement: Through the life of the plan, manage the Rosevear Gulch RMZ to provide opportunities for visitors to engage in motorized trail riding opportunities on a series of designated routes so they realize a "moderate" level of the targeted experience and benefit outcomes. **Activities:** OHV riding (e.g., ATV, motorcycle, UTV) and wild horse viewing. **Experiences:** Exhilaration and excitement, testing and improving riding skills, being with friends and family, enjoying preferred activities in an appropriate setting, risk taking. **Benefits:** Personal: Positive change in mood and emotion, social bonding/cohesion/ cooperation, improve skills for outdoor enjoyment. Community/Social: Improved image of the area and its recreational opportunities, creates a positive image of OHV motorized activities. Environmental: Creates a sense of "ownership" and stewardship of the area, Increased awareness and protection of landscapes. Economic: Retains recreation spending in the local area, increased attractiveness of southern Idaho as a place to live.		
Recreation Setting Characteristics		
Physical Components: Remoteness – Front Country Naturalness – Front Country Facilities – Middle Country	**Social Components:** Contacts – Middle Country Group Size – Back/Middle Country Evidence of Use – Front Country	**Administrative Components:** Mechanized Use – Middle/Front Country Visitor Services – Middle Country Management Controls – Front Country
Management Actions and Allowable Use Decisions		
Recreation and Visitor Services Program: Improvements geared toward facilitating access and accommodating users. Develop designated trail system. Project plan will be developed and will adhere to guidelines developed for the area. Word-of mouth, directional signing, brochure, map. Routine monitoring of area; periodic visitor contact to assess achievement of management objectives. OHV a primary focus of monitoring. **Other Programs:** None		
Implementation Decisions		
Encourage and pursue cooperative partnerships with user groups, land owners, and Idaho State Department of Parks and Recreation (IDPR) to facilitate responsible recreational use of the area. Pursue partnerships with user groups and IDPR for a formal site plan. Marketing activities will include word-of-mouth, directional signing, and brochures. Routine monitoring of area and facilities; periodic visitor contact and monitoring to assess achievement of management of management objectives.		

Jarbidge Foothills Special Recreation Management Area

Supporting Information		
A natural setting necessary to provide quality non-motorized hunting and other recreation experiences.		
SRMA/RMZ Objective(s)		
Objective Statement: Manage the Jarbidge Foothills SRMA to provide opportunities for non-motorized recreation experiences including hunting, hiking, and equestrian so they realize a "moderate" level of the targeted experience and benefit outcomes. **Activities:** Hunting, viewing wildlife/natural scenery, hiking, equestrian, and mountain biking. **Experiences:** Enjoying natural scenery and wildlife, testing and improving outdoor skills, and engaging in preferred activities with family and friends. **Benefits:** Personal: Nature/aesthetic appreciation, identification with a special place, and improved mental well-being. Community: Improved image of the area and its recreational opportunities and improved skills for outdoor enjoyment with family/friends. Environmental: Provides natural habitat and open space and protection of wildlife and fish habitat. Economic: Increased desirability of a place to live and work.		
Recreation Setting Characteristics		
Physical Components: Remoteness – Middle Country Naturalness – Middle Country Facilities – Back Country	**Social Components:** Contacts – Back Country Group Size – Back Country Evidence of Use – Middle Country	**Administrative Components:** Mechanized Use – Middle Country Visitor Services – Back Country Management Controls – Middle Country
Management Actions and Allowable Use Decisions		
Recreation and Visitor Services Program: Primarily manage for backcountry recreation opportunities, including non-motorized hunting. Maintain and protect natural and cultural resource values. Any improvements will be preceded by site/area plans. Directional and informational signing. Periodic visitor contact and monitoring to assess achievement of objectives. **Other Programs:** Manage as VRM Class II.		
Implementation Decisions		
Focus on non-motorized recreation experiences. Encourage and develop cooperative relationships with land owners, volunteer groups, and state agencies to facilitate responsible recreational use of the area. Motorized routes would be designated to maximize wildlife habitat core size.		

Extensive Recreation Management Areas

The Extensive Recreation Management Area (ERMA) is an administrative unit that requires specific management consideration in order to address recreation use, demand, or recreation and visitor services program investments. The ERMA is managed to support and sustain the principal recreation activities and the associated qualities and conditions of the ERMA. Management of ERMAs is commensurate with the management of other resources and resource uses. While generally unnecessary, ERMAs may be subdivided into Recreation Management Zones to ensure recreation and visitor services are managed commensurate with the management of other resources and resource uses. Below are management strategies for ERMAs that would be designated under Alternative VI (Proposed Plan).

Canyonlands ERMA

ERMA Objective(s)
Objective Statement: Manage the Canyonlands ERMA to provide opportunities for visitors to engage in motorized and non-motorized recreation experiences including hunting, hiking, and equestrian so they realize a “moderate” level of the targeted experience and benefit outcomes.
Management Actions and Allowable Use Decisions
Recreation and Visitor Services Program: Maintain the backcountry character and primarily undisturbed natural landscape to allow visitors to enjoy opportunities for solitude. Primarily manage for backcountry recreation opportunities, including non-motorized hunting and whitewater boating. Maintain and protect natural and cultural resource values. Any improvements will be preceded by site/area plans. **Other Programs:** Manage as VRM Class I (Wilderness).
Implementation Decisions
Marketing activities will include word of mouth, Owyhee & Bruneau River Systems Boating Guide, interpretive and educational signing, and directional signing. Visitor number collections will continue to include registration forms for whitewater boating. Periodic visitor surveys will assess achievement of objectives.

Jarbidge Foothills ERMA

ERMA Objective(s)
Objective Statement: Manage the Jarbidge Foothills ERMA to provide opportunities for visitors to engage in motorized and non-motorized recreation experiences including hunting, hiking, and equestrian so they realize a “moderate” level of the targeted experience and benefit outcomes.
Management Actions and Allowable Use Decisions
Recreation and Visitor Services Program: Motorized routes would be designated to maximize wildlife habitat core size. Primarily manage for backcountry recreation opportunities, including non-motorized hunting. Maintain and protect natural and cultural resource values. Any improvements will be preceded by site/area plans. **Other Programs:** Manage as VRM Class II.
Implementation Decisions
Encourage and develop cooperative relationships with land owners, volunteer groups, and state agencies to facilitate responsible recreational use of the area. Marketing activities will include directional and informational signing. Periodic visitor contact and monitoring to assess achievement of objectives.

Rosevear ERMA

ERMA Objective(s)
Objective Statement: Manage the Rosevear Gulch ERMA to provide opportunities for visitors to engage in motorized trail riding opportunities on a series of designated routes so they realize a “moderate” level of the targeted experience and benefit outcomes.
Management Actions and Allowable Use Decisions
Recreation and Visitor Services Program: Improvements geared toward facilitating access and accommodating users. Develop designated trail system. **Other Programs:** None.
Implementation Decisions
Encourage and pursue cooperative partnerships with user groups and state/county agencies to facilitate responsible recreational use of the area. Project plan will be developed and will adhere to guidelines developed for the area. Marketing activities will include word-of mouth, directional signing, brochures, and maps. Routine monitoring of area and periodic visitor contact to assess achievement of objectives. Off-highway vehicle a primary focus of monitoring.

Luds Point ERMA

ERMA Objective(s)
Objective Statement: Manage the Luds Point ERMA to provide opportunities for visitors to engage in fishing, primitive camping, and hunting so they realize a “moderate” level of the targeted experience and benefit outcomes.
Management Actions and Allowable Use Decisions
Recreation and Visitor Services Program: Focus on public access, resource protection, and sanitation. Improvements will be preceded by project planning and will adhere to guidelines developed for the area. **Other Programs:** None.
Implementation Decisions
Encourage and develop cooperative relationships with user groups and State and county agencies to facilitate responsible recreational use of the area. Occasional visitor contact and law enforcement. Marketing activities would include directional and interpretative signing, brochure, and word of mouth. Routine monitoring of facilities and periodic visitor contact to assess achievements of objectives.

Public Lands Not Established as Recreation Management Areas

Those areas not identified in the planning area as recreation management areas (SRMAs or ERMAs) are managed to meet basic recreation and visitor services and resource stewardship needs. Recreation is not emphasized on these lands; however, recreation activities may occur, except on those lands closed to public use. The recreation and visitor services are managed to allow recreation uses that are not in conflict with the primary uses of these lands. Public lands not managed as recreation management areas include the following objectives:

- **Visitor Health and Safety -** Ensure that participants in dispersed recreational activities have a low potential for serious accidents due to human-created conditions and minimal exposure to hazardous health conditions.
- **Use and User Conflicts -** Mitigate conflicts with other uses through visitor outreach efforts. Direct administration of conflicts may be implemented by way of recreation use restrictions, realignments, signage, and closures.
- **Resource Protection -** Create an increased awareness and understanding and a sense of stewardship in recreational activity participants so their conduct safeguards natural resource values.Implementation actions for Public Lands Not Designated as recreation management areas include:
    - Managing the lands to provide a variety of recreational opportunities including primitive, back country, middle country, and front country. Provide outdoor settings ranging from areas with a high-to-moderate opportunity for solitude and closeness to nature and to areas where visitors have a higher interaction with other users.
    - Limiting recreational access, season of use, and numbers of users, if needed, to protect other resources.
    - Implementing site-specific facility development on a case-by-case basis, based on needs for resource protection, user demand, and visitor health and safety.

- Providing signs, brochures, and maps to facilitate the use and enjoyment of public lands and to protect visitor health, safety, and resources.
- Managing BLM lands adjacent to other Federal and State lands to complement the recreational experience on the adjoining lands.
- Monitoring recreational activities and implementing adaptive management where there are conflicts with other uses (e.g., grazing, wilderness management) and private lands.

APPENDIX I: LANDS AVAILABLE FOR DISPOSAL

The parcels listed below meet Federal Land Policy and Management Act (FLPMA) Section 203 criteria for disposal by sale. These lands, in addition to lands outside of Zone 1, may also be considered for disposal under FLPMA Section 206 exchange or under the Recreation and Public Purposes Act of 1954.

Criteria for Land Ownership Adjustment

Lands with Highest Priority for Retention or Acquisition

- Those lands specifically identified by the Shoshone-Bannock and/or Shoshone-Paiute Tribes as having special importance related to treaty and/or traditional uses and values;
- Important, crucial, or critical habitat for special status species including proposed species, listed species, and candidate species under the Endangered Species Act; State-listed species; and BLM State Director-designated sensitive species;
- Riparian areas and wetlands;
- Parcels that provide public and/or administrative access to larger blocks of public land; and
- Lands with special designation or management emphasis (see category below).

Special Designation/Management Areas Where it is a High Priority to Acquire Inholdings

- Areas of Critical Environmental Concern, or lands adjacent to and important for expansion of such areas;
- National Historic Trails;
- Wild and Scenic Rivers (eligible, recommended suitable, or designated);
- Significant cultural resources and sites eligible for inclusion on the National Register of Historic Places; and
- Wilderness and Wilderness Study Areas.

Areas Generally Retained, but May be Exchanged for Parcels with Higher Resource Values

- Important habitat for fish or wildlife,
- Developed recreation sites and recreation access,
- Recreation opportunities and benefits,
- Significant energy and mineral resources,
- Significant cave resources,
- Significant cultural resources and sites eligible for inclusion on the National Register of Historic Places, and
- Significant paleontological resources.

Areas that Are a High Priority for Disposal

- Parcels which are difficult or costly to administer (manageability and/or isolation of the parcel);
- Parcels more suitable for management by another Federal or State agency; and
- Parcels of special importance to (and generally adjacent to) local communities for purposes including, but not limited to, community expansion, extended community services, or economic development.

Other Issues to be Considered Prior to any Land Tenure Adjustment Action

- To what extent the individual action will help achieve overall land ownership management objectives at the watershed level, in cooperation with State and private landowners;
- Existing legal accessibility of the land for public uses;
- Amount of public investments in facilities or improvements and the potential for recovering those investments; and
- Consistency with cooperative agreements and plans or policies of other agencies.

Table I-1. Lands Available for Disposal in Alternative I.

Township and Range	Section	Legal Description	Approximate Acres
T. 5 S., R. 11 E.,	17	NW¼SW¼	40
	18	SE¼SE¼	40
	30	Lots 1-4, SE¼NW¼, E½SW¼, W½SE¼	343
	31	Lot 5, NW¼NE¼, NE¼NW¼	88
	32	E½NW¼	81
T. 6 S., R. 9 E.,	2	SW¼NW¼, NE¼SW¼, S½SE¼	160
	3	Lot 1	43
	4	SW¼	159
	5	S½	321
	8	W½NE¼, NW¼	240
	9	E½NW¼	80
	15	SE¼	160
	17	all	640
	20	all	641
	21	all	639
	22	W½NE¼, W½, W½SE¼	480
	23	W½SW¼	80
	26	NW¼NW¼, W½SE¼	120
	27	N½NE¼, SW¼NE¼, NW¼, N½SW¼, NW¼SE¼	400
	28	N½, N½S½	481
	29	all	642
	32	all	640
	33	S½N½, S½	483
	34	SW¼, W½SE¼, SE¼SE¼	281
	35	E½SW¼, N½SE¼	160
T. 6 S., R. 11 E.,	6	SE¼SW¼, SW¼SE¼	80
T. 7 S., R. 9 E.,	1	SW¼SW¼	40
	2	S½	321
	3	Lots 2-4, S½	442
	4	all	480
	9	N½	320
	10	N½N½, SW¼NE¼, NW¼	283
	11	N½N½, SE¼NW¼,	203
	12	N½, N½SE¼, SE¼SE¼	438
T. 7 S., R. 10 E.	6	Lot 2, W½SE¼	121
	7	Lots 1-4, SW¼NE¼, E½NW¼, S½	485
	8	S½SW¼, E½SE¼	160
	9	S½SW¼	80
	17	W½, SE¼	480
T. 7 S., R. 10 E.	18	Lot 1, NE¼, E½NW¼, SE¼	431
	20	N½NE¼, SE¼NE¼, NE¼SE¼	161
	21	N½NW¼, SW¼NW¼, SW¼, S½SE¼	361
	22	NE¼NW¼, SW¼SE¼	80
	27	W½NW¼, NW¼SW¼	120
	28	N½NE¼, E½NW¼, S½SW¼	241
	32	N½NE¼	80
	33	N½NW¼	80
T. 8 S., R. 14 E.,	7	NE¼SW¼	40

Township and Range	Section	Legal Description	Approximate Acres
T. 12 S., R. 13 E.,	2	Lots 1,2,4, SW¼NE¼, S½SE¼	240
	3	Lots 1-4, SW¼NE¼, S½NW¼, N½SW¼, SE¼SW¼, W½SE¼	482
	9	W½NE¼, NW¼, SW¼	402
	10	W½NE¼, NW¼	243
	11	NW¼	161
	12	N½, N½S½, SE¼SW¼, SE¼	606
	13	NE¼NE¼, S½NE¼, E½NW¼, NE¼SW¼, SE¼	404
	19	Lots 1-4, N½, N½S½, SE¼SW¼, SW¼SE¼	604
	20	N½, NE¼SW¼, SE¼	525
	21	NW¼NE¼, NW¼, N½SW¼	283
	22	SW¼SW¼	40
	24	E½	323
	25	E½	322
	26	SW¼SW¼	40
	27	SW¼NE¼, W½NW¼, SE¼NW¼, S½	484
	28	W½NW¼, SW¼, S½SE¼	322
	29	N½NE¼, SE¼NE¼	121
	30	Lots 1-4, W½NE¼, E½NW¼, S½	557
	35	S½NE¼, NW¼, S½	565
Total			**19,693**

Table I-2. Lands Available for Disposal in Alternative II.

Township and Range	Section	Legal Description	Approximate Acres
T. 5 S., R. 10 E.,	25	SE¼NE¼, S½	359
	26	SW¼NE¼, W½NW¼, SE¼NW¼, S½	477
	27	S½NE¼, S½S½ , NE¼SE¼	279
	33	SE¼NE¼, N½SE¼	119
	34	NE¼, E½NW¼, N½S½, SE¼	515
	35	N½N½, SW¼NE¼, S½NW¼, SW¼, W½SE¼	519
T. 5 S., R. 11 E.,	17	NW¼SW¼	40
	18	SE¼SE¼	40
	30	Lots 1-4, SE¼NW¼, E½SW¼, W½SE¼	343
	31	Lot 5, NW¼NE¼, NE¼NW¼	88
	32	E½NW¼	81
T. 6 S., R. 9 E.,	2	SW¼NW¼, NE¼SW¼, S½SE¼	160
	4	SW¼	159
	5	S½	321
	8	W½NE¼, NW¼	240
	9	E½NW¼	80
	11	E½	321
	12	S½NE¼, NW¼, S½	561
	13	All	638
	14	E½, SE¼NW¼, NE¼SW¼, S½SW¼, SE¼	480
	15	SE¼	160
	17	All	640

Township and Range	Section	Legal Description	Approximate Acres
T. 6 S., R. 9 E.,	20	All	639
	21	All	639
	22	W½NE¼, W½, W½SE¼	480
	23	N½NE¼, SW¼NE¼, W½SW¼	201
	24	E½, N½NW¼, SE¼NW¼, SE¼	439
	26	NW¼NW¼, W½SE¼	120
	27	N½N½, SW¼NE¼, S½NW¼, N½SW¼, NW¼SE¼	400
	28	N½, N½S½	481
	29	All	640
	32	All	640
	33	S½N½, S½	483
	34	SW¼, W½SE¼, SE¼SE¼	281
	35	E½SW¼, N½SE¼	160
T. 6 S., R. 10 E.,	2	Lots 2-4, SW¼NE¼, S½NW¼, N½S½, SE¼SW¼, SW¼SE¼	486
	7	Lots 3-4, S½	329
	8	S½	323
	11	NW¼NE¼	40
	17	All	648
	18	All	664
	19	All	655
	20	All	635
	21	All	640
	27	All	643
	28	All	642
	29	All	641
	30	Lot 1, NE¼, NE¼NW¼, N½SE¼	324
T. 6 S., R. 11 E.,	6	SE¼SW¼, SW¼SE¼	80
	8	W½NE¼, E½, W½SE¼	482
	17	E½, E½NW¼, NE¼SW¼, S½SW¼,	520
	20	N½N½, S½NE¼, SE¼NW¼, N½SE¼	358
	21	Lots 1-4, NW¼, N½S½	476
T. 7 S., R. 9 E.,	1	SW¼SW¼	40
	2	S½	321
	3	Lots 2-4, S½	442
	4	All	480
	9	N½	320
	10	N½N½, SW¼NE¼, NW¼	283
	11	N½N½, SE¼NW¼	203
	12	N½, N½SE¼, SE¼SE¼	438
T. 7 S., R. 10 E.,	6	Lot 2, W½SE¼	121
	7	Lots 1-4, SW¼NE¼, E½NW¼, S½	485
	8	S½SW¼, E½SE¼	160
	9	S½SW¼	80
	17	W½, SE¼	480
	18	Lot 1, E½, E½NW¼	431
	20	N½NE¼, SE¼NE¼, NE¼SE¼	161
	21	N½NW¼, SW¼NW¼, SW¼, S½SE¼	361
	22	NE¼NW¼, SW¼SE¼	80
	27	W½NW¼, NW¼SW¼	120
	28	N½NE¼, E½NW¼, S½SW¼	241

Township and Range	Section	Legal Description	Approximate Acres
T. 7 S., R. 10 E.,	32	N½NE¼	80
	33	N½NW¼	80
T. 8 S., R. 13 E.,	2	S½SW¼	79
	3	W½SE¼, SE¼SE¼	118
	5	S½	321
	6	Lots 10,11, S½	319
	7	All	627
	8	All	644
	9	All	646
	10	All	614
	11	NW¼	161
	14	NW¼SW¼	40
	15	S½NE¼, W½, N½SE¼, SW¼SE¼	492
	21	All	647
	22	W½NE¼, W½	411
	24	E½, E½NW¼, E½SW¼	482
	25	All	642
	26	E½SE¼	80
	28	N½, SW¼, W½SE¼	566
	33	W½NE¼, W½	404
	35	E½E½, W½SE¼	240
T. 8 S., R. 14 E.,	30	Lots 1-4, W½	285
	31	Lots 1-4, NE¼NW¼, NE¼SW¼	144
T. 9 S., R. 13 E.,	1	Lots 1-4, SW¼ NE¼, NW¼, E½SW¼	340
	4	Lots4-6, W½W½	229
	9	W½W½,SE¼NW¼, E½SW¼, W½SE¼	363
	11	SE¼NE¼, S½	356
	12	W½NW¼, NW¼SW¼	47
	14	E½	219
	15	SE¼NE¼, N½S½, S½SW¼, SW¼SE¼	321
	21	N½, E½SW¼, SE¼	565
	22	NW¼NE¼, N½NW¼, W½SW¼, SE¼SW¼, SW¼SE¼	281
	23	W½NE¼, S½SW¼, NE¼SW¼	151
	26	SW¼NE¼, NW¼, S½	387
	27	E½	321
	28	E½, SW¼NW¼, E½SW¼	443
	33	N½NW¼	81
	35	E½, N½NW¼	365
T. 9 S., R. 14 E.,	6	Lot 10	1
T. 10 S., R. 13 E.,	1	Lots 3,4	35
	2	Lots 1-4	120
	3	Lots 1,2, SW¼NE¼, W½SE¼	201
	4	SE¼SE¼	41
T. 12 S., R. 13 E.,	2	Lots 1,2,4, SW¼NE¼, S½SE¼	240
	3	Lots 1-4, SW¼NE¼, S½NW¼, N½SW¼, SE¼SW¼, W½SE¼	482
	9	W½NE¼, W½	402
	10	W½NE¼, NW¼	243
	11	NW¼	161
	12	N½, N½S½, SE¼SW¼, S½SE¼	606

Township and Range	Section	Legal Description	Approximate Acres
T. 12 S., R. 13 E.,	13	NE¼NE¼, S½NE¼, E½NW¼, NE¼SW¼, SE¼	404
	19	Lots 1-4, N½, N½S½, SE¼SW¼ SW¼SE¼	604
	20	N½, NE¼SW¼, SE¼	525
	21	NW¼NE¼, NW¼, N½SW¼	283
	22	SW¼SW¼	40
	24	E½	323
	25	E½	322
	26	SW¼SW¼	40
	27	W½W½, SW¼NE¼, SE¼NW¼, S½	484
	28	W½W½, E½SW¼, S½SE¼	322
	29	N½NE¼, SE¼NE¼	121
	30	Lots 1-4, W½NE¼, E½NW¼, S½	557
	35	E½, S½NE¼, E½NW¼, S½	565
Total			**45,769**

Table I-3. Lands Available for Disposal in Alternative III.

Township and Range	Section	Legal Description	Approximate Acres
T. 5 S., R. 11 E.,	17	NW¼SW¼	40
	18	SE¼SE¼	40
	30	Lots 1-4, SE¼NW¼, SW¼, W½SE¼	343
	31	Lot 5, NW¼NE¼, NE¼NW¼	88
	32	E½NW¼	81
T. 6 S., R. 9 E.,	2	SW¼NW¼, NE¼SW¼, S½SE¼	160
	3	Lot 1	43
	4	SW¼	159
	5	S½	321
	8	W½NE¼, NW¼	240
	9	E½NW¼	80
	15	SE¼	160
	17	All	640
	20	All	641
	21	All	639
	22	W½, W½NE¼, W½SE¼	480
	23	W½SW¼	80
	26	NW¼NW¼, W½SE¼	120
	27	N½N½, SW¼NE¼, S½NW¼, N½SW¼, NW¼SE¼	400
	28	N½, N½S½	481
	29	All	642
	32	All	640
	33	S½N½, S½	483
	34	SW¼, W½SE¼, SE¼SE¼	281
	35	E½SW¼, N½SE¼	160
T. 6 S., R. 11 E.,	6	SE¼SW¼, SW¼SE¼	80
T. 7 S., R. 9 E.,	1	SW¼SW¼	40
	2	S½	321
	3	Lots 2-4, S½	442
	4	All	480

Township and Range	Section	Legal Description	Approximate Acres
T. 7 S., R. 9 E.,	9	N½	320
	10	N½N½, SW¼NE¼, S½NW¼	283
	11	N½N½, SE¼NW¼	203
	12	N½, N½SE¼, SE¼SE¼	438
T. 7 S., R. 10 E.,	6	Lot 2, W½SE¼	121
	7	Lots 1-4, W½, SW¼NE¼, S½	485
	8	S½SW¼, E½SE¼	160
	9	S½SW¼	80
	17	W½, SE¼	480
	18	Lot 1, E½, E½NW¼	431
	20	N½NE¼, SE¼NE¼, NE¼SE¼	161
	21	W½W½, NE¼NW¼, E½SW¼, S½SE¼	361
	22	NE¼NW¼, SW¼SE¼	80
	27	W½NW¼, NW¼SW¼	120
	28	N½NE¼, E½NW¼, S½SW¼	241
	32	N½NE¼	80
	33	N½NW¼	80
T. 8 S., R. 14 E.,	7	NE¼SW¼	40
T. 12 S., R. 13 E.,	2	Lots 1,2,4, SW¼NE¼, S½SE¼	240
	3	Lots 1-4, SW¼NE¼, S½NW¼, N½SW¼, SE¼SW¼, W½SE¼	482
	9	W½, W½NE¼	402
	10	W½NE¼, NW¼	243
	11	NW¼	161
	12	N½, N½S½, SE¼SW¼, S½SE¼	606
	13	E½E½, SW¼NE¼, E½NW¼, NE¼SW¼, W½SE¼	404
	19	Lots 1-4, N½, N½S½, SE¼SW¼ SW¼SE¼	604
	20	N½, NE¼SW¼, SE¼	525
	21	NW¼NE¼, NW¼, N½SW¼	283
	22	SW¼SW¼	40
	24	E½	323
	25	E½	322
	26	SW¼SW¼	40
	27	S½, SW¼NE¼, W½NW¼, SE¼NW¼	484
	28	W½W½, E½SW¼, S½SE¼	322
	29	N½NE¼, SE¼NE¼	121
	30	Lots 1-4, W½,W½NE¼, SE¼	557
	35	W½, S½NE¼, SE¼	565
Total			**19,693**

Table I-4. Lands Available for Disposal in Alternative IV.

Township and Range	Section	Legal Description	Approximate Acres
T. 5 S., R. 10 E.,	25	S½, SE¼NE¼	359
	26	S½, SW¼NE¼, W½NW¼, SE¼NW¼	477
	27	S½S½, S½NE¼, NE¼SE¼	279
	33	SE¼NE¼, N½SE¼	119
	34	E½, E½NW¼, N½SW¼, SE¼SW¼	515

Township and Range	Section	Legal Description	Approximate Acres
T. 5 S., R. 10 E.,	35	N½N½, SW¼NE¼, S½NW¼, SW¼, W½SE¼	519
T. 5 S., R. 11 E.,	17	NW¼SW¼	40
	18	SE¼SE¼	40
	30	Lots 1-4, SE¼NW¼, E½SW¼, W½SE¼	343
	31	Lot 5, NW¼NE¼, NE¼NW¼	88
	32	E½NW¼	81
T. 6 S., R. 9 E.,	2	SW¼NW¼, NE¼SW¼, S½SE¼	160
	3	Lot 1	43
	4	SW¼	159
	5	S½	321
	8	W½NE¼, NW¼	240
	9	E½NW¼	80
	15	SE¼	160
	17	All	640
	20	All	641
	21	All	639
	22	W½, W½NE¼, W½SE¼	480
	23	W½SW¼	80
	26	NW¼NW¼, W½SE¼	120
	27	N½N½, SW¼NE¼, S½NW¼, N½SW¼, NW¼SE¼	400
	28	N½, N½S½	481
	29	All	642
	32	All	640
	33	S½N½, S½	483
	34	S½S½, N½SW¼, NW¼SE¼	281
	35	E½SW¼, N½SE¼	160
T. 6 S., R. 10 E.,	2	Lots 2-4, N½S½, SW¼NE¼, S½NW¼, SE¼SW¼, SW¼SE¼	486
T. 6 S., R. 11 E.,	6	SE¼SW¼, SW¼SE¼	80
T. 7 S., R. 9 E.,	1	SW¼SW¼	40
	2	S½	321
	3	Lots 2-4, S½	442
	4	All	480
	9	N½	320
	10	N½N½, SW¼NE¼, S½NW¼	283
	11	N½N½, SE¼NW¼	203
	12	N½, N½SE¼, SE¼SE¼	438
T. 7 S., R. 10 E.,	6	Lot 2, W½SE¼	121
	7	Lots 1-4, W½, SW¼NE¼, SE¼	485
	8	S½SW¼, E½SE¼	160
	9	S½SW¼	80
	17	W½, SE¼	480
	18	Lot 1, E½, E½NW¼	431
	20	N½NE¼, SE¼NE¼, NE¼SE¼	161
	21	W½W½, NE¼NW¼, E½SW¼, S½SE¼	361
	22	NE¼NW¼, SW¼SE¼	80
	27	W½NW¼, NW¼SW¼	120
	28	N½NE¼, E½NW¼, S½SW¼	241
	32	N½NE¼	80
	33	N½NW¼	80

Township and Range	Section	Legal Description	Approximate Acres
T. 8 S., R. 14 E.,	7	NE¼SW¼	40
Total			**15,723**

No lands are available for disposal via sale in Alternative V.

Table I-5. Lands Available for Disposal in Alternative VI (Proposed RMP).

Township and Range	Section	Legal Description	Approximate Acres
T. 5 S., R. 10 E.,	25	S½S½, SE¼NE¼ NW¼SW¼, NE¼SE¼	279
	26	N½S½, SW¼NE¼, W½NW¼, SE¼NW¼, SE¼SW¼, S½SE¼	437
	27	S½NE¼, NE¼SE¼	120
	33	SE¼NE¼, N½SE¼	119
	34	N½ S½, SE¼SW¼, S½SE¼	277
	35	NE¼NE¼, W½SW¼, SE¼SW¼	159
T. 5 S., R. 11 E.,	17	NW¼SW¼	40
	18	SE¼SE¼	40
	30	Lots 1-4, SE¼NW¼	183
	31	Lot 5, NW¼NE¼, NE¼NW¼	88
	32	E½NW¼	81
T. 6 S., R. 9 E.,	2	SW¼NW¼, NE¼SW¼, S½SE¼	160
	3	Lot 1	43
	4	SW¼	159
	5	S½	321
	8	W½NE¼, NW¼	240
	9	E½NW¼	80
	14	SE¼NW¼, S½SW¼, NE¼SW¼	160
	15	SE¼	160
	17	All	640
	20	All	641
	21	All	639
	22	W½, W½NE¼, W½SE¼	480
	23	W½SW¼	80
	26	NW¼NW¼, W½SE¼	120
	27	N½N½, SW¼NE¼, S½NW¼, N½SW¼, NW¼SE¼	400
	28	N½, N½S½	481
	29	All	642
	32	All	640
	33	S½, S½N½	483
	35	E½SW¼, N½SE¼	160
T. 6 S., R. 10 E.,	2	Lots 2-4, N½S½, SW¼NE¼, S½NW¼,SE¼SW¼, SW¼SE¼	486
T. 6 S., R. 11 E.,	6	SE¼SW¼, SW¼SE¼	80
T. 6 S., R. 12 E.,	8	Lots 5, 8	70
T. 7 S., R. 9 E.,	1	SW¼SW¼	40
	2	S½	321
	3	Lots 2-4, S½	442

Township and Range	Section	Legal Description	Approximate Acres
T. 7 S., R. 9 E.,	4	All	480
	9	N½	320
	10	N½N½, SW¼NE¼, S½NW¼	283
	11	N½N½ , SE¼NW¼	203
	12	S½N½, N½NW¼, N½SE¼, SE¼SE¼	359
T. 7 S., R. 10 E.,	7	Lots 2-4, E½SW¼, S½SE¼	253
	17	W½NW¼, NW¼SW¼	120
	18	Lot 1, NE¼, E½NW¼, N½SE¼	351
	22	NE¼NW¼, SW¼SE¼	80
	28	S½SW¼	80
	32	N½NE¼	80
	33	N½NW¼	80
T. 8 S., R. 13 E.,	14	NW¼SW¼	40
T. 8 S., R. 14 E.,	7	NE¼SW¼	40
T. 9 S., R. 12 E.,	20	SE¼SE¼	40
	24	SE¼SE¼	40
T. 9 S., R. 13 E.,	19	Lots 3-4, NE¼NE¼	82
T. 10 S., R. 12 E.,	12	SW¼NW¼	40
Total			**12,962**

Federal Land Transaction Facilitation Act

The lands listed below were identified for potential disposal as of July 25, 2000, and may therefore be considered for disposal under the Federal Land Transaction Facilitation Act of 2000 (FLTFA). Under FLTFA, the monies received from sales or exchanges of lands identified for disposal in land use plans as of July 25, 2000 are retained in an account and can be used by the BLM and other Federal agencies to purchase additional lands; they are not deposited in the General Treasury.

Table I-6. Lands Available for Disposal under the Federal Land Transaction Facilitation Act in Alternative I.

Township and Range	Section	Legal Description	Approximate Acres
T. 6 S., R. 9 E.,	8	S½NW¼	80
	17	All	640
	20	W½NE¼, NW¼, E½SW¼, SE¼	480
	21	N½, SW¼, W½SE¼	560
	22	W½NE¼, W½, W½SE¼	480
	27	SW¼NE¼, NW¼, N½SW¼, NW¼SE¼	320
	28	N½, N½S½	480
	29	NE¼, SW¼NW¼, N½SW¼	280
	32	SW¼SW¼	40
T. 12 S., R. 13 E.,	22	SW¼SW¼	40
	27	NW¼NW¼	40
Total			**3,440**

Table I-7. Lands Available for Disposal under the Federal Land Transaction Facilitation Act in Alternative II.

Township and Range	Section	Legal Description	Approximate Acres
T. 5 S., R. 10 E.,	33	SE¼NE¼	40
T. 6 S., R. 9 E.,	8	S½NW¼	80
	17	All	640
	20	W½NE¼, NW¼, E½SW¼, SE¼	480
	21	N½, SW¼, W½SE¼	560
	22	W½NE¼, W½, W½SE¼	480
	27	SW¼NE¼, NW¼, N½SW¼, NW¼SE¼	320
T. 6 S., R. 9 E.,	28	N½, N½S½	480
	29	NE¼, SW¼NW¼, N½SW¼	280
	32	SW¼SW¼	80
T. 6 S., R. 10 E.,	11	NW¼NE¼	40
T. 9 S., R. 13 E.,	4	Lot 3	53
	9	SE¼NW¼,	80
	21	N½	440
	28	E½NE¼, SW¼NW¼, E½SW¼	80
	33	N½NW¼	80
T. 12 S., R. 13 E.,	22	SW¼SW¼	40
	27	NW¼NW¼	40
Total			**4,293**

Table I-8. Lands Available for Disposal under the Federal Land Transaction Facilitation Act in Alternative III.

Township and Range	Section	Legal Description	Approximate Acres
T. 6 S., R. 9 E.,	8	S½NW¼	80
	17	All	640
	20	W½NE¼, NW¼, E½SW¼, SE¼	480
	21	N½, SW¼, W½SE¼	560
	22	W½NE¼, W½, W½SE¼	480
	27	SW¼NE¼, NW¼, N½SW¼, NW¼SE¼	320
	28	N½, N½S½	480
	29	NE¼, SW¼NW¼, N½SW¼	280
	32	SW¼SW¼	40
T. 12 S., R. 13 E.,	22	SW¼SW¼	40
	27	NW¼NW¼	40
Total			**3,440**

Table I-9. Lands Available for Disposal under the Federal Land Transaction Facilitation Act in Alternative IV.

Township and Range	Section	Legal Description	Approximate Acres
T. 5 S., R. 10 E.,	33	SE¼NE¼	40
T. 6 S., R. 9 E.,	8	S½NW¼	80
	17	All	640
	20	W½NE¼, NW¼, E½SW¼, SE¼	480
	21	N½, SW¼, W½SE¼	560
	22	W½NE¼, W½, W½SE¼	480
	27	SW¼NE¼, NW¼, N½SW¼, NW¼SE¼	320

Township and Range	Section	Legal Description	Approximate Acres
T. 6 S., R. 9 E.,	28	N½, N½S½	480
	29	NE¼, SW¼NW¼, N½SW¼	280
	32	SW¼SW¼	40
Total			**3,400**

No lands are available for disposal in Alternative V.

Table I-10. Lands Available for Disposal under the Federal Land Transaction Facilitation Act in Alternative VI.

Township and Range	Section	Legal Description	Approximate Acres
T. 6 S., R. 9 E.,	8	S½NW¼	80
	17	All	640
	20	W½NE¼, NW¼, E½SW¼, SE¼	480
	21	N½, SW¼, W½SE¼	560
	22	W½NE¼, W½, W½SE¼	480
	27	SW¼NE¼, NW¼, N½SW¼, NW¼SE¼	320
	28	N½, N½S½	480
	29	NE¼, SW¼NW¼, N½SW¼	280
	32	SW¼SW¼	80
Total			**3,400**

APPENDIX J: LIVESTOCK GRAZING ALLOTMENTS

Allotment Name	Allotment Number	Authorized AUMs[A,B]	Number of Livestock	Livestock Type[C]	Season of Use	Land Ownership[D]				10-Year Avg. Actual Use[E]	10-Year Avg. TNR Use
						BLM	State	Private	Military		
Antelope Butte North	1087	732	61	C	3/1-2/28	7,465	640	0	0	1,060	
Antelope Springs	1096	5,964	497	C	3/1-2/28	40,826	3,558	7,951	0	5,802	
		79	33	S	3/1-2/28					62	
Bear Creek Idaho	1026	160	53	C	7/1-9/30	1,034	0	34	0	160	
Black Mesa	1080	1,007	340	C	3/1-3/31	10,923	770	660	0	941	
					1/1-2/28						
Blackrock Pocket	1102	1,889	159	C	3/1-2/28	12,086	835	221	0	1,229	
Blue Butte	277	1,311	127	C	3/1-2/28	9,871	640	0	0	2,392	1,079
Brackett Bench AMP	1008	2,376	198	C	3/1-2/28	19,518	866	1,198	0	1,669	
Brown's Gulch[F]	1053	4,464	750	C	3/1-2/28	0	0	0	2,904	2,855	
Bruneau Hill[F]	1057	4,205	365	C	3/1-2/28	19,020	2,555	0	17,868	3,748	
Buck Flat AMP	1122	1,717	545	C	3/15-6/14	21,898	969	1,249	0	1,323	
			250	C	6/15-7/5						
			75	C	7/6-7/15						
Camas Slough	1095	252	21	C	3/1-2/28	1,605	0	0	0	120	
Canyonview (Echo Jewett)	1058	1,082	1,600	C	3/1-2/28	0	0	0	3,164	718	
Cedar Butte 10	1007	879	891	C	6/1-6/30	4,853	1,580	7,870	0	759	
Cedar Butte Devil Cr	1002	3,210	294	C	3/1-2/28	18,929	2,564	10,499	0	1,916	
Cedar Butte Eastside	1001	373	62	C	4/16-10/15	4,964	0	40	0	493	129

Allotment Name	Allotment Number	Authorized AUMs[A,B]	Number of Livestock	Livestock Type[C]	Season of Use	Land Ownership[D]				10-Year Avg. Actual Use[E]	10-Year Avg. TNR Use
						BLM	State	Private	Military		
Cedar Canyon Field	1013	15	15	C	3/1-3/30	199	0	97	0	12	
Cedar Creek	1131	4,416	350	C	3/1-2/28	25,113	689	2,595	0	3,409	
		22	9	S	3/1-2/28					14	
Cedar Creek Canyon	1023	317	158	C	4/1-5/31	2,491	0	48	0	312	
Cedar Crossing	1022	741	40	C	4/10-4/30	4,952	594	13	0	695	
			129		5/1-10/15						
Cheatgrass	1069	294	39	C	4/1-11/15	3,387	0	0	0	294	
China Creek	1025	713	187	C	4/15-6/30	10,490	640	1,037	0	583	
			187		11/1-12/9						
Clover Crossing	1136	7,734	1,600	C	3/1-2/28	26,048	1,897	439	0	4,045	
		300	25	H	3/1-2/28					59	
Conover	1126	4,217	525	C	4/1-11/30	15,771	1,288	789	0	3,497	
			5		4/1-4/30						
Coonskin AMP	1123	3,552	296	C	3/1-2/28	41,072	1,919	471	0	2,090	
		1,913	797	S	3/1-2/28					890	
Crawfish	1118	648	54	C	3/1-2/28	10,421	640	0	0	635	
Deadwood Pocket	1067	311	155	C	4/15-6/14	2,878	0	64	0	259	
Devil Creek/ Balanced Rock	1133	3,588	599	C	3/1-5/15	38,782	640	3,312	0	2,871	
			600		11/15-2/28						
		69	350	S	6/1-6/30					78	
Diamond A Bruneau Canyon	1100	100	50	C	11/16-1/15	276	98	295		100	
Diamond A Taylor Pocket	1077	320	49	C	4/1-4/15	15,392	160	830	0	425	
			271	C	4/16-6/15						
		22	9	H	4/1-4/30					24	
			13	H	5/1-5/31						

Allotment Name	Allotment Number	Authorized AUMs[A,B]	Number of Livestock	Livestock Type[C]	Season of Use	Land Ownership[D]				10-Year Avg. Actual Use[E]	10-Year Avg. TNR Use
						BLM	State	Private	Military		
Diamond A Unit	1021	8,052	671	C	3/1-2/28	102,068	5,691	13,880	0	5,366	
		492	50	H	3/1-4/30					367	
			10	H	5/1-6/30						
			17	H	9/1-11/15						
			50	H	11/16-2/28						
			24	H	3/1-5/31						
			24	H	11/15-2/28						
Dove Springs	1146	1,360	53	C	4/1-11/15	8,943	0	0	0	1,276	331
			80	C	3/1-3/15						
			100	C	3/16-4/15						
			130	C	4/16-9/30						
			100	C	10/1-10/31						
E&W Deadwood Trap	1020	890	309	C	5/1-11/15	3,922	640	1,547	0	404	
		27	10	H	5/1-10/31					0	
		83	420	S	6/1-6/30					51	
East Juniper Draw	1132	2,472	206	C	3/1-2/28	20,706	1,281	2,074	0	1,317	
East Roseworth Point	1061	292	40	C	4/15-11/22	1,988	640	0	0	321	100
Echo 4	296	3,732	311	C	3/1-2/28	16,815	640	0	0	2,254	
Echo 5	282	13,704	1,142	C	3/1-2/28	28,196	1,282	0	0	6,885	
Echo Clover	341	1,992	1,600	C	3/1-2/28	2,473	0	0	0	763	
Echo Hammett Livestock	342	818	2,040	S	4/1-5/31	6,178	640	0	0	482	
Echo Luby	283	403	125	C	4/4-7/10	3,807	0	640	0	614	377
Flat Top	1059	5,865	503	C	3/1-2/28	12,939	2,557	0	21,938	3,774	
Grassy Hills	1029	852	71	C	3/1-2/28	4,904	0	0	0	515	
Grassy Hills AMP	1121	2,278	306	C	4/1-1/31	20,369	1,922	4,816	0	2,235	

Allotment Name	Allotment Number	Authorized AUMs[A,B]	Number of Livestock	Livestock Type[C]	Season of Use	Land Ownership[D]				10-Year Avg. Actual Use[E]	10-Year Avg. TNR Use
						BLM	State	Private	Military		
Grassy Windmill	1134	442	60	C	4/1-10/31	2,415	0	7	0	348	
Grindstone	1062	675	118	C	4/1-11/15	6,784	640	0	0	1,052	479
Guerry Patrick	1094	604	425	C	7/1-7/2	4,115	0	115	0	350	
			152	C	7/3-9/30						
		277	425	C	10/1-10/9					124	
			1,405	S	6/1-6/30						
Hagerman Group	1150	2,312	52	C	4/1-11/30	36,153	557	1,756	0	1,432	1,814
			124	C	4/1-11/30						
			75	C	3/1-2/28						
		204	1,000	S	3/1-3/31					662	0
Hallelujah	343	2,271	208	C	3/1-2/28	7,190	640	0	0	1,084	
Horse Butte AMP	1120	1,524	190	C	4/1-11/30	22,397	640	0	0	1,923	848
House Creek	1042	667	676	C	9/1-9/30	4,297	1,191	10,153	0	425	
Inside Desert	353	10,088	848	C	3/1-2/28	103,376	5,899	7,334	0	14,807	
Juniper Butte	1119	3,528	294	C	3/1-2/28	18,174	954	198	0	1,818	
Juniper Draw	1138	684	57	C	3/1-2/28	6,203	1,280	23	0	1,006	
Juniper Ranch	1031	2,551	318	C	4/1-1130	36,838	3,199	319	0	3,379	904
		40	10	H	4/1-1130					0	
Kinyon	1046	820	122	C	4/1-7/15	17,619	640	0	0	968	347
			150	C	11/20-2/7						
		64	8	H	4/1-11/30					0	
Kubic	1147	4,392	366	C	3/1-2/28	21,959	0	3,832	0	3,533	
Little Grass/ Deadwood	1017	1,127	200	C	5/1-9/30	9,409	654	3,157	0	800	
			112	C	10/1-10/31						
			200	C	10/1-11/15						
		40	16	H	4/15-11/15					26	
Little House Creek FFR	1093	110	112	C	6/1-6/30	489	779	1,795	0	106	
Little Island	438	720	119	C	5/1–10/31	1,645	0	2,748	0	0	

Allotment Name	Allotment Number	Authorized AUMs[A,B]	Number of Livestock	Livestock Type[C]	Season of Use	Land Ownership[D]				10-Year Avg. Actual Use[E]	10-Year Avg. TNR Use
						BLM	State	Private	Military		
Little Three Island	1074	151	20	C	4/1-11/15	857	0	0	0	164	40
Lower Salmon Falls	1141	126	43	C	4/16-7/15	925	0	21	0	92	
Lower Saylor Creek	1055	801	265	C	12/30-2/28	10,992	640	0	912	774	
			265	C	3/1-3/31						
		101	85	S	3/16-6/15					71	
			125	S	10/16-12/15						
Magic Water	1056	16	16	C	6/16-7/15	166	0	0	0	16	
Noh Field	1140	1,068	89	C	3/1-2/28	6,098	640	1,040	0	848	
North Balanced Rock	1139	49	250	S	6/1-6/30	1,494	0	0	0	52	
North Fork Field	1088	564	47	C	3/1-2/28	2,502	40	929	0	327	
Notch Butte	1144	2,809	353	C	11/1-6/30	27,182	1,280	0	0	2,278	339
		352	2,200	S	3/20-4/8					309	
			2,400	S	12/22-12/25						
Pigtail Butte	1125	5,520	460	C	3/1-2/28	28,524	1,280	1,024	0	2,657	
Player Butte	1047	141	110	C	10/23-11/30	1,429	0	640	0	133	
Player Canyon	1027	275	68	C	7/1-10/31	1,913	0	0	0	238	
Poison Butte	0354	6,360	530	C	3/1-2/28	74,000	3,183	11,803	0	9,778	
River Bridge	1072	33	9	C	4/1-1/15	141	0	347	0	21	
			5	H	4/1-1/15					12	
Roseworth Point	1014	1,572	196	C	4/1-11/30	11,788	578	0	0	1,443	
Roseworth Tract FFR	1009	56	7	C	4/1-11/30	859	640	6,637	0	57	
Saylor Creek/North Three Island	1078	2,040	271	C	4/1-11/15	19,765	1,289	1,268	0	2,509	490
Seventy-One Desert	1099	3,649	327	C	3/1-2/28	39,891	1,772	0	0	2,965	
Sheep Trail Allot.	1063	52	3,975	S	6/1-6/2	2,319	0	0	0	36	

Allotment Name	Allotment Number	Authorized AUMs[A,B]	Number of Livestock	Livestock Type[C]	Season of Use	Land Ownership[D]				10-Year Avg. Actual Use[E]	10-Year Avg. TNR Use
						BLM	State	Private	Military		
Signal Butte	1092	1,182	1,198	C	6/1-6/30	10,978	616	369	0	1,070	88
South Crow's Nest	1135	779	790	C	6/1-6/30	10,444	640	0	0	827	708
South Deadwood	1086	299	293	C	8/1-8/31	961	0	553	0	173	
South Roseworth	1151	35	35	C	10/15-11/13	216	0	0	0	35	
Thompson	1079	1,867	248	C	4/1-11/15	22,098	640	0	0	2,650	942
Thousand Springs	1142	283	32	C	4/1-12/25	1,516	0	2,539	0	265	
Three Creek #8B	1075	518	300	C	6/1-6/30	2,819	0	40	0	489	
			250	C	11/1-11/27						
Three Creek #8	1070	792	66	C	3/1-2/28	4,769	0	1,441	0	692	
Three Creek #8 PVT AL	1066	439	168	C	6/1-10/31	3,334	0	1,758	0	436	
Three Cr. Blossom Prv	1071	498	17	C	6/1-7/15	5,899	0	1,043	0	301	
			196	C	6/1-6/30						
			71	C	7/1-8/31						
			57	C	9/16-10/31						
			50	C	11/1-11/30						
		30	5	H	6/1-11/30					0	
Three Creek/Devil Creek	1076	3,105	810	C	4/1-5/31	19,052	958	6,464	0	2,013	
			675	C	6/1-6/30						
			400	C	10/1-12/1						
Three Island	1073	474	63	C	4/1-11/15	4,133	0	0	0	571	132
Turner Cedar Butte	1000	745	100	C	4/15-10/15	2,401	640	2,829	0	491	
			550	C	11/5-1/10						
Twin Butte	1145	5,208	434	C	3/1-2/28	47,846	1,893	1,601	0	5,777	1,192
		408	1,000	S	3/1-3/31					1,045	
			1,000	S	12/1-12/31						

Allotment Name	Allotment Number	Authorized AUMs[A,B]	Number of Livestock	Livestock Type[C]	Season of Use	Land Ownership[D]				10-Year Avg. Actual Use[E]	10-Year Avg. TNR Use
						BLM	State	Private	Military		
West Saylor Creek[F]	1137	4,011	500	C	4/1-11/30	22,944	1,924	0	44,783	4,069	
		2,575	2,575	S	10/16-12/15					1,039	
			2,535	S	10/16-12/15						
Wilkins Island	1084	772	379	C	5/1-7/1	7,063	67	7,179	0	530	
			137	C	5/15-10/31						
			136	C	5/15-10/31						
Winter Camp	1064	516	43	C	3/1-2/28	12,009	480	320	0	516	
Yahoo	1143	2,952	246	C	3/1-2/28	13,984	640	3,600	0	1,827	

[A] An animal unit month (AUM) is the amount of forage (800 lbs. dry matter) required to sustain a cow and her calf for one month. A horse, bull, or 5 sheep/goats are considered equivalent to one AUM.
[B] All authorized use is active, the Jarbidge Field Office does not have any suspended use.
[C] C=cattle, S=Sheep, H=Horse
[D] Acreage represented in this table is landownership within allotment boundaries. Some private and State lands may be fenced and managed separately from BLM-managed lands.
[E] Actual use is a post-use report demonstrating the actual number of livestock and period of time they were on the allotment. Actual use in this table represents both authorized AUMs and Temporary Non-Renewable (TNR) permitted AUMs.
[F] Portions of allotment are also within the Birds of Prey National Conservation Area. Acreage for these areas are not represented in this table.

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APPENDIX K: REASONABLY FORESEEABLE DEVELOPMENT SCENARIO FOR OIL AND GAS DEVELOPMENT

REASONABLY FORESEEABLE DEVELOPMENT SCENARIO

FOR

OIL AND GAS DEVELOPMENT

IN THE

JARBIDGE FIELD OFFICE

Prepared by: Karen Porter, BLM Idaho State Office Geologist

Prepared by: _____signed copy on file_____ Date: _6/25/2009__

Reviewed by: Steven W. Moore, BLM Idaho State Office Geologist

Reviewed by: _____signed copy on file_____ Date: _6/25/2009__

Summary

Based on the geology of the Jarbidge Field Office (i.e., the planning area), the lack of historical drilling activity, the lack of any historic or currently producing oil/gas wells/fields in south central Idaho and the surrounding area, and the lack of infrastructure to support oil and/or gas development, the potential for discovery and development of hydrocarbons in the planning area has been determined to be low.

It is anticipated that very little to no oil and gas activity, aside from leasing and perhaps approving a few geophysical surveys, would occur during the life of the land use plan. However, in order to comply with the Supplemental Program Guidance for Fluid Minerals (BLM Manual Section 1624-2); this report describes the potential surface impacts associated with a minimal level of activity that could occur. Therefore, it is assumed that making the BLM-administered public lands in the planning area available for oil and gas leasing could result in the drilling of one to two exploratory wells during the next 20 years, for a total surface disturbance of up to 30 acres (five acres/drill pad + 10 acres/access road = 15 acres/drill site x 2 drill sites = 30 acres). It is assumed that one of the wells drilled would be capable of commercial production. Based on this assumption, a five-well field would be developed, disturbing an additional 60 acres. It is anticipated that two or three geophysical exploration programs would occur and that they would likely be conducted along existing roads or trails or by overland travel, thereby causing minor impacts to surface resources. These activities are likely to occur either in the northwest corner of the planning area or in the Cedar reservoir/China Mountain area.

Introduction

This report, describing a Reasonably Foreseeable Development Scenario (RFDS), accompanies the Oil and Gas Potential Report (BLM, 2009c) prepared for the planning area. This report describes the anticipated level of oil and gas exploration and development activity associated with oil and gas leasing. These projections are necessary for assessing the anticipated impacts of oil and gas related activity in the EIS for the Jarbidge Resource Management Plan (RMP); for determining which lands within the field office area will be available for oil and gas leasing; and for determining what stipulations may be necessary to attach to leases in order to protect the surface resources. These anticipated impacts are for the BLM-administered public lands described above during the next 20 years (2009-2029).

Description of Geology

The geology of the planning area is described in detail in the Oil and Gas Potential Report prepared for the area (BLM, 2009c). The planning area lies within the Snake River Plain physiographic province, which is entirely covered by Cenozoic volcanic and quaternary sedimentary deposits. The planning area is dominated by the Owyhee Plateau, a broad volcanic upland considered to be a continuation of the eastern Snake River Plain. However, in the northern portion of the planning area, sediments of the Glenns Ferry Formation, which originated from Plio- Pleistocene Lakes Bruneau and Idaho, are found. These could theoretically contain hydrocarbons, although none have been found. There are no known outcrops or exposures of pre-Tertiary rocks in the planning area, and there is no direct or indirect evidence to indicate what types of rocks underlay the thick veneer of volcanics that cover the majority of the planning area.

Past and Present Oil and Gas Leasing Activity

A total of 251 leases have been issued at one time or another in the planning area (4.3% of the state total). Currently there are no active oil and gas leases in the area. Until recently, no parcels had been nominated for leasing in the planning area under the 1987 leasing process. In 2008, approximately 58,000 acres were nominated by a single entity. These parcels are situated in the Cedar Creek/ China Mountain area (T 14-16 S, R 13-14 E), in the southeast corner of the planning area. Leasing is being deferred on these parcels pending completion of the RMP/EIS.

Past and Present Oil and Gas Exploration Activity

Three wells were drilled in 1950 for the purpose of exploring for oil and gas in the planning area - all located in the extreme northwest corner. No showings of gas or oil were encountered at any interval in any of the three wells. This is the only exploration activity that has occurred in the planning area.

Past and Present Oil and Gas Development Activity

To date, there has never been any oil or gas production in Idaho, despite the drilling of approximately 150 wells in the state (Breckenridge et. al., 2006).

Oil and Gas Occurrence Potential

The majority of the planning area has a low potential for oil and gas occurrence throughout, as described in detail in the Oil and Gas Potential Report (BLM, 2009c). No Paleozoic or Mesozoic marine sedimentary rocks, which could provide possible hydrocarbon source rocks consistent with USGS's hypothetical Pre-Miocene or Older Tertiary Plays (Peterson, 1995), are exposed in the planning area, nor is there any evidence that such rocks exist at depth. The nearest exposures of Paleozoic sedimentary rocks are found 14 miles east of the planning area boundary and those rocks are not known to contain hydrocarbons. Thick sequences of volcanic rocks in the planning area could conceivably conceal areas of favorable Paleozoic and Mesozoic rocks, but this cannot be determined, or even inferred, without adequate subsurface data. It is equally possible that plutonic rocks related to the Idaho batholith exist at depth and that the Paleozoic and Mesozoic rocks may have been eroded, faulted, or even displaced by plutonic activity. Therefore it is concluded that the oil and gas occurrence potential for the majority of the planning area is low, with a Level of Certainty A[1].

Along the northern edge of the planning area, however, the sedimentary rocks of the Glenns Ferry Formation, some of which may contain organic matter, could possibly be a source for hydrocarbons consistent with USGS's Miocene or Pliocene Lacustrine Plays. Although it is not likely, it is possible that basalt, which is vesicular and therefore somewhat porous, could be a reservoir rock where it is intercalated with the sediments. If a clay or shale layer were found to overlay the basalt, it could act as a seal to prevent the hydrocarbons from migrating to the surface, although no such formation is known to exist in the area. Also, no trapping structure is known to exist. Direct evidence of oil and gas presence in this area is lacking, as three oil and gas exploratory wells drilled in the Glenns Ferry Formation in the planning area found no "shows" of oil or gas (Youngquist and Kiilsgaard, 1951). While the potential for a discovery of petroleum resources in this area is slightly higher than the potential in the rest of the planning area, the potential is still considered to be low, with a Level of Certainty C[2].

Oil and Gas Development Potential

Oil or natural gas production would occur in the planning area only if a significant oil or gas discovery is made. A significant discovery could be a 4,000- foot deep reservoir capable of producing a total of more than one million barrels of oil or a billion cubic feet of natural gas, or it could be a 15,000 foot reservoir capable of producing 500 to 700 million barrels of oil equivalent.

Currently very little oil and gas infrastructure exists, making the costs associated with developing and producing a field higher than in areas of known production. The Williams' Northwest natural gas pipeline runs through southern Idaho, parallel to Interstate 84 in the planning area. It is a common carrier, so it is required to accept gas input from various sources as long as quality standards can be met. In 2006, there was space available in the system, at least seasonally (Larsen, 2006). There are no other existing crude oil lines or refineries in southern Idaho. One small (8 inch) pipeline operated by Chevron Corp. transmits refined liquid petroleum products from the Salt Lake City, Utah, area into southern Idaho (Pocatello, ID), where the line roughly parallels the Williams pipeline to the west (Marconi, 2006). Since this line is for refined liquid products, it would not be available for wellhead oil or gas condensate products.

Electric transmission lines are present across some of the planning area. These lines provide power to local residents and communities, but could possibly be used to bring electrical power needed for hydrocarbon processing facilities if such facilities were ever to be developed in southern Idaho. Large power needs may require supplemental or new lines to be constructed.

[1] Level A: Available information is insufficient to infer level of potential; however, minimal potential cannot be ruled out.
[2] Level C: Available information provides direct evidence to indicate the level of potential.

Most of the planning area does not currently have roads that would support oil/gas exploratory or development drilling needs. While the planning area is relatively flat, many areas are extremely rocky and rugged, and road construction could be costly. Paved roads and improved gravel roads suitable for truck transportation of oil or liquefied gas products are limited in number and distribution. The only railroad line that could be used for liquid hydrocarbon product transportation is located just north of the planning area, roughly paralleling Interstate 84.

The lack of infrastructure to support oil and gas exploration and especially development or processing on or near the planning area would make these activities more expensive than in areas where the necessary infrastructure already exists.

Limited reserve gas discoveries, such as marsh gas, are also unlikely to be developed in the foreseeable future in the planning area. Gas pipelines are necessary to move gas products. Small gas discoveries would not contain reserves sufficient to justify the investment in small diameter, high pressure lines that could, in turn, be connected to a larger, existing line.

The overall probability of discovering and developing a producing oil and/or gas field in the planning area is considered to be low. This rating is based on the following factors:

There has been a total lack of oil/gas industry interest in south central Idaho as demonstrated by the lack of leasing activity in the area during the past 15 years.

No oil/gas seismic geophysical surveys have been conducted in southeast Idaho in the past 15 years on BLM-administered lands in the area.

Exploratory drilling has been very sparse for such a large area, with no wells drilled since 1950, further indicating industry's lack of confidence in the area.

No wells capable of economic production have ever been drilled in the entire state, let alone the planning area.

There are no demonstrated oil or gas reserves in the planning area or adjacent areas.

There is a general lack of infrastructure to support field development in southern Idaho.

Reasonably Foreseeable Development Baseline Scenario

Assumptions and Discussion

The following assumptions for oil/gas leasing, exploration, and development in the planning area during the next 20 years are based on the oil/gas development potential described above, the regional geology, the historical drilling activity for southeast Idaho and surrounding area, topography, the existing access situation, and the requirements of the Supplemental Program Guidance for Fluid Minerals:

It is likely that 10 to 20 leases may be offered over the next 20 years, likely in the Glenns Ferry and/or the Cedar Creek/ China Mountain areas.

Two or three geophysical exploration programs would be conducted to help identify potential exploration drilling targets.

One or two exploration wells would be drilled on leases in the planning area. The wells would likely be 10,000-14,000 feet deep and would require the construction of a drill pad approximately five acres in size (approx. 500 by 500 feet). Each of the proposed drilling sites would be analyzed through the NEPA process, separate from the leasing analysis. Wildcat wells that discover only limited reserves of oil and/or gas are not likely to be economically viable because of the lack of existing infrastructure and would be plugged and abandoned. It is predicted that none of the exploratory wells would encounter hydrocarbons in sufficient quantity to justify production expenses and would be plugged and abandoned immediately.

Access to the drill pads may require up to two miles of construction/reconstruction. Access roads would require a 20-foot wide graveled running surface, with an average disturbance width of 40 feet (4.85 acres/mile). Disturbance from two miles of road would equal about 10 acres.

Pad and access road construction would likely take one month; drilling operations and well testing would typically take from one to four months to complete; and reclamation would be completed within one year from when drilling is completed (assuming all wells are non-productive).

It is likely that about 5,000 to 15,000 gallons of water would be required per day, depending on down-hole conditions. Depending on the well locations, water sources in the planning area could be sought and applied for. Some wells make water, and disposal could become an issue if the water is saline.

Anticipated Surface Disturbance Due to Oil and Gas Activity

The following phases of oil and gas exploration/development are typical in searching for and developing an oil and gas resource:

- Geophysical Exploration,
- Drilling,
- Field Development and Production, and
- Plugging and Abandonment.

The assumptions and scenarios that follow are based on historical drilling activity in the planning area, as well as the oil and gas potential for the area.

Phase One: Geophysical Exploration

Geophysical techniques are often implemented to identify subsurface geologic structures. The BLM reviews and approves geophysical operations on a case by case basis, and a lease is not necessary for such work. Gravity, magnetics, and seismic reflection are the most common techniques used. Both gravity and magnetic surveys cause very little disturbance as the instruments used are small and easily transportable in light vehicles or off-highway vehicles. These surveys can cover large areas and take only weeks to conduct. It is preferable to use existing roads, yet some overland travel is sometimes necessary. In addition, both gravity and magnetic surveys can be completed from aircraft, virtually eliminating surface disturbance.

Seismic reflection surveys are the most commonly used geophysical tool. They require a seismic energy source and an array of receptors. Shock waves are created either through the use of small explosive charges or by vibrating or thumping the ground. Explosive charges are the preferred method and are used when access, road conditions, or population centers are not an issue. Two to six-inch diameter shot holes are drilled by a truck-mounted drill rig to depths between 25 and 200 feet, where explosive charges between five and 50 pounds are detonated. Reflected seismic waves are recorded by a series of surface equipment along a three to five mile line. In situations where explosives are not used, the ground surface is mechanically vibrated using truck-mounted equipment. Both operations generally utilize a crew of 10 to 15 people with five to seven vehicles. Seismic surveys may be supported by aircraft.

Based on the occurrence potential of the planning area, it is anticipated that two or three geophysical exploration programs would be conducted to aid in identifying potential exploration drilling targets during the life of the plan. It is likely that ATVs or other rubber-tired rigs would be utilized for access, and no construction of roads would be required. Impacts from such exploration would be temporary (several weeks in duration) but somewhat intensive (i.e., 2 to 3 vehicles/personnel in the area), such that seasonal restrictions may be necessary to avoid conflicts with some sensitive wildlife.

Phase Two: Drilling

Exploration wells are drilled in order to test geologic targets. On Federal mineral estate, an oil and gas lease must be obtained, and an application for permit to drill must be submitted and then approved by the field office. Site specific stipulations can be attached to the approved drilling permit.

Temporary roads would likely be needed to transport and maintain the heavy equipment. Either existing roads would be improved or new roads would be constructed to accommodate the traffic. Typically, roads are constructed with a 20-foot wide graveled running surface with adjacent ditches and berms, for a total disturbance width of about 40 feet.

Exploration holes range in depth from a few thousand feet to many thousands of feet, but are typically about ten thousand feet deep. Drilling to such depths requires large drill rigs and ancillary equipment. A drill pad three to five acres in size would be constructed, and may require cut and fill of the site to obtain a level pad. Topsoil would be removed and stored on site for reclamation. In addition to the drill rig, the pad may house a reserve pit, a mud sump, tool shed, drill pipe, fuel tanks, water tanks, generators, pumps, equipment storage, and temporary office quarters.

Well drilling requires water. As much water as possible is recycled on site, yet about 5,000 to 15,000 gallons of water may be needed each day depending on well conditions. Initially, water would need to be provided by some source, either wells or trucked in, to meet demands. Many oil or gas wells encounter water at depth when drilling for oil and/or gas, as it may be part of the oil and gas reservoir, and can be utilized when production is ongoing. Any water rights required would likely need to be filed in the name of the BLM.

At the conclusion of well testing, if paying quantities of oil and gas are not discovered, the operator is required to plug the well according to Federal and State standards. Cement plugs are placed above and below water-bearing units with drilling mud placed in the space between plugs. When abandonment is complete, the site is reclaimed, which includes pad and road recontouring, topsoil replacement, and seeding with approved mixtures. Erosion control measures would be incorporated into the reclamation design as needed.

The drilling site could be active for approximately one year, from the start of drill pad and access road construction; through drilling and well testing; to completion of plugging the hole and reclamation.

It is anticipated that one or two exploration wells would be drilled on leases in the planning area. The wells would likely be 10,000-14,000 feet deep and would require the construction of a drill pad approximately five acres in size (approx. 500 by 500 feet). Based on the road density in the planning area, access to the drill pads may require up to two miles of road construction or improvement. Surface disturbance from construction of up to two miles of road would equal about 10 acres. Total surface disturbance expected from drilling two wells would be up to 30 acres. Each of the proposed drilling sites would be analyzed through the NEPA process, separate from the leasing analysis.

Wildcat wells that discover only limited reserves of oil and/or gas are not likely to be economically viable because of the lack of existing infrastructure, and would be plugged and abandoned. It is predicted that none of the exploratory wells would encounter hydrocarbons in sufficient quantity to justify production expenses and would be plugged and abandoned immediately.

Phase Three: Field Development and Production

If a producible quantity of oil or gas is discovered, additional development wells would be drilled to confirm the discovery, establish the limits of the field, and drain the field. Depending on the field characteristics, well spacing may be from 40 to several hundred acres per well.

The speed at which a field is developed is dependent on the anticipated productivity. It may take from one to three years to fully develop an oil or gas field. Large fields with several operators may be unitized to reduce surface impacts. In addition, directional drilling may allow for drilling more than one well per pad.

During field development, the road system is greatly expanded. Temporary roads are usually improved to accommodate more traffic and increased duration of use. Improvements may include crowning, capping, and implementing additional erosion controls. New roads would also be constructed. Depending on well location and topography, a main access road is built with smaller secondary roads running to each pad. In

addition to roads, other facilities may also be installed including power lines, tank farms, pipelines, oil/water separators, and injection wells.

The production phase of an oil or gas field begins soon after discovery, and may coincide with development. Temporary facilities are often used initially, but as the extent of the field is determined, permanent facilities would be installed.

Where oil and gas flow to the surface naturally, control valves and collection pipes are attached to the well head. Otherwise pumps are installed. Oil is typically produced along with water and gas. Separation facilities are constructed on site to remove water, carbon dioxide, and hydrogen sulfide. The oil and natural gas are then separated. Water, usually saline, is disposed of either through surface discharge, evaporation ponds or re-injection into the producing formation.

If gas is present in economic quantities and a pipeline is located within close proximity, a network of pipelines would likely be constructed to collect and transport the gas. If not, gas would likely be re-injected into the reservoir. Oil would be collected in a similar manner and stored in tanks in a central location. Well operators would likely have service operations (e.g., cementing, logging, bits, testing, etc.) provided by established oil field service companies in Wyoming or Utah.

The producing life span of an oil or gas field varies depending on field characteristics. A field may produce for a few years to many decades. Commodity price, recovery technique, and the political environment also affect the life of a field. Abandonment of wells may begin as soon as they are depleted or wells may be rested for a period of time and put back into production.

For the purposes of this report, it is assumed that one of the exploration wells would potentially encounter hydrocarbons in sufficient quantities to warrant field development. Based on this discovery, a five-well field would be developed. Disturbance for additional roads, pads, pipelines, and storage tanks may total over 60 acres. Depending on the size of the field, oil would either be trucked or piped to a refinery.

Phase Four: Abandonment

If paying quantities of oil and gas are not discovered, or at the end of the producing life span of a producing well or field, the operator is required to plug the well according to Federal and State standards and reclaim the disturbed areas. To plug a well, cement plugs are placed above and below water-bearing units with drilling mud placed in the space between plugs. When well abandonment is complete, equipment and surface facilities are removed, and the site is reclaimed. In a producing field, underground pipelines are often plugged and left in place in order to avoid re-disturbing these areas. Site reclamation includes pad and road obliteration and recontouring, topsoil replacement, and seeding with approved mixtures. Erosion control measures would be incorporated into the reclamation design as needed.

Conclusion

The probability of full field development and production occurring in the Jarbidge Field Office over the life of the plan is low. The existence or size of oil and natural gas reserves potentially found in the planning area is highly uncertain. Total surface disturbance associated with the anticipated oil/gas-related activity in the planning area as a result of making the lands available for lease equal about 90 acres during the next 20 years. This figure is based on drilling two exploration wells, one of which it is assumed will be productive. Disturbance is based on a drill pad (about five acres) + access road (about 10 acres) = 15 acres per drill site, x 2 wells = 30 acres for exploration drilling. If this activity does indeed occur, it is likely that well testing would not be favorable for production and the sites would be immediately reclaimed. Pad and access road construction, drilling and well testing, and reclamation would take an estimated four to six months, depending on well depth and drilling conditions encountered. Assuming that oil or gas

resources are discovered at one of these wells, an additional 60 acres would be disturbed in that vicinity by the drilling of five additional wells, spaced at one well per 40 to 160 acres, depending on reservoir characteristics. This disturbance would not be reclaimed until the resource is depleted, which could take one to 10 years. It is anticipated that two to three geophysical survey programs would be completed during the life of the plan. This disturbance would be temporary, on the order of weeks, and would result in minor to negligible surface impacts.

This RFDS meets the requirements of BLM's Manual Section 1624-2 in describing potential surface impacts that could occur as a result of oil and gas leasing activity in the Jarbidge Field Office.

APPENDIX L: REASONABLY FORESEEABLE DEVELOPMENT SCENARIO FOR GEOTHERMAL DEVELOPMENT

REASONABLY FORESEEABLE DEVELOPMENT SCENARIO

FOR

GEOTHERMAL DEVELOPMENT

IN THE

JARBIDGE FIELD OFFICE

Prepared by: Karen Porter, BLM Idaho State Office Geologist

Prepared by: ____signed copy on file_____ Date: __11/6/2009____

Reviewed by: Al McKee, BLM Utah State Office Petroleum Engineer

Reviewed by: ____signed copy on file_____ Date: __11/3/2009____

Summary

Based on the geology of the Jarbidge Field Office (i.e., the planning area), the presence of numerous hot springs and wells in several locations and a Known Geothermal Resource Area (KGRA), and a review of the available data collected and technical reports written on the area, it has been determined that the lands within the planning area have some level of potential for the discovery and/or development of a geothermal resource for both indirect use (i.e., commercial generation of electricity) and direct use (i.e., use of the resource for other purposes). The lands east of the Bruneau River and west of the Saylor Creek Training Range are determined to have high geothermal potential, based on the determination of high heat flow and the inclusion of most of those lands in the Bruneau KGRA. Lands situated north of the numerous faults that trend northwest from roughly the Balanced Rock area to the Bruneau KGRA have been determined to have medium potential, while lands situated south of these faults have been determined to have low potential, based on currently available information. These conclusions are described in more detail in the Geothermal Potential Report prepared for the area (BLM, 2009b).

Based on the geothermal potential for the planning area, it is reasonable to assume that a 20-megawatt (MW) power plant would be developed over the 20-year life of the plan. This development would disturb between approximately 185 and 230 acres cumulatively, including the construction of drill pads to support the drilling of 20 temperature-gradient wells and 10 production and injection wells, road construction, power plant development, and pipeline and transmission line construction. Much of this disturbance would be reclaimed after each phase of development, such that once the power plant is operational, the actual disturbance would be considerably less than the cumulative total. Surface disturbances for direct use are expected to be much less than those anticipated for indirect use.

Introduction

This report, describing a Reasonably Foreseeable Development Scenario (RFDS), accompanies the Geothermal Potential Report (BLM, 2009b) prepared for the planning area. The RFDS describes the anticipated level of exploration and development activity associated with geothermal leasing. These projections are necessary for assessing the anticipated impacts of geothermal development-related activity in the EIS for the Jarbidge Resource Management Plan (RMP); for determining which lands within the planning area will be available for geothermal leasing; and for determining what stipulations may be necessary to attach to leases in order to protect surface resources. These anticipated impacts are for the BLM-administered public lands described above during the next 20 years (2009-2029).

Description of Geology

The geology of the planning area is described in detail in the Geothermal Potential Report prepared for the area (BLM, 2009b). The planning area lies within the Snake River Plain physiographic province and is entirely covered by Cenozoic volcanic deposits, with Quaternary lake deposits found overlying the volcanics in the northwest corner of the planning area. The planning area is dominated by the Owyhee Plateau, a broad volcanic upland considered to be a continuation of the eastern Snake River Plain. These volcanic rocks, consisting of multiple sheets of welded ash-flow tuff, rhyolite, and finally basalt, were erupted from the Bruneau-Jarbidge eruptive center starting 11 million years ago (Bonnichsen, 1982). The silicic rocks (ash-flows and rhyolites) of this sequence are loosely termed the Idavada Volcanics. The Idavada volcanic sequence is considered the most important aquifer in the area and has the known capacity to act as a reservoir for thermal water (Chapman and Ralston, 1970; Young and Whitehead, 1975). The sequence is 3,000 feet thick or more and is exposed or underlies all of the planning area.

In the northern portion of the planning area, a series of northwest-trending en echelon normal faults, down dropped to the north, propagate across the Bruneau Desert from roughly the Balanced Rock area (also known as the Blue Gulch area) to the Bruneau Hot Springs area (Malde et al, 1963 and Jenks et al, 1998). High heat flow values are found in springs and wells drilled for agricultural and domestic uses in these two areas, although no exploration drilling for geothermal testing has been performed (Blackwell, 1975; Brott et al., 1976).

Past and Present Geothermal Activity

BLM records indicate that there has never been a geothermal lease issued in the planning area. There is a KGRA, the Bruneau KGRA, located in the extreme northwest corner of the planning area (T 7 S, R 6 E, sections 14, 15, 21, 22, 23, 26, 27, and 28; 5,120 acres). The KGRA was established in 1975 due to overlapping nominations of those lands for geothermal leasing and an analysis of the available geothermal indicia at the time. A lease sale was held after the establishment of the KGRA, but records indicate the offered parcel(s) did not receive any bids.

While there are no deep (over 5,000 feet) wells drilled for geothermal resources, there are numerous water wells drilled on private lands with temperatures between 20 and 50°C in the planning area (Smith et al., 1980). Most of these are concentrated in the Bruneau area; however there are 15 to 20 wells on private lands in the Blue Gulch area, located northwest of Balanced Rock (T 9-10 S, R 12-13 E), with temperatures between 25 and 35°C. There is also a cluster of warm wells (approximately 25°C) in the Glenns Ferry area. Most of the wells in the planning area are used for agricultural (irrigation) purposes; however, a few utilize the heat source for direct uses such as heating a greenhouse and aquaculture. Most of the wells are less than 1,000 feet deep.

Reasonably Foreseeable Development Scenario

General Assumptions

The general assumptions and descriptions of the phases of development that follow are based on the geothermal potential in the Jarbidge Field Office. This Reasonably Foreseeable Development Scenario (RFDS) was adapted from the Final Programmatic Environmental Impact Statement for Geothermal Leasing in the Western US, released in October 2008 (BLM, 2008b), and applied to the local conditions and mineral potential of the planning area. The RFDS primarily describes the development of the resource for the commercial generation of electricity, termed “indirect use”; however, geothermal resources also can be utilized directly. Direct uses are briefly described at the end of this RFDS.

Based on the geothermal potential for the planning area, it is reasonable to assume that a total of 20 MW of power would be developed over the life of the plan. The most likely location for this development is in or near the Bruneau KGRA, determined to have high potential for geothermal resources, but there is a possibility that the area designated as having moderate potential may encounter exploration activities and possible development as well.

During the life of the plan, it is assumed that exploration activities would include geophysical exploration and drilling of up to 20 temperature gradient wells. Existing roads would be used for access as much as possible; however, given the scarcity of roads in the area, it is assumed that up to one mile of temporary access road may be required per well on average. This disturbance would be reclaimed and the holes plugged immediately after data and samples are collected.

Once an area is determined to have potential for commercial geothermal development, large-diameter production wells would be drilled, for further flow testing and for possible future use in production. Assuming the eventual development of a 20-MW resource, approximately 10 large-diameter wells would be drilled: half of these would be production wells, and half would be used as injection wells. These wells would likely be concentrated within a 9 to 16 square-mile area. Construction of well pads would be required. The average well pad is approximately 3.5 acres in size. After drilling is completed, the well pad would be reclaimed by blending the well pad material into the surrounding landscape and re-seeding with an approved seed mix.

Additional disturbance would be anticipated if a site is developed. This would include construction of a power plant, which would disturb approximately 10 additional acres for a 20-MW plant. Pipelines, needed to convey the geothermal fluid from the producing well to the plant and from the plant back to injection wells, would be placed approximately 2 feet above the ground. It is assumed that approximately one mile of pipeline would be required per well. Transmission lines are also needed, to carry the electricity from the plant to the power grid (140 kilovolts or greater). The proposed Gateway West transmission line is within

two to five miles of the Bruneau KGRA. It is assumed that between 0.25 miles and10 miles of line would be required.

Table L-1 provides the estimated acreage of land disturbance that would be anticipated for exploration and development of a geothermal resource, over the life of the RMP. The actual area of disturbance varies depending upon site conditions and the size of power plant being constructed. Acreages are not provided for the Reclamation and Abandonment phase since this phase involves the return of previously disturbed lands to their existing conditions. Much of the land would be reclaimed after each phase of the initial exploration, drilling, and construction. For example, once wells are drilled, the well pad would be reduced to a minimum size and the pad reclaimed. Therefore, the actual amount of land occupied during the utilization phase would be less than the total cumulative acreage. A typical development generally requires several leases or the use of private or other adjacent lands. The details of each phase of development are described in the section following the table.

Table L-1. Surface Disturbance Anticipated for Geothermal Resource Development during the Life of the Jarbidge RMP (assuming a 20-MW Power Plant)

Development Phase	Disturbance Estimate
Exploration	
Geologic mapping	negligible
Soil surveys	30 square feet[A]
Gravity and magnetic surveys	negligible
Seismic surveys	negligible
Resistivity surveys	negligible
Shallow temperature measurements	negligible
Road/access construction for temperature gradient wells	80 acres
Temperature gradient well pads	5 acres[B]
Total Exploration Disturbance	**85 acres**
Drilling and Utilization	
Drill pads	35 acres[C]
Road improvement/construction	20 acres[D]
Power plant	10 acres[E]
Pipelines	30 acres[F]
Transmission lines	5-50 acres[G]
Well workovers, repairs and maintenance	negligible[H]
Total Development and Utilization Disturbance	**100-145 acres**
Total Cumulative Distance	**Approximately 185-230 acres**

[A] Calculated assuming 10 soil gas samples, at a disturbance of less than three square feet each.
[B] Calculated assuming an area of disturbance of up to 0.25 acre per well and 20 wells.
[C] Calculated assuming a 20-MW power plant requires about 10 well pads, at 3.5 acres (approx. 400' x 400') each, to support 5 production wells and 5 injection wells. Does not assume multiple wells located on a single well pad.
[D] Assumes 0.5 miles of road per well (10 wells). Estimates 30-foot wide surface disturbance for an 18-20 foot road surface, including cut and fill slopes and ditches.
[E] Based on average of five acres of disturbance per 10-MW power plant.
[F] Pipelines from well to plant assumed to be 1 mile on average, for a total of 10 miles of pipeline in length, with a 25-foot-wide disturbance corridor.
[G] Transmission lines assumed to be one to 10 miles long, 40-foot-wide construction corridor.
[H] Disturbance would be limited to previously disturbed areas around the well(s).

Typical Phases in Geothermal Development

This RFDS for geothermal resource use describes four sequential phases: (1) exploration, (2) drilling, (3) field development and utilization, and (4) reclamation, plugging, and abandonment. The success or failure of each phase affects the implementation of subsequent phases and, therefore, subsequent environmental impacts. The general assumptions and descriptions of the geothermal development are intended to be used in support of the Jarbidge RMP revision, to analyze future environmental impacts that may result from the issuance of Federal geothermal leases, and to identify areas that may require additional stipulations to the standard lease form to protect other resources, if those lands are nominated

for leasing in the future. These anticipated impacts are for the BLM-administered public lands described above during the next 20 years (2009-2029). The EIS written in association with the RMP revision analyzes the leasing decision; however, additional site-specific NEPA analysis will be conducted for each phase of geothermal resource development activity. Additional Conditions of Approval may be developed and attached to these permitted activities.

Phase One: Geothermal Resource Exploration

Before geothermal resources are developed, a geothermal resource developer explores for evidence of geothermal resources on leased or unleased land. Exploration activities may involve some ground disturbance but does not include the direct testing of geothermal resources or the production or utilization of geothermal resources. Exploration operations include, but are not limited to, conducting geophysical and/or geochemical surveys, and drilling temperature gradient wells. A geothermal lease is not required to conduct exploration activities; however, an exploration permit is required from BLM (see 43 CFR 3250 for regulations pertaining to geothermal exploration operations).

Usually, the first, on-the-ground step in exploration is to conduct geophysical prospecting or surveying. This exploration method consists of collecting and interpreting electrical, gravitational, magnetic, thermal, and/or seismic data to identify underground structures favorable for the occurrence of a geothermal resource. Geophysical surveying is a relatively inexpensive method of indirectly exploring the sub-surface of a relatively large area for a mineral resource, and results in relatively minor disturbance to surface resources. Once the data are compiled, geologists and geophysicists examine the data and make inferences about where the higher temperature anomalies may occur and whether other geologic conditions, such as porosity and faulting, are present. These conditions can indicate the location of potential underground geothermal reservoirs capable of supporting commercial uses.

Resistivity surveys involve laying out long cables (up to 1,000 feet or more) on the land surface, or setting up equipment repeatedly in small areas (a few tens of square feet at the most for each measuring site). Minor, temporary disturbances are associated with each site for the burial of sensors.

While not widely used for geothermal surveys, seismic surveys have the greatest impact on the local environment. These surveys typically involve setting up an array of geophones and creating a pulse or series of pulses of seismic energy. The pulse is created either by detonating a small charge below the ground surface (requires drilling a narrow “shot hole”, usually by hand) or by a vibroseis truck that is driven through the survey area. Data is transmitted from the geophones to a central location. The geophones may be installed on the ground’s surface, in small excavations made specifically for burying the geophones, and/or in existing wells. These surveys are typically undertaken over the course of a few days. No road building is required for this type of activity.

Geochemical surveying, such as collecting and analyzing water samples from hot springs, can also be used to determine the subsurface characteristics of a particular area. In some cases, gas collectors may be installed to measure soil gases. These collectors have partially buried sensors and may disturb small areas of less than three square feet.

Access requirements for geophysical and geochemical surveying can generally be met by the use of existing roads or trails, cross-country travel using all-terrain vehicles, or by foot. While very little surface disturbance is associated with these surveys, the survey crew, usually consisting of two to four personnel, may be walking or moving through a fairly large area for several days.

The second step of the exploration phase is to drill temperature gradient wells. A gradient well can provide additional information to determine a more precise location of higher-than-normal temperature gradients; however, the geothermal resource is not directly accessed or utilized. Temperature gradient wells can be drilled using a truck-mounted rig, and range from 200 feet to over 4,000 feet deep. Figure L-1 is a photograph of a typical drill rig used to drill a temperature gradient well. The number of gradient wells drilled also varies, depending on the geometry of the system being investigated and the anticipated size of the geothermal reservoir. Geologists examine either rock fragments or long cores of rock that are brought up from the bottom of the well as it is being drilled. Water samples are taken from any

groundwater encountered during drilling. Temperatures are measured at various depths. Both well temperatures and the results of rock sample analyses are used to determine if additional drilling is worthwhile to identify the presence and characteristics of an underground geothermal reservoir. After collecting the desired samples and data, the wells are plugged and abandoned in accordance with Federal and State requirements.

Figure L-1. Typical Drill Rig for Drilling Temperature Gradient Wells

Most temperature gradient wells are drilled with a small rotary rig (often truck-mounted), similar to that used for drilling water wells, or a diamond-coring rig, similar to that used for geologic sampling in mineral exploration and civic works projects. The mast of the drill rig is approximately 60 feet tall. Support equipment is needed, including water trucks, tanks for mixing and holding drilling fluids, personnel and supply transport vehicles, and sometimes a backhoe for earthmoving activities needed to prepare the drilling site. During exploration, a driller is not permitted to produce any fluids out of, or inject any fluids into the well; therefore, the site may also host a sump or tanker truck. Additionally, a diesel generator may also be used at the site to power equipment. A temperature gradient drilling operation can be run by about three on-site personnel and others traveling to the site periodically with materials and supplies.

Temperature-gradient well drilling requires road access. Whenever possible, a driller would access the temperature gradient well site using existing roads. When existing roads are not available, temporary access roads may need to be constructed for the truck-mounted rig to reach the site, possibly disturbing one acre (for 0.25 miles of 30-foot wide road) to 6 acres (1.5 miles). Given the road density in the planning area, it is assumed that an average of one mile (four acres) of temporary access road would be required per temperature gradient well.

Drilling a temperature-gradient well generally does not require construction of a well pad or earth-moving equipment unless the site is steeply sloping. Preparing the site for drilling may include leveling the surface and clearing away vegetation. The well site itself involves excavation of a small cellar (typically less than three feet square and less than three feet deep) to allow the conductor casing to be set beneath the rig. It is assumed that 0.25 acres of disturbance would occur per drill site. Drilling takes from several days to several weeks per hole. Several temperature gradient wells are usually drilled to determine both the areal extent of the temperature anomaly and where the highest temperature gradient occurs. It is assumed that 20 wells would be drilled over the life of the plan.

Temperature gradient wells are not intended to directly contact the geothermal reservoir, and therefore produce no geothermal fluids. In areas of known artesian pressures, any drilling expected to penetrate the groundwater table would be required to include blow-out prevention equipment. In cases where a temperature gradient well does penetrate a geothermal zone, any release of geothermal fluids at the surface is likely to be minimal due to the small well diameters and the use of blow-out prevention equipment.

Drilling fluids may include drilling mud (bentonite clay, activated montmorillonite clay and crystalline silica-quartz), drilling mud additives (caustic soda, sodium bicarbonate, or anionic polyacrylamide liquid polymer), cement (Portland cement and calcium chloride), fuel (diesel), lubricants (usually petroleum-based) and coolants. The specific fluids and additives depend on a variety of factors, including the geologic formations being penetrated and the depth of the well. Releases of drilling muds are not permitted. Sump and tanker trucks are required to capture all fluids. The risk of spills of other fluids is similar to that of any other project involving the use of vehicles and motorized equipment.

All surface disturbances would be reclaimed to the satisfaction of BLM. Once drilling is completed, the temperature gradient well would be plugged and abandoned in accordance with BLM and State requirements. Site reclamation includes removing all surface equipment and structures; re-grading the site to blend into the surrounding landscape and prevent erosion; and replanting vegetation with a seed mix approved by BLM, to facilitate natural restoration of the site.

Phase Two: Drilling Operations

Once exploration has indicated a viable prospect and necessary leases have been secured, the drilling of large-diameter wells can proceed, in accordance with 43 CFR 3260 regulations. Unlike temperature gradient wells, these wells tap the geothermal resource and are capable of being fitted for production; however, they are initially used to test the reservoir for commercial development. Multiple wells may be drilled per lease. Each well requires an approved Geothermal Drilling Permit. A Drilling Plan and an Operations Plan are also required (one Plan can be submitted for multiple wells). NEPA analysis is conducted to determine whether the drilling locations are appropriate and whether Conditions of Approval, attached to the Drilling Permit, are required in addition to the lease stipulations. A bond is required. Drilling operations include drilling large-diameter production wells, flow testing of the wells, producing geothermal fluids for chemical evaluation, and injecting fluids back into the geothermal reservoir. This would also involve the construction of sumps or pits on the well pad, to hold excess geothermal fluids. It could involve development of minor infrastructure to conduct such operations.

Access roads capable of supporting large drill rigs would be required. It is assumed that 0.5 miles of new road would be constructed per well on average (total of 5 miles). Depending on the type and use-intensity of the road, the areas of surface disturbance is about 30-feet wide for an 18-20 foot wide road surface, including cut and fill slopes and ditches.

Construction of a well pad is required for drilling a production well. The size of the well pad is dependent upon site conditions and on the number of wells per pad, but they are typically about 3.5 acres (400 x 400 feet) for one well. The well pad needs to be of sufficient size to safely accommodate drilling activities and various temporary support facilities such as generators, mud tanks, cement tanks, trailers for the drillers and mud loggers, housing trailers, and storage sheds. Each well pad would be fenced around the perimeter to prevent access by unauthorized persons, wildlife, or livestock during the duration of the drilling operation. If the drilling site is not located on level ground, minor cut and fill may be required. Gravel may be required to stabilize roads and pads and provide for drainage.

After a well pad has been constructed and support facilities have been assembled, production wells would be drilled using a geothermal (or oil and gas) drill rig (Figure L-2). Production-size wells can be over two miles (10,560 feet) deep. The wells narrow (telescope) in diameter from 30 inches at the surface to 12 inches at the bottom of the well. In order to drill these deep holes, a large drilling rig would be erected. The top of the drill rig derrick could be as much as 155 feet above the ground surface, and the rig floor could be at least 25 feet above the ground surface. These rigs are typically equipped with diesel engines, fuel and drilling mud storage tanks, mud pumps, and other ancillary equipment. Blow-out

prevention equipment would be utilized while drilling to prevent uncontrolled flow at the surface if a pressurized thermal pocket is encountered.

Getting the rig and ancillary equipment to the site may require 15 to 20 trips by full-sized tractor-trailers, with a similar amount for de-mobilizing the rig. There would be 10 to 40 daily trips for commuting and hauling in equipment. Drilling operations would likely occur 24 hours a day and seven days a week. It takes approximately one month to drill one well. A drilling operation generally has from 10 to 15 people on site at all times, with more people coming and going periodically with equipment and supplies.

Geothermal fluid production and associated waste production (drill cuttings and waste drilling mud) is likely to occur for short periods, as wells are tested to determine reservoir characteristics. Excess geothermal fluids are either re-injected into a previously drilled well, if available, or are stored in temporary pits or sumps, generally lined with a synthetic liner (permeability less than 10^{-7} cm/sec) or an impermeable clay liner. The water in the pit is left to evaporate and any sludge is removed and properly disposed of. The rate of fluid production from a geothermal reservoir is unknown until the development testing phase is completed.

Figure L-2. Typical Drill Rig for Drilling Production Wells

During the initial stages of testing, one well is likely to be tested at a time. If testing is successful and the well and reservoir are sufficient for development, wellheads, valves, and control equipment would be installed on top of the well casing so that the wells can be utilized for production. The size of the well pad would be reduced to the minimum necessary for production, and the area reclaimed. If a production well is unsuccessful, it may be used for injection of fluids from other wells. If not necessary for either production or injection, the well would be plugged and abandoned in accordance with Federal and State requirements, and the site would be reclaimed by recontouring the well pad and seeding with an approved seed mix. Those roads that are no longer needed would be reclaimed.

Phase Three: Field Development and Utilization

Utilization of the geothermal resource is the final phase of development, if a viable reservoir is determined and a power purchase agreement can been secured. Utilization requires the applicant to secure a site license and construction permit from BLM, in accordance with regulations at 43 CFR 3270. An EIS may be required for the construction of a power plant on Federal lands.

It is likely that the existing production wells would be used, although additional drilling to expand and develop the well field may be required. The number of wells is dependent upon the geothermal reservoir characteristics and the planned power generation capacity. For example, a 50-MW (net) power plant could require up to 25 production wells and 10 injection wells. Based on the geothermal potential in the planning area, it is assumed that a 20-MW power plant would be developed, with 5 production wells and 5 injection wells. The utilization phase could last from 10 to 50 years and involves the operation and maintenance of the geothermal field(s) and generation and sale of electricity.

Additional infrastructure would be needed for commercial operations, including construction of a power plant, installation of production and injection pipelines, and installation of transmission lines. It is assumed that no new access roads would be required, beyond the roads constructed for the production well drilling.

Geothermal resources can be classified as low temperature (less than 90°C, or 194°F), moderate temperature (90 to 150°C, or 194 to 302°F), and high temperature (greater than 150°C, or 302°F). While at one time only the highest temperature resources were used for generating electrical power, emerging technologies and demand for alternative energy sources are proving that moderate and even lower temperature resources can be used for electrical generation.

Moderate to high temperature reservoirs, with adequate flow rates and fracture systems, are currently suitable for the commercial production of electricity. While there are several types of power plants that harness geothermal resources, the most likely type of plant used for moderate temperature resources is a binary-cycle plant. These modular plants use the geothermal resource that has been pumped to the surface to heat a secondary “working fluid” such as isobutene or isopentane that has a lower boiling point than water. As the working fluid boils, it expands and turns a steam turbine, producing electricity. The geothermal fluid and the working fluid never come in contact with each other, nor are they exposed to the environment (closed loop system). The geothermal fluid is re-injected back into the geothermal zone via injection wells, while the working fluid is cooled, condensed, and recycled.

Binary plants are by far the most common type of power plant used today, as they can operate with lower water temperature (74 to 182° C, or 165 to 360°F) than flash or steam plants, produce few air emissions, are quiet, and result in a low impact to the environment once constructed. They can be constructed off-site (e.g., Ormat’s plants are manufactured in Israel), transported to a site, and erected fairly easily, and they can be expanded as a well field is developed. In this sense, they are modular units. Generally, the final permanent surface disturbance required for all related production wells, the power plant, and surface facilities is about one acre per Megawatt of power produced.

A 50-MW plant would utilize a site area of up to 20 to 25 acres to accommodate all the needed equipment, including the power plant itself, space for pipelines geothermal fluids and reinjection, space for moving and storing equipment, and buildings needed for various purposes (power plant control, fire control, maintenance shop, etc.). The power plant itself would occupy an estimated 25% of this area for a water-cooled plant, or about 50% for an air-cooled plant. Where topography permits, the power plant could be situated to be less visible from nearby roads, trails, scenic vistas, or scenic highways. The site of the plant requires reasonable air circulation to allow for efficient operation of the plant’s condensers. A smaller, 20-MW plant would typically require approximately 5 to 10 acres for the entire complex. Figure L-3 shows what a recently constructed 10-MW power plant looks like.

Figure L-3. 10-MW Power Plant at US Geothermal Inc.'s Raft River Site (from US Geothermal Website)

A pipeline system would be needed to connect each of the production wells and injection wells to the power plant. Pipelines are usually 24 to 36 inches in diameter and are typically constructed on supports above the ground surface, resulting in little if any surface impact to the surrounding area once construction is complete and the corridor has been revegetated. The pipelines typically have a few feet of clearance underneath them, allowing small animals to easily cross their path. Every 100 to 200 feet or so, the pipeline may have an expansion loop, or U-shaped bends, to allow for expansion due to heating and cooling. Pipelines transporting hot fluids to the plant are wrapped in insulation, whereas injection pipelines are generally not. Where feasible, the pipeline may parallel the access roads and existing roads to the power plant. The pipelines are typically painted to blend in with the surrounding environment. For the planning area, it is assumed that the pipeline to each well would be approximately one mile long on average, with a corridor width of about 25 feet. Once the pipeline is constructed, these corridors would be reclaimed.

Transmission lines would be required to carry power from the plant to the electric grid. It is assumed that in the planning area, these lines would be from one to 10 miles in length, with a corridor width of approximately 40 feet. Wooden poles would most likely support them, and about five acres could be disturbed per mile of transmission line.

The number of people required for routine operation of a power plant is typically three per shift; however, additional personnel may be on site during the day for maintenance and management of the facility and monitoring fluids and power production. Activities associated with operation and maintenance of the facility and energy production would not generally involve additional ground-disturbing activities.

Using data from other areas of geothermal development, it appears that production of geothermal fluids can be expected to vary widely from one to six million gallons per well, per day. Assuming five million gallons per day per well as an average production figure, a geothermal field with five producing wells would produce 25 million gallons of fluid per day. Geothermal fluids produced are re-injected back into the geothermal reservoir via injection wells. Binary power plants utilize a closed loop system; therefore, well production and injection wells operate with no fluid loss.

The routinely used chemicals for a binary geothermal plant include the hydrocarbon working fluid (such as iso-butane or n-pentane) and the lubricating oil used in the downhole pumps. While downhole scaling

may be a problem for flash or steam plants, it does not occur in binary plants because they are liquid dominated systems. Therefore, there is no need for scale-inhibiting chemicals or any other chemicals with a binary plant.

Phase Four: Reclamation and Abandonment

This phase involves abandoning the well after production ceases and reclaiming all disturbed areas in conformance with BLM and State standards. Abandonment includes plugging and capping the wells and reclaiming the well site. Reclamation also includes removing the power plant and all surface equipment and structures, regrading the site and access roads to predisturbance contours, and replanting native or appropriate vegetation to facilitate natural restoration.

RFDS for Direct Use

Low temperature geothermal resources are increasingly being used for a wide variety of applications across the Western US, including in the planning area and nearby. These direct uses include:

- Agricultural uses, such as controlling environmental conditions for growing crops, flowers, or trees;
- Aquacultural uses, such as controlling environmental conditions for raising fish or other animals;
- Direct heating and cooling systems for buildings;
- Public safety uses, such as eliminating ice and snow on public sidewalks;
- Public health uses through food processing, such as dehydration, washing, and processing; and
- Recreational uses, such as hot tubs, steam baths, and mud baths.

Use of the geothermal resource for these activities on Federal lands requires a direct use geothermal lease, in accordance with regulations at 43 CFR 3205.

Surface disturbances for direct use are generally much less than for indirect use since direct uses are more likely to be located near existing communities with less of a need for new access roads. Also, since direct use applications utilize the geothermal energy on-site, there is no need for the construction of electrical equipment and transmission lines, except for bringing in electricity from the existing grid to the facility being constructed. Surface disturbances can still be expected for well pad development, site access, and construction of the facility utilizing the resource, although in some cases the facility may already exist and may simply be shifting its heat source to geothermal.

Typical Phases in Direct Use Geothermal Development

Phase One: Exploration

Existing direct use applications are largely co-located with, and draw directly from, existing surface geothermal manifestations such as hot springs, eliminating the need for most exploration activities. Exploration activities in the past have often been limited to water temperature and chemistry analysis.

Looking to the future, it is likely that most direct use applications will not be able to draw from existing surface manifestations as they have in the past. Surface manifestations such as naturally occurring hot springs have become increasingly sought after with increases in population in the Western US, increased recreational use, and more stringent regulations preserving such resources for their recreational, cultural, or scenic value. In such cases where surface manifestations are not nearby or are not being utilized directly, exploration activities similar to those described above for indirect use would also apply for direct use.

Phase Two: Drilling

In applications where a surface manifestation is used directly, the resource development phase involves installing piping into that manifestation to withdraw the hot water. For applications requiring the drilling of a well, drilling activities would be similar to those described above under Phase Two for indirect use, although the well would not be as deep, likely only one well would be drilled, and the volume of fluid would not be as great as for indirect use.

Phase Three: Utilization

The utilization phase typically lasts for several decades or longer. Activities associated with the production phase are generally limited to maintenance and repair activities of all components of the collection, distribution and injection/use/disposal system.

As described above for indirect use, the drilling of production wells may be necessary. Drilling activities would be similar to that discussed above in the drilling phase, although it is likely that only one production well and one injection well would be required. Some applications may inject the post-use geothermal fluids back into the ground, in which case an injection well would be drilled and connected via piping to the application. In other applications where the spent geothermal fluids are discharged to a surface water body or used for some other purpose, then discharge piping, collection systems or distribution systems may need to be constructed. For such systems where the waters are not reinjected into the geothermal reservoir but are rather discharged or otherwise used, treatment systems may need to be installed to reduce levels of any naturally occurring but toxic chemicals present within the geothermal waters, such as mercury, arsenic, and boron, to meet applicable health or environmental standards. Operation and maintenance of existing facilities and production of geothermal energy also takes place during the production phase. Activities associated with operation and maintenance and energy production would involve managing waste generated by daily activities, managing geothermal water, landscaping, and maneuvering construction and maintenance equipment and vehicles associated with these activities.

Phase Four: Reclamation and Abandonment

As described above for indirect use, this phase involves abandoning the well after production ceases and reclaiming all disturbed areas in conformance with BLM and State standards. Abandonment includes plugging, capping, and reclaiming the wells. Reclamation includes removing all surface equipment and structures, regrading the site to blend into the surrounding landscape, and replanting native or appropriate vegetation.

APPENDIX M: EVALUATION OF NOMINATED AREAS OF CRITICAL ENVIRONMENTAL CONCERN

An Area of Critical Environmental Concern (ACEC) is defined in the Federal Land Policy and Management Act of 1976 (FLPMA) as an area "within the public lands where special management attention is required (when such areas are developed or used or where no development is required) to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes, or to protect life and safety from natural hazards." Ten areas were nominated for ACEC designation in the planning area through scoping, through individual or group nominations, and from Bureau of Land Management (BLM) staff recommendations; six of these areas had more than one boundary nominated. The nominated areas include:

- Bruneau-Jarbidge ACEC, including the existing ACEC, extensions to the existing ACEC, and reductions to the existing ACEC;
- Inside Desert ACEC, including a large and small version of the ACEC;
- Jarbidge Foothills ACEC, including a large and small version of the ACEC;
- Lower Bruneau Canyon ACEC, including a large and small version of the ACEC;
- Middle Snake ACEC;
- Sagebrush Sea ACEC;
- Salmon Falls Creek ACEC, including the existing ACEC and an extension to the existing ACEC;
- Sand Dunes ACEC;
- Sand Point ACEC, including the existing ACEC and an extension to the existing ACEC; and
- Upper Bruneau Canyon ACEC.

This appendix contains a detailed description of each nominated ACEC or boundary modification and the BLM staff evaluation of its relevance and importance and need for special management. The evaluations were based on policy provided by 43 CFR 1610.7-2 and BLM Manual 1613, Areas of Critical Environmental Concern, which state that potential ACECs to be analyzed in Resource Management Plan (RMP) alternatives, must meet specified criteria for relevance and importance.

Relevance is based on the presence of a significant:

- Historic, cultural, or scenic value, including, but not limited to, rare or sensitive archaeological resources and religious or cultural resources important to Native American tribes;
- Fish or wildlife resource, including, but not limited to, habitat for Endangered, Threatened, or BLM Sensitive fish or wildlife species, or habitat essential for maintaining species diversity;
- Natural process or system, including, but not limited to, Endangered, Threatened, or BLM Sensitive plant species; rare, endemic, or relic plants or terrestrial, aquatic, or riparian plant communities; or rare geologic features; or
- Natural hazard, including, but not limited to, areas of avalanche, dangerous flooding, landslides, unstable soils, or seismic activity.

In the evaluation for relevance, a "yes" answer indicates the area contains a value, resource, process, system, or hazard, while a "no" answer indicates the area does not.

Upon meeting the relevance criteria, a nominated site must then have substantial significance and values that meet one or more of the following importance criteria:

- Has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource;
- Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change;
- Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA;

- Has qualities that warrant highlighting in order to satisfy public or management concerns about safety and public welfare; or
- Poses a significant threat to human life and safety or to property.

In the evaluation for importance, a “yes” answer indicates that the value, resource, system, process, or hazard has substantial significance and values and meets one or more of the importance factors listed above. A “no” answer indicates the area contains the value, resource, system, process, or hazard, but it is not substantially significant and does not meet the importance factors listed above. “N/A” indicates that the value, resource, system, process, or hazard is not found within the area.

Based on these requirements, the nominated extension to the existing Salmon Falls Creek ACEC was dropped from further consideration because while it met the criteria for relevance, it did not meet the importance criteria. Additionally, the nominated Sand Dunes ACEC was dropped from further consideration because it did not meet criteria for relevance or importance. The remaining nominated ACECs and their nominated boundary modifications met the criteria for relevance and importance and have been included in the alternatives analyzed in this document.

Jarbidge Field Office

RELEVANCE AND IMPORTANCE EVALUATION

FOR

NOMINATED AREAS OF CRITICAL ENVIRONMENTAL CONCERN

Approved by:

signed copy on file 03/07/2014
Brian Davis Date
Jarbidge Field Office Manager

Concurrence by:

signed copy on file 03/07/2014
Mel M. Meier Date
Twin Falls District Manager

Bruneau-Jarbidge Area of Critical Environmental Concern

The Bruneau-Jarbidge ACEC is an existing ACEC. The existing ACEC was renominated; two alternate boundaries for the ACEC were nominated as well. The area encompassed by the existing boundary is presented first, followed by the area encompassed by the nominated extensions to the existing boundary. Finally, the area encompassed by the nominated reduced boundary is discussed.

Existing ACEC

Nominated ACEC: Bruneau-Jarbidge ACEC (existing boundary)

Nominated by: The existing ACEC was renominated by BLM in accordance with BLM Manual 1613, Areas of Critical Environmental Concern, Section .21A.1.

The existing ACEC was renominated by Western Watersheds Project.

Location: The ACEC encompasses 85,000 acres of BLM-managed land. The ACEC is located along the Bruneau River from near Crowbar Gulch upstream to the Jarbidge planning area boundary, along the Jarbidge River from the Bruneau River confluence to the Buck Creek confluence, and along the East Fork of the Jarbidge River from the Jarbidge River confluence to the planning area boundary. Portions of Clover, Deep, Cougar, Dorsey, Columbet, and Dave Creeks are also within the ACEC. The ACEC includes the canyons as well as portions of the adjacent uplands.

The ACEC is contained within the nominated Sagebrush Sea ACEC. The ACEC overlaps 73% of the Bruneau-Jarbidge Rivers Wilderness and 99% of the designated Wild and Scenic River (WSR) corridors in the planning area.

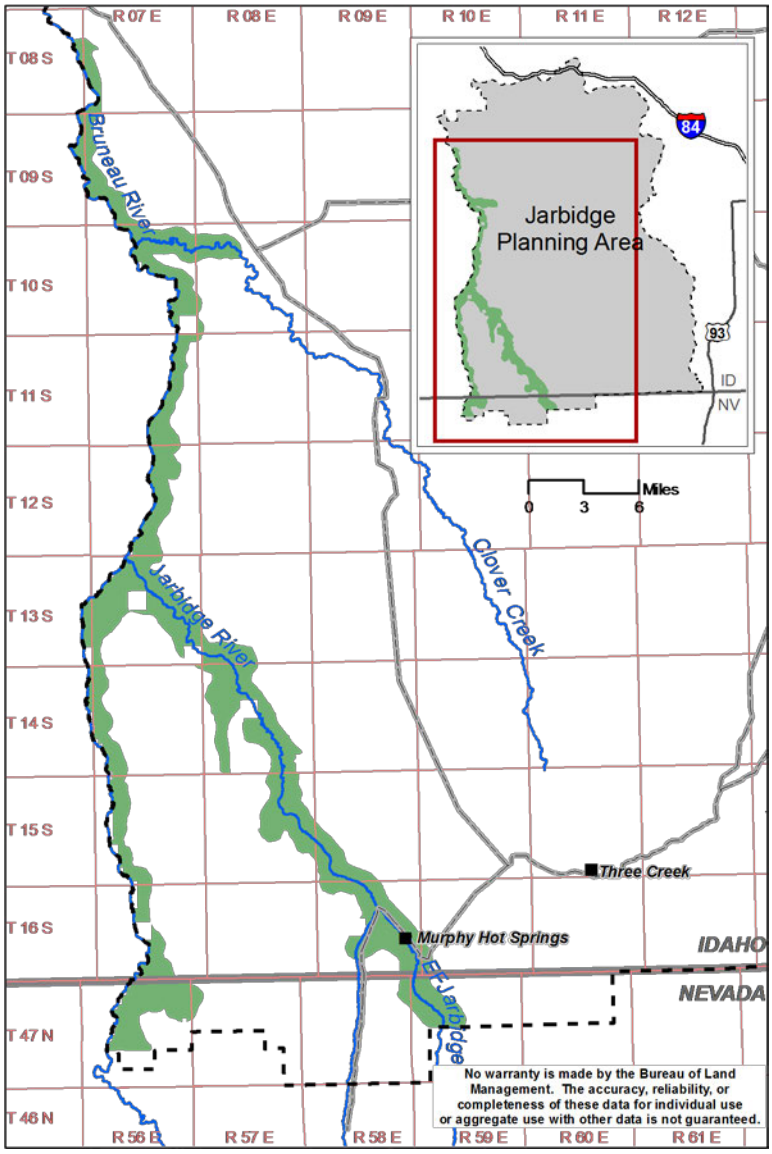


Table M-1. Relevance Evaluation for the Existing Bruneau-Jarbidge ACEC

Relevance: **Does the area contain a significant historic, cultural, or scenic value; fish or wildlife resource; natural process or system; or natural hazard?**	**Yes or No**
Historic Value	
The only known significant historic resources within the nominated ACEC are on private lands within the Bruneau and Jarbidge Canyons.	No
Cultural Value	
Regionally significant cultural resources are present within the ACEC. Native American use of the area extends back thousands of years. While the canyon lands provided food, shelter, and water, the adjacent uplands also served as travel corridors between winter villages along the Snake and lower Bruneau Rivers and summer camps in the Jarbidge and Owyhee Uplands. The area retains traditional cultural importance for the tribes. Many sites are also important for their archaeological value.	Yes

Scenic Value	
The canyon complex has exceptional rugged-desert scenery and natural qualities. The canyons include both basalt and rhyolite forms of volcanic material. The canyons plunge from 300 to over 900 feet from the adjacent upland plateaus to the rivers below. Rhyolite columns and spires are present through much of the Jarbidge Canyon. The lower portion of the Bruneau River contains basalt canyons. Arch Canyon contains a unique, large, natural arch composed of rhyolite spanning Cougar Creek.	Yes
Fish or Wildlife Resource	
California bighorn sheep: The ACEC contains 41,000 acres of habitat for California bighorn sheep (bighorn sheep), a Type 3 BLM Sensitive species, which represents 84% of the bighorn sheep habitat within the planning area. The bighorn sheep population within the ACEC is estimated to be approximately 210 sheep. The Foundation for North American Wild Sheep and the Idaho Department of Fish and Game were instrumental in re-introducing bighorn sheep into the Bruneau and Jarbidge Canyons in the 1980s and early 1990s. The canyon lands provide secure lambing habitat. The rivers in the canyon bottoms, as well as occasional seeps from canyon walls, provide water. Bighorn sheep forage is available in both the canyons and adjacent uplands. The vast majority of bighorn sheep observations are within the canyon and on the upland plateau within 1 mile of the canyon rim. Bighorn sheep typically avoid human disturbance and can be socially displaced in the short term from otherwise suitable habitat when livestock are present (Bissonette and Steinkamp, 1996).	Yes
Big game: The ACEC contains 84,000 acres of big game winter range and supports a substantial amount of wintering big game. About half of the wintering mule deer in the planning area use portions of the ACEC as winter range. Wintering mule deer and elk include both resident and migratory herds.	Yes
Bull trout: The ACEC contains 77 miles of critical habitat for bull trout, which represents 87% of the critical habitat within the planning area. The Jarbidge River Distinct Population Segment is the southern-most surviving population of bull trout in North America (FWS, 2004), occurring in a portion of southern Idaho and northern Nevada, and is isolated from other bull trout populations by numerous dams. Bull trout in this area are unique in their arid environmental setting.	Yes
Redband trout: The ACEC contains habitat for redband trout in four stream reaches, the Bruneau River, the Jarbidge River and its East Fork, and Dave Creek. The ACEC contains 96 miles of occupied redband trout streams.	Yes
Other fish and wildlife: The Bruneau and Jarbidge Canyons contain habitat for a variety of other BLM Sensitive species, including peregrine falcon (Type 3 and NV), prairie falcon (Type 3 and NV), spotted bat (Type 3 and NV), and Townsend's big-eared bat (Type 3 and NV). The upland plateaus adjacent to the canyons contain habitat for Brewer's sparrow (Type 3 and NV), greater sage-grouse (Candidate, Type 1), sage sparrow (Type 3), and other sagebrush-obligate species. The 2007 Murphy Complex Fires burned a substantial amount of the upland habitat on the Diamond A east of Jarbidge Forks to the confluence of Poison Creek in the ACEC. The Jarbidge River contains a natural diversity of native fish species. Compared to other rivers in the region, the proportion of native to non-native species is unusually high, as there are few, if any, non-native species present. This is a rather unique characteristic for the fish populations in the Jarbidge River Watershed.	Yes
Natural System or Process	
Bruneau River phlox: Bruneau River phlox, a Type 3 and NV BLM Sensitive species, occurs within the Bruneau and Jarbidge Canyons within the ACEC. The ACEC contains 240 acres of Bruneau River phlox habitat; which represents 65% of the habitat within the planning area.	Yes
Davis peppergrass: Davis peppergrass, a Type 3 and NV BLM Sensitive species, is present in playas within the existing ACEC. The ACEC contains 30 acres of Davis peppergrass habitat, which represents 20% of the habitat within the planning area.	Yes

Special status plant assemblages: The ACEC contains plant species classified as BLM Sensitive or Watch Species, including Cusick's primrose (Type 5 and NV) and Simpson's hedgehog cactus (Type 4). The population of Cusick's primrose is in Nevada. While this species is found elsewhere in Idaho and Oregon; it is the only population of Cusick's primrose in the planning area and the only population of this species in Nevada.	Yes
Upland vegetation: The ACEC contains two plant communities that are generally isolated because of topography and are ungrazed: the curl-leaf mountain mahogany woodland community and the mountain big sagebrush/bluebunch wheatgrass community.	Yes
Riparian systems: Over 96 miles of the Bruneau-Jarbidge River System are free flowing in the ACEC. The riparian systems in the ACEC are also unique in that they are typically dominated by Rocky Mountain juniper with interspersed quaking aspen and a few pockets of cottonwood.	Yes
Natural Hazard	
No known significant hazards.	No

Table M-2. Importance Evaluation for the Existing Bruneau-Jarbidge ACEC

***Importance:* Does the value, resource, system, process, or hazard meet one or more of the following importance factors:** **1. has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource;** **2. has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change;** **3. has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of FLPMA;** **4. has qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare; or** **5. poses a significant threat to human life and safety or to property?**	**Yes, No, or NA**
Historic Value	
NA	NA
Cultural Value	
(Factors met: 1, 2) Regionally significant cultural resources are present within the nominated ACEC.	Yes
Scenic Value	
(Factors met: 1) Scenic values are outstanding and include 99% of the designated WSR corridors in the planning area. The area contains numerous access locations for public viewing. Areas such as Arch Canyon, the Jarbidge River, and the Bruneau River attract visitors from across the West.	Yes
Fish or Wildlife Resource	
California bighorn sheep: (Factors met: 1, 2, 3) Bighorn sheep, a Type 3 BLM Sensitive species, are scattered in small herds across parts of Oregon, Idaho, Nevada, and British Columbia. In Idaho, bighorn sheep populations in South Hills and Jim Sage Mountains are smaller than in the Bruneau/Jarbidge River area. The population in the Owyhee River is larger than the Bruneau/Jarbidge River population. Bighorn sheep typically respond negatively to increased human activities by avoiding portions of their habitat containing greater disturbance. Research in southern Idaho indicates that livestock can alter bighorn sheep habitat use and displace bighorn sheep from their habitat (Bissonette and Steinkamp, 1996), which can increase the risk of inbreeding and disease, as well as degradation of the higher-use portions of their habitat (Krausman and Bowyer, 2003). Bighorn sheep in Idaho are recovering from a population crash due to disease in the late 1990s. This population of bighorn sheep is of more than local importance, evidenced in part by the fact that bighorn sheep tags for hunts in this area are in high demand and attract applicants from across the United States.	Yes

Big game: The ACEC is important to wintering big game from parts of Nevada and Idaho including mule deer, pronghorn, and elk. Mule deer and pronghorn are featured big game species in Idaho. Mule deer and elk are featured species in Nevada. The winter range within the ACEC is primarily of local importance.	No
Bull trout: (Factors met: 1, 2, 3) The Jarbidge River in southwest Idaho and northern Nevada is a tributary to the Snake River and contains the southernmost existing population of bull trout in North America (FWS, 2004). Bull trout are the only fish within the planning area listed as Threatened under the Endangered Species Act and are a Type 1 BLM Sensitive species. Genetic analysis of bull trout in the Columbia River Basin indicates Jarbidge River bull trout have a shared evolutionary history with populations in the upper Columbia River and Snake River but are genetically separated. For more than 100 years, Jarbidge River bull trout have been geographically isolated from other populations in the Snake River by more than 150 miles of unsuitable habitat and several impassable hydroelectric dams on the Snake River and at least one irrigation diversion on the lower Bruneau River. Bull trout in the Jarbidge River are considered significant because they occupy a unique and unusual ecological setting and their loss would result in a substantial modification of the species' range. The bull trout in the Jarbidge River are unique in that a portion of their habitat is in an area categorized as semi-arid desert. The ACEC has both spawning and migratory habitat for bull trout. Dave Creek (included within the boundary) contains a portion of the spawning and rearing area for bull trout within the East Fork of the Jarbidge River.	Yes
Redband trout: (Factors met: 1, 2) Redband trout are a Type 2 BLM Sensitive species present in four stream reaches within the ACEC. These redband trout are adapted to both the colder streams that are critical for bull trout and the warmer, low elevation streams such as the lower Jarbidge River and Bruneau River. These populations of redband trout are also unique in that the occupied streams within the ACEC lack migration barriers that prevent redband trout from moving between streams, unlike most of the other redband trout streams within the planning area.	Yes
Other fish and wildlife: The other fish and wildlife present within the ACEC are found elsewhere in and outside the planning area; the populations within the ACEC are primarily of local importance.	No
Natural System or Process	
Bruneau River phlox: (Factors met: 1, 2, 3) Bruneau River phlox is a Type 3 and NV BLM Sensitive species endemic to the area. The ACEC contains 240 acres of Bruneau River phlox habitat; which represents 65% of the habitat within the planning area. Bruneau River phlox has a total estimated population of 500 plants.	Yes
Davis peppergrass: (Factors met: 1, 2, 3) Davis peppergrass, a Type 3 and NV BLM Sensitive species, is limited in its distribution to portions of southeastern Oregon, south-central Idaho, and north-central Nevada, with the majority of known populations occurring in Idaho. The ACEC contains 30 acres of Davis peppergrass habitat, which represents 20% of the habitat within the planning area. There are fewer than 300 populations in six distinct clusters or distribution centers. The Bruneau-Jarbidge populations are a population stronghold. The Mountain Home populations show downward trend due to poor ecological condition of the sagebrush steppe ecosystem. The remaining populations are currently stable. Threats to Davis peppergrass include habitat alteration in and surrounding playas and invasion of exotic annuals. Davis peppergrass plants show distinct differences in leaf size, shape, and plant phenology between playas. This suggests the species disperses poorly, probably not beyond individual playas, and there is minimal pollination between neighboring playas. The population of Davis peppergrass is declining range wide.	Yes
Special status plant assemblages: Other special status and uncommon plants occur in the area, but are not of more than local significance.	No
Upland vegetation: The isolated curl-leaf mountain mahogany woodland and mountain big sagebrush/bluebunch wheatgrass communities are present in other portions of the planning area. These sites are largely ungrazed by livestock.	No

Riparian systems: (Factors met: 1, 2) The Bruneau and Jarbidge Rivers are unique; they are two of the longest free-flowing streams in southern Idaho. The majority of other desert rivers, including the Snake and Owyhee Rivers and Salmon Falls Creek, contain dams. The Jarbidge River system is critical for bull trout that migrate between suitable streams between the East Fork of the Jarbidge River and the Jarbidge River and potentially overwinter in the lower Jarbidge River. Riparian zones on BLM-managed portions of lower Dave Creek, as well as the Jarbidge River and its East Fork and portions of the Bruneau River (from about 0.5 miles downstream of Indian Hot Springs almost to the Bruneau Valley) are ungrazed due to limited access.	Yes
Natural Hazard	
NA	NA

The ACEC meets the relevance and importance criteria to be considered as a potential ACEC. The rationale for nominating the existing Bruneau-Jarbidge ACEC for designation (under Alternative I) as an ACEC is as follows:

The ACEC meets relevance and importance criteria for cultural and scenic values, fish and wildlife resources (bighorn sheep, bull trout, and redband trout), and natural systems or processes (Bruneau River phlox, Davis peppergrass, and riparian systems).

Existing and potential threats to the relevant and important values of the ACEC include surface-disturbing activities, wildland fire and subsequent alteration of habitat, and to a lesser extent livestock grazing and recreation. Aside from direct impacts from these threats, many of these indirectly affect the introduction and spread of noxious weeds and invasive plants, which are detrimental to the scenic values and the fish and wildlife resources within the ACEC.

Outside designated wilderness, surface-disturbing activities, such as mineral exploration and development[1] and right-of-way (ROW) development, are a threat to cultural and scenic values and bighorn sheep; bighorn sheep typically avoid human disturbance. Any activities in the uplands or riparian zones that increase sediment to the stream can adversely affect bull trout and redband trout.

Wildland fire is a threat to several of the relevant and important values within the ACEC. Wildland fires that burn the riparian zone can reduce the amount of large wood and streambank shade and increase sediment to the stream, affecting bull trout, which require cold clean water with low amounts of sediment in stream gravels for spawning and rearing. Components of wildland fire suppression (e.g., the use of retardant, constructing control lines) can also be detrimental to fish and aquatic wildlife. Cheatgrass frequently increases and may dominate in the canyon lands following wildland fires, affecting habitat for bighorn sheep as well as Bruneau River phlox and Cusick's primrose. Wildland fire also presents a threat to Davis peppergrass. Wildland fire, including soil erosion and deposition following wildland fire, can adversely affect habitat for Davis peppergrass (Moseley, 1996). Davis peppergrass can also be impacted by the constructions of fire lines that damage plants directly or increase sediment in occupied playas.

Livestock grazing is a threat primarily to bighorn sheep. Bighorn sheep can be displaced by livestock. Livestock water sources as well as salting and supplement sites located in the ACEC have contributed to the spread of invasive plants. In addition livestock grazing also presents a threat to Davis peppergrass. Livestock trailing and trampling in occupied playas while they are wet damages the perennial plants (Moseley, 1996). Stock ponds dug in playas may alter their hydrology and contribute to the spread of invasive plant species. Livestock congregating in or near playas also impacts cultural resources associated with playas.

Recreational use within the canyon is a threat primarily to the cultural values within the ACEC. Cultural resource sites within the river corridors are susceptible to inadvertent damage from legitimate boating parties as well as from intentional destruction.

[1] There is currently one active mining claim within the ACEC boundary, at Indian Hot Springs for Bruneau jasper.

The ACEC overlaps 44,000 acres of the Bruneau-Jarbidge Rivers Wilderness (73% overlap). Areas within the wilderness would be managed consistent with the Wilderness Act and the Omnibus Public Lands Management Act (OPLMA) and with allocations and management actions made for wilderness.

Designated wild and Scenic River segments within the ACEC include the Bruneau River from Hot Creek to the Bruneau River confluence and the Jarbidge River from the Jarbidge Forks to the Bruneau River confluence. Outstandingly Remarkable Values (ORVs) for these segments include cultural, fish, geological, recreational, scenic, vegetation, and wildlife values. The Bruneau River from Blackrock Crossing to 0.3 mile above the confluence of the West Fork of the Bruneau River and the Jarbidge River has been recommended suitable for designation as a WSR. The ACEC also contains portions of river segments inventoried as eligible for inclusion in the National Wild and Scenic River System (ORVs included in parentheses): Cougar Point Creek (scenic), Dave Creek (fish), East Fork of the Jarbidge River (fish), and the Jarbidge River south of the Jarbidge Forks (scenic, fish). Management of these segments requires that their ORVs are maintained or enhanced. However, the WSR corridor only extends 0.25 miles above the high water mark on each side of the river, which does not provide any protection for these values in the higher elevations of the canyon or the adjacent upland plateaus.

If the nominated ACEC meets the relevance and importance criteria, list the relevant and important value(s) that need special management attention and describe the management prescriptions necessary to protect those values.

The cultural and scenic values, the fish and wildlife resources, and natural systems or processes (Bruneau River phlox and riparian systems) of the ACEC would be protected through the following allocations and management actions:[2]

- All actions within the portions of the ACEC that are also within the Bruneau-Jarbidge Rivers Wilderness must be consistent with the Wilderness Act and OPLMA and with allocations and management actions made for wilderness.
- Areas within the ACEC with concentrated recreational and livestock grazing use would be a high priority for noxious weeds and invasive plants treatment with integrated weed management techniques for control, containment, and where practical, eradication. Use of domestic sheep or goats to reduce noxious weeds would not be allowed within the ACEC to eliminate potential contact with bighorn sheep.
- The ACEC would be a critical suppression area.
- Minimum Impact Suppression Tactics would be used to suppress wildland fires within the ACEC. Fire lines would be rehabilitated to help stabilize soils.
- Manage the portion of the Jarbidge ROW corridor within the ACEC as Visual Resource Management (VRM) Class III; manage the remainder of the ACEC as VRM Class I.
- Adjust livestock grazing so livestock seasons of use would not overlap bighorn sheep breeding and winter periods in those pastures that contain bighorn sheep habitat.
- Placing salt or other supplements would not be allowed within the ACEC to reduce livestock use of bighorn sheep habitat.
- Monitor recreational use within the ACEC. If this use reaches levels that impair the relevant and important values of the ACEC, implement protective measures appropriate to the type of recreational activity. Protective measures may include, but not be limited to, implementing a permit system for the Bruneau and Jarbidge Rivers in coordination with the Bruneau Field Office, requiring the use of certified weed-free forage and straw, and designating camping areas outside the ACEC.
- Special Recreation Permits would be allowed within the ACEC as long as the relevant and important values are protected.
- Motorized vehicle use within the ACEC would be limited to designated routes. To avoid disturbing bighorn sheep during wintering and lambing periods or to protect other relevant and important values, seasonal closures of specific designated routes may be considered during the Travel Management Plan.

[2] Under the No Action Alternative, the ACEC would be managed as described in the *Areas of Critical Environmental Concern* section of Chapter 2.

- Continue to maintain the low level of human disturbance in bighorn habitat by not constructing new roads or substantially improving other routes in the ACEC. Some designated routes within the ACEC, including the road to Indian Hot Springs, could have spot surface treatments to reduce resource damage due to road braiding and to improve public safety.
- The ACEC would be a ROW avoidance area; new ROWs would be restricted to ROW corridors and locations of existing ROWs.
- Lands within the ACEC would be in Land Tenure Zone 1; where practical, acquire private and/or State inholdings. The ACEC designation and management would apply to lands acquired within the ACEC boundary.
- The ACEC would be closed to mineral leasing.
- The ACEC would be closed to salable mineral development.
- Recommend lands within the ACEC for withdrawal from mining laws for locatable exploration and development.

Extensions to the Existing ACEC

Nominated ACEC: Extensions to the existing Bruneau-Jarbidge ACEC

Nominated by: The extensions to the existing Bruneau-Jarbidge ACEC were nominated by BLM in accordance with BLM Manual 1613, Areas of Critical Environmental Concern, Section 21A.2.b., to include additional habitat for bull trout and cultural resource sites; the Idaho Conservation Data Center suggested BLM consider including habitat for Davis peppergrass within the existing ACEC as well.

Western Watersheds Project requested that “future expansion of these areas (current ACECs) be considered,” although no specific boundary for expanding the existing ACECs was identified.

Location: The nominated extensions would encompass about 38,000 acres of BLM-managed land; if added to the existing ACEC, the new ACEC would total 123,000 acres of BLM-managed land. The nominated extensions include the remainder of the Jarbidge River and Bruneau River not already within the existing ACEC, as well as bull trout habitat along the Jarbidge River above the confluence with the East Fork, Dave Creek, Jack Creek, and Buck Creek. The eastern boundary of the existing ACEC south of Three Creek Highway was also modified to follow a road.

The nominated extensions are contained within the nominated Sagebrush Sea ACEC. The ACEC overlaps 99% of the Bruneau-Jarbidge Rivers Wilderness and designated Wild and Scenic River (WSR) corridors.

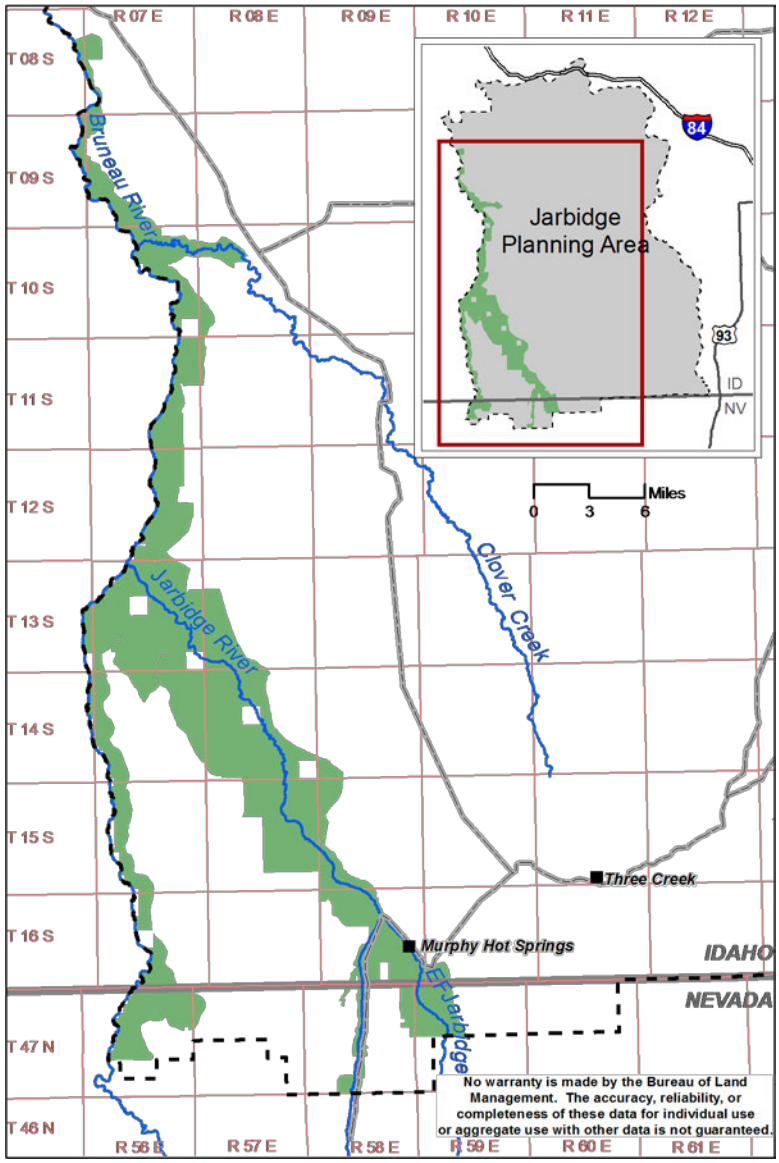


Table M-3. Relevance Evaluation for the Extensions to the Existing Bruneau-Jarbidge ACEC

Relevance: **Does the area contain a significant historic, cultural, or scenic value; fish or wildlife resource; natural process or system; or natural hazard?**	**Yes or No**
Historic Value	
The nominated extensions to the existing ACEC contain several historic sites associated with early 20th century mining, including a short segment of the Crippen Grade (an old freight road to the town of Jarbidge) and the ruins of several log cabins.	Yes
Cultural Value	
In addition to the cultural values present in the existing Bruneau-Jarbidge ACEC the nominated ACEC extension includes several additional archaeological sites.	Yes
Scenic Value	
In addition to the scenic values for the existing Bruneau-Jarbidge ACEC, the Jarbidge River south of the Jarbidge Forks contains numerous rhyolite columns, spires, and a few window rocks that are visible from the Jarbidge Road. Aspen are present on some of the hillsides and draws. The majority of the Jarbidge River riparian zone contains a mix of juniper, willows, dogwood, with some cottonwood and limber pine.	Yes

Fish or Wildlife Resource	
California bighorn sheep: The nominated extensions to the existing ACEC would add 4,000 acres of bighorn sheep habitat; the existing Bruneau-Jarbidge ACEC and nominated extensions include 45,000 acres of bighorn sheep habitat, which represents 92% of the bighorn sheep habitat in the planning area.	Yes
Big game: The big game values within the nominated extensions to the existing ACEC are the same as those documented for the existing boundary of the Bruneau-Jarbidge ACEC. The nominated extension would add 36,000 acres of big game winter range; the existing Bruneau-Jarbidge ACEC and nominated extensions include 120,000 acres of big game winter range, which represents 23% of the winter range in the planning area.	Yes
Bull trout: Bull trout were listed as a Threatened species in 1998 by the US Fish and Wildlife Service. The nominated extensions to the existing ACEC would cover the remaining BLM-managed portion of Dave Creek as well as migratory bull trout habitat on the Jarbidge River above the confluence with the East Fork and all of the BLM-managed portions of Jack Creek. These areas total approximately 8 miles of streams for bull trout. The existing Bruneau-Jarbidge ACEC and nominated extensions include 86 miles of critical habitat for bull trout, which represents 97% of the critical habitat in the planning area.	Yes
Redband trout: The nominated extensions to the existing ACEC would add 11 miles of occupied redband trout streams to the existing ACEC, including habitat in the Jarbidge River above the confluence with the East Fork, Dave Creek, and Deer Creek (NV). The existing Bruneau-Jarbidge ACEC and nominated extensions include 107 miles of occupied redband trout streams, which represents 43% of the redband trout streams in the planning area.	Yes
Other fish and wildlife: The other fish and wildlife values within the nominated extensions to the existing ACEC are the same as those documented for the existing boundary of the Bruneau-Jarbidge ACEC. In addition, the nominated extensions to the existing ACEC would include the majority of the playas within the planning area. Playas are important to migrating waterfowl and shorebirds during the spring. Playas are also important breeding habitat for Great Basin spadefoot toad; however, playas within the nominated extensions are not the only breeding habitat for spadefoot toads within the planning area. In some parts of the planning area, fairy shrimp also occupy playas (Rudeen, 2006), although the playas within the nominated extensions to the existing ACEC have not been inventoried. Playas function as seasonal water sources for a number of wildlife species.	Yes
Natural System or Process	
Bruneau River phlox: The Bruneau River phlox value within the nominated extensions to the existing ACEC is the same as that documented for the existing boundary of the Bruneau-Jarbidge ACEC; however the extension contains 10 additional acres of Bruneau River phlox habitat. The nominated extension includes 68% of the Bruneau River phlox habitat within the planning area.	Yes
Davis peppergrass: The Davis peppergrass value within the nominated extension to the existing ACEC is the same as that documented for the existing boundary of the Bruneau-Jarbidge ACEC; however the extension contains 90 additional acres of Davis peppergrass habitat. The nominated extension includes 80% of the habitat within the planning area.	Yes
Special status plant assemblages: The other special status plants within the nominated extensions to the existing ACEC are the same as those documented for the existing boundary of the Bruneau-Jarbidge ACEC.	Yes
Upland vegetation: The upland vegetation within the nominated extensions to the existing ACEC is the same as that documented for the existing boundary of the Bruneau-Jarbidge ACEC.	Yes
Riparian system: The nominated extensions to the existing ACEC would add 8 miles of the Bruneau-Jarbidge River System which are free flowing to the ACEC. The existing Bruneau-Jarbidge ACEC and nominated extensions would include 104 miles of free flowing streams, which represents 95% of the free flowing streams in the planning area.	Yes
Natural Hazard	
No known significant hazards.	No

Table M-4. Importance Evaluation for the Extensions to the Existing Bruneau-Jarbidge ACEC

Importance: **Does the value, resource, system, process, or hazard meet one or more of the following importance factors:** **1. has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource;** **2. has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change;** **3. has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of FLPMA;** **4. has qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare; or** **5. poses a significant threat to human life and safety or to property?**	**Yes, No, or NA**
Historic Value	
The historic values of the nominated extensions to the existing ACEC are similar to those in the surrounding area. More important, regionally significant historic resources are located outside the nominated extensions on private and Forest Service lands.	No
Cultural Value	
(Factors met: 1, 2) Numerous regionally significant archaeological sites are located within the nominated extensions to the existing ACEC. Many sites associated with playas suggest a unique adaptation to the arid uplands, which involved transplanting stream-adapted shellfish to seasonal lakes to augment food supplies.	Yes
Scenic Value	
(Factors met: 1) Scenic values are outstanding and include 99% of the designated WSR corridors in the planning area. The nominated extensions along the Jarbidge River are viewed by hundreds of people traveling to Jarbidge, Nevada, during the late spring into late fall.	Yes
Fish or Wildlife Resource	
California bighorn sheep: (Factors met: 1, 2, 3) The importance of bighorn sheep values within the nominated extensions is the same as that documented for the existing boundary of the Bruneau-Jarbidge ACEC; however, an additional 4,000 acres of bighorn sheep habitat within the planning area would be included. The nominated extension would have a limited benefit to bighorn sheep since they do not routinely occupy the Jarbidge Canyon south of the Jarbidge Forks. The main road to Jarbidge, Nevada lies in the bottom of the canyon. Other main access roads in the nominated extension include the roads to the Diamond A, Buck Creek Canyon and Deer Creek Grade.	Yes
Big game: The importance of big game values within the nominated extensions is the same as that documented for the existing boundary of the Bruneau-Jarbidge ACEC.	No
Bull trout: (Factors met: 1, 2, 3) The importance of the bull trout values within the nominated extensions is the same as that documented for the existing boundary of the Bruneau-Jarbidge ACEC; however, an additional 8 miles of occupied habitat for bull trout within the planning area would be included. The existing Bruneau-Jarbidge ACEC and nominated extensions include 86 miles of critical habitat for bull trout, which represents 97% of the critical habitat in the planning area. The nominated extensions would cover an additional mile of bull trout habitat in Dave Creek, which is crucial spawning, rearing, foraging, migratory, and overwintering habitat for bull trout within the Jarbidge River system (FWS, 2004). Jack Creek is one of the spawning streams in the Jarbidge River Watershed. In 1998, BLM, the Forest Service, and Elko County cooperatively replaced a culvert on lower Jack Creek with a bridge to remove a bull trout barrier to a spawning stream. The Nevada Department of Wildlife has subsequently confirmed bull trout spawning in Jack Creek (NDOW, 2005a).	Yes
Redband trout: (Factors met: 1, 2) The importance of the redband trout values within the nominated extensions is the same as that documented for the existing boundary of the Bruneau-Jarbidge ACEC; however, 11 additional miles of the occupied redband trout habitat within the Jarbidge River Watershed would be included.	Yes

Other fish and wildlife: The importance of the other fish and wildlife values within the nominated extensions is the same as that documented for the existing boundary of the Bruneau-Jarbidge ACEC. In addition, the wildlife values of the playas within the nominated extensions are not of more than local importance. Spadefoot toads breed in a number of other playas in the planning area; the playas within the nominated extensions are not of more than local importance as breeding habitat. Fairy shrimp are present in a number of playas in southern Idaho. Fairy shrimp known to be present in the planning area are not unique (Rudeen, 2006). Although a number of wildlife species use the playas as a source of drinking water at some times of the year, playas only temporarily alter the distribution of wildlife. Playas are used by shorebirds and waterfowl during spring migration. During fall migration the playas are usually dry.	No
Natural System or Process	
Bruneau River phlox: (Factors met: 1, 2, 3) The importance of Bruneau River phlox within the nominated extensions t is the same as that documented for the existing boundary of the Bruneau-Jarbidge ACEC.	Yes
Davis peppergrass: (Factors met: 1, 2, 3) The importance of Davis peppergrass within the nominated extension is the same as that documented for the existing boundary of the Bruneau-Jarbidge ACEC; however 90 additional acres of Davis peppergrass habitat would be included.	Yes
Special status plant assemblages: The importance of other special status plants within the nominated extensions is the same as that documented for the existing boundary of the Bruneau-Jarbidge ACEC.	No
Upland vegetation: The importance of the upland vegetation values within the nominated extensions is the same as that documented for the existing boundary of the Bruneau-Jarbidge ACEC.	No
Riparian systems: (Factors met: 1, 2) Approximately 10 additional miles of riparian zone are included in the nominated extensions. This includes about 8 miles of bull trout habitat. Both Buck Creek and the Jarbidge River south of the Jarbidge Forks have roads in close proximity to the stream.	Yes
Natural Hazard	
NA	NA

The nominated ACEC meets the relevance and importance criteria to be considered as a potential ACEC. The rationale for proposing the existing Bruneau-Jarbidge ACEC be expanded to include the nominated extensions (under Alternative IV) is as follows:

The ACEC meets relevance and importance criteria for cultural and scenic values, fish and wildlife resources (bighorn sheep, bull trout, and redband trout), and natural systems or processes (Bruneau River phlox, Davis peppergrass, and riparian systems).

Existing and potential threats to the relevant and important values of the nominated ACEC include surface-disturbing activities, wildland fire and subsequent alteration of habitat, and to a lesser extent livestock grazing and recreation. Aside from direct impacts from these threats, many of these indirectly affect the introduction and spread of noxious weeds and invasive plants. These threats are the same as those described for the existing Bruneau-Jarbidge ACEC.

The ACEC overlaps all but 300 acres of the Bruneau-Jarbidge Rivers Wilderness (99% overlap). Areas within the wilderness would be managed consistent with the Wilderness Act and Omnibus Public Lands Management Act and with allocations and management actions made for wilderness.

The nominated extensions to the existing ACEC would include additional portions of river segments inventoried as eligible for inclusion in the National Wild and Scenic River System (Outstandingly Remarkable Values [ORVs] included in parentheses): Jarbidge River south of the Jarbidge Forks (scenic, fish) and Dave Creek (fish). Interim management of these segments requires that their ORVs are maintained or enhanced. However, the WSR corridor only extends 0.25 mile above the high water mark on each side of the river, which does not provide any protection for these values in the higher elevations of the canyon or the adjacent upland plateaus.

If the nominated ACEC meets the relevance and importance criteria, list the relevant and important value(s) that need special management attention and describe the management prescriptions necessary to protect those values.

The cultural and scenic values, the fish and wildlife resources, and natural systems or processes (Bruneau River phlox and riparian systems) of the ACEC would be protected through the allocations and management actions described for the existing Bruneau-Jarbidge ACEC; additional management actions for Davis peppergrass, bull trout, and cultural resources would include:[3]

- Restore playas occupied by Davis peppergrass to improve natural hydrologic function and habitat on a case by case basis. Restoration activities may include filling pit reservoirs, stabilizing erosion areas, and planting native species with similar pollinators.
- Monitor juniper encroachment into the riparian area, and consider juniper treatments to improve bull trout habitat.
- Special stipulations would apply for noxious weed and invasive plants treatments in Davis peppergrass habitat.
- Adjust livestock seasons of use or stocking rates on a pasture-specific basis to minimize conflicts with bull trout spawning (late August through early November) and Davis peppergrass during flowering and when playas are most likely to contain water (December to June).
- Range infrastructure would be evaluated on a case-by-case basis for retention, modification, or removal. New infrastructure would be allowed to the extent that it protects bull trout habitat, cultural resources, or botanical values.

Reduced Boundary

Nominated ACEC: Bruneau-Jarbidge ACEC (reduced boundary)

Nominated by: C.E. Brackett Cattle Co., Brackett Livestock, Inc., Brackett Ranches Limited Partnership, Bert and Paula Brackett, Chet and Kim Brackett, Jake Brackett, Gus and Kimberly Brackett, Ira and Kim Brackett, and Chuck B. Jones (Simplot Livestock Co.) nominated a portion of the existing Bruneau-Jarbidge ACEC to continue to be designated as an ACEC.

Location: The nominated ACEC would encompass 57,000 acres of BLM-managed land. The majority of the nominated ACEC lies within the Bruneau and Jarbidge Canyons; some of the adjacent uplands are included within the boundary as well.

Portions of the existing ACEC that would not be included within this boundary include areas south of the Bruneau-Jarbidge Rivers Wilderness boundary on the Bruneau River, Jarbidge River and its East Fork, as well as areas north of Sheepshead Draw.

The ACEC is contained within the nominated Sagebrush Sea ACEC. The ACEC overlaps 93% of the Bruneau-Jarbidge Rivers Wilderness and 82% of the designated Wild and Scenic River (WSR) corridors.

[3] Under the No Action Alternative, the existing ACEC boundary would be retained, and the ACEC would be managed as described in the *Areas of Critical Environmental Concern* section of Chapter 2.

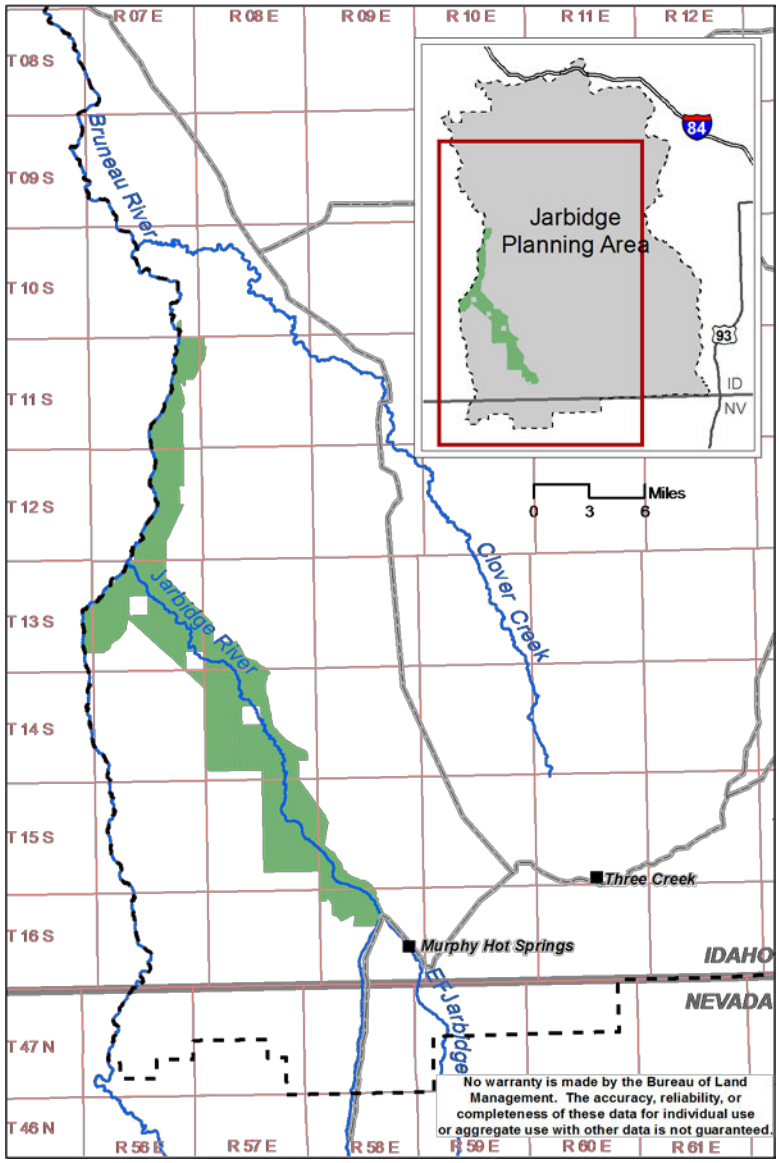


Table M-5. Relevance Evaluation for the Bruneau-Jarbidge ACEC Reduced Boundary

***Relevance*: Does the area contain a significant historic, cultural, or scenic value; fish or wildlife resource; natural process or system; or natural hazard?**	**Yes or No**
Historic Value	
The only known significant historic resources within the reduced boundary of the ACEC are on private lands within the Bruneau and Jarbidge Canyons.	No
Cultural Value	
The cultural values within the nominated reduced boundary of the ACEC are the same as those documented for the existing boundary of the Bruneau-Jarbidge ACEC.	Yes
Scenic Value	
The scenic values within the nominated reduced boundary of the ACEC are the same as those documented for the existing boundary of the Bruneau-Jarbidge ACEC.	Yes

Fish or Wildlife Resource	
California bighorn sheep: The nominated reduced boundary of the ACEC contains 29,000 acres of bighorn sheep habitat, a Type 3 BLM Sensitive species. The bighorn sheep values within the nominated reduced boundary of the ACEC are the same as those documented for the existing boundary of the Bruneau-Jarbidge ACEC; the nominated ACEC would contain 59% of the bighorn sheep habitat, the majority of the area where bighorn sheep are commonly observed.	Yes
Big game: The big game values within the nominated reduced boundary of the ACEC are the same as those documented for the existing boundary of the Bruneau-Jarbidge ACEC; the nominated ACEC would contain 56,000 acres of big game winter range.	Yes
Bull trout: The nominated ACEC contains 43 miles of critical habitat for bull trout, which represents 48% of the bull trout habitat in the planning area.	Yes
Redband trout: The nominated reduced boundary of the ACEC contains 49 miles of occupied redband trout habitat in the Bruneau River and the Jarbidge River below the confluence with the East Fork.	Yes
Other fish and wildlife: The other fish and wildlife values within the nominated reduced boundary of the ACEC are the same as those documented for the existing boundary of the Bruneau-Jarbidge ACEC.	Yes
Natural System or Process	
Bruneau River phlox: The Bruneau River phlox values within the nominated reduced boundary of the ACEC are the same as those documented for the existing boundary of the Bruneau-Jarbidge ACEC. The nominated reduced boundary includes 68% of the Bruneau River phlox habitat within the planning area.	Yes
Davis peppergrass: The Davis peppergrass values within the nominated reduced boundary of the ACEC are the same as those documented for the existing boundary of the Bruneau-Jarbidge ACEC. The nominated extension includes 13% of the habitat within the planning area.	Yes
Special status plant assemblages: The nominated reduced boundary of the ACEC contains Simpson's hedgehog cactus, a Type 4 BLM Sensitive species.	Yes
Upland vegetation: The nominated reduced boundary of the ACEC does not contain the curl-leaf mountain mahogany woodland community or the mountain big sagebrush/bluebunch wheatgrass community.	No
Riparian system: The nominated reduced boundary of the ACEC would contain 48 miles of free-flowing reaches of the Bruneau and Jarbidge River System.	Yes
Natural Hazard	
No known significant hazards.	No

Table M-6. Importance Evaluation for the Bruneau-Jarbidge ACEC Reduced Boundary

Importance: **Does the value, resource, system, process, or hazard meet one or more of the following importance factors:** **1. has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource;** **2. has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change;** **3. has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of FLPMA;** **4. has qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare; or** **5. poses a significant threat to human life and safety or to property?**	**Yes, No, or NA**
Historic Value	
NA	NA

Cultural Value	
(Factors met: 1, 2) The importance of the cultural values within the nominated reduced boundary of the ACEC is the same as that documented for the existing boundary of the Bruneau-Jarbidge ACEC.	Yes
Scenic Value	
(Factors met: 1) The importance of the scenic values within the nominated reduced boundary of the ACEC is the same as that documented for the existing boundary of the Bruneau-Jarbidge ACEC.	Yes
Fish or Wildlife Resource	
California bighorn sheep: (Factors met: 1, 2, 3) The importance of the bighorn sheep values within the nominated reduced boundary of the ACEC is the same as that documented for the existing boundary of the Bruneau-Jarbidge ACEC.	Yes
Big game: The importance of the big game values within the nominated reduced boundary of the ACEC is the same as that documented for the existing boundary of the Bruneau-Jarbidge ACEC.	No
Bull trout: (Factors met: 1, 2, 3) The importance of the bull trout values within the nominated reduced boundary of the ACEC is the same as that documented for the existing boundary of the Bruneau-Jarbidge ACEC.	Yes
Redband trout: (Factors 1, 2) Redband trout habitat in the Jarbidge River below the confluence with the East Fork and portions of the Bruneau River would be included in the nominated reduced boundary of the ACEC. These reaches lack migration barriers that would prevent redband trout from moving between streams. Summer water temperatures in both reaches approach the threshold of redband trout survival.	Yes
Other fish and wildlife: The importance of the other fish and wildlife values within the nominated reduced boundary of the ACEC is the same as that documented for the existing boundary of the Bruneau-Jarbidge ACEC.	No
Natural System or Process	
Bruneau River phlox: (Factors met: 1, 2, 3) The importance of the Bruneau River phlox within the nominated reduced boundary of the ACEC is the same as that documented for the existing boundary of the Bruneau-Jarbidge ACEC.	Yes
Davis peppergrass: (Factors met: 1, 2, 3) Approximately 20 acres of Davis peppergrass habitat are included in the nominated reduced boundary of the ACEC. The importance of Davis peppergrass within the ACEC is the same as that documented for the existing boundary of the Bruneau-Jarbidge ACEC.	Yes
Special status plant assemblages: The importance of other special status plants within the nominated reduced boundary of the ACEC is the same as that documented for the existing boundary of the Bruneau-Jarbidge ACEC.	No
Upland vegetation: N/A	N/A
Riparian Systems: (Factors met: 1, 2) The importance of the riparian system values within the nominated reduced boundary of the ACEC is the same as that documented for the existing boundary of the Bruneau-Jarbidge ACEC. Approximately 44% of the free flowing stream reaches in the Bruneau-Jarbidge River System would be protected under this nominated ACEC.	Yes
Natural Hazard	
NA	NA

The nominated ACEC meets the relevance and importance criteria to be considered as a potential ACEC. The rationale for proposing the nominated Bruneau-Jarbidge ACEC (reduced boundary) for designation (under Alternative III) as an ACEC is as follows:

The ACEC meets relevance and importance criteria for cultural and scenic values, fish and wildlife resources (bighorn sheep and redband trout), and natural systems or processes (Bruneau River phlox and riparian systems).

Existing and potential threats to the relevant and important values of the nominated ACEC include surface-disturbing activities, wildland fire and subsequent alteration of habitat, and to a lesser extent livestock grazing and recreation. Aside from direct impacts from these threats, many of these activities indirectly affect the introduction and spread of noxious weeds and invasive plants, which are detrimental to the scenic values and the fish and wildlife resources within the nominated ACEC. Threats resulting from these activities in the nominated ACEC are the same as those described for the existing Bruneau-Jarbidge ACEC.

The ACEC overlaps 56,000 acres of the Bruneau-Jarbidge Rivers Wilderness (93% overlap). Areas within the wilderness would be managed consistent with the Wilderness Act and Omnibus Public Lands Management Act (OPLMA) and with allocations and management actions made for wilderness.

River segments within the ACEC that have been designated as WSRs include the Bruneau River from Hot Creek to the Bruneau River confluence and the Jarbidge River from the Jarbidge Forks to the Bruneau River confluence. Outstandingly Remarkable Values (ORVs) for these segments include cultural, fish, geological, recreational, scenic, vegetation, and wildlife values. The Bruneau River from Blackrock Crossing to 0.3 mile above the confluence of the West Fork of the Bruneau River and the Jarbidge River has been recommended suitable for designation as a WSR. The ACEC also contains portions of river segments inventoried as eligible for inclusion in the National Wild and Scenic River System (ORVs included in parentheses): Cougar Point Creek (scenic), Dave Creek (fish), East Fork of the Jarbidge River (fish), and the Jarbidge River south of the Jarbidge Forks (scenic, fish). Management of these segments requires that they are managed to maintain or enhance their ORVs. However, the WSR corridor only extends 0.25 mile above the high water mark on each side of the river, which does not provide any protection for these values in the higher elevations of the canyon or the adjacent upland plateaus.

Segments of the Bruneau (downstream of the Jarbidge River confluence) and Jarbidge Rivers within the nominated ACEC have been designated as WSRs. ORVs for these segments include cultural, fish, geological, recreational, scenic, vegetation, and wildlife values. The West Fork of the Bruneau River (upstream of the Jarbidge River confluence) within the nominated ACEC has been recommended suitable for designation as a WSR. Management of these segments requires that their ORVs are maintained or enhanced. However, the Wild and Scenic corridor only extends 0.25 miles above the high water mark on each side of the river, which does not provide any protection for these values in the higher elevations of the canyon or the adjacent upland plateaus.

If the nominated ACEC meets the relevance and importance criteria, list the relevant and important value(s) that need special management attention and describe the management prescriptions necessary to protect those values.

The cultural and scenic values, fish and wildlife resources (bighorn sheep and redband trout), and natural systems or processes (Bruneau River phlox and riparian systems) of the ACEC would be protected through the following allocations and management actions[4]:

- All actions within the portions of the ACEC that are also within Bruneau-Jarbidge Rivers Wilderness must be consistent with the Wilderness Act and OPLMA and with allocations and management actions made for wilderness.
- The ACEC would be a high priority for noxious weeds and invasive plants treatments with integrated weed management techniques for control, containment, and where practical, eradication. Use of domestic sheep or goats to reduce noxious weeds would not be allowed within the ACEC to eliminate potential contact with bighorn sheep.
- The ACEC would be a critical suppression area.
- Manage the ACEC as Visual Resource Management Class I.

[4] Under the No Action Alternative, the existing ACEC boundary would be retained, and the ACEC would be managed as described in the *Areas of Critical Environmental Concern* section of Chapter 2.

- Placing salt or other supplements within the ACEC would not be allowed to reduce livestock use of bighorn sheep habitat and protect winter range.
- Monitor recreational use within the ACEC. If this use reaches levels that impair the relevant and important values of the ACEC, implement protective measures appropriate to the type of recreational activity. Protective measures may include: implementing a permit system for the Bruneau and Jarbidge Rivers in coordination with the Bruneau Field Office, requiring the use of certified weed-free forage and straw, and designating camping areas outside the ACEC.
- Special Recreation Permits would be allowed within the ACEC as long as the relevant and important values are protected.
- Motorized vehicle use within the ACEC would be limited to designated routes. To avoid disturbing bighorn sheep during wintering and lambing periods or to protect other relevant and important values, seasonal closures of specific designated routes may be considered during the Travel Management Plan.
- Some designated routes within and adjoining the ACEC, including the road to Indian Hot Springs, could be improved to reduce resource damage due to road braiding, improve public safety, and facilitate visitor traffic.
- The ACEC would be a ROW avoidance area; no overhead authorizations would be allowed.
- Lands within the ACEC would be in Land Tenure Zone 1; where practical, acquire private inholdings. The ACEC designation and management would apply to lands acquired within the ACEC boundary.
- The ACEC would be closed to mineral leasing.
- The ACEC would be closed to salable mineral development.
- Recommend lands within the ACEC for withdrawal from mining laws for locatable exploration and development.

Inside Desert Area of Critical Environmental Concern

Two boundaries were nominated for the Inside Desert ACEC. The area encompassed by the larger boundary is presented first, followed by the area encompassed by the smaller boundary.

Large Boundary

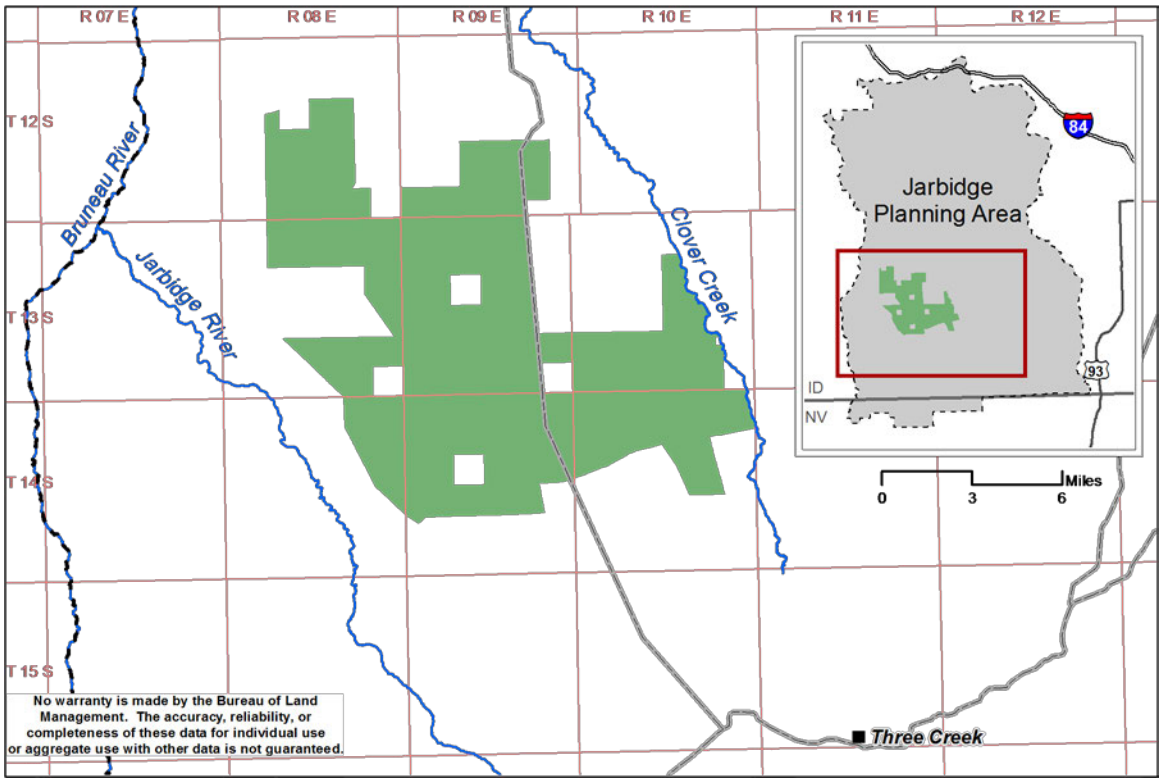
Nominated ACEC: Inside Desert ACEC (large boundary)

Nominated by: The Inside Desert ACEC was nominated by BLM in accordance with BLM Manual 1613, Areas of Critical Environmental Concern, Section .21A.2.b.; the Idaho Conservation Data Center suggested BLM consider special management for slickspot peppergrass.

An ACEC for the slickspot peppergrass metapopulation within the Jarbidge Field Office was nominated by Western Watersheds Project, although no specific boundary was identified. The large boundary of the nominated Inside Desert ACEC encompasses the vast majority of the slickspot peppergrass metapopulation within the planning area.

Location: The nominated ACEC would encompass 73,000 acres of BLM-managed land. The nominated ACEC would be located between Clover Creek and the Jarbidge River and from Clover Butte south to approximately Poison Butte. The nominated ACEC would be adjacent to the Juniper Butte Training Range. The nominated ACEC boundary encompasses 100% of the acres supporting slickspot peppergrass[5] on BLM-managed lands in the Jarbidge planning area; the boundary was drawn along existing pasture fences to make the nominated ACEC manageable.

The nominated ACEC is contained within the nominated Sagebrush Sea ACEC.



[5] Calculation does not include 1/2 mile habitat integrity buffer.

Table M-7. Relevance Evaluation for the Inside Desert ACEC Large Boundary

***Relevance*: Does the area contain a significant historic, cultural, or scenic value; fish or wildlife resource; natural process or system; or natural hazard?**	**Yes or No**
Historic Value	
Historic resources within the nominated ACEC are primarily related to the early livestock industry and include sheep camps, cairns, and fences. No significant historic sites are known within the area.	No
Cultural Value	
The area is characterized by a low to moderate density of archaeological sites including sites that are of traditional cultural importance to the tribes and some that have important scientific value.	Yes
Scenic Value	
The Jarbidge Mountains are visible to the south and provide some scenic value. Scenic values are not outstanding.	No
Fish or Wildlife Resource	
The area contains habitat for several BLM Sensitive species, including Brewer's sparrow (Type 3), ferruginous hawk (Type 3), greater sage-grouse (Candidate, Type 1), loggerhead shrike (Type 3), sage sparrow (Type 3), kit fox (Type 4), and pygmy rabbit (Type 2). The area contains habitat for antelope and mule deer. Wildland fires have reduced and fragmented the habitat to a large degree. No fish habitat or riparian zones are present within the nominated ACEC.	Yes
Natural System or Process	
Slickspot peppergrass: Slickspot peppergrass is a rare, annual or biennial forb endemic to sagebrush steppe in southwestern Idaho (Moseley, 1994). Slickspot peppergrass is a Type 1 BLM Sensitive species that is Proposed for listing as Endangered under the Endangered Species Act (ESA). The nominated ACEC contains patches of high quality habitat for slickspot peppergrass, which is characterized by intact sagebrush steppe, low abundance of non-native species, and low levels of human-caused disturbances (Colket, 2006; FWS, 2003; Moseley, 1994).	Yes
Special status plant assemblages: Earth lichen is a Type 4 BLM Sensitive plant that also occurs in slickspots in the nominated ACEC.	Yes
Natural Hazard	
No known hazards.	No

Table M-8. Importance Evaluation for the Inside Desert ACEC Large Boundary

***Importance:* Does the value, resource, system, process, or hazard meet one or more of the following importance factors:** **1. has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource;** **2. has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change;** **3. has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of FLPMA;** **4. has qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare; or** **5. poses a significant threat to human life and safety or to property?**	**Yes, No, or NA**
Historic Value	
NA	NA
Cultural Value	
Although important, the cultural resources here are generally dispersed and similar to those of the surrounding area in terms of age and function.	No
Scenic Value	
NA	NA

Fish or Wildlife Resource	
The presence of kit fox is of local importance. Kit fox are considered uncommon in Idaho; southern Idaho is at the northern extent of its range. Habitat conversion and fragmentation have reduced the value of the area for sage-grouse, pygmy rabbit, loggerhead shrike, Brewer's sparrow, and sage sparrow.	No
Natural System or Process	
Slickspot peppergrass: (Factors met: 2, 3) Slickspot peppergrass is a Type 1 BLM Sensitive species that is Proposed for listing as Endangered under the ESA. The population of slickspot peppergrass in the nominated ACEC is the most genetically diverse of the known slickspot peppergrass populations (Smith et al., 2009). The nominated ACEC contains 100% of the acres supporting slickspot peppergrass populations on BLM-managed lands in the planning area. Slickspot peppergrass is one of the few flowering plant species with two life cycle types: annual and biennial. Slickspot peppergrass is highly specific to slickspots that developed on remnant Pleistocene surfaces (Fisher et al., 1996). Slickspots, also known as mini-playas or natric sites, are small soil inclusions with a silt loam surface crust, a restrictive hardpan, and a subsurface clay layer (argillic horizon) (Fisher et al., 1996; Lewis and White, 1964; Sandoval et al., 1959). Soils in slickspots tend to be more alkaline or saline than the adjacent uplands. Slickspots can range in size from a square foot to interlinked complexes over 900 square feet. Slickspots are associated with shrub interspaces in sagebrush steppe and are visually distinct, due to their high reflectance and sparsely vegetated surface (Fisher et al., 1996). Physical disturbance of slickspots when they are wet can disrupt underlying soil structure essential for slickspot peppergrass recruitment (Meyer et al., 2006). Disturbances include livestock hoof prints, drill seeding, fire-fighting activities (e.g., fire lines), and cross-country motorized vehicle tracks (Meyer et al., 2005; Meyer et al., 2006). Repeated and severe penetrating disturbances, especially during saturated soil conditions during the spring, may be precursors to slickspot invasion by non-native species (e.g., bur buttercup, clasping-leaf pepperweed), further reducing slickspot integrity (FWS, 2003). Degradation of slickspot peppergrass habitat has been attributed to large, uncharacteristic wildland fires; conversion of sagebrush steppe to non-native annual grasslands; historic over-grazing by livestock; and historic rangeland rehabilitation practices (e.g., drill seeding) (Colket, 2005; FWS, 2003; Lesica and DeLuca, 1996; Moseley, 1994; Noss et al., 1995; Peters and Bunting, 1994; Whisenant, 1990). Habitat loss and degradation, fragmentation, and population isolation may correspondingly result in the loss of genetic fitness (Moseley, 1994; Reed and Frankham, 2003). Many slickspot peppergrass element occurrences (EOs) occur in fragmented sagebrush steppe or non-native annual grasslands and are highly susceptible to reduced genetic diversity and gene flow (Robertson, 2004; Robertson and Klemash, 2003). An EO is a specific geographic location where "a species or natural community is, or was, present" (NatureServe, 2002).	Yes
Special status plant assemblages: Earth lichen is a Type 4 BLM Sensitive plant species. Earth lichen in the nominated ACEC is not more than locally important.	No
Natural Hazard	
NA	NA

The nominated ACEC meets the relevance and importance criteria to be considered as a potential ACEC. The rationale for proposing the nominated Inside Desert ACEC for designation as an ACEC (under Alternative IV-A) is as follows:

The nominated ACEC meets relevance and importance criteria for natural systems or processes (slickspot peppergrass).

Threats to slickspot peppergrass within the nominated ACEC include wildland fire, noxious weeds and invasive plants, and livestock grazing. Any other activities that result in surface disturbance are also a potential threat to slickspot peppergrass.

Wildland fires are a threat to slickspot peppergrass, through the effects of the fire itself as well as the effects of wildland fire suppression activities. Wildland fires and subsequent rehabilitation also has altered habitat in the majority of slickspot peppergrass habitat in the planning area. Drill seeding following fires from the 1980s through the 1990s converted large portions of slickspot habitat to non-native perennial communities. Soil erosion and deposition following wildland fires as well as the construction of fire lines in slickspot habitat are also threats to slickspot peppergrass.

Noxious weeds and invasive plants are also a threat to habitat for slickspot peppergrass within the ACEC.

Livestock grazing also can be a threat to slickspot peppergrass within the nominated ACEC. Livestock grazing in slickspot peppergrass habitat can result in trampling of slickspots and plants when the soils are moist. In some instances, range infrastructure can present a threat to slickspot peppergrass through increased trampling around water sources and trailing along fences; these actions can also result in the spread of noxious weeds and invasive plants, further impacting the species. In other cases, properly located fences could help protect concentrations of slickspots from the impacts of livestock grazing.

If the nominated ACEC meets the relevance and importance criteria, list the relevant and important value(s) that need special management attention and describe the management prescriptions necessary to protect those values.

The natural systems or processes (slickspot peppergrass) of the ACEC would be protected through the following allocations and management actions:

- Restore slickspot peppergrass habitat by planting native shrubs, grasses, and forbs to improve ecological function and increase pollinators.
- Seed only native species, with emphasis on plants with similar pollinators.
- Where practical, vegetation treatments, including drill seeding, would avoid concentrations of slickspots.
- The ACEC would be a high priority for noxious weeds and invasive plants treatments with integrated weed management techniques for control, containment, and where practical, eradication.
- The ACEC would be a critical suppression area.
- Staging areas for fire suppression and rehabilitation activities would be located outside the ACEC.
- Manage the ACEC as Visual Resource Management Class III.
- The ACEC would not be available for livestock grazing.
- Remove troughs, fences, or other infrastructure within the ACEC.
- Camping would not be allowed within the ACEC.
- Lands within the ACEC would be in Land Tenure Zone 1; where practical, acquire State inholdings. The ACEC designation and management would apply to lands acquired within the ACEC boundary.
- The ACEC would be closed to mineral leasing.
- The ACEC would be closed to salable mineral development.

Small Boundary

Nominated ACEC:	Inside Desert ACEC (small boundary)
Nominated by:	The Inside Desert ACEC was nominated by BLM in accordance with BLM Manual 1613, Areas of Critical Environmental Concern, Section .21A.2.b.; the Idaho Conservation Data Center suggested BLM consider special management for slickspot peppergrass.
Location:	The nominated ACEC would encompass 41,000 acres of BLM-managed land. The nominated ACEC would be located from Clover Butte south to approximately Middle Butte in several pastures near the Juniper Butte Training Range. The

nominated ACEC boundary encompasses 83% of the acres supporting slickspot peppergrass[6] on BLM-managed lands within the Jarbidge planning area.

The nominated ACEC is contained within the nominated Sagebrush Sea ACEC.

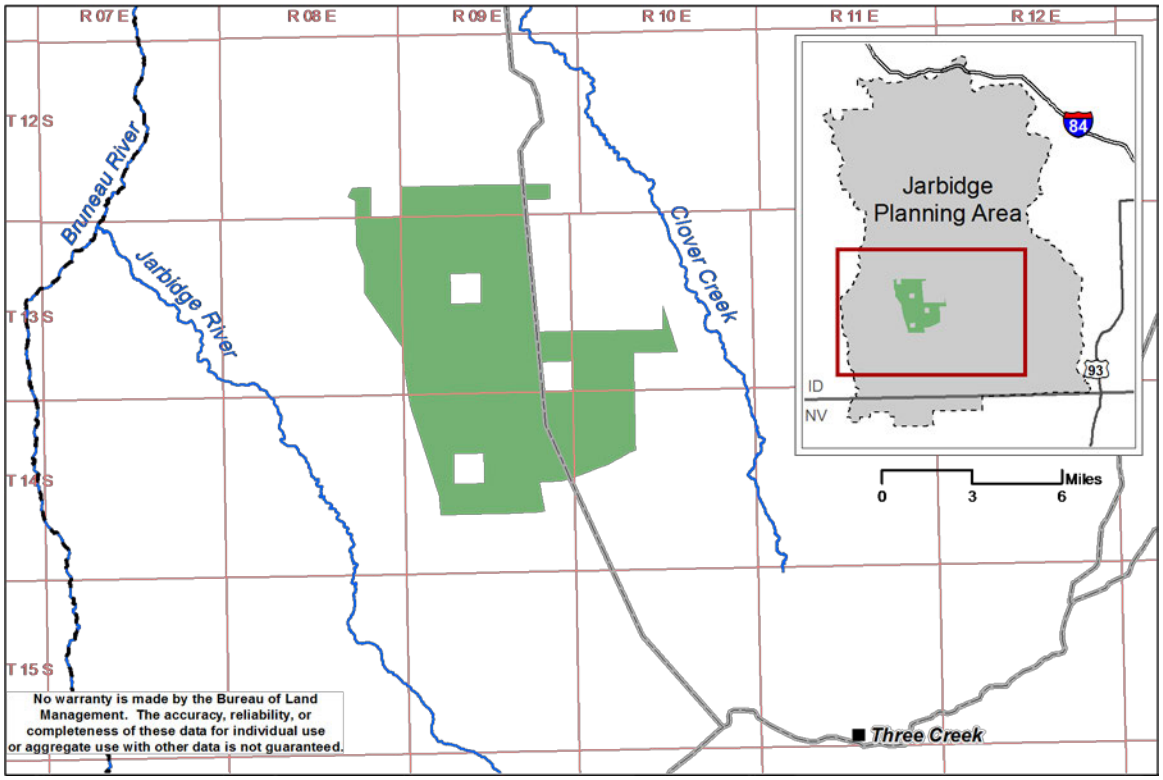


Table M-9. Relevance Evaluation for the Inside Desert ACEC Small Boundary

***Relevance*: Does the area contain a significant historic, cultural, or scenic value; fish or wildlife resource; natural process or system; or natural hazard?**	**Yes or No**
Historic Value	
The historic values within the small boundary of the nominated ACEC are the same as those documented for the large boundary of the nominated Inside Desert ACEC.	No
Cultural Value	
The cultural values within the small boundary of the nominated ACEC are the same as those documented for the large boundary of the nominated Inside Desert ACEC.	Yes
Scenic Value	
The scenic values within the small boundary of the nominated ACEC are the same as those documented for the large boundary of the nominated Inside Desert ACEC.	No
Fish or Wildlife Resource	
The fish and wildlife values within the small boundary of the nominated ACEC are the same as those documented for the large boundary of the nominated Inside Desert ACEC.	Yes
Natural System or Process	
Slickspot peppergrass: The slickspot peppergrass values within the small boundary of the nominated ACEC are the same as those documented for the large boundary of the nominated Inside Desert ACEC; the small boundary would encompass 83% of the acres supporting slickspot peppergrass in the planning area.	Yes

[6] Calculation does not include 1/2 mile habitat integrity buffer.

Special status plant assemblages: The other special status plant values within the small boundary of the nominated ACEC are the same as those documented for the large boundary of the nominated Inside Desert ACEC.	Yes
Natural Hazard	
The natural hazards within the small boundary of the nominated ACEC are the same as those documented for the large boundary of the nominated Inside Desert ACEC.	No

Table M-10. Importance Evaluation for the Inside Desert ACEC Small Boundary

***Importance:* Does the value, resource, system, process, or hazard meet one or more of the following importance factors:** **1. has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource;** **2. has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change;** **3. has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of FLPMA;** **4. has qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare; or** **5. poses a significant threat to human life and safety or to property?**	**Yes, No, or NA**
Historic Value	
NA	NA
Cultural Value	
The importance of the cultural values within the small boundary of the nominated ACEC is the same as that documented for the large boundary of the nominated Inside Desert ACEC.	No
Scenic Value	
NA	NA
Fish or Wildlife Resource	
The importance of the fish and wildlife values within the small boundary of the nominated ACEC is the same as that documented for the large boundary of the nominated Inside Desert ACEC.	No
Natural System or Process	
Slickspot peppergrass: (Factors met: 2, 3) The importance of the slickspot peppergrass values within the small boundary of the nominated ACEC is the same as that documented for the large boundary. The nominated small boundary contains 83% of the acres supporting slickspot peppergrass in the planning area.	Yes
Special status plant assemblages: The importance of the other special status plant values within the small boundary of the nominated ACEC is the same as that documented for the large boundary of the nominated Inside Desert ACEC.	No
Natural Hazard	
NA	NA

The nominated ACEC meets the relevance and importance criteria to be considered as a potential ACEC. The rationale for proposing the nominated Inside Desert ACEC for designation (under Alternative IV-B) as an ACEC is as follows:

The nominated ACEC meets relevance and importance criteria for natural systems or processes (slickspot peppergrass).

Threats to slickspot peppergrass within the small boundary of the nominated ACEC are the same as those documented for the large boundary of the nominated Inside Desert ACEC.

If the nominated ACEC meets the relevance and importance criteria, list the relevant and important value(s) that need special management attention and describe the management prescriptions necessary to protect those values.

The natural systems or processes (slickspot peppergrass) of the ACEC would be protected through the same allocations and management actions as described for the large boundary of the Inside Desert ACEC.

Jarbidge Foothills Area of Critical Environmental Concern

Two boundaries were nominated for the Jarbidge Foothills ACEC. The area encompassed by the larger boundary is presented first, followed by the area encompassed by the smaller boundary.

Large Boundary

Nominated ACEC: Jarbidge Foothills ACEC (large boundary)

Nominated by: The Jarbidge Foothills ACEC was nominated by BLM in accordance with BLM Manual 1613, Areas of Critical Environmental Concern, Section .21A.2.b.; the Idaho Conservation Data Center suggested BLM consider special management for the concentration of special status species in the area.

Location: The nominated ACEC would encompass 134,000 acres of BLM-managed land. The nominated ACEC would be located in the southern 1/3 of the planning area. The boundary would run from the canyon of the East Fork of the Jarbidge River to Salmon Falls Creek and from Three Creek Highway to the southern boundary of the Jarbidge planning area.

The nominated ACEC is contained within the nominated Sagebrush Sea ACEC.

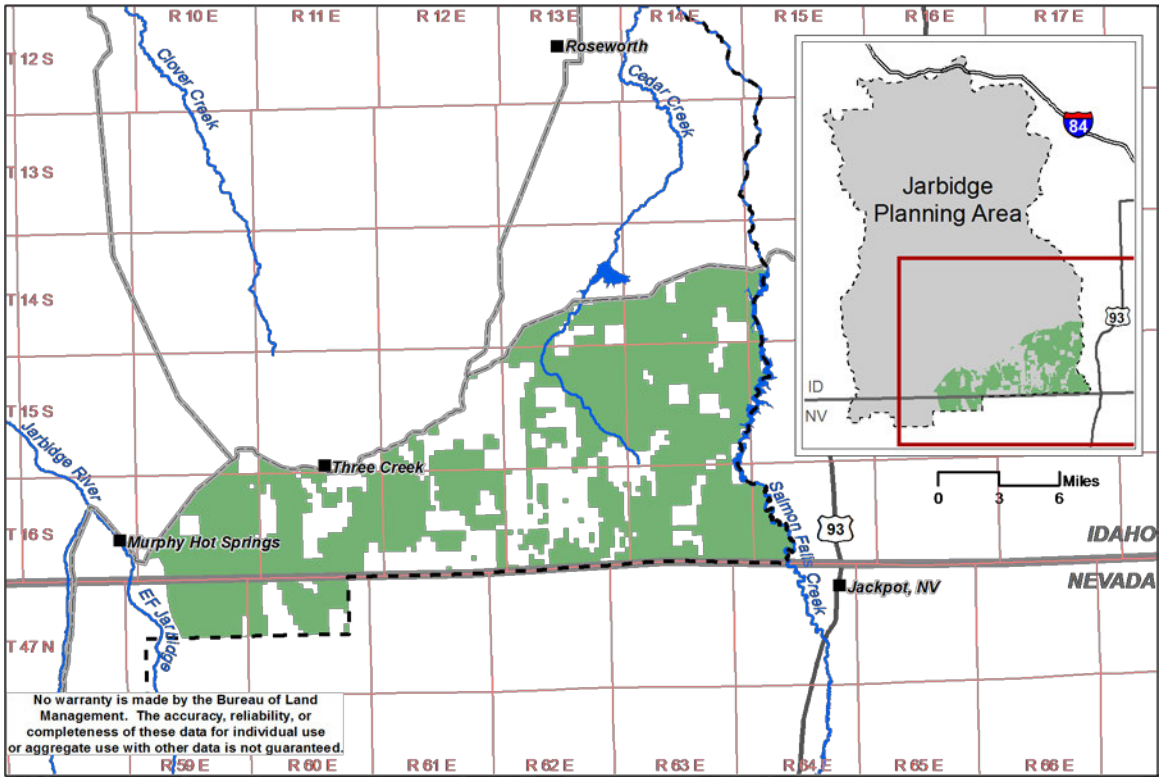


Table M-11. Relevance Evaluation for the Jarbidge Foothills ACEC Large Boundary

***Relevance*: Does the area contain a significant historic, cultural, or scenic value; fish or wildlife resource; natural process or system; or natural hazard?**	**Yes or No**
Historic Value	
The Toana Freight Road, a freight and stage route that serviced Idaho mining communities between 1870 and 1883, runs through the eastern portion of the nominated ACEC. Based on its importance in the early settlement and development of Idaho Territory, the Toana Freight Road is listed on the National Register of Historic Places.	Yes
Cultural Value	
The Jarbidge Foothills area was used extensively by Native Americans for thousands of years. For the tribes, many of the sites created by this use serve as important links to ancestral lifeways and play a critical role in maintaining traditional tribal culture. In addition, many of the sites contain important archaeological information concerning human adaptation to the semi-arid environment of southern Idaho over time.	Yes
Scenic Value	
The area contains a variety of scenic landscapes including deep, rugged canyons; uplifted cliffs; and a variety of plant communities. The area has a few large springs along Cedar Creek producing large volumes of water at their source.	Yes
Fish or Wildlife Resource	
Redband trout: The ACEC contains 41 miles of streams occupied by redband trout, a Type 2 BLM Sensitive species, which represents 16% of the occupied streams in the planning area. Redband trout occur in 13 stream reaches within the ACEC.	Yes
Columbia spotted frog (spotted frog): The nominated ACEC would contain all known occupied habitat for spotted frog (Candidate, Type 1, and NV BLM Sensitive species) within the planning area.	Yes
Greater sage-grouse (sage-grouse): Browns Bench/Monument Springs is a regionally important stronghold area for sage-grouse, a Candidate, Type 1 BLM Sensitive species. Sage-grouse from this area connect sage-grouse in the Shoshone Basin to the east with sage-grouse in northern Nevada and further west in Idaho. Both resident and migratory sage-grouse are present in the area. The changes in elevation and plant communities in the ACEC provide quality late-brood habitat for sage-grouse. Sage-grouse habitat in this area has remained relatively intact and has generally not been fragmented by wildland fire. The large boundary of the ACEC would contain 94,000 acres of key sage-grouse habitat, including important wintering and breeding habitat. There are currently 19 occupied sage-grouse leks, associated satellite leks, and sage-grouse nesting habitat present within the large boundary of the ACEC.	Yes
Big game: The nominated ACEC has winter and summer habitat for a resident population of mule deer, pronghorn, and elk. These numbers are naturally augmented by mule deer, pronghorn, and elk that move to the area in the winter from Nevada. About 1/3 of the mule deer present in the planning area winter in the nominated ACEC.	Yes
Other wildlife: The nominated ACEC contains the majority of occupied Columbian sharp-tailed grouse (sharp-tailed grouse) winter and nesting habitat. Sharp-tailed grouse are a Type 3 and NV BLM Sensitive species and were re-introduced into the area by the Idaho Department of Fish and Game (IDFG) as part of a multi-state effort (Idaho, Nevada, Oregon, and Washington). Transplant efforts have been successful and to date have helped to prevent listing of this grouse subspecies. The area contains some occupied habitat for pygmy rabbit (Type 2 and NV) and historic habitat for mountain quail (Type 3 and NV). At higher elevations, the area contains limited aspen habitat for Lewis woodpecker (Type 3 and NV), northern goshawk (Type 3 and NV), Virginia warbler, and willow flycatcher (Type 3). Ferruginous hawk (Type 3) nesting has been documented in some scattered junipers in lower elevations. Prairie falcons (Type 3 and NV) and other raptors are known to nest in a number of canyons including Cedar, Flat, House, Pole, and Salmon Falls Creeks, as well as the cliffs associated with Browns Bench.	Yes

Waterfowl nest in the oxbows associated with the low gradient portion of Salmon Falls Creek, and beaver ponds are present in some of the perennial streams. Because of the diversity of habitats, a variety of nesting birds are present, including the following: • Riparian zones – spotted sandpiper, yellow-breasted chat (NV), yellow warbler, and willow flycatcher (Type 3); • Aspen – house wren, mountain bluebird, mountain chickadee, red-breasted nuthatch, red-naped sapsucker (NV), tree swallow, and yellow-rumped warbler; • Mountain shrub – Brewer's sparrow (Type 3 and NV), chipping sparrow, and green-tailed towhee; • Mountain mahogany – orange-crowned warbler, spotted towhee, and Virginia warbler; • Mountain big sagebrush – Brewer's sparrow (Type 3 and NV), sage-grouse (Candidate, Type 1), sage sparrow (Type 3), and vesper sparrow; • Wyoming big sagebrush – Brewer's sparrow (Type 3 and NV), loggerhead shrike (Type 3 and NV), sage-grouse (Candidate, Type 1), sage sparrow (Type 3), and vesper sparrow; and • Cliffs – golden eagle (NV) and white-throated swift.	
Natural System or Process	
Special status plant assemblages: A few areas within the nominated ACEC contain plant species classified as BLM Sensitive species, including broadleaf fleabane (NV), four-wing milkvetch (Type 4), Newberry's milkvetch (Type 4), Simpson's hedgehog cactus (Type 4), two-headed onion (Type 4), and white-margined wax plant (Type 4).	Yes
Upland vegetation: Some of the late seral range sites in the planning area occur within the nominated ACEC. Plant communities in the nominated ACEC include aspen woodlands, mountain mahogany woodlands, high elevation low sagebrush, black sagebrush, mountain shrub, mountain big sagebrush, riparian zones, and salt desert shrub. Seventy six percent of the vegetation in the ACEC has not burned in the last 25 years (102,000 acres).	Yes
Riparian systems: Numerous streams within the nominated ACEC have irrigation diversions; however, a number of other streams are free flowing through the nominated ACEC.	Yes
Natural Hazard	
No known significant hazards.	No

Table M-12. Importance Evaluation for the Jarbidge Foothills ACEC Large Boundary

***Importance:* Does the value, resource, system, process, or hazard meet one or more of the following importance factors:** **1. has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource;** **2. has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change;** **3. has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of FLPMA;** **4. has qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare; or** **5. poses a significant threat to human life and safety or to property?**	**Yes, No, or NA**
Historic Value	
The Toana Freight Road on Browns Bench is the most significant historic resource within the nominated ACEC, but only a small portion of the historic road is included in the area under consideration.	No
Cultural Value	
(Factors met: 1) Regionally significant cultural resources are located throughout the nominated ACEC. The physical integrity and cultural values attached to many of these sites are threatened by increasing levels of use and development.	Yes

Scenic Value	
Scenic values are not of more than local significance.	No
Fish or Wildlife Resource	
Redband trout: (Factors met: 1, 2) Redband trout are Type 2 BLM Sensitive species that occur in perennial streams in the Jarbidge Foothills. The ACEC contains 41 miles of streams occupied by redband trout, which represents 16% of the occupied streams in the planning area. Redband trout in the Jarbidge Foothills exist in isolated populations or "strongholds" that are unable to migrate to adjacent suitable habitats when threatened by low streamflow conditions or other environmental disturbance such as wildland fire. Several of the streams within the nominated ACEC (Deadwood, Deer [ID], Cedar, Flat, Deadman) lack or have limited connectivity with other streams. Due to the lack of connectivity between redband trout occupied streams, these fish are vulnerable to population declines. Recent studies of redband trout populations in drainages similar to those found in the Jarbidge Foothills suggest that redband trout are declining in their lower elevation habitats (Zoellick et al., 2005). This indicates the importance of retaining or restoring connectivity between redband trout populations such as those that occur in the Jarbidge Foothills.	Yes
Columbia spotted frog: (Factors met: 2, 3) Spotted frog populations are part of a larger, but fragmented, population of spotted frogs in northern Nevada. The Great Basin population of spotted frog is of national significance. Great Basin Columbia spotted frog populations continue to decline in portions of Nevada. Spotted frogs have been observed along 5 miles of streams; the majority of observations have occurred along Shack and Rocky Canyon Creeks. Potentially suitable habitat occurs in several other drainages (China, Cedar, Flat, and House Creeks) within the nominated ACEC.	Yes
Greater sage-grouse: (Factors met: 1, 2, 3) Sage-grouse are declining range wide. Declines in sage-grouse numbers in southern Idaho and northern Nevada are linked to habitat alteration and fragmentation due to wildland fire and subsequent conversion to non-native grassland as well as the conversion of sagebrush steppe habitat to agricultural (IDFG, 2007a). Sage-grouse in this area are of regional importance. The nominated ACEC contains important wintering and breeding habitat and maintains the connectivity between sage-grouse populations in Nevada and the Shoshone Basin. Radio-collared sage-grouse movements from leks in the Browns Bench area have been documented moving in excess of 10 miles. Radio-collared sage-grouse in the Shoshone Basin have been documented to winter in the Browns Bench/Monument Springs/China Mountain areas. Both resident and migratory sage-grouse are present. The higher elevations support a large number of wintering sage-grouse as well as provide important late season sage-grouse brood habitat.	Yes
Big game: The nominated ACEC provides fawning and calving areas for resident mule deer, pronghorn, and elk, although not of more than local significance. The majority of pronghorn and elk wintering in the area are from Nevada. The entire nominated ACEC is classified as big game winter range.	No
Other wildlife: Mountain shrub and aspen habitats provide sharp-tailed grouse winter habitat. Sharp-tailed grouse (Type 3 and NV BLM Sensitive species) in the area provide connectivity to a population of sharp-tailed grouse in the Shoshone Basin. At least one sharp-tailed grouse lek has been documented within the nominated ACEC, and sharp-tailed grouse are known to nest immediately adjacent to the nominated ACEC. At this time, sharp-tailed grouse population in the area is not more than locally significant. Mountain quail (Type 3 and NV) were historically present within the nominated ACEC. IDFG and BLM records suggest that mountain quail have likely been extirpated from the area. Historical records indicate that mountain quail were occasionally harvested in the 1960s and 1970s from this general area. There have been no mountain quail documented within the nominated ACEC in the last 25 years. Ferruginous hawk (Type 3), Lewis woodpecker (Type 3 and NV), northern goshawk (Type 3 and NV), Virginia warbler, and pygmy rabbit (Type 2) numbers within the nominated ACEC are low, and habitat is generally limited for these species. They are not of more than local	No

importance. Although the vegetation communities support a high diversity of birds, these are not of more than local interest. Other areas with similar diversity include the City of Rocks, Rock Creek Canyon, and the South Hills to the east of the planning area.	
Natural System or Process	
Special status plant assemblages: Special status plants occur in the area, but are not of more than local significance.	No
Upland vegetation: (Factors met: 2) The nominated ACEC contains one of the last large, contiguous blocks of high-quality sagebrush steppe habitat in the planning area. Although there are other blocks of similar size and quality within the region, the habitat within the nominated ACEC is important for maintaining connectivity between other regional blocks of habitat. The area has a moderate amount of a natural variety of habitats in close proximity including several types of riparian zones, low sagebrush communities, black sagebrush communities, mountain big sagebrush, mountain shrub, mountain mahogany savannah, and aspen. Depending on slope, soils can be quite erosive. Numerous roads, jeep trails, and fences cross the nominated ACEC. The 2007 Murphy Complex Fires burned 17,000 acres of the nominated ACEC. However, the nominated ACEC is unique within the planning area in that 76% of the nominated ACEC has not burned within the last 25 years (102,000 acres).	Yes
Riparian systems: The riparian systems in the area have altered streamflows and are not more than locally significant.	No
Natural Hazard	
NA	NA

The nominated ACEC meets the relevance and importance criteria to be considered as a potential ACEC. The rationale for proposing the nominated Jarbidge Foothills ACEC for designation (under Alternative IV-A) as an ACEC is as follows:

The nominated ACEC meets relevance and importance criteria for cultural values, fish and wildlife resources (redband trout, Columbia spotted frog, and sage-grouse), and natural systems or processes (upland vegetation).

Existing and potential threats to the relevant and important values within the nominated ACEC include wildland fire, alterations of riparian systems, and surface-disturbing activities. These threats all contribute to the alteration and fragmentation of upland and riparian habitats.

Wildland fire is the primary threat to the relevant and important values within the nominated ACEC. Since the 1970s, wildland fires have reduced the amount of sagebrush habitat present in the planning area by roughly two-thirds. Throughout the West as well as locally, habitat conversion and fragmentation in part due to wildland fire have contributed to declining sage-grouse numbers and the loss of leks (Knick and Connelly, 2011). Within the nominated ACEC, 17,000 acres burned in the 2007 Murphy Complex Fires, reducing the value of sage-grouse habitat in some areas, and previous wildland fires have affected several thousand additional acres. However, the majority of the nominated ACEC has not burned in the last 25 years; large wildland fires within these areas may reduce habitat quality for sage-grouse as well as contribute to fragmentation of a relatively contiguous area of intact sagebrush steppe.

Alterations of riparian systems are a threat to redband trout and spotted frog. Dams and diversions of streams to irrigate private land have resulted in dewatering portions of some streams, contributing to the fragmentation of redband trout habitat. This has reduced the ability of redband trout to move between streams. Threats to spotted frog include loss of habitat due to down cutting of streams, lowered water table, habitat fragmentation, and sediment from roads on steep gradients.

Several land uses pose threats to the relevant and important values within the nominated ACEC. Generally, surface-disturbing activities that remove vegetation or create corridors for the introduction and spread of noxious weeds and invasive plants would affect the relevant and important values; these

disturbances include livestock grazing infrastructure, transportation and travel routes, and wind energy development. The physical integrity and the cultural values attached to many archaeological sites are threatened by increasing levels of use and development as well, particularly increasing levels of cross-country motorized vehicle use.

River segments within the nominated ACEC that have been inventoried as eligible for inclusion in the National Wild and Scenic River System include Rocky Canyon Creek and Salmon Falls Creek south of Salmon Falls Reservoir. Outstandingly Remarkable Values (ORVs) for Rocky Canyon Creek include wildlife values, while ORVs for the Salmon Falls Creek segment include recreational values. Interim management of these segments requires that they be managed to maintain or enhance their ORVs. However, the Wild and Scenic River corridor only extends 0.25 mile above the high water mark on each side of the river, which does not provide any protection for these values outside this corridor.

If the nominated ACEC meets the relevance and importance criteria, list the relevant and important value(s) that need special management attention and describe the management prescriptions necessary to protect those values.

The cultural values, fish and wildlife resources (redband trout, spotted frog, and sage-grouse), and natural systems or processes (upland vegetation) of the ACEC would be protected through the following allocations and management actions:

- Improving, expanding, connecting, and restoring native plant communities would be a high priority within the ACEC.
- Restore mountain shrub habitat for sage-grouse.
- Restore habitat for spotted frogs in Rocky Canyon, Timber Canyon, Shack, and Bear Creeks.
- Restore redband trout habitat and reduce habitat fragmentation in redband trout occupied watersheds.
- The ACEC would be a high priority for noxious weeds and invasive plants treatment with integrated weed management techniques for control, containment, and where practical, eradication.
- The ACEC would be a critical suppression area.
- Manage the majority of the ACEC as Visual Resource Management (VRM) Class III, where not otherwise designated as VRM Class I or II (see the *Visual Resources* section of Chapter 2).
- Livestock seasons of use or stocking rates would be adjusted within the ACEC to minimize conflicts with redband trout, sage-grouse wintering, breeding, and nesting periods; and restoration projects.
- Monitor recreational use within the ACEC. If this use reaches levels that impair the relevant and important values of the ACEC, implement protective measures appropriate to the type of recreational activity. Protective measures may include but not be limited to designating camping areas within the ACEC; requiring the use of certified weed-free forage and straw; and installing protective barriers to protect relevant and important values.
- Travel routes would be designated through the Travel Management Plan to increase core habitat for sage-grouse.
- BLM-managed lands within the ACEC can be exchanged for non-BLM managed lands within the ACEC, consistent with the *Land Tenure* section of Chapter 2; where practical, acquire private and/or State inholdings. The ACEC designation and management would apply to lands acquired within the ACEC boundary.
- The ACEC would be available for salable mineral development; where practical, use existing mineral pits and minimize new salable mineral developments within ACEC. Seasonal closures that restrict use or activities at the pits during important seasonal periods for sage-grouse may be included when existing salable mineral permits are reauthorized and in new permits.
- Limit surface disturbing activities within the ACEC to protect cultural resources; ensure that authorized impacts are appropriately mitigated.
- Prevent or reduce unauthorized impacts to cultural resources through increased monitoring, public outreach, and law enforcement patrols.

Small Boundary

Nominated ACEC: Jarbidge Foothills ACEC (small boundary)

Nominated by: The Jarbidge Foothills ACEC was nominated by BLM in accordance with BLM Manual 1613, Areas of Critical Environmental Concern, Section .21A.2.b.; the Idaho Conservation Data Center suggested BLM consider special management for the concentration of special status species in the area.

Location: The nominated ACEC would encompass 64,000 acres of BLM-managed land. The nominated ACEC would be located in the southeast corner of the planning area. The boundary would run from Salmon Falls Creek west to the House Creek Allotment, and from Three Creek Highway south to the southern boundary of Jarbidge planning area. This boundary for the Jarbidge Foothills ACEC would focus management on a block of primarily BLM-managed lands and would reduce the amount of private land within the ACEC boundary.

The nominated ACEC is contained within the nominated Sagebrush Sea ACEC.

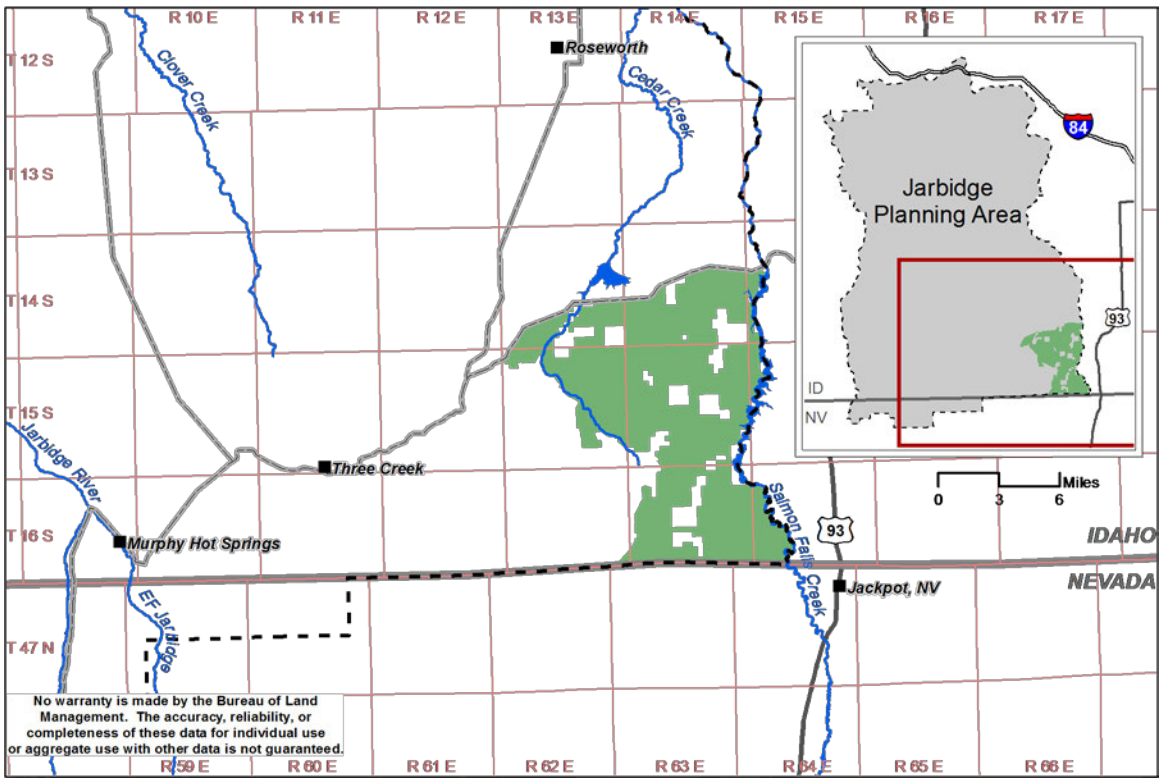


Table M-13. Relevance Evaluation for the Jarbidge Foothills ACEC Small Boundary

***Relevance*: Does the area contain a significant historic, cultural, or scenic value; fish or wildlife resource; natural process or system; or natural hazard?**	**Yes or No**
Historic Value	
The historic value within the small boundary of the nominated ACEC is the same as that documented for the large boundary of the nominated Jarbidge Foothills ACEC.	Yes
Cultural Value	
The cultural value within the small boundary of the nominated ACEC is the same as that documented for the large boundary of the nominated Jarbidge Foothills ACEC.	Yes
Scenic Value	
The scenic value within the small boundary of the nominated ACEC is the same as that documented for the large boundary of the nominated Jarbidge Foothills ACEC.	Yes

Fish or Wildlife Resource	
Redband trout: The small boundary of the nominated ACEC contains 19 miles of streams occupied by redband trout, a Type 2 BLM Sensitive species, which represents 8% of the occupied streams in the planning area. Redband trout occur in Cedar Creek, Salmon Falls Creek, and portions of China Creek in the ACEC.	Yes
Columbia spotted frog: Spotted frog, a Candidate and Type 1 BLM Sensitive species, do not occur within the small boundary of the nominated Jarbidge Foothills ACEC.	No
Greater sage-grouse: The sage-grouse values within the small boundary of the nominated ACEC are the same as those documented for the large boundary of the nominated Jarbidge Foothills ACEC. The small boundary of the nominated ACEC contains 49,000 acres of key sage-grouse habitat. There are currently 16 occupied sage-grouse leks, associated satellite leks, and sage-grouse nesting habitat present within the small boundary of the nominated ACEC.	Yes
Big game: The big game values within the small boundary of the nominated ACEC are the same as those documented for the large boundary of the nominated Jarbidge Foothills ACEC; the small boundary of the nominated ACEC includes 64,000 acres of big game winter range, which represents 7% of the winter range in the planning area.	Yes
Other wildlife: The other wildlife within the small boundary of the nominated ACEC are the same as those documented for the large boundary of the nominated Jarbidge Foothills ACEC; however, the small boundary of the nominated ACEC would contain a smaller portion of habitat for these species.	Yes
Natural System or Process	
Special status plant assemblages: The special status plants within the small boundary of the nominated ACEC are the same as those documented for the large boundary of the nominated Jarbidge Foothills ACEC.	Yes
Upland vegetation: The upland vegetation values within the small boundary of the nominated ACEC are the same as those documented for the large boundary of the nominated Jarbidge Foothills ACEC. The nominated ACEC is unique within the planning area in that 88% of the nominated ACEC has not burned within the last 25 years (56,000 acres).	Yes
Riparian systems: The riparian values within the small boundary of the nominated ACEC are the same as those documented for the large boundary of the nominated Jarbidge Foothills ACEC.	Yes
Natural Hazard	
No known significant hazards.	No

Table M-14. Importance Evaluation for the Jarbidge Foothills ACEC Small Boundary

***Importance:* Does the value, resource, system, process, or hazard meet one or more of the following importance factors:** **1. has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource;** **2. has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change;** **3. has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of FLPMA;** **4. has qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare; or** **5. poses a significant threat to human life and safety or to property?**	**Yes, No, or NA**
Historic Value	
The importance of the historic value within the small boundary of the nominated ACEC is the same as that documented for the large boundary of the nominated Jarbidge Foothills ACEC.	No

Cultural Value	
(Factors met: 1) The importance of the cultural values within the small boundary of the nominated ACEC is the same as that documented for the large boundary of the nominated Jarbidge Foothills ACEC.	Yes
Scenic Value	
The importance of the scenic values within the small boundary of the nominated ACEC is the same as that documented for the large boundary of the nominated Jarbidge Foothills ACEC.	No
Fish or Wildlife Resource	
Redband trout: Redband trout only occur in three creeks within the small boundary of the nominated ACEC. Redband trout in Cedar Creek are limited to roughly a 7-mile reach with poor connectivity to other redband trout bearing streams. Redband trout in China Creek are potentially linked to other tributary streams above Salmon Falls Creek Dam (Shoshone, North Fork, Bear, and Shack Creeks). Warm water temperature may limit fish movements during the summer.	No
Columbia spotted frog: NA	NA
Greater sage-grouse: (Factors met: 1, 2, 3) The importance of sage-grouse values within the small boundary of the nominated ACEC is the same as that documented for the large boundary. The nominated ACEC supports the best key sage-grouse habitat in the planning area particularly considering the impacts of the 2007 Murphy Complex Fires.	Yes
Big game: The importance of big game values within the small boundary of the nominated ACEC is the same as that documented for the large boundary of the nominated Jarbidge Foothills ACEC.	No
Other wildlife: The importance of other wildlife within the small boundary of the nominated ACEC is the same as that documented for the large boundary of the nominated Jarbidge Foothills ACEC.	No
Natural System or Process	
Special status plant assemblages: The importance of special status plants within the small boundary of the nominated ACEC is the same as that documented for the large boundary.	No
Upland vegetation: (Factors met: 2) The importance of the upland vegetation values within the small boundary of the nominated ACEC is the same as that documented for the large boundary of the nominated Jarbidge Foothills ACEC. The 2007 Murphy Complex Fires burned 1,500 acres of the nominated ACEC. The nominated ACEC is unique within the planning area in that 88% of the nominated ACEC has not burned within the last 25 years (56,000 acres).	Yes
Riparian systems: The importance of riparian values within the small boundary of the nominated ACEC is the same as that documented for the large boundary of the nominated Jarbidge Foothills ACEC.	No
Natural Hazard	
NA	NA

The nominated ACEC meets the relevance and importance criteria to be considered as a potential ACEC. The rationale for proposing the nominated Jarbidge Foothills ACEC for designation (under Alternative IV-B) as an ACEC is as follows:

The nominated ACEC meets relevance and importance criteria for cultural values, wildlife resources (sage-grouse), and natural systems or processes (upland vegetation).

Existing and potential threats to the relevant and important values within the nominated ACEC include wildland fire and surface-disturbing activities. These threats contribute to the alteration and fragmentation of upland habitats and are similar to those described for the large boundary of the nominated Jarbidge Foothills ACEC.

Wildland fire is the primary threat to the relevant and important values within the nominated ACEC; this threat is similar to that described for the large boundary of the nominated Jarbidge Foothills ACEC. Within the small boundary of the nominated ACEC, 1,500 acres burned in the 2007 Murphy Complex Fires.

Several uses are potential threats to the relevant and important values within the nominated ACEC; these threats are similar to those described for the large boundary.

Within the nominated ACEC, Salmon Falls Creek south of Salmon Falls Reservoir has been inventoried as eligible for inclusion in the National Wild and Scenic River System for a recreational Outstandingly Remarkable Value (ORV). Interim management of this segment requires that it be managed to maintain or enhance its ORVs. However, the Wild and Scenic River corridor only extends 0.25 mile above the high water mark on each side of the river, which does not provide any protection for this value outside this corridor.

If the nominated ACEC meets the relevance and importance criteria, list the relevant and important value(s) that need special management attention and describe the management prescriptions necessary to protect those values.

The cultural values, wildlife resources (sage-grouse), and natural systems or processes (upland vegetation) of the ACEC would be protected through the same allocations and management actions as described for the large boundary of the Jarbidge Foothills ACEC, except management prescribed for redband trout and spotted frogs would not apply. Also BLM managed land within the ACEC can be exchanged with non-BLM managed lands both inside and outside the ACEC, consistent with the land tenure section.

Lower Bruneau Canyon Area of Critical Environmental Concern

Two boundaries were nominated for the Lower Bruneau Canyon ACEC. The area encompassed by the larger boundary is presented first, followed by the area encompassed by the smaller boundary.

Large Boundary

Nominated ACEC: Lower Bruneau Canyon ACEC (large boundary)

Nominated by: The Lower Bruneau Canyon ACEC was nominated by BLM in accordance with BLM Manual 1613, Areas of Critical Environmental Concern, Section .21A.2.b.

Location: The nominated ACEC would encompass 1,000 acres of BLM-managed land. The ACEC would be located along the east side of the lower Bruneau River, southeast of Indian Bathtub.

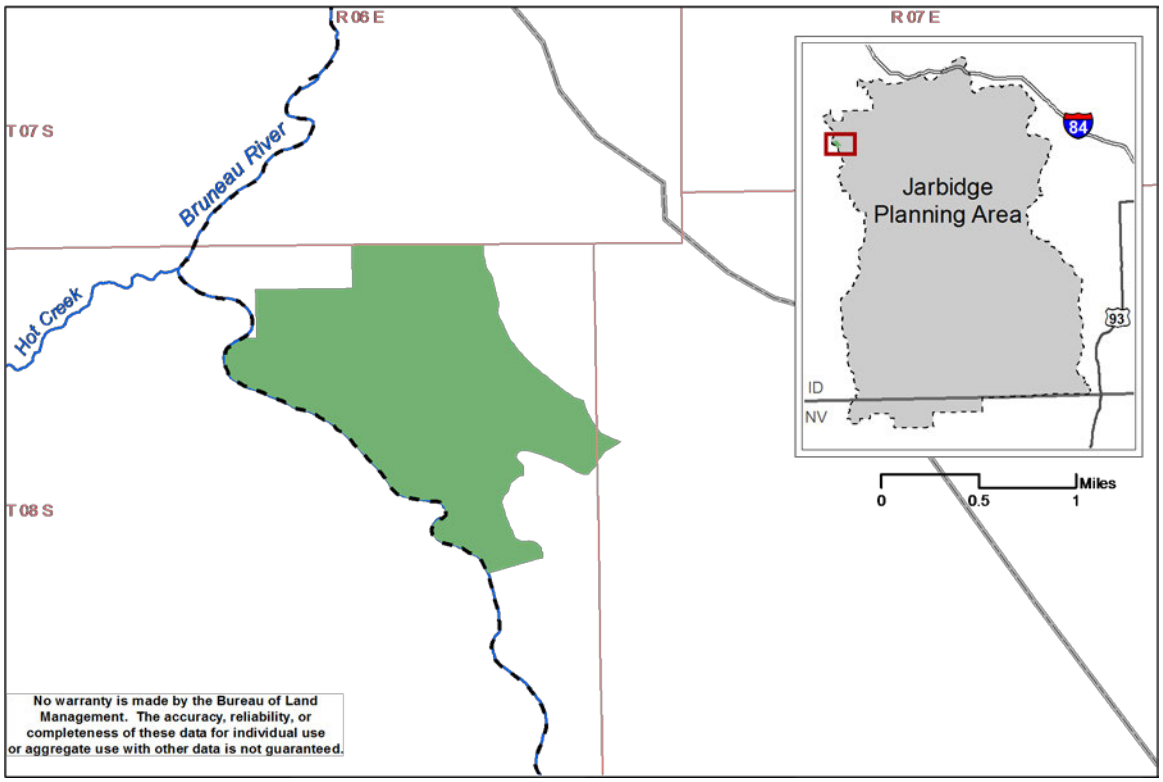


Table M-15. Relevance Evaluation for the Lower Bruneau Canyon ACEC Large Boundary

***Relevance*: Does the area contain a significant historic, cultural, or scenic value; fish or wildlife resource; natural process or system; or natural hazard?**	**Yes or No**
Historic Value	
No historic resources are known.	No
Cultural Value	
No significant cultural resources are known.	No
Scenic Value	
No outstanding scenic resources. The view of the Bruneau River and Canyon from within the ACEC is impressive, but not of more than local interest.	No
Fish or Wildlife Resource	
Bruneau hot springsnail: The Bruneau hot springsnail was listed as an Endangered species in 1998 (Endangered and Threatened Wildlife and Plants, 1998) and is a Type 1 BLM Sensitive species. Geothermally influenced seeps and springs in the Bruneau River and one of its tributaries (Hot Creek, outside of the planning area) are the only locations where this species	Yes

occurs in the world. Surveys conducted in the 2.5 mile reach upstream of Hot Creek (primarily within the nominated ACEC) during 1991–2004 indicate that the total numbers of geothermal springs are declining at a rate of approximately 5 geothermal springs per year (Myler et al., 2007). The numbers of geothermal springs containing springsnail in the same reach are declining at a rate of 3.75 per year (Myler et al., 2007). The decline of geothermal springs with and without springsnail was significantly related to the decline of the thermal aquifer which underlies this area (Myler et al., 2007). The nominated ACEC would protect 2.1 miles of geothermal springs on the east side of the Bruneau River, which is 81% of the suitable habitat on BLM-managed land in the planning area. Approximately one-third of the global population of these snails exists within the nominated ACEC.	
Other wildlife: Numerous BLM Sensitive wildlife species occur within the nominated ACEC, including Great Basin collared lizard (Type 3), long-nose snake (Type 3), western groundsnake (Type 3), ferruginous hawk (Type 3), prairie falcon (Type 3), spotted bat (Type 3), and Townsend's big-eared bat (Type 3). A few mule deer and pronghorn use the area as winter range.	Yes
Natural System or Process	
Special status plant assemblages: Numerous BLM Sensitive plant species occur in the nominated ACEC, including Packard's cowpie buckwheat (Type 4) and spine-node milkvetch (Type 4) – both perennials, and rigid threadbush (Type 4), spreading gilia (Type 3), and white-margin waxplant (Type 4) – all annuals. The nominated ACEC contains 60 acres of Bruneau River phlox (Type 3) habitat, which represents 16% of the Bruneau River phlox habitat within the planning area.	Yes
Paleontological resources: The Lower Bruneau Canyon ACEC includes extensive outcrops of Hot Springs Limestone – a carbonate layer composed of fossilized lacustrine algal reefs which formed along the shoreline of ancient Lake Idaho (Straccia et al., 1990). These Miocene-aged deposits are associated with the geologic Chalk Hills Formation and contain a variety of vertebrate, invertebrate, and micro-fossils ranging in age from 8 million to 6 million years. The nominated ACEC contains the only concentrated exposures of the fossil bearing Chalk Hills Formation in the planning area.	Yes
Thermal springs and seeps: Thermal springs and seeps are present within the nominated ACEC, supporting the Bruneau hot springsnail. Since the early 1990s, the water flows at the thermal springs and seeps have declined, reducing habitat for this Endangered species.	Yes
Natural Hazard	
No known significant hazards.	No

Table M-16. Importance Evaluation for the Lower Bruneau Canyon ACEC Large Boundary

***Importance:* Does the value, resource, system, process, or hazard meet one or more of the following importance factors:** **1. has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource;** **2. has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change;** **3. has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of FLPMA;** **4. has qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare; or** **5. poses a significant threat to human life and safety or to property?**	**Yes, No, or NA**
Historic Values	
NA	NA
Cultural Values	
NA	NA

Scenic Values	
NA	NA
Fish or Wildlife Resource	
Bruneau hot springsnail: (Factors met: 1, 2, 3) Bruneau hot springsnail is endemic to this reach of the Bruneau River and is listed as Endangered under the Endangered Species Act and is found only in thermal springs. The entire global population occurs in the geothermal seeps and springs along a 5-mile reach of the lower Bruneau River and a portion of Hot Creek (outside of the planning area). The nominated ACEC would include 81% of the suitable habitat on BLM-managed land in the planning area. The snail is very small (0.22 inches) and is unable to move between spring sources if conditions within a spring become unsuitable. Groundwater pumping to irrigate farmland is the primary threat to the snail. Groundwater pumping has dried up a number of springs that previously had this species, and reduced the flows and habitat at several other springs (FWS, 2002). Myler and others (2007) predicted that if groundwater pumping continues at the present rate, the thermal springs upstream of Hot Creek will be completely dry by the year 2031. In addition to changes in the thermal springs, invasion by reed canary grass and hydrilla is impacting the habitat of the listed snail. Bruneau hot springsnail are also vulnerable to introduced predators such as the non-native guppies and a species of tilapia that now occurs in a few of the small geothermal springs along the Bruneau River and Hot Creek (FWS, 2002).	Yes
Other wildlife: Numerous BLM Sensitive wildlife species occur within the nominated ACEC, including Great Basin collared lizard (Type 3), long-nose snake (Type 3), western groundsnake (Type 3), ferruginous hawk (Type 3), prairie falcon (Type 3), spotted bat (Type 3), and Townsend's big-eared bat (Type 3). Long-nose snake, western groundsnake, and Great Basin collared lizards are at the northern extent of their range in southwestern Idaho, and the Bruneau Canyon is near the eastern extent of their range in Idaho. Although these species are at the edge of their range, it is not known if they are of more than local significance. Other special status species listed are not of more than local significance. Expansion of invasive non-native annuals is a threat to these species.	No
Natural System or Process	
Special status plant assemblages: (Factors met: 1, 2) The amount of spine-node milkvetch (Type 4 BLM Sensitive species) is unique within Idaho. The Idaho population is isolated from other populations in Utah, northern Arizona, and southern Nevada. The Idaho population in the Bruneau Valley has the highest density of spine-node milkvetch in the United States. Bruneau River phlox (Type 3) is endemic to the area. The nominated ACEC contains 60 acres of Bruneau River phlox (Type 3) habitat, which represents 16% of the Bruneau River phlox habitat within the planning area. Bruneau River phlox has a total estimated population of 500 plants. The Idaho populations are relatively stable. Rigid thread bush (Type 4) is often found within the lower Bruneau Canyon as well as other special status plants such as Packard's cowpie buckwheat (Type 4), spreading gilia (Type 3), and white-margin waxplant (Type 4). This high concentration of special status plants is unique; this assemblage of species does not occur elsewhere in Idaho.	Yes
Paleontological resources: (Factors met: 1, 2) The Lower Bruneau Canyon ACEC includes extensive outcrops of Hot Springs Limestone – a carbonate layer composed of fossilized lacustrine algal reefs which formed along the shoreline of ancient Lake Idaho (Straccia et al., 1990). These Miocene-aged deposits are associated with the geologic Chalk Hills Formation and contain a variety of vertebrate, invertebrate, and micro-fossils ranging in age from 8 million to 6 million years. The nominated ACEC contains the only concentrated exposures of the fossil bearing Chalk Hills Formation in the planning area.	Yes

Thermal springs and seeps: (Factors met: 1, 2) The geothermal springs along the Bruneau River and in Hot Creek are the only habitats where the Bruneau hot springsnail can be found in the world. This species has evolved to occupy these unique spring habitats and is sensitive to actions that affect the surface flows from the springs, the temperature of the spring, or the substrates within the springs. The snail is very small (0.22 inches) and is unable to move between spring sources if conditions within a spring become unsuitable. Land management actions that affect the springs, even if only temporarily, could result in a direct loss of a population of snails within a spring or series of springs. The spring sources that would be protected by the nominated ACEC are essential to the persistence of the Bruneau hot springsnail in the long term.	Yes
Natural Hazard	
NA	NA

The nominated ACEC meets the relevance and importance criteria to be considered as a potential ACEC. The rationale for proposing the nominated Lower Bruneau Canyon ACEC for designation (under Alternatives I, IV, and V) as an ACEC is as follows:

The nominated ACEC meets relevance and importance criteria for invertebrate resources (Bruneau hot springsnail) and natural processes or systems (paleontological resources, special status plants assemblages, and thermal springs and seeps).

Existing and potential threats to the relevant and important values within the nominated ACEC include noxious weeds and invasive plants, mineral exploration and development, and livestock grazing.

Noxious weeds and invasive plants are affecting both the special status plants as well as the Bruneau hot springsnail within the nominated ACEC. A quarter of the nominated ACEC has been burned, contributing to the expansion of cheatgrass and posing a long-term threat to native annuals in large part due to competition. The continued expansion of reed canary grass and now the noxious weed hydrilla is impairing habitat for the Bruneau hot springsnail. Both of these invasive plants reduce the amount of open water and inhibit the growth of diatoms and other periphyton on which the snails feed.

Mineral exploration and development is a potential threat to the relevant and important values within the nominated ACEC. Salable mineral development has the potential to threaten the special status plant assemblage through removal of habitat for these species. Of greater concern for the Bruneau hot springsnail would be exploration and development for geothermal energy, as the continuing decline in the aquifer is the primary concern for the continued existence of the Bruneau hot springsnail.

Livestock grazing is a threat to the special status plants within the nominated ACEC. Livestock grazing and its associated infrastructure may directly damage special status plants and their habitat and can also contribute to the introduction and spread of noxious weeds and invasive plants.

The segment of the Bruneau River within the nominated ACEC has been designated as a Wild and Scenic River (WSR) corridor. Outstandingly Remarkable Values (ORVs) for this segment include cultural, fish, geological, recreational, scenic, vegetation, and wildlife values. Management of this segment requires that ORVs are maintained or enhanced. However, the WSR corridor only extends 0.25 mile above the high water mark on each side of the river, which does not provide any protection for these values in the higher elevations of the canyon or the adjacent upland plateaus.

If the nominated ACEC meets the relevance and importance criteria, list the relevant and important value(s) that need special management attention and describe the management prescriptions necessary to protect those values.

The fish resources (Bruneau hot springsnail) and natural systems or processes (special status plant assemblages, paleontological resources, and thermal springs and seeps) of the ACEC would be protected through the following allocations and management actions:

Under Alternatives I, IV, and V:

- Restore native upland and riparian plant communities within the ACEC to improve habitat for special status species.
- The ACEC would be a high priority for noxious weeds and invasive plants treatment with integrated weed management techniques for control, containment, and where practical, eradication.
- The ACEC would be a critical suppression area.
- Manage the ACEC as Visual Resource Management Class III.
- Manage lands within the ACEC in Land Tenure Zone 1.
- The ACEC would be closed to mineral leasing.
- The ACEC would be closed to salable mineral development.

Under Alternative I and IV only, specific to livestock grazing management:

- The ACEC would be available for livestock grazing and new infrastructure as long as they are compatible with recovery of the area, including protecting seed production of special status plants and reducing impacts to their pollinators.

Under Alternative V only, specific to livestock grazing management:

- The ACEC would not be available for livestock grazing.

Small Boundary

Nominated ACEC:	Lower Bruneau Canyon ACEC (small boundary)
Nominated by:	The Lower Bruneau Canyon ACEC was nominated by BLM in accordance with BLM Manual 1613, Areas of Critical Environmental Concern, Section .21A.2.b.
Location:	The nominated ACEC would encompass 900 acres of BLM-managed land. The ACEC would be located along the east side of the Bruneau River Canyon, southeast of Indian Bathtub. The small ACEC boundary does not include areas contained within the Bruneau-Jarbidge Rivers Wilderness and the designated Wild and Scenic River (WSR) corridor.

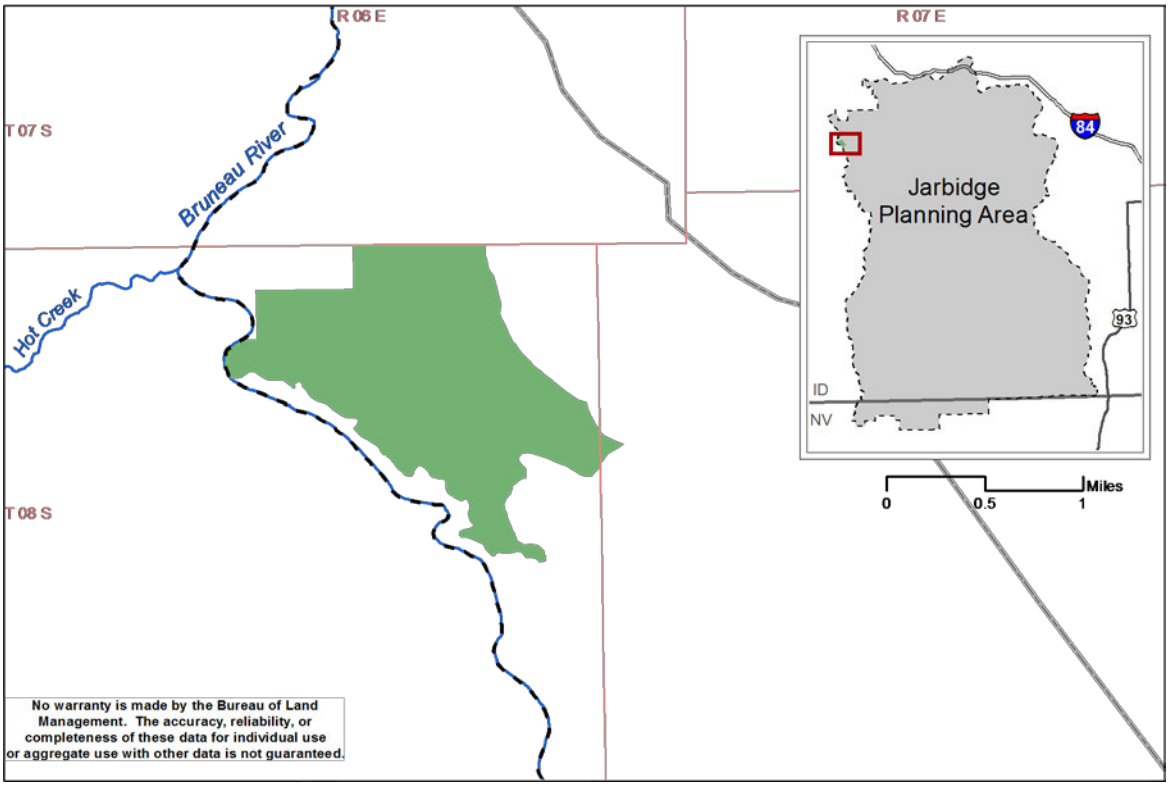


Table M-17. Relevance Evaluation for the Lower Bruneau Canyon ACEC Small Boundary

***Relevance*: Does the area contain a significant historic, cultural, or scenic value; fish or wildlife resource; natural process or system; or natural hazard?**	**Yes or No**
Historic Value	
The historic value within the small boundary of the nominated ACEC is the same as that documented for the large boundary of the nominated Lower Bruneau Canyon ACEC.	No
Cultural Value	
The cultural value within the small boundary of the nominated ACEC is the same as that documented for the large boundary of the nominated Lower Bruneau Canyon ACEC.	No
Scenic Value	
The scenic value within the small boundary of the nominated ACEC is the same as that documented for the large boundary of the nominated Lower Bruneau Canyon ACEC.	No
Fish or Wildlife Resource	
Bruneau hot springsnail: Thermal seeps and springs which support the Bruneau hot springsnail would no longer be within the small boundary of the ACEC; however, they are within the Bruneau-Jarbidge Rivers Wilderness boundary and the designated WSR corridor.	No
Other wildlife: The other wildlife within the small boundary of the nominated ACEC are the same as those documented for the large boundary of the nominated Lower Bruneau Canyon ACEC.	Yes
Natural System or Process	
Special status plant assemblages: The special status plants within the small boundary of the nominated ACEC are the same as those documented for the large boundary of the nominated Lower Bruneau Canyon ACEC; however, Bruneau River phlox would no longer occur within the ACEC since canyon walls where this species occurs are within the Bruneau-Jarbidge Rivers Wilderness boundary.	Yes
Paleontological resources: The paleontological resources within the small boundary of the nominated ACEC are the same as those documented for the large boundary of the nominated Lower Bruneau Canyon ACEC.	Yes

Thermal springs and seeps: Thermal springs and seeps are not present within the small boundary of the nominated ACEC; however, they are within the Bruneau-Jarbidge Rivers Wilderness boundary and the designated WSR corridor.	No
Natural Hazard	
No known significant hazards.	No

Table M-18. Importance Evaluation for the Lower Bruneau Canyon ACEC Small Boundary

***Importance:* Does the value, resource, system, process, or hazard meet one or more of the following importance factors:** **1. has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource;** **2. has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change;** **3. has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of FLPMA;** **4. has qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare; or** **5. poses a significant threat to human life and safety or to property?**	**Yes, No, or NA**
Historic Values	
NA	NA
Cultural Values	
NA	NA
Scenic Values	
NA	NA
Fish or Wildlife Resource	
Bruneau hot springsnail: NA	NA
Other wildlife: The importance of other wildlife within the small boundary of the nominated ACEC is the same as that documented for the large boundary of the nominated Lower Bruneau Canyon ACEC.	No
Natural System or Process	
Special status plant assemblages: (Factors met: 1, 2) The importance of special status plants within the small boundary of the nominated ACEC is the same as that documented for the large boundary of the nominated Lower Bruneau Canyon ACEC; however, Bruneau River phlox would no longer occur within the ACEC since canyon walls where this species occurs are within the Bruneau-Jarbidge Rivers Wilderness boundary.	Yes
Paleontological resources: (Factors met: 1, 2) The importance of paleontological resources within the small boundary of the nominated ACEC is the same as that documented for the large boundary of the nominated Lower Bruneau Canyon ACEC	Yes
Thermal springs and seeps: NA	NA
Natural Hazard	
NA	NA

The nominated ACEC meets the relevance and importance criteria to be considered as a potential ACEC. The rationale for proposing the nominated Lower Bruneau Canyon ACEC for designation under Alternative VI (Proposed RMP) as an ACEC is as follows:

The small boundary of the nominated ACEC meets relevance and importance criteria for natural processes or systems (special status plants assemblages and paleontological resources).

Threats to the relevant and important values within the small boundary of the nominated ACEC are the same as those documented for the large boundary of the Lower Bruneau Canyon ACEC.

The natural systems or processes (special status plants assemblages and paleontological resources) of the ACEC would be protected through the same allocations and management actions as described for the large boundary of the Lower Bruneau Canyon ACEC.

If the nominated ACEC meets the relevance and importance criteria, list the relevant and important value(s) that need special management attention and describe the management prescriptions necessary to protect those values.

The natural systems or processes (special status plants assemblages and paleontological resources) of the ACEC would be protected through the following allocations and management actions:

- Restore native upland plant communities within the ACEC to improve habitat for special status species.
- The ACEC would be a high priority for noxious weeds and invasive plants treatment with integrated weed management techniques for control, containment, and, where practical, eradication.
- The ACEC would be a critical suppression area.
- Manage the ACEC as Visual Resource Management Class III.
- No surface-disturbing activities would be allowed in the ACEC unless they are directly related to restoration.
- New infrastructure may be considered if it would not impair the relevant and important values of the ACEC. Any infrastructure would be located so that it does not increase or encourage impacts to fossil bearing areas and special status plants.
- Lands within the ACEC would be in Land Tenure Zone 1.
- The ACEC would be closed to exploration and development of leasable or salable minerals to protect vertebrate and invertebrate fossils.

Middle Snake Area of Critical Environmental Concern

Nominated ACEC: Middle Snake ACEC

Nominated by: The Middle Snake ACEC was nominated by BLM in accordance with BLM Manual 1613, Areas of Critical Environmental Concern, Section .21A.2.b.; the Idaho Conservation Data Center suggested BLM consider special management for the special status plants in the area.

Location: The nominated ACEC would encompass 7,000 acres of BLM-managed lands; these lands are separated in several areas by blocks of private land. The nominated ACEC would be located from an area southeast of King Hill to the Hagerman Fossil Beds National Monument. The nominated ACEC would extend from the Jarbidge planning area boundary in the Snake River to the canyon rim or to existing fences on the adjacent uplands.

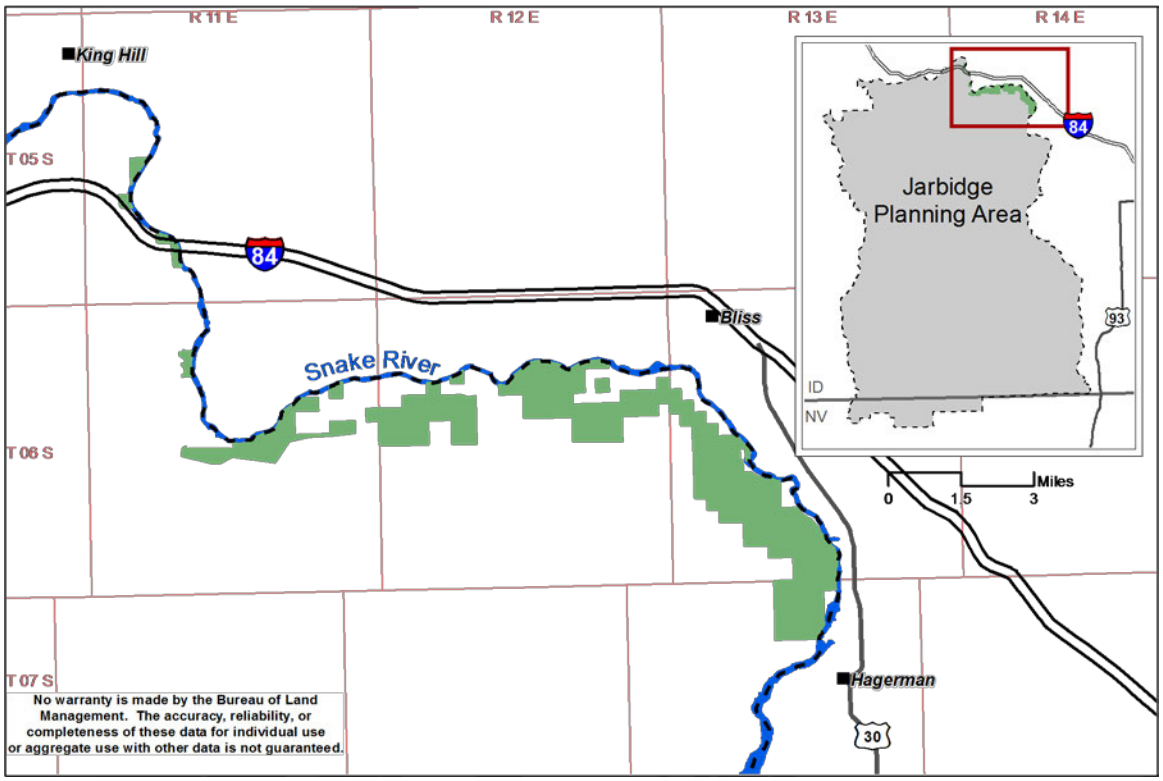


Table M-19. Relevance Evaluation for the Middle Snake ACEC

***Relevance*: Does the area contain a significant historic, cultural, or scenic value; fish or wildlife resource; natural process or system; or natural hazard?**	**Yes or No**
Historic Value	
The nominated ACEC contains 180 acres within the Oregon National Historic Trail (NHT) protective zone near Pilgrim Gulch.	Yes
Cultural Value	
Several archaeological sites that may be eligible for the National Register of Historic Places are located within the nominated ACEC. In addition to their scientific value, these sites are of traditional cultural importance to the tribes.	Yes

Scenic Value	
The breaks from the upland plateau down to the floodplain offer some topographic relief of scenic value; scenic values can be seen from a major transportation route (Interstate 84). A section of the area between Lower Salmon Dam and Bliss Bridge contains several large freshwater springs. Rapids in the somewhat confined canyon increase the scenic quality in areas.	Yes
Fish or Wildlife Resource	
Snake River snails: A portion of the global population of the Snake River physa (Endangered, Type 1 BLM Sensitive) and the majority of the global population of the Bliss Rapids snail (Threatened, Type 1) reside in the Snake River within the nominated ACEC. Both snails are primarily in the eastern portion of the nominated ACEC. Other special status mollusks found in the Snake River within the nominated ACEC include the California floater (Type 3), Columbia pebblesnail (Type 3), short-face lanx (Type 2), and Utah valvata snail (Type 2).	Yes
White sturgeon: About 11 miles of the Snake River flow through the nominated ACEC; however, only the portions downstream from the Bliss Dam are free-flowing (Bliss Dam lies roughly at the midpoint). White sturgeon, a Type 2 BLM Sensitive species, is present in this free-flowing reach of the Snake River. While the habitat is not the best within the range of white sturgeon, this segment contains the best habitat in the upper Snake River. Because of the free-flowing nature of this reach, sturgeon are able to reproduce naturally and do not require hatchery supplementation to sustain the population; this is the upper-most reach of the Snake River with a self-sustaining population of sturgeon.	Yes
Other wildlife: Tens of thousands of waterfowl winter in this portion of the Snake River including mallard, widgeon, ring-neck duck, scaup, American coot, and Canada geese. These waterfowl are typically more concentrated along river reaches with slower moving water. Islands in the Snake River are occasionally used by white pelicans. Scattered areas along this reach of the Snake River provide habitat for wintering bald eagles, which were delisted in 2007. The uplands within the nominated ACEC provide nesting habitat for BLM Sensitive species, including burrowing owl, golden eagle, long-billed curlew, and prairie falcon (Type 3). Cliffs within the nominated ACEC provide habitat for a variety of bat species, including several that are special status species (spotted bat [Type 3] and Townsend's big-eared bat [Type 3]). Western toad, a Type 3 BLM Sensitive species, is present in several areas within the nominated ACEC boundary.	Yes
Natural System or Process	
Special status plants assemblages: Several BLM Sensitive plant species occur within the nominated ACEC, including calcareous buckwheat (Type 3), Greeley's wave-wing (Type 3), Janish penstemon (Type 3), matted cowpie buckwheat (Type 4), and Snake River milkvetch (Type 4). A few other plant species (e.g., desert dandelion and Torrey's blazingstar) formerly on the Idaho BLM Sensitive species list are also present in the nominated ACEC.	Yes
Natural Hazard	
Several scars have been left by old landslides. The most recent large landslide was in 1993 on the north bank of the Snake River near Bliss, across the river from the nominated ACEC. That landslide temporarily blocked the Snake River.	Yes

Table M-20. Importance Evaluation for the Middle Snake ACEC

Importance: **Does the value, resource, system, process, or hazard meet one or more of the following importance factors:** **1. has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource;** **2. has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change;** **3. has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of FLPMA;** **4. has qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare; or** **5. poses a significant threat to human life and safety or to property?**	**Yes, No, or NA**
Historic Value	
While the nominated ACEC does contain 180 acres within the Oregon NHT protective zone the small area is not considered nationally or regionally significant.	No
Cultural Value	
The cultural resources within the nominated ACEC are significant but generally not rare or unique for the region.	No
Scenic Value	
The scenic values are not unique or of more than local significance. Scenic values are mixed and are not outstanding.	No
Fish or Wildlife Resource	
Snake River snails: (Factors 1, 2) The nominated ACEC contains a portion of the global population of Snake River physa snail (Endangered, Type 1) and the majority of the global population of Bliss Rapids snail (Threatened, Type 1). This reach of the Snake River was identified in the Snake River Aquatic Species Recovery Plan as the recovery area for these species (FWS, 1995). A number of other special status mollusks are found in the Snake River in this area including California floater (Type 3), Columbia pebblesnail (Type 3), short-face lanx (Type 2), and Utah valvata snail (Type 2). According to information in the Idaho Comprehensive Wildlife Conservation Strategy (IDFG, 2005), the majority of the known Idaho distribution for these species is within the reach of the Snake River between Hagerman downstream to King Hill.	Yes
White sturgeon: (Factors 1, 2) The nominated ACEC covers the majority of spawning habitat for white sturgeon (Type 2) within the planning area. Because of the free-flowing nature of areas downstream of the Bliss Dam, sturgeon are able to reproduce naturally and do not require hatchery supplementation to sustain the population; this is the upper-most reach of Snake River with a self-sustaining population of sturgeon.	Yes
Other wildlife: Other wildlife values are not more than locally significant. Several special status species are present; however, due to the relatively small size of the area and the wide distribution of those species, the populations within the ACEC are not of more than local interest. The only western toad (Type 3) breeding habitat known in the planning area is within the nominated ACEC; however, western toad are generally widespread and are more abundant in other locations in Idaho.	No
Natural System or Process	
Special status plants assemblages: (Factors met: 1, 2) The Snake River breaks in this area contain a mixture of soils. Slopes exceed 20% in more than 30% of the nominated ACEC, and the wind erosion hazards for the soils are generally rated as severe to very severe; water erosion hazards are generally rated medium. The mix of old lake bed sediments and volcanic soils provides habitat for a number of special status plant species including: calcareous buckwheat (Type 3), Greeley's wave-wing (Type 3), Janish penstemon (Type 3), matted cowpie buckwheat (Type 4), and Snake River milkvetch (Type 4). Torrey's blazingstar and several other former BLM Sensitive plant species are also present in the nominated ACEC.	Yes
Natural Hazard	
Landslides or slumps do not occur frequently and are not a significant threat to humans.	No

The nominated ACEC meets the relevance and importance criteria to be considered as a potential ACEC. The rationale for proposing the nominated Middle Snake ACEC for designation (under Alternatives I and V) as an ACEC is as follows:

The nominated ACEC meets relevance and importance criteria for its fish resources (Snake River snails, white sturgeon) and natural systems or processes (special status plant assemblages).

Existing and potential threats to the relevant and important values of the nominated ACEC include noxious weeds and invasive plants, wildland fires, mineral exploration and development, cross-country motorized vehicle use and other recreational uses, and livestock grazing.

Noxious weeds and invasive plants threaten the habitat for the special status plants and wildlife within the nominated ACEC. Many of the upland areas have been invaded by non-native annual species. Noxious weeds (e.g., Russian knapweed, puncture vine, Scotch thistle, and Canada thistle) are present and increasing in the nominated ACEC. Purple loosestrife, Russian olive, and tamarisk are present and scattered along the Snake River riparian zone. The threat of noxious weeds and invasive plants is directly related to the other threats to the nominated ACEC, as they all contribute to the introduction and spread of these species.

Wildland fire threatens the relevant and important values of the nominated ACEC from the fire itself as well as activities associated with wildland fire suppression. Wildland fires have adversely impacted some of the habitat for Janish penstemon, Greeley's wave-wing, and calcareous buckwheat. Matted cowpie buckwheat is known to be intolerant of fire. Following wildland fires, cheatgrass usually dominates the burned areas, reduces or prohibits the recovery of these Sensitive plant species, and promotes future wildland fires. The lack of vegetation following fire, as well as disturbance areas created by wildland fire suppression activities, can lead to increased sedimentation into the Snake River, adversely affecting habitat for special status species that reside there.

Within the nominated ACEC, there are two active mining claims. Activities associated with mineral exploration and development can increase sedimentation into the Snake River, adversely affecting special status fish and aquatic invertebrates and their habitat.

Cross-country motorized vehicle use and other recreational uses threaten the relevant and important values of the nominated ACEC. Cross-country motorized vehicle use throughout the nominated ACEC has impacted habitat for some of the BLM Sensitive species. Several areas along the Snake River within the nominated ACEC also receive a high amount of use by fishermen. Fishermen have created new routes to access additional locations and to avoid areas where the main access has become powdered or rutted. Water erosion further increases the depth of the ruts created by motorized vehicles; these disturbance areas are typically invaded by cheatgrass. Erosion due to cross-country motorized vehicle use can also increase sedimentation into the Snake River, adversely affecting special status fish and aquatic invertebrates and their habitat. Cross-country motorized vehicle use and unattended campfires increase the chance of wildland fire; both of these activities occur within the nominated ACEC.

Livestock grazing also presents a threat to the relevant and important values of the nominated ACEC. Trailing of livestock in areas rated as severe for soil erosion is affecting Sensitive plant species habitat as well as riparian and aquatic resources. Disturbance areas where livestock have concentrated have increased soil erosion and promoted the spread of invasive plants and noxious weeds.

Two segments of the Snake River within the ACEC have been inventoried as eligible for inclusion in the National Wild and Scenic River System. Outstandingly Remarkable Values (ORVs) for the Hagerman Reach include fish, geological, historical, recreational, and wildlife values; ORVs for the King Hill Reach include fish, geological, recreational, and wildlife values. Interim management of these segments requires that they be managed to maintain or enhance their ORVs. However, the Wild and Scenic River corridor only extends 0.25 mile above the high water mark on each side of the river, which does not provide any protection for these values outside this corridor.

If the nominated ACEC meets the relevance and importance criteria, list the relevant and important value(s) that need special management attention and describe the management prescriptions necessary to protect those values.

The fish resources (Snake River snails and white sturgeon) and natural systems or processes (special status plants assemblages) of the ACEC would be protected through the following allocations and management actions:

Under Alternatives I and V:

- Restore habitat for special status plants within the ACEC. Maintain existing high-quality special status plant habitat.
- Where habitat is suitable, transplant or seed special status plants within the ACEC.
- The ACEC would be a high priority for noxious weeds and invasive plants treatment with integrated weed management techniques for control, containment, and where practical eradication. Special conditions would apply in habitat occupied by special status plant species.
- The ACEC would be a critical suppression area.
- Mitigate the effects of surface-disturbing activities in the ACEC, such as recreation and transportation.
- Implement use restrictions within the ACEC in areas with slopes greater than 20%, or in areas where soils are rated severe or very severe for wind erosion or high for water erosion.
- Manage the ACEC as Visual Resource Management Class III.
- Livestock trailing through the ACEC would be allowed in the designated trailing corridor, but livestock would not be allowed to remain in the ACEC overnight.
- Monitor recreational use within the ACEC. If this use reaches levels that impair the relevant and important values of the ACEC, implement protective measures appropriate to the type of recreational activity. Protective measures may include, but not be limited to, improving access routes to recreational sites along the Snake River, installing barriers to protect relevant and important values, and implementing measures to address water quality and public health concerns.
- BLM-managed lands within the ACEC can be exchanged for non-BLM-managed lands, consistent with the *Land Tenure* section of Chapter 2, in order to obtain lands with relevant and important values or to improve management. Where practical, acquire private or State inholdings. The ACEC designation and management would apply to lands acquired within the ACEC boundary.
- The ACEC would be closed to mineral leasing.
- Recommend lands within the ACEC for withdrawal from mining laws for locatable exploration and development.

Under Alternative I only, specific to livestock grazing management and salable mineral development:

- The Asquena pasture within the ACEC would be available for livestock grazing; the remainder of the ACEC would not be available for livestock grazing.
- The ACEC would be closed to new salable mineral development and expansion of existing developments.

Under Alternative V only, specific to livestock grazing management and salable mineral development:

- The ACEC would not be available for livestock grazing.
- The ACEC would be closed to salable mineral development.

Sagebrush Sea Area of Critical Environmental Concern

Nominated ACEC: Sagebrush Sea ACEC

Nominated by: The Sagebrush Sea ACEC was nominated by Western Watersheds Project.

Location: The Sagebrush Sea ACEC would encompass 956,000 acres of BLM-managed land. The nominated ACEC would occupy roughly the southern 2/3 of the planning area. It would extend from the Bruneau River on the west to Salmon Falls Creek on the east. Its southern boundary would follow the southern boundary of the Jarbidge planning area. The northern boundary would follow the road that runs from Balanced Rock to Crows Nest to Clover Crossing, then follow Clover Creek along its east and north canyon rims to Clover Creek's confluence with the Bruneau River.

The nominated ACEC contains areas within two existing ACECs (Salmon Falls Creek and Bruneau-Jarbidge), as well as other nominated ACECs (Bruneau-Jarbidge [expanded and reduced], Inside Desert [large and small boundaries], Jarbidge Foothills [large and small boundaries], Salmon Falls Creek [expanded], and Upper Bruneau Canyon). The analysis below notes whether the relevant and important values within the nominated Sagebrush Sea ACEC are also within another existing or nominated ACEC.

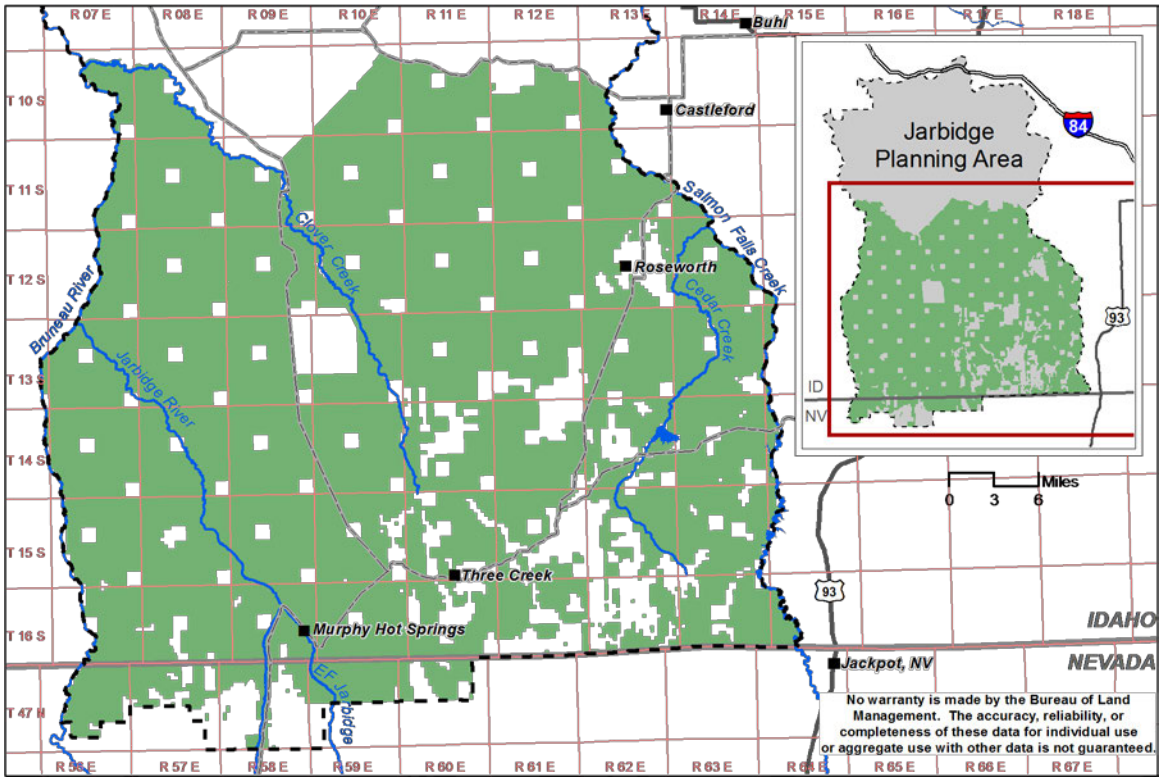


Table M-21. Relevance Evaluation for the Sagebruch Sea ACEC

***Relevance*: Does the area contain a significant historic, cultural, or scenic value; fish or wildlife resource; natural process or system; or natural hazard?**	**Yes or No**
Historic Value	
Historic resources within the nominated ACEC are primarily related to the early livestock industry and include sheep camps, cairns, rock corrals, rock fences, and the remnants of failed homesteads. The Toana Freight Road, a freight and stage route that serviced Idaho mining communities between 1870 and 1883, runs through the eastern portion of the nominated ACEC. Based on its importance in the early settlement and development of Idaho Territory, the Toana Freight Road is listed on the National Register of Historic Places.	Yes
Cultural Value	
Due to its size, the area contains numerous archaeological sites. Many sites have traditional cultural relevance to the tribes and are also important for their scientific value. The nominated ACEC contains 612,000 acres of high density cultural resources, which represents 91% of the high density cultural resources in the planning area.	Yes
Scenic Value	
The area contains a variety of scenic landscapes including deep, rugged canyons, uplifted cliffs, several streams with riparian zones, and a variety of plant communities.	Yes
Fish or Wildlife Resource	
Bull trout: The nominated ACEC contains 70 miles of bull trout (Threatened, Type 1) critical habitat, which represents 79% of the critical habitat within the planning area. The Jarbidge River Distinct Population Segment is the southern-most surviving population of bull trout in North America (FWS, 2004), occurring in a portion of southern Idaho and northern Nevada, and is isolated from other bull trout populations by numerous dams. Within the planning area, this population segment is found in the Jarbidge River and its East Fork and Dave and Jack Creeks. Bull trout in this area are unique in their arid environmental setting.	Yes
Redband trout: The nominated ACEC contains 201 miles of redband trout (Type 2 BLM Sensitive species) streams, which represents 80% of the redband trout streams within the planning area. These include perennial streams in the Jarbidge Foothills and most of the perennial streams in the Jarbidge River and Salmon Falls Creek Watersheds.	Yes
Columbia spotted frog: The area contains all known occupied habitat for spotted frog (Candidate, Type 1 and NV BLM Sensitive species) within the planning area.	Yes
Greater sage-grouse: The nominated ACEC would contain the vast majority of the active sage-grouse leks and their nesting and winter habitat. The nominated ACEC would contain 302,000 acres of key sage-grouse habitat, which represents 97% of the key sage-grouse habitat within the planning area. There are currently 87 occupied sage-grouse leks, associated satellite leks, and sage-grouse nesting habitat present within the nominated ACEC. Sage-grouse are a Candidate, Type 1 BLM Sensitive species; both resident and migratory sage-grouse are present in the area.	Yes
California bighorn sheep: The nominated ACEC would encompass all habitat used by bighorn sheep, a Type 3 BLM Sensitive species; bighorn sheep are concentrated in the Bruneau and Jarbidge Canyons. The bighorn sheep population within the ACEC is estimated to be approximately 210 sheep. The Foundation for North American Wild Sheep and the Idaho Department of Fish and Game (IDFG) were instrumental in re-introducing bighorn into the Bruneau and Jarbidge Canyons in the 1980s and early 1990s. The canyon lands provide secure lambing habitat. The rivers in the canyon bottoms, as well as occasional seeps from canyon walls, provide water. Bighorn sheep forage is available in both the canyons and adjacent uplands. The vast majority of bighorn sheep observations are within the canyon and on the upland plateau up to about 1 mile from the canyon rim. Bighorn sheep typically avoid human disturbance and can be socially displaced in the short term from otherwise suitable habitat when livestock are present (Bissonette and Steinkamp, 1996).	Yes

Other special status wildlife: The nominated ACEC would contain the vast majority of nesting habitat for Brewer's sparrow (Type 3 and NV BLM Sensitive species), sharp-tailed grouse (Type 3 and NV), ferruginous hawk (Type 3), Lewis woodpecker (Type 3 and NV), loggerhead shrike (Type 3 and NV), mountain quail (Type 3 and NV), northern goshawk (Type 3 and NV), prairie falcon (Type 4 and NV), sage sparrow (Type 3), and willow flycatcher (Type 3). Kit fox, a Type 4 BLM Sensitive species, have been sighted in a portion of the nominated ACEC (Rudeen, 2006). The majority of the habitat for spotted bat (Type 3 and NV), Townsend's big-eared bat (Type 3 and NV), and other bat species occurs in various river canyons within the nominated ACEC. The extent of Piute (Great Basin) ground squirrel (Type 3) distribution in the area is unknown. The nominated area contains all recently documented pygmy rabbit habitat (Type 2 and NV).	Yes
Other fish and wildlife: The area would encompass 861,000 acres of elk, mule deer, and pronghorn winter range, more than 95% of the big game winter range within the planning area, as well as the important transitional, fawning, calving, and summer range for big game. Some of the elk, mule deer, and pronghorn are part of migratory herds that winter in Idaho and move back to Nevada in the late spring through fall. The Jarbidge River contains a natural diversity of native fish species. Compared to other rivers in the region, the proportion of native to non-native species is unusually high, as there are few, if any, non-native species present. This is a unique characteristic for the fish populations in the Jarbidge River Watershed. However, stocked rainbow trout are present in Cedar Creek, Salmon Falls Creek, and an unnamed tributary, and brook trout, a non-native fish, have been found in Cedar and Flat Creeks.	Yes
Natural System or Process	
Slickspot peppergrass: The nominated ACEC would cover all known occupied habitat for slickspot peppergrass in the planning area. Slickspot peppergrass is a rare, annual or biennial forb endemic to sagebrush steppe in southwestern Idaho (Moseley, 1994). Slickspot peppergrass is a Type 1 BLM Sensitive species that has been Proposed for listing as Endangered under the Endangered Species Act (ESA). The nominated ACEC contains patches of high quality slickspot peppergrass habitat, which is characterized by intact sagebrush steppe, low abundance of non-native species, and low levels of human-caused disturbances (Colket, 2006; FWS, 2003; Moseley, 1994).	Yes
Davis peppergrass: The nominated ACEC would cover all known occupied habitat for Davis peppergrass in the planning area. Davis peppergrass, a Type 3 and NV BLM Sensitive species, is present in playas within the nominated ACEC; the population of Davis peppergrass is declining range wide. Davis peppergrass is a fleshy, perennial native mustard (forb) adapted to grow in seasonally flooded areas. The species is restricted to a narrow suite of environmental conditions, occurring in playas on volcanic plains where the regional vegetation is dominated by big sagebrush and, to a lesser extent, shadscale. Playas are naturally flat-bottomed basins where water from the adjacent uplands transports silt, clay, and minerals. Playas supporting Davis peppergrass have a hard clay bottom and are inundated with water during springs with average or above average precipitation; some water may also collect during summer thunderstorms. Playas typically dry out in the summer, becoming hard. Davis peppergrass plants show distinct differences in leaf size, shape, and plant phenology between playas. This suggests the species disperses poorly, probably not beyond individual playas, and there is minimal pollination between neighboring playas (Moseley, 1996).	Yes
Bruneau River phlox: The nominated ACEC would contain 250 acres of Bruneau River phlox habitat (Type 3 BLM Sensitive species), which represents 68% of the Bruneau River phlox habitat within the planning area.	Yes

Special status plant assemblages: A few areas within the nominated ACEC contain other plant species classified as BLM Sensitive or Watch species including broadleaf fleabane (NV), Cusick's primrose (Type 5 and NV), earth lichen (Type 4), four-wing milkvetch (Type 4), Newberry's milkvetch (Type 4), Simpson's hedgehog cactus (Type 4), two-headed onion (Type 4), and white-margined wax plant (Type 4). The population of Cusick's primrose (Type 5 and NV) within nominated ACEC is in Nevada. While this species is found elsewhere in Idaho and Oregon; it is the only population of Cusick's primrose in the planning area and the only population of this species in Nevada.	Yes
Upland vegetation: Only 39% of the nominated ACEC has not burned in the last 25 years. The Native Grassland Vegetation Sub-Group (VSG) comprises 37% of the vegetation within the nominated ACEC (355,000 acres). The Native Shrubland VSG comprises 31% of the vegetation within the nominated ACEC (298,000 acres). The Non-Native Perennial VSG comprises 18% of the vegetation within the nominated ACEC (172,000 acres), the majority of which is within the crested wheatgrass community. The Non-Native Understory VSG comprises another 6% of the vegetation within the nominated ACEC (56,000 acres); this VSG is dominated by the Wyoming big sagebrush/crested wheatgrass community. The Unvegetated VSG covers 5% of the nominated ACEC (44,000 acres). Vegetation communities within the Annual VSG are present on nearly 3% of the nominated ACEC (25,000 acres).	Yes
Riparian systems: The Bruneau and Jarbidge Rivers have not been dammed, allowing natural processes to operate in that watershed. However, there are dams on Cedar and Salmon Falls Creeks and smaller irrigation diversions on a majority of the smaller creeks within the nominated ACEC that can be a barrier to fish movements; these diversions can also lead to dewatering of these streams.	Yes
Natural Hazard	
No known significant hazards.	No

Table M-22. Importance Evaluation for the Sagebruch Sea ACEC

***Importance:* Does the value, resource, system, process, or hazard meet one or more of the following importance factors:** **1. has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource;** **2. has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change;** **3. has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of FLPMA;** **4. has qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare; or** **5. poses a significant threat to human life and safety or to property?**	**Yes, No, or NA**
Historic Value	
Most of the historic resources in the nominated ACEC are similar to resources in the surrounding areas. Their significance is primarily local. An exception is the regionally significant Toana Freight Road, which occupies only a very small portion of the entire area.	No
Cultural Value	
(Factors met: 1, 2) Numerous regionally significant archaeological sites are present but their distribution is not uniform. In general, the canyons and foothill areas of the nominated ACEC contain the highest density of cultural resources. The nominated Sagebrush Sea ACEC encompasses the existing and two nominated boundaries of the Bruneau-Jarbidge ACEC, both boundaries of the nominated Jarbidge Foothills ACEC, and the Upper Bruneau Canyon ACEC, all of which have cultural values that meet relevance and importance criteria.	Yes

Scenic Value	
Other than the canyons, the scenic values are not more than of local significance. Although scenic values are unique in some areas (Bruneau, Jarbidge, and Salmon Falls Creek Canyons), in the majority of the area, scenic values are not regionally unique or significant. The nominated Sagebrush Sea ACEC encompasses the existing and two nominated boundaries of the Bruneau-Jarbidge ACEC, the Salmon Falls Creek ACEC, and the Upper Bruneau Canyon ACEC, all of which have scenic values that meet relevance and importance criteria.	No
Fish or Wildlife Resource	
Bull trout: (Factors met: 1, 2, 3) The Jarbidge River contains the southernmost population of bull trout in North America (FWS, 2004). Bull trout are the only fish within the planning area listed as Threatened under the ESA and are a Type 1 BLM Sensitive species. Genetic analysis of bull trout in the Columbia River Basin indicates Jarbidge River bull trout have a shared evolutionary history with populations in the upper Columbia River and Snake River but are genetically separated. For more than 100 years, Jarbidge River bull trout have been geographically isolated from other populations in the Snake River by more than 150 miles of unsuitable habitat and several impassable hydroelectric dams on the Snake River and lower Bruneau River. Bull trout in the Jarbidge River are considered significant because they occupy a unique and unusual ecological setting and their loss would result in a substantial modification of the species' range. The bull trout in the Jarbidge River are unique in that a portion of their habitat is in an area categorized as semi-arid desert. The nominated ACEC has both spawning and migratory habitat for bull trout. Dave Creek is believed to be a crucial spawning area for bull trout within the watershed of the East Fork of the Jarbidge River. Bull trout also meet relevance and importance criteria in the existing and two nominated boundaries of the Bruneau-Jarbidge ACEC, all of which are encompassed by the nominated Sagebrush Sea ACEC.	Yes
Redband trout: (Factors met: 1, 2) Redband trout are Type 2 BLM Sensitive species occurring in perennial streams in the Jarbidge Foothills and in most of the perennial streams in the Jarbidge River and Salmon Falls Creek Watersheds. The nominated ACEC contains 201 miles of redband trout streams, which represents 80% of the redband trout streams within the planning area. Redband trout in the Jarbidge Foothills exist in isolated populations or "strongholds" that are unable to migrate to adjacent suitable habitats when threatened by low streamflow conditions or other environmental disturbance such as wildfire. Due to the lack of connectivity between the redband trout occupied streams, these fish are vulnerable to population declines. Recent studies of redband trout populations in drainages similar to those found in the Jarbidge Foothills suggest that redband trout are declining in their lower elevation habitats (Zoellick et al., 2005). Redband trout in the Jarbidge River Watershed are less isolated than those in the Jarbidge Foothills and can freely migrate between suitable stream habitats throughout the Jarbidge and Bruneau River Watersheds. Redband trout also meet relevance and importance criteria in the existing and two nominated boundaries of the Bruneau-Jarbidge ACEC, the large boundary of the nominated Jarbidge Foothills ACEC, the existing Salmon Falls Creek ACEC, and the Upper Bruneau Canyon ACEC, all of which are encompassed by the nominated Sagebrush Sea ACEC.	Yes
Columbia spotted frog: (Factors met: 2, 3) Spotted frog populations are part of a larger, but fragmented, population of spotted frogs in northern Nevada. The Great Basin population of spotted frog is of national significance. Great Basin Columbia spotted frog populations continue to decline in portions of Nevada. Spotted frogs have been observed along 5 miles of streams; the majority of observations have occurred along Shack and Rocky Canyon Creeks. Potentially suitable habitat occurs in several other drainages (China, Cedar, Flat, and House Creeks) within the nominated ACEC. Spotted frogs also meet relevance and importance criteria in the large boundary of the nominated Jarbidge Foothills ACEC, which is encompassed by the nominated Sagebrush	Yes

Sea ACEC.	
Greater sage-grouse: (Factors met: 1, 2, 3) Sage-grouse (Candidate, Type 1 BLM Sensitive species) are present in much of the area in sagebrush with suitable habitat, and the nominated ACEC contains more than 90% of the occupied sage-grouse leks within the planning area. Locally, sage-grouse are a mix of resident and migratory forms. Although there is some information on the movements of sage-grouse in the western portion of the area, sage-grouse movements and habitat use in the southeastern part (Browns Bench) of the area are better documented. Sage-grouse in this area have been documented to move more than 10 miles into northern Nevada and 15 miles east to the Shoshone Basin. Radio-collared sage-grouse in the Shoshone Basin have been documented to winter in the Browns Bench/Monument Springs/China Mountain areas. Sage-grouse in this area provide connectivity to sage-grouse regionally. The Browns Bench/China Mountain area is presently a stronghold or key area for sage-grouse. Sage-grouse also meet relevance and importance criteria in both boundaries of the nominated Jarbidge Foothills ACEC, both of which are encompassed by the nominated Sagebrush Sea ACEC.	Yes
California bighorn sheep: (Factors met: 1, 2) Bighorn sheep, a Type 3 BLM Sensitive species, are concentrated in the Bruneau and Jarbidge Canyons. Bighorn sheep are scattered in small herds across parts of Oregon, Idaho, Nevada, and British Columbia. In Idaho, bighorn sheep populations in the South Hills and Jim Sage Mountains are smaller than in the Bruneau/Jarbidge River area. The population in the Owyhee River is larger than the Bruneau/Jarbidge River population. Bighorn sheep in Idaho are recovering from a population crash in the late 1990s. Human disturbance and disease continue to suppress bighorn sheep nationwide (Krausman and Bowyer, 2003; Lawson and Johnson, 1982). This population of bighorn sheep is of more than local importance, evidenced in part by the fact that bighorn sheep tags for hunts in this area are in high demand and attract applicants from across the United States. Bighorn sheep habitat in the Bruneau and Jarbidge Canyons accounts for less than 10% of the nominated ACEC. The majority of the nominated ACEC is not generally suitable for bighorn sheep. Bighorn sheep also meet relevance and importance criteria in the existing and two nominated boundaries of the Bruneau-Jarbidge ACEC, and the Upper Bruneau Canyon ACEC, all of which are encompassed by the nominated Sagebrush Sea ACEC.	Yes
Other special status wildlife: Generally, the other special status wildlife within the nominated ACEC are not of more than local importance. Mountain shrub and aspen habitats provide Columbian sharp-tailed grouse winter habitat. Columbian sharp-tailed grouse (Type 3 BLM Sensitive species) in the area provide connectivity to a population in the Shoshone Basin. The Columbian sharp-tailed grouse population in the nominated ACEC is small and is currently not of more than local importance. Mountain quail (Type 3) were historically present within the nominated ACEC. IDFG and BLM records suggest that mountain quail have likely been extirpated from the majority of the area. Historical records indicate that mountain quail were occasionally harvested in the 1960s and 1970s from this general area. The last mountain quail documented within the nominated ACEC was in the Jarbidge Canyon in 2001. Habitat within the planning area is limited for Lewis woodpecker (Type 3), northern goshawk (Type 3 and NV), and willow flycatcher (Type 3). The limited nesting habitat makes these species of only local importance. Prairie falcons (Type 4), spotted bat (Type 3), and Townsend's big-eared bat (Type 3 and NV) are associated with major canyons but forage well into the uplands. Canyon lands, which are used by these species for day roosts, are found only in a small portion of the nominated ACEC.	No

Nesting habitat for Brewer's sparrow (Type 3 and NV), loggerhead shrike (Type 3 and NV), ferruginous hawk (Type 3), and sage sparrow (Type 3) is fairly widespread over the area. Songbirds are associated with sagebrush habitats locally and nest wherever suitable habitat is present. The majority of active ferruginous hawk nests within the planning area are found within the nominated ACEC. These species are of primarily local significance regarding connectivity and genetics. Kit fox (Type 4) in the area have been documented west of Clover Creek, in a small portion of the nominated ACEC (Rudeen, 2006). Kit fox are at the northern part of their range in southern Idaho. It is not known if kit fox are present east of Clover Creek or the size of their population. The nominated ACEC covers more than the presently occupied habitat for pygmy rabbit (Type 2) within the planning area. Habitat fragmentation, primarily due to wildland fire, has contributed to the isolation of pygmy rabbit and Piute ground squirrels (Type 3) locally.	
Other fish and wildlife: The big game winter range values are not unique or of more than local importance. While there is high quality big game habitat in a portion of the nominated ACEC (e.g., Jarbidge Foothills, Diamond A, and the Jarbidge and Clover Creek Canyons), the high quality habitat is present on less than 20% of the area following the 2007 Murphy Complex Fires. High quality big game habitat is present south into Nevada and west of the Bruneau Canyon. In addition, the assemblage of fish within the nominated ACEC is not unique or of more than local importance. Stocked and non-native fish are present in several major drainages.	No
Natural System or Process	
Slickspot peppergrass: (Factors met: 1, 2) Slickspot peppergrass is of more than local importance; however, this species is found in only a small portion (<10%) of the area. Slickspot peppergrass is a Type 1 BLM Sensitive species that has been Proposed for listing as Endangered under the ESA. The nominated ACEC encompasses the known occupied habitat of slickspot peppergrass within the planning area and the largest contiguous habitat within the range of the species. The Jarbidge population of slickspot peppergrass is the most genetically diverse of the known slickspot peppergrass populations. Slickspot peppergrass is one of the few flowering plant species with two life cycle types: annual and biennial. Slickspot peppergrass is highly specific to slickspots that developed on remnant Pleistocene surfaces (Fisher et al., 1996). Slickspots, also known as mini-playas or natric sites, are small soil inclusions with a silt loam surface crust, a restrictive hardpan, and a subsurface clay layer (argillic horizon) (Fisher et al., 1996; Lewis and White, 1964; Sandoval et al., 1959). Soils in slickspots tend to be more alkaline or saline than the adjacent uplands. Slickspots can range in size from a square foot to interlinked complexes over 900 square feet. Slickspots are associated with shrub interspaces in sagebrush steppe and are visually distinct, due to their high reflectance and sparsely vegetated surface (Fisher, et al., 1996). Physical disturbance of slickspots when they are wet can disrupt underlying soil structure essential for slickspot peppergrass recruitment (Meyer et al., 2006). Disturbances include livestock hoof prints, drill seeding, fire-fighting activities (e.g., fire lines), and cross-country motorized vehicle tracks (Meyer et al., 2005, 2006). Repeated and severe penetrating disturbances, especially during saturated soil conditions during the spring, may be precursors to slickspot invasion by non-native species (e.g., bur buttercup, clasping-leaf pepperweed), further reducing slickspot integrity (FWS, 2003). Degradation of slickspot peppergrass habitat has been attributed to large, uncharacteristic wildland fires; conversion of sagebrush steppe to non-native annual grasslands; historic livestock grazing levels; and historic fire rehabilitation practices (e.g., drill seeding) (Colket, 2005; FWS, 2003; Lesica and DeLuca, 1996; Moseley, 1994; Noss et al., 1995; Peters and Bunting, 1994; Whisenant, 1990). Habitat loss and degradation, fragmentation, and population isolation may correspondingly result in the loss of genetic fitness (Moseley, 1994; Reed and Frankham, 2003). Many slickspot	Yes

peppergrass element occurrences (EOs) occur in fragmented sagebrush steppe or non-native annual grasslands and are highly susceptible to reduced genetic diversity and gene flow (Robertson, 2004; Robertson and Klemash, 2003). An EO is a specific geographic location where "a species or natural community is, or was, present" (NatureServe, 2002). Slickspot peppergrass also meets relevance and importance criteria in both boundaries of the nominated Inside Desert ACEC, both of which are encompassed by the nominated Sagebrush Sea ACEC.	
Davis peppergrass: (Factors met: 1, 2) Davis peppergrass is of more than local importance; however, this species is found in only a small portion (<1%) of the area. Davis peppergrass, a Type 3 and NV BLM Sensitive species, is limited in its distribution to portions of southeastern Oregon, south-central Idaho, and north central Nevada, with the majority of known populations occurring in Idaho. There are fewer than 300 populations in six distinct clusters or distribution centers. The Bruneau-Jarbidge populations are a population stronghold, whereas the Mountain Home populations (outside the planning area) show downward trend due to poor ecological condition of the sagebrush steppe ecosystem. The remaining populations outside the planning area in Idaho, Oregon, and Nevada are currently stable. Davis peppergrass also meets relevance and importance criteria in the existing and two nominated boundaries of the Bruneau-Jarbidge ACEC, and the Upper Bruneau Canyon ACEC, all of which are encompassed by the nominated Sagebrush Sea ACEC.	Yes
Bruneau River phlox: (Factors met: 1, 2) Bruneau River phlox is of more than local importance; however, this species is found in only a small portion (<1%) of the area. Bruneau River phlox is a Type 3 and NV BLM Sensitive species endemic to the area. All six Idaho populations are present in the Bruneau and Jarbidge Canyons; five of these are within the nominated ACEC. Two additional populations can be found in Nevada. Bruneau River phlox has a total estimated population of 500 plants. The Idaho populations are relatively stable. Bruneau River phlox also meets relevance and importance criteria in the existing and two nominated boundaries of the Bruneau-Jarbidge ACEC and the nominated Lower Bruneau Canyon ACEC; the existing and two nominated boundaries of the Bruneau-Jarbidge ACEC are encompassed by the nominated Sagebrush Sea ACEC.	Yes
Special status plant assemblages: Other special status plants occur in the area, but are not of more than local importance.	No
Upland vegetation: Portions of the nominated ACEC contain examples of late seral and potential natural community for a number of range sites. However, the majority of the native plant communities have been highly fragmented by wildland fire and previous non-native perennial seeding projects. There are other better examples of intact sagebrush steppe communities outside of the planning area. Native plant communities within the nominated ACEC as well as outside the planning area face similar threats. The nominated Sagebrush Sea ACEC encompasses both boundaries of the nominated Jarbidge Foothills ACEC and the existing Salmon Falls Creek ACEC, all of which have upland vegetation values that meet relevance and importance criteria.	No
Riparian systems: Most of the streams within the nominated ACEC have been substantially altered through diversions on non-BLM-managed land and are not of more than local importance. The nominated Sagebrush Sea ACEC encompasses the existing and two nominated boundaries of the Bruneau-Jarbidge ACEC, and the Upper Bruneau Canyon ACEC, all of which have riparian values that meet relevance and importance criteria.	No

Natural Hazard	
NA	NA

The nominated ACEC meets the relevance and importance criteria to be considered as a potential ACEC. The rationale for proposing the nominated Sagebrush Sea ACEC for designation (under Alternative V) as an ACEC is as follows:

The nominated ACEC meets relevance and importance criteria for cultural values, fish and wildlife resources (bighorn sheep, bull trout, redband trout, sage-grouse, and spotted frog), and natural systems or processes (Bruneau River phlox, Davis peppergrass, and slickspot peppergrass).

Existing and potential threats to the relevant and important values within the nominated ACEC include wildland fire, noxious weeds and invasive plants, diversion of streams, and a variety of uses, including livestock grazing and energy development. These threats may contribute to the alteration and fragmentation of upland and riparian habitats.

Wildland fires are a threat to the relevant and important values in the ACEC, through the effects of the fire itself as well as the effects of wildland fire suppression activities. Since the 1970s, wildland fires have reduced the amount of sagebrush habitat present in the planning area by roughly two-thirds. Throughout the West as well as locally, habitat conversion and fragmentation in part due to wildland fire have contributed to declining sage-grouse numbers and the loss of leks (Knick and Connelly, 2011). Wildland fires and subsequent rehabilitation also has altered habitat in the majority of slickspot peppergrass habitat in the planning area. Drill seeding following fires from the 1980s through the 1990s converted large portions of slickspot habitat to non-native perennial communities. Soil erosion and deposition following wildland fires as well as the construction of fire lines in slickspot habitat are also threats to slickspot peppergrass. Davis peppergrass is similarly affected by wildland fire.

Noxious weeds and invasive plants are also a threat to the relevant and important values within the ACEC. These species have affected upland habitat for bighorn sheep, Bruneau River phlox, Davis peppergrass, sage-grouse, and slickspot peppergrass, as well as riparian habitats for bull trout, redband trout, and spotted frog.

Alterations of riparian systems primarily are a threat to bull trout, redband trout, and spotted frog. Wildland fires that burn the riparian zone can reduce the amount of large wood and streambank shade and increase sediment to the stream, affecting bull trout, which require cold clean water with low amounts of sediment in stream gravels for spawning and rearing. Dams and diversions of streams to irrigate private land have resulted in the dewatering of portions of some streams, contributing to the fragmentation of redband trout habitat. This has reduced the ability of redband trout to move between streams. Threats to spotted frog include loss of habitat due to down cutting of streams, lowered water table, habitat fragmentation, and sediment from roads on steep gradients.

Several land uses are potential threats to the relevant and important values within the nominated ACEC. Generally, surface-disturbing activities that remove vegetation or create corridors for the introduction and spread of noxious weeds and invasive plant species would adversely affect the relevant and important values. The physical integrity and the cultural values attached to many archaeological sites are threatened by increasing levels of use and development as well, particularly increasing levels of cross-country motorized vehicle use. Right-of-way (ROW) development, including wind energy, has the potential to affect upland and riparian habitats as well as cultural resources due to increased human activity and habitat fragmentation and loss.

Livestock grazing also can adversely affect upland and riparian habitats. Livestock grazing in slickspot peppergrass habitat can result in trampling of slickspots and plants when the soils are moist. In some instances, range infrastructure can present a threat to slickspot peppergrass through increased trampling around water sources and trailing along fences; these actions can also result in the spread of invasive plants, further impacting the species. In other cases, properly located fences could help protect concentrations of slickspots from the impacts of livestock grazing. Livestock grazing also presents a

threat to Davis peppergrass. Livestock trailing/trampling in occupied playas results in seed being buried too deep for germination and growth and damages the perennial plants. Stock ponds dug in playas may alter the hydrology and contribute to the introduction and spread of invasive plant species. Livestock congregating in or near playas also impacts cultural resources associated with playas.

Portions of the nominated Sagebrush Sea ACEC are included in the Bruneau-Jarbidge Rivers Wilderness and the Lower Salmon Falls Creek Wilderness Study Area (WSA). Areas within the wilderness would be managed consistent with the Wilderness Act and Omnibus Public Lands Management Act (OPLMA) and with allocations and management actions made for wilderness. Areas within the WSA would be managed according to BLM Manual 6330 - Management of BLM Wilderness Study Areas.

Designated Wild and Scenci River segments within the ACEC include the Bruneau River from Hot Creek to the Bruneau River confluence and the Jarbidge River from the Jarbidge Forks to the Bruneau River confluence. Outstandingly Remarkable Values (ORVs) for these segments include cultural, fish, geological, recreational, scenic, vegetation, and wildlife. The Bruneau River from Blackrock Crossing to 0.3 mile above the confluence of the West Fork of the Bruneau River and the Jarbidge River has been recommended suitable for designation as a Wild and Scenic River. The ACEC also contains portions of river segments inventoried as eligible for inclusion in the National Wild and Scenic River System (ORVs included in parentheses): Jarbidge River south of the Jarbidge Forks (scenic, fish), the East Fork of the Jarbidge River (fish), Cougar Point Creek (scenic), Dave Creek (fish), Rocky Canyon Creek (wildlife), Salmon Falls Creek south of Salmon Falls Reservoir (recreation), and Salmon Falls Creek from Salmon Falls Creek Dam to Balanced Rock (geological, recreational, scenic). Interim management of these segments requires that they be managed to maintain or enhance their ORVs.

If the nominated ACEC meets the relevance and importance criteria, list the relevant and important value(s) that need special management attention and describe the management prescriptions necessary to protect those values.

The cultural values, fish and wildlife resources (bighorn sheep, bull trout, redband trout, sage-grouse, and spotted frog), and natural systems or processes (Bruneau River phlox, Davis peppergrass, and slickspot peppergrass) of the ACEC would be protected through the following allocations and management actions:

- All actions within the portions of the ACEC that are also within wilderness or WSA must be consistent with the Wilderness Act and OPLMA or the Management of Wilderness Study Areas (BLM Manual 6330) and with allocations and management actions made for wilderness or WSAs.
- Improving, expanding, connecting, and restoring native plant communities through active and passive treatments for fuels, noxious weeds, invasive plants, and non-native perennial plant communities would be a high priority within the ACEC.
- Implement management actions that improve riparian condition and reduce habitat fragmentation in redband trout occupied streams.
- Within nine miles of bighorn sheep habitat, use of domestic sheep or goats would not be allowed to eliminate potential contact of domestic sheep or goats with bighorn sheep.
- Treatments would include only native plants. Special stipulations would apply for treatments in occupied habitat for slickspot peppergrass, such as establishing buffer areas and not allowing aerial spraying in occupied habitat.
- Restore playas occupied by Davis peppergrass to improve natural hydrologic function and habitat on a case-by-case basis. Restoration activities may include filling pit reservoirs, stabilizing erosion areas, and planting native species with similar pollinators.
- BLM management activities and authorized uses would result in no net loss of native vegetation; this restriction would not apply to fire suppression activities.
- Manage the majority of the ACEC as Visual Resource Management (VRM) Class III, where not otherwise designated as VRM Class I or II (see the *Visual Resources* section of Chapter 2).
- The ACEC would be a critical suppression area.
- Livestock seasons of use or stocking rates would be adjusted on a pasture-specific basis to minimize conflicts with bighorn sheep lambing and sage-grouse breeding and nesting periods and the active growing period of native grasses.

- Reduce livestock infrastructure and associated routes to amounts appropriate to ACEC objectives and the levels of livestock grazing within the ACEC. Water troughs, corrals or other related livestock facilities in reference areas within the ACEC would be removed. Pipelines would remain in the ground to minimize disturbance.
- Monitor recreational use within the ACEC. If this use reaches levels that impair the relevant and important values of the ACEC, implement protective measures appropriate to the type of recreational activity. Protective measures may include but not be limited to designating camping areas within the ACEC; requiring the use of certified weed-free forage and straw; and installing protective barriers to protect relevant and important values.
- Travel routes would be designated through the Travel Management Plan to increase core habitat size for sage-grouse.
- The ACEC would be a ROW avoidance area; new ROWs would be restricted to ROW corridors and locations of existing ROWs.
- Lands within the ACEC would be in Land Tenure Zone 1; where practical, private and/or State inholdings would be acquired. Lands acquired within the ACEC would become part of the ACEC and be managed accordingly.
- The ACEC would be available for salable mineral development. Where practical, use existing mineral pits and minimize new salable mineral developments within the ACEC. Seasonal closures that restrict use or activities at the pits during important seasonal periods for fish and wildlife may be included when existing salable mineral permits are reauthorized and in new permits.
- Limit surface disturbing activities within and adjacent to the Bruneau and Jarbidge Rivers, Devil Creek, Browns Bench and the Jarbidge Foothills to protect cultural resources; ensure that authorized impacts are appropriately mitigated.

Salmon Falls Creek Area of Critical Environmental Concern

Salmon Falls Creek ACEC is an existing ACEC. The existing ACEC was re-nominated; one alternate boundary for the ACEC was nominated as well. The area encompassed by the existing boundary is presented first, followed by the area encompassed by the nominated extensions to the existing boundary.

Existing ACEC

Nominated ACEC: Salmon Falls Creek ACEC (existing ACEC boundary)

Nominated by: The existing ACEC was re-nominated by BLM in accordance with BLM Manual 1613, Areas of Critical Environmental Concern, Section .21A.1.

The existing ACEC was also re-nominated by Western Watersheds Project.

Location: The Salmon Falls Creek ACEC encompasses 6,000 acres of BLM-managed land. The ACEC is located within the Salmon Falls Creek Canyon (rim to rim), extending from Balanced Rock Crossing Park south to the private land near Salmon Falls Creek Dam. The Salmon Falls Creek ACEC is located in both the Jarbidge and Burley Field Offices; however portions east of Salmon Falls Creek are not within the planning area. As a result designation and management of the Burley Field Office portion of the ACEC will not be addressed in the Jarbidge RMP. While the ACEC encompasses 6,000 acres, only 3,000 acres are within the Jarbidge planning area.

The ACEC is contained within the nominated Sagebrush Sea ACEC.

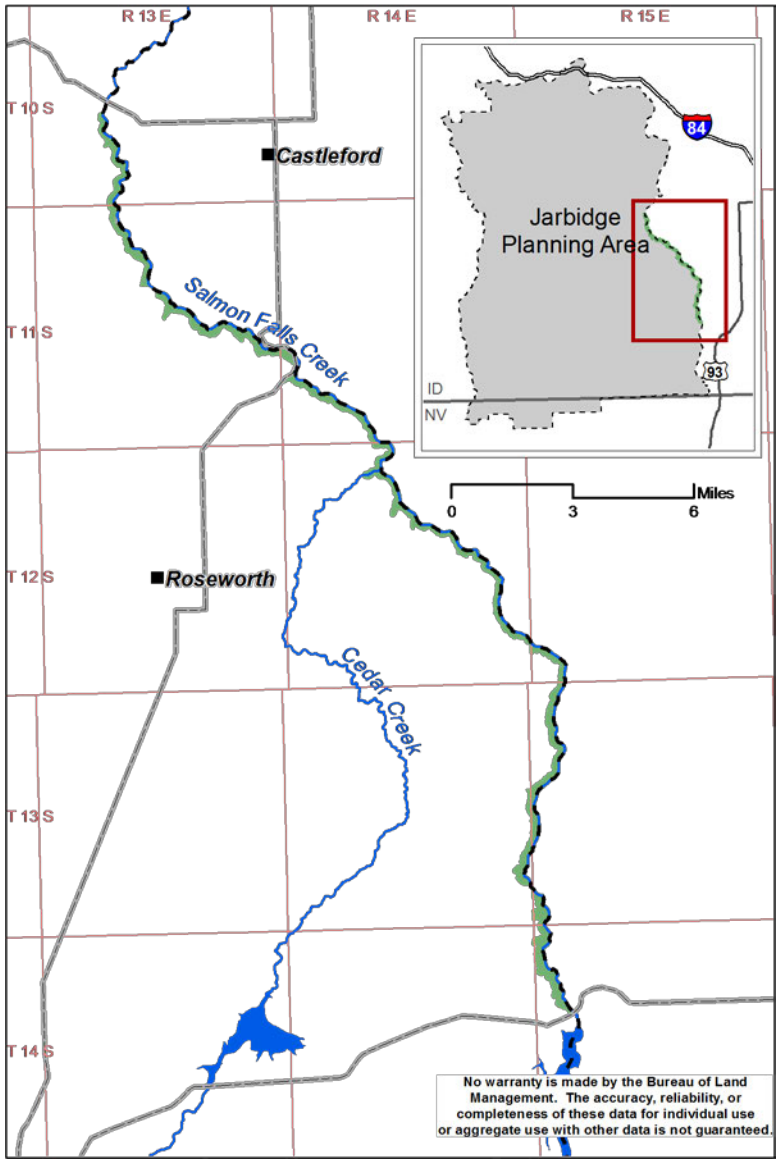


Table M-23. Relevance Evaluation for the Existing Salmon Falls Creek ACEC

Relevance: **Does the area contain a significant historic, cultural, or scenic value; fish or wildlife resource; natural process or system; or natural hazard?**	**Yes or No**
Historic Value	
No significant historic values are associated with the ACEC.	No
Cultural Value	
Several archaeological sites that may be eligible for the National Register of Historic Places are located within the ACEC. In addition to their scientific value, these sites are of traditional cultural importance to the tribes.	Yes
Scenic Value	
The canyon has impressive scenery. In some areas, basalt lava flows are separated by layers of sediment. Other areas of the canyon are dominated by rhyolite columns and spires. A few springs on the lower portion of canyon walls provide a contrast with the dominant upland vegetation.	Yes

Fish or Wildlife Resource	
Redband trout: Salmon Falls Creek supports a population of redband trout, a Type 2 BLM Sensitive species. The ACEC contains 31 stream miles that are occupied by redband trout.	Yes
Other wildlife: The canyon supports a variety of BLM Sensitive species, including prairie falcon (Type 3), spotted bat (Type 3), and Townsend's big-eared bat (Type 3). The ACEC also includes habitat for a variety of canyon-nesting species, including canyon wren, cliff swallow, rock wren, violet-green swallow, and white-throated swift. Waterfowl nest in the lower-gradient reaches. Raptors found in the canyon include American kestrel, golden eagle, great horned owl, long-eared owl, red-tailed hawk, and western screech owl. Mule deer reside in the canyon and on the plateau adjacent to the canyon rim.	Yes
Natural System or Process	
Upland vegetation: The canyon has upland plant communities at or near the potential natural community, including Wyoming big sagebrush/bluebunch wheatgrass sites and some late seral riparian zones. The entire area has been ungrazed since the 1987 Jarbidge RMP was completed; the area south of the confluence with Cedar Creek also received no livestock grazing prior to 1987 due to natural barriers (e.g., boulder fields, cliffs, talus slopes). The upland plant communities have been relatively undisturbed overall.	Yes
Riparian system: Natural streamflow processes have been disrupted by dams on Cedar Creek and Salmon Falls Creek on non-BLM-managed lands. Flow alteration has generally eliminated flushing flows, enhancing the collection of sediment in portions of the canyon. Invasive plant species including reed and reed canary grass are expanding, adversely impacting native riparian vegetation.	No
Natural Hazard	
No known significant hazards.	No

Table M-24. Importance Evaluation for the Existing Salmon Falls Creek ACEC

***Importance:* Does the value, resource, system, process, or hazard meet one or more of the following importance factors:** **1. has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource;** **2. has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change;** **3. has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of FLPMA;** **4. has qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare; or** **5. poses a significant threat to human life and safety or to property?**	**Yes, No, or NA**
Historic Value	
NA	NA
Cultural Value	
The cultural resources within the ACEC are significant but generally not rare or unique for the region.	No
Scenic Value	
(Factors met: 1, 2) The ACEC contains the easternmost deep canyon in Idaho, making it more than locally significant, relatively unique for the south-central portion of the state, and irreplaceable. The scenic values of Salmon Falls Creek ACEC are strongly influenced by the geology of the area and the high quality of the native vegetation communities.	Yes
Fish or Wildlife Resource	
Redband trout: (Factor met: 2) The redband trout population within the ACEC is especially fragile, given that it is an isolated population in poor habitat. Natural streamflow processes have been disrupted by dams on Cedar Creek and Salmon Falls Creek on non-BLM-managed lands. Flow alteration has generally eliminated flushing flows, enhancing the collection of sediment in portions of the canyon. The high degree of sedimentation has reduced the quality of habitat for	Yes

redband trout.	
Other wildlife: Other wildlife values are not more than locally significant. Big game wintering in the area is primarily of local interest, and canyons and adjacent upland plateaus throughout the planning area are used by wintering wildlife. Several special status species are present; however, due to the relatively small size of the area and the wide distribution of those species, the populations within the ACEC are not of more than local interest. The other wildlife that use the canyon as habitat are found in other larger canyon systems within the planning area and region.	No
Natural System or Process:	
Upland vegetation: (Factor met: 2) The upland vegetation communities within the canyon are unique because they are relatively undisturbed and have been relatively unaffected by humans. The lands have not been grazed by livestock, and 87% of the ACEC has not burned in the last 25 years. The only travel route in the ACEC is the paved road at Lilly grade; there are no other travel routes within the canyon, and recreational use of the area is low. There are few areas within southern Idaho, especially that are close to human population centers, where human uses are not the primary forces influencing the vegetation community.	Yes
Riparian system: NA	NA
Natural Hazard	
NA	NA

The ACEC meets the relevance and the importance criteria to continue to be considered as an ACEC. The rationale for proposing the Salmon Falls Creek ACEC for continued designation (under Alternatives I, III, and VI [Proposed RMP]) as an ACEC is as follows:

The nominated ACEC meets relevance and importance criteria for scenic values, fish resources (redband trout), and natural systems or processes (upland vegetation).

Existing and potential threats to the relevant and important values within the ACEC include wildland fire, expansion of noxious weeds and invasive plants, mineral exploration and development, livestock grazing, and utility corridors.

Wildland fire is a threat to both the scenic values and the native vegetation communities within the ACEC. In the last 25 years, only 400 acres within the ACEC have burned. Wildland fire that adversely impacts the native upland vegetation also impairs the scenic quality, particularly if the burned area becomes dominated by cheatgrass.

Noxious weeds and invasive plants have impacted the quality of the redband trout habitat, as well as the upland vegetation communities and the scenic values. Noxious weeds and invasive species known to be present include reed, reed canary grass, Russian olive, Canada thistle, bull thistle, and cheatgrass.

Activities related to mineral exploration and development have the potential to threaten the scenic quality of the area as well as the native vegetation communities; roads associated with these activities may increase sedimentation in redband trout habitat as well. There are currently two active mining claims within the ACEC. Gold mining activity on BLM-managed land immediately south of Lilly Grade in the 1990s caused damage to the area by promoting the invasion of cheatgrass.

Livestock grazing has the potential to threaten the scenic values and native vegetation communities within the ACEC as well. The ACEC was closed to livestock grazing in the 1987 Jarbidge RMP. However, prior to 1987, the portion of the ACEC north of Cedar Creek was grazed, which contributed to the introduction and spread of invasive plants.

Utility corridors threaten the scenic values of the ACEC. Currently, there are few utility lines that cross the ACEC north of the Wilderness Study Area (WSA); additional lines would impair the scenic values of the canyon.

The ACEC from Lilly Grade to about 1 mile north of Salmon Falls Creek Dam is within the Lower Salmon Falls Creek WSA; these areas would be managed according to BLM Manual 6330 - Management of BLM Wilderness Study Areas.

The segment of Salmon Falls Creek within the ACEC has been inventoried as eligible for inclusion in the National Wild and Scenic River System. Outstandingly Remarkable Values (ORVs) for this segment include geological, recreational, and scenic values. Interim management of this segment requires that it be managed to maintain or enhance its ORVs.

If the nominated ACEC meets the relevance and importance criteria, list the relevant and important value(s) that need special management attention and describe the management prescriptions necessary to protect those values.

The scenic values, fish resources (redband trout), and natural processes or systems (upland vegetation) of the ACEC would be protected through the following allocations and management actions:[7]

- All actions within the portion of the ACEC that is also a WSA must be consistent with Management of Wilderness Study Areas (BLM Manual 6330) and with allocations and management actions made for WSAs.
- Restore vegetation within the riparian area to benefit redband trout habitat (e.g., increasing shade in the riparian zone).
- Use native species for any vegetation treatments within the ACEC, including for Emergency Stabilization and Burned Area Rehabilitation.
- The ACEC would be a high priority for noxious weeds and invasive plants treatment with integrated weed management techniques for control, containment, and where practical eradication.
- The ACEC would be a critical suppression area.
- Minimum Impact Suppression Tactics would be used for wildland fires within the ACEC.
- The ACEC would remain closed to livestock grazing.
- Monitor recreational use within the ACEC. If this use reaches levels that impair the relevant and important values of the ACEC, implement protective measures appropriate to the type of recreational activity.
- The ACEC north and south of Lilly Grade crossing would remain closed to motorized vehicle use.
- Lands within the ACEC would be in Land Tenure Zone 1.
- The ACEC would be closed to mineral leasing.
- The ACEC would remain closed to salable mineral development.

<u>Under Alternatives I and III only:</u>
- Manage the portion of the Jarbidge right-of-way (ROW) corridor within the ACEC as Visual Resource Management (VRM) Class III; manage the remainder of the ACEC as VRM Class I.
- The ACEC would remain a ROW avoidance area; new ROWs would be restricted to the Jarbidge ROW corridor and locations of existing ROWs.
- Recommend lands within the ACEC for withdrawal from mining laws for locatable exploration and development.

<u>Under Alternatives VI (Proposed RMP) only:</u>
- Manage the portion of the Roseworth ROW corridor within the ACEC as VRM Class III; manage the remainder of the ACEC as VRM Class I.
- The ACEC would remain a ROW avoidance area; new ROWs would be restricted to the Roseworth ROW corridor and locations of existing ROWs.

Extensions to the Existing ACEC

Nominated ACEC: Extensions to the existing Salmon Falls Creek ACEC

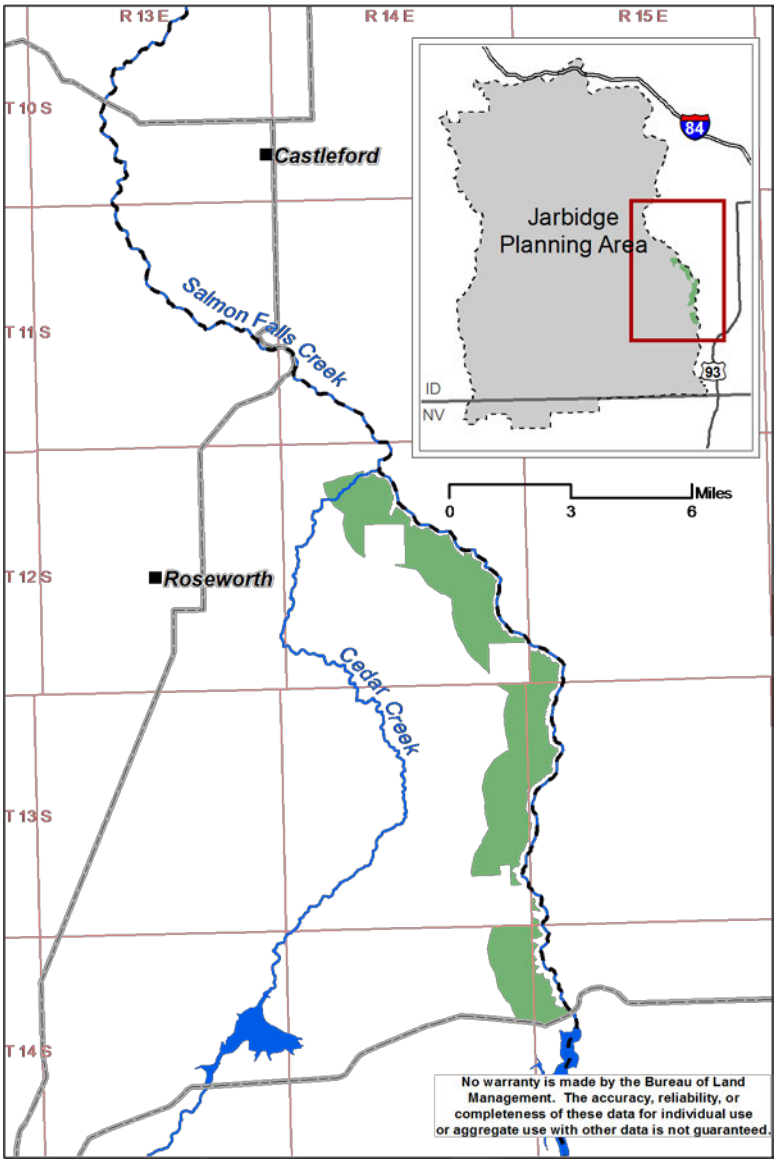
[7] Allocations and management actions described are for the Jarbidge Field Office only. Under the No Action Alternative, the ACEC would be managed as described in the *Areas of Critical Environmental Concern* section of Chapter 2.

Nominated by: An area one mile west of the west rim of Salmon Falls Creek Canyon between Salmon Falls Creek Dam and the Cedar Creek confluence was nominated by BLM to be included in the existing Salmon Falls Creek ACEC; Idaho Department of Fish and Game suggested BLM consider special management for mule deer wintering in the area.

Western Watersheds Project requested that "future expansion of these areas (current ACECs) be considered," although no specific boundary for expanding the existing ACECs was identified.

Location: The nominated extension would encompass 10,000 acres of BLM-managed land. The nominated extension would be located along Salmon Falls Creek from the Cedar Creek confluence to the private land by Salmon Falls Creek Dam and would extend from the west canyon rim to one mile to the west.

The nominated extension is contained within the nominated Sagebrush Sea ACEC.



The analysis documented below assessed whether the extension contributed to relevant and important values of the existing ACEC or contained new relevant and important values. The analysis focused only on the values within the nominated extension; for information on the values within the existing ACEC, see the *Existing ACEC* section.

Table M-25. Relevance Evaluation for the Extensions to the Existing Salmon Falls Creek ACEC

***Relevance:* Does the area contain a significant historic, cultural, or scenic value; fish or wildlife resource; natural process or system; or natural hazard?**	**Yes or No**
Historic	
No significant historic sites are known within the area.	No
Cultural	
Several archaeological sites that may be eligible for the National Register of Historic Places are located within the nominated extension to the existing ACEC. In addition to their scientific value, these sites are of traditional cultural importance to the tribes.	Yes
Scenic	
The upland extension offers little in terms of scenery.	No
Fish or Wildlife Resource	
The upland plateau provides year-round habitat for sage-grouse (Candidate, Type 1). The nominated extension to the existing ACEC includes two occupied and one undetermined status sage-grouse lek. The area is important winter range for both mule deer and pronghorn. Mule deer from the southern portion of the planning area are funneled to the area by Cedar Creek and Salmon Falls Creek Canyons.	Yes
Natural System or Process	
The upland plateau supports a mix of native shrub and non-native perennial communities and is grazed by livestock. Water pipelines and accompanying roads are present. Water pipelines have increased livestock distribution in much of the plateau area.	No
Natural Hazard	
No known significant hazards.	No

Table M-26. Importance Evaluation for the Extensions to the Existing Salmon Falls Creek ACEC

***Importance:* Does the value, resource, system, process, or hazard meet one or more of the following importance factors:** **1. has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource;** **2. has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change;** **3. has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of FLPMA;** **4. has qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare; or** **5. poses a significant threat to human life and safety or to property?**	**Yes, No, or NA**
Historic Value	
NA	NA
Cultural Value	
The cultural resources within the nominated extension to the existing ACEC are significant but generally not rare or unique for the region.	No
Scenic Value	
NA	NA
Fish or Wildlife Resource	
The wildlife values are not more than locally significant. Big game wintering in the area are primarily of local interest.	No

Natural System or Process	
NA	NA
Natural Hazard	
NA	NA

The nominated extension to the existing ACEC meets the relevance, but not the importance criteria, and will not be considered as a potential extension to the existing ACEC. The BLM's rationale for not proposing the nominated extension to the Salmon Falls Creek ACEC for designation as part of the Salmon Falls Creek ACEC is as follows:

Although the nominated extension contains big game winter range, some key sage-grouse habitat, and some historic and cultural values, these values are not more than of local importance. Salmon Falls Creek Canyon itself contains the majority of the resource values that are of more than local importance.

List the management prescription(s) necessary to maintain and protect each relevant and important value.

Not applicable, since the nominated area does not meet relevance and importance criteria for potential designation.

Sand Dunes Area of Critical Environmental Concern

Nominated ACEC: Sand Dunes ACEC

Nominated by: The Sand Dunes ACEC was nominated by Western Watersheds Project.

Location: The Sand Dunes ACEC would encompass 400 acres of BLM-managed land. The nominated ACEC would encompass the historic Bruneau Dunes tiger beetle habitat within the planning area, located near the Browns Creek Drainage approximately seven miles from the Bruneau Dunes State Park.

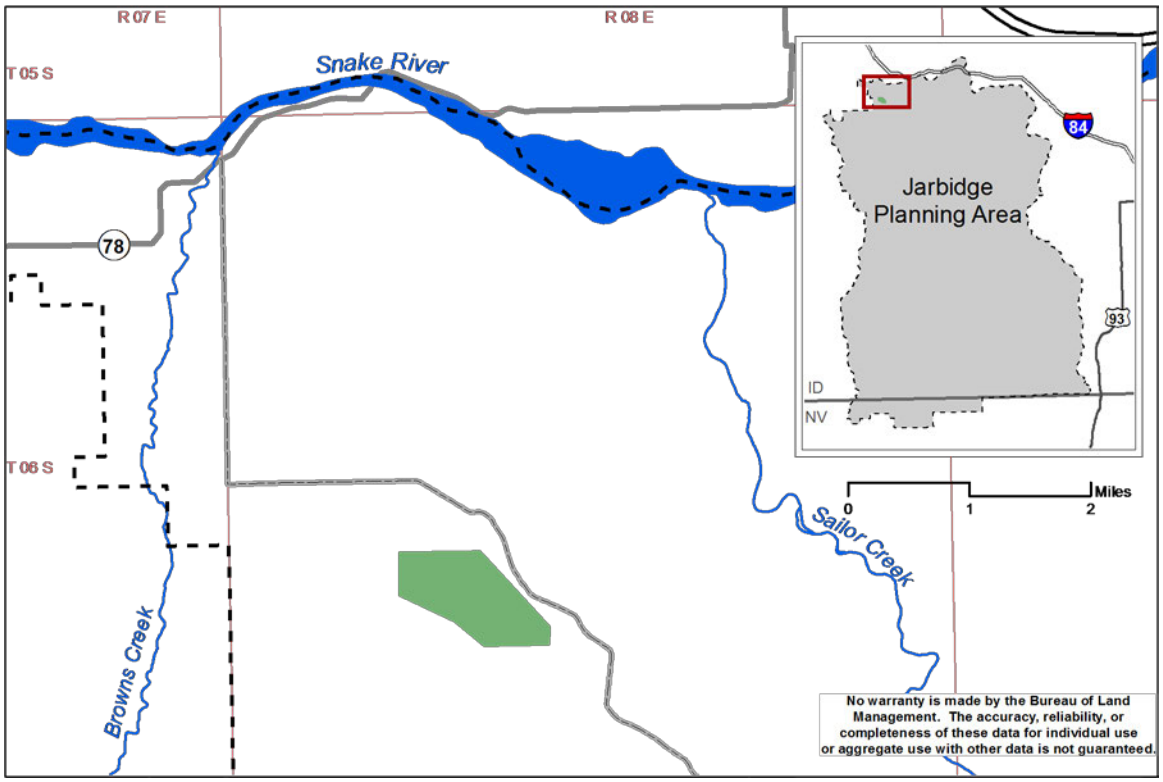


Table M-27. Relevance Evaluation for the Sand Dunes ACEC

***Relevance:* Does the area contain a significant historic, cultural, or scenic value; fish or wildlife resource; natural process or system; or natural hazard?**	**Yes or No**
Historic	
No historic values identified.	No
Cultural	
No cultural values identified.	No
Scenic	
No scenic values identified.	No
Fish or Wildlife Resource	
The nominated ACEC contains a small, isolated duneland habitat that was occupied by Bruneau Dunes tiger beetles (Type 2, BLM Sensitive species) (Baker et al., 1994). Tiger beetles were last documented in the nominated ACEC in 1998 (Baker and Munger, 2000). Idaho Conservation Data Center has not found larval burrows or adults in the nominated ACEC since that date (Bosworth et al., 2010); thus, as of this review, the tiger beetle population in the planning area appears to have been extirpated. Monitoring conducted in the 1990s indicated this species was declining since the early 1990s (Baker and Munger, 2000). A permanent water trough was installed about 0.3 mile from tiger beetle habitat in an area	No

where water was previously hauled for seasonally grazing sheep and cattle. Trailing by cattle increased in larval habitat as a result of the more permanent water source. Bauer (1991) reported that livestock trampling collapsed burrows and increased larval tiger beetle mortality. In addition, the tiger beetle habitat within the nominated ACEC has been invaded by cheatgrass and Russian thistle (Baker and Munger, 2000) and planted with crested wheatgrass, reducing habitat for tiger beetle larvae. Even with restoration of the vegetation, beetles would not likely reappear on their own, but would have to be transplanted. The nominated ACEC is approximately 7 miles east of Bruneau Dunes State Park, which contains the entire global distribution for this narrow endemic species.	
Natural System or Process	
The sand dunes have been stabilized with crested wheatgrass. The area is now more blowing sand than a significant dune feature.	No
Natural Hazard	
No known significant hazards.	No

Table M-28. Importance Evaluation for the Sand Dunes ACEC

***Importance:* Does the value, resource, system, process, or hazard meet one or more of the following importance factors:** **1. has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource;** **2. has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change;** **3. has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of FLPMA;** **4. has qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare; or** ***5.* poses a significant threat to human life and safety or to property?**	**Yes, No, or NA**
Historic Value	
NA	NA
Cultural Value	
NA	NA
Scenic Value	
NA	NA
Fish or Wildlife Resource	
NA	NA
Natural System or Process	
NA	NA
Natural Hazard	
NA	NA

The nominated ACEC does not meet the relevance or importance criteria and will not be considered as a potential ACEC. The BLM's rationale for not proposing the nominated Sand Dunes ACEC for designation is as follows:

Although the nominated ACEC contains the area historically occupied by Bruneau Dunes tiger beetle, no evidence of this species (i.e., adults, larvae, or burrows) has been found within the last decade. The criteria for relevance requires the area contain a significant wildlife resource; at this time, there is no evidence this area still contains this species.

List the management prescription(s) necessary to maintain and protect each relevant and important value.

Not applicable, since the nominated area does not meet relevance and importance criteria for potential designation.

Sand Point Area of Critical Environmental Concern

Sand Point ACEC is an existing ACEC. The existing ACEC was re-nominated with a nominated extension on land acquired adjacent to the existing ACEC. The analysis documented below considers both the existing ACEC and the nominated extension.

Nominated ACEC: Sand Point ACEC (existing ACEC plus the Morgan property extension)

Nominated by: The existing ACEC was re-nominated by BLM in accordance with BLM Manual 1613, Areas of Critical Environmental Concern, Section .21A.1.; BLM also nominated the Morgan property to be added to the existing ACEC. The Morgan property was acquired by BLM using Land and Water Conservation Fund funds in 2002; this property is adjacent to the existing ACEC. This land was acquired because the relevant and important values in the existing ACEC extended onto this property and the previous landowner wanted these values preserved.

The existing ACEC was also re-nominated by Western Watersheds Project (WWP). WWP also requested that "future expansion of these areas (current ACECs) be considered," although no specific boundary for expanding the existing ACECs was identified.

Location: This ACEC would encompass 1,000 acres of BLM-managed lands; 800 acres are in the existing ACEC; 200 acres are in the Morgan property extension.

The ACEC is located south of the Snake River near Hammett, Idaho. The ACEC extends from the high water mark along the Snake River about 0.25 to 1 mile south into the upland plateau.

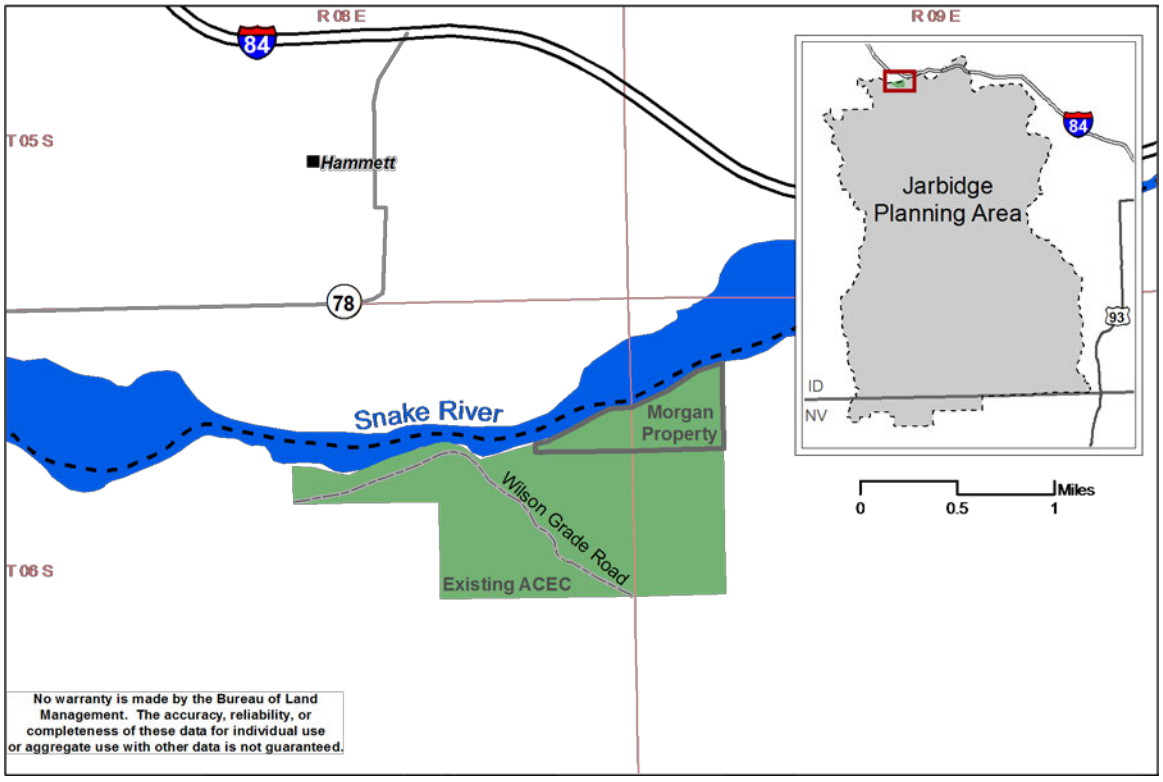


Table M-29. Relevance Evaluation for the Sand Point ACEC

***Relevance:* Does the area contain a significant historic, cultural, or scenic value; fish or wildlife resource; natural process or system; or natural hazard?**	**Yes or No**
Historic Value	
The existing ACEC contains 1.3 miles of Oregon National Historic Trail ruts and the south bank landing for the Medbury Ferry. The Morgan property extension would add 1.1 miles of Oregon National Historic Trail (NHT) and the historic Morgan cabin to the ACEC.	Yes
Cultural Value	
Several large prehistoric archaeological sites are located within the existing ACEC and the Morgan property extension.	Yes
Scenic Value	
The breaks from the upland plateau down to the floodplain offer some topographic relief that has scenic value. Scenic values are not outstanding. Russian olive and other non-native plants have invaded the riparian zone. As a result of a wildland fire in the early 1980s, substantial portions of the uplands are now dominated by non-native annuals and perennial grasses.	No
Fish or Wildlife Resource	
The existing ACEC contains 1.3 miles of Snake River riparian zone; the Morgan property extension would add 1.1 miles of Snake River riparian zone. The Snake River contains redband trout and white sturgeon. The riparian zone has a few trees used as perches for wintering bald eagles, which were delisted in 2007; bald eagles are still considered a Type 2 BLM Sensitive species. Terrestrial plant communities within the existing ACEC and the Morgan property extension support nesting habitat for both long-billed curlew and burrowing owls. Several thousand waterfowl are known to winter along the Snake River, including within the existing ACEC and the Morgan property extension.	Yes
Natural System or Process	
Paleontologic and geologic resources: The Sand Point area, including the existing ACEC and the Morgan property extension, contains one of the largest concentrations of Blancan age (3 million years old) freshwater snail and clam fossils in the United States. The scientific importance of the Sand Point fossils and their geologic context has been recognized since their original discovery in 1902. Fish and mammal fossils are also present. The Sand Point fluvial deposits are composed of brownish gray, thick bedded sands with minor amounts of interbedded silt and clay. The Morgan property extension would add two known paleontological sites to the existing ACEC.	Yes
Special status plant assemblages: Two BLM Sensitive plant species occur in the existing ACEC: Janish penstemon (Type 3) and Snake River milkvetch (Type 4).	Yes
Natural Hazard	
No known significant hazards.	No

Table M-30. Importance Evaluation for the Sand Point ACEC

***Importance:* Does the value, resource, system, process, or hazard meet one or more of the following importance factors:** **1. has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource;** **2. has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change;** **3. has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of FLPMA;** **4. has qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare; or** **5. poses a significant threat to human life and safety or to property?**	**Yes, No, or NA**
Historic Value	
(Factors met: 1, 2, 3) The area contains a 2.4-mile section of the Oregon NHT. This site represents a unique opportunity to protect culturally and historically significant sites that have	Yes

been damaged or destroyed in other areas through development and agricultural use.	
Cultural Value	
(Factors met: 1, 2, 3) The existing ACEC and the Morgan property extension contain archaeological sites in a riverside setting that meet National Register eligibility criteria. Their importance is enhanced because most similar sites in the region are in private ownership and have been altered by agricultural development.	Yes
Scenic Value	
NA	NA
Fish or Wildlife Resource	
For fish and wildlife resources, the area identified is small in relation to the Snake River. The existing ACEC and the Morgan property extension represent only a small fraction of range-wide fish and wildlife habitat. Sand Point represents less than 1% of the winter habitat used by wintering waterfowl along the Snake River and supports limited numbers of nesting bald eagle, long-billed curlew, or burrowing owl. The fish and wildlife resources within the existing ACEC and the Morgan property extension are not of more than local importance.	No
Natural System or Process	
Paleontologic and geologic resources: (Factors met: 1, 2) The vertebrate and invertebrate fossil deposits at Sand Point have been the subject of scientific study since the early 20th century and have demonstrated their continent-wide importance to the study of late Cenozoic biostratigraphy, paleoclimatology, and paleoecology. Although the mollusk fossils are most abundant and important, the fish fossils are also important in that they represent the most advanced and last occurrence of a diversity of minnows, suckers, sculpin, catfish, and sunfish never again seen in western North America (Smith et al., 1982). Sand Point is the type locality for a species of microtine rodent first reported in 1959. Other mammalian fossils include muskrat, pocket gopher, rabbits, voles, horse, and proboscidean (elephant-like mammals). The assemblage of fossils within the existing ACEC and the Morgan property extension are significant due to their topographic and stratigraphic location relative to other major Idaho fossil localities of Blancan age; the extensive molluscan fauna far exceeds in abundance that found at any of the other Idaho Blancan localities. While the vertebrate fossils within the ACEC are protected by regulation, regulations do not automatically protect invertebrate fossils. The Sand Point fluvial depositional environment has the smallest exposed extent within the Glenns Ferry Formation region. It lies between the Hagerman locality to the east and the Chalk Flat and Grandview localities to the west in elevation and time. This geologic formation is important for understanding the paleogeography of this part of western North America during the late Cenozoic Era. The geologic formations within Sand Point are of more than regional significance because of their use in determining the drainage of this portion of western North America prior to the Snake River routing north through Hells Canyon.	Yes
Special status plant assemblages: Other areas within the planning area contain both more occupied habitat and larger concentrations of special status plant species. The special status plant resources within the existing ACEC are not of more than local importance.	No
Natural Hazard	
NA	NA

The nominated ACEC (existing ACEC and the Morgan property extension) meets the relevance and importance criteria to be considered as a potential ACEC. The rationale for proposing the nominated Sand Point ACEC for designation under Alternatives I, III, IV, V, and VI as an ACEC is as follows:

The nominated ACEC (existing ACEC and the Morgan property extension) meets relevance and importance criteria for historic and cultural values, and natural systems or processes (paleontologic and geologic values).

Several activities pose threats to the ACEC's relevant and important values, including mineral exploration and development, run-off from agricultural irrigation, wildland fire suppression activities, cross-country

motorized vehicle use, and livestock grazing. These activities, as well as other surface-disturbing activities, all have the potential to cause direct damage to the relevant and important values, as well as cause indirect impacts from accelerating erosion.

Activities related to mineral exploration and development have the potential to impact all of the relevant and important values within the ACEC. Although there are currently no mining claims within the ACEC (existing or the Morgan property extension), there have been several mining claims in the past. Placer mining within the ACEC boundary in the 1980s caused substantial damage to the cultural resources. This area has also been under mineral lease in the past.

Agricultural run-off primarily impacts the paleontologic and geologic resources within the ACEC. Concentrations of fossils are present in several sites within the area where old lake sediments are exposed. The sediment layers are classified by the Natural Resources Conservation Service as severe for wind erosion potential and medium for water erosion potential.

The main threat related to wildland fire suppression activities is construction of control lines using bulldozers. In addition, because the primary access to the area currently is on the Oregon NHT itself, travel by fire suppression vehicles could substantially damage the Oregon NHT.

Travel within the existing ACEC is limited to designated routes; however, no routes were designated. The primary access to the existing ACEC and the Morgan property extension goes through private property and has restricted access; as a result, there is currently little motorized activity within either area. If public access to the ACEC was improved along the Wilson Grade Road, increased motorized use would likely occur.

Livestock grazing impacts the relevant and important values within the ACEC as well. The majority of the existing ACEC (630 acres) is part of a riparian pasture created in 1997 that is grazed once every three years; the remaining area (180 acres) in the existing ACEC is grazed every year. The nominated 200-acre Morgan property extension is not part of an allotment. Livestock trailing and congregating in areas with relevant and important values as well as the placement of range infrastructure, salt, and other supplements are the primary threats related to grazing.

The segment of the Snake River adjacent the ACEC has been inventoried as eligible for inclusion in the National Wild and Scenic River System. Outstandingly Remarkable Values (ORVs) for this segment include recreational, fish, historical, and cultural values. Interim management of this segment requires that it be managed to maintain or enhance its ORVs. However, the Wild and Scenic River (WSR) corridor only extends 0.25 mile above the high water mark on each side of the river, which does not provide any protection for these values present outside the WSR corridor.

The Oregon NHT protective zone overlaps the ACEC. The Oregon NHT is managed to preserve and protect the historic, scenic, and recreational values of the trail. The Oregon NHT protective zone extends 0.25 mile on either side of the trail or the visual corridor, whichever is less. Within this protective zone, only the trail-related historic values of the ACEC would be protected; outside this zone, none of the relevant and important values would be protected through the NHT designation.

If the nominated ACEC meets the relevance and importance criteria, list the relevant and important value(s) that need special management attention and describe the management prescriptions necessary to protect those values.

The historic and cultural values and the paleontologic and geologic resources of the ACEC would be protected through the following allocations and management actions:[8]

[8] Under the No Action Alternative, the existing ACEC boundary would be retained, and the ACEC would be managed as described in the *Areas of Critical Environmental Concern* section of Chapter 2.

Under Alternatives I, III, IV, V, and VI (Proposed RMP):

- Manage paleontological resources within the ACEC in accordance with the 1988 Sand Point Natural History Management Plan. Modify the 1988 plan to encompass the Morgan property extension and to be in conformance with the RMP.
- The ACEC would be closed to fossil collecting except under permit for scientific research.
- Limit BLM management activities and authorized and allowed uses that may contribute to wind or water erosion in the ACEC.
- No surface-disturbing activities would be allowed in the ACEC unless they are directly related to research on the ACEC's cultural, paleontologic, or geological resources or unless they can be mitigated.
- The ACEC would be a critical suppression area.
- Consider upgrading the Wilson Grade Road if there is increased need for access for fire suppression activities or research.
- Structures directly related to the preservation or interpretation of the ACEC may be allowed (e.g., kiosks, protective barriers).
- The ACEC would be a right-of-way exclusion area.
- Lands within the ACEC would be in Land Tenure Zone 1.
- The ACEC would be closed to mineral leasing.
- The ACEC would be closed to salable mineral development.

Under Alternatives I, III, and IV:

- Work cooperatively with adjacent land owners to reduce or eliminate run-off from the agricultural fields that erode soils within the ACEC.
- Minimum Impact Suppression Tactics (MIST) would be used to suppress wildland fires within the ACEC to protect the paleontological resources. The BLM authorized officer may allow the use of bull dozers to construct control lines within the ACEC on a case-by-case basis. However, dozer lines would be rehabilitated to minimize erosion.
- Manage the ACEC as Visual Resource Management (VRM) Class III, except within the Oregon NHT protective zone, which would be managed as VRM Class II.
- The ACEC would be available for livestock grazing.
- New range infrastructure may be considered if it does not impair the relevant and important values of the ACEC. Any infrastructure would be located so that it does not increase or encourage livestock trailing across fossil-bearing areas, cultural resource sites, or Oregon NHT ruts.
- Salt or other livestock supplements would not be placed within 0.25 mile of fossil-bearing areas or cultural resource sites. Locations closed to salt or other livestock supplements would be made known to the livestock permittees.
- Motorized vehicle use within the ACEC would be limited to designated routes.
- Recommend lands within the ACEC for withdrawal from mining laws for locatable exploration and development.

Under Alternative V:

- Work cooperatively with adjacent land owners to reduce or eliminate run-off from the agricultural fields that erode soils within the ACEC.
- MIST would be used to suppress wildland fires within the ACEC to protect the paleontological resources. The BLM authorized officer may allow the use of bull dozers to construct control lines within the ACEC on a case-by-case basis. However, dozer lines would be rehabilitated to minimize erosion.
- Manage the ACEC as VRM Class III, except within the Oregon NHT protective zone, which would be managed as VRM Class II.
- The ACEC would not be available for livestock grazing.
- Motorized vehicle use within the ACEC would be limited to designated routes.
- Recommend lands within the ACEC for withdrawal from mining laws for locatable exploration and development.

Under Alternative VI (Proposed RMP):

- MIST would be used to suppress wildland fires within the ACEC to protect relevant and important values of the ACEC.
- Manage the ACEC as VRM Class II.
- New range infrastructure may be considered if it would not impair the relevant and important values of the ACEC. Any infrastructure would be located so that it does not increase or encourage livestock trailing across fossil-bearing areas, cultural resource sites, or Oregon NHT ruts.
- Salt or other livestock supplements would not be placed within 0.25 miles of fossil-bearing areas, cultural resource sites, or the Oregon NHT protective zone. Coordinate with permitees to identify appropriate salt and supplement sites.

Upper Bruneau Canyon Area of Critical Environmental Concern

Nominated ACEC: Upper Bruneau Canyon ACEC

Nominated by: The Upper Bruneau Canyon ACEC was nominated by BLM in accordance with BLM Manual 1613, Areas of Critical Environmental Concern, Section 21A.2.b.

Location: The nominated ACEC would encompass 18,000 acres of BLM-managed land. The nominated ACEC would be located along the Upper Bruneau River and within the southernmost portion of the planning area. The ACEC includes the Bruneau Canyon and adjacent uplands (0.5 to 0.8 mile from the canyon rim) from the Jarbidge planning area boundary in the south extending to the Bruneau-Jarbidge Rivers Wilderness boundary to the north.

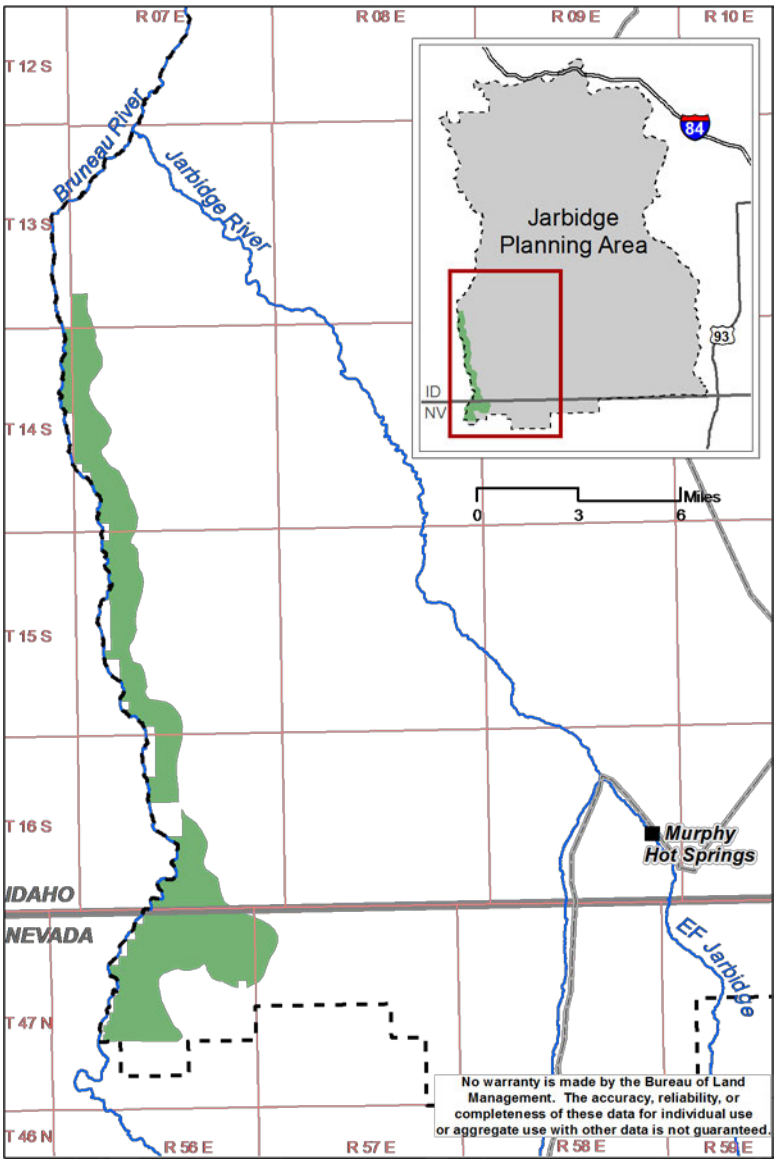


Table M-31. Relevance Evaluation for the Upper Bruneau Canyon ACEC

***Relevance:* Does the area contain a significant historic, cultural, or scenic value; fish or wildlife resource; natural process or system; or natural hazard?**	**Yes or No**
Historic Value	
No significant historic sites are known within the area.	No
Cultural Value	
Native American use of the area extends back thousands of years. The canyon lands provided food, shelter, and water for Native Americans along the Bruneau River. The area retains traditional cultural importance for the tribes. Many sites are also important for their archaeological value.	Yes
Scenic Value	
Scenic values in the Bruneau Canyon are outstanding and the portions of the nominated ACEC downstream of Black Rock Crossing are suitable for Wild and Scenic River (WSR) designation. The canyon complex has exceptional rugged-desert scenery and natural qualities, including both basalt and rhyolite forms of volcanic material.	Yes
Fish or Wildlife Resource	
California bighorn sheep: The nominated ACEC contains 9,000 acres of habitat for bighorn sheep, a Type 3 BLM Sensitive species, which represents 18% of the bighorn sheep habitat within the planning area. The bighorn sheep population within the Bruneau and Jarbidge River Canyons is estimated to be approximately 210 sheep. The canyon lands provide secure lambing habitat. The rivers in the canyon bottoms, as well as occasional seeps from canyon walls, provide water. Bighorn sheep forage is available in both the canyons and adjacent uplands.	Yes
Big game: The nominated ACEC contains 18,000 acres of big game winter range.	Yes
Bull trout: Bull trout, a Threatened and Type 1 BLM Sensitive species, are not known to occur within the nominated ACEC. The segment of the Bruneau River within the nominated ACEC is outside designated critical habitat for bull trout; extensive surveys for bull trout in this river segment have not been conducted.	No
Redband trout: The nominated ACEC contains 14 miles of occupied redband trout habitat in the Bruneau River. The Bruneau River within the ACEC lacks migration barriers that prevent redband from moving up or down stream, unlike most of the other redband trout streams within the planning area.	Yes
Other fish and wildlife: The Bruneau Canyon contains habitat for a variety of BLM Sensitive species, including golden eagle (NV), peregrine falcon (Type 3), prairie falcon (Type 4), spotted bat (Type 3), Townsend's big eared bat (Type 3 and NV), fringed myotis (Type 3 and NV), and little brown bat (NV). The upland plateaus adjacent to the canyons contain habitat for Brewer's sparrow (Type 3 and NV), greater sage-grouse (Candidate, Type 1), sage sparrow (Type 3), and other sagebrush-obligate species.	Yes
Natural System or Process	
Bruneau River phlox: Bruneau River phlox, a Type 3 and NV BLM Sensitive species, do not occur within the nominated ACEC.	No
Davis peppergrass: Davis peppergrass, a Type 3 and NV BLM Sensitive species, is present in playas within the nominated ACEC. The nominated ACEC contains 10 acres of Davis peppergrass habitat, which represents 7% of the habitat within the planning area.	Yes
Riparian system: Fourteen miles of the Bruneau River system is within the ACEC. The Bruneau River system is free-flowing. Free-flowing streams are unique in southern Idaho since the majority of other desert rivers, including the Snake and Owhyee Rivers and Salmon Falls Creek, contain dams. The riparian system is dominated by Rocky Mountain juniper and willows.	Yes
Natural Hazard	
No known significant hazards.	No

Table M-32. Importance Evaluation for the Upper Bruneau Canyon ACEC

Importance: **Does the value, resource, system, process, or hazard meet one or more of the following importance factors:** **1. has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource;** **2. has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change;** **3. has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of FLPMA;** **4. has qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare; or** **5. poses a significant threat to human life and safety or to property?**	**Yes, No, or NA**
Historic Value	
NA	NA
Cultural Value	
(Factors met: 1, 2) Regionally significant cultural resources are present within the nominated ACEC.	Yes
Scenic Value	
Scenic values in the Bruneau Canyon are outstanding and the portions of the nominated ACEC downstream of Black Rock Crossing are suitable for WSR designation. The canyon complex has exceptional rugged-desert scenery and natural qualities, including both basalt and rhyolite forms of volcanic material.	Yes
Fish or Wildlife Resource	
California bighorn sheep: (Factors met: 1, 2, 3) The nominated ACEC contains 9,000 acres of habitat for bighorn sheep, a Type 3 BLM Sensitive species, which represents 18% of the bighorn sheep habitat within the planning area. The bighorn sheep population within the Bruneau and Jarbidge River Canyons is estimated to be approximately 210 sheep. The canyon lands provide secure lambing habitat. The rivers in the canyon bottoms, as well as occasional seeps from canyon walls, provide water. Bighorn sheep forage is available in both the canyons and adjacent uplands.	Yes
Big game: The nominated ACEC is important to wintering big game from parts of Nevada and Idaho including mule deer, pronghorn, and elk. The nominated ACEC contains 18,000 acres of big game winter range; however, the winter range within the ACEC is primarily of local importance.	No
Bull trout: NA	NA
Redband trout: The nominated ACEC contains 14 miles of occupied redband trout habitat in the Bruneau River. The Bruneau River within the ACEC lacks migration barriers that prevent redband from moving up or down stream, unlike most of the other redband trout streams within the planning area.	Yes
Other fish and wildlife: The other fish and wildlife present within the ACEC are found elsewhere in and outside the planning area; the populations within the ACEC are primarily of local importance.	No
Natural System or Process	
Bruneau River phlox: NA	NA
Davis peppergrass: Davis peppergrass, a Type 3 and NV BLM Sensitive species, is present in playas within the nominated ACEC. The nominated ACEC contains 10 acres of Davis peppergrass habitat, which represents 7% of the habitat within the planning area. Davis peppergrass plants show distinct differences in leaf size, shape, and plant phenology between playas. This suggests the species disperses poorly, probably not beyond individual playas, and there is minimal pollination between neighboring playas.	Yes
Riparian system: Fourteen miles of the Bruneau River system is within the ACEC. The Bruneau River system is free-flowing. Free-flowing streams are unique in southern Idaho since the majority of other desert rivers, including the Snake and Owhyee Rivers and Salmon Falls Creek, contain dams. The riparian system is dominated by Rocky Mountain juniper and willows.	Yes

Natural Hazard	
NA	NA

The nominated ACEC meets the relevance and importance criteria to be considered as a potential ACEC. The rationale for proposing the nominated Upper Bruneau Canyon ACEC for designation (under Alternative VI [Proposed RMP]) as an ACEC is as follows:

The nominated ACEC meets relevance and importance criteria for cultural and scenic values, fish and wildlife resources (bighorn sheep and redband trout), and natural systems or processes (Davis peppergrass and riparian system).

Existing and potential threats to the relevant and important values of the ACEC include surface-disturbing activities, wildland fire and subsequent alteration of habitat, and to a lesser extent livestock grazing. Aside from direct impacts from these threats, many of these indirectly affect the introduction and spread of noxious weeds and invasive plants, which are detrimental to the scenic values and the fish and wildlife resources within the ACEC.

Surface-disturbing activities, such as mineral exploration and development and right-of-way (ROW) development, are a threat to cultural and scenic values and bighorn sheep; bighorn sheep typically avoid human disturbance. Any activities in the uplands or riparian zones that increase sediment to the stream can adversely affect redband trout.

Wildland fire is a threat to several of the relevant and important values within the ACEC. Wildland fires that burn the riparian zone can reduce the amount of large wood and streambank shade and increase sediment to the stream, affecting redband trout. Components of wildland fire suppression (e.g., the use of retardant, constructing control lines) can also be detrimental to fish and aquatic wildlife. Cheatgrass frequently increases and may dominate in the canyon lands following wildland fires, affecting habitat for bighorn sheep. Wildland fire also presents a threat to Davis peppergrass. Wildland fire, including soil erosion and deposition following wildland fire, can adversely affect habitat for Davis peppergrass (Moseley, 1996). Davis peppergrass can also be impacted by the constructions of fire lines that damage plants directly or increase sediment in occupied playas.

Livestock grazing is a threat primarily to bighorn sheep. Bighorn sheep can be displaced by livestock. Livestock water sources as well as salting and supplement sites located in the ACEC have contributed to the spread of invasive plants. In addition livestock grazing also presents a threat to Davis peppergrass. Livestock trailing and trampling in occupied playas while they are wet damages the perennial plants (Moseley, 1996). Stock ponds dug in playas may alter their hydrology and contribute to the spread of invasive plant species. Livestock congregating in or near playas also impacts cultural resources associated with playas.

The Bruneau River from Blackrock Crossing to 0.3 mile above the confluence of the West Fork of the Bruneau River and the Jarbidge River has been recommended suitable for designation as a WSR. Outstandingly Remarkable Values (ORVs) for this segment include cultural, fish, geological, recreational, scenic, vegetation, and wildlife values. Management of this segment requires that its ORVs are maintained or enhanced. However, the WSR corridor only extends 0.25 mile above the high water mark on each side of the river, which does not provide any protection for these values in the higher elevations of the canyon or the adjacent upland plateaus.

If the nominated ACEC meets the relevance and importance criteria, list the relevant and important value(s) that need special management attention and describe the management prescriptions necessary to protect those values.

The cultural and scenic values, fish and wildlife resources (bighorn sheep and redband trout), and natural systems or processes (riparian system) of the ACEC would be protected through the following allocations and management actions:

- New developments would not be allowed within 300 feet of playas within the ACEC.
- Areas within the ACEC with concentrated recreational use and livestock grazing would be a high priority for noxious weeds and invasive plants treatment with integrated weed management techniques for control, containment, and where practical, eradication. Special stipulations would apply for noxious weed and invasive plants treatments in Davis peppergrass habitat. Use of domestic sheep or goats to reduce noxious weeds would not be allowed within the ACEC to eliminate potential contact with bighorn sheep.
- The ACEC would be a critical suppression area.
- Minimus Impact Suppression Tactics would be used to suppress wildland fires within the ACEC. Fire lines would be rehabilitated to help stabilize soils.
- Manage the ACEC as Visual Resource Management Class I.
- If a conflict between authorized uses and bighorn sheep is identified, schedule authorized uses to avoid pastures that contain bighorn sheep habitat during breeding, wintering, and lambing periods to minimize disturbance during these important seasonal periods.
- Adjust livestock seasons of use or stocking rates on a pasture-specific basis to minimize conflicts with Davis peppergrass during flowering and when playas are most likely to contain water (December through June).
- Range infrastructure would be evaluated for retention, modification, or removal. New infrastructure would be allowed to the extent that it protects riparian habitat, cultural resources, botanical values, bighorn sheep, or other resource values. Prohibit placement of salt or other supplements within the ACEC to reduce livestock use of bighorn sheep habitat and protect big game winter range.
- Monitor recreational use within the ACEC. If recreational use impairs the relevant and important values of the ACEC, implement protective measures appropriate to the type of recreational activity. Protective measures may include: seasonal restrictions for motorized use, and designating camping areas outside the ACEC.
- Special Recreation Permits would be allowed within the ACEC as long as the relevant and important values are protected.
- No new roads would be constructed and existing routes would not be substantially improved to minimize the level of human disturbance in bighorn sheep habitat. Some designated routes within the ACEC could have spot surface treatments to reduce resource damage and to improve public safety.
- The ACEC would be a ROW avoidance area.
- Lands within the ACEC would be in Land Tenure Zone 1; where practical, acquire private and/or State in holdings. The ACEC designation and management would apply to lands acquired within the ACEC boundary.
- The ACEC would be closed to exploration and development of leasable or salable minerals.

APPENDIX N: WILD AND SCENIC RIVER ELIGIBILITY DETERMINATION

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Jarbidge Field Office

WILD AND SCENIC RIVER

ELIGIBILITY DETERMINATION

Approved by:

signed copy on file 03/07/2014

Brian W. Davis Date
Jarbidge Field Office Manager

signed copy on file 03/11/2014

Tate Fischer Date
Four Rivers Field Office Manager

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Introduction

Congress enacted the Wild and Scenic Rivers Act (WSRA; 16 U.S.C. 1271-1287) on October 2, 1968, to provide for a national system of river protection and preservation. As an outgrowth of a national conservation agenda in the 1950s and 1960s, the WSRA responded to the dams, diversions, and water resource development projects that occurred on America's rivers between the 1930s and 1960s. The WSRA stipulates selected rivers should be preserved in a free-flowing condition and be protected for the benefit and enjoyment of present and future generations. Since 1968, the WSRA has been amended many times, primarily to designate additional rivers and to authorize the study of other rivers for possible inclusion. The WSRA seeks to protect and enhance a river's natural and cultural values and to provide for public use consistent with its free-flowing condition, water quality, and Outstandingly Remarkable Values. Designation affords certain legal protection from development. For instance, new dams cannot be constructed, and Federally assisted water resource development projects that might negatively affect the designated river values are not permitted. Where non-Federal lands are involved, the managing Federal agency works with local governments and private landowners to develop protective measures.

Section 5 (d) (1) of the WSRA directs Federal land management agencies to consider potential Wild and Scenic Rivers (WSRs) in their land and water planning processes, stating, "In all planning for the use and development of water and related land resources, consideration shall be given by all Federal agencies involved to potential national wild, scenic and recreational river areas." To fulfill this requirement, the US Department of the Interior BLM inventories and analyzes river and stream segments that might be eligible for inclusion in the National Wild and Scenic Rivers System (NWSRS) whenever it undertakes a land use planning effort such as a Resource Management Plan (RMP).

The BLM, Twin Falls District, Jarbidge Field Office is preparing an RMP and EIS, which will provide a single, comprehensive land use plan to guide future management of public land managed by the Jarbidge Field Office. This report is a record of the WSR inventory conducted concurrently with the Jarbidge RMP.

This report documents the BLM's examination of Jarbidge Field Office rivers as they relate to eligibility and classification criteria in the WSRA. The *Wild and Scenic Rivers Inventory Process* section describes the WSR inventory process. The *Criteria for Evaluating Eligibility* section describes the WSR inventory criteria. The *Evaluating Eligibility on Jarbidge Field Office Rivers* section describes how the inventory process and criteria were applied to the Jarbidge Field Office. The *Description of Eligible River Segments* section describes each of the potentially eligible river segments in more detail.

The Omnibus Public Lands Management Act of 2009 designated four WSRs within the planning area:

- A 39.3-mile segment of the Bruneau River from the downstream boundary of the Bruneau-Jarbidge Rivers Wilderness to the confluence with the West Fork of the Bruneau River, except for a 0.5-mile segment at the Indian Hot Springs public road access, to be administered as a wild river;
- A 0.6-mile segment of the Bruneau River at the Indian Hot Springs public road access to be administered as a recreational river;
- A 0.35-mile segment of the West Fork of the Bruneau River from the confluence with the Jarbidge River to the downstream boundary of the Bruneau Canyon Grazing Allotment to be administered as a wild river; and
- A 28.8-mile segment of the Jarbidge River from the confluence with the West Fork of the Bruneau River to the upstream boundary of the Bruneau-Jarbidge Rivers Wilderness to be administered as a wild river.

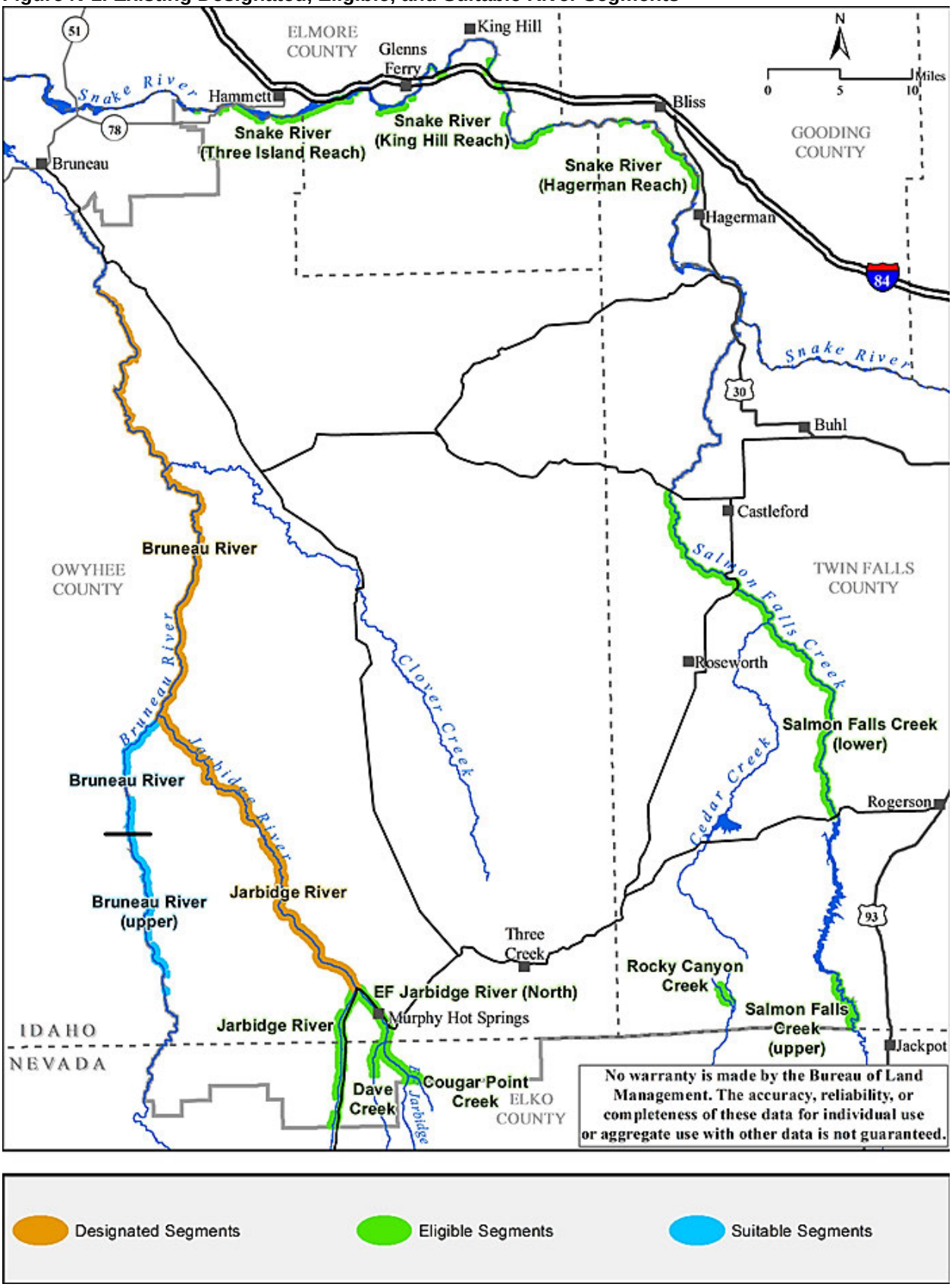
All four of these river segments were identified as suitable for inclusion in the NWSRS in the 1976 Bruneau Wild and Scenic River Study Report.

Rivers or river segments previously deemed eligible, suitable, or designated were not re-evaluated (Table N-1; Figure N-1). All current eligible or suitable segments retain any previously determined status.

Table N-1. Existing Designated, Eligible, and Suitable River Segments

River	Segment Description	Length (miles)	Outstandingly Remarkable Values	Tentative Classification	Current Status
Salmon Falls Creek, upper	Nevada border to Salmon Falls Creek Reservoir	9	Recreational	Recreational	Eligible
Salmon Falls Creek, lower	Salmon Falls Dam to Balanced Rock Park	30	Scenic, Recreational, Geological	Scenic	Eligible
Snake River, Hagerman Reach	Lower Salmon Falls Dam to Bliss Dam Reservoir	8	Recreational, Geological, Fish, Wildlife, Historical	Recreational	Eligible
Snake River, King Hill Reach	Bliss Dam to the King Hill Bridge	13	Recreational, Geological, Fish, Wildlife	Recreational	Eligible
Bruneau River, upper	Blackrock Crossing to 23 miles downstream	23	Scenic, Recreational, Geological, Fish, Wildlife, Cultural, Vegetation	Scenic	Suitable
West Fork Bruneau River	Segment of Bruneau River .35 miles upstream from confluence of Jarbidge River	0.35	Scenic, Recreational, Geological, Fish, Wildlife, Cultural, Vegetation	Wild	Designated
Bruneau River	Segment of Bruneau River at the Indian Hot Springs public road access	.6	Scenic, Recreational, Geological, Fish, Wildlife, Cultural, Vegetation	Recreational	Designated
Bruneau River	Confluence of Jarbidge-Bruneau Rivers downstream to boundary of Bruneau-Jarbidge Rivers Wilderness	39	Scenic, Recreational, Geological, Fish, Wildlife, Cultural, Vegetation	Wild	Designated
Jarbidge River	East Fork, Jarbidge River confluence to Bruneau River confluence	29	Scenic, Recreational, Geological, Fish, Wildlife, Cultural, Vegetation	Wild	Designated
Total		**152**			

Figure N-1. Existing Designated, Eligible, and Suitable River Segments



Wild and Scenic Rivers Inventory Process

Background

Consideration of whether a river should be designated as a wild, scenic, or recreational river can be broken into two phases:

1. **Eligibility Determination** – Federal agencies conduct an evaluation of river features to determine which rivers qualify to be added to the National Wild and Scenic Rivers System (NWSRS).
2. **Suitability Determination** – Most commonly, Federal agencies conduct a review and then recommend to Congress which rivers should be protected. Only Congress or the Secretary of the Interior can designate a river as wild, scenic, or recreational.

This document provides the reader with the results of the 2007 Wild and Scenic River Inventory for the Jarbidge Field Office (updated 2013). The suitability determination phase will be conducted after the Record of Decision is signed for the approved Jarbidge RMP. The Twin Falls District (Burley Field Office, Jarbidge Field Office, and Shoshone Field Office) may prepare a comprehensive, District-wide suitability study report for all eligible WSR segments within the District. This would result in a programmatic plan amendment for all Field Offices involved.

Through Section 5 (d) (1), the BLM is required to assess rivers under its management jurisdiction and determine eligibility for these rivers by applying standardized criteria through a documented evaluation process. Congress established two screening criteria for a river segment to be eligible for inclusion in the NWSRS: it must be 1) free-flowing and 2) possess one or more outstandingly remarkable scenic, recreational, geological, fish and wildlife, historical, cultural, or other values including ecological values.

Inventory of Eligible Rivers

Eligible rivers must be free-flowing

In order for a river to become eligible for further study, it must be free flowing. The Wild and Scenic Rivers Act (WSRA) Section 16 (b) defines free flowing as “existing or flowing in a natural condition without impoundment, diversion, straightening, riprapping, or other modifications in the waterway. The existence of low dams, diversion works, or other minor structures at the time any river is proposed for inclusion in the national wild and scenic river system shall not automatically bar its consideration for inclusion.” The intent of Congress and Federal regulations implies rivers must be generally free-flowing but not necessarily completely without human modification. Free-flowing rivers can lie between impoundments or dams and may be intermittent.

Eligible rivers must possess an outstandingly remarkable value

In order for a river to become eligible for further study as a possible wild, scenic, or recreational river, it must have one or more Outstandingly Remarkable Values (ORVs) on BLM-managed lands. The ORVs fall into categories defined in Section 1 (b) of the WSRA as “scenic, recreational, geologic, fish, wildlife, historic, cultural, or other similar values.” “Other similar values” include, but are not limited to, hydrologic, ecological/biological diversity, paleontological, botanical, and scientific study opportunities.

Minimum size and flow

The size of a river is not a criterion of eligibility. Rivers are defined in Section 16 (a) of the WSRA as “a flowing body of water or estuary or section, portion, or tributary thereof, including rivers, streams, creeks, runs, kills, rills, and small lakes.” Rivers considered eligible need not have outstanding white water or be navigable. Smaller rivers may be equally important as large rivers depending on the context within different ecosystems. Similarly, the length of a river segment is also not a criterion of eligibility as long as a specificORV can be protected if the segment is designated.

Tentative classification as wild, scenic, or recreational

River segments found to be eligible are assigned a tentative classification as wild, scenic, or recreational based on the development of shoreline, watercourse, and access as they exist at the time of the inventory. Different segments of the same river can have different classifications. Section 2(b) of the WSRA specifies three classification categories for eligible rivers.

1. **Wild River Areas -** Wild river areas are those rivers or sections of rivers free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted.
2. **Scenic River Areas -** Scenic river areas are those rivers or sections of rivers free of impoundments, with shorelines or watersheds still largely primitive or shorelines largely undeveloped, but accessible in places by roads. “Scenic” does not necessarily mean the river corridor has to have scenery as an ORV.
3. **Recreational River Areas -** Recreational river areas are those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past. “Recreational” does not imply that the river will be managed or prioritized for recreational use or development.

Final classifications are made by Congress or the Secretary of the Interior at the time a segment is designated for inclusion in the NWSRS.

Suitability Determinations

The second and final phase of agency review is suitability. During the suitability phase, the agency evaluates the river and considers several factors to determine if the river, in its context, should be recommended to Congress for addition to the NWSRS. Current and future uses of the surrounding land and water, as well as what values would be preserved, lost, or diminished if the river were designated, are considered. Public and local governmental interest in designating the river is assessed. Fiscal concerns of acquiring any appropriate land are identified.

Protective Management

Eligible rivers and their corridors on Federal lands are provided interim protection until the suitability phase is complete. Rivers recommended as suitable are protected as potential additions to the NWSRS until Congress or the Secretary of the Interior determines whether the suitable river will be included in the NWSRS. Rivers deemed nonsuitable revert to land management as described in the most recent RMP. The characteristics of eligible and suitable segments are managed as described below:

1. **Free-flowing values -** The free-flowing condition of eligible river segments cannot be modified to allow stream impoundments, diversions, channelization, or riprapping to the extent authorized under law.
2. **River-related values -** Each segment is managed to protect ORVs, subject to valid existing rights. To the extent practicable, such values are enhanced.
3. **Classification impacts -** Management and development of the eligible river and its corridor cannot be modified, subject to valid existing rights, to the degree that its eligibility or classification would be affected.

Criteria for Evaluating Eligibility

The following criteria were developed to guide evaluations for potential eligibility of rivers in the Jarbidge Field Office and for recommendation as a wild, scenic, or recreational river. These were developed by an Interdisciplinary (ID) Team composed of Jarbidge Field Office employees, including specialists in wildlife, fisheries, upland and riparian vegetation, recreation, rangeland management, and archaeology (Attachment 1).

In developing the criteria described in this report, the RMP Interdisciplinary Team (ID Team) relied on the documents listed below. All direction contained in this document is consistent with direction in BLM Manual 6400, Wild and Scenic Rivers – Policy and Program Direction for Identification, Evaluation, Planning, and Management. The other documents were used as a source for information and guidance.

- US Department of the Interior-US Department of Agriculture (USDA) Guidelines for Eligibility, Classification, and Management of River Areas (09/07/1982);
- The Wild and Scenic River Study Process, Interagency Wild and Scenic Rivers Coordinating Council (12/1999); and
- A Compendium of Questions and Answers Relating to Wild and Scenic Rivers, Interagency Wild and Scenic Rivers Coordinating Council (06/2006).

Criteria for Inclusion in the Inventory and for Segmenting Rivers

The following sources were used to identify potentially eligible rivers (Attachment 2):

- Perennial and intermittent rivers and streams included on Jarbidge Field Office geographic information system layers;
- River segments identified in public scoping for the Jarbidge RMP;
- All rivers included in the Nationwide Rivers Inventory (NPS, 2004) or the State of Idaho Comprehensive Water Plan;
- Any river studied but determined to be ineligible in the Bruneau Wild and Scenic River Study Report of August 1976;
- The USDA Forest Service, Humboldt-Toiyabe National Forest Wild and Scenic Rivers Eligibility Report (USFS, 2005), which describes eligibility studies on streams that flow from the Humboldt-Toiyabe National Forest into the Jarbidge planning area; and
- Boundary rivers not previously deemed eligible during evaluation efforts in adjacent BLM field offices.

A river's inclusion on any of these source lists does not represent an official determination of eligibility, and a river's absence from these source lists does not indicate its ineligibility.

Ephemeral waterways, which contain water only in response to local precipitation events, were not inventoried for eligibility; however, intermittent streams, which contain a predictable seasonal flow of water, were included in the inventory.

BLM limited the eligibility study to the lands it administers, per BLM Manual 6400, Wild and Scenic Rivers—Policy and Program Direction for Identification, Evaluation, Planning, and Management, which states, "The BLM does not have the authority to evaluate the presence, absence, or quality of values that occur on private lands. However, the boundary of that river may include private lands. In such cases eligibility determinations should only consider the presence of values on BLM-admisistered lands and related waters".

Rivers included in the inventory were segmented where substantial changes in eligibility or tentative classification might occur, such as the presence of impoundments or dams, noticeable changes in types or amounts of development, and obvious changes in physiographic character or land status.

Free-flowing Criteria

In determining whether a river is free-flowing, the Wild and Scenic Rivers Act (WSRA) states "…the existences, however, of low dams, diversions works, and other minor structures…shall not automatically

bar its consideration….” The ID Team established the following minimum criteria to ensure rivers having borderline “minor” modifications would be considered: the flow within the segment must be substantially unaltered as a result of human activity to the extent that riparian vegetation is maintained by stream flows.

Considerations for Evaluating Outstandingly Remarkable Values

Section 1 (b) of the WSRA describes the rivers to be protected as possessing Outstandingly Remarkable Values (ORVs). ORVs do not have a clear definition in the Act, yet they are crucial components of eligible rivers. ORVs identified in the WSRA include scenic, recreational, geological, fish and wildlife, historical, cultural, or other values including attributes such as river-related paleontologic deposits or unique botanical resources.

Three sideboards were used to consider whether an outstandingly remarkable value could be applied to a river. First, the value must be river-related; a value should be directly associated with the river or the river corridor, typically considered to be 0.25 mile from the ordinary high water mark on each side of the river. The values need to contribute substantially to the functioning of the river ecosystem or to its public value, or owe its existence to the river.

The second sideboard is that the values considered should be at least regionally important to be deemed outstandingly remarkable. The region of comparison the ID Team used depended on the value being evaluated; regions of comparison for each value are noted below in Table N-1.

The third and final sideboard is that within the regions of comparison, the features or ORVs being considered need to be rare, unique, or exemplary examples of the occurrence of that feature or value.

Criteria for Each Potential Outstandingly Remarkable Value

Outstandingly Remarkable Scenic Value

Definition

The landscape elements of landform, vegetation, water, color, and related factors must result in notable or exemplary visual features or attractions within the geographic region. The rating area must be scenic quality “A” as defined in the BLM Visual Resource Inventory Handbook, H-8410-1; the handbook may also be used to assess visual quality and to evaluate the extent of development upon scenic values. Additional factors may be considered, such as seasonal variations in vegetation, scale of cultural modifications, and the length of time negative intrusions are viewed. Scenery and visual attractions may be highly diverse over the majority of the river or river segment and not common to other rivers in the geographic region.

Region of comparison

The region of comparison for scenic values for the Jarbidge Field Office includes the northern Great Basin, the Snake River Plain, and the Owyhee River watershed.

Criteria for evaluating scenic value

- *Diversity of View:* Consider the presence of high relief; severe surface variation; rich color combinations including high variety and vivid colors; pleasing contrasts in soil, rock, vegetation, and water; views that greatly enhance visual quality; or still or cascading water that is dominant in the landscape. River corridors with the greatest diversity and variety of views in both foreground and background are of higher value. Consider places that people go to see things, which can range from the micro views at pools or waterfalls to the grander views and vistas from along a trail or river.
- *Special Features:* Consider outstanding natural, historical, or cultural features and landforms with unusual or outstanding topographic features such as gorges, high relief, rock outcrops, canyons, falls, rapids, springs, hot springs, color, and vegetation. River corridors with high relief and focal points that are visually striking, particularly memorable, or rare in the region are of higher value.
- *Seasonal Variations:* Consider diversity of vegetation types in interesting patterns, textures, color, and contrast. River corridors with the greatest seasonal variation and diversity are of higher value.
- *Cultural Modifications:* Consider human modifications and features within the corridor and viewshed. Viewsheds that are free from aesthetically undesirable sights and influences are generally of higher value. Human features that exist may in some cases add to visual appeal.

Outstandingly Remarkable Recreational Value

Definition

Recreational opportunities are, or have the potential to be, unusual enough to attract visitors to the geographic region. Recreational opportunities may be rare or unique within the region. Visitors are willing to travel long distances to use the river resources for recreational purposes. River-related opportunities could include, but are not limited to, sightseeing, wildlife observation, camping, photography, hiking, fishing, hunting, and boating. Interpretive opportunities may be exceptional and attract, or have the potential to attract, visitors from outside the geographic region. The river may provide or have the potential to provide settings for national or regional commercial usage or competitive events.

Region of comparison

The region of comparison for recreational values for the Jarbidge Field Office includes the Snake River Plain south to Interstate 80 in northern Nevada, where there are similar types of water-based recreational activities as within the Jarbidge Field Office.

Criteria for evaluating recreational value

- *Diversity of Use:* Consider the number and variety of recreation uses occurring within the corridor. Rivers that provide for the largest number and diversity of recreation uses are of higher value.
- *Experience Quality:* Consider the comparative number or percent of similar experiences available in the region. Rivers that provide the most unique opportunities are of higher value for fishing, wildlife viewing, and hunting. Highly scenic, pristine rivers and corridors are of higher value as compared to other areas that are visually monotonous, heavily developed, malodorous, or noisy.
- *Access:* Consider the availability of private and public access points, ease of use, and attendant facilities such as parking, boat ramps, and trails. On some rivers, poor access can be advantageous to limit crowding.
- *Level of Use:* A little-used river should not by itself indicate a lower value, and an intensively used river may indicate a diminished value due to overcrowding. However, rivers or corridors highly used by anglers, hunters, and wildlife viewers are usually of higher value.
- *Associated Opportunities:* Consider the extent of opportunities for hiking, photography, fishing, picnicking, swimming, wildlife viewing, and other similar experiences. Rivers with the greatest opportunity for associated recreation are of higher value.
- *Attraction:* Consider the ability to attract visitors from outside the geographic region. Rivers that attract a variety of users with their primary intent to use the river for recreation experiences as well as rivers that provide a setting for national or regional competitive events are of higher value.
- *Sites and Facilities:* Consider the extent of or potential for appropriate facility development. Rivers with the greatest number of existing or potential recreation facilities may be of higher value depending upon the type of recreation opportunity provided.
- *Length of Season:* Consider the amount of time the river corridor is used or available for recreation purposes. Rivers with the longest season of use may be of higher value depending upon the type of recreation opportunity provided.

Outstandingly Remarkable Geological Value

Definition

The river or river corridor contains one or more examples of a geologic feature, process, or phenomenon that are rare, unusual, or unique within the region. The feature(s) may be in an unusually active stage of development, represent a “textbook” example, and/or represent a unique or rare combination of geologic features or landforms (e.g., erosional, volcanic, glacial).

Region of comparison

The region of comparison for geological values for the Jarbidge Field Office includes the northern Great Basin, the Snake River Plain, and the Owyhee River watershed.

Criteria for evaluating geological value

- *Feature Abundance:* Consider landforms and geologic setting with unusual or outstanding geologic features (e.g., gorges, arches, badlands, oxbows, caves, relic shoreline, unusual drainage patterns and stream channels, bogs, waterfalls, deep canyons, hot springs, unique rock formations, and

outcrops). River corridors with an abundance of unusual, unique, and distinctive geologic features to the region are of higher value.

- *Diversity of Features:* Consider the number and variety of special geologic features and the value of these features to the region. Consider the unique or rare combination of geologic features or landforms (e.g., erosional, volcanic, glacial). River corridors with the greatest diversity of geologic features are of higher value.
- *Educational/Scientific:* Geologic features clearly and graphically reveal an interesting or unique educational or scientific story of the earth's history. River corridors that represent "textbook" examples of a common feature or are the best example of a feature in the region are of higher value.

Outstandingly Remarkable Fish Value

Definition

Fish values may be judged on the relative merits of fish populations, habitat, or a combination of these river-related conditions.

- *Populations:* The river is a nationally or regionally important producer of indigenous, resident, and/or anadromous fish species. Of particular significance may be the presence of wild or unique stocks and/or populations of Federal- or State-listed (or Candidate) Threatened, Endangered, or sensitive species. Diversity of species is an important consideration and could, in itself, lead to a determination of "outstandingly remarkable".
- *Habitat:* The river provides exceptionally high quality habitat for fish species indigenous to the region of comparison. Of particular significance is habitat for wild stocks and/or Federal- or State-listed (or Candidate) Threatened, Endangered, or sensitive species. Diversity of habitats is an important consideration and could, in itself, lead to a determination of "outstandingly remarkable".

Region of comparison

The region of comparison for fish values for the Jarbidge Field Office includes the Columbia River Basin, which corresponds to the range of special status fish species present in the Field Office.

Criteria for evaluating fish value

- *Habitat Quality:* Consider the presence, extent, and carrying capacity of spawning area, rearing areas, and adult habitat, as well as habitat for wild stocks and special status species. Areas with the greatest amount and best quality habitat, especially for wild stock and special status species, are of higher value.
- *Diversity of Species:* Consider the number and variety of species present and the value of these species. Areas with the greatest diversity of species, including wild stocks and special status species, are of higher value.
- *Value of Species:* Rivers that are of special interest, are highly used by anglers, or offer an unusual recreation experience for the region are of higher value.
- *Abundance of Fish:* Rivers with more fish and/or rivers that have been documented historically for sizeable runs are of higher value.
- *Natural Reproduction:* Rivers with extensive self-sustaining natural reproduction are of higher value than those supported mostly by stocking.
- *Size and Vigor of Fish:* Rivers that produce large, vigorous fish are of higher value.

Outstandingly Remarkable Wildlife Value

Definition

Wildlife values may be judged on the relative merits of terrestrial or aquatic populations, habitat, or a combination of these conditions.

- *Populations:* The river or river corridor contains nationally or regionally important populations of indigenous or resident wildlife species dependent on the river environment. Of particular significance are species considered to be unique, and/or populations of Federal- or State-listed (or Candidate) Threatened, Endangered, or sensitive species. Diversity of species is an important consideration and could, in itself, lead to a determination of "outstandingly remarkable".

- *Habitat:* The river or river corridor provides exceptionally high quality habitat for wildlife of national or regional significance, or may provide unique habitat or a critical link in habitat conditions for Federal- or State-listed (or Candidate) Threatened, Endangered, or sensitive species. Diversity of habitats is an important consideration and could, in itself, lead to a determination of "outstandingly remarkable". Contiguous habitat conditions are such that the biological needs of the species are met.

Region of comparison
The region of comparison for wildlife value for the Jarbidge Field Office includes the Snake River Plain south to Interstate 80 in northern Nevada, which includes similar habitats as occur within the Field Office, but excludes pinyon-juniper communities characteristic of areas further to the south.

Criteria for evaluating wildlife value
- *Habitat Quality:* Consider the presence, extent, and carrying capacity of a variety of wildlife habitats, including winter range, summer range, transition zones, travel corridors, and calving areas. Consider unique habitats or critical links in habitat for special status species. Areas with the greatest and best habitat, contiguous habitat, and habitat for special status species are of higher value.
- *Diversity of Species:* Consider the number and variety of species present and the value of these species. Rivers with the greatest diversity of species, including special status species, are of higher value.
- *Abundance of Species:* Rivers with the greatest number of wildlife within the river corridor are of higher value.

Outstandingly Remarkable Historical Value

Definition
The river or river corridor contains a river-related site or feature associated with a significant event, an important person, or a cultural activity of the past that was rare or unusual in the region. Many such sites are listed on the National Register of Historic Places. A historic site and/or feature is at least 50 years old in most cases.

Region of comparison
The region of comparison for historical value for the Jarbidge Field Office includes southern Idaho and northern Nevada.

Criteria for evaluating historical value
- *Significance:* Consider segments that contain a site or feature associated with a historically significant event, person, or activity of the past (e.g., major trails, mining history, early explorers). River-related rare, unique, or unusual sites or features within the region are of higher value.
- *Site Integrity:* Consider the presence of exceptional examples of architecture from a significant period in history; sites that are unmodified and retain their original character; and features that are exceptional examples within the region. River corridors that contain exceptional sites in exceptional condition are of higher value.
- *Education/Interpretation:* Consider sites that have regional or national importance for interpreting significant historic events or people; sites that early and graphically reveal an interesting or unique history of the region; and sites that have the ability to attract visitors from outside the region. River corridors that represent "textbook" examples of a historic event or provide the best example of a historical culture or river-related event in the region are of higher value.
- *Listing/Eligibility:* Consider corridors that contain sites or features that are currently listed in, or are eligible for, the National Register of Historic Places, or designated as a National Historic Landmark. Rivers with such features, particularly if in abundance, are of higher value.
- *Number of Historic Themes or Periods:* River corridors that represent more then one historic theme or culture, may have been used concurrently by more than one historic cultural group, or have been used for rare or sacred purposes are of higher value.

Outstandingly Remarkable Cultural Values

Definition

The river or river corridor contains a river-related site where there is evidence of current or historic occupation or use by Native Americans with unique or rare characteristics or exceptional human-interest value. Sites may be nationally or regionally important for interpreting prehistory, be rare, represent an area where a culture or cultural period was first identified and described, have been or are being used concurrently by two or more cultural groups, or have been or are being used by cultural groups for sacred purposes. Many such sites are listed on the National Register of Historic Places.

Region of comparison

The region of comparison for cultural values for the Jarbidge Field Office includes the southern Columbian Plateau and the northern Great Basin.

Criteria for evaluating cultural value

- *Significance:* Consider evidence of significant occupation and use by Native Americans (e.g., hunting sites, ceremonial areas, fishing areas). Consider sites that have significant human interest value, are rare, or represent an area where a culture was first identified. Rivers with cultural significance to Native Americans are of higher value. Rivers that have substantial existing cultural use or that have been traditionally used as a Native American fishery are also of higher value. Rare, unique, or unusual sites or features within the region are of higher value.
- *Current Uses:* River corridors containing sites or features that are significant to Native American populations today are of higher value.
- *Number of Cultures:* River corridors that represent more than one cultural period, may have been used concurrently by more than one cultural group, or have been used for rare or sacred purposes are of higher value.
- *Site Integrity:* Consider the presence of exceptional examples of Native American features from a significant period in history; sites that are unmodified and retain their original character; features that are in excellent condition and provide an exceptional example within the region. River corridors that contain exceptional sites in exceptional condition are of higher value.
- *Education/Interpretation:* Consider sites that have regional or national importance for interpreting significant events, sites, or people; sites that clearly and graphically reveal an interesting or unique history of the region; and sites that have the ability to attract visitors from outside the region. River corridors that represent “textbook” examples of a Native American or other culture or provide the best example of a culture or river-related event in the region are of higher value.
- *Listing/Eligibility:* Consider corridors that contain sites or features that are currently listed in, or are eligible for, the National Register of Historic Places, or designated as a National Historic Landmark. Rivers with such features, particularly if in abundance, are of higher value.

Outstandingly Remarkable Vegetation/Ecological Values

Definition

Vegetation and ecological values may be judged on the relative merits of either populations or communities, or a combination of these conditions. The river or river corridor contains nationally or regionally important populations of indigenous plant species. Of importance are species considered to be unique or populations of Federal- or State-listed (or Candidate) Threatened, Endangered, or sensitive species. Diversity and number of species are also important. The river or river corridor may contain nationally or regionally important plant communities. Communities may be exceptionally high quality, unusual, or critical communities.

Region of comparison

The region of comparison for vegetative and ecological values for the Jarbidge Field Office includes the northern Great Basin and southern Snake River Plain.

Criteria for evaluating vegetation/ecological value

- *Species Diversity:* Consider the presence, extent, and diversity of plant communities; ecological values that are critical to protection of biological diversity; and critical habitat for species conservation

(e.g., refugia). River corridors with the greatest diversity and importance to species conservation are of higher value.
- *Ecological Function:* Rivers with rare or unique corridors that are critical and essential for species migration and genetic interaction are of higher value.
- *Rare Communities:* Rivers with rare, sensitive, Threatened, or Endangered species and communities are of higher value.
- *Educational/Scientific:* Consider vegetation and ecological values and features that clearly and graphically reveal an interesting or unique educational or scientific story of vegetative or ecological form and function. River corridors that represent "textbook" examples of plant and animal associations or ecological values and features in the region are of higher value.

Criteria for Tentative Classification of Eligible Segments

Eligible segments are assigned a tentative classification of wild, scenic, or recreational, based on the following criteria:

Wild River

- Free of impoundments.
- Essentially primitive. Little or no evidence of human activity.
- The presence of a few inconspicuous structures, particularly those of historic or cultural value is acceptable.
- A limited amount of domestic livestock grazing or hay production is acceptable.
- Generally inaccessible except by trail.
- No roads, railroads, or other provision for vehicular traffic within the river area. A few inconspicuous existing roads leading to the boundary of the river area are acceptable.
- Meets or exceeds Federal water quality criteria or Federally approved State water quality standards for aesthetics, propagation of fish and wildlife normally adapted to the habitat of the river, and primary contact recreation (swimming), except where water quality standards are exceeded by natural conditions.

Scenic River

- Free of impoundments.
- Largely primitive and undeveloped. No substantial evidence of human activity.
- The presence of grazing, hay production, or row crops is acceptable.
- Accessible in places by road.
- Roads may occasionally reach or bridge the river. The existence of short stretches of conspicuous or longer stretches of inconspicuous and well-screened roads or railroads paralleling the river area may be permitted.
- Meets, exceeds, or is capable of being restored to meet Federal water quality criteria or Federally-approved State water quality standards for aesthetics, for propagation of fish and wildlife normally adapted to the habitat of the river, and for primary contact recreation (swimming), except where water quality standards are exceeded by natural conditions.

Recreational River

- Some existing impoundment or diversion; or, may have undergone some impoundment or diversion in the past.
- The existence of low dams, diversions, or other modifications of the waterway is acceptable, provided the waterway remains free-flowing and generally natural and river-like in appearance.
- Some development present; or, substantial evidence of human activity.
- The presence of extensive residential development and a few commercial structures is acceptable.
- Lands may have been developed for the full range of agricultural and forestry uses.
- Readily accessible by road or railroad.
- The existence of parallel roads or railroads on one or both banks as well as bridge crossings and other river access points is acceptable.

- Meets, exceeds, or is capable of being restored to meet Federal water quality criteria or Federally-approved State water quality standards for aesthetics, for propagation of fish and wildlife normally adapted to the habitat of the river, and for primary contact recreation (swimming), except where water quality standards are exceeded by natural conditions.

Evaluating Eligibility on Jarbidge Field Office Rivers

BLM determined rivers eligible for inclusion into the National Wild and Scenic Rivers System through a process of elimination. If a river segment was not free flowing or did not potentially possess at least one outstandingly remarkable value, it was not evaluated further.

In the fall of 2006, the RMP Interdisciplinary Team (ID Team) compiled an initial list of rivers that would be assessed for their free-flowing status and for the presence or absence of Outstandingly Remarkable Values (ORVs). These river segments included both perennial and intermittent rivers and streams, but not ephemeral waterways, as described in Section III. This initial step resulted in a list of 42 rivers or segments for further consideration (Attachment 2).

An in-depth review of these 42 segments on November 29 and 30, 2006, focused on free-flowing criteria and ORVs. The ID Team conducted this review using their knowledge of the area, informed professional judgment, and available data and information on the river, river segment, environment, and the potential ORVs. Only rivers that met the free-flowing criteria were assessed for the presence of ORVs. As a result of that review, seven rivers were determined not to be free-flowing, and 24 additional rivers were determined not to possess ORVs (Attachment 3). The eligibility inventory and the remaining 11 rivers and river segments were described in the March 2007 Jarbidge RMP newsletter, which was distributed to the Jarbidge RMP mailing list and posted on the RMP website.

The potential ORVs on the remaining 11 rivers and river segments were examined once again by the ID Team on April 6, 2007; four rivers and river segments were found to not possess an outstandingly remarkable value when evaluated in the larger regional context (Attachment 3). The Idaho Department of Water Resources (IDWR) was briefed on the eligibility inventory process and preliminary results in June 2007, in accordance with Memorandum of Understanding ID-273[1]. Cougar Point Creek[2] and the Jarbidge River were evaluated for their scenic quality as per the BLM Visual Resource Inventory Handbook, H-8410-1, on November 2, 2007; both were rated as scenic quality “A.”

As a result of this inventory and review process, seven rivers and river segments were identified as eligible for further study (Figure N-2; Table N-2; Attachment 3); IDWR was briefed on these segments during the fall of 2008. The BLM Four Rivers Field Office reviewed the evaluation of the Three Island Reach of the Snake River and concurred with the ID Team’s findings. The proposed boundary for each of the eligible segments is 0.25 mile from the ordinary high water mark on each side of the river or stream, averaging no more than 320 acres per river mile. Following eligibility determination, each segment was evaluated for its tentative classification (Table N-2). Section V provides a basic description and a map showing the location of each segment.

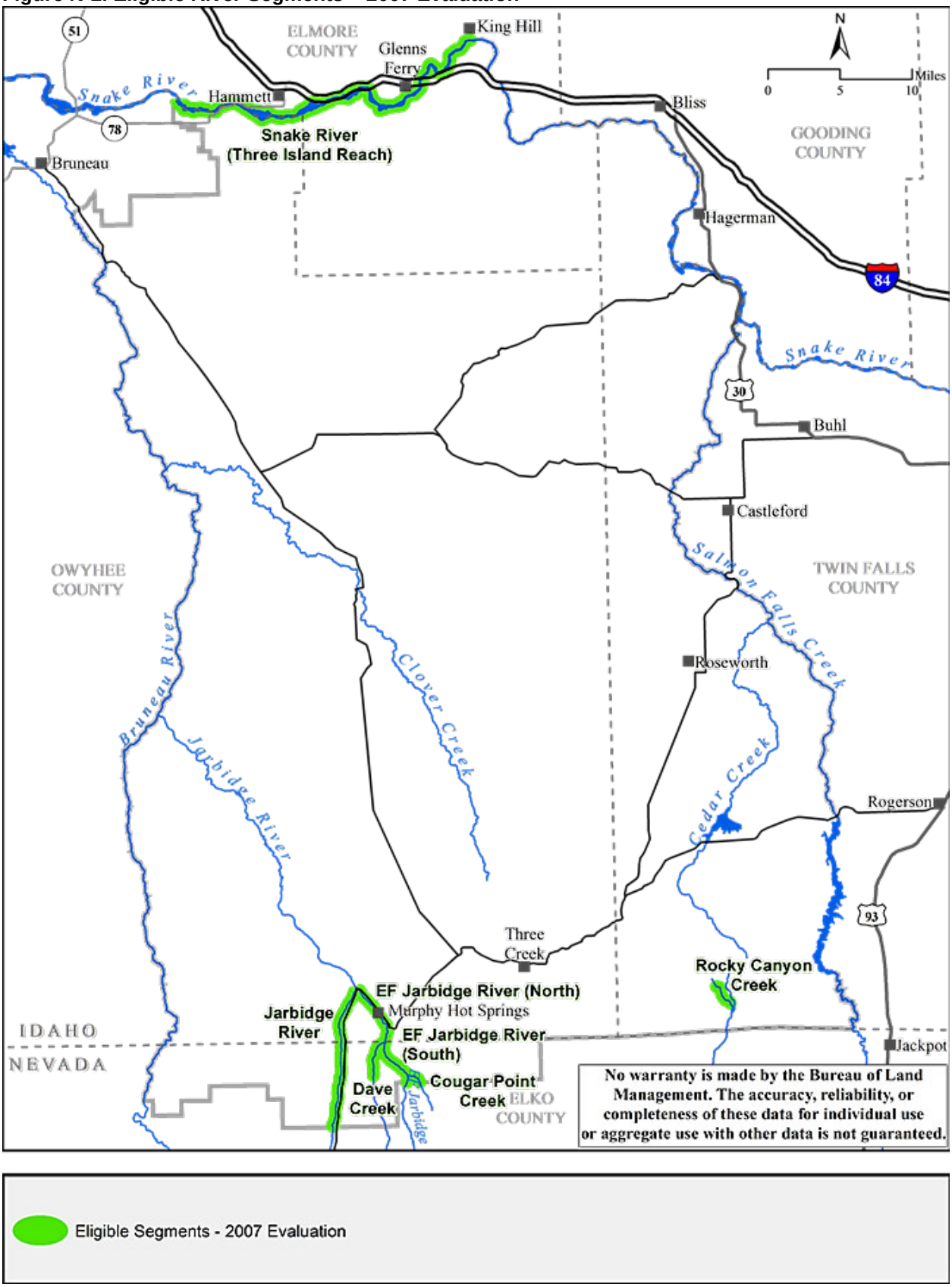
Until suitability determinations are reached, the Jarbidge Field Office will manage the values associated with the eligible river segments in a way that will not adversely affect the values contributing to the free flow, ORVs, and tentative classification. This management is in place until a river segment is determined suitable or nonsuitable during the suitability study phase.

[1] Memorandum of Understanding between the Governor, State of Idaho and Regional Foresters, Northern and Intermountain Regions Forest Service and State Director, Idaho Bureau of Land Management regarding river planning efforts and Wild and Scenic River studies of Idaho’s rivers, dated February 14, 1991.
[2] Cougar Point Creek is an unnamed tributary of the Jarbidge River, East Fork; Cougar Point is the adjacent named landmark feature.

Table N-2. Eligible River Segments – 2007 Evaluation

River	Segment Description	Length (miles)	Outstandingly Remarkable Values	Tentative Classification
Cougar Point Creek	Jarbidge Field Office boundary to East Fork, Jarbidge River confluence	1.0	Scenic	Wild
Dave Creek	Private land boundary to East Fork, Jarbidge River confluence	2.7	Fish	Wild
Jarbidge River	Jarbidge Field Office boundary to East Fork, Jarbidge River confluence	10.2	Fish, Scenic	Recreational
East Fork Jarbidge River, north	Downstream private land boundary of Murphy Hot Springs to Jarbidge River confluence	2.2	Fish	Recreational
East Fork Jarbidge River, south	Jarbidge Field Office boundary to upstream private land boundary of Murphy Hot Springs	7.4	Fish	Wild
Rocky Canyon Creek	Headwaters to North Fork, Salmon Falls Creek confluence	1.5	Wildlife	Wild
Snake River, Three Island Reach	King Hill Bridge to Hwy 51 Bridge	25.0	Recreational, Fish, Historical, Cultural	Recreational
	Total	**50.0**		

Figure N-2. Eligible River Segments – 2007 Evaluation

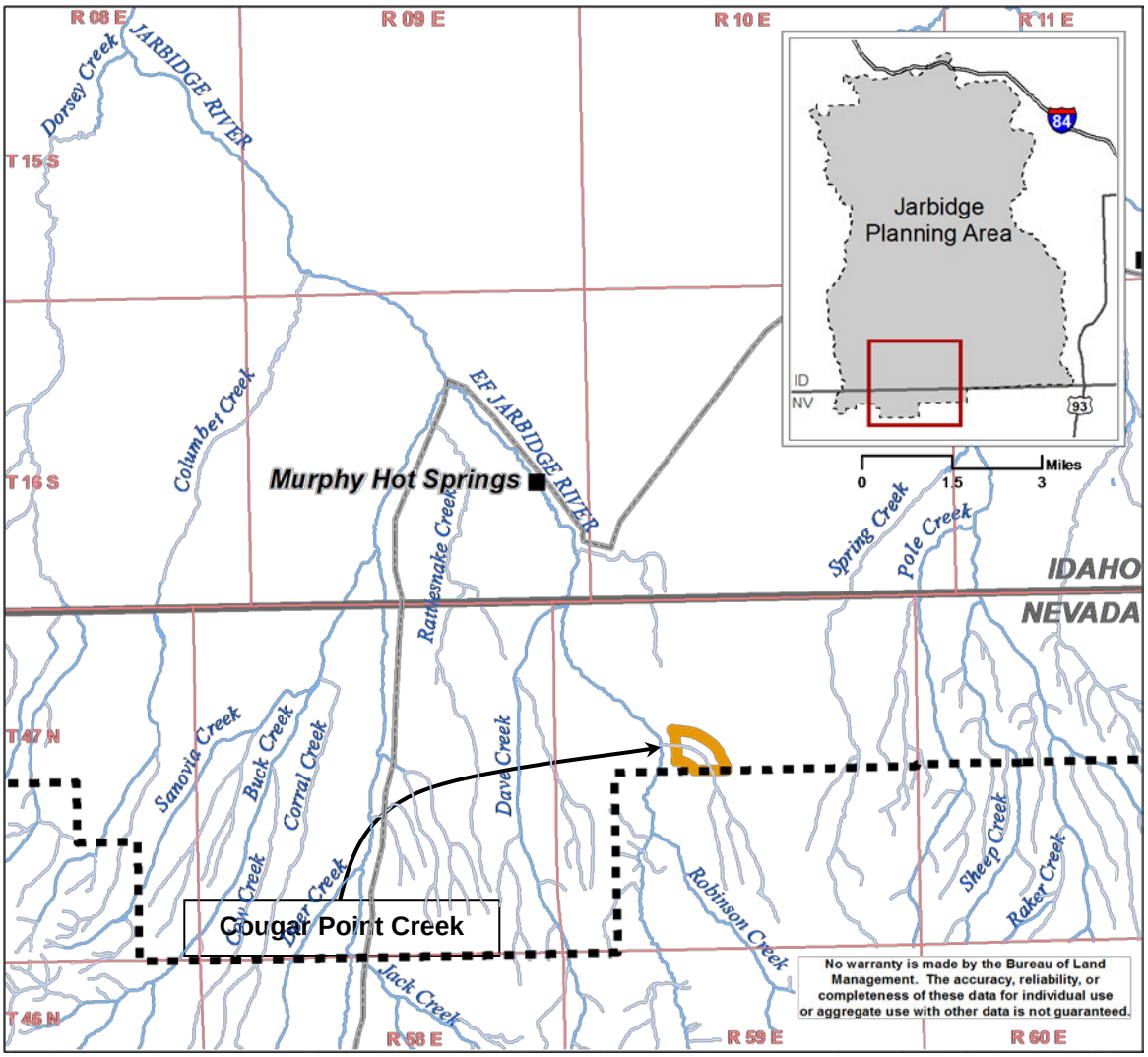


Description of Eligible River Segments

This section provides a description and map of each of the seven river segments identified during the Jarbidge Field Office Wild and Scenic River Eligibility Determination, with a focus on values identified by the RMP Interdisciplinary Team as outstandingly remarkable, as well as the segment's tentative classification as wild, scenic, or recreational. The river segments are presented in alphabetical order.

Cougar Point Creek

River Name	Cougar Point Creek
Segment Description	Jarbidge Field Office boundary to Jarbidge River, East Fork confluence
Total Stream Length	1.0 mile
Free Flowing?	Yes
Tentative Classification	Wild; there are few or no human developments occurring along this segment. Access is limited and typically only by trail.
Outstandingly Remarkable Values	
Scenic	Criteria met: diversity of view and special features. Cougar Point Creek originates in a boulder field near Cougar Point, where its water can be heard flowing beneath the boulders for approximately 300 feet before it emerges to the surface. Cougar Point Creek then traverses rolling uplands to drop more than 1,000 feet to its confluence with the East Fork of the Jarbidge River 1 mile downstream. The diversity of view in both the foreground and background is generated from this steep creek gradient. From the river corridor, one can see 1,000 feet down into the canyon of the East Fork of the Jarbidge River, as well as the Jarbidge Mountains over 4,000 feet above. Foreground scenery is comprised of the boulder field, lichens, and dense vegetation in the creek corridor, with a mixture of mountain mahogany and aspen stands. Cougar Point Creek rates as scenic quality "A" as described in the BLM Visual Resource Inventory Handbook, H-8410-1.
Recreational	NA
Geological	NA
Fish	NA
Wildlife	NA
Historical	NA
Cultural	NA
Vegetation/Ecological	NA
Comments	
• Not evaluated previously. • Evaluation requested as part of general scoping comments by Idaho Conservation League and Western Watersheds Project.	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Dorsey Creek
JARBIDGE RIVER
Columbet Creek
EF JARBIDGE RIVER
Murphy Hot Springs
Rattlesnake Creek
Spring Creek
Pole Creek
IDAHO
NEVADA
Sanovia Creek
Buck Creek
Corral Creek
Cow Creek
Deer Creek
Dave Creek
Robinson Creek
Sheep Creek
Raker Creek
Jack Creek
Cougar Point Creek
Jarbidge Planning Area
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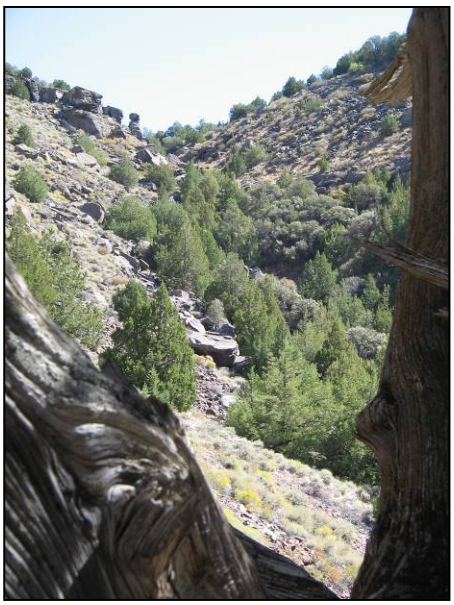
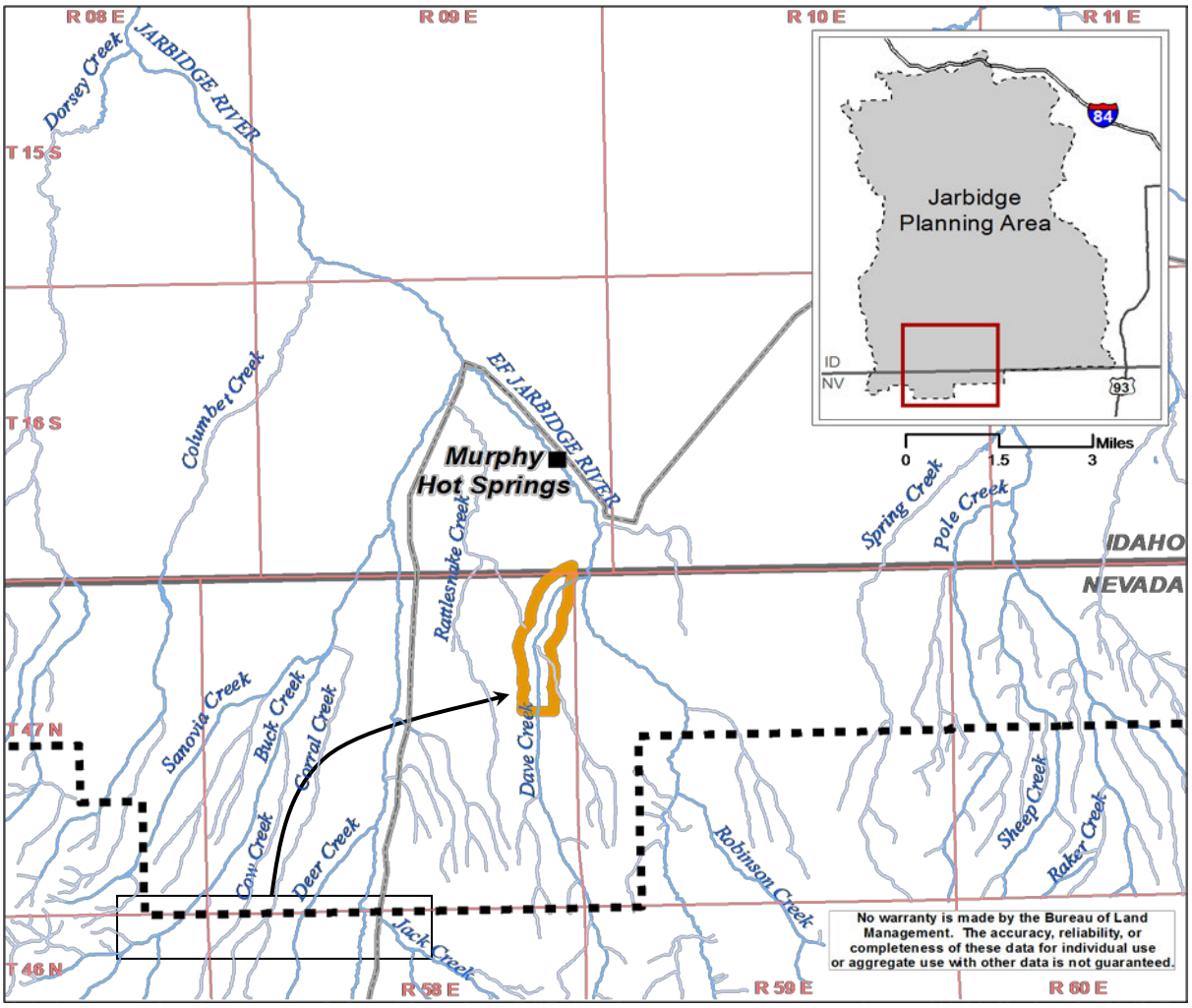


Dave Creek

River Name	Dave Creek
Segment Description	Private boundary to Jarbidge River, East Fork confluence
Total Stream Length	2.7 miles
Free Flowing?	Yes
Tentative Classification	Wild; there are few or no human developments occurring along this segment. Access is limited and typically only by trail.
Outstandingly Remarkable Values	
Scenic	NA
Recreational	NA
Geological	NA
Fish	Criteria met: habitat quality, value of species, abundance of fish, and natural reproduction. Dave Creek, a tributary to the Jarbidge River, is crucial spawning, rearing, foraging, migratory, and overwintering habitat for bull trout within the Jarbidge River system (FWS, 2004). Dave Creek also contains the highest population of bull trout in the Jarbidge watershed, including both resident and migratory (fluvial) fish. These bull trout are the only species of fish within the planning area that are Federally listed as Threatened under the Endangered Species Act of 1973. The Jarbidge River system contains the southernmost existing population of bull trout in North America. Genetic analysis of bull trout in the Columbia River Basin indicates Jarbidge River bull trout have a shared evolutionarily history with populations in the upper Columbia River and Snake River but are genetically distinct. For more than 100 years, Jarbidge River bull trout have been geographically isolated from other populations in the Snake River by more than 150 miles of marginally suitable habitat and several impassable hydroelectric dams on the Snake River and diversion dams on the lower Bruneau River. Bull trout in the Jarbidge River system are considered significant because they occupy a unique and unusual ecological setting and their loss would result in a substantial modification of the specie's range. The bull trout in the Jarbidge River are unique in that a portion of their habitat is in an area categorized as semi-arid desert. The Rocky Mountain juniper-dominated riparian zone interspersed with aspen on BLM portions of the Jarbidge River, which grades into aspen and limber pine on Forest Service land, is unique to the area. The majority of the other occupied habitat for bull trout is in other coniferous forest types (e.g. Douglas-fir, Engelmann spruce, and others).
Wildlife	NA
Historical	NA
Cultural	NA
Vegetation/Ecological	NA
Comments	
• Not evaluated previously. • Evaluation requested as part of general scoping comments by Idaho Conservation League. • Evaluation of Dave Creek was specifically requested in scoping comments by Western Watersheds Project.	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Dorsey Creek
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Columbet Creek
EF JARBIDGE RIVER
Murphy Hot Springs
Rattlesnake Creek
Spring Creek
Pole Creek
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NEVADA
Sanovia Creek
Buck Creek
Corral Creek
Cow Creek
Deer Creek
Dave Creek
Jack Creek
Robinson Creek
Sheep Creek
Raker Creek
Jarbidge Planning Area
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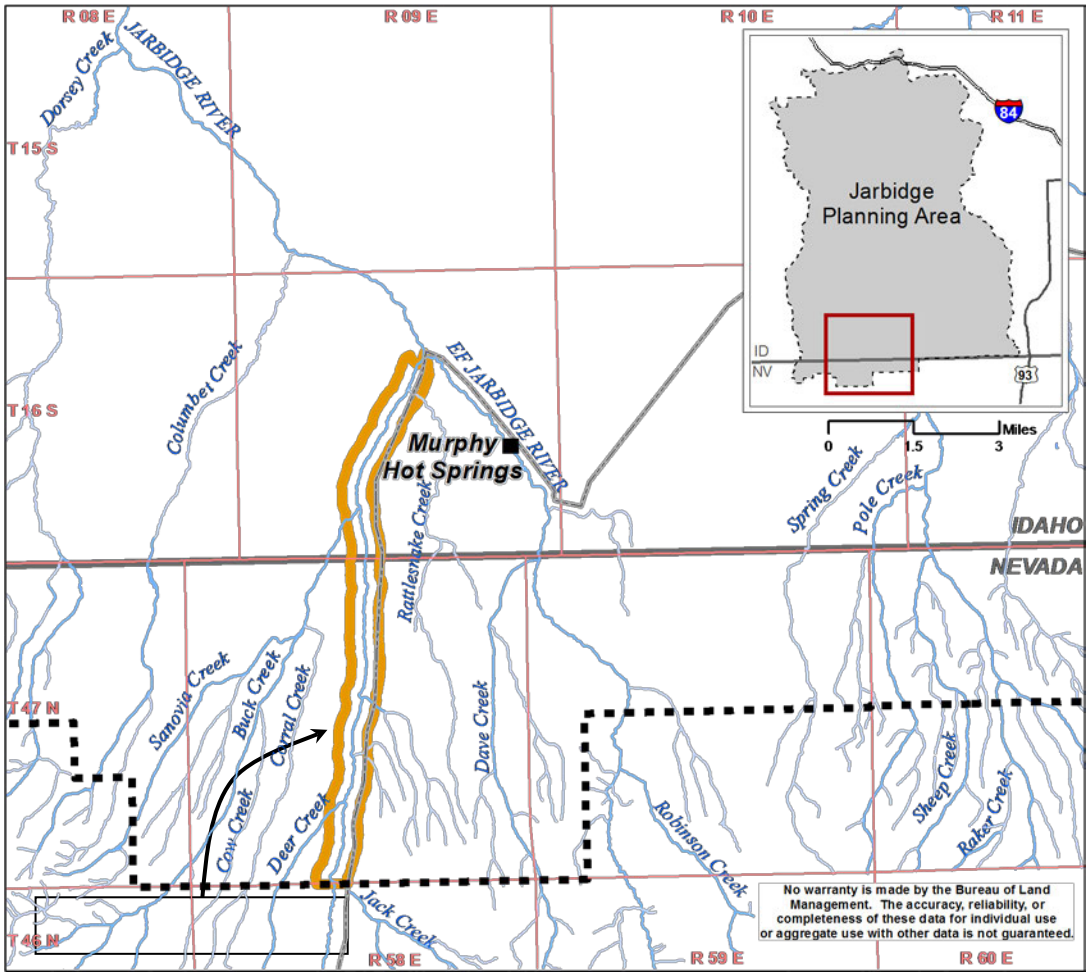
Miles
No warranty is made by the Bureau of Land Management. The accuracy, reliability, or completeness of these data for individual use or aggregate use with other data is not guaranteed.

Jarbidge River

River Name	Jarbidge River
Segment Description	Jarbidge Field Office boundary to Jarbidge River, East Fork confluence
Total Stream Length	10.2 miles
Free Flowing?	Yes
Tentative Classification	Recreational; improved gravel road with regular motorized traffic borders the entire segment. A steel bridge is present at the Buck Creek confluence; a wooden bridge is present at the Rattlesnake Creek confluence.
Outstandingly Remarkable Values	
Scenic	Criteria met: diversity of view, special features, and cultural modifications. This river segment is visually striking and particularly memorable. The foreground and background vary in texture, color, contrast, and depth. The diversity of colors results from the variety of trees, shrubs, and lichens within view. The high degree of relief and significant changes in geology within a short distance lend to the segment's scenic quality. Special features include hoodoos, window rocks, and little arches. The road adjacent to this segment provides an opportunity for the public to view scenery similar to that found further downstream, as well as unique characteristics of this segment. Besides the road, other cultural modifications are minimal and do not detract from the scenic value of the segment. The Jarbidge River rates as scenic quality "A" as described in the BLM Visual Resource Inventory Handbook, H-8410-1.
Recreational	NA
Geological	NA
Fish	Criteria met: habitat quality, diversity of species, value of species, and natural reproduction. The Jarbidge River is an isolated watershed and contains a natural diversity of native fish species. Compared to other rivers in the region, the proportion of native to non-native species is unusually high, as there are few, if any, non-native species present. The Jarbidge River system contains the southernmost existing population of bull trout in North America (FWS, 2004). Bull trout are the only species of fish within the planning area that are Federally listed as Threatened under the Endangered Species Act of 1973; the Jarbidge River contains one of six populations of bull trout identified for recovery. Genetic analysis of bull trout in the Columbia River Basin indicates Jarbidge River bull trout have a shared evolutionarily history with populations in the upper Columbia River and Snake River but are genetically distinct. For more than 100 years, Jarbidge River bull trout have been geographically isolated from other populations in the Snake River by more than 150 miles (240 km) of marginally suitable habitat, several impassable hydroelectric dams on the Snake River, and diversion dams on the lower Bruneau River. Bull trout in the Jarbidge River are considered significant because they occupy a unique and unusual ecological setting and their loss would result in a substantial modification of the species' range. The bull trout in the Jarbidge River are unique in that a portion of their habitat is in an area categorized as semi-arid desert. The Rocky Mountain juniper dominated

	riparian zone and interspersed aspen on BLM portions of the Jarbidge River grades into aspen and limber pine on Forest Service land and is unique to the area. The majority of the other occupied habitat for bull trout is in other coniferous forest types (e.g. Douglas-fir, Engelmann spruce, and others). The segment has spawning, over-wintering, and migratory habitat for bull trout. This reach is a key migration corridor between other bull trout bearing streams, and its deeper pools provide important over-wintering habitat.
Wildlife	NA
Historical	NA
Cultural	NA
Vegetation/Ecological	NA
Comments	
• Previously evaluated in the 1976 Bruneau Wild and Scenic River Study and deemed ineligible due to the lack of recreational values. • The Jarbidge River downstream from the confluence with the Jarbidge River, East Fork was recommended as suitable, with a tentative classification as wild, in the 1976 Bruneau Wild and Scenic River Study. • The Humboldt-Toiyabe National Forest inventoried the upstream portions of this river as eligible. • Evaluation requested as part of general scoping comments by Idaho Conservation League. • Evaluation of Jarbidge River was specifically requested in scoping comments by Western Watersheds Project.	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Dorsey Creek
JARBIDGE RIVER
Columbet Creek
EF JARBIDGE RIVER
Murphy Hot Springs
Rattlesnake Creek
Spring Creek
Pole Creek
IDAHO
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Buck Creek
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Cow Creek
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Dave Creek
Robinson Creek
Sheep Creek
Raker Creek
Jack Creek
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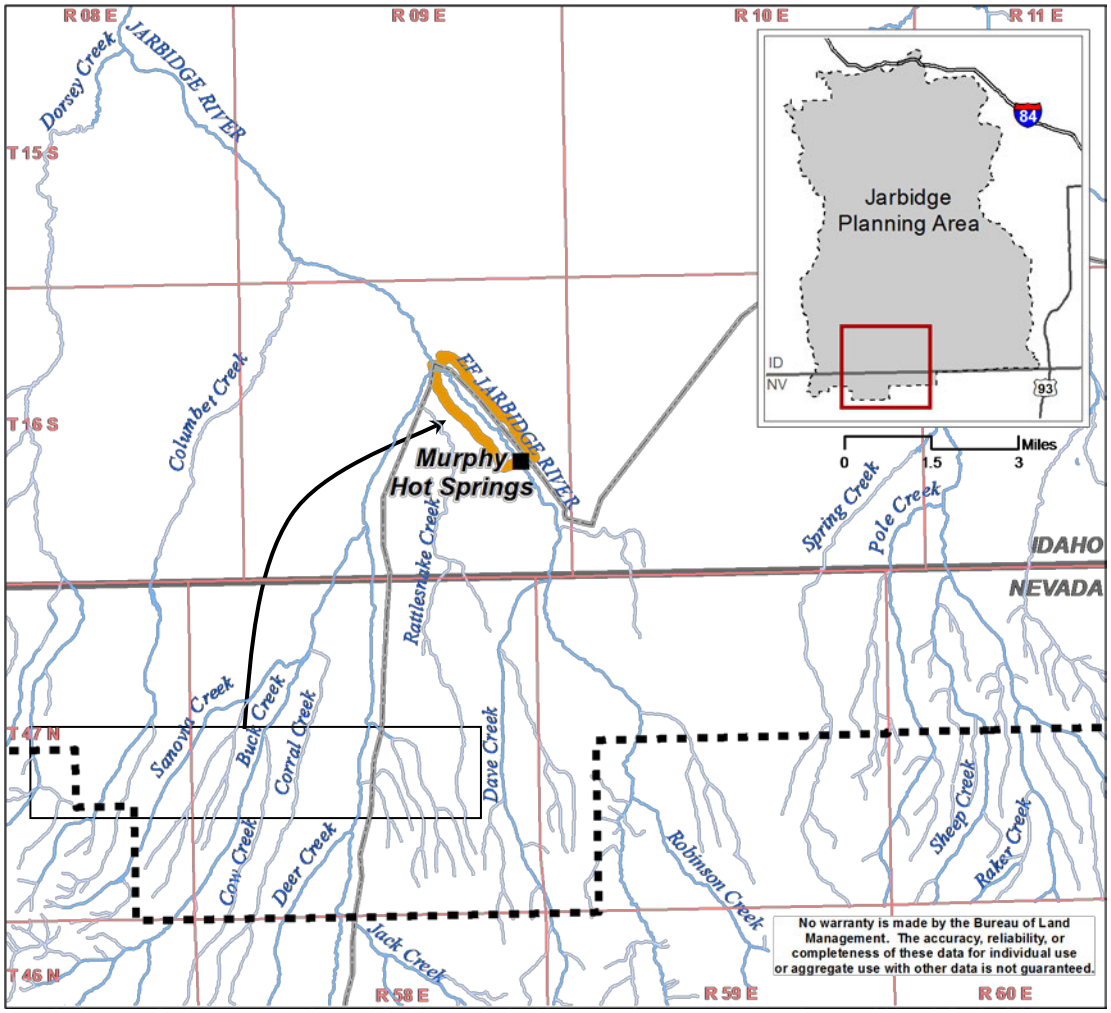
Jarbidge River, East Fork, north of Murphy Hot Springs

River Name	Jarbidge River, East Fork
Segment Description	Downstream private boundary of Murphy Hot Springs to Jarbidge River confluence
Total Stream Length	2.2 miles
Free Flowing?	Yes
Tentative Classification	Recreational; human development is present and obvious, as many Murphy Hot Springs residences exist at the upstream end of this segment. Improved gravel road with regular motorized traffic borders the entire segment. Developed campsites are present along the segment.
Outstandingly Remarkable Values	
Scenic	NA
Recreational	NA
Geological	NA
Fish	Criteria met: habitat quality, diversity of species, value of species, and natural reproduction. The Jarbidge River, East Fork is an isolated watershed and contains a natural diversity of native fish species. Compared to other rivers in the region, the proportion of native to non-native species is unusually high, as there are few, if any, non-native species present. Native fish populations in the Jarbidge River, East Fork are largely in tact, and habitats between drainages are still connected. The Jarbidge River system contains the southernmost existing population of bull trout in North America (FWS, 2004). Bull trout are the only species of fish within the planning area that are Federally listed as Threatened under the Endangered Species Act of 1973; the Jarbidge River contains one of six populations of bull trout identified for recovery. Genetic analysis of bull trout in the Columbia River Basin indicates Jarbidge River bull trout have a shared evolutionarily history with populations in the upper Columbia River and Snake River but are genetically distinct. For more than 100 years, Jarbidge River bull trout have been geographically isolated from other populations in the Snake River by more than 150 miles (240 km) of marginally suitable habitat, several impassable hydroelectric dams on the Snake River, and diversion dams on the lower Bruneau River. Bull trout in the Jarbidge River are considered significant because they occupy a unique and unusual ecological setting and their loss would result in a substantial modification of the species' range. The bull trout in the Jarbidge River are unique in that a portion of their habitat is in an area categorized as semi-arid desert. The Rocky Mountain juniper dominated riparian zone and interspersed aspen on BLM portions of the Jarbidge River grades into aspen and limber pine on Forest Service land which is unique to the area. The majority of the other occupied habitat for bull trout is in other coniferous forest types (e.g. Douglas-fir, Engelmann spruce, and others). The segment has spawning, over-wintering, and migratory habitat for bull trout. This reach provides a migration corridor between other bull trout bearing streams, and its deeper pools provide important over-wintering habitat.
Wildlife	NA
Historical	NA
Cultural	NA
Vegetation/Ecological	NA

Comments
• Previously evaluated in the 1976 Bruneau Wild and Scenic River Study and deemed ineligible due to the lack of recreational values. • The Jarbidge River downstream from the confluence with the Jarbidge River, East Fork was recommended as suitable, with a tentative classification as wild, in the 1976 Bruneau Wild and Scenic River Study. • Evaluation requested as part of general scoping comments by Idaho Conservation League. • Evaluation of Jarbidge River, East Fork was specifically requested in scoping comments by Western Watersheds Project.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Dorsey Creek
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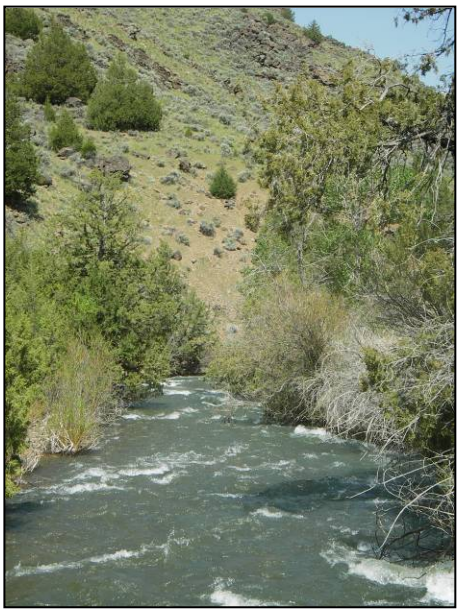
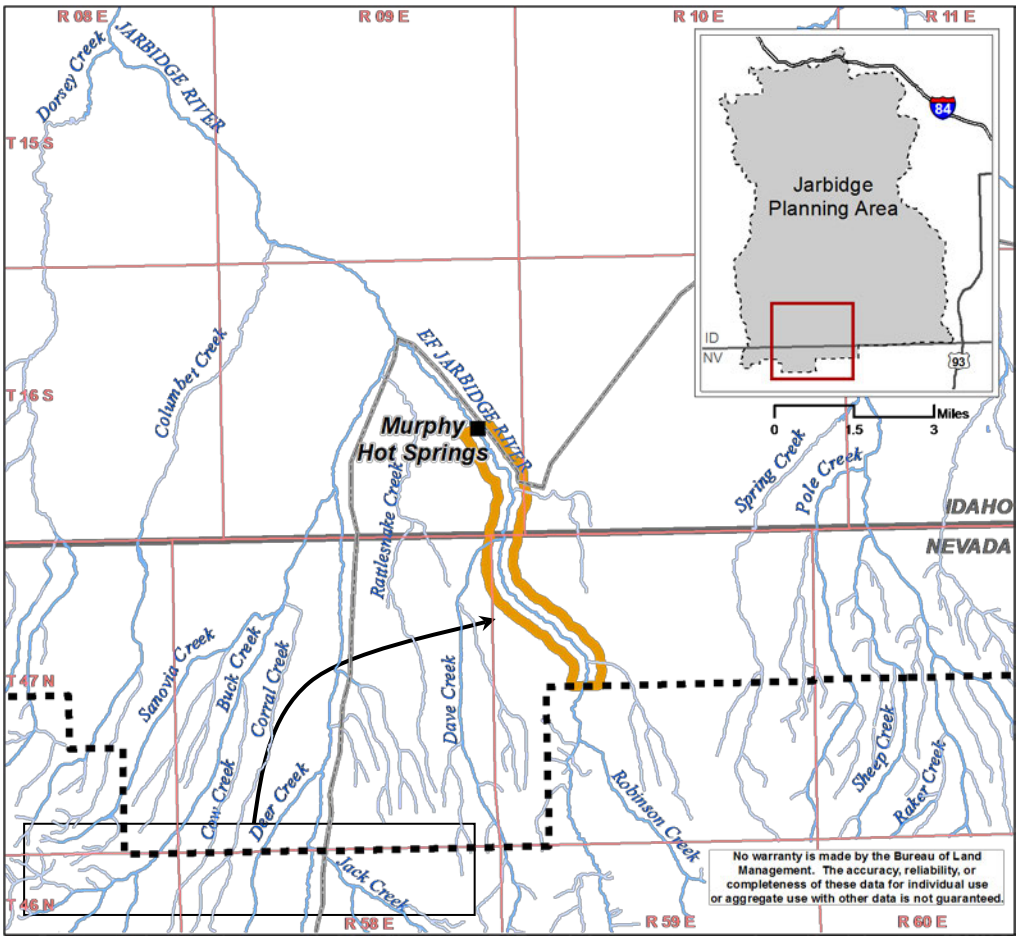


Jarbidge River, East Fork, south of Murphy Hot Springs

River Name	Jarbidge River, East Fork
Segment Description	Jarbidge Field Office boundary to the upstream private boundary of Murphy Hot Springs
Total Stream Length	7.4 miles
Free Flowing?	Yes
Tentative Classification	Wild; there are few or no human developments occurring along this segment. Access is limited and typically only by trail.
Outstandingly Remarkable Values	
Scenic	NA
Recreational	NA
Geological	NA
Fish	Criteria met: habitat quality, diversity of species, value of species, and natural reproduction. The Jarbidge River, East Fork is an isolated watershed and contains a natural diversity of native fish species. Compared to other rivers in the region, the proportion of native to non-native species is unusually high, as there are few, if any, non-native species present. Native fish populations in the Jarbidge River, East Fork are largely in tact, and habitats between drainages are still connected. The Jarbidge River system contains the southernmost existing population of bull trout in North America (FWS, 2004). Bull trout are the only species of fish within the planning area that are Federally listed as Threatened under the Endangered Species Act of 1973; the Jarbidge River contains one of six populations of bull trout identified for recovery. Genetic analysis of bull trout in the Columbia River Basin indicates Jarbidge River bull trout have a shared evolutionarily history with populations in the upper Columbia River and Snake River but are genetically distinct. For more than 100 years, Jarbidge River bull trout have been geographically isolated from other populations in the Snake River by more than 150 miles (240 km) of marginally suitable habitat, several impassable hydroelectric dams on the Snake River, and diversion dams on the lower Bruneau River. Bull trout in the Jarbidge River are considered significant because they occupy a unique and unusual ecological setting and their loss would result in a substantial modification of the species' range. The bull trout in the Jarbidge River are unique in that a portion of their habitat is in an area categorized as semi-arid desert. The Rocky Mountain juniper dominated riparian zone with interspersed aspen on BLM portions of the Jarbidge River grades into aspen and limber pine on Forest Service land. This vegetation community is unique to the area. The majority of the other occupied habitat for bull trout is in other coniferous forest types (e.g. Douglas-fir, Engelmann spruce, and others). The segment has spawning, over-wintering, and migratory habitat for bull trout. This reach provides a migration corridor between other bull trout bearing streams, and its deeper pools provide important over-wintering habitat.
Wildlife	NA
Historical	NA
Cultural	NA
Vegetation/Ecological	NA

Comments
• Previously evaluated in the 1976 Bruneau Wild and Scenic River Study and deemed ineligible due to the lack of recreational values. • The Humboldt-Toiyabe National Forest did not inventory the upstream portions of this river segment. • Evaluation requested as part of general scoping comments by Idaho Conservation League. • Evaluation of Jarbidge River, East Fork was specifically requested in scoping comments by Western Watersheds Project.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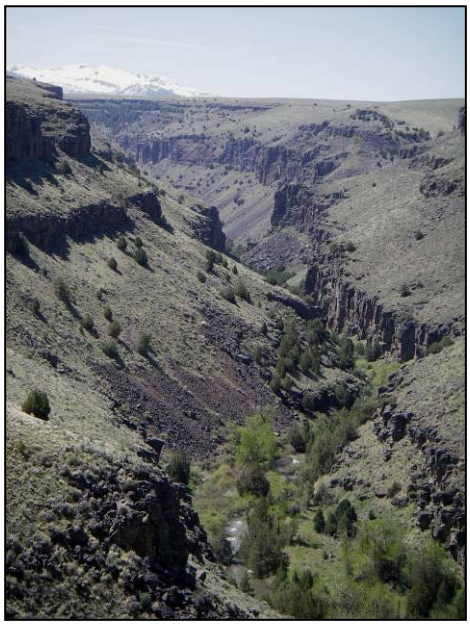
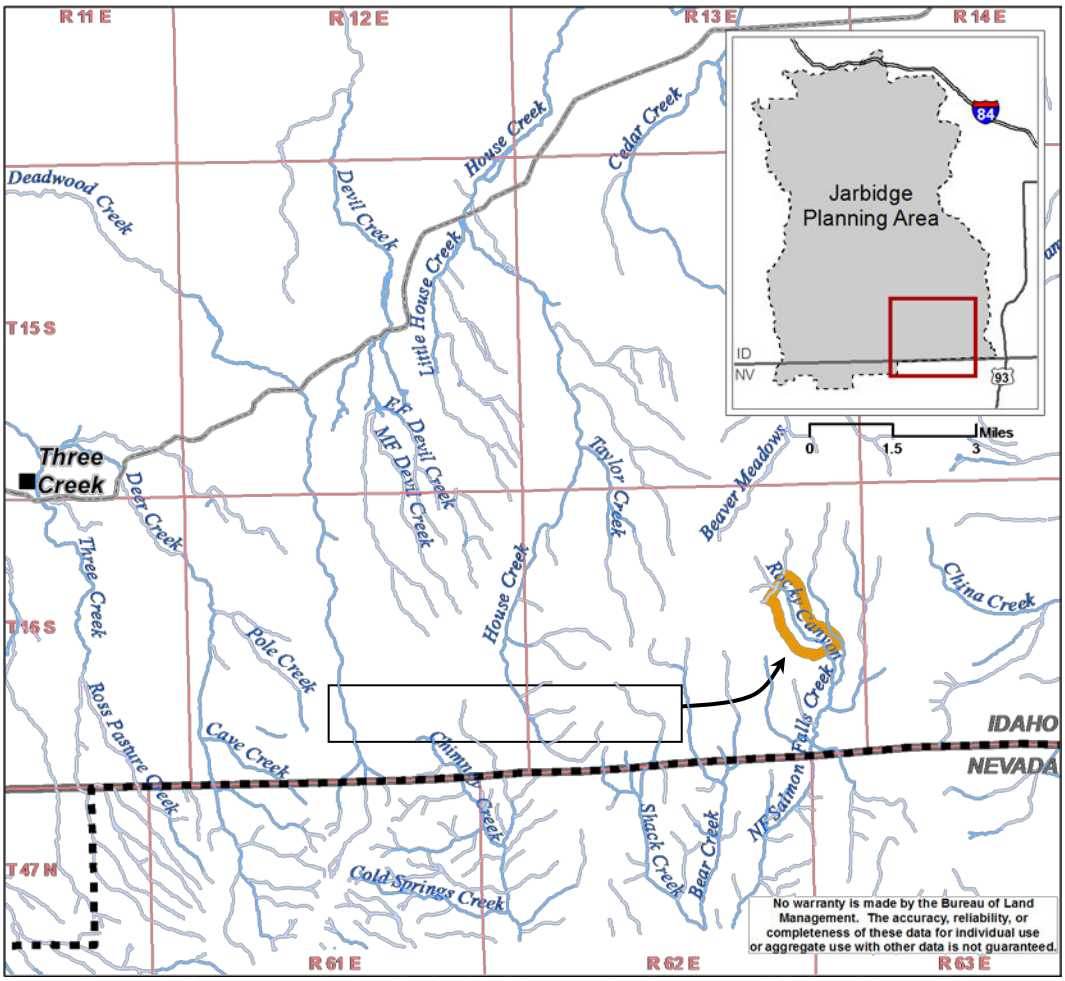


Rocky Canyon Creek

River Name	Rocky Canyon Creek
Segment Description	Headwaters to North Fork, Salmon Falls Creek confluence
Total Stream Length	1.5 miles
Free Flowing?	Yes
Tentative Classification	Wild; there are few or no human developments occurring along this segment. Access is limited and typically only by trail.
Outstandingly Remarkable Values	
Scenic	NA
Recreational	NA
Geological	NA
Fish	NA
Wildlife	Criteria met: habitat quality. Rocky Canyon Creek supports a portion of the Great Basin population of the Columbia spotted frog, which is a Candidate species. The Great Basin population of Columbia spotted frogs was determined to warrant listing under the Endangered Species Act, but other species have priority at this time. Because habitat for spotted frogs throughout the region is fragmented and discontinuous, loss of any of the existing populations may contribute to the need for listing as a threatened or endangered species. Rocky Canyon Creek represents the easternmost extent of the Owyhee subpopulation within the Great Basin population (Engle and Munger, 1998). Columbia spotted frogs have been documented in seven tributaries in the North Fork Salmon Falls Creek watershed (Columbia Spotted Frog Technical Team 2003). Rocky Canyon appears to be a stronghold for spotted frogs in this watershed; the spotted frog population in this segment is a source population within this watershed, dispersing young frogs to tributaries downstream. The loss of this population could result in spotted frogs being extirpated from the North Fork Salmon Falls Creek watershed. Rocky Canyon Creek represents the only occupied habitat for Columbia spotted frogs in the Jarbidge Field Office, based on 2004-2005 monitoring. This segment contains perennial springs, active, stable beaver ponds, and beaked sedge communities providing high quality breeding, rearing, and overwintering habitat. In addition to being regionally significant spotted frog habitat, this segment contains a large assemblage of sensitive birds, including calliope hummingbird, Lewis woodpecker, as well as habitat for mountain quail and Columbian sharp-tailed grouse.
Historical	NA
Cultural	NA
Vegetation/Ecological	NA
Comments	
• Not evaluated previously. • Evaluation requested as part of general scoping comments by Idaho Conservation League and Western Watersheds Project.	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Deadwood Creek
Devil Creek
House Creek
Cedar Creek
Little House Creek
EF Devil Creek
MF Devil Creek
Taylor Creek
Beaver Meadows
Three Creek
Deer Creek
Three Creek
Pole Creek
House Creek
Rocky Canyon
China Creek
Falls Creek
Ross Pasture Creek
Cave Creek
Chimney Creek
Cold Springs Creek
Shack Creek
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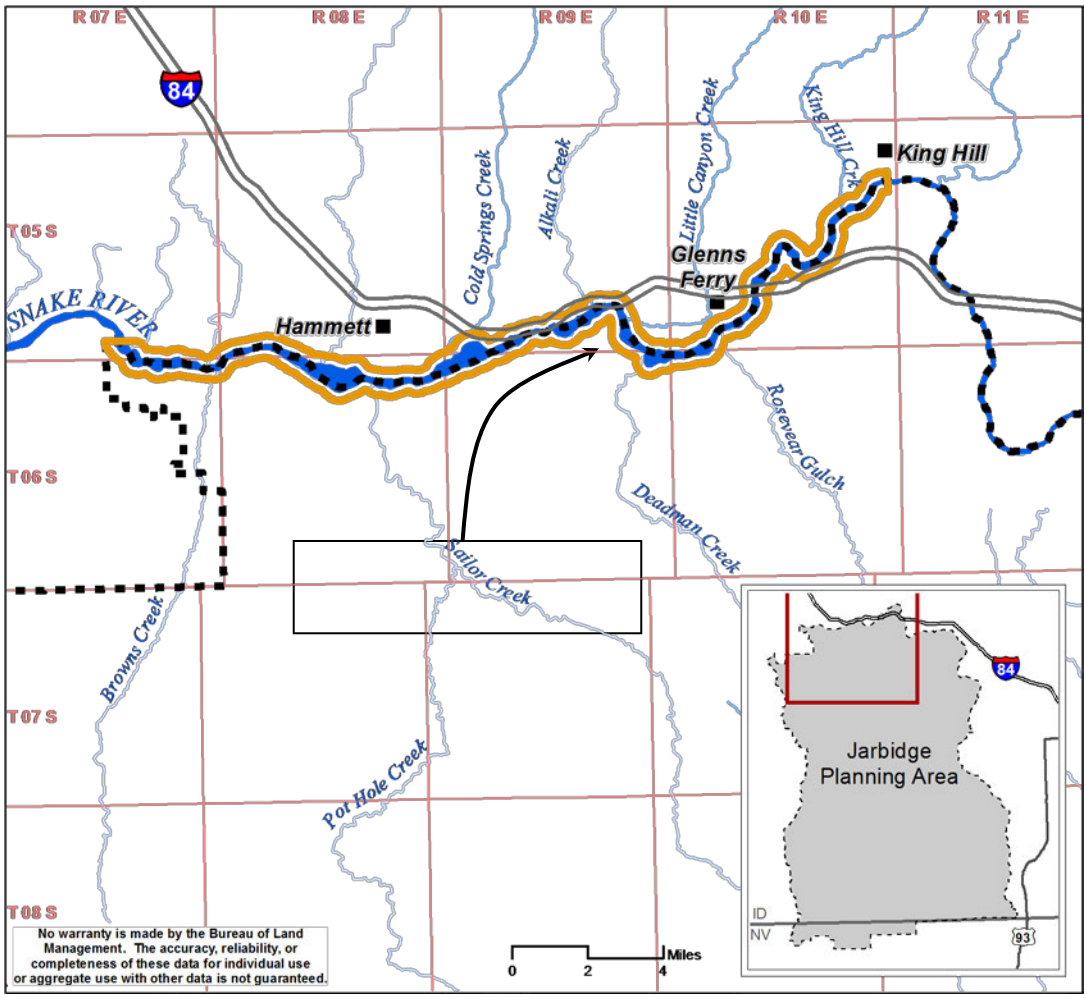
Snake River, Three Island Reach

River Name	Snake River, Three Island Reach
Segment Description	King Hill Bridge to Highway 51 Bridge
Total Stream Length (Miles)	25.0
Free Flowing?	Yes
Tentative Classification	Recreational; human development is present and obvious. This segment can be accessed at multiple locations and is sometimes bordered by roads or railroads.
Outstandingly Remarkable Values	
Scenic	NA
Recreational	Criteria met: experience quality, access, level of use, attraction, and length of season. This segment of the Snake River is a regionally popular fishing, hunting, and sightseeing area. Some form of recreational activity occurs year-round; four-season use is uncommon within the geographic region. There are numerous public access points providing for launching of motorized and non-motorized boats, nature study, bird watching, wildlife and scenery viewing, waterfowl hunting, and bank fishing opportunities. Catch-and-release fishing of sturgeon is an unusual recreation experience for the region, and visitors come from outside the geographic region for this recreational experience. Catching 4- to 7-foot long fish is common, and larger fish are not unusual. This segment also offers a variety of hunting opportunities for water fowl and upland game birds.
Geological	NA
Fish	Criteria met: habitat quality, value of species, abundance of fish, natural reproduction, and size and vigor of fish. White sturgeon is a BLM Sensitive species.This is the largest fish species in the Columbia River system. Because of the free-flowing nature of this reach, sturgeon are able to reproduce naturally and do not require hatchery supplementation to sustain the population. In fact, this is the upper-most reach of Snake River with a self-sustaining population. While sturgeon habitat in this segment is not the best within its range, this segment contains the best sturgeon habitat upstream of the Hells Canyon Dam Complex.
Wildlife	NA
Historical	Criteria: significance, education/interpretation, and listing/eligibility. The primary historical significance of this segment of the Snake River is its relationship to the Oregon Trail, which is designated as a National Historic Trail. A portion of the Oregon Trail directed emigrants across the river at Three Island Crossing, which is located within this reach. A re-enactment of this crossing occurs annually, providing a significant opportunity for education and interpretation. This segment hosts the only crossing re-enactment on the Snake River.
Cultural	Criteria: significance and listing/eligibility. This segment contains large riverside camps and important Native American fishing sites, primarily for salmon and steelhead. Several sites within this segment are eligible for listing on the National Register. These

	cultural sites are rare and significant in that they are in Federal ownership. Most of the cultural sites along the Snake River are on private land.
Vegetation/Ecological	NA
Comments	
• Not evaluated previously. • Evaluation requested as part of general scoping comments by Idaho Conservation League. • This reach is adjacent to the Three Island Crossing State Park in Glenns Ferry, Idaho, and borders the Snake River Birds of Prey National Conservation Area.	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SNAKE RIVER
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Deadman Creek
Sailor Creek
Browns Creek
Pot Hole Creek
No warranty is made by the Bureau of Land Management. The accuracy, reliability, or completeness of these data for individual use or aggregate use with other data is not guaranteed.
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Attachment 1: Jarbidge Field Office Wild and Scenic Rivers Inventory Interdisciplinary Team

Name	Title
BLM Staff	
Aimee Betts	Supervisory Natural Resource Specialist
Richard Bupp	Recreation Technician
Kate Forster	Fisheries Biologist
Sheri Hagwood	Botanist
Amanda Hoffman	Writer/Editor
Jim Klott	Wildlife Biologist
Arnie Pike	Supervisory Rangeland Management Specialist
Bonnie Ross	Geographic Information System (GIS) Specialist
Jeff Ross	Archaeologist
Max Yingst	Outdoor Recreation Planner
Cooperating Agency Representatives	
Mike McDonald	Wildlife Biologist (Idaho Department of Fish and Game)
Kevin Wright	Rangeland Management Specialist (Idaho State Department of Agriculture)

Attachment 2: Rivers in the Jarbidge Field Office Inventoried for Eligibility

The following rivers within the Jarbidge Field Office were included in the inventory for WSR eligibility. Where no specific reach is denoted, the entire river, from headwaters to confluence, was assessed where it crossed public land within the Jarbidge Field Office.

River segments were identified through several sources, which are listed for each river in the table below. All perennial and intermittent rivers and streams included on Jarbidge Field Office geographic information system (GIS) layers were included in the inventory. The Nationwide Rivers Inventory (NPS, 2004) and the State of Idaho Comprehensive Water Plan are also sources of rivers to inventory; however, the only rivers included on these source lists have already been recommended as suitable. In addition, inventory of several rivers was requested during public scoping for the Jarbidge RMP. Rivers that were studied during previous inventory efforts or are adjacent to eligible segments on adjoining lands were also studied.

Table N-3. Jarbidge Field Office Rivers Inventoried for Eligibility

River	Source for Consideration[A]						
	GIS	WWP	ICL	Bruneau	Bennett	Burley	HTNF
Bear Creek	X	X	X				
Big Flat Creek	X	X	X				
Bruneau River, above Black Rock Crossing	X	X	X	X			
Bruneau River, below Hot Creek	X	X	X	X			
Bruneau River, East Fork (Clover Creek)	X	X	X				
Buck Creek	X	X	X				
Cedar Creek Reservoir	X		X				
Cedar Creek, above reservoir	X	X	X				
Cedar Creek, below reservoir	X		X				
Cherry Creek	X	X	X				
China Creek	X	X	X				
Columbet Creek	X	X	X				
Cougar Creek	X	X	X				
Cougar Point Creek	X	X	X				
Dave Creek	X	X	X				
Deadman Creek (ID)	X		X				
Deadman Creek (NV)	X	X	X				
Deadwood Creek	X	X	X				
Deep Creek	X	X	X				
Deer Creek (ID)	X	X	X				
Deer Creek (NV)	X	X	X				
Devil Creek	X		X				
Dorsey Creek	X	X	X				
House Creek	X	X	X				
Jarbidge River	X	X	X	X			X
Jarbidge River, East Fork, north of Murphy Hot Springs	X	X	X	X			
Jarbidge River, East Fork, south of Murphy Hot Springs	X	X	X	X			
Player Creek	X	X	X				
Poison Creek	X	X	X				
Pole Creek	X	X	X				
Rocky Canyon Creek	X	X	X				
Sailor Creek	X		X				

River	Source for Consideration[A]						
	GIS	WWP	ICL	Bruneau	Bennett	Burley	HTNF
Salmon Falls Creek Reservoir	X		X			X	
Salmon Falls Creek, below Balanced Rock	X	X	X			X	
Salmon Falls Creek, North Fork	X	X	X				
Shack Creek	X	X	X				
Snake River, Three Island Reach	X		X				
Snake River, Bliss Dam Reservoir	X		X		X		
Snake River, Upper and Lower Salmon Falls Projects	X		X		X		
Spring Creek	X	X	X				
Taylor Creek	X	X	X				
Three Creek	X	X	X				

[A] **GIS:** Jarbidge Field Office GIS stream layer;
WWP: requested in scoping by Western Watersheds Project;
ICL: requested in scoping by Idaho Conservation League;
Bruneau: previously evaluated in Bruneau Wild and Scenic River Study Report (BOR, 1976);
Bennett: previously evaluated in Draft Bennett Hills RMP (BLM, 1991);
Burley: previously evaluated by the Burley District in1993 and finalized in 2009 (USFS, 2009);
HTNF: adjacent to eligible segment identified in Humboldt-Toiyabe National Forest Eligibility Report (USFS, 2005).

Attachment 3: Jarbidge Field Office Wild and Scenic River Inventory Worksheet

Where no specific reach is denoted, the entire river, from headwaters to confluence, was assessed where it crossed public land.

River	Free flowing?	Outstandingly Remarkable Values?	Eligible?	Tentative Classification
Rivers not meeting eligibility criteria following 2006 and 2007 reviews				
Bruneau River, below Hot Creek	No	Not Evaluated Further	No	NA
Cedar Creek Reservoir	No	Not Evaluated Further	No	NA
Deadman Creek (ID)	No	Not Evaluated Further	No	NA
Salmon Falls Creek, below Balanced Rock	No	Not Evaluated Further	No	NA
Salmon Falls Creek Reservoir	No	Not Evaluated Further	No	NA
Snake River, Bliss Dam Reservoir	No	Not Evaluated Further	No	NA
Snake River, Upper and Lower Salmon Falls Projects	No	Not Evaluated Further	No	NA
Bear Creek	Yes	None	No	NA
Big Flat Creek	Yes	None	No	NA
Bruneau River, above Black Rock Crossing	Yes	None	No	NA
Bruneau River, East Fork (Clover Creek)	Yes	None	No	NA
Buck Creek	Yes	None	No	NA
Cedar Creek, above reservoir	Yes	None	No	NA
Cedar Creek, below reservoir	Yes	None	No	NA
Cherry Creek	Yes	None	No	NA
China Creek	Yes	None	No	NA
Columbet Creek	Yes	None	No	NA
Cougar Creek	Yes	None	No	NA
Deadman Creek (NV)	Yes	None	No	NA
Deadwood Creek	Yes	None	No	NA
Deep Creek	Yes	None	No	NA
Deer Creek (ID)	Yes	None	No	NA
Deer Creek (NV)	Yes	None	No	NA
Devil Creek	Yes	None	No	NA
House Creek	Yes	None	No	NA
Poison Creek	Yes	None	No	NA
Pole Creek	Yes	None	No	NA
Sailor Creek	Yes	None	No	NA
Spring Creek	Yes	None	No	NA
Taylor Creek	Yes	None	No	NA
Three Creek	Yes	None	No	NA
Dorsey Creek	Yes	None	No	NA
Player Creek	Yes	None	No	NA
Salmon Falls Creek, North Fork (Timber Canyon)	Yes	None	No	NA

River	Free flowing?	Outstandingly Remarkable Values?	Eligible?	Tentative Classification
Shack Creek	Yes	None	No	NA
Rivers meeting eligibility criteria following 2007 review				
Cougar Point Creek	Yes	Scenery	Yes	Wild
Dave Creek	Yes	Fish	Yes	Wild
Jarbidge River	Yes	Scenery, Fish	Yes	Recreational
Jarbidge River, East Fork, north of Murphy Hot Springs	Yes	Fish	Yes	Recreational
Jarbidge River, East Fork, south of Murphy Hot Springs	Yes	Fish	Yes	Wild
Rocky Canyon Creek	Yes	Wildlife	Yes	Wild
Snake River, Three Island Reach	Yes	Recreation, Fish, Historic Resources, Cultural Resources	Yes	Recreational

APPENDIX O: UPLAND AND RIPARIAN AREA REFERENCE AREAS

Introduction

The September 30, 2005 Stipulated Settlement Agreement (SSA) in the case of Western Watershed Project v. Ellis et al. (Case No. CV-04-181-S-BLW) (D. Idaho) discusses the need to identify, maintain, and/or establish reference areas in the Jarbidge Resource Management Plan (RMP). Paragraphs 16 and 16D of the SSA state:

"In preparing the Jarbidge RMP and EIS, BLM will follow the provisions of FLPMA, BLM's land use planning regulations, BLM's Manual, and BLM's Land Use Planning Handbook (H-1601-1, rev. 3/11/05). BLM will address issues identified through scoping including (but not limited to) the following issues, which are of importance to Plaintiff…

BLM will identify, maintain, and/or establish reference areas (i.e., exclosures and/or isolated areas) including upland and riparian areas, that are representative of a variety of ecosystem components, vegetation types and elevational gradients, that are ungrazed by livestock in order to allow comparisons for future evaluation of livestock grazing impacts on public lands of the Jarbidge Field Office."

This SSA statement provides direction for developing and implementing an experimental design for evaluating livestock grazing impacts in the Jarbidge RMP.

Experimental Design

The SSA states the purpose of the reference areas established in the RMP is to "allow comparisons for future evaluation of livestock grazing impacts on public lands of the Jarbidge Field Office." Generally speaking, in order to test the effects of livestock grazing, one of two different treatments must be applied:

- **Livestock grazing treatment:** Introduce livestock grazing to previously ungrazed areas and compare these areas with areas that remain ungrazed or
- **Livestock grazing removal treatment:** Remove livestock grazing from previously grazed areas and compare these areas with areas that continue to be grazed.

More than 1.3 million acres of public lands in the planning area are currently grazed by livestock. These acres occur across the full range of elevational gradients and vegetation types present in the planning area; in contrast, the 51,000 acres that are currently not grazed by livestock do not occur across the full range of elevational gradients and vegetation types in the planning area. As a result, the RMP Interdisciplinary Team (ID Team) determined a design with a livestock grazing removal treatment would be more appropriate in the planning area.

Using a paired-plot experimental design, where a plot with the livestock grazing removal treatment is paired with an adjacent grazed plot with similar vegetation and in a similar condition, improves the ability to detect an effect by minimizing the variation between plots due to factors other than the livestock grazing removal treatment. The absence of grazing would be the only difference between management of the paired plots.

The grazed plot to be paired with each ungrazed reference area will be identified following the signing of the Record of Decision (ROD) for the Jarbidge RMP. Maps 11 through 15 present possible locations for reference areas that followed the process outlined below.

Sampling Design

Stratification

The SSA directs that reference areas be identified, maintained, or established for "upland and riparian areas that are representative of a variety of ecosystem components, vegetation types and elevational gradients." These criteria lend themselves to the development of a stratified sampling design on the basis of vegetation type and elevation. The purpose of stratification is to partition an area in a way that the units within a stratum are as similar as possible.

The Jarbidge RMP identifies systems for stratifying the planning area on the basis of vegetation type and elevation. The Vegetation Sub-Group (VSG) concept aggregates the 55 vegetation communities in the planning area into six groups based on dominant vegetation and community structure. Using VSGs as the basis for establishing reference areas representative of a variety of vegetation types creates strata that are relatively homogeneous and allows more replication within a VSG than would be possible within each of the 55 vegetation communities. In addition, this stratification method ensures representation across the range of major vegetation types in the planning area. For the purposes of selecting reference areas, Unvegetated VSG was not included, as the vegetation communities (e.g., breaks, barren areas, and sand dunes) only occur on approximately 2% of the planning area, less than any other VSG, and are generally located in areas inaccessible to livestock (e.g., canyons, areas unavailable for livestock grazing). VSG acreages were based on the 2016 projected vegetation composition due to the large acreage mapped as Recent Burn following the 2007 and 2011 fire season.

The Vegetation Management Area (VMA) concept stratifies the planning area into four west-to-east zones based on potential natural community (PNC), elevation, and mean annual precipitation. Using VMAs as the basis for establishing reference areas representative of a variety of elevational gradients creates strata that are relatively homogeneous with respect to PNC, elevation, and mean annual precipitation and ensures representation across the range of elevations in the planning area.

The VSG and VMA concepts were used to stratify the planning area for the selection of reference areas for upland vegetation types. Combining these concepts yields 20 VSG-VMA combinations, or 20 different strata within which upland reference areas were selected. The number of reference areas to be randomly selected within each stratum was determined through proportional allocation. That is, the proportion of the total number of reference areas in a stratum would be the same as the size of the stratum in proportion to the size of the planning area (e.g., a stratum comprising 10% of the planning area would receive 10% of the reference areas for upland vegetation types).

Because riparian areas are not identified within VSGs, only the VMA concept was used to stratify the planning area for the selection of reference areas for riparian areas. Riparian reference areas were selected from among riparian areas associated with the fish-bearing streams in the planning area. For the purposes of identifying polygons within which random points could be selected, the 300-foot buffers on either side of the fish-bearing streams identified in the Aquatic and Riparian Management Strategy as Category 1 Riparian Conservation Areas were used. There were four different strata (VMAs A, B, C, and D) within which riparian reference areas were selected. The number of riparian reference areas to be randomly selected within each stratum was determined through proportional allocation.

Number and Size of Reference Areas

The SSA does not specify how many reference areas must be established or how large the reference areas must be. Three different size options for reference areas were identified for consideration and analysis: pasture-sized (average of 4,700 acres), 160 acres, and 40 acres; three different numbers of reference areas were also identified: 46, 62, and 85.

Pasture-sized reference areas were identified as the upper size limit in response to scoping comments. Creating reference areas from existing pastures would minimize the amount of new fencing required to establish reference areas and would have the least impact on wildlife behavior of the three sizes considered. However, because of its large size,it may be difficult to ensure the only difference between the reference area and its adjacent grazed counterpart is the removal of livestock grazing. Based on

geographic information system (GIS) analysis, there are 459 pastures in the planning area. A sample of 10% of the pastures in the planning area (46 pastures) would provide a reasonable sample of the planning area and a reasonable data collection workload. In addition, removing livestock grazing from more than 10% of the pastures in the planning area would likely have substantial impacts to livestock grazing that would be difficult to justify solely on the basis of establishing study plots for evaluating the effects of livestock grazing.

The 160-acre size reference area was identified as an intermediate size. This size would have some of the benefits of larger reference areas and would have a higher likelihood of being managed in a similar manner as its adjacent grazed counterpart. For the 160-acre reference areas, a sample that encompassed approximately 10% of the acreage in the planning area would provide a reasonable sample of the planning area, resulting in 85 reference areas. The workload required to collect data on this number of reference areas would be reasonable and removing livestock grazing from this acreage would have fewer impacts to livestock grazing than removing grazing from entire pastures.

The smallest reference area size considered was 40 acres. The 40-acre size was identified as the smallest size where edge effects due to fencing (e.g., weed accumulation, moisture accumulation) would not affect the majority of the reference area and would still be large enough to be used by wildlife in the same ways the higher acreage areas would provide. Because the purpose of reference areas is to be able to evaluate impacts of livestock grazing, reference areas need to be large enough to be used by wildlife in a similar manner as their grazed counterparts. The minimum 40-acre size also allows for breeding bird and small mammal trapping to be conducted in the reference area using the typical 200m x 240 m trapping grid of 10 x 12 traps; this grid size can be placed well inside a 40-acre reference area, minimizing the potential to be affected by edge effects from fences. Each 40-acre reference area was identified from acreage within each 160-acre reference area.

Finally, the RMP ID Team developed an option that included 40-acre reference areas within the Native Grassland and Native Shrubland VSGs, riparian areas, and Non-Native Perennial VSGs that have burned multiple times in the last 20 years (based on GIS analysis of fire history in the Jarbidge Field Office). Thus, reference areas in the Annual and Non-native Understory VSGs and Non-Native Perennial VSG that did not burn multiple times in the last 20 years would not be reference areas. This option yielded a total of 62 reference areas.

As noted above, the stratification process for selecting upland and riparian reference areas was slightly different. As a result, the total number of reference areas needed to be split between upland and riparian reference areas prior to allocating reference areas to each stratum. Because riparian areas are not identified within VSGs and because their ecological importance is larger than the proportion of acres on which they occur in the planning area, the proportion of riparian reference areas is larger than the proportion of riparian areas in the planning area. For the pasture-sized reference areas, 40 were allocated for uplands and six for riparian areas. For the 160-acre and 40-acre reference areas, 75 were allocated for uplands and 10 for riparian areas; for the smaller sample size of 40-acre reference areas, 52 were allocated for uplands and 10 for riparian areas.

Table O-1 and Table O-2 display the allocation of reference areas to each stratum for upland and riparian areas, respectively.

Table O-1. Stratification and Proportional Allocation of Upland Reference Areas by Vegetation Management Area and Vegetation Sub-Group

VSG	# of Reference Areas[A]	
	Pasture-Sized	160- and 40-Acre
VMA A – Wyoming Sagebrush/Indian Ricegrass		
Annual	2	4
Non-Native Perennial	3	5
Non-Native Understory	0	0
Native Grassland	1	2
Native Shrubland	1	1
VMA A Total	**7**	**12**
VMA B – Wyoming Sagebrush/Thurber's Needlegrass		
Annual	1	2
Non-Native Perennial	5	10
Non-Native Understory	1	2
Native Grassland	6	11
Native Shrubland	5	10
VMA B Total	**18**	**35**
VMA C – Wyoming Sagebrush/Bluebunch Wheatgrass		
Annual	0	0
Non-Native Perennial	2	3
Non-Native Understory	1	1
Native Grassland	4	8
Native Shrubland	3	5
VMA C Total	**10**	**17**
VMA D – Idaho Fescue (High Elevation)		
Annual	0	0
Non-Native Perennial	0	0
Non-Native Understory	0	1
Native Grassland	2	4
Native Shrubland	3	6
VMA D Total	**5**	**11**
All VMAs		
Annual	3	6
Non-Native Perennial	10	18
Non-Native Understory	2	4
Native Grassland	13	25
Native Shrubland	12	22
Grand Total	**40**	**75**

[A] Reference areas were not established in areas with no vegetation community data or in areas mapped as the Unvegetated VSG.

Table O-2. Stratification and Proportional Allocation of Riparian Reference Areas by Vegetation Management Area

VMA	# of Reference Areas	
	Pasture-Sized	160- and 40-Acre
VMA A	1	1
VMA B	2	3
VMA C	1	2
VMA D	2	4
Total	**6**	**10**

Random Selection Process

A random selection process was used to determine the pastures within which reference areas would be located within each stratum. To begin the random selection process, random points within the planning area were generated within each VMA using GIS; the points within each VMA were then arranged in random order. The pastures within which these points were located were then evaluated for whether they met criteria to be selected as a reference area and, for the 160- and 40-acre reference areas, the specific location of the reference area. The selection process differed slightly for selecting the pasture-sized reference areas and selecting the 160- and 40-acre reference areas. The processes are discussed separately below.

Pasture-Sized Reference Areas

Three selection criteria were used to determine whether a pasture within which a random point was located would be suitable as a pasture-sized reference area. The first criterion was meeting the allocation of reference areas within each stratum described in Table O-1 and Table O-2 above. If the assigned number of reference areas for a VSG or riparian area in a VMA had already been selected, additional reference areas within that stratum were not identified, and any additional random points within that stratum were discarded.

The second criterion related to pasture size. Pastures smaller than 500 acres were excluded from consideration to yield reference areas that would be substantially larger than the 160- and 40-acre reference areas; pastures larger than 20,000 acres would have livestock grazing removed from a maximum of 10,000 acres to reduce impacts to livestock grazing.

The final criterion related to the number of pastures in an allotment. There is a large amount of variation in the number of pastures within each allotment in the planning area, ranging from allotments with only one pasture to allotments with more than 20 pastures. In order to reduce the impact to livestock grazing within any particular allotment, the following rules were applied:

- No pastures would be selected as reference areas in one- or two-pasture allotments,
- One pasture could be selected as a reference area in three- to nine-pasture allotments,
- Two pastures could be selected as reference areas in 10- to 19-pasture allotments,
- Three pastures could be selected as reference areas in 20- to 29-pasture allotments, and
- Four pastures could be selected as reference areas in 30- to 39-pasture allotments.

Once an allotment met the limit for the number of reference areas it was allowed, any additional random points within that allotment were discarded.

Overall, this process resulted in 46 reference areas comprised of the entirety of 46 pastures; the average size of each reference area was 4,700 acres.

160- and 40-Acre Reference Areas

A similar process was used to select the pastures within which 160- and 40-acre reference areas would be located. However, there was no limit to the number of 160- and 40-acre reference areas that could be

selected within an allotment. In addition, only one reference area could be established in a pasture, so once a reference area was identified within a pasture, any additional random points within that pasture were discarded.

Once a pasture was identified for a reference area within a particular VSG, the RMP ID Team examined that pasture in detail using a variety of GIS data to ensure the pasture was suitable and determine the specific location for the reference area. The ID Team used the following guidelines in this process:

- The reference area can be anywhere in the randomly selected pasture as long as it contains the same VSG as determined by the random point; the reference area may include more than one VSG.
- Minimize the amount of fencing needed by tying into existing fences or canyon rims to the extent practical.
- Minimize the number of reference area placed adjacent to private land.
- To the extent practical, do not place reference areas in a location that would eliminate the only water source in a pasture.
- To the extent practical, in Native Grassland and Native Shrubland VSGs, place reference areas in areas that minimize new access routes.
- To the extent practical, locate reference areas in areas that would be less likely to create traps or hinder livestock movement between pastures.
- Although the reference areas are depicted as squares, the actual shape on the ground may change when the exclosure is constructed, though the size would be similar; shapes that minimize the perimeter-to-area ratio would be preferred.
- Consider the potential for replication if adjacent pastures have reference areas.
- Consider the amount of private land in the pasture, particularly in smaller pastures.
- Consider other limitations, such as Wilderness Study Areas, Oregon Trail, areas available for cross-country motorized vehicle use, wild horses, or sage-grouse leks.

Three pastures were replaced using additional random points due to the amount of State and/or private land within the pasture. All other selected pastures were determined to be suitable, and locations for 160-acre and 40-acre reference areas were digitized using GIS. Each 40-acre reference area was located within the 160-acre reference area in that pasture following the same guidelines. Even though the size of each identified reference area may have minor deviations from 160 acres and 40 acres, the average sizes of the reference areas following this process were still 160 and 40 acres.

Additional GIS work was done to determine the location of riparian reference areas. The linear nature of riparian areas does not lend itself well to strict 160- and 40-acre size restrictions. Instead, large and small versions of each riparian reference area were delineated to correspond with the 160- and 40-acre upland reference areas; the large and small riparian reference areas averaged 270 acres and 110 acres, respectively. The large riparian reference areas included the entire length of the riparian area within the selected pasture; the boundary was delineated based on easily identifiable physical or map features (e.g., canyon rims, topographic contours, existing fences). The small riparian reference areas included 1/4 of the length of the riparian area in the large riparian reference areas. Riparian reference areas sometimes include fenced areas or areas with natural barriers outside the randomly selected pasture in order to prevent livestock entry into the reference area.

Implementation and Monitoring

A timeline for installation of reference areas will be developed following the signing of the ROD and will be contingent on the availability of funding.

The final locations for the reference areas may vary from what is depicted on Maps 11 through 15. Additional factors that will be considered in the final placement of reference areas are:

- Quality, location, and condition of current exclosures in meeting the needs of a reference area.
- Current location of fences to reduce amount of fencing required.
- Vegetation community quality.

- Access to allow for monitoring.
- Distance away from areas of disturbance.
- Livestock watering locations.

A strategy outlining the data that will be collected on the paired plots, as well as the methods for and frequency of collection, will be developed following the signing of the ROD. All monitoring of reference areas will be contingent on available funding and staff.

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APPENDIX P: RESPONSE TO COMMENTS FROM THE DRAFT RMP/EIS

This appendix contains selected public comments received during the public comment period on the Jarbidge Draft Resource Management Plan (RMP)/Environmental Impact Statement (EIS) (September 2010) along with the BLM's responses to those comments as per 40 CFR 1503.4. The BLM received more than 28,000 letters, faxes, and e-mails (collectively referred to as comments) from individuals, organizations, industry associations, and State and local agencies. Most of the letters, 27,715 of them, were form letters. Public comments covered a wide array of interests.

The Jarbidge RMP Interdisciplinary team reviewed every letter, fax, and email and identified both substantive and non-substantive comments during the content analysis process. Every comment was read and considered, even though not every comment is restated here. Many comments are restated directly from the letters, faxes, and emails. Some comments have been combined with similar comments, while other comments have been modified slightly for clarity.

Substantive comments: (1) question, with reasonable basis, the accuracy of information in the Draft EIS, (2) question, with reasonable basis, the adequacy of, methodology for, or assumptions used in the environmental analysis, (3) present new information relevant to the analysis, (4) present reasonable alternatives other than those already included in the Draft EIS, (5) result in changes or revisions to one or more the alternatives, or (6) result in factual corrections. All substantive comments, along with a response, have been included in this appendix. This appendix also includes other comments that did not fit as substantive or non-substantive, but the interdisciplinary team determined could be resolved by some means or a response could aid in understanding the land use planning process for the Jarbidge RMP.

Non-substantive comments: (1) state a preference for or against the preferred plan or an alternative without reasons, (2) agree or disagree with BLM policy (3) agree or disagree with previous decisions with no justification or supporting data, (4) are not relevant to the planning area; or (5) are vague, open-ended questions.

Category	Comment	Response
Adaptive Management	The approach in the Draft RMP/EIS contains important elements of a monitoring and adaptive management plan in Appendix P. However, there are additional elements that should be included in the adaptive management process (triggers and schedules). We refer the BLM to the referenced sections of the Jack Morrow Hills Coordinated Activity Plan as an example. Further, we recommend that the RMP set out a comprehensive plan that applies in the same manner to mineral leasing, wilderness characteristics, wild and scenic river segments and Areas of Critical Environmental Concern. This plan should be based on available science and include the following: • Adaptive management should start small and pace development with level of learning. In the early stages of	The term "adaptive management" describes a broad array of approaches that involve learning while doing, but the use of the phrase is not always appropriate. The monitoring described in Appendix P of the Draft RMP/EIS was not an adaptive management plan but was simply a description of intervals and standards per regulations in 43 CFR 1610.4-9 for implementation and effectiveness monitoring based on resource and resource uses. The Final EIS moved Appendix P of the Draft RMP/EIS into Chapter 2 under the *Monitoring Implementation and Effectiveness of RMP Decisions* section. The Final EIS establishes goals and objectives for managing resources in the planning area. An annual congressional appropriation determines funding for treatments, personnel, or other resources to implement the plan.

Category	Comment	Response
	implementation, actions that may cause environmental impact should be limited until such a time where inventory, monitoring, and analysis can confirm that the resources are trending toward the desired goal. • Define in detail what the adaptive management process will and will not address. BLM should prepare a monitoring protocol that guides whether BLM plans to use adaptive management with specific resources. The Draft RMP/EIS should also describe the resources and specific indicators that will be measured and used to determine adaptive management so that the public can provide meaningful comments on BLM's proposed approach to adaptive management. • Funding for adaptive management should not be dependent on shifting the financial and personnel burden to various user interests or other cooperating community groups.	
Adaptive Management	BLM should prepare detailed analysis of current inventory status to accompany the Draft RMP/EIS that clearly specifies resources and what activities may affect them and their baseline condition, and then identify indicators for resources or groups of resources that will demonstrate the effects of management decisions. The Draft RMP/EIS should also identify those resources or locations for which BLM lacks inventory data and establish a timeframe to accomplish inventories for resources or locations where data is lacking.	The Final EIS, Chapter 3, describes the baseline conditions and data deficiencies for each Resource and Resource Use. Conditions described in Chapter 3 were then used as the baseline by which to analyze and describe the effects of management actions described in each alternative in Chapter 4.
Adaptive Management	The BLM should include defined limits of acceptable change in resource conditions and specify actions to be taken if change reaches or exceeds those limits. For all indicators, the RMP should identify the range of acceptable change from the baseline condition, using best available science, and specify those actions that will be taken in the event that unacceptable levels of change are identified.	Baseline condition, goals, and objective described in Chapters 3 and 2, respectively, are at the planning area scale. Defining or describing limits of acceptable change to make a reasoned choice among alternatives in the Final EIS is unnecessary. The Final EIS uses goals and objectives to identify and implement management actions or treatments that will help achieve resource objectives during project planning.
Adaptive Management	A "fallback" plan is needed in case monitoring or other aspects of the adaptive management process do not occur. Adaptive management must include requirements for when and how the proposed outcome will be reevaluated if it is not being met. The agency's ability to reevaluate or amend desired outcomes should not be the fallback if either the adaptive management	The RMP does not specify an adaptive management plan but would allow BLM to apply adaptive management when and where appropriate to meet resource objectives. There is no need for a fallback plan as suggested in the comment.

Category	Comment	Response
	process is not working or outcomes are not being met. BLM should build into the Final EIS provisions to address situations based on new information, circumstances, regulatory requirements, or discontinued agency funding for monitoring that would trigger a plan amendment or revision under a new EIS.	
Adaptive Management	Allow the public to actively and effectively participate in the adaptive management process. The planning area is broad, involving millions of acres; citizens interested in the resources governed by the Final EIS reside across States; and, involvement of citizens in an adaptive management processes can be both timely and costly to individuals. In addition to seeking funding commitments for monitoring and analysis, BLM should seek funding for citizen participation. BLM should also begin planning now as to how citizen involvement in adaptive management will meet the requirements of the Federal Advisory Committee Act, and do not allow such planning be left only to those citizens or community groups wishing to collaborate or advise BLM.	The RMP process is not an adaptive management process. Policy, rules and regulations, as well as the NEPA process provide for public participation and involvement in land management planning and decisions. The BLM has allowed for public involvement and participation during the preparation of this land use plan. Securing funding for citizen participation is beyond the scope of this planning effort.
Affected Environment	The description of the Affected Environment in the Draft RMP/EIS is inadequate. Intermountain Range Consultants submitted comments to the Analysis for Management Situation, highlighting errors and omissions therein, including irrational and unwarranted statements and actions. Many of these show up without any comment/correction in Chapter 3 of the Draft RMP/EIS. The lack of reasonable articulation of the Affected Environment makes it inadequate for us to comment and/or for BLM to identify any alternatives, to identify a preferred alternative, to assess the impacts of any alternative, and now to select/adopt a Proposed Plan.	The BLM recognizes that there were errors in the Analysis of the Management Situation (AMS). The AMS provided a “snap shot in time” approach to describe resource conditions in 2007. Resource conditions have changed since 2007 due to large fires (e.g., Murphy Complex, Long Butte, and Kinyon Road) and other factors. The Final EIS used updated information to account for these changing resource conditions.
Affected Environment	The “environmental baseline” that is the premise of the Draft RMP/EIS Chapter 3 (and Chapter 4) is undisturbed rangeland at its potential natural condition (e.g., p. 3-28). However, this is a false premise. The true environmental baseline is, or should be, what BLM decided to manage “for” (or recognized would occur) under the 1987 Jarbidge RMP/EIS.	The environmental baseline is a description of current conditions within the planning area. The purpose of the environmental baseline is to provide a point of reference to measure the effectiveness of management actions proposed within the Final EIS for analysis. Chapter 3 of the Final EIS contains a description of the environmental baseline.
Affected Environment	In the Draft RMP/EIS, BLM never showed if it met any objectives of its old plan. BLM must clearly explain and map all allocations, goals, objectives, and management actions (or	RMPs guide future management actions and subsequent site-specific implementation decisions. They establish goals and objectives for resource management and the measure needed to

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	their equivalent) of the 1987 Jarbidge RMP/EIS, and show the public what has been met, and what has not been met. It must explain what occurred. BLM must include a detailed analysis of fish, wildlife, habitat and population, soils, vegetation, watershed, water quality, recreation and all other goals, objectives, management actions or the equivalent of the 1987 Jarbidge RMP/EIS and demonstrate how they were or were not met, and provide causal factors for these failures. The Draft RMP/EIS has a greatly inadequate evaluation of the No Action Alternative, which in some components related to sage-grouse and some other wildlife species actually provides more conservation requirements than the uncertain and loose Preferred Alternative (Alternative IV-B). There is no adequate analyses of the shortcomings of the No Action Alternative, and since so many parts of most of the "new" alternatives are similar to what is occurring now this must be revealed and analyzed in detail.	achieve these goals. Section 202(c) of the Federal Land Policy and Management Act of 1976 lists requirements of the BLM in developing RMPs. These requirements do not include an analysis of the effectiveness of the prior RMP provisions. In any event, the impacts of implementing the prior RMP provisions throughout the new planning period is analyzed in the No Action Alternative.
Air Quality	The goal in the *Air and Atmospheric Values* section of Chapter 2 should recognize the impacts that are likely or potentially likely to result from climate change. Such impacts include changes in the quantity and character of precipitation, and such changes will impact air quality, water quality, habitat, wildlife and vegetation. Changes resulting from climate change may cause impacts such as drought or flood. Infrastructure and natural structures currently operating to provide for water quality and other benefits may become overwhelmed by. Changes from outside the planning the planning area may impact the planning area. Energy sources within the planning area may impact it. Energy sources within the planning area may be generators of criteria pollutants impacting air quality. In addition, energy sources, such as wind energy, may provide local power resulting in less production from nearby conventional energy sources within or outside the planning area lessening the impact of criteria pollutants.	The Final EIS analyzed the direct, indirect, and cumulative impacts of the alternatives on climate change. The *Air and Atmospheric Values* section of Chapter 4 included data that shows actions within the planning area are not likely to add to climate change.
Air Quality	Energy sources within the planning area, such as wind energy, would be a significant contributor toward the global mitigation of greenhouse gases, and such potential should be more visibly recognized in the management goals, objectives, and	The Final EIS addressed renewable energy in the objectives and management actions in the *Land Use Authorizations* section of each alternative in Chapter 2.

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	management actions.	
Air Quality	BLM management actions need to include the development of mitigation plans for air resources, wildlife resources, water resources, etc. with respect to a reasonable range of climate change predictions, as well as plans to forestall these impacts as much as possible based on actions that could be taken within the planning area, such as the development of greenhouse gas-free energy sources.	The Final EIS identified management actions to achieve the goals and objectives. Mitigation plans as suggested for air resources, wildlife resources, water resources, would be developed at the project level.
Air Quality	In the Chapter 3 *Air Quality* section, the BLM should include the Environmental Protection Agency's intent to regulate carbon dioxide, a greenhouse gas, as a pollutant.	BLM did not include the Environmental Protection Agency's (EPA) intent to regulate carbon dioxide as a pollutant in Chapter 3 because it is not relevant to the Final EIS. On March 27, 2012, the EPA issued a proposed rule for a Carbon Pollution Standard for New Power Plants. This proposal applies only to new fossil-fuel-fired electric utility generating units and would set limits on the amount of carbon pollution that future power plants could emit. The planning area has a low possibility of being considered for a new fossil-fuel-fired electric generating plant.
Air Quality	BLM ignores assessment of dust produced from grazing, roads, and developments under the Draft RMP/EIS alternatives. Dust can result in early snowmelt and loss of glaciers.	The *Air Quality* section of the Draft RMP/EIS and the Final EIS in Chapter 4 discussed the potential sources and impacts of wind-blown and fugitive dust from soil-disturbing vegetation treatments and travel and transportation (which included roads). Dust was not the indicator for the analysis of air quality; rather it was particulate matter ($PM_{2.5}$ and PM_{10}) of which dust is a contributor.
Alternatives	There is no valid analysis of the effectiveness of any of the measures that are claimed as protections or mitigation in conserving sage-grouse, recreational uses, or the other values of the public lands that large-scale wind or other energy or development rights-of-way would greatly impair. There is no analysis of the effectiveness of claimed "constraints" in the context of the large habitat and population losses in the planning area.	The Final EIS established broad-scale goals and objectives to guide future, site-specific implementation decisions. The alternatives in the Final EIS identify areas that are available for various uses such as those authorized under rights-of way. Understanding the effectiveness of constraints, especially at the planning scale, is often difficult. The effects of wind or geothermal energy development on sagebrush, sage-grouse, and other resources are difficult to discern because development has been too recent to identify immediate or lag effects (Knick and Connelly, 2011b). Alternative VI (Proposed RMP) does not allow commercial wind and solar energy development inside the sage-grouse management area (LA-VI-A-4). Chapter 4 of the Final EIS describes the predicted effects from the management

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		actions (i.e. constraints) prescribed for each of the alternatives.
Alternatives	The alternative selected must recognize the threats to multiple use, wildfire, noxious weeds and invasive species, and administrative closures and curtailments while also recognizing the opportunities, economic activity in the four county area, open space, and long-term, sustainable use. Who better to take care of the resources than the resource users?	All alternatives in the Final EIS recognize threats to resources and resource uses. Each alternative has management actions to meet the goals of protecting property and natural resources from wildfire; preventing, eliminating, or controlling noxious weeds and invasive plants; and providing for motorized and non-motorized access that would balance resource protection and uses.
Areas of Critical Environmental Concern	Designate the expanded version of the Bruneau-Jarbidge Area of Critical Environmental Concern (ACEC) as identified in Alternative IV, and designate the larger version of the Jarbidge Foothills ACEC as identified in Alternative IV-A. To better protect the relevant and important values identified consider including the following conservation measures: • Prohibit off-road vehicle cross-country travel. • Do not allow leasable mineral entry. • Disallow renewable energy development if it could harm sensitive or endangered species. • Place wind turbines at least 5 miles from sage-grouse leks.	The Final EIS analyzed a range of Area of Critical Environmental Concern (ACEC) designations. The expanded Bruneau-Jarbidge ACEC and expanded Jarbidge Foothills ACEC were not included in Alternative VI (Proposed RMP). After review of the nominated ACECs, the BLM determined that special management attention is not required because standard or routine management prescriptions, combined with specific resource management actions in Alternative VI, are sufficient to protect the relevant and important values from damage and degradation.
Areas of Critical Environmental Concern	Close all Areas of Critical Environmental Concern (ACECs) to wind energy development, as was originally the policy in the Wind Energy Development Programmatic Environmental Impact Statement. Wind energy development is incompatible with the values proposed to protect wildlife, botanical, cultural, and scenic values for the ACECs.	The Record of Decision for the Wind Energy Programmatic Environmental Impact Statement established the previous policy that Areas of Critical Environmental Concern (ACECs) were to exclude wind energy development. Instruction Memorandum 2009-043, issued December 19, 2008, changed this policy to ensure consideration of the purpose and specific environmental sensitivities for which the ACEC designation took place. This planning effort addresses and analyzes ACEC land use restrictions individually, including restrictions to wind energy development. ACECs do not universally exclude wind energy development. Individual ACEC management prescriptions could allow or exclude wind energy site testing, monitoring, or wind energy development.
Areas of Critical Environmental Concern	The BLM and Forest Service have no statutory authority to designate and manage areas such as critical waterways, geological areas, unroaded areas, botanical areas, and national scenic areas. Any such designations cannot, by law, have an effect on the multiple use and sustained yield mandates for management of national forests. The proposed alternative should delete these "special designations".	The BLM, under Title II of the Federal Land Policy and Management Act of 1976, has the authority and obligation to analyze, and if determined suitable, to manage Areas of Critical Environmental Concern to preserve relevant and important values.

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Areas of Critical Environmental Concern	The east boundary of Salmon Falls Creek Area of Critical Environmental Concern needs some specific coverage. Once the decision was made to expand the ramifications of the EIS document into the Burley District, even just to the west rim, there would seem to be an ethical, if not a legal obligation to address the ecological, socio-economic and other possible direct and indirect impacts on the immediately outward laying BLM lands and on private property. A possible transmission route centered some 0.25 - 0.50 mile to the east of Salmon Falls Creek would impact a Wild and Scenic River corridor. So, exactly how wide is that corridor and why is it not being shown to the public via the current EIS?	The 1990 amendment to the Jarbidge RMP and the Twin Falls Management Framework Plan (MFP) designated the stretch of Salmon Falls Creek Canyon between Salmon Dam and Balanced Rock Park (excluding non-BLM-managed land) as an Area of Critical Environmental Concern (ACEC). The west boundary of the ACEC is the west canyon rim in the planning area; the east boundary is the east canyon rim in the Burley Field Office. Even though the lands included in the ACEC lie within two BLM Field Offices, they were considered as a unit and analyzed together in the 1990 land use plan amendment. The Jarbidge RMP does not create management direction that would alter direction established in the Twin Falls MFP (i.e. direction for the Burley Field Office). The Wild and Scenic River (WSR) corridor extends outward from the high water mark 0.25 mile. The Draft RMP/EIS inadvertently omitted the information on the width of the WSR corridor. The Final EIS revised this information in the WSR section of Chapter 2.
Areas of Critical Environmental Concern	The BLM should remove all special designations from the planning area, and reinstitute the full and complete multiple use policies of the past.	Removal of all special designations from the planning area does not fulfill the purpose and need as described in Chapter 1 of the Final EIS. Special designations are a tool used to aid in multiple-use management. Special designations help to preserve and protect certain lands in their natural condition, provide food and habitat for fish and wildlife, and provide for outdoor recreation.
Areas of Critical Environmental Concern	The BLM should clarify the use or modification of the Lily Grade by large commercial vehicles.	Use of a paved county road by commercial vehicles is beyond the scope of this planning effort.
Areas of Critical Environmental Concern	The introductory description of Areas of Critical Environmental Concern (ACECs) is helpful to the reader but should include the regulatory requirement that any resource management plan amendment approved by the BLM State Director must include the general management practices and uses, including mitigation measures, identified to protect Areas of Critical Environmental Concern (ACECs) (43 CFR 1610.7-2[b]).	General management practices and mitigation measures identified to protect Areas of Critical Environmental Concern were included in Chapter 2 of the Final EIS.
Areas of Critical Environmental	The Final EIS should cite to the September 3, 2010 Federal Register Notice listing nominated Areas of Critical Environmental Concern (ACECs) and specify the resource use	The Notice of Availability published in the Federal Register on September 3, 2010 included nominated Area of Critical Environmental Concern designations and specified a 90-day

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Concern	limitations that would occur if they were formally designated. The Notice failed to specify the 60-day period for public comment on the ACEC designations. See 43 CFR 1610.7-2(b). BLM should clarify that the comments on the Draft RMP/EIS will satisfy the 60-day limitation on comments specific to the ACEC.	public comment period (which was later extended an additional 60 days). The requirements in 43 CFR 1610.7-2(b) were met.
Areas of Critical Environmental Concern	The other species and resources of concern that the Jarbidge Foothills Area of Critical Environmental Concern (ACEC) would address are found across much of the planning area. Sage-grouse, mule deer, redband trout, and cultural resources should be managed the same across the planning area. No one area when it comes to these resources should be sacrificed, thus making an ACEC designation for the protection of these resources in only one particular area is unacceptable.	The Final EIS analyzed the Jarbidge Foothills Area of Critical Environmental Concern (ACEC) as part of the range of alternatives. Alternative VI (Proposed RMP) did not include this ACEC designation.
Areas of Critical Environmental Concern	Slickspot peppergrass in the Inside Desert area does not warrant Area of Critical Environmental Concern protection. The slickspot peppergrass conservation agreement did not list livestock as a major threat. Major threats were listed as fire and invasive species. Livestock grazing can reduce fire fuel loads reducing the risk of fire and subsequent invasion of harmful species.	The Inside Desert Area of Critical Environmental Concern (ACEC) was nominated by BLM in accordance with BLM Manual 1613; the Idaho Conservation Data Center suggested BLM consider special management for slickspot peppergrass. The Inside Desert ACEC includes measures designed to protect slickspot peppergrass and its habitat. The US Fish and Wildlife Service has listed livestock grazing as a secondary or aggravating threat to slickspot peppergrass. Grazing can amplify degraded habitat conditions created by the primary threats (i.e. fire and invasive species). The Final EIS included the Inside Desert ACEC as part of the range of alternatives. Alternative VI (Proposed RMP) did not include this ACEC designation.
Areas of Critical Environmental Concern	On p. 2-6 of the Draft RMP/EIS, under the *Areas of Critical Environmental Concern (ACECs)* section, it simply lists Salmon Falls Creek. It should stipulate the ACEC only applies to the area upstream of Balanced Rock Park. The same applies on p. 2-8 under ACECs and on p. 2-11 for ACECs.	Pages 2-6 through 2-11 of the Draft RMP/EIS are from the summary of alternatives section. A detailed description and map of the Salmon Falls Creek Area of Critical Environmental Concern is provided in Appendix M: Evaluation of Nominated Areas of Critical Environmental Concern in the Final EIS.
Areas of Critical Environmental Concern	On p. 208 of the Draft RMP/EIS, we question ACEC-NA-MA-23. Why would you restrict any mechanical fire suppression within the Salmon Falls Creek Area of Critical Environmental Concern? Why not allow mechanical fire suppression to put the fire out as quickly as possible. We also oppose closing the area to motorized vehicles.	The Salmon Falls Creek Area of Critical Environmental Concern (ACEC) includes only areas within the canyon (rim to rim) between Salmon Falls Dam and Balanced Rock Park. The 1990 ACEC designation established the referenced restrictions.

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Areas of Critical Environmental Concern	On p. 3-80 of the Draft RMP/EIS, under Jarbidge Foothills Area of Critical Environmental Concern-Small Boundary, we are assuming you are referring to the portion of Salmon Falls Creek above Salmon Dam.	Yes, we are referring to Salmon Falls Creek above Salmon Falls Dam.
Areas of Critical Environmental Concern	In the Draft RMP/EIS on p. A-258, Appendix W, under "Fish or Wildlife Resource" Salmon Falls Creek Area of Critical Environmental Concern; Are you referring to stream alteration from the Salmon Dam that was built in 1911? We take exception to the statement that this stretch of the river is in poor habitat and has resulted in a high degree of sedimentation. It is not caused by what limited traffic is out there and road closures are not necessary.	In the Draft RMP/EIS, the relevant and important values assessment for the Salmon Falls Creek Area of Critical Environmental Concern (ACEC) (Appendix W, p. A-258), identified the natural processes in Salmon Creek below the Dam as altered due to a lack of flushing flows and invasive plants. The assessment does not identify roads as a sediment source for Salmon Falls Creek. The 1990 ACEC designation identified the Salmon Falls Creek ACEC as closed to motorized vehicles (ACEC-NA-MA-21). The Final EIS included the ACEC north and south of Lily Grade to remain closed to motorized vehicle use (ACEC-VI-MA-32).
Areas of Critical Environmental Concern	One of the State's primary concerns with Alternative IV-B is the nomination of several Areas of Critical Environmental Concern across the planning area. The State rejects the notion that broad-scale curtailment of multiple-use activities within these designated areas will better protect the resource.	The Final EIS considers a range of Area of Critical Environmental Concern (ACEC) designations. ACEC designation does not automatically curtail multiple-use activities within these areas. Management associated with an ACEC designation is specific to the relevant and important values present. ACEC designation provides proactive measures to maintain or enhance relevant and important values as well as measures necessary to protect those values from impacts from future activities.
Areas of Critical Environmental Concern	The Middle Snake River Area of Critical Environmental Concern (ACEC) is not necessary since the BLM has complete authority over the management of listed species under the Endangered Species Act and regulations for the authorization of uses in this area. The other concern with this ACEC is that it has incorporated private and State lands within the boundary as mapped. These lands may be impacted long term and encumbered by restrictive management from adjacent and surrounding BLM lands.	The Final EIS analyzed the Middle Snake River Area of Critical Environmental Concern (ACEC) as part of the range of alternatives. Alternative VI (Proposed RMP) did not include this ACEC designation. The Final EIS revised maps to depict both BLM-managed and non-BLM-managed lands.
Areas of Critical Environmental Concern	The historical analysis within the Draft RMP/EIS clearly demonstrates wildland fire and unmanaged dispersed motorized recreation as the major risks to achieving the stated goals for the planning area. The BLM Preferred Alternative (Alternative IV-B) and the associated special management area designations (e.g., Areas of Critical Environmental	After publication of the Draft RMP/EIS comments were received and reviewed by the Interdisciplinary Team, Alternative VI (Proposed RMP) was developed using Alternative IV-B as a baseline. Alternative VI focuses on actively restoring the resiliency of sagebrush steppe ecosystem structure and function through restoration projects and enhanced fire management

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	Concern, Wilderness Study Areas, non-Wilderness Study Area with wilderness characteristics) do little to address either of these major risks while unnecessarily limiting active management and land use options.	while balancing resource protection and uses within the planning area. Special designations were included in Alternative VI as a tool to preserve and protect lands in their natural condition, provide food and habitat for fish and wildlife, and provide for outdoor recreation. Transportation and travel in Alternative VI would be limited to designated routes in the majority of the planning area except for areas open to cross-country motorized vehicle use in the Deadman and Yahoo Special Recreation Management Areas.
Areas of Critical Environmental Concern	If special management areas (i.e., Areas of Critical Environmental Concern) are to be designated, acquisition of in-holdings from willing private/endowment owners should occur prior to implementing such special management areas.	Area of Critical Environmental Concern (ACEC) designations occur with the signing of the Record of Decision by the BLM Idaho State Director and apply only to BLM-managed lands. Any acquisition of private or State endowment lands is dependent on the availability of funding and the willingness of landowners to sell or exchange their lands. It is not feasible to tie ACEC designations to the acquisition of in-holdings.
Areas of Critical Environmental Concern	We believe the overall and specific differences between sub-alternative IV-A and IV-B for the Jarbidge Foothills and Inside Lakes Areas of Critical Environmental Concern (ACECs) represent a substantial opportunity to decrease risks to special status species and improve the likelihood of attaining water quality standards. To take advantage of this opportunity for improved environmental benefits we recommend the BLM strongly consider committing to Alternative IV-A's ACEC designations.	Neither the Jarbidge Foothills nor the Inside Lakes Areas of Critical Environmental Concern were included in Alternative VI (Proposed RMP). The BLM determined that special management attention is not required because standard or routine management prescriptions, combined with specific resource management actions in Alternative VI, are sufficient to protect the relevant and important values from damage and degradation. In particular, the management actions associated with Special Status Species and Water Resources in Alternative VI appear adequate to protect these resources.
Areas of Critical Environmental Concern	The Sagebrush Sea Area of Critical Environmental Concern (ACEC) is not necessary since the BLM has complete authority over the management of listed species under the Endangered Species Act and regulations for the authorization of uses in this area. Fire has been and continues to be the biggest threat to this area. New information indicates that livestock is a viable tool to reduce fine fuel which would lessen fire occurrence. An ACEC could be very restrictive to the BLM and not allow changes in management on a site specific and a landscape scale to reduce fires with the use of livestock throughout the year.	The Final EIS analyzed the Sagebrush Sea Area of Critical Environmental Concern (ACEC) as part of the range of alternatives. Alternative VI (Proposed RMP) did not include this ACEC designation.

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Areas of Critical Environmental Concern	Areas of Critical Environmental Concern (ACECs) are designations that place an undue amount of importance on endangered species, wildlife, and resources. There must be a balance. An ACEC has the power to severely restrict any use that could possibly affect the land and resource. ACECs are not appropriate in an area that should be managed for all users. Any ACEC, for slickspot peppergrass or otherwise, violates the spirit and intent of the Omnibus Public Land Management Act of 2009, this Act intended that the released lands would become multiple-use lands.	Section 202 of the Omnibus Public Land Management Act of 2009 (OPLMA; Sec.1503-3-B-ii; 43 U.S.C. 1712) directs that BLM manage released Wilderness Study Areas in accordance with the applicable land use plan. BLM is required by law (Federal Land Policy and Management Act of 1976), regulation (43 CFR 1610.7-2) and policy (BLM Manual 1613) to determine if nominated Areas of Critical Environmental Concern (ACECs) meet relevance and importance criteria and require special management to protect their historical, cultural scenic, or natural resource values (Appendix M: Evaluation of Nominated Areas of Critical Environmental Concern). The Owyhee Initiative and the resultant OPLMA applies only to lands within Owyhee County and is silent on the subject of ACECs. The Final EIS analyzed a range of ACEC nominations. After review of public comments, four ACECs were included in Alternative VI (Proposed RMP). Two of the ACECs remain designated (Salmon Falls Creek and Sandpoint), one ACEC is a reduction of the existing Bruneau-Jarbidge ACEC to the Upper Bruneau Canyon ACEC, and one ACEC is new (Lower Bruneau Canyon).
Areas of Critical Environmental Concern	My major concern is with the Jarbidge Foothills Area of Critical Environmental Concern in Alternative IV-B. If this area is truly an area that warrants remaining the same, then we should not be restricting the current management that has created this situation. Further regulation and restrictions would only encumber current management efforts and jeopardize the opportunity for continued success.	The Jarbidge Foothills Area of Critical Environmental Concern is not included in Alternative VI (Proposed RMP), but was analyzed as part of the range of alternatives.
Areas of Critical Environmental Concern	BLM must reconsider its entire Area of Critical Environmental Concern analysis, as all relevant and important values are now much greater for sage-grouse.	The Final EIS revised sage-grouse information in Chapters 2, 3, and 4.
Areas of Critical Environmental Concern	BLM must prepare a population viability analysis to examine outcomes and time to extinction of populations under Alternatives I, II, III, IV, and V. Do this to manage for viable populations of slickspot peppergrass, Bruneau Dunes tiger beetles, and other sensitive, rare and imperiled species.	It is not necessary for the BLM to develop its own viability studies for listed plants/animals. The US Fish and Wildlife Service (FWS) with respect to anadromous fish, develop viability studies to analyze the likelihood a species will warrant protection under the Endangered Species Act. The BLM responds to a species listing by drafting a biological assessment. The FWS review the assessment to ensure that the BLM's proposed management will not jeopardize the continuation of the species. In this case, the BLM has entered into a candidate conservation

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		agreement with the FWS for slickspot peppergrass.
Areas of Critical Environmental Concern	Do not designate Juniper Butte Training Range and other US Air Force Lands (emitter sites and no-drop sites) as an Area of Critical Environmental Concern.	The BLM did not consider designating Areas of Critical Environmental Concern on US Air Force-managed lands. The Final EIS revised maps to depict both BLM-managed and non-BLM-managed lands.
Areas of Critical Environmental Concern	The Salmon Falls Creek Area of Critical Environmental Concern (ACEC) is not necessary since the BLM has complete authority over the management of listed species under the Endangered Species Act and regulations for the authorization of uses in this area. Most of this area is naturally protected from most uses and could be managed with the exclusion of uses without being an ACEC.	The BLM determined, after review of public comments, to include the existing Salmon Falls Creek Area of Critical Environmental Concern (ACEC) in Alternative VI (Proposed RMP). The area contains resources that meet the relevance and importance criteria for ACECs (BLM Manual 1613) and warrants special management prescriptions to protect those resources. Resources include scenic quality, redband trout, and upland vegetation. Redband trout are a Type 2 BLM Sensitive species and are not protected by the Endangered Species Act.
Areas of Critical Environmental Concern	The BLM should clarify that wind energy development could be accommodated in the Jarbidge Foothills Area of Critical Environmental Concern (ACEC) similar to the way the ACEC would accommodate exploration and development of salable minerals through the existing 2005 best management practices.	The Final EIS analyzed the Jarbidge Foothills Area of Critical Environmental Concern (ACEC) as part of the range of alternatives. Alternative VI (Proposed RMP) did not include this ACEC designation.
Areas of Critical Environmental Concern	Designation of an Area of Critical Environmental Concern of sufficient size to conserve sage-grouse is fully supported by new scientific information from the Knick and Connelly (2009) Monograph Studies in Avian Biology to the recent Wyoming, Idaho and other studies on fence collisions and impacts. Recent Eco-regional Assessments all highlight the grave threats that sage-grouse, pygmy rabbit and other sagebrush-dependent species are under.	After review of the nominated Sagebrush Sea Area of Critical Environmental Concern, the BLM determined that special management attention is not required because standard or routine management prescriptions, combined with specific resource management actions in Alternative VI (Proposed RMP), are sufficient to protect the relevant and important values from damage and degradation. The management actions proposed in the *Water Resources, Special Status Species, Riparian Areas and Wetlands, Fish and Wildlife, Cultural Resources, Livestock Grazing, Transportation and Travel,* and *Land Use Authorizations* sections appear to provide adequate protection for the area's relevant and important values.
Chapter 4	The environmental consequences section needs to acknowledge the potential for and consequence of secondary impact of resource management during use authorization. Apply the same consideration to the cumulative impact evaluation.	The Final EIS included analyses in Chapter 4 of direct, indirect, and cumulative impacts of resource management actions on resources uses.

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Chapter 4	Elko County, Nevada strongly urges the BLM to re-evaluate the ecological, environmental, economic, cultural, and historical direct and indirect adverse impacts that the Draft RMP/EIS will produce on not only the planning area but also the regions of southern Idaho and northeastern Nevada.	The Final EIS revised the analysis of environmental consequences found in Chapter 4. The current model used 2010 Impact Analysis for Planning (IMPLAN) data to analyze economic contributions and the economic effects of the alternatives. This model assessed the direct economic effects of BLM authorized uses within the planning area (which includes local businesses) in addition to indirect effects (impact from the additional inter-industry spending from the direct impact) and induced effects (impact from additional household expenditure resulting from the direct and indirect impacts).
Climate and Meteorology	The *Climate and Meteorology* section in Chapter 3 of the Draft RMP/EIS describes periods of drought "in southern Idaho", citing Cook and others (2004) and IDWR (2001). The Cook document does not on its face make any such statement, and is purportedly based upon tree ring re-construction of drought periods. The lack of clarity of this document does not provide the reviewer a reasonable opportunity to verify the Draft RMP/EIS's representation of the document. The applicability of Cook and others (2004) to the planning area is irrational and/or unwarranted.	BLM recognizes that the Cook and others (2004) citation does not on its face state periods of drought in southern Idaho. The Final EIS replaced this citation with the Historic Palmers Drought Severity Index (PDSI). PDSI is a measurement of dryness based on precipitation and temperature and is an effective index for determining long-term drought.
Climate and Meteorology	The Draft RMP/EIS's representation of IDWR (2001) is generally accurate as to what is reported in the cited work. However, IDWR (2001) also states, "The earliest well-documented shortages occurred in the 1920's and 30's during the Dust Bowl era. These historic records are still used today as a benchmark in evaluating potential problems. Idaho has not been without problems since then, however. … Overall, conditions between 1987 and 1993 in the southwestern part of Idaho have displaced the Dust Bowl period of the 1930's as the most severe period of drought on record." The planning area is located in the southwestern portion of Idaho. Therefore, any analysis of data and other information relating to this period should be conducted with these 1987-1993 severe drought conditions in mind.	The Chapter 3 *Climate and Meteorology* section in the Draft RMP/EIS and the Final EIS mentioned the severe to extreme drought that occurred in the late 1980s to early 1990s.
Climate Change	Examining baseline effects of climate change on sensitive and rare or imperiled species is critical to understanding the scale and severity of effects of BLM's management actions on habitats. This is critical to understanding the effects on populations and population viability over the short, mid and	The *Climate Change* section in Chapter 4 of the Final EIS included a discussion on how resources in the planning area (water, aquatic species, vegetation, noxious weeds and invasive plants, and wildlife) are currently affected and are projected to be affected by climate change.

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	long term. A Federal court has held that the US Fish and Wildlife Service, a Federal agency, must consider climate change in estimating effects of a water project on the delta smelt (Pac. Coast Fed'n of Fishermen's Ass'ns v. Gutierrez, 606 F. Supp. 2d 1122, 1184 [E.D. Cal. 2008]). This must be done to comply with the Endangered Species Act and other regulations, as well as State policies related to species protection, water quality, and climate change. BLM's dismissal of Idaho climate change as unpredictable and therefore unworthy of analysis is unacceptable.	
Climate Change	Contrary to BLM's assertion that climate change is well investigated in Washington State but lacking in Idaho, or inappropriately scaled for a 1.4 million acre planning area, the Climate Change group has been modeling the entire Columbia Plateau, and model output at 15km resolution are available for Idaho at the National Science Foundation's idahoclimatechange.org. In addition, scientists from the Climate Impacts Group held a workshop in Boise in 2009, including analysis of Idaho water stream gage stations and potential effects.	The *Climate Change* section in Chapter 3 of the Final EIS was reworded to say, "The University of Washington Climate Impacts Group has produced future climate scenarios for the Columbia River Basin in the Pacific Northwest, including Washington, Oregon, and Idaho using global climate models (Mote et al., 2008). However, no climate change models specific to just the State of Idaho or the planning area are available. Because data is unavailable and the means to obtain it is unknown, BLM assumed that similar trends and findings for the Pacific Northwest will also occur in the planning area."
Climate Change	A 2009 US Geological Survey (USGS) circular on climate change stated, "Adaptive management is an approach that makes decisions sequentially over time and allows adjustments to be made as more information is known. This approach may be useful in dealing with the additional uncertainty introduced by potential climate change." (Brekke et al., 2009). The same USGS document contained examples of incorporating climate change considerations into a relatively short look-ahead period (that is, 19 years). The sample study focused on understanding the potential effects of future inflow sequences outside the range of historical flow sequences (for example, a future with different hydrologic variability and associated severity, frequency, and duration of droughts). The RMP can direct management actions incorporating conservative approaches reflecting the most likely and reasonably foreseeable future events (e.g. increased stream temperatures).	The Final EIS included an analysis in Chapter 4 on climate change. The range of alternatives included management actions common to all action alternatives that focused on adaptive management.

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Climate Change	BLM's Programmatic EIS for Geothermal Leasing (BLM, 2008b) offers insight into the most likely effect of climate change: "Climate change has a disproportionate effect on special status species. Based on analysis of temperature and precipitation data from the 20th century and models on continued climate change patterns, it is anticipated that global temperatures will continue to rise and weather patterns will become increasingly erratic. This trend is anticipated to result in ongoing increases in precipitation in historically wetter ecoregions and further reduced precipitation in historically drier ecoregions. The broad implications of these changes affect all species but are specifically detrimental to highly specialized species (Diaz, 2004; Joyce et al., 2007)."	BLM reviewed the Climate Change analysis in the BLM's *Programmatic EIS for Geothermal Leasing in the Western United States* (BLM, 2008b) and considered it for the Climate Change analysis in the Final EIS.
Climate Change	BLM should assess direct, indirect, and cumulative environmental effects to affected resources, particularly special status species, in combination with changing environmental conditions resulting from climate change. The Draft RMP/EIS greatly ignores assessment of the predicted effects of climate change stress on the planning area, and fails to develop alternatives to minimize adverse impacts of climate change effects.	The *Climate Change* section in Chapter 4 of the Final EIS included a discussion on how resources in the planning area (water, aquatic species, vegetation, noxious weeds and invasive plants, and wildlife) are currently affected and are projected to be affected by climate change.
Climate Change	The current emphasis on climate change has far too much weight. Extensive long-term credible scientific conclusions on climate change do not exist at this time and, therefore, it would be unreasonable to make any assumptions about climate change and use those assumptions to impose any impacts on motorized recreation.	Secretarial Order 3226, entitled "Evaluating Climate Change Impacts in Management Planning" requires BLM to evaluate climate change in Land Use Plans, such as RMPs.
Climate Change	The current emphasis on climate change is being given far too much weight. Global temperatures are not warming. Since 1998, global temperatures have decreased almost half a degree Celsius.	Under Secretarial Order 3226, entitled "Evaluating Climate Change Impacts in Management Planning", the BLM is required to consider and analyze potential climate change impacts when developing multi-year management plans or when making major decisions regarding the potential utilization of resources.
Climate Change	In the Chapter 4 analysis of Climate Change, a 2.21 ranch level value cited above from Alevy and others (2007) is unreal because the cited document contains no such finding or conclusion. Furthermore, application of a 2.21 ranch level value to the 847,000 Federal animal unit months in Elko County produces and estimated beef cow herd of 155,000	The analysis and reference to Alevy and others (2007) was removed from the *Climate Change* section in the Final EIS.

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	head while the 2007 census of agriculture identifies the beef cowherd in Elko County as 80,610 head, which is only 50% of the number predicted by the multiplier. Remove the entire evaluation relative to Climate Change.	
Climate Change	In the Chapter 3 Climate Change discussion, the BLM should refer to Secretarial Order 3289A1 and Secretarial Order 3285A1, which direct the Department of Interior to address climate change, both in terms of prevention and in terms of mitigation.	The Final EIS considered these orders. These Secretarial Orders require that the Department of Interior address the effects of climate change. These orders were added to Appendix A: Specific Mandates and Authorities.
Climate Change	The Chapter 3 Climate Change discussion should be enhanced to elucidate the reasons for Secretarial Order 3289A1 which include jobs, some of which might be developed within the planning area, and the need to aggressively develop renewable resources to mitigate climate change which is expected to impact climates worldwide (impacting energy security and national security) as well as locally.	The purpose of Secretarial Order 3289A1 is to “establish a Department-wide approach for applying scientific tools to increase understanding of climate change and to coordinate an effective response to its impacts on tribes and on the land, water, ocean, fish and wildlife, and cultural heritage resources that the Department manages”. The order requires that the Department of Interior address the effects of climate change. The Final EIS revised the discussion and analysis related to climate change.
Climate Change	The Chapter 3 Climate Change discussion points out the consensus that winter precipitation will be more in rain and less in snow. It should go on to point out to the public that this anticipated impact of climate change will dramatically change the operation of the Pacific Northwest hydroelectric system, with potential consequences to fish and wildlife, irrigation, economies, and costs of electricity as a result of reduced storage of hydroelectric potential in the form of snow.	The impacts of climate change on the Pacific Northwest hydroelectric system is beyond the scope of this planning effort.
Climate Change	The Draft RMP/EIS suggests that climate issues are so uncertain as to render any serious quantitative analysis unnecessary. In dealing with wildlife issues, the Draft RMP/EIS draws conclusions about, for example, tall structures and other infrastructure impacts upon sage-grouse without conveying the uncertainty in the data from which such conclusions are drawn.	The *Climate Change* section in Chapter 4 of the Final EIS was updated to include a discussion on how resources in the planning area (water, aquatic species, vegetation, noxious weeds and invasive plants, and wildlife) are currently affected and are projected to be affected by climate change.
Climate Change	Methods for reducing greenhouse gas emissions to mitigate the effects of climate change were considered in the Methods and Assumptions. These methods should be included in the Final EIS.	Methods for reducing greenhouse gas emissions to mitigate the effects of climate change were not considered in the Draft RMP/EIS. The Final EIS revised discussions on how climate change affects the resources BLM manages and how BLM actions could contribute to or mitigate the effects of climate change.

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Climate Change	BLM fails to provide analysis of how all of the actions under all of the alternatives will be affected by predicted or foreseeable climate change effects. Clean energy from wind power presents one of the best means to reduce greenhouse gas (GHG) emissions and their contribution to climate change. However, the Draft RMP/EIS makes no mention of the benefits of wind energy in the context of climate change and its ability to avoid the conservation challenges posed by climate change through the avoidance of its cause: GHGs. Rather, the BLM acknowledged the benefits but then summarily dismissed them in the Draft RMP/EIS.	The Final EIS revised the Chapter 4 analysis on Climate Change to include BLM actions that could contribute or mitigate the effects of climate change. The Final EIS also revised Chapter 4 to include how climate change may affect resources.
Climate Change	The new RMP should be valid for a much shorter period, 4 to 5 years maximum. Global (as well as political) climate change demands greater flexibility on the part of BLM to respond quickly to rapidly-developing conditions on the ground. An RMP needs to be fresh and up-to-date, especially because subsequent decision documents flow from it.	The timeframe an RMP should be valid is beyond the scope of this planning effort. The BLM planning regulations 43 CFR 1610.5 – 6 state "A resource management plan shall be revised as necessary, based on monitoring and evaluation findings (1610.49), new data, new or revised policy and changes in circumstances affecting the entire plan or major portions of the plan. Revisions shall comply with all of the requirements of these regulations for preparing and approving an original resource management plan."
Climate Change	BLM provides little meaningful information on climate change, sidesteps analysis, fails to look at the overall footprint of livestock operations and other activities, and fails to look at the overall footprint of alternatives. It fails to address a suitable range of alternatives to address the threats and risks posed by climate change - i.e. likely increased temperatures, earlier snowmelt, more spring rain, and more extreme weather scenarios.	The Final EIS included an analysis in Chapter 4 *Climate Change*, with impacts from livestock grazing (greenhouse gas emissions) and other resource uses. The Final EIS also revised the Chapter 4 *Climate Change* section to include how climate change may affect resources. The range of alternatives in Chapter 2 included management actions common to all action alternatives that focused on adaptive management.
Climate Change	The Draft RMP/EIS ignores the information on desertification that we provided and analysis that is required. The degree to which lands are desertified feeds into climate change (Steinfeld et al., 2006). Where is mapping of desertfication in the Field Office and surrounding lands?	We have reviewed and considered all the literature you provided on desertification. Alternative VI (Proposed RMP) addresses desertification through restoration and vegetation change. The goals and objectives in the *Upland Vegetation* section focus on moving annual communities towards a more native shrub community over the life of the RMP.
Climate Change	BLM analysis should be much more specific so that real greenhouse gas footprint can be understood. This includes the livestock and livestock operator emissions, as well as the impacts of the livestock disturbance (and other disturbances) in adversely affecting the ability of the land to absorb carbon	The Final EIS revised the Climate Change analysis in Chapter 4 to include more information on greenhouse gas (GHG) emissions and carbon sequestration. However, the “real” GHG footprint within the planning area is complex and may never be completely known.

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	dioxide.	
Climate Change	BLM fails to answer key questions: How much are current uses currently impairing the ecosystem response to climate change? How will that impairment be affected by alternatives and actions?	The Final EIS, Chapter 4, analyzed impacts of current uses on climate change in the No Action Alternative (current management under the 1987 RMP).
Climate Change	How will all of the predicted adverse impacts of climate change affect sage-grouse habitats and populations - and place greater stress on them? Bull trout habitats and populations? The tiny and disconnected red band trout populations in the Elk Mountain and Jarbidge Front area? BLM cannot summarily dismiss analysis, as it does at p. 3-6. This is critical in applying some measure of precautionary management to the public lands.	The Final EIS revised Chapter 4 to include how climate change affects vegetation, noxious weeds and invasive plants, and wildlife.
Climate Change	BLM ignores the predicted impacts of climate change on soils and vegetation - for example: Climate change may cause the region to become drier and less vegetated in the foreseeable future, leaving soils more exposed to wind erosion and resulting in an increase in particulate matter (Jarbidge Analysis of the Management Situation).	The Final EIS included analyses in Chapter 4 on how climate change impacts vegetation and noxious weeds and invasive plants.
Comments	Please consider this resubmittal of the Western Watershed Project 2007 draft alternative for the Jarbidge RMP planning process as a comment on the Draft RMP/EIS.	The BLM considered the alternative re-submitted by Western Watersheds Project, known in the Draft RMP/EIS and the Final EIS as the “Habitat Restoration Alternative” but eliminated it from detailed study as a stand-alone alternative because it did not meet the purpose and need; contained internal inconsistencies; and was inconsistent with BLM planning criteria. Alternatives IV and V incorporated many components of the Habitat Restoration Alternative.
Comments	The Jarbidge Coalition for Multiple Use requests that the BLM consider its "Multiple Use Plan" for management of resources in the Jarbidge Field Office.	The BLM considered the Multiple Use Plan but eliminated it from detailed study as a stand-alone alternative because many of the components were inconsistent with BLM policy or planning criteria. However, many components of this alternative were incorporated into Alternative VI (Proposed RMP).
Comments	We mailed to you the affidavits, declarations, and comments to the Analysis of the Management Situation (AMS) and AMS/RMP, and Multiple Use Plan on January 28, 2011. We also incorporate as comments the scoping comments submitted by Simplot Land and Livestock Company (and its associated entities); Bert and Paula Brackett (and their associated entities); Chet and Kim Brackett (and their	The commenter did not specify how the affidavits, declarations, and comments to the Analysis of the Management Situation related to the Draft RMP/EIS or how to incorporate them into the Final EIS. The BLM considered the Multiple Use Plan but eliminated it from detailed study as a stand-alone alternative because many of the components were inconsistent with BLM policy or planning criteria. Alternative VI (Proposed RMP)

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	associated entity); Winter Grazing LLC (and their associated entity, Camas Creek); and Stanley Lehmann (and his associated entities).	incorporated many components of this alternative. The development of the Draft RMP/EIS used comments received during scoping.
Comments	We would like to see the recognition of the transmission corridor as recommended in the BLM Gateway Transmission Line Study.	The Final EIS recognized the proposed Gateway West Transmission Line as a reasonably foreseeable action.
Comments	The Final EIS must include the latest research, from a variety of sources, and continued utilization of existing and prospective resource users, including grazing, off-road vehicle users, motorized and non-motorized recreationalists, hunters and sportsmen, and even commercial wind energy developers.	The BLM has endeavored to use available science and utilization data in the Final EIS. Alternative VI (Proposed RMP) provided for a variety of resource uses within the planning area.
Cultural Resources	We are concerned about the preservation of historic mines, cabins, settlements, railroads, access routes and other features used by pioneers, homesteaders, loggers, settlers, and miners. Do not remove these important cultural resources from the landscape. Western culture and heritage has been characterized by opportunities to work with the land and preservation of all remnants of this culture and heritage is important. Current management practices are not adequately protecting western culture and heritage including the opportunity to work with the land. We request that the ties to the land that are part of our local western culture and heritage be protected and that the preferred travel management alternative include opportunities to visit these features as part of motorized interpretative spur destinations and loops.	The BLM will continue to manage cultural resources in compliance with existing laws, regulations, and policy. After signing the Record of Decision adopting a revised Jarbidge RMP, a comprehensive travel and transportation management plan will be prepared. Motorized opportunities to visit sites important to western culture and heritage will be considered and analyzed during the travel management planning process.
Cultural Resources	CR-NA-O-1: It is unclear whether BLM intends to make special designations of the cultural values of Dry Lake/Bruneau River Complex, Arch Canyon, and Dove Spring complex, or if it already has as part of the No-Action Alternative. The BLM should clarify this. CR-NA-MA-2: Rewrite this management action to include identification of cultural resources through surveys and consultations. The BLM should revise as follows: “All significant cultural sites, as identified through consultation and surveys, and as determined by the State Historic Preservation Office (SHPO) and Advisory Council ….” CR-NA-MA-8: The BLM should clarify whether the second	Portions of the Dry Lakes/Bruneau River and Arch Canyon Complexes are included within the Bruneau-Jarbidge Rivers Wilderness and the existing Bruneau-Jarbidge River Area of Critical Environmental Concern. Although none of the site complexes identified in the 1987 RMP have been formally nominated to the National Register of Historic Places, eligible sites within these areas are managed to preserve their cultural resource values. This management would continue under the No Action Alternative. The Final EIS did not make the suggested modifications to CR-NA-MA-2 and CR-NA-MA-8 because the No Action Alternative, including objectives and management actions, were taken directly from the 1987 RMP. The goals, objectives, and

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	bullet point should read "Salvaging, though scientific methods, the cultural resources values pursuant to SHPO's agreement" instead of "pursuant to the SHPO agreement." The BLM should revise the last bullet point as follows: "Should the site be determined to be of significant value, and/or the above-mentioned methods are not considered adequate, the project could be potentially abandoned."	management actions in the action alternatives were developed to more clearly express current legal and policy direction.
Cultural Resources	Evaluate cultural resource values, to the extent that they relate to tribal cultural resources, in consultation with the affected tribes who can assist the BLM in determining the significance of the resource values discovered in a proposed work area. Tribes, like other entities, have competing interests in certain locations and a Tribe may ultimately determine the benefits of a potential project outweigh the value of cultural resources at that location. This would similarly apply to the consideration of prudent and feasible alternatives to avoid or mitigate adverse effects on cultural resources. (CR-CA-MA-12).	The Final EIS acknowledged tribal consultation as an important agency obligation many times throughout the document. The following sections and management actions in Alternative VI (Proposed RMP) specifically address tribal consultation or acknowledge our obligation to follow laws that require it: *Tribal Rights and Interests* (TI-CA-MA-1, TI-CA-MA-2, TI-CA-MA-3); *Cultural Resources* (CR-CA-MA-8, CR-CA-MA-10, CR-VI-MA-2, Appendix G); *Land Tenure* (LT-CA-MA-2); and *Leasable Minerals* (LE-CA-MA-2). Management action CR-CA-MA-11 in the Final EIS (CR-CA-MA-12 in the Draft RMP/EIS) is subject to the overarching requirement to consult on projects that might affect properties of traditional cultural importance to Native Americans.
Cultural Resources	There is no action listed in CR-CA-MA-5- only a sentence fragment. The BLM should revise this to include an action item.	The Final EIS removed this management action and addressed the description of lands included in the Kelton and Toana Freight Road protective corridors in Allocation CR-CA-A-2.
Cultural Resources	As written, management actions CR-I-MA-2, CR-II-MA-2, CR-III-MA-2, CR-IV-MA-2, and CR-V-MA-2 make it sound as though the BLM may unearth cultural resources and retain them through Federal ownership. The BLM should consider revising these management actions as follows: "Important cultural resources, as determined through consultation with tribes and/or State Historic Preservation Office, would generally be retained in their current location in the ground on Federally managed land."	To avoid confusion, the Final EIS revised the first sentence in CR-I-MA-2, CR-II-MA-2, CR-III-MA-2, CR-IV-MA-2, CR-V-MA-2, and CR-VI-MA-2 to read, "Lands containing important cultural resources, as determined through consultation with tribes and/or State Historic Preservation Office, would generally be retained in Federal ownership."
Cultural Resources	In Chapter 4, under *Cultural Resources*, Methods and Assumptions, the fourth assumption at p. 4-525 should include consultation with private developers to eliminate or mitigate adverse impacts to cultural resources.	The BLM revised the statement by adding "project proponents and other affected parties" after "Advisory Council on Historic Preservation". This is more in line with the 36 CFR 800 regulations.
Cultural Resources	In Chapter 4, under Cultural Resources, Methods and Assumptions, the fifth assumption ("given BLM's preservation obligations,") is confusing since the meaning is unclear. The	This assumption acknowledges the fact that increased impacts to cultural resources will result in increased costs for compliance with preservation mandates. The Final EIS revised wording in

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	BLM should either clarify this assumption or delete it.	Chapter 4 to clarify the assumption.
Cultural Resources	The impacts from land use authorizations, p. 4-537, unfairly singles out large energy development projects as typical disturbances of large areas that are difficult to reroute or adjust to avoid cultural resources. Delete this statement. It is contrary to the best management practices already imposed upon wind project developments in the planning area due to the 2005 amendments to the 1987 Jarbidge RMP. Moreover, a number of other land uses have a potential to disturb much larger areas containing cultural resources. The footprint of a wind energy project of commercial scale could be measured in several hundred acres and is not a major threat to cultural resources.	The statement in question reflects the current and expected trend in large-scale development proposals affecting the planning area. The focus of this section is land use authorizations under the BLM Lands and Realty program; the Final EIS addressed other land uses in the appropriate resource use sections, e.g., *Livestock Grazing, Recreation*, etc. The best management practices and mitigation measures imposed on particular development projects should reduce, but would not eliminate, impacts to cultural resources. To avoid the appearance of bias, the Final EIS revised the statement by deleting the word “energy”.
Cultural Resources	Delete the final sentence of the paragraph on impacts from Area of Critical Environmental Concern (ACEC) actions at p. 4-546. Removal of an ACEC designation would not remove protection of cultural resources as they still would be protected by other Federal and State laws and/or other measures in existing best management practices and mitigation requirements imposed by a Record of Decision. Furthermore, the BLM wind energy program policies specifically state that ACECs are not universally excluded from wind energy site monitoring and testing or wind energy development but will be managed consistent with the management prescriptions for the individual ACEC, which could include management prescriptions for cultural resources.	The Final EIS revised the paragraph in question to highlight only those Areas of Critical Environmental Concern (ACECs) with special management actions that proactively benefit cultural resources. The last sentence was revised to more accurately describe the effects of ACEC designation or non-designation on cultural resources. The Final EIS, Chapter 2, provides management actions that will directly or indirectly provide additional protection for cultural resources specific to the ACECs.
Cultural Resources	The impacts from Alternative II overstate the potential impact to cultural resources at p. 4-550. Even though Alternative II is the most attractive alternative from the perspective of commercial development, such development would still be subject to avoidance, minimization and mitigation responsibilities related to cultural resources as indicated in the stipulations attached to any Record of Decision authorizing a wind energy project together with existing best management practices (BMPs) and the overlay of Federal cultural statutes such as the National Historic Preservation Act. Thus, the level of impacts to the integrity and setting of cultural resources under Alternative II may be no greater than under other alternatives.	In relation to the other alternatives, Alternative II has the most potential to affect cultural resources because it makes more area available for impact-producing uses, has fewer restrictions, and allows higher use levels. While best management practices and project specific mitigation measures may reduce impacts, only avoidance would eliminate them altogether. Impacts, even at a reduced level of intensity, are expected to occur at a higher rate under Alternative II.

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	Similarly, the assumption in the discussion of cumulative impacts (p. 4-552) that land use authorizations "are expected to" result in unavoidable impacts to cultural resources does not adequately recognize that new energy developments such as wind energy can coexist with many cultural resources through stipulations, mitigation, BMPs and other measures.	
Cultural Resources	Management action CR-CA-MA-12 covers cultural resources. This management action is very wordy, broad and not specific. Typically, these types of actions are not good for management. Revise this management action to be more readable to managers and the public.	The Final EIS revised and simplified this management action. It is now numbered CR-CA-MA-11.
Economic Conditions	Federal Land Policy and Management Act of 1976 regulations 43 CFR 1610.43 and 1610.46 require BLM to analyze social, economic, and institutional information. Section 102(2)(A) of NEPA requires Federal agencies to "insure the integrated use of the natural and social sciences... in planning and decision making" (42 U.S.C. 4332(2)(A)). Section 4.6.2 of the Draft RMP/EIS analyzes economic conditions in the four-county area and predicts economic impacts of various alternatives. Some data in the analysis are up-to-date, such as the Bureau of Economic Analysis data used in Table 4-375. However, many of the economic impacts are calculated using outdated data reflecting economic conditions before the current recession. The county-level Impact Analysis for Planning (IMPLAN) data used to calculate economic impacts are from 2006. Due to the significant change in economic conditions in Idaho, Nevada, and the nation between 2006 and 2011, the economic impacts of different alternatives cannot be accurately calculated with data from 2006. BLM needs to use the most recently released IMPLAN data, reflecting the changed economic conditions of Idaho and Nevada, to calculate economic impacts.	The Final EIS revised the Chapter 4 *Economic Conditions* section analysis. Data used in the Chapters 3 and 4 *Social and Economic Features* section of the Final EIS include 2010 Impact Analysis for Planning (IMPLAN) data, the most current IMPLAN data available.
Economic Conditions	We request that the economic analysis use actual local data to determine the true economic and social impact of proposed motorized access and closures on the public.	The Chapter 4 *Economic Conditions* section analysis of recreation impacts (including motorized recreation) in both the Draft RMP/EIS and the Final EIS used data specific to counties in the planning area. The Final EIS updated data to include more recent data.
Economic Conditions	The analysis and decision-making must adequately evaluate the economic and social impacts of this proposed action. Additionally, we request that the cumulative negative impact	The Final EIS revised the cumulative impacts analyses in the *Social Conditions and Economic Conditions* sections to indicate that the effects from past social and economic activities have

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	resulting from inadequate evaluation of economic and social impacts in past actions are considered in the analysis and decision-making and that an adequate mitigation plan be included as part of this action to compensate for past cumulative negative impacts.	been already absorbed by local communities and are represented in the affected environment. The cumulative impacts analysis in Chapter 4 included changes in the social and economic environment as a result of past management actions, as well as present and reasonably foreseeable actions. Making a reasoned choice among alternatives does not require the mitigation plan suggested by the commenter.
Economic Conditions	The positive economic impact on the economy of the area must be adequately considered in the decision-making. Arizona State Parks has prepared a good example of an economic analysis of off-highway vehicle (OHV) recreation for Coconino County, AZ. This evaluation should be used as guideline to evaluate the existing and potential positive economic impacts associated with OHV recreation in the project area. Additionally, the study does a good job assessing the activities and reasons that recreationists enjoy using OHVs.	The Final EIS updated information related to the economic contributions from motorized recreationists in the planning area. The Final EIS also added economic effects from changes to motorized recreation under each alternative.
Economic Conditions	Despite the significant negative economic impacts of Alternative IV, when compared to Alternative II or even the No Action Alternative, very little factual information appears anywhere in the section (4.6. *Social and Economic Features*; 4.6.2 *Economic Conditions*) concerning the potential economic impacts of the decisions being proposed in the Draft RMP/EIS. Additionally, the data is confused by comparing the impacts of the alternatives in question, which covers a million plus acres of rangeland utilized by some 70 ranching families and a limited amount of wildlife resources, with the vast economic resources of the four-county area of Idaho and Nevada, an area that produces over nine billion dollars of economic output annually (Table 4-391, p. 7-87). Making such comparisons are confusing at best and totally misleading. The final portion of the section covering economic impacts deals with cumulative impacts. This poorly written section lacks meaningful data and conclusions and it warrants no comment. Eliminate it or expand it with meaningful and factual data and conclusions based on such data.	The Final EIS revised the *Social and Economic Features* section of Chapters 3 and 4 in order to improve the clarity of social and economic impacts analysis and comparisons among the alternatives. In addition, the discussion augmented the cumulative impacts to include distinction of cumulative impacts to social and economics by resource program, where social and economic effects occur.
Economic Conditions	Owyhee County relies on economic evaluation of land management actions through the “Regional Economic Impact Model of Owyhee County, Idaho and the Four County Area	The economic analysis for the Final EIS used multiple resources, including the Impact Analysis for Planning (IMPLAN) Pro Software and Data (Minnesota IMPLAN Group, 2004) utilizing

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	Including Ada, Canyon, Elmore, and Owyhee Counties, Agricultural Economics Extension Series No. 03-06, June 2003, T. Darden, N Rimbey and J.D. Wulfhorst." This model is readily available to BLM. BLM also partly funded its development. The evaluation of economic consequences of the Draft RMP/EIS alternatives must use this model in order to consider the economic impact directly related to Owyhee County.	data from Elmore, Owyhee, and Twin Falls Counties, ID, and Elko County, NV.; Alevy and others (2007) Analysis of Impacts of Public Land Grazing on the Elko County Economy, Jarbidge and Mountain City Management Area: Part VII: Economic Impacts of Federal Grazing in Elko County published by the University of Nevada; and Farm Income and Expenses data for Elmore, Owyhee, and Twin Falls Counties, Idaho, and Elko County, Nevada from the Bureau of Economic Analysis (Bureau of Economic Analysis, 2009 and 2013).
Economic Conditions	The evaluation in the Draft RMP/EIS does not provide the complete and reliable assessment of economic consequences specific to Owyhee County that is necessary and required by the Owyhee Natural Resources Plan (See Owyhee Natural Resources Plan Appendix A-1 and A-3). The analysis in the Draft RMP/EIS looks only at the regional impact as estimated through the Impact Analysis for Planning (IMPLAN) model. Reliance on the IMPLAN model and the inclusion of study data from Elko County Nevada is unacceptable and entirely inconsistent with Owyhee County policy.	During the land use planning process, BLM considered pertinent provisions in local plans. BLM reviewed the Owyhee Natural Resources Plan and did not find any provisions for the assessment of economic consequences in BLM Land Use Plans. The Owyhee Natural Resource Plan does provide guidelines for grazing permit environmental assessments (EA), such as "The EA must also evaluate and include the immediate (short term) social and economic consequence as well as the cumulative effect (longer term) result of each alternative". The Chapter 4 analysis in the *Economic Conditions* section in the Final EIS included direct, indirect, and cumulative impacts of each alternative for the planning area. Impact Analysis for Planning (IMPLAN) is a widely accepted socioeconomics model. In fact, Appendix A-1 of the Owyhee Natural Resources Plan, "Regional Economic Impact Model of Owyhee County, Idaho and the Four County Area Including Ada, Canyon, Elmore, and Owyhee Counties" relies on the IMPLAN model.
Economic Conditions	Page 4-770, Table 4-373 of the Draft RMP/EIS reports the Output, Employment, and Income for North American Industry Classification System Sectors Estimated by Impact Analysis for Planning (IMPLAN) for the Four-County Region in 2006. The IMPLAN model is inadequate for characterizing the economic impacts relative to Owyhee, Elmore and Twin Falls Counties in Idaho. Values derived from the IMPLAN model, shows output of 829 million dollars from mining, quarrying, and oil and gas extraction. The $1.6 Billion gold, silver, and other metal ore mining output from Elko County (2004) drives this high value. Clearly, the removal of Elko County from the IMPLAN model	While the Draft RMP/EIS included all of Elko County, the analysis in the Final EIS examined just that area in Elko County where BLM land exists and where potential purchases are made by permittees and recreationists who use BLM-managed lands. This revised approach avoided dilution of important economic relationships between BLM-managed land in the planning area and Elko County.

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	analysis would show a far lower mining output sector and would significantly change the relationship among other sector values.	
Economic Conditions	We are very concerned about the economic impact this plan could have on local area businesses. Your plan does not adequately address the impacts of reduced livestock grazing, reduced motorized recreation opportunities and reduced hunting access would have on the towns in the planning Area. We suggest that you do further study as to the effect your plan would have on the small communities bordering and near the planning area.	Since recreationists, hunters, and ranchers make purchases within the four-county area that support their activities on BLM-managed land in the planning area, the economic impact area included the four counties in the planning area (Elko, Elmore, Owyhee, and Twin Falls). Also included in the economic impact area are other small communities bordering and near the planning area, since these economies connect to activity in the planning area. By including the larger impact area, important economic relationships attributable to activity in the planning area are included in the analysis that would otherwise be ignored by limiting analysis to just the planning area. The Final EIS added detail to the economic analysis in noting that impacts could be greater for smaller communities in the impact area. Increases or decreases (which vary by alternative) of resource uses were analyzed for economic impacts.
Economic Conditions	The BLM should realize the significance and economic value to the region, encourage, and expand multiple uses including recreation. Ranching, recreation and mining are considerable components of the local and regional economy and a viable ever-expanding resource. The BLM must also realize the immense adverse impacts to the regional economies from implementation of the Draft RMP/EIS as per the preferred alternative or any other alternative outlined in the Draft RMP/EIS (except the no-action alternative).	The Final EIS revised the economic contribution from recreation and other resource uses. While changes in BLM's contribution to the local economy are possible relative to the No Action Alternative, many of these changes will continue to support current uses and enhance local economies in the impact area.
Economic Conditions	In Section 2.6.1 *Social* and *Economic Conditions*, the management actions for all alternatives do not specifically address the social and economic opportunities associated with wind energy. The counties receive revenues during construction and operation of a wind energy project. Operation of wind projects typically last 20-25 years; therefore, the local counties would have a revenue stream for at least 20-25 years.	The management actions common to all action alternatives did not specifically address any one activity or authorized use. Wind energy projects are included as they are an authorized use.
Economic Conditions	Section 3.5.2 *Economic Conditions* (Wind Energy) states that Idaho has approximately 18,000 megawatts (MW) of wind energy potential. Yet the example economic impact illustrated in Table 3-56, of the Draft RMP/EIS, is for a typical 20 MW wind project, or 0.1% of the potential for Idaho. The result to	The 18,000 megawatt wind energy potential for the State of Idaho discussed in the Draft RMP/EIS would not occur exclusively within the planning area. Future extent of development in the planning area is unknown; thus, Table 3- 56 and Table 4- 379 of the Draft RMP/EIS describe the potential

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	the casual observer is that wind energy is of limited potential economic impact whereas by the 18,000 MW figure presented, the economic impact could be substantial.	economic impacts of hypothetical wind projects. The Final EIS removed the example economic impact tables and added detail to explain that the levels of development depicted in section 3.6.2, *Economic Conditions*, are hypothetical and provide a frame of reference for potential future development.
Economic Conditions	In Section 4.6.2 *Economic Conditions*, the numbers provided by the National Renewable Energy Laboratory in Table 4-379, of the Draft RMP/EIS, for a 20-, 150-, and 400-megewatt project are hypothetical. Therefore, separately evaluate each wind project in the planning area to determine direct and indirect economic impacts.	Since the extent of future wind energy development is not known, the Draft RMP/EIS and Final EIS used hypothetical levels of development for analysis purpose. The RMP will set broad-scale decisions that will guide future site-specific project proposals. BLM would evaluate each site-specific wind energy proposal in the planning area separately and BLM would complete an appropriate NEPA analysis before authorization of any wind energy project.
Economic Conditions	In Section 4.6.2 *Economic Conditions*, the following statement is inaccurate: “Alternatives I, III, IV and V would make the majority of the southeast corner of the planning area unavailable for wind energy development, which would not allow consideration of a 400-megewatt (MW) wind energy project in that area. Under these alternatives that preclude construction of commercial-scale wind energy projects in the area with the highest wind resource potential, the opportunity to increase output, employment and income due to wind energy development as displayed in Table 4-387 would be foregone.” With best management practices (BMPs) and mitigation measures, all of the alternatives could permit a commercial-scale wind energy project in the southeast corner of the planning area. The size of the wind energy project in Alternatives I, III, IV and V may not be 400 MW, but certainly none of the alternatives entirely excludes a commercial-scale wind energy project. The BLM should revise the statement accordingly: “Alternatives I, III, IV and V may restrict portions of the southeast corner of the planning area for wind energy development, but with BMPs and mitigation measures, construction of a commercial-scale wind energy project in the southeast corner of the planning area could be feasible. Under these alternatives, the opportunity to increase output, employment and income due to wind energy development as displayed in Table 4-387 may be reduced.” Revise Tables 4-387, 4-390 and 4-395 accordingly.	This statement in the *Economic Conditions* section of Chapter 4 is accurate for analysis purposes. Each alternative has different right-of-way (ROW) exclusion and avoidance areas. For the analysis, those Alternatives assumed that utility-scale wind developments would not be able to meet any of the avoidance criteria identified in the alternatives. Therefore, the potential wind development areas included lands within 2 miles of areas rated fair or higher for wind resource potential that were also available for wind energy development outside the ROW avoidance and exclusion areas for that alternative. Exclusion areas included areas such as wilderness and Wilderness Study Areas. Avoidance areas included areas such as the sage-grouse management area, Areas of Critical Environmental Concern, and military operating areas. These restrictions would not allow commercial wind development regardless of best management practices and mitigation measures.

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Economic Conditions	Idaho Department of Lands cannot support the preferred alternative in its current form due to the adverse impact it would have to revenue generating activities on intermingled endowment trust lands.	The *Economic Condition* section of Chapter 4 described the economic impact of each alternative on a regional area (Elmore; Owyhee; Twin Falls, ID;and Elko, NV Counties).
Economic Conditions	A final concern is the economic impacts as shown on p. 4-785, table 4-388. For the communities involved these are not inconsequential numbers and the impacts will be far reaching.	The Final EIS revised the impacts to *Economic Conditions* to discuss effects to smaller geographic units and added detail, noting that impacts could be greater for smaller communities in the impact area. The Final EIS also reduced the economic impact area in Elko County, NV to only include zip codes where permittees and recreationists potentially make purchases.
Economic Conditions	There is no economic analysis to show the cost of active vs. passive restoration (removal of livestock, closure of jeep trails, etc.) in the Draft RMP/EIS. There is no valid economic analysis to show the cost of using herbicides on cheat grass, fencing, etc. if treatments are subjected to continued livestock grazing - or how much grazing use will slow or retard any recovery or rehabilitation.	At the planning area scale, cost estimation is impractical given uncertainty in the extent of future treatment, timeline of treatment, costs of material and supplies at the time of treatment, and future budget appropriations.
Economic Conditions	Western Watersheds Project is concerned that the analysis of the social and economic consequences of each alternative in the Draft RMP/EIS is cursory and incomplete.	The social and economic analysis included effects to various stakeholders and groups: ranchers, local residents, and recreators (including dispersed recreators, motorized recreators, hunters, and fishermen). In addition, the *Economic Condition* section analyzed impacts from Upland Vegetation, Fish, Wildlife, Livestock Grazing, Recreation, Transportation and Travel, and Land Use Authorizations actions. Non-market values, such as the value of recreation experiences and wildlife habitat, by their nature are difficult to quantify. Direction provided in Appendix D of the Land Use Planning Handbook H-1601-1 (pp. 6, 7 and 10) suggests the use of benefit transfer to evaluate the effects of these non-market values. The Final EIS discussed topics qualitatively in the absence of quantitative information for other non-market values and social effects.
Economic Conditions	The BLM needs to enlarge the social and economic analysis to include the income and expense of administering the public lands in the Field Office for each alternative. Nowhere in the Draft RMP/EIS is there any information that assesses the expense and income to administer the Field Office including the costs to American taxpayers of subsidizing livestock grazing.	A social and economic analysis of the income or expense to administer the Field Office is beyond the scope of this planning effort.

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Economic Conditions	I am sure you are aware that the Department of Interior's Sustainability Plan includes, "implementing on-site renewable energy generation" and Secretarial Orders Nos. 3285 and 3289. Based on the figures I have seen, this type of growth could put about $33 million into Twin Falls County alone in wind tax revenues, while creating up to 750 full and part-time jobs during the construction of these Commercial types of projects. The Final EIS cannot ignore inclusion of those potential economic contributions.	The Final EIS, Chapter 4, included the social and economic contributions of potential wind energy developments. Data used to characterize potential effects from wind energy development were from the National Renewable Energy Lab's Job and Economic Impact Assessment Model, and utilize Federal sources of data (NREL, 2009c).
Economic Conditions	Please see that the Final EIS includes the accurate benefits to Twin Falls and its surrounding communities. It must also include logical resource analysis and synthesis with the best users of the resources, conservationists, hunters and sportsmen, livestock grazers, commercial energy developers, and off-road vehicle users and recreationalists. This is the highest and best use of the resources.	The Final EIS revised the social and economic analysis using more recent information. The analysis described benefits to Twin Falls and other communities within the planning area. The analysis also included effects to various stakeholders and groups including ranchers, local residents, and recreators, (including dispersed recreators, motorized recreators, hunters, and fishermen).
Emergency Stabilization and Burned Area Rehabilitation	Emergency Stabilization and Burned Area Rehabilitation objectives must be clearly stated and quantifiable. Clearly state implementation and effectiveness monitoring schedule and criteria for success, establish a schedule for reporting, and follow it.	The Final EIS set broad objectives for Emergency Stabilization and Burned Area Rehabilitation (ES&BAR). Detailed criteria for monitoring, scheduling, and effectiveness would be identified during the development of a specific ES&BAR plan.
Emergency Stabilization and Burned Area Rehabilitation	The BLM mentions that rest from uses in Emergency Stabilization and Burned Area Rehabilitation (ES&BAR) areas is not necessary if "the uses are not in conflict with the treatment objectives" (p. 2-96). The Draft RMP/EIS did not define which uses conflict with ES&BAR objectives. Please Clarify this issue in the Final EIS.	The Final EIS revised management action FE-CA-MA- 4. The Final EIS did not define uses that conflict with Emergency Stabilization and Burned Area Rehabilitation (ES&BAR) objectives because uses and treatment objectives will vary in each ES&BAR plan.
Emergency Stabilization and Burned Area Rehabilitation	BLM needs to develop a map of all past post fire seedings and fences and identify the areas for recovery/rehabilitation of natives.	BLM maintains data on seedings and fences. Due to the scale and nature of the Final EIS, it did not identify the specific mapping of this data. Nevertheless, there is sufficient data underlying the analysis to reflect the impact of a range of Emergency Stabilization and Burned Area Rehabilitation management directions.
Emergency Stabilization and Burned Area Rehabilitation	First, fuels treatments and Emergency Stabilization and Burned Area Rehabilitation treatments should focus on stabilizing soils and preventing the spread of noxious and invasive plants. Species selection for seed mixes must consider this. Species that lengthen the fire return interval must also be included within seed mixes. Implement rehabilitation on existing non-	The Final EIS analyzed a range of fuel and Emergency Stabilization and Burned Area Rehabilitation (ES&BAR) treatments. Alternative VI (Proposed RMP) states one objective as "Rehabilitate and stabilize areas to help stabilize soils, promote natural recovery, and establish pre-fire or historic vegetation communities." Components of management actions

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	native perennial vegetation only when the potential for soil instability and/or invasion by noxious weeds and invasive plants is imminent.	that support this objective are using native species, moving plant communities towards Fire Regime Condition Class 1, and treating and preventing noxious weeds and invasive plants. BLM Handbook H-1742-1 and Department of Interior Manual 620 DM 3 provide more specific direction on ES&BAR plans.
Emergency Stabilization and Burned Area Rehabilitation	The Resource Advisory Council unanimously supports the use of FE-II-MA-10 and FE-II-MA-12 over the selection of FE-IV-MA-9 and FE-IV-MA-11. In the case of FE-II-MA-10 versus FE-IV-MA-9, the issue is one of equality and management flexibility. To prohibit temporary fencing in all instances but where 2,000 acres is unburned in a pasture removes the ability of BLM to take into account different situations. BLM should take into consideration the differing needs of permittees and the allotments involved when making temporary fencing needs. FE-IV-MA-9 is a good guideline but BLM and permittees need additional flexibility. FE-IV-MA-9 versus FE-IV-MA-11 is a case of economics and management flexibility. If BLM determines a temporary fence has the ability to serve a purpose after the restoration period ends the option should exist. In most cases, after a fire the original seeding comes back very strongly and in many cases looks like a new seeding. It might be advantageous to BLM, wildlife needs, and the permittee to manage the recently burned area differently than the remaining portion of the pasture that did not burn. FE-IV-MA-11 prevents BLM from making appropriate management decisions that are flexible and best suited for site conditions. In addition, the fence in this case has already been constructed; to remove the fence and then proceed to rebuild the fence again is a waste of tax dollars.	The Final EIS analyzed a range of temporary fencing options for use in Emergency Stabilization and Burned Area Rehabilitation activities. Alternative VI (Proposed RMP) includes the following two management actions for fences. Both of these management actions allow for flexibility and cost considerations in burned areas. FE-VI-MA-9. Consider using temporary fences to protect burned plant communities. When planning temporary fences, consider resource concerns, the size of the pasture, the amount burned, the amount of pasture unaffected by rehabilitation, location of water, grazing management efficiency, and expense. FE-VI-MA-10. Temporary fences may become permanent if they enhance the management of the burned area; these would be considered on a case-by-case basis through site-specific analysis.
Energy Development	We recommend BLM ensure adequate protective measures are imposed on wind energy development and require both on-site and off-site mitigation of impacts to resources, as well as loss of uses (such as recreation). The Draft RMP has already begun this approach in terms of wind energy by limiting projects to areas that have been converted from non-native vegetation and restricting development from occupied and suitable habitat for special status species, wildlife habitat, and	The approved RMP will establish broad-scale decisions to guide future management and site-specific implementation decisions. The approved RMP will include best management practices (BMPs) that will be considered and applied during site-specific project planning. BMPs related to wind energy development would be used on all wind projects per LA-C-MA-1 in Alternative VI (Proposed RMP). In addition to BMPs that reduce impacts to resources, mitigation measures would be considered during

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	cultural resources.	analysis of site-specific implementation decisions.
Energy Development	The Draft RMP (p. 1-10) references the China Mountain Wind Energy Project as “related” but planned to be analyzed separately, although within the scope of the analysis of impacts. In order for the protective measures in the Draft RMP to successfully protect wildlife and for the analysis in the RMP to be sufficient for approving a project, projects comply with the management approach set out in the RMP, including the buffer for wind turbines. Completion of the China Mountain EIS ahead of the Jarbidge RMP, and choosing an alternative that creates industrial wind facilities on China Mountain, will prejudice the outcome of the RMP, as well as the effectiveness of the RMP’s management approach. If the China Mountain project supersedes the RMP process, the BLM faces the distinct possibility of violating 40 CFR 1506.1, which prohibits interim decisions that limit alternatives being considered in a pending EIS process.	The China Mountain Wind Energy Project has been deferred until the Idaho/Southwest Montana Sub-Regional Sage-Grouse Plan Amendment and the Jarbidge RMP have been completed.
Energy Development	The RMP should explicitly close all Areas of Critical Environmental Concern and the Canyonlands Special Recreation Management Area to wind energy development, consistent with the BLM’s Programmatic Wind Energy EIS.	BLM's current policy related to wind energy development (Instruction Memorandum (IM)-2011-061) does not automatically exclude wind energy development from all Areas of Critical Environmental Concern (ACECs). BLM IM-2011-061 changed the previous policy to ensure consideration of the purpose and specific environmental sensitivities for which an area was designated as an ACEC. Land use planning efforts, such as this one, address and analyze ACEC land use restrictions individually, including restrictions to wind energy development. ACECs are not universally excluded from wind energy site testing and monitoring or wind energy development but will be managed consistent with the management prescriptions for the individual ACEC. Alternative VI (Proposed RMP) included Canyonlands as an Extensive Recreation Management Area (ERMA), not as a Special Recreation Management Area. ERMAs are not automatically excluded from wind energy development.
Energy Development	The RMP should commit to updating the potential wind development areas map to reflect restoration of native vegetation.	Maps depicting expected wind development areas were updated in the Final EIS (Maps 99 to105). Expected wind development areas include lands within 2 miles of areas rated fair or better for wind resource potential and areas available for wind energy

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		development (e.g. outside right-of-way avoidance and exclusion areas, outside of Visual Resource Management Classes I and II). The maps were not updated simply to reflect restoration of native vegetation.
Energy Development	The most effective way for BLM to address wind energy development throughout the planning area would be for the RMP to designate high resource, low-conflict zones for wind energy and limit projects to those zones.	Wind resources were classified according to wind power classes, which were based on typical wind speeds 50 meters above the ground. Wind classes were used rather than zoning. Areas available for wind energy development areas are generally outside right-of-way avoidance and exclusion areas, and outside of Visual Resource Management Class I and II areas.
Energy Development	The RMP should prohibit wind turbines within 5.3 miles of active sage-grouse leks, and provide for adjustment of the management action as necessary to accommodate the most recent science.	In Alternative VI (Proposed RMP), commercial wind and solar energy developments would not be permitted inside the sage-grouse management area or utility right-of-way corridors (LA-VI-A-4). Outside the sage-grouse management area, renewable energy site testing, monitoring, and development should avoid special status species habitat unless unavoidable adverse effects can be mitigated (LA-VI-MA-4). Tall structures such as overhead power lines and wind turbines would be located more than 4 miles away from occupied and unknown-status leks unless topographic screening is available (LA-VI-MA-2). Recent science was used in developing management actions.
Energy Development	Solar development is an increasingly important element of our national energy strategy, and cannot be ignored in public lands planning. Solar developments are commercially viable in southern Idaho as evidenced by projects under development in Boise and the Grand View Solar Project, not far outside the planning area. BLM should consider future solar development, including clear and comprehensive guidelines for responsible solar energy development, identifying lands appropriate for solar projects as open for development, and closing all other lands to development. Solar developments are a reasonably foreseeable action in the planning area.	The BLM did consider solar energy development during development of Alternative VI (Proposed RMP) and the Final EIS. Policies and relevant design features from the Record of Decision for the Solar Energy Development Programmatic EIS have been included in Alternative VI. See LA-VI-MA-5. At present, no solar projects are proposed within the planning area.
Energy Development	NEPA requires agencies to consider the cumulative impacts of proposed actions. We want to reiterate the importance of considering other projects underway on public lands and, specifically, the development of wind and geothermal projects on public lands, which are reasonably foreseeable future actions that will have significant impacts on natural and cultural resources.	Chapter 4 of the Final EIS included a cumulative impacts analysis for the *Land Use Authorizations* and *Leasable Minerals* sections. Both sections have been updated to include information on reasonably foreseeable wind and geothermal development within the planning area.

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Energy Development	In order for the BLM to comply with the Federal Land Policy and Management Act of 1976 and NEPA, the agency should, at a minimum, consider and "rigorously explore" alternatives which close much larger areas to mineral leasing, especially in important habitat for sage-grouse and other key species. The RMP should not allow exceptions, waivers, or modifications to lease stipulations for species concerns, and should provide require public review of all exceptions, waivers, and modifications.	Oil and gas development stipulations and constraints are included in the range of alternatives considered in the Final EIS (Chapter 2, *Leasable Minerals*). Leasable mineral development activities would avoid special status species habitat unless adverse effects can be mitigated. Permits would include mitigation when needed to reduce adverse effects on special status species and their habitats (LE-CA-MA-7).
Energy Development	The BLM should define the RMP's relationship to the Solar Programmatic EIS.	The BLM's Programmatic EIS for Solar Energy Development in Six Southwestern States does not include Idaho and is not specifically related to the Jarbidge RMP. However, BLM has recognized solar energy development may be proposed in the planning area in the future. Alternative VI (Proposed RMP) included design features for solar energy development (LA-VI-MA-5). These design features were derived from the Record of Decision for Solar Energy Development in 6 Southwestern States (BLM and DOE, 2012) and are included in Appendix B: Best Management Practices, Design Features, and Operating Procedures of the Final EIS.
Energy Development	The Final EIS should address cumulative impacts of solar developments where they are most likely to occur.	Cumulative impacts for solar developments were addressed in Chapter 4 of the Final EIS in the *Land Use Authorizations* section, even though no solar energy projects have been proposed or developed in the planning area.
Energy Development	BLM should require off-site mitigation for impacts which cannot be mitigated onsite. Off-site mitigation should include: (1) a "no net loss" or a "net gain" requirement for resources and values; (2) requirements for project developers to fund mitigation efforts based on the amount and value of the land impacted from development; (3) a centralized body should be established to oversee the funds and maximize the effectiveness of their use; and (4) off-site mitigation should be required to take place in the same ecoregion as the project site.	The RMP will establish broad-scale decisions to guide future land management actions in the planning area. The requirements suggested are not necessary at the planning-area scale. Individual project proposals that are analyzed in detail will include an analysis of environmental effects along with an analysis of mitigation, whether on-site or off-site. Off-site mitigation would be considered when appropriate.
Energy Development	We recommend BLM further refine the areas available to wind energy development by establishing zones where wind projects could be considered and closing the remainder of the planning area. Zones should be based on high-resource, low conflict areas on already-degraded lands and near existing	The BLM carefully considered potential wind and solar development and identified areas available for energy development in each alternative. In Alternative VI (Proposed RMP), commercial wind and solar energy developments would not be permitted inside the sage-grouse management area or

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	infrastructure. The BLM is already taking a similar approach in the Programmatic EIS for Solar Energy Development and this RMP should designate zones for all types of renewable energy and then limit development to those zones. In addition, within the zones, BLM should prioritize lands most suitable for development.	utility right-of-way corridors (LA-VI-A-4). Outside the sage-grouse management area, renewable site testing, monitoring, and development should avoid special status species habitat unless unavoidable adverse effects can be mitigated (LA-VI-MA-4).
Energy Development	The Draft RMP identifies "Potential Wind Development Areas" in Maps 79-83 and refers to these areas frequently throughout the environmental consequences. These areas might be appropriate wind energy development zones. However, we could not locate in the Draft RMP a definition for these areas in terms of how they were delineated or in the context of potential development outside of the areas.	The wind energy development areas (expected wind energy developments areas in the Final EIS) were determined through a geographic information system (GIS) analysis of National Renewable Energy Laboratory high resolution wind resource data, which depicts the wind resource suitable for utility-scale wind development. Wind resources were classified according to wind power classes, which were based on typical wind speeds 50 meters above the ground. Using GIS, wind resource data were intersected with the areas available for wind energy development outside of right-of-way (ROW) exclusion areas, ROW avoidance areas, and Visual Resource Management Class I and II areas.
Energy Development	Energy development and transmission must be focused in their occurrence, but allowed to strategically cross the lower Jarbidge planning area in order to best serve the nation. Electric power corridors need to travel through the peoples land to the largest extent possible.	Energy development and transmission projects were included in each alternative as an allowable use under *Land Use Authorizations* in both the Draft RMP/EIS and Final EIS. In Alternative VI (Proposed RMP), management action LA-VI-MA-2 states, outside the sage-grouse management area, locate new tall structures (e.g. overhead power and phone lines) more than 4 miles from occupied and unknown- status sage-grouse leks. Also, LA-CA-MA-2 allows for new rights-of-way within previous areas of disturbance where practical. Alternative VI included stipulations for development of energy and transmission (see LA-VI-A-1 through 4 and LA-VI-MA-1 through 6).
Energy Development	Please include the following in the record for the Jarbidge RMP: "Wind Turbines Help Crops by Channelling Beneficial Breezes Over Nearby Plants" from ScienceDaily, Dec. 18, 2010 at www.ScienceDaily.com.	The BLM has reviewed "Wind Turbines Help Crops by Channelling Beneficial Breezes Over Nearby Plants" from www.ScienceDaily.com (DOE/Ames Laboratory, 2010) and determined this information is not relevant to this RMP. This is an online article about preliminary findings of a research program studying how wind turbines on farmlands interact with surrounding crops such as corn and soybeans. This article offers no information relative to shrub lands.

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Energy Development	We encourage a more comprehensive review of wind energy in the RMP to accommodate prudent commercial wind energy development in areas where cost-competitive wind resources exist. Prioritization of commercial wind energy development is consistent with national energy initiatives and supports the economy of south central Idaho and northern Nevada.	The BLM carefully considered potential wind and solar development and identified areas available for energy development in each alternative, which are generally those areas outside of right-of-way exclusion and avoidance areas, and Visual Resource Management Class I and II areas.
Energy Development	The continued exclusion of wind energy development conflicts with the land use sections of the Draft RMP/EIS where wind energy development can be permitted if the impacts are mitigated (Chapter 4.3).	The Final EIS identified areas available for wind energy development, areas available with constraints to protect sensitive resources (right-of-way [ROW] avoidance areas), and areas not available for wind energy development (ROW exclusion areas).
Energy Development	Alternative IV allows for construction of wind energy on or in close vicinity to sage-grouse leks, but excludes development of the proposed commercial wind energy where the nearest lek is outside the preferred 2-mile buffer, which has taken the lek areas into concern.	Areas available for wind energy development have been revised in the Final EIS. In Alternative VI (Proposed RMP), commercial wind and solar energy developments would not be permitted inside the sage-grouse management area or utility right-of-way corridors (LA-VI-A-4). Outside the sage-grouse management area, renewable site testing, monitoring, and development should avoid special status species habitat unless unavoidable adverse effects can be mitigated (LA-VI-MA-4). See also LA-VI-MA-2.
Energy Development	The Jarbidge RMP must provide for the development of renewable energy resources, transportation routes, utility corridors, transmission lines, communication sites, and other uses with consideration for resource objectives (Chapter 2).	The Draft RMP/EIS and Final EIS both include a range of alternatives for land use authorizations, such as development of renewable energy, utility corridors, transmission lines, communications sites, and other uses.
Energy Development	Far too many of the Draft RMP/EIS actions will prohibit the exploration and development of energy sources ranging from wind, geothermal, and oil/gas. The attitude that energy can always be produced somewhere else is shortsighted and is ignorant of the realities facing our communities, State, and nation. The same can also be said for the draft RMP's treatment of mineral exploration and extraction. These are all products society needs and uses. Outsourcing all of our material needs is not sustainable. Rather than excluding large areas from exploration and development the focus should be on appropriate mitigation.	The Draft RMP/EIS analyzed a range of alternatives for energy exploration and development which included constraints for resource use and protection. The alternatives in the Final EIS allow for energy and mineral exploration and development with a range of options.
Energy Development	The BLM Draft RMP/EIS preferred alternative and all other alternatives as written (excluding the No Action Alternative) reject the potential development of sustainable and renewable energy sources. Elko County strongly encourages the BLM to	The BLM carefully considered potential wind and solar development and identified areas available and areas not available for energy development in each alternative. The Final EIS addresses renewable energy throughout the document in

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	re-evaluate this management policy and permit the development of these resources to provide the electricity and energy sources of the future.	the *Land Use Authorizations* section of each chapter. The Chapter 2 *Land Use Authorizations* sections provided a range of allocations for areas available for renewable energy development.
Energy Development	The economic and tax benefits of cost-competitive wind power is extremely important to our area, as well as, important to the ability to meet national energy initiatives.	The economic benefits of wind energy development are portrayed in the *Economic Condition* section in Chapter 4 of the Final EIS based on two hypothetical levels of wind energy development, since projections of planned development are unavailable. This analysis portrays the employment and income effects (direct, indirect and induced) from construction and maintenance in addition to effects to local government revenues specific to the economic impact area.
Energy Development	The Final EIS should clearly permit wind energy development in areas where there is cost-competitive wind resources (Class 4-6). As identified in Map 78, there is only small section in the southeastern part of the planning area where Class 4-6 wind resources exist.	The Final EIS identified areas available or unavailable for wind energy development by alternative in the *Land Use Authorizations* sections (Chapter 2). Due to concerns regarding the impact of wind energy development on sage-grouse, Alternative VI (Proposed RMP) would not allow wind energy development within the sage-grouse management area where the majority of good to outstanding wind resources exist (southeastern portion of the planning area). The range of alternatives included alternatives allow wind energy development in areas rated good to outstanding for wind resources.
Energy Development	The potential wind development areas in the Final EIS should include Class 4-6 resources as depicted in Map 78. According to the BLM's own economic analysis in the Draft RMP/EIS, if the areas with cost competitive wind resources are not included in the Final EIS as potential wind development areas, Twin Falls, Elmore, Owyhee, and Elko Counties are at risk of losing an estimated $232 million in economic output, 2,200 jobs, and $69 million in personal income. This is the equivalent of a 1-2% increase in employment in the Construction Sector over 2-3 years during project construction and a 7% increase in employment in the Utilities Sector over 25 years during project operations. Potential wind development areas in the Final EIS should exclude Class 1-2 resources.	Expected wind energy development areas were updated during the preparation of the Final EIS. The BLM utilized the National Renewable Energy Laboratory high resolution wind resource data in identifying areas available or unavailable for wind energy development. The economic advantages of wind energy development are portrayed in the *Economic Condition* section in Chapter 4 of the Final EIS for two hypothetical levels of wind energy development, since projections of planned development are unavailable. This analysis portrays the employment and income effects (direct, indirect and induced) from construction and maintenance in addition to effects to local government revenues specific to the economic impact area; however, there is no guarantee construction would occur or any benefits would be realized.
Energy Development	The Final EIS should prioritize site-specific impact analysis, as required by NEPA, for land use applications and remove the broad land-use restrictions currently in the Draft RMP/EIS. In	The Final EIS does not prioritize site-specific analysis of land use applications. The NEPA does not require prioritizing land use applications as suggested. The Final EIS does designate

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	particular, the Final EIS should not designate right-of-way (ROW) avoidance areas, ROW exclusion areas, or restrictions on development within 1-5 miles from active sage-grouse leks (LA-I-MA-2; LA-II-MA-2; LA-III-MA-2; LA-IV-MA-2; and LA-V-MA-2).	right-of-way (ROW) avoidance and exclusion areas along with constraints based on resource objectives. Appendix C of BLM's Land Use Planning Handbook H-1601-1 (p. 21) requires identification of ROW avoidance areas, ROW exclusion areas, and identification of existing and potential development areas for renewable energy projects.
Energy Development	The Final EIS should ensure wind energy development is treated equitably with other forms of energy development, particularly oil and gas development. The Draft RMP/EIS establishes a goal for all alternatives to "provide leasable mineral development opportunities where they are compatible with other resources" (LE-CA-G-1). This goal should also apply to wind energy development (wind turbines, meteorological towers, transmission towers, and associated infrastructure) in the Final EIS.	Wind energy development is included in the *Land Use Authorizations* section. In Alternative VI (Proposed RMP) the objective is to "provide for the development of renewable energy resources, transportation routes, utility corridors, transmission lines, communication sites and other uses with consideration for resource objectives" (LA-VI-O-1).
Energy Development	The right-of-way (ROW) avoidance areas and restrictions on development within 1-5 miles from active sage-grouse leks in the Draft RMP/EIS do not apply to leasable minerals. The Final EIS should ensure ROW avoidance areas and the restrictions on development within 1-5 miles from active sage-grouse leks also do not apply to wind energy development (including but not limited to wind turbines, meteorological towers, transmission towers and associated infrastructure).	In Alternative VI (Proposed RMP), the planning area would be open to mineral leasing with moderate constraints within the sage-grouse management area. Despite this, leasable mineral development activities would avoid special status species habitat if the activity would have an adverse effect, unless those adverse effects can be mitigated (LE-CA-MA-7). Alternative VI allows for development of renewable energy resources such as wind energy with consideration for resource objectives (LA-VI-O-1).
Energy Development	The Final EIS should establish land use management actions that recognize and rely on best management practices (BMPs) and comprehensive mitigation of impacts for wind energy development. The Final EIS should retain the BMPs in the Wind Energy Development Programmatic EIS of June 2005, as amended by Instruction Memorandum 2009-043, that are currently part of the Jarbidge RMP due to the 2005 amendment to the 1987 RMP.	The Final EIS included a management action common to all alternatives that provides direction for implementing best management practices from the Record of Decision for the Wind Energy Development Programmatic EIS. See LA-C-MA-1 and Appendix B: Best Management Practices, Design Features, and Operating Procedures.
Energy Development	Impacts from wind energy testing and monitoring are de minimis. The Final EIS should remove the restrictions on wind energy testing and monitoring (LAI-MA-4; LA-II-MA-4; LA-III-MA-4; LA-IV-MA-4; LA-V-MA-4).	The determination of effects of individual projects, such as approvals for wind energy testing and monitoring, are done at the site-specific implementation decision level. The RMP establishes broad-scale decisions to guide future land management actions; management actions related to wind energy testing and monitoring have been retained.

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Energy Development	Chapter 4 of the Draft RMP/EIS neither analyzes nor recognizes the significant environmental benefits of wind energy development in the planning area. Specifically, Chapter 4 does not analyze reductions in regional air pollution associated with wind energy development, the climate change mitigation benefits related to greenhouse gas emissions reductions associated with wind energy development, or how impact mitigation actions associated with wind energy development can provide a net benefit to plants and animals (especially species that are particularly vulnerable to climate change). The Final EIS should analyze and recognize the environmental benefits of wind energy development in the planning area.	The potential environmental benefits suggested in the comment will vary depending on the specific features and circumstances related to individual project proposals. The variability of potential wind projects within the planning area is so large any such analysis would be speculative and ultimately inconclusive. The analysis suggested is more appropriate at the project level where details such as development location and footprint, product distribution, location of consumption and potential offsets of other power generation may be determined. The Final EIS does not attempt to analyze the effects of individual projects.
Energy Development	The alternatives in the Draft RMP/EIS are, for the most part, consistent with the 2005 amendments for wind energy policy. BLM should explain and state its consistency with the 2005 amendments in the Final EIS and Record of Decision. Where elements of alternatives are inconsistent, those elements should be considered presumptively unreasonable if compelling justification is lacking.	The purpose of this RMP effort is to identify overall management and long-term direction for the Jarbidge planning area. Where practical, the BLM has maintained consistency between this RMP effort and the wind energy policy developed as a result of the 2005 Wind Energy Development Programmatic EIS.
Energy Development	Section 3.3.4 should be updated to reflect accurate, up-to-date information. The section should be changed to: “The only authorized use granted to date for renewable energy development is rights-of-ways (ROWs) to Renewable Energy Systems (RES) Americas for construction and operation of 6 meteorological towers for wind resource assessment within the 13,000-acre portion of the Jarbidge Field Office within the proposed China Mountain Wind Project ROW area (approximately 30,000 acres on a combination of the Jarbidge Field Office, Wells Field Office, private land, and the Idaho Department of Lands). In May 2007, RES Americas submitted an application to construct and operate the proposed China Mountain Wind Project. The BLM issued a notice of intent to prepare an EIS associated with RES Americas’ application for a ROW grant for the project in April 2008 and conducted public scoping in April – July 2008 and October – November 2009. The proposed wind development is being analyzed in a separate EIS and would produce up to 400 megawatts.”	Chapter 3 has been updated in the Final EIS; however, the suggested language has not been included. The application filed by Renewable Energy Systems America for the China Mountain Wind Energy Project has been deferred until the Idaho/Southwest Montana Sub-Regional Sage-grouse Plan Amendment and the Jarbidge RMP have been completed.

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Energy Development	BLM must observe principles of multiple use and sustained yield whereby the terms multiple use and sustained yield are defined in the Federal Land Policy and Management Act of 1976 (FLPMA) Section 103 (43 U.S.C. 1702). Multiple use requires BLM to manage the Jarbidge Field Office for its various resource values in a manner that will "best meet the present and future needs of the American people; making the most judicious use of the land for some or all of these resources," taking "into account the long-term needs of future generations for renewable . . . resources." Sustained yield means "achievement and maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources of the public lands consistent with multiple uses." The BLM has before it a golden opportunity to comply with the multiple use and sustained yield requirements of FLPMA by permitting the development of commercial-scale wind energy in the planning area.	Allocations in the Final EIS allow for wind energy development while fulfilling the requirements of the Federal Land Policy and Management Act of 1976 including its multiple use mandate, NEPA, and BLM planning policy. Multiple use also includes resource protection and harmonious and coordinated management of the various resources without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources and not necessarily to the combination of uses giving the greatest economic return or the greatest unit output.
Energy Development	The revisions to the Jarbidge RMP should call upon BLM's systematic, interdisciplinary approach to achieve consideration of the science of energy development and transmission, the science of climate change, and the economic sciences that support the development of commercial wind projects.	Development of the Draft and Final EISs used an interdisciplinary approach to integrate consideration of physical, biological, economic, and other available science.
Energy Development	Areas of Critical Environmental Concern (ACECs) are not universally excluded from wind energy development, but must be and can be managed consistent with the management prescriptions for the individual ACEC. See BLM Wind Energy Program Policies and Best Management Practices (BLM Instruction Memoranda (IM) 2009-043 and IM-2011-061). The relevance and importance of the proposed ACECs discussed in the Draft RMP/EIS can only be determined in comparison to other relevant and important values found in the planning area. Because the BLM prescribes the specific management measures to protect values for which any particular ACEC is designated, the permissible activities may vary dramatically among ACECs. To the extent BLM considers ACECs that would overlay commercial wind energy development in the Jarbidge planning area, those ACECs must be compared to the importance of the wind energy resource as recognized by	Instruction Memorandum 2011-061 requires BLM "ensure consideration of the purpose and specific environmental sensitivities for which the area was designated" and that "all new, revised, or amended land use planning efforts will address and analyze Area of Critical Environmental Concern (ACEC) land use restrictions individually, including restrictions to wind energy development." In this land use planning effort, ACECs are not universally excluded from wind energy site testing and monitoring or wind energy development. ACECs will be managed consistent with the management prescriptions for the individual ACECs. Right-of-way avoidance areas are included in the proposed management prescriptions for some ACECs in some alternatives, consistent with resource values as defined by the relevance and importance criteria.

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	Congress in the Energy Policy Act and in presidential and secretarial policy initiatives. In short, if an ACEC is designated where commercial wind energy development is possible, the ACEC must and can accommodate the development of this important natural resource.	
Energy Development	The present and potential uses of public lands in the Jarbidge Field Office must include presently available data sufficient to support applications for commercial wind development, specifically potential uses in the southeastern corner of the planning area.	The BLM has considered available data in considering allocations for land use authorizations, including potential wind energy development. The BLM considered a reasonable range of alternatives related to renewable energy development. Areas available or unavailable for wind energy development are described in the Chapter 2 *Land Use Authorizations* sections.
Energy Development	Except for the extreme southeastern corner, the rest of the planning area is comprised almost entirely of low wind resource levels except for a smattering of medium resource levels dotted about the area. With few exceptions, there is little commercial wind resource in the State of Idaho. BLM must better explain the relative scarcity of wind values inventoried in the planning area and the sites in the southeastern corner where realization of wind energy values can be accomplished.	The scarcity of high potential wind areas in the planning area is visually apparent on Map 98 “Wind Resource Potential”. Areas within 2 miles of lands rated fair or higher for wind resources were depicted on the expected wind development area maps (Maps 99 to 105). The number of acres within expected development areas by alternative is included in the analyses in Chapter 4.
Energy Development	In weighing long-term versus short-term public benefits, the BLM should clarify commercial-scale development of the wind resource in the planning area is a long-term benefit lasting decades.	Economic impacts of wind development projects were analyzed for short-term time frames (<5 years) as well as for the anticipated life of a project (25 years).
Energy Development	The Draft RMP/EIS has scattered its references to wind energy development throughout the document making it difficult for readers to fully appreciate the extent of the resource and BLM’s integration of the wind resource into the Draft RMP/EIS.	Wind energy development is specifically addressed in each chapter under the *Land Use Authorizations* section.
Energy Development	Since BLM identified energy development as a substantial issue to be addressed and identified for its significance, BLM should reorganize the Draft RMP/EIS so as to highlight wind energy development as compatible with all alternative actions.	As noted, BLM did identify energy development as an issue to be addressed during the land use planning process. Scoping efforts resulted in comments both in favor of and opposed to wind energy projects and utility corridors (Draft RMP/EIS and Final EIS, Chapter 1 p. 1-8). Wind energy development was addressed in the Draft and Final EIS through a range of alternatives to reflect the potential for wind energy development. Wind energy was addressed under the *Land Use Authorizations* sections per direction in the BLM Land Use Planning Handbook H-1601-1 and Instruction Memorandum 2011-061.

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Energy Development	Appendix B: Specific Mandates and Authority should reference Secretary Order #3285A1 (http://elips.doi.gov/app_SO/act_getfiles.cfm?order_number=3285A1) which is the Secretary's order to prioritize renewable development and Secretary Order 3289A1 (http://elips.doi.gov/app_SO/act_getfiles.cfm?order_number=3289A1) which is the Secretary's order addressing the impacts of climate change.	Specific Mandates and Authority (Appendix A in the Final EIS) does include Secretarial Order 3285A1—Renewable Energy Development by the Department of the Interior and Secretarial Order 3289A1—Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources.
Energy Development	Management actions (LA-C-MA-1) common to the No Action Alternative and all action alternatives will implement the programmatic policies and best management practices in the Wind Energy Development Program. Where other management actions conflict with this statement, the conflicting actions should be expressly limited to management actions unrelated to wind energy development.	The Record of Decision for the Wind Energy Development Programmatic EIS states the BLM will not issue right-of-way authorizations for wind energy development on lands on which wind energy development is incompatible with specific resource values. Additional areas of land may be excluded from wind energy development on the basis of findings of resource impacts that cannot be mitigated and/or conflict with existing and planned multiple-use activities or land use plans. Including the suggested statement would be contrary to the BLM's wind energy policy.
Energy Development	The Sagebrush Sea Area of Critical Environmental Concern discussion needs a discussion of general management practices and use that would accommodate wind energy development similar to the accommodations of salable minerals.	The suggested modification was not included in the Final EIS. The Sagebrush Sea Area of Critical Environmental Concern is not included in Alternative VI (Proposed RMP).
Energy Development	The Draft RMP/EIS states the best management practices that apply to operational wind farms do not require adaptive management and do not address "other displacement concerns". The Final EIS should state the BLM can require measures to address adaptive management and displacement concerns on a project-specific basis.	The Jarbidge Field Office will continue to follow the programmatic wind energy program Record of Decision and associated best management practices (BMPs) per LA-C-MA-1 in the Final EIS. The suggested change was not incorporated into the Final EIS because BLM can require site-specific BMPs and other measures on a project-specific basis.
Energy Development	The Draft RMP/EIS states: "Wind energy developments and other land use authorizations are expected to increase access to some areas that presently receive low levels of human use." This is not necessarily accurate. Although wind energy project construction would inherently increase use of an area temporarily, public access to the area generally would decrease during construction for safety reasons. During operations, access to the area can remain in the same general condition as it was prior to construction. The BLM should remove this statement in the Final EIS.	This is stated in the Draft RMP/EIS in No Action Alternative under the *Special Status Wildlife* section in Chapter 4. The increased number and condition of roads for land use authorizations and wind energy development projects is expected to result in an increase of human presence and use in areas are currently inaccessible due to the lack of roads. The statement in the RMP, "Wind energy developments and other land use authorizations are expected to increase access to some areas that presently receive low levels of human use" is appropriate.

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Energy Development	The Draft RMP should have considered the adverse environmental impacts that could result from not considering wind energy development as an alternative. See the BLM Final Programmatic Environmental Impact Statement on Wind Energy Development on BLM-Administered Lands in the Western United States (BLM, 2005), pp. 6-21 to 6-25. As the Draft RMP addresses none of the above issues, it does not achieve the goals of a fully informed NEPA document: a balanced assessment of alternatives. Accordingly, we urge the BLM to consider these benefits in its further evaluation in finalizing the RMP.	The referenced section in the Programmatic Environmental Impact Statement (EIS) provides a comparison of the environmental impacts of wind energy development with impacts associated with other energy sources. This comparison considers the amount of land area disturbed, air emissions, water use, and waste generation for the entire fuel cycle of different energy technologies. The suggested analysis was not included in the Final EIS because commercial wind energy development is considered as one of the many allowable uses included in each alternative. Attempting to analyze energy development projects and any adverse environmental impacts that may be offset by new development in the absence of a project proposal would be speculative at best.
Energy Development	Achieving the environmental benefits of developing the nation's renewable energy resources and preserving resource management goals is usually compatible. In the rare instance in which those goals are not, an agency should take a hard look at how, if possible, to reconcile these goals. Congress adopted NEPA to ensure Federal agencies undertook such a hard look before making decisions. In this case, the Draft RMP did not take the requisite hard look to support a decision to not consider wind energy development in the alternatives. NEPA, of course, does not bar BLM from making such a decision, but it does require the decision to be fully informed before doing so. The Draft RMP's failure to engage in informed decision-making is inconsistent with the precepts of the NEPA process.	The Federal Land Policy and Management Act of 1976 establishes the requirement for BLM to develop land use plans which provide for the use and management of public lands. Management is based on the basis of multiple use and sustained yield. As part of the process of revising the Jarbidge RMP, the BLM is taking a hard look at whether to allow wind energy development in the planning area. The alternatives under consideration in the Final EIS contain a range of areas where renewable energy development is allowed. The analysis in Chapter 4 of the Final EIS informs the decision-maker of the environmental consequences of the various alternatives including trade-offs related to developing renewable energy resources and preventing undue and unnecessary degradation of resources.
Energy Development	We were surprised to learn the three key resources prioritized in the development of the Draft RMP are vegetation, livestock grazing, and Areas of Critical Environmental Concern (September 13, 2010 BLM Status Report to U.S. District Court for the District of Idaho, p. 5). In contrast, wind energy development was not included as one of the priorities. Given congressional and the administration's support for renewable energy, wind energy development should have been considered an equal or greater priority.	Chapter 1 of the Draft RMP/EIS and Chapter 1 of the Final EIS describe the issues addressed in this land use planning effort. The planning issues are topics where there are often mutually exclusive differences in opinion as to how a resource or use should be managed. For the Jarbidge RMP revision effort, energy development is one of the six issues identified along with vegetation, livestock grazing, recreation, Areas of Critical Environmental Concern, and sage-grouse.

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Energy Development	The Draft RMP's suggestion that wind energy development occur within areas with low to marginal wind resources does not make sense from a practical planning perspective. In fact, in one example, a "Potential Wind Development Area" was identified in a location referred to as "Brown's Bench". Under the current Draft RMP approach this would be a suggested area for wind development. The problem with this recommendation is it fails to consider that this area contains Class 1-2 winds which are not viable for commercial wind development, and also includes an area with several active sage-grouse leks (Map 78), which the conservation community generally considers to be a sensitive wildlife resource.	Areas available for wind energy development have been revised in the Final EIS. In Alternative VI (Proposed RMP), commercial wind and solar energy developments would not be permitted inside the sage-grouse management area (LA-VI-A-4). Brown's Bench located in the southeastern portion of the planning area is within the sage-grouse management area.
Energy Development	To address apparent inconsistent management approaches, the Draft RMP should focus on ensuring wind energy development occurs in areas where the wind resource is strongest and where potential impacts can be reasonably mitigated. BLM's own goals of choosing the best resource management option could be seriously undercut by the blanket exclusion of wind development from certain high-capacity wind areas, failing to allow projects even in some areas that, upon careful evaluation, could be found to compatibly support both wind energy and habitat protection.	The Final EIS identifies areas available or unavailable for wind energy development in the Chapter 2 *Land Use Authorizations* sections. Due to concerns regarding the impact of wind energy development on sage-grouse, Alternative VI (Proposed RMP) would not allow wind energy development within the sage-grouse management area where the majority of good to outstanding wind resources exist (southeastern portion of the planning area).
Energy Development	In keeping with Department of Interior's Goals of more renewable energy development on public lands, the BLM should prioritize cost-effective commercial wind energy development in Class 4-7 wind resources consistent with Secretarial Order No. 3285 and Secretarial Order No. 3289.	BLM follows the BLM Land Use Planning Handbook direction (H-1601-1) in defining and addressing wind energy in the *Land Use Authorizations* sections. The direction from the handbook is to identify existing and potential development areas for renewable energy projects. Both the Draft RMP/EIS and the Final EIS contain a range of alternatives that vary from allowing to disallowing wind development. In Alternative VI (Proposed RMP) wind energy development was identified based on those areas outside of the sage-grouse management area.
Energy Development	The BLM should prioritize site-specific analysis rather than broad land management decisions that impact huge swaths of the Jarbidge Field Office.	The purpose of an RMP is to establish broad-scale land management decisions to guide future site-specific implementation level decisions. The Final EIS contains a range of alternatives and considers a variety of allocations for wind energy development.
Energy Development	Ensure wind energy development is treated equitably compared to other types of development.	The Proposed RMP is structured according to the BLM Land Use Planning Handbook where resources include soil and water, vegetation, fish and wildlife, wild horses and burros, cultural

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		resources, etc.; and resource uses include livestock grazing, recreation, lands and realty, etc. Existing and potential development areas for renewable energy projects falls under the Lands and Realty section of Resource Uses in the BLM Land Use Planning Handbook. Wind energy development was treated equitably with other types of development.
Energy Development	Emphasize the land use management actions requiring mitigation of impacts.	The purpose of an RMP is to establish broad land management decisions to guide future site-specific implementation level decisions. Emphasizing site-specific mitigation at the land use planning level is not practical or reasonable. Specific mitigation measures will be identified through site-specific environmental analysis at a project level.
Energy Development	The BLM should adopt LA-II-A-5 versus LA-IV-A-5. Wind energy needs to be permitted wherever the resource exists, particularly the areas rated good or better, so long as the impacts can be mitigated.	Both the Draft RMP/EIS and the Final EIS identified lands available for utility-scale wind development as those within 2 miles of areas rated fair or higher for wind resources. For the analysis in Chapter 4, the BLM assumed there would be more interest in developing wind energy on or within 2 miles of lands rated fair or higher than on other lands in the planning area. However, in Alternative VI (Proposed RMP), wind energy development would not be permitted inside the sage-grouse management area. Outside the sage-grouse management area, renewable energy site testing, monitoring, and development should avoid special status species habitat unless unavoidable adverse effects can be mitigated.
Energy Development	A more complete map showing all the layers of proposed management actions needs to be created. Map M-83 is confusing, several areas identified as available for wind energy development are right on top of sage-grouse leks. The maps, tables, and supporting data all need to be checked for accuracy and then reconfigured in a more accurate representation of what the results of these management action will be.	The maps, tables and supporting data have been updated in the Final EIS.
Energy Development	The BLM maps and data do not fully illustrate on how much acreage LA-IV-MA-2 would restrict development. Maps and data have failed to take into account the leks from Bud Lewis Hill to the Antelope Pocket, if the 5-mile management action is used. In addition leks can move and over time new leks can be created, field work continues to find new leks. How does BLM propose to address leks moving or the discovery of new leks?	The BLM carefully considered potential renewable energy development and identified areas available for energy development. Maps and data have been updated in the Final EIS. In Alternative VI (Proposed RMP), commercial wind and solar energy developments would not be permitted inside the sage-grouse management area (LA-VI-A-4). The identification of the sage-grouse management area considers sage-grouse

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	All of the maps and data associated with wind energy and sage-grouse leks need to be reviewed further for accuracy. The intention of the management actions when applied to the maps are not readily apparent and often appear inaccurate.	habitat needs, not just lek locations.
Energy Development	The Jarbidge RMP should exclude unsupportable bias against wind energy (example: sage-grouse buffer analysis must be site specific and scientific, rather than broad management opinions about what is best for the Jarbidge planning area). The Draft RMP/EIS already required best management practices for wind energy development in the planning area.	The Draft RMP/EIS and Final EIS identified areas available or unavailable for wind energy development by alternative in the Chapter 2 *Land Use Authorizations* sections. BLM recognizes the construction and operation of a wind energy project would require road construction, soil disturbance, vegetation disturbance, and consumptive and non-consumptive uses of water which would result in impacts to resources (soils, vegetation, wildlife, fish, riparian and wetland areas, water quality or quantity). Best management practices, design features, and operating procedures are included in Appendix B to reduce resource impacts and the potential for unnecessary and undue degradation of public lands.
Energy Development	In an effort to ensure energy resource development projects have the greatest opportunity for success on Federal land, we encourage BLM to adopt a final alternative that incorporates these principles as well as a reasonable mitigation framework that is transparent, inclusive and responsive to the needs of the State. Moreover, the State believes that the final RMP needs to be expanded to address other forms of energy resources (e.g., solar, geothermal, oil gas, nuclear and other mineral development).	The Final EIS analyzed a range of alternatives for energy development, resource use, and resource protection.
Energy Development	Maps 21 and 78 in the Draft RMP/EIS show most lands with good or excellent wind potential do not contain key sage-grouse habitat.	The Final EIS updated maps to include sage-grouse habitat (Map 25).
Energy Development	BLM must include full analysis of potential night lighting, noise and other issues associated with any renewable or other energy development, military or other right-of-way here. Night lighting on tall structures may result in death of migratory birds, interfere with birds like sage-grouse that move around during dim light conditions, and impair recreational uses. BLM must develop clear protocols for analyzing all of these disturbances and their effects.	The analysis suggested is more appropriate at the implementation level, when a project is actually proposed and the potential impacts can be analyzed. At the RMP level, an analysis would be speculative because it is not possible to know when, where, or how much light and noise might occur. The Final EIS did consider these effects at the broad-scale and included management actions (See AAV-CA-MA-6 and 7) to manage light and noise impacts.
Energy Development	Many of the actions in the RMP are linked or related to other energy actions. For example, China Mountain Wind is linked to the Southwest Intertie Project. There are inter-relationships -	Cumulative impacts are assessed for each of the resources for all alternatives in Chapter 4. The China Mountain Wind Energy Project is not linked to the Southwest Intertie Project. The two

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	and cumulative effects that are not examined.	projects are independent of one another and either project could feasibly be constructed without the other.
Energy Development	BLM must provide much broader area mapping of wind "potential". This is necessary to understand the relative importance of the Jarbidge planning area for any wind development.	Potential wind energy resources are mapped for the planning area in the Final EIS (Map 98). Wind developments on private lands are identified in the cumulative impacts analyses for each resource.
Energy Development	All alternatives must be examined across a broader landscape context so that the full cumulative effects of wind energy development can be understood.	Cumulative impacts analyses from wind energy development were included in the Chapter 4 sections for the various resources and resource uses.
Energy Development	Why in Map 79 does BLM then show under Alternative I that the China Mountain area would be available for wind?	Wind energy would be allowed in Alternative I with major constraints. Areas available to energy development have been further refined in the Final EIS. In Alternative VI (Proposed RMP), wind energy development would not be permitted inside the sage-grouse management area or within utility right-of-way corridors.
Energy Development	Potential wind development areas cannot be designated within restricted airspace. R-3202 and R-3204. The Jarbidge Military Operating Area extends from 100 feet above ground level and cannot accommodate wind energy development.	In the Final EIS, the US Air Force (USAF) Military Operating Area is an avoidance area for each alternative. Alternatives I-VI all state that new rights-of-way must be consistent with USAF airspace restrictions.
Energy Development	In Chapter 1, it is not clear why the BLM did not analyze energy development as alternative worthy of detailed stand-alone analysis, based on the goals of the Department of the Interior .	Chapter 1 identified energy development as one of the primary issues to be addressed. The purpose of the RMP is to establish broad-scale direction to guide future management throughout the entire planning area. Devoting one alternative entirely to energy development would be impractical because it would ignore resources and other land uses.
Energy Development	There is also a contradiction in Chapter 2 (1.3.2.3) that the China Mountain Wind Project could be considered by the BLM "under any of the alternatives analyzed in this document." However, it seems that commercial scale wind energy really could only be approved under the No Action Alternative and Alternative II.	Restrictions on commercial wind development (sage-grouse management area, wilderness, Visual Resource Management Class I and II areas, etc.) vary in location for each alternative. The location and size of the China Mountain Wind Project, as proposed in 2007, would require an RMP Amendment for Alternatives I, III, IV, V and VI. The sentence in Chapter 1 was removed in the Final EIS.
Energy Development	All Draft RMP/EIS alternatives should accommodate commercial wind energy development in the only location where a cost-competitive wind resource exists (Maps 78-83). Careful planning, mitigation, and best management practices are already required-for wind energy development in the Jarbidge planning area pursuant to BLM's amendments of the Jarbidge RMP in 2005. This should be thoroughly discussed in	Commercial wind energy development was included in each alternative as an allowable use in both the Draft RMP/EIS and Final EIS. Each alternative varies in the percent of land available for utility-scale development.

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	a single section of the RMP so the public better understands BLM's support for wind energy.	
Energy Development	Potential energy developers want to develop commercial wind energy in the area where the wind resource is the greatest, while being allowed to mitigate impacts. These must be given within the final RMP.	Commercial wind energy development was included in each alternative as an allowable use in both the Draft RMP/EIS and Final EIS. Each alternative varies in the percent of land available for commercial-scale development. The BLM assumed that there will be more interest in developing wind energy on or within 2 miles of lands rated fair or higher (Class 3-7) than on other lands in the planning area.
Energy Development	Please make sure maximization of wind energy resources is a priority in the final RMP.	Commercial wind energy development was included in each alternative as an allowable use in both the Draft RMP/EIS and Final EIS. However, the focus of the Alternative VI (Proposed RMP) is to actively restore the resiliency of ecosystem structure and function while balancing uses within the planning areas, not to maximize wind energy resources.
Energy Development	Wind power is one of the fastest growing forms of new electricity generation in the U.S. and is an environmentally-friendly energy source. The Department of the Interior's (DOI's) Sustainability Plan (DOI, 2010) also clearly states that the "strategies for meeting the FY2020 greenhouse gas reduction goals of the DOI include: implementing on-site renewable energy generation projects". Based on the aforementioned strategy, the Final EIS should permit environmentally-sustainable commercial wind energy development.	The referenced sustainability plan details the Department of the Interior's (DOI's) efforts to install renewable energy systems at wildlife refuges, parks, and science centers around the nation; increase the fuel efficiency of its vehicle fleet to exceed emission reduction goals; and increase use of alternative fuels. Additionally, the Department has initiated a "Green DOI Challenge" designed to solicit ideas from employees on how to green the Department. Some level of commercial wind energy development is allowed in each alternative considered in the Final EIS.
Energy Development	Commercial wind energy analysis in the Draft RMP was not performed thoroughly and contains inaccuracies. The BLM should analyze and recognize the greenhouse gas emissions reduction benefits of commercial wind energy development and further analyze the ramifications of climate change, which are acknowledged, but then dismissed, in the Draft RMP.	No analysis was conducted for the potential for greenhouse gas (GHG) emission reduction in association with commercial wind energy development. This is because simply allowing or disallowing commercial wind energy development within the planning area in itself does not reduce GHG emissions. Assuming that commercial wind energy development would displace fossil fuel power plants elsewhere and thereby reduce GHG emissions is speculative and is beyond the scope of this planning effort.
Energy Development	Where wind energy may have an impact, each alternative in the Final EIS should recognize avoidance, minimization, and mitigation of those impacts. Mitigation actions can provide a net benefit to vegetation, the working landscape, and species	Appendix B: Best Management Practices, Design Features, and Operating Procedures in the Final EIS included a list of design features and best management practices (BMPs) that will be considered and applied, as appropriate, when a wind energy

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	such as sage-grouse. It is clear that wind energy provides a net benefit to the environment and most certainly needs to be emphasized as part of all reasonable alternatives in the Final EIS.	development project (or other project) is proposed. Design features and BMPs help to reduce, avoid, or minimize environmental impacts.
Energy Development	I am concerned specifically about the RMP and how it does not allow renewable energy. Wind energy is booming right now and we need to do what we can to allow companies to develop our high winds. The RMP should allow the development of renewable energy, especially the development of wind energy.	All alternatives in both the Draft RMP/EIS and Final EIS allow for renewable energy. Part of the Alternative VI (Proposed RMP) goal for land use authorizations is to provide for the development of renewable energy resources (see the *Land Use Authorizations* sections in Chapter 2). Commercial wind energy development was included in each alternative as an allowable use. However, each alternative varies in the percent of land available for utility-scale development.
Energy development	Renewable energy is important and development should be allowed even if it is going to harm sensitive or endangered species.	All alternatives in both the Draft RMP/EIS and Final EIS allow for renewable energy development.
Energy Development	I request that you include full access for responsible exploration and production of hydrocarbons. Hydrocarbons are not a bogyman that must be stopped everywhere. There are thousands of examples of responsible hydrocarbon exploration and production and that must be allowed.	The alternatives in the Final EIS all include oil and gas development opportunities where development is compatible with other resources (LE-VI-O-1).
Energy Development	The Jarbidge RMP should limit off-road vehicles and wind turbines in the areas critical for endangered species.	Under Alternative VI (Proposed RMP), off-road vehicles would be limited to designated routes in the majority of the planning area, and wind energy development would not be permitted inside the sage-grouse management area. Outside the sage-grouse management area, wind energy development should avoid special status species habitat unless unavoidable adverse effects can be mitigated.
Energy Development	Any selected alternative identifying land available for wind development should include all lands identified as having fair or higher wind potential.	The Final EIS identifies areas that are available or unavailable for wind energy development in the Chapter 2 *Land Use Authorizations* sections. Lands rated with fair or higher wind resources are depicted on expected wind development area maps (Maps 99 to 105).
Energy Development	One additional area that needs further elaboration within the RMP is wind energy development and its economic advantages (Sections 2.6, 3.5.1, 3.5.2, 4.6.2 pp. 4-776-779, 4-789-790). The collective benefits of a commercial wind energy project, in the areas where the wind resources are the greatest (see Map 78), stand to bring substantial rewards to Twin Falls County and its surrounding communities.	The areas open to wind energy development have been updated in the Final EIS. The economic advantages of wind energy development were portrayed in the *Economic Conditions* section in Chapter 4 of the Final EIS for two hypothetical levels of wind energy development, since projections of planned development are unavailable. This analysis portrays the employment and income effects (direct, indirect and induced) from construction

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		and maintenance in addition to effects to local government revenues specific to the economic impact area. The hypothetical levels examined include a 1.5 megawatt (MW) project and a 2.0 MW project and can be used to examine economic effects of future development on BLM in the impact area (if structural shifts in the economy have not occurred since the time of this analysis).
Energy Development	Maps 79-83 identify potential wind development areas in locations of the planning area with Class 1-2 (poor or marginal) wind resources as described in Map 78. Class 1-2 wind resources are not viable for wind energy development. Maps 79-83 should be corrected to identify potential wind development areas as locations within the planning area with Class 3-6 wind resources as described in Map 78.	Both the Draft RMP/EIS and the Final EIS identified lands potentially available for utility-scale wind development as those within 2 miles of areas rated fair or higher for wind resources. For the analysis in Chapter 4, the BLM assumed there would be more interest in developing wind energy on or within 2 miles of lands rated fair or higher than on other lands in the planning area. However, in Alternative VI (Proposed RMP), wind energy development would not be permitted inside the sage-grouse management area. Outside the sage-grouse management area, wind energy development should avoid special status species habitat unless unavoidable adverse effects can be mitigated.
Energy Development	The RMP does not provide for the development of wind energy. Several management actions in the Draft RMP/EIS could be misunderstood to exclude commercial wind energy. The Federal government has mandated new forms of renewable and sustainable energy must be developed. The final RMP must thoroughly consider the value of commercial wind and other renewable energy development on our public lands, specifically within the Jarbidge Field Office.	The BLM carefully considered potential wind and solar development and identified areas available and areas not available for energy development in each alternative. The Final EIS addresses renewable energy throughout the document in the *Land Use Authorizations* section of each chapter. The Chapter 2 *Land Use Authorizations* sections provides a range of allocations for areas available for renewable energy development.
Energy Development	The Jarbidge planning area has one of the best commercial wind energy resources in the State of Idaho (Map 78). Why was wind energy not a key resource considered or given equal treatment with other resources in the Draft RMP/EIS? The Draft RMP/EIS does not identify renewable energy as a resource in Sections 2.3 and 3.2 or renewable energy development as a stand-alone resource use in Sections 2.4 and 3.3. The omission of wind as a resource or wind energy as a stand-alone resource use is inconsistent with the goals of the President, Congress and Secretary Salazar to prioritize development of renewable energy resources on Federal land and the Federal Land Policy and Management Act of 1976's (FLPMA) identification of "rights-of-way" as a "principal or	Chapter 1 of the Draft RMP/EIS and Chapter 1 of the Final EIS describe the issues addressed in this land use planning effort. The planning issues are topics where there are often mutually exclusive differences in opinion as to how a resource or use should be managed. For the Jarbidge RMP revision effort, energy development is one of the six issues identified along with vegetation, livestock grazing, recreation, Areas of Critical Environmental Concern, and sage-grouse. Wind energy development was given consideration as a key resource use. The areas available to wind energy development have been updated in the Final EIS. Commercial wind energy development was included in each alternative as an allowable use in both the

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	major use" of public lands (FLPMA Sec. 103(1)). All but one of the five Alternatives (I, III, IV, and V) exclude wind energy development in the limited locations where a commercial-scale wind resource exists.	Draft RMP/EIS and Final EIS but was not considered a "key resource". The alternatives are structured according to the BLM Land Use Planning Handbook where resources include soil, water, vegetation, fish and wildlife, wild horses and burros, cultural resources, etc.; and resource uses include livestock grazing, recreation, lands and realty, etc. Existing and potential development areas for renewable energy projects falls under the Lands and Realty section of Resource Uses in the BLM Land Use Planning Handbook. Wind energy development is authorized under a Federal Land Policy and Management Act of 1976 Title V right-of-way and can be found in the Final EIS in the *Land Use Authorizations* sections.
Energy Development	I encourage you to consider mixing and matching the five alternatives in the Draft RMP to ensure wind energy development is permitted in the Jarbidge planning area where the wind resource is at its greatest.	Commercial wind energy development was included as an allowable use in every alternative in both the Draft RMP/EIS and Final EIS. Each alternative varies in the percent of land available for utility-scale development. The BLM assumed that there will be more interest in developing wind energy on or within 2 miles of lands rated fair or higher (Class 3-7) than on other lands in the planning area.
Energy Development	Renewable energy is important, but development should not be allowed if it is going to harm sensitive or endangered species or fragment habitat.	The Federal Land Policy and Management Act of 1976 directs the BLM, in the development and revision of land use plans, to use and observe the principles of multiple use and sustained yield, including both renewable and nonrenewable resources. Management actions are included in each of the alternatives to aid in achieving multiple use and sustained yield objectives. Some specific management actions limit or restrict development.
Environmental Justice	We request that the proposed action comply with US Forest Service Departmental Regulation 5600-2 (http://www.usda.gov/da/5600-2.pdf) including the definition of environmental justice provided therein. Environmental justice means that, to the greatest extent practicable and permitted by law, all populations are provided the opportunity to comment before decisions are rendered on, are allowed to share in the benefits of, are not excluded from, and are not affected in a disproportionately high and adverse manner by, government programs and activities affecting human health or the environment.	The BLM does not follow US Forest Service departmental regulations. However, the BLM has an independent obligation to address environmental justice. The Secretary of the Interior adopted a Strategic Plan for Environmental Justice in 1995, which the BLM has used as guidance for addressing environmental justice in its NEPA documents. The intention of the guidance is to achieve the goals of Executive Order 12898, which the Secretary has described as: "Environmental justice is achieved when everyone enjoys the same degree of protection from environmental hazards and has equal access to the decision-making process." Environmental Justice Strategic Plan 2012-2017 (November 2011 Revised Draft), p. 7.

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		The BLM's public involvement process included the minority and under-represented populations described in the Executive Order, and Alternative VI (Proposed RMP) ensures that no racial, ethnic, cultural or socio-economic group disproportionately bears the negative environmental consequences of the BLM's land allocation decisions.
Fish	The overall objective and management strategy for fish in the Final EIS should be to maintain or improve significant fish-bearing habitat. Insignificant streams should not be a focus for management. Site-specific management guidelines should replace the use of the Aquatic and Riparian Management Strategy.	Alternative VI (Proposed RMP) included goals, objectives, and management actions for fish in the Chapter 2 *Fish* section. These goals, objectives, and management actions apply to native non-game fish (sculpin, minnows, dace, and shiners). The goals, objectives and management actions for Endangered Species Act-listed and BLM sensitive aquatic species are included in the Final EIS in Chapter 2, *Special Status Species* section, under Management for Special Status Species in Riparian Areas, Wetlands, and Streams. All of the streams in the planning area were considered important for special status fish, native non-game fish, riparian values, and water quality. Appendix D: Aquatic and Riparian Management Strategy used site-specific data to define current riparian and instream conditions. Management for activities affecting Riparian Conservation Areas that were derived from the Inland Native Fish Strategy (USDA, 1995) is included in Table D-8. Where needed, site-specific management guidelines would be developed at the project level.
Fish	In the Executive Summary on ES-31, where it discusses the Salmon Falls Creek Area of Critical Environmental Concern (ACEC), it mentions this portion of Salmon Falls Creek has redband trout, as it does in other areas of the plan. Map 18 shows redband trout on Salmon Falls Creek below Balanced Rock. Correct the map to show redband trout in the ACEC. The Idaho Department of Fish and Game and others have done previous fish surveys. These surveys show no redband trout below Balanced Rock.	The Final EIS corrected information on the distribution of redband trout and bull trout. The BLM contacted Idaho Department of Fish and Game and confirmed redband trout are present in Salmon Falls Creek downstream of Balanced Rock Crossing. Redband trout presence and abundance varies seasonally. The Final EIS displayed the updated information on Map 24, "Bull Trout and Redband Trout Distribution".
Fish	We have concerns with the Aquatic and Riparian Management Strategy that appears in Appendix D of the Draft RMP/EIS. A final Environmental Impact Statement (EIS) and Record of Decision have never legitimized this strategy. It is not appropriate that the Draft RMP/EIS incorporated this language.	The BLM created the Aquatic and Riparian Management Strategy (ARMS; Appendix D) using current BLM guidance as described in the Introduction section of the ARMS. This Final Environmental Impact Statement is the NEPA analysis of the ARMS and the forthcoming Record of Decision will be the decision document.

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Fish	The Idaho Department of Fish and Game (IDFG, 2005) species account for leopard dace indicates that it is ranked by Nature Serve as G4 (Apparently secure: uncommon but not rare; some cause for long–term concern due to declines or other factors). IDFG (2005) species account reports that the sole reason for inclusion on the Species of Greatest Conservation Need (SGCN) is "Lack of essential information pertaining to status." IDFG (2005) Appendix F/Ray-finned fishes/Leopard Dace, can be found at: http://fishandgame.idaho.gov/cms/tech/CDC/cwcs_appf/Leopard%20Dace.pdf. The Draft RMP/EIS should accurately report the reason that leopard dace is included on the SGCN. The Draft RMP/EIS does not do so.	The Final EIS included additional information on the inclusion of leopard dace on the Idaho Department of Fish and Game (IDFG) (2005) list of Species of Greatest Conservation Need (SGCN) in Chapter 3, *Fish* section, Game and Non-Game Fish Species. The NatureServe ranking of G4 categorizes this species as apparently secure and identified a lack of essential information as a basis for the G4 classification. Leopard dace were included as a SGCN because changes in taxonomy resulted in a lack of essential information pertaining to the status of the species (IDFG, 2005). The lack of essential information included abundance and population trend (IDFG, 2005).
Fish	The over-arching goal for fisheries is nearly identical in all alternatives. Reference is made to the thick "Aquatic and Riparian Management Strategy" document in Appendix D. This appendix fails to provide essential information on the causes of loss of flows, fish, or habitat components, and specified actions taken to recover flows, fish, water quality, etc. It does not provide required actions to make positive change happen.	The Final EIS revised the Chapter 2 *Fish* sections to clarify that the goals, objectives, and management actions for fish apply to native non-game fish (sculpin, minnows, dace, and shiners). This management direction focused on the 72 miles of stream where these fish do not coexist with special status fish such as redband trout and bull trout. The goals, objectives and management actions for special status fish were included in the Final EIS, Chapter 2 *Special Status Species* section, under Management for Special Status Species in Riparian Areas, Wetland, and Streams. The Aquatic and Riparian Management Strategy summarized the most current information available for riparian and instream condition for the planning area. A project level analysis would consider the cause(s) for impaired conditions or specific actions needed to improve riparian, in-stream and/or water quality condition.
Fish	Riparian Conservation Areas have four categories with bias towards less protection if the waters currently do not have fish. Thus, having no fish at present places the stream in a lower category.	The Riparian Conservation Area (RCA) widths in the Aquatic and Riparian Management Strategy (Appendix D) are based on the widths identified in the Inland Native Fish Strategy (INFISH) which were adopted by the BLM in 1995 (Instructional Memorandum Number ID-96-010). The RCA categories in INFISH have greater widths for fish-bearing (Category 1) and non fish-bearing (Category 2) streams than for ponds, lakes, reservoirs and wetlands greater than one acre (Category 3) or seasonally flowing or intermittent streams, wetlands less than 1 acre, or landslide-prone areas (Category 4).

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Fish	Management for Riparian Conservation Areas (RCAs) in the Draft RMP/EIS in Appendix D (Table D-7, pp. A-64 to A-70) is supposed to show what actions will occur. This contains many statements, but no measurable standards for livestock use. We note that much of the RCA and riparian system way of viewing streams comes from the Inland Native Fish Strategy, and the Interior Columbia Basin Ecosystem Management Plan and much of the background science was conducted on much larger more interconnected waters than the desert systems of the planning area. Logging and logging roads were often primary threats in those systems and studies and not grazing as in the planning area. The BLM must provide more specific guidance to limit chronic and cumulative grazing degradation.	The guidance in Appendix D: Aquatic and Riparian Management Strategy (Table D-8) comes from the Inland Native Fish Strategy (USDA, 1995) and applies to actions that have the potential to affect the condition of Riparian Conservation Areas (RCAs). Alternative VI (Proposed RMP) provided management for livestock grazing in Chapter 2 under the *Livestock Grazing*, *Water Resources*, *Riparian Areas and Wetlands*, *Fish*, *Special Status Species* sections. Site-specific analysis would develop measurable standards for actions that may affect RCAs.
Fish	The inadequate Fisheries Objectives of the RMP under all alternatives rely on proper functioning condition (PFC) ratings. Yet the Riparian Conservation Area (RCA) Table states in regards to PFC (Appendix D, Table D-7, p. A-65 "Fish and Wildlife Restoration") under FW-I that "Management activities and land uses in RCAs shall be implemented to attain proper functioning condition as an initial step to move habitat conditions of streams, riparian areas and wetlands toward achieving aquatic and riparian management objectives". The BLM proposes 20 years for its initial step.	The Final EIS revised the Chapter 2 *Fish* sections to clarify that the goals, objectives, and management actions for fish apply to native non-game fish (sculpin, minnows, dace, and shiners). Based on public comments, the objectives for streams containing native non-game fish were made consistent with the objectives for improving riparian condition (FI-VI-O-1). In the Final EIS, RI-CA-MA-8 (Chapter 2, *Riparian Areas and Wetlands* section), stated “Modify existing management activities and authorized uses in Riparian Conservation Areas to attain proper functioning condition and ensure that habitat conditions of streams, riparian areas, and wetlands are moving toward achieving the goals and objectives for riparian areas and wetlands” but it did not state BLM proposes 20 years to achieve this initial step. The Final EIS acknowledged stream condition needs to improve beyond a rating of proper functioning condition to improve water quality to levels which meet State water quality standards and designated beneficial uses. This is stated in the Final EIS, Chapter 4, Methods and Assumptions in the *Riparian Areas and Wetlands* section; Chapter 4, Indicators in the *Water Resources* section. It is also displayed the Final EIS in Appendix D: Aquatic and Riparian Management Strategy (Figure D-1) and described in the text below the figure.
Fish	The fish objectives in Alternative IV are to maintain or improve streams referring to "70% of the miles of fish-bearing streams and their perennial tributaries are properly functioning" (Draft	The Final EIS revised the Chapter 2 *Fish* sections to clarify that the goals, objectives, and management actions for fish apply to native non-game fish (sculpin, minnows, dace, and shiners). This

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	RMP/EIS, p. 2-62). Clarify if this means that some stream conditions could actually decline.	management direction focused on the 72 miles of stream where these fish do not coexist with special status fish such as redband trout and bull trout. The goals, objectives and management actions for special status fish were included in the Final EIS, Chapter 2 *Special Status Species* section, under Management for Special Status Species in Riparian Areas, Wetland, and Streams. These objectives in Alternative IV would result in maintaining fish-bearing streams at proper functioning condition (PFC), improving to achieve a rating of PFC, or improving to move towards PFC. Based on public comments, the Alternative VI (Proposed RMP) objectives in streams containing native non-game fish were made consistent with the objectives for improving riparian condition in the Final EIS.
Fish	In the planning area, analyze water diversions and impacts of private land practices and degradation. Examine the degree and severity of threats to water flows, water quality, aquatic biota, impairment of recreational uses, and other information.	In the Final EIS, the Chapter 4 analysis in the *Water Resources, Riparian Areas and Wetlands,* and *Special Status Fish and Aquatic Invertebrates* sections all identify cumulative impacts to the BLM-managed riparian areas from water diversions and other private land practices. The comment did not provide the BLM with enough information to address the portion of the comment related to degradation and other information.
Fish	Objective FI-IV-O-1 (Chapter 2, *Fish* (Section 2.3.6.1)) actually allows many watershed conditions to worsen - especially the tributaries - many of which become intermittent in summer. The Draft RMP/EIS used this same kind of uncertain and unclear wording repeatedly in relation to the other public lands values.	The Final EIS revised the Chapter 2 *Fish* sections to clarify that the goals, objectives, and management actions for fish apply to native non-game fish (sculpin, minnows, dace, and shiners). This management direction focused on the 72 miles of stream where these fish do not coexist with special status fish such as redband trout and bull trout. The goals, objectives and management actions for special status fish were included in the Final EIS, Chapter 2 *Special Status Species* section, under Management for Special Status Species in Riparian Areas, Wetland, and Streams. These objectives in Alternative IV would result in maintaining fish-bearing streams at proper functioning condition (PFC), improving to achieve a rating of PFC, or improving to move towards PFC. Except in areas with groundwater influence, most of the streams in the planning area experience reduced stream flows during the summer months, including those which are not accessible to

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		livestock grazing. The Final EIS clarified the Chapter 3 *Riparian Areas and Wetlands* section and the Glossary to include definitions for perennial, intermittent and ephemeral streams to characterize these riparian systems.
Fish	Various parts of the RMP, even covering the same topics, appear to be inconsistent and conflicting. In Appendix D, Table D-1 provides bull trout habitat indicators. Table D-3 provides "Indicators in a degraded condition". This table shows little degradation. Yet other tables, using minimal proper functioning condition as a goal, show problems. For example: Appendix D, (Table D-5, p. A-58), identifies the East Fork Jarbidge River segment a high priority for improvement. Yet Table D-3 shows fewer problems. It is impossible to understand what the situation is, and how positive change will occur.	The Final EIS, Appendix D: Aquatic and Riparian Management Strategy, Table D-1 used “A Framework to Assist in Making Endangered Species Act Determinations of Effect for Individual or Grouped Actions at the Bull Trout Subpopulation Watershed Scale (FWS, 1998). The table identified population and habitat characteristics (i.e. Indicators) that support the biological requirements of bull trout and compared those indicators to thresholds that characterize the habitat as functioning properly, at risk, or at an unacceptable risk. Appendix D, Table D-3 identified the BLM-managed streams that have an indicator in a degraded condition and what the degraded indicator is (e g., spawning substrate, water temperature). The table identified 10 restoration reaches for streams containing bull trout, critical habitat for bull trout, and redband trout which had at least one degraded indicator. The table also identified 54 restoration reaches for redband trout streams which had at least one degraded indicator. In the Final EIS, Appendix D, Table D-5 displayed the Riparian Proper Functioning Condition data and Restoration Priorities. The identification of Restoration reaches varied by the location of the reach within the watershed. For example: East Fork Jarbidge River Reaches 3 and 4 near the confluence of Dave Creek are protected by steep canyon walls and in a higher functional condition than the East Fork Jarbidge River Reaches 1 and 2 which are near or below the town of Murphy Hot Springs. These reaches are influenced by private land activities and the road adjacent to the East Fork Jarbidge River and have a reduced functional condition. Therefore, different reaches of the same river or stream can have different functional condition ratings or priorities for restoration. The Final EIS included maps with the reach breaks for the habitat condition rated streams in Appendix D, Maps D-1 through

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		Map D-9. The proper functioning condition rated streams are displayed on Map 16 “Proper Functioning Condition Ratings”.
Fish	Since the BLM proposes significant use of grazing disturbance and herbicide "tools", there must be a detailed analysis of potential effects to aquatic species, and non-target upland species as well. This includes cumulative effects.	The Final EIS included an analysis of direct, indirect and cumulative impacts at the land use planning level for livestock grazing and the use of herbicides. The Chapter 4 sections for *Water Resources, Riparian Areas and Wetland,* and *Special Status Fish and Aquatic Invertebrates* included this information under the subheadings for Impacts from Noxious Weeds and Invasive Plants Actions and Impacts from Livestock Grazing Actions. The impacts from noxious weeds and invasive plant treatments and livestock grazing are included in the Chapter 4 section for *Special Status Fish and Aquatic Invertebrates.* A site-specific analysis of direct, indirect and cumulative impacts would also occur at the project level.
Fish	Where and when has the Animal Plant Health Inspection Service sprayed grasshoppers and Mormon crickets? Which watersheds? How has this increased? How do current degraded land conditions in the planning area contribute to expanded rancher claims of native insect "problems"? What chemicals are used and what are the effects - not only to aquatic biota including through drift, but also to the critical insect supply for sage-grouse and Columbia sharp-tailed grouse?	The actions implemented by Animal and Plant Health Inspection Service are outside the scope of the Final EIS.
Fish	The Humboldt-Toiyabe National Forest has pursued piecemeal livestock facilities, with further industrialization of sagebrush habitats, and shifting of impacts onto already degraded intermittent stream areas and critical sage-grouse habitats. Water developments have occurred in bull trout and redband trout watersheds under Decisions of NEPA Adequacy and Categorical Exclusions. Eight miles of new fence pass through sagebrush habitats despite the already high density of fencing as on the BLM-managed land. A large-scale fire occurred in the Humboldt-Toiyabe National Forest in 2008, Slide Rock, altered the baseline for bull trout population in the Jarbidge Wilderness. The baseline has changed, including the baseline in upstream watersheds of the planning area.	The authorized actions on the US Forest Service managed lands are not under the discretion of the BLM. The effects of Forest Service actions in the upper portions of the watersheds managed by the BLM are considered in the Cumulative Impacts assessments in the Final EIS, Chapter 4 in the *Water Resources, Riparian Areas and Wetland,* and *Special Status Fish and Aquatic Invertebrates* sections.
Fish	The Draft RMP/EIS, Volume 2, Chapter 4, p. 4-95 shows that there is no real difference in impacts on aquatic species between Alternatives I, IV and V without any scientific analysis	The process used in the development of the alternatives is described in the Final EIS Chapter 2 *Introduction*.

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	and basis for understanding why these alternatives were structured in this manner. The BLM claims, "the increased emphasis on passive restoration could result in fewer short-term impacts to water quality and slower rates of recovery for water quality impaired streams of the other alternatives". It uses its own construction of Alternative V that omits any active restoration so that the claim can be made that Alternative V would be worse than Alternative IV.	The comment refers to the impacts to water quality from actions implemented for special status fish and aquatic invertebrates under Alternative V, which emphasized passive restoration techniques to improve resource condition. The analysis for Alternative V assumed the techniques used for improving special status fish and aquatic invertebrate habitats would result in fewer short-term impacts to water quality due to the use of passive restoration actions. The analysis also assumed passive restoration would result in a longer time period for the recovery of water quality. In comparison, Alternative IV predicted more initial impacts to water quality due to implementation of active restoration actions but faster rates of recovery for water quality. The assumptions made for passive and active restoration in the water resources analysis were identified in the Final EIS, Chapter 4 *Water Resources* section under Methods and Assumptions.
Fish	Appendix D describes pool frequency, width, depth, temperatures, and conditions for functioning properly. Yet there is no path to attain or make real progress on these desired conditions.	Incorporating the guidance in the Aquatic and Riparian Management Strategy (Appendix D) into ongoing and new actions within Riparian Conservation Areas would help achieve the desired resource conditions for riparian areas and wetlands, fish, special status fish, and water quality. Site and project-specific analysis would also support the attainment of the objectives for these resources.
Fish	In the Draft RMP/EIS in Chapter 2 *Water Resources* section 2.3.4, WR-CA-MA-6 states that it would "Consider new water developments and water development projects" where impacts could be mitigated. Where does data ever show impacts of water developments, such as reduced natural spring flows or compaction and plant community degradation can be mitigated?	The Final EIS Chapter 2 *Water Resources* sections, management action WR-CA-MA-5 would consider new water developments and improvements to existing water development projects if impacts to water and riparian resources can be mitigated. Alternative VI (Proposed RMP) included management direction for water development in *Livestock Grazing* (LG-CA-MA-11, LG-CA-MA-14, LG-CA-MA-15, and LG-VI-MA-10) and in *Wildland Fire Ecology and Management* (WFM-VI-MA-5). Alternative VI (Proposed RMP) included management actions for new and existing livestock infrastructure to be modified, discontinued, or relocated if they are not maintaining aquatic and riparian conditions (LG-CA-MA-11, LG-CA-MA-14). Alternative VI (Proposed RMP) also included WFM-VI-MA-5 (*Wildland Fire Ecology and Management*) to design water developments for fire suppression to mitigate impacts to water resources. This management, combined with project level analysis, would serve

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		to mitigate resource impacts from water developments.
Fish	In Volume 3, Map 6 on p. M-7 in the Draft RMP/EIS, as with all maps and analysis, an understanding of baseline conditions, ecological degradation and management shortcomings in adjacent headwater areas in the Humboldt-Toiyabe National Forest must be provided to understand what the total sediment load may be and all direct, indirect and cumulative effects. This is also necessary because it is the same very small number of permittees whose cattle and sheep herds impact the headwater areas too. Examine the full watershed/ecosystem/wildlife disturbance footprint of these operations.	The BLM assumed the comment referred to Map 6 "Water Erosion Potential" in the Draft RMP/EIS. The map, which focused on lands within the planning area, was also included in the Final EIS (Map 5). The influence of US Forest Service management on BLM-managed streams is incorporated in the baseline condition data summarized in the Final EIS, Appendix D: Aquatic and Riparian Management Strategy, in Tables D-3 and D-5. The Final EIS included the potential impacts from Forest Service managed lands in the Chapter 4, cumulative impacts analysis in the *Water Resources, Riparian Areas and Wetlands,* and *Special Status Fish and Aquatic Invertebrates* sections.
Fish	Politicians have also discussed returning salmon to Nevada headwaters. If that were indeed undertaken in the next 20 years, how would that be accomplished?	Actions to restore salmon to headwater streams within the planning area would be accomplished under a multiagency effort and accompanying site-specific NEPA analysis. The Final EIS identified this in Chapter 2, *Special Status Species*, Alternative VI (Proposed RMP), in management action SS-VI-MA-4. None of the goals, objectives or management actions in the Final EIS would preclude BLM working with other State or Federal agencies on returning salmon to Nevada.
Fish	Proper functioning condition (PFC) is subjective, and a minimal habitat descriptor. Waters at PFC are not assured of meeting the actual habitat requirements for aquatic biota. The BLM must fully examine aquatic habitat quality and quantity. This includes sediment, temperature, cobble embeddedness, aquatic biota, bacterial pollution, turbidity, algae, dissolved oxygen and many other attributes.	The Final EIS contained a summary of the available proper functioning condition (PFC) ratings in the Chapter 3 *Riparian Areas and Wetlands* section. In Appendix D: Aquatic and Riparian Management Strategy, Figure D-1 and the paragraph below it acknowledged that PFC is a starting point for achieving aquatic resource objectives. The Final EIS summarized the PFC and habitat condition data used in the assessment of aquatic resources in the Chapter 3 *Water Resources, Riparian Areas and Wetlands, Fish,* and *Special Status Fish and Aquatic Invertebrates* sections. The indicators considered in the identification of Conservation or Restoration reaches are displayed in Appendix D, Tables D-1 and D-2 and included sediment, temperature, substrate embeddedness, chemical contamination and nutrients, and numerous other aquatic indicators.
Fish	Where is a map and analysis that overlay the proper functioning condition ratings with the Riparian Conservation Areas? How are these areas classified in the upstream Forest	The Final EIS displayed proper functioning condition ratings on Map 16 "Proper Functioning Condition Ratings" and Riparian Conservation Areas (RCAs) on Map 22 "Riparian Conservation

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	Service managed lands? How does private lands in all watersheds (such as in the China Mountain area, Jarbidge Foothills, Three Creek, Murphy, Diamond A) impair habitats?	Areas". RCA classifications on US Forest Service lands are beyond the scope of the Final EIS. The Final EIS analyzed impacts to aquatic resources from private lands in the cumulative impacts analyses in Chapter 4 for *Water Resources, Riparian and Wetlands,* and *Special Status Fish and Aquatic Invertebrates* sections.
Fish	Designation of critical bull trout habitat occurred on September 30, 2010, and included areas within the planning area. We recommend that the BLM also address designated critical habitat in the Final EIS. We anticipate that specific conservation measures for primary constituent elements of designated bull trout critical habitat for each land use plan program would be similar to the existing bull trout conservation measures described within the Aquatic and Riparian Management Strategy.	The Final EIS included designated critical habit for bull trout in Chapter 3, *Special Status Fish and Aquatic Invertebrates* section, under the subheading for Jarbidge River Basin Bull Trout. The Conservation Measures for Primary Constituent Elements of designated critical habitat for bull trout for each land use plan program are included in the Final EIS, Appendix E: Conservation Measures and in the Jarbidge RMP Biological Assessment.
Geothermal	New power lines, night-lights, heavy-duty roads, constant human disturbance, noise, and severe visual intrusions accompany modern geothermal development.	This comment references geothermal leases on Nevada BLM lands and assumes a plant facility would be built within the planning area that would leave an adverse footprint on the environment. The Draft RMP/EIS and Final EIS provided for geothermal development in LE-C-MA-1 by incorporating the Record of Decision and Resource Management Plan Amendments for Geothermal Leasing in the Western United States (December 2008). A site-specific environmental analysis and decision process in accordance with the NEPA process would identify specific mitigation measures for any proposed geothermal projects.
Geothermal	The Draft RMP/EIS is lacking in essential ground water and aquifer analysis needed to understand the baseline, and potential impacts. Geothermal is exploding across the landscape.	The BLM does not have the jurisdiction to manage ground water and aquifers and therefore does not collect groundwater data. Appendix L: Reasonably Foreseeable Development Scenario for Geothermal Development provided information on the potential geothermal development in the planning area. The potential for cumulative impacts from geothermal development are included in the *Water Resources, Riparian Areas and Wetlands*, and *Special Status Fish and Aquatic Invertebrates* sections of the Final EIS.
Geothermal	Close the Herd Management Area (HMA) to geothermal/fluid mineral leasing. Close the HMA to mineral allocations and locatable mineral development, as well as rights-of-ways.	Specific project planning would consider the health and welfare of wild horses. A site-specific environmental analysis and decision process in accordance with the NEPA process would identify specific mitigation measures for any proposed projects

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		within the Herd Management Area. Mitigation measures would be implemented through applicable permits (BLM Wild Horses and Burros Management Handbook, H-4700-1).
Glossary	Define the term “resiliency of ecosystem structure and function” in the *Upland Vegetation* goals in Chapter 2.	The term “resiliency of ecosystem structure and function” used in Alternatives III and IV means the ability of the ecosystem to recover following a disturbance. This wording replaced the term “resiliency of ecosystem structure and function” in Alternative VI (Proposed RMP) in the Final EIS, where the goal in the *Upland Vegetation* section stated “Manage vegetation to restore the ability of the ecosystem to recover following a disturbance and reduce fragmentation of habitat for sage-grouse and other native species”.
Goals	The general multiple use and resource management goals of the Final RMP should be: To ensure long-term, sustainable multiple-use of the resource. This includes the sustainable management of all of the resources listed in the RMP (air and atmospheric values, geologic features, soil resources, water resources, vegetation communities, fish and wildlife, special status species, noxious weeds and invasive species, wildland fire, wild horses, paleontological resources, cultural resources, and visual resources). We suggest that this resource management plan be set up in such a way that meeting this goal will enhance the resource uses (livestock grazing, recreation, transportation, energy development, and travel).	Managing public lands to ensure the principles of multiple use and sustained yield is one of the overall purposes of the Final EIS (see Purpose and Need in Chapter 1). BLM designed the goals and objectives to accomplish this purpose.
Interpretation, Outreach and Environmental Education	In the Chapter 2 alternatives, the *Interpretation, Outreach, and Environmental Education* section goal should explicitly include renewable energy in interpretation, outreach and environmental education. The BLM should add a management action emphasizing education on renewable energy resource utilization benefits, and the environmental research and mitigation that can be funded through renewable energy operating programs.	The goal, objective, and management actions in the *Interpretation, Outreach, and Environmental Education* section are broad. They cover every resource and resource use in the planning area. Renewable energy is intrinsically included as a resource use.
Land Tenure	On p. 2-179, the suitability classifications need to be classified. Soil classifications with 40% Soil Conservation Service Class N or poorer soils should not include "draws" or "drainages" that can be leveled to eliminate the Class N soil. If by leveling, the draw or drainage area eliminates the Class N slope, and then the 40-acre parcel should be allowed. This also applies to cropland in Capability Classes II through V (particularly	The Natural Resource Conservation Service determined soil classifications and those classifications were included in the process for determining the suitability of a Desert Land Entry Act of 1877 (DLE). See 43 CFR 2520 for more information. Also, see LT-CA-MA-8, no new DLE and Carey Act of 1894 applications would be accepted for lands within the planning area.

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	subclass "e") as well.	
Land Tenure	For Map 86, Land Tenure Zones in Alternative II, Zone 3 should go all the way north to the Snake River since the area covered under Zone 2 incorporates over 3,000 acres of our private land. We have had an application on file for a land sale/trade for over 10 years with the BLM. Under Alternative IV, our private land holdings should at least be in Zone 2 for a possible exchange. Please reconsider your alternatives and the rezone of your maps.	The Final EIS revised the Land Tenure Zone maps (Maps 106 through 113) to exclude private land and other lands not managed by the BLM. Appendix I: Lands Available for Disposal lists legal descriptions of public lands that may be considered for disposal via exchange or sale by alternative.
Land Tenure	Where irrigation pivots or ditches cross public land, why not just simply sell these small land sections to the private landowner and omit the time and effort it takes to monitor and continually reissue rights-of-way? The total acreage we are talking about here has to be very limited and would eliminate a lot of red tape. Why are you not trying to work with the private landowner in these situations rather than continually being an adversary?	The Final EIS presented a range of alternatives for Land Tenure. Land Tenure Zone 3 in Alternative VI (Proposed RMP) included many of those small isolated land parcels. Appendix I: Lands Available for Disposal listed legal descriptions of public lands that may be considered for disposal via exchange or sale by alternative.
Land Tenure	The Draft RMP/EIS did not mention that providing water to these small tracts where pivots or ditches cross public land benefits wildlife. Why have you not mentioned this in an effort to improve wildlife habitat?	The Final EIS revised the *Wildlife* Section in Chapter 2 with additional management actions for the wildlife tracts. The Final EIS added a brief discussion of wildlife tracts and water under Habitat Groups Considered But Not Analyzed in the *Wildlife* Section in Chapter 3. The new Wildlife Tracts Plan would analyze placing guzzlers to water wildlife or other projects in more detail.
Land Tenure	On p. 2-178, LT-NA-MA-11, you use the word "public interest" in general terms without defining it. It is a good sound bite, but without defining specifically what that means, it becomes a catchall phrase to prohibit any exchanges. The public interest should also include the private interest, as they are "public" as well. The "public" interest should also include the economic benefit to the public if the exchange was to occur.	The term “public interest” in management action LT-NA-MA-12 from the 1987 RMP is derived from Section 206 (Land Exchanges) of the Federal Land Policy Management Act of 1976.
Land Tenure	The Capability Classes that were in place when the original Desert Land Entry Act of 1877 (DLEs) were filed should be used. Please change them back to what they were at the time the DLEs were filed.	The processing requirements have not changed. See the 1987 RMP for Desert Land Entry Act of 1877 processing details.
Land Tenure	On p. 2-179, in relation to the four steps identified, an applicant who is already farming adjacent land should receive favorable consideration when proving that by developing the Desert Land	The Desert Land Entry Act of 1877 and Carey Act of 1894 applications submitted prior to 2009 (Case numbers IDD-7401, IDI-7402, IDI-27888, and IDI-27889) would be processed within

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	Entry Act of 1877 (DLE) is economically feasible. Consideration should also be given if the applicant has been farming for a long period of time and is financially stable. Please add these as steps in developing the DLE.	10 years of the signing of the Record of Decision, and those lands meeting the criteria of the Acts would be disposed of (LT-CA-MA-8).
Land Tenure	Applications for agricultural development that would contribute to underground mining of groundwater would not be allowed. Eliminate this from the plan as it usurps the Idaho Department of Water Resources authority over water appropriations.	The management action LA-CA-MA-12 stated, “Authorizations involving water use on BLM land must comply with applicable State water law. Final authorization to proceed with water developments on BLM lands would be withheld until compliance from the appropriate authorizing agency (i.e., Idaho Department of Water Resources) is obtained. Any water right established on public land would be solely in the name of the United States.”
Land Tenure	None of the alternatives addresses the processing of Desert Land Entry Act of 1877 (DLEs) noted in LT-CA-MA-13 other than Alternative II. However, even Alternative II does not say for disposal of DLE's. Why is that? In the Land Tenure Maps 85, 86, 87, 88 and 89, you have eliminated the processing of any DLEs except maybe in Map 86 under Alternative II which is the only processing of DLEs allowable. We obviously support Alternative II here but all Alternatives need to add the Disposal of the existing DLEs. I am not sure why you have not listed these unless you are trying to slip them under the carpet. We ask that you process and approve DLEs 7401 and 7402.	The management action LT-CA-MA-13 was Common to all Action Alternatives (Alternative I, II, III, IV-a, IV-b, V, and VI), not just Alternative II. As stated in the management action, the Desert Land Entry Act of 1877 (DLE) and Carey Act of 1894 (CA) applications submitted prior to 2009 (Case numbers IDD-7401, IDI-7402, IDI-27888, and IDI-27889), would be processed within 10 years of the signing of the Record of Decision, and those lands meeting the criteria of the acts would be disposed. The BLM would not accept new DLE/CA applications for lands within the planning area (LT-CA-MA- 8). Per your request to process and approve the DLEs, they must meet the economic feasibility analysis per 43 CFR 2520 prior to approval.
Land Tenure	A majority of the Resource Advisory Council (RAC) supports the land acquisition/trades in the following order: • Wilderness areas, • Special Recreation Management Area’s and Areas of Critical Environmental Concern, • Public access, and • Wildlife needs. A majority of the RAC supports land sales with at least one of the following conditions: • Parcel is isolated and public access limited, • There is a public need, • BLM management of the parcel is limited, and/or • Helps land acquisitions or trades as part of a package.	The Final EIS revised the *Land Tenure* section per the criteria outlined in 43 CFR 2710 and the management action LT-CA-MA-1. Other parcels which were isolated, a public need was identified, or BLM access was limited were included for disposal in Alternative VI (Proposed RMP). In addition, those parcels, which the Draft RMP/EIS identified for sale and/or exchange within sage-grouse management areas, were not included in the Final EIS. The Final EIS did not analyze ownership consolidation with private landowners, as land exchanges may take approximately 10 years to process. BLM may process land exchanges per management action LT-CA-MA-1 and according to 43 CFR 2200.

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	The BLM needs to block up acreage for better management, more cost effective management, and to preserve some landscapes. Private land acreages such the Charlie Brackett property, Cowan Reservoir, Antelope Pocket Reservoir, Buck Flat, Tank Spring, and numerous other State sections have the potential to dramatically reduce the desired management objectives of whatever Final EIS alternative is chosen. One of the primary focuses of the BLM over the course of the life of the Land Use Plan should be landownership consolidation. Once development starts the process is irreversible. The alternatives developed for the Draft RMP/EIS all ignore the realities of dealing with private parties and the State of Idaho. The BLM needs to strive for the greatest degree of flexibility possible with this resource issue. Nearly all parties in the planning area would benefit from consolidation of real estate holdings. This issue before being settled in the Final EIS would benefit from extensive talks with the other landowners in the planning area to determine what the potential for land consolidation might be.	
Land Tenure	The BLM must have a goal of no net loss of BLM-managed land, and strive to increase the amount of public land across the planning area over the life of the plan. It must identify specific areas where the focus may be land acquisition.	Alternative V closely represented what this comment described and the Final EIS analyzed it as part of the range of alternatives. See Map 112 "Land Tenure Zones in Alternative V" in the Final EIS.
Land Tenure	The BLM must not allow submitted Desert Land Entry Act of 1877 applications to go forward, as it proposes under all alternatives. Where are these? How many? Who? See LT-CA-MA-13 on p. 2-182 of the Draft RMP/EIS.	The management action in all action alternatives LT-CA-MA-8 stated “No new Desert Land Entry Act or Carey Act applications would be accepted for lands. The Desert Land Act and Carey Act applications submitted prior to 2009 (Case numbers IDI - 7401, IDI-7402, IDI-27888, and IDI-27889) would be processed within 10 years of the signing of the Record of Decision.”
Land Tenure	We oppose disposal of lands as would be allowed under the part of LT-CA-MA-4 (2-181) that serves as a huge loophole for actually enabling the disposal of historical properties, threatened and endangered species habitat, wildlife tracts, cultural sites, etc. Take this provision, allowing a loophole for disposal, out of all alternatives.	The Final EIS presented management direction for the BLM’s retention and acquisition of lands (LT-CA-MA-3 and 4).
Land Tenure	What exactly can the BLM consider under the Recreation and Public Purposes Act of 1954?	The Recreation and Public Purposes Act of 1954 (R&PP) authorized the sale or lease of public lands for recreational or public purposes to State and local governments and to qualified

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		nonprofit organizations. The BLM would only consider the amount of land required for efficient operation of a project described in the applicant's development plan. Examples of typical uses under the R&PP act are historic monument sites, campgrounds, schools, firehouses, law enforcement facilities, municipal facilities, landfills, hospitals, parks, and fairgrounds. For more information, see 43 CFR 2740.
Land Use Authorization	Vegetation is one of the least stable resources upon which to base resource decisions. Wildfire and invasive species are capable of transforming sites in a very short period of time. There is also considerable confusion as to how wind energy directly threatens native vegetation.	The Final EIS analyzed a range of alternatives. Alternative VI (Proposed RMP) did not base wind energy development on vegetation data but rather upon avoiding sage-grouse habitat. Outside the sage-grouse management area, renewable energy site testing, monitoring, and development should avoid special status species habitat unless unavoidable adverse effects can be mitigated (LA-VI-MA-4). See also LA-VI-MA-2.
Land Use Authorizations	Anytime there is a land exchange between private and public entities, a public access easement or right-of-way should be required in order to offset the trend of less public access to public land over the past 35 ± years and the cumulative negative impact of that trend on multiple-use recreationists.	The Final EIS updated management action LT-CA-MA-6. Disposal of public lands would be subject to all valid existing rights, including existing rights-of-way. Existing public access to public lands through those lands may be retained if necessary for BLM management or for accommodating uses. See also management actions LA-CA-MA-10 and LA-CA-MA-11.
Land Use Authorizations	The development of a Multiple Use Area (MUA) plan for MUA 15 should include wind energy development because the China Mountain Wind Energy project has applied for a right-of-way grant with the BLM and should be included in discussion of the No Action Alternative.	The China Mountain Wind Energy project was deferred until the Idaho and Southwestern Montana Sub-Regional Sage-Grouse RMP Amendment/EIS and the Jarbidge RMP have been completed. The China Mountain Wind Energy EIS proposed changes to the 1987 RMP; However, no changes related to the China Mountain Wind Energy project were made.
Land Use Authorizations	There are allocations for solar energy mentioned in the Draft RMP/EIS, but no mention of wind energy in this section. This section should include all renewable energy development.	The allocation in the Draft RMP/EIS that pertained specifically to solar energy developments was not included in the Final EIS. In Alternative VI (Proposed RMP) the objective, LA-VI-O-1, is to provide for the development of renewable energy resources, transportation routes, utility corridors, transmission lines, communication sites and other uses with consideration for resource objectives. In Alternative VI, the Allocation LA-VI-A-4 was included, which stated "Commercial wind and solar energy developments would not be permitted inside the sage-grouse management area or within utility right-of-way corridors." The Final EIS addressed wind energy throughout the document in the *Land Use Authorization* sections of each chapter. Alternative VI updated management actions to include more direction on

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		wind and renewable energy. See LA-C-MA-1, LA-VI-MA-4, and LA-VI-MA-5.
Land Use Authorizations	Appendix N, p. A-141, states that the policies and best management practices (BMPs) can be found on pp. A-8 through A-26 on Attachment A of the 2005 Wind Energy Development on BLM-Administered Lands in the Western United States Record of Decision. Our copy of the Record of Decision displays the policy and BMPs on pp. A-2 through A-20. Please clarify the discrepancy.	The Final EIS revised Appendix B: Best Management Practices, Design Features, and Operating Procedures to contain the design features from the 2005 Wind Energy Development on BLM-Administered Lands in the Western United States Record of Decision.
Land Use Authorizations	Management actions common to all action alternatives states that new rights-of-way would meet Visual Resource Management (VRM) class objectives. Provide clarity and ensure that Instruction Memorandum 2009-043 and the existing best management practices for VRM apply.	The Final EIS analyzed a range of proposed Visual Resource Classes and Visual Resource Management classes that vary by alternative. The Final EIS incorporated best management practices as common to all alternatives (LA-C-MA- 1; Appendix B: Best Management Practices, Design Features, and Operating Procedures).
Land Use Authorizations	The management action LA-II-MA-4 under Alternative II restricts wind turbines and met towers from occupied habitat for endangered, threatened, proposed, and candidate species where their direct adverse effects cannot be mitigated. The 1987 Jarbidge RMP protected wildlife habitat through the 2005 amendment (2005 Wind Energy Development on BLM-Administered Lands in the Western United States Record of Decision). Replace language in Alternatives II, IV, and with the 2005 amendment language.	The Wind Energy Development on BLM-Administered Lands in the Western United States Record of Decision (BLM, 2005) amended the 1987 Jarbidge RMP. The only alternative that must have the language from the 2005 Record of Decision (ROD) was the No Action Alternative as it continues to implement management direction contained in the 1987 Jarbidge RMP (and its amendments). The Action Alternatives (I-VI) incorporate policy established in the 2005 ROD and follow BLM policy that requires existing and potential development areas for renewable energy projects (including wind energy) be addressed in land use planning efforts.
Land Use Authorizations	The BLM assumed that areas rated good or higher for wind generation using large turbines could also generate energy with the same turbines in fair wind resource areas. Clarify this in the Draft RMP/EIS to say that fair wind resource areas are feasible for Public Utility Regulatory Policies Act for wind energy projects, but cost-competitive commercial wind energy requires good or higher wind resource. Change the maps, text, and Table 4-313 to reflect this.	The Final EIS identified lands available for utility-scale wind development as those within 2 miles of areas rated fair or better for wind resources. For the analysis in Chapter 4, the BLM assumed that within the life of the plan, there would be more interest in developing wind energy on or within 2 miles of lands rated fair or better than on other lands in the planning area. However, Alternative VI (Proposed RMP) Allocation LA-VI-A-4 was included, which stated “Commercial wind and solar energy developments would not be permitted inside the sage-grouse management area or within utility right-of-way corridors.”
Land Use Authorizations	Under cumulative impacts from the land use authorization actions, the BLM assumed that the Department of Defense (DOD) land is incompatible with wind energy and utility	The Final EIS only analyzed BLM-managed lands for expected wind energy development. For that analysis, the BLM assumed that exclusion and avoidance areas would not be available for

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	projects. In addition, the BLM assumed that management actions on the BLM-managed land might make wind energy projects unavailable to adjacent public and State lands. Do not make these assumptions, as each project is site-specific and negotiated with the DOD, private and State landowners, not the BLM. The Final EIS should assume that the DOD, private, and State land is available for wind energy projects.	wind energy development, as well as areas identified in allocations and management actions, such as LA-VI-A-4, which stated, “Commercial wind and solar energy developments would not be permitted inside the sage-grouse management area or within utility right-of-way corridors.”
Land Use Authorizations	Under cumulative impacts, it was assumed that Alternatives I, III, IV and V would not allow wind energy development within 98% of the China Mountain Wind Energy project area. This is inaccurate. With best management practices (BMPs) and mitigation measures, all of the alternatives could permit a commercial-scale wind energy project in the southeast corner of the Planning Area. The size of the wind energy project in Alternatives I, III, IV and V may not be 400 megawatts, but certainly none of the alternatives excludes 98% of the project area. The BLM should revise the cumulative impacts for Alternatives I, III, IV and V to correct the aforementioned incorrect assumptions regarding compatibility with the Department of Defense land and private land for wind energy. The cumulative impacts assessment should also be revised to state the following: “Alternatives I, III, IV and V may restrict portions of the southeast corner of the planning area for wind energy development, but with BMPs and mitigation measures, construction of a commercial-scale wind energy project in the southeast corner of the planning area could be feasible.”	The Final EIS identified areas that were available or unavailable for wind energy development in the Chapter 2 *Land Use Authorizations* sections. Lands rated with fair or better wind resources, and lands within 2 miles of those areas were depicted on the expected wind development area maps (Map 99 to 105). Brown’s Bench, while rated as marginal for wind resources, was included within the expected wind development area in various alternatives because it was within 2 miles of lands rated fair to outstanding for wind resources. In Alternative VI (Proposed RMP), wind energy developments were not allowed in the Brown’s Bench area because this area is within the sage-grouse management area (LA-VI-A-4).
Land Use Authorizations	On p. E-13, Implications for the Action Alternatives, I am opposed to the "no development" stipulation extending that "no development" area from 3,500 feet to a one mile width for the four Section 368 energy corridors. I can understand the current 3,500 feet designation but I do not understand why the one-mile designation is necessary. It would eliminate a substantial amount of potential energy development such as geothermal and the extension is not necessary from any cultural, resource or visual standpoint.	There was not a “no development” stipulation. The 3,500 foot energy utility right-of-way corridor could be used for overhead utility, underground pipelines for oil, gas, and hydrogen, etc.
Land Use Authorizations	On p. ES-20, for any of the Alternatives, you are essentially closing almost one million acres for energy development. We are opposed to all of the Alternatives. We are also opposed to the No Action Alternative, as it does not specify which segment	The Final EIS described the Salmon Falls Creek Area of Critical Environmental Concern (ACEC) in Chapter 3 and it was depicted on Map 136 “ACECs in the No Action Alternative".

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	of the Salmon Falls Creek canyon you are talking about. We oppose any utility avoidance/restricted area below Balanced Rock.	
Land Use Authorizations	On p. 2-167, we are opposed to utility avoidance restricted areas in the Salmon Falls Creek canyon below Balanced Rock. There already are such facilities in that stretch of the canyon and this would either eliminate them, or cause modifications, which would be detrimental to such existing facilities. This would also prevent upgrading or adding new systems as technology advanced and would eliminate using renewable resources as they become available. On p. 2-168, we are opposed to LA-NA-MA-9, in giving trespass citations for runoff from private lands onto public lands. If you allow this, then private lands owners should also be allowed to issue trespass citations to BLM for excessive water runoff from public lands caused by BLM not rehabilitating lands that were burned and cleared of sagebrush, or from excessive mustard weed and tumbleweeds which causes the plugging of canals and ditches on private land. This is caused by the BLM not re-planting on a timely basis, sagebrush that acts as a protective screen for mustard weeds and tumbleweeds from blowing into the canals.	The 1987 Jarbidge RMP established the referenced management actions and the Final EIS presented them as part of the range of alternatives. Alternative VI (Proposed RMP) did not include those management actions.
Land Use Authorizations	On pp. 2-172 to 2-176, BLM should designate existing rights-of-way (ROWs) for upgrades and additional facilities and allow access to those facilities. With adopting the restrictions for ROWs you are eliminating from development anywhere from 878,000 acres to 1,229,000 acres, depending on the Alternative you have written. We are opposed to that.	A right-of-way (ROW) avoidance area is an area where a ROW would be strongly discouraged. Authorizations made in avoidance areas would have to be compatible with the purpose for which the area was designated and not be otherwise feasible on lands outside the avoidance area. Pre-existing ROWs within an avoidance area would still be valid and subject to the terms and conditions of the ROW grant.
Land Use Authorizations	On p. 2-178, LT-NA-MA-5, add the word ‘public’ where it states "In agricultural... Maintain control of all ‘public’ lands...” You would not have any right to control private lands, especially where erosion control is already practiced.	This management action is from the No Action Alternative. The Final EIS did not change this management because the language is directly from p. II-77 of the 1987 RMP. The commenter correctly identified that the BLM does not “control” private lands.
Land Use Authorizations	On page 4-9, second paragraph under Land Use Authorizations. We disagree that past utility authorizations have affected soil quality. They may have disturbed the soil temporarily, but certainly not on a long-term basis. This	The Final EIS did not remove this language. The Final EIS stated, “Past utility-related authorizations, particularly transmission lines, have affected soil resources in the northern portion of the analysis area.” This statement only meant that

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	statement is misleading.	utility-related authorizations have had an impact to soil resources, but did not say what those impacts were or their duration.
Land Use Authorizations	Avoidance stipulations (e.g., LA-IV-A-1, p. 2-174) ultimately define how specific land and resource uses will be implemented within avoidance areas. However, the Draft RMP/EIS does not provide resource-specific stipulations. Therefore, Idaho Department of Fish and Game recommends that resource specific stipulations be provided in the document for priority resources in each avoidance area to ensure that the Land Use Authorization goal (LA-CA-G-1, p.2-168) can be met within the purpose of an avoidance area.	The Final EIS included a wide variety of resource-specific avoidance stipulations. Resource-specific stipulations pertinent to the alternative ultimately selected in the Record of Decision will be implemented as appropriate. For example, Alternative VI (Proposed RMP) in the *Land Use Authorizations* section lists specific avoidance stipulations for sage-grouse (LA-VI-A-2). Project level documents will also provide resource-specific stipulations.
Land Use Authorizations	Idaho Department of Fish and Game recommends reviewing Alternative IV right-of-way (ROW) exclusion areas for consistency and accuracy between Map 76 and LA-IV-A-2. If the current version of Map 76 is correct, than LA-IV-A-2 should clearly provide purposes and boundary definitions of these two ROW exclusion areas. In particular, we suggest clarifying if the ROW exclusion area that includes China Mountain is proposed specifically to protect sage-grouse habitat and how the boundaries were identified.	The Final EIS revised the “ROW Exclusion Areas in Alternative IV” map (Map 95) by removing the Areas of Critical Environmental Concern that were not included in Alternative IV. Lands with Wilderness Characteristics near the proposed China Mountain Wind Energy project were identified as exclusion areas.
Land Use Authorizations	The Department requests clarification about why Map 82 proposes the Browns Bench area as a "Potential Wind Development Area" despite containing marginal wind resources (based on the BLM map) and very important sage-grouse habitat. From the Department’s perspective, the significance of the sage-grouse habitat and sage-grouse population supports consideration of the Browns Bench area as a right-of-way (ROW) exclusion area consistent with criteria used to designate other ROW exclusion areas in the RMP. We recommend the BLM evaluate this designation for Browns Bench.	The Brown’s Bench area was included in the expected wind development area because it is within 2 miles of lands rated fair or better for wind resources. The BLM assumed any wind energy development would occur within 2 miles of where fair (or better) wind resources existed. In Alternative VI (Proposed RMP), commercial wind and solar energy developments would not be permitted inside the sage-grouse management area or within utility right-of-way corridors (LA-VI-A-4). The Browns Bench area is within the sage-grouse management area.
Land Use Authorizations	Rather than the term "active," which refers to the annual status of a lek, LA-IV-MA-2 should use management status of sage-grouse leks provided in the Idaho Department of Fish and Game lek database. Consequently, LA-IV-MA-2 would state that transmission lines, phone lines, communication towers, meteorological towers, and wind turbines will be located more than 5 miles from sage-grouse leks with an occupied or	The Final EIS revised the term “active” leks to “occupied and unknown status” sage-grouse leks in Alternative VI (Proposed RMP; LA-VI-MA- 2).

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	undetermined status.	
Land Use Authorizations	Idaho Department of Fish and Game recommends that LA-IV-MA-2 include a generalized statement to encompass other similar elevated infrastructure features that might be proposed in the future in sage-grouse habitat.	Alternative VI (Proposed RMP) incorporated this recommendation. See the management action LA-VI-MA-2 which stated “Outside the sage-grouse management area, locate new tall structures (e.g. overhead power and phone lines, communications towers, meteorological towers, and wind turbines) more than 4 miles from occupied and unknown-status sage-grouse leks.”
Land Use Authorizations	The Draft RMP/EIS states adequate access will be provided for private in-holdings; however, adequate access will largely be defined by the special management area designations for the BLM-managed lands and therefore may not meet the needs for management or development by the in-holding owner. Clarify what adequate access is and how it would be achieved.	The travel management plan (TR-CA-MA-8) will address access to private in-holdings. Also, see management action LA-VI-MA-6 in Alternative VI (Proposed RMP) which stated, “New road rights-of-way across public land for private purposes would be considered only after all other access possibilities have been exhausted.”
Land Use Authorizations	Discuss renewable energy generation in a single section of the Final EIS so the public better understands the BLM’s support for renewable energy.	The Final EIS addressed renewable energy developments in Chapters 2 and 4 in the *Land Use Authorizations* sections.
Land Use Authorizations	Renewable energy should receive consideration at least equal to the three key resources that the BLM appeared to prioritize in the Draft RMP/EIS (vegetation, grazing, and Areas of Critical Environmental Concern).	The Final EIS did not consider renewable energy as a "key resource", but included it in each alternative as an allowable use. The Final EIS structured alternatives according to the BLM Land Use Planning Handbook where resources included, soil and water, vegetation, fish and wildlife, wild horses and burros, cultural resources, etc.; and resource uses included livestock grazing, recreation, lands and realty, etc. Existing and potential development areas for renewable energy projects fell under the category of the Lands and Realty section of Resource Uses in the BLM Land Use Planning Handbook, therefore, renewable energy was addressed under the section *Land Use Authorizations*.
Land Use Authorizations	To appropriately value renewable energy, the BLM should supplement its analysis. First, the BLM is required to do more than briefly note the environmental benefits of renewable energy. It should analyze the potential for reduced greenhouse gas emissions from developing renewable energy projects, and the climate change consequences to other environmental values of failing to achieve our renewable energy potential (as required by Order Number 3289).	A project level analysis would determine the potential for reduced greenhouse gas emissions for any proposed renewable energy development projects.

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Land Use Authorizations	Where renewable energy may have an impact on other important environmental values, each alternative in the Final EIS should provide for avoidance, minimization, and mitigation of those impacts.	The BLM designed the alternatives and management actions to help avoid, minimize, and mitigate impacts of renewable energy development (see management actions in Chapter 2 *Land Use Authorizations*). In addition, the best management practices, design features, and operating procedures were placed in Appendix B; resource-specific stipulations would be included at the project level.
Land Use Authorizations	The Resource Advisory Council unanimously supports that the BLM review the Draft RMP/EIS to ensure that there will be sufficient flexibility to address highway district rights-of-way (ROWs) and material sites. The primary source of conflict seems to be restrictions on actions within or along the highway ROWs. It would seem appropriate if the Final EIS could provide both BLM and the highway districts the opportunity to resolve this conflict. Expansion of highway ROWs in some cases would allow the BLM to be in compliance with the law and allow the highway districts the ability to cost effectively construct and maintain roads that serve the public needs and provide adequate safety. Another possible tool to help address the situation would be to further review the list of actions allowed in the ROW's. The primary intent of this recommendation as it is unclear how or where highway ROWs are governed is to ensure the Final EIS will not adversely impact possible solutions that could resolve this issue.	The Final EIS allowed for road rights-of-way (ROWs) and mineral sites. Alternative VI (Proposed RMP) included a management action for roads outside of exclusion areas The management action LA-VI-MA-6 stated, “New road ROWs across public land for private purposes would be considered only after all other access possibilities have been exhausted.” The majority of the planning area would be open to salable mineral development subject to site-specific NEPA analysis, etc. (SA-VI-A-1). Expansion (new ground disturbing activities) of a highway ROW must go through the NEPA process prior to amending the ROW to remain in compliance with BLM policy and law. The ROW grant provides a detailed description of actions allowed within a ROW. The governing authority for a ROW is the Federal Land Policy and Management Act of 1976.
Land Use Authorizations	The Resource Advisory Council unanimously supports LA-II-A-S versus LA-IV-A-S. Wind energy will only be developed where the wind resource exist. Table 2-4-303 is an inventory of the wind resources in the planning area. There are only 34,400 acres of suitable wind resource in the planning area. Of the 34,400 acres only 7,400 acres is highly desirable as it is rated good or better. The difference in power generation from fair to outstanding is substantial, as a 20% increase in wind speed translates into a 73% increase in power generation. It makes the most sense to place more turbines where the resource is best and fewer turbines where the resource is less adequate.	The Final EIS revised areas available for wind energy development. In Alternative VI (Proposed RMP), commercial wind and solar energy developments would not be permitted inside the sage-grouse management area or within utility right-of-way corridors (LA-VI-A-4). Outside the sage-grouse management area, renewable energy site testing, monitoring, and development should avoid special status species habitat unless unavoidable adverse effects can be mitigated (LA-VI-MA-4). See also LA-VI-MA-2.

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	Wind energy needs to be permitted wherever the resource exists, particularly the areas rated good or better, so long as the impacts can be mitigated.	
Land Use Authorizations	Create a more complete map showing all the layers of proposed management actions. Map M-83 is confusing, several areas identified as available for wind energy development are right on top of sage-grouse leks. The maps, tables, and supporting data all need to be checked for accuracy and then reconfigured in a more accurate representation of what the results of these management action will be.	The Final EIS revised areas available for wind energy development. In Alternative VI (Proposed RMP), commercial wind and solar energy developments would not be permitted inside the sage-grouse management area or within utility right-of-way corridors. (LA-VI-A-4). Outside the sage-grouse management area, renewable energy site testing, monitoring, and development should avoid special status species habitat unless unavoidable adverse effects can be mitigated (LA-VI-MA-4). See also LA-VI-MA-2.
Land Use Authorizations	A majority of the Resource Advisory Council supports LA-II-MA-2 over LA-IV-MA-2 with a minority *disagreeing.* The BLM did not provide any justification for restricting development within a particular mileage distance from active leks. Comprehensive, well-designed pre- and post-construction research regarding the potential impacts from a number of the resource uses involved has not been conducted to-date. There is anecdotal information indicating that sage-grouse have been observed, lek attendance continues, and hens have nested within 500 meters of wind turbines. Research from oil/gas development (generally considered to have greater impacts than the development of wind energy, communication towers, transmission lines, geothermal energy, and meteorological towers) indicates some potential indirect impacts to sage-grouse within 1 kilometer of infrastructure. (Johnson and Holloran, 2010; Johnson, 2010; DGSCP-CMWP Tetra Tech, 2010; SWCA, 2006; and BLM, 2003). The BLM maps and data do not fully illustrate on how much acreage LA-IV-MA-2 would restrict development. Maps and data have failed to take into account the leks from Bud Lewis Hill to the Antelope Pocket, if the 5-mile management action is used. In addition, leks can move and over time, new leks can be created; fieldwork continues to find new leks. How does the BLM propose to address leks moving or the discovery of new leks? Review all of the maps and data associated with wind	The 5-mile distance was the original guidance from the US Fish and Wildlife Service (FWS) (Manville, 2004). The FWS's guidance included prairie and sage-grouse within the same general "prairie grouse" category. The briefing paper provided justification for the FWS's recommendation for a 5-mile buffer from occupied prairie grouse leks. 1. Anecdotal observations can document presence or absence but lack context. 2. Individuals of a species can respond differently than the species as a whole, which may not be desirable. 3. Roads, power lines and other infrastructure are not barriers to sage-grouse but can be an added source of mortality (collision increased predation, etc.) and/or alter habitat use (e.g. fewer sage-grouse use habitat less near infrastructure compared to further from infrastructure. 4. Sage-grouse including hens with broods are known to use some agricultural fields but use of agricultural fields is not without risk including insecticides (see Blus et al., 1989) or feral/domestic cats and dogs, or synanthropic avian predators such as ravens. (Commenter did not include full citations for Johnson and Holloran, 2010; Johnson, 2010; DGSCP-CMWP Tetra Tech, 2010; SWCA, 2006; and BLM, 2003, so these references could not be addressed).

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	energy and sage-grouse leks for accuracy. The intentions of the management actions when applied to the maps are not readily apparent and often appear inaccurate.	
Land Use Authorizations	The Environmental Protection Agency supports clear management actions for right-of-way (ROW) authorizations. Management actions such as, LA-CA-MA- 4, "New ROWs would meet Visual Resource Management class objectives." provide clear direction and help to facilitate the RMP's effectiveness. To better describe and disclose the implications of LA-CA-MA-1, "Place new ROWs for pipelines and overhead lines within ROW corridors where practical; other locations would be considered on a case-by-case basis in areas not identified for ROW avoidance or exclusion, consistent with allocations listed above.", we recommend the Final EIS include additional clarifying information on how this management action appears to prohibit case-by-case ROW consideration in "avoidance areas".	Revisions to the Final EIS removed the phrase “case by case” from most management actions, including LA-CA-MA-1.
Land Use Authorizations	Pg. 4-643, Table 4-302. The BLM knows it will never adopt a route density change increase as shown for Alt II- an increase over 1,161,000 acres. This is just done to make Alt. IV look better. How does the BLM factor Oil and Gas, Geothermal, wind and other rights-of-way and industrial uses under the industry-friendly range of alternatives of the Draft RMP/EIS?	The Final EIS analyzed a range of Alternatives for management of the planning area. Alternative II focused on increasing commercial uses in the planning area. Alternative VI (Proposed RMP) focused on balancing resource use and protection to restore the ability of the ecosystem to recover following a disturbance, and reduce fragmentation of habitat for sage-grouse and other native species.
Land Use Authorizations	Consider the predicted increase in cheatgrass due to climate change in all aspects of the Final EIS, including the suitability of lands for Oil and Gas, Geothermal, right-of-way (ROW) or other activities that result in significant surface disturbance. Also, fully consider it in travel processes and identifying road closures to limit weed spread along ROWs or because of road upgrades.	The Final EIS revised climate change discussions in the *Climate Change* section of Chapters 3 and 4 to add more information, context, and clarity.
Land Use Authorizations	The BLM should manage for no increase in communication sites, bundling of facilities, and severe constraints in night lighting to protect migratory birds and limit intrusion.	New communication sites were included in the range of alternatives (Chapter 2*, Land Use Authorizations*). See LA-CA-MA-4 "Co-locate new communication sites with existing sites where practical, etc." See also LA-VI-MA-3 "New communication sites would avoid special status species habitat if the project would have an adverse effect, unless those impacts can be mitigated."

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Land Use Authorizations	Much larger areas of the landscape must be utility avoidance areas.	The Final EIS analyzed a range of different right-of-way (ROW) exclusion and avoidance areas. Alternative VI (Proposed RMP) revised ROW avoidance and exclusion areas from what was presented in the other alternatives. See Maps 93 through 96 in the Final EIS for ROW exclusion areas and Maps 86 through 92 for ROW avoidance areas.
Land Use Authorizations	Why is there no mapping of potential wind development areas for the No Action Alternative?	A map of expected wind development areas for the No Action Alternative was included in the Final EIS (Map 99).
Lands with Wilderness Characteristics	Monitor areas managed for their wilderness characteristics to insure that other uses, such as motorized vehicles and grazing infrastructure, are not impairing wilderness character and, if they are, the use should be changed or ended to stop the impairment. Appendix P in the Draft RMP/EIS provides generally for evaluation of non-Wilderness Study Area lands with wilderness characteristics every five years after completion of the comprehensive travel management plan, but does not include a specific description of the monitoring that will be conducted.	The BLM currently has no policy for monitoring Lands with Wilderness Characteristics managed for their wilderness characteristics. However, the BLM is required to maintain and update its inventory of wilderness resources.
Lands with Wilderness Characteristics	BLM considered Lands with wilderness characteristics, and in accordance with the Owyhee Initiative, BLM should manage them as described in Alternative II and III.	The BLM is required to evaluate Lands with Wilderness Characteristics through the land use planning process. When Lands with Wilderness Characteristics are present, the BLM must examine options for managing these lands and determine the most appropriate land use allocations for them. The BLM must determine whether to manage these lands to protect their wilderness characteristics or to manage for other uses that may be incompatible with protection of wilderness characteristics. The Final EIS analyzed a range of alternatives addressing Lands with Wilderness Characteristics management in the planning area.
Lands with Wilderness Characteristics	There is no need to designate any Lands With Wilderness Characteristics because: 1) First and foremost, on March 30, President Obama signed the Omnibus Public Land Management Act of 2009 (OPLMA) which designated 517,000 acres of wilderness, and 316 miles of wild and scenic rivers. It instantly *released* nearly 200,000 acres of Wilderness Study Areas from the *requirement* to be managed to protect wilderness characteristics.	The Final EIS identified Lands with Wilderness Characteristics contained in the planning area through the inventory process described in BLM Manual 6310--Conducting Wilderness Characteristics Inventory on BLM Lands. By policy set forth under Section 201 of the Federal Land Policy and Management Act of 1976, Secretarial Order 3310, and BLM Manual 6320--Considering Lands with Wilderness Characteristics in the BLM Land Use Planning Process, the BLM is required to “prepare and maintain on a continuing basis an inventory of all public lands and their resource and other values.” Regardless of past

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	2) Subtitle F - Owyhee Public Land Management of OPLMA states, "The public land in the County administered by the Bureau of Land Management has been adequately studied for wilderness designation. (B) RELEASE-Any public land referred to in subparagraph (A) that is not designated as wilderness by this subtitle- (i) is no longer subject to section 603(c) of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1792(c)); and (ii) shall be managed in accordance with the applicable land use plan adopted under section 202 of that Act (43 U.S.C.1712). 3) Secretarial Order 3310 signed December 22, 2010 by Secretary of the Interior, Ken Salazar orders the BLM to maintain wilderness resource inventories and to protect wilderness characteristics through land use planning and project-level decisions. 4) Owyhee County lands within the planning area have previously been assessed for wilderness value, and those determined to have wilderness qualities were listed as wilderness on 3/30/09 by the OPLMA. Based on this assessment, there are no remaining lands with wilderness like characteristics and therefore this portion of the Draft RMP/EIS needs to be removed. 5) Furthermore, Governor of Idaho, C.L. "Butch" Otter, representing the majority of Idaho citizens, does not support the designation prescribed under Secretarial Order 3310. 6) The designated Non-Wilderness Study Area Lands with Wilderness Characteristics fail to recognize the numerous roads, trails, byways, salt grounds, fences, pipelines, reservoirs, fire suppression cat-lines, and non-native vegetation that are present within these areas.	inventory, the BLM must maintain and update as necessary, its inventory of wilderness resources on public lands. 1 and 2) Owyhee Public Land Management Act did release the Bruneau River-Sheep Creek Wilderness Study Area (WSA) and the Jarbidge River WSA, but it did not release the BLM from its obligation to inventory Lands with Wilderness Characteristics. 3 and 5) Secretarial Order 3310 requires the BLM to maintain wilderness resource inventories and to protect wilderness characteristics through land use planning. 4) Owyhee County lands in the planning area have been and will continue to be inventoried for wilderness characteristics. 6) Lands with Wilderness Characteristics identified in the Final EIS meet the criteria described in BLM Manual 6310.
Lands with Wilderness Characteristics	For Lands with Wilderness Characteristics we urge management actions contained in the preferred alternative be replaced with the No Action Alternative. Eliminate any action in the Final EIS to create de-facto wilderness. Congress reserved for itself the power to create wilderness. As spelled out in the	Consistent with Section 201 of the Federal Land and Policy Management Act, which requires the Secretary of the Interior to "prepare and maintain on a continuing basis an inventory of all public lands and their resource and other values," BLM Manual 6310, and BLM Handbook H-1601-1, Land Use Planning, the

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	Wilderness Act of 1964, the primary management concern within a wilderness area is to maintain wilderness character, which is the management prescribed in the Draft Alternative IV. Carried to its logical conclusion, such action allows unelected agency officials to create bureaucratic wilderness with all the ramifications of the real thing. If BLM contends it cannot now un-identify those lands it has identified as lands with wilderness characteristics, we then recommend under "Objectives" Vol. 1 Section 2 p. 120 that WC-IV-O-I, are replaced with WC-II-O-I. Do not manage identified lands specifically to maintain wilderness characteristics, and do not make the false assumption that prior or continuing motorized use precludes an area from designation as wilderness by Congress. Many two-track routes and "ways" that do not qualify as ROADS when identifying for wilderness characteristics are useful and desirable for off-highway vehicle recreation.	Jarbidge Inter Disciplinary Team evaluated and identified BLM-managed Lands with Wilderness Characteristics outside existing Wilderness Study Areas. The Final EIS analyzed a range of alternatives for how the BLM would manage Lands with Wilderness Characteristics. Alternative VI (Proposed RMP) would not manage inventoried Lands with Wilderness Characteristics to maintain their wilderness character.
Lands with Wilderness Characteristics	Considering the Draft RMP/EIS was released in August 2010 and Secretary of Interior Salazar did not release his Wild-Lands directive (Secretarial Order 3310) until late December 2010; among questions this raises is whether the Lands with Wilderness Characteristics chapter should even have been in the document prior to the official change of policy.	The inventory process for Lands with Wilderness Characteristics is different than the executive order 3310 identified in this comment. On December 22, 2010, the Secretary of the Department of the Interior issued Order 3310 to address the BLM's management of wilderness resources under its jurisdiction and to use the land use planning process to designate certain Lands with Wilderness Characteristics as "Wild Lands." On April 14, 2011, the United States Congress passed the Department of Defense and Full-Year Continuing Appropriations Act (Public Law 112-10) (2011 CR), which includes a provision (Section 1769) that prohibits the use of appropriated funds to implement, administer, or enforce Secretarial Order 3310 in Fiscal Year 2011. On June 1, 2011, the Secretary issued an Instruction Memorandum (IM) 2011-154 to the BLM Director that in part affirms BLM's obligations relating to wilderness characteristics under Sections 201 and 202 of Federal Land Policy and Management Act of 1976 (FLPMA). This Instruction Memo further clarifies that the requirements of Sections 201 and 202 of FLPMA remain in effect. It also provided direction on how to

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		conduct and maintain wilderness characteristics inventories and provides direction on how to consider Lands with Wilderness Characteristics in the land use planning process. The Final EIS revised the Non-Wilderness Study Area Lands with Wilderness Characteristics section to the Lands with Wilderness Characteristics section and to reflect direction contained in IM-2011-154.
Lands with Wilderness Characteristics	In Section 2.3.14 *Non-Wilderness Study Area Lands with Wilderness Characteristics* of the Draft RMP/EIS, the management goal common to all action alternatives directs BLM to "maintain wilderness characteristics of non-Wilderness Study Area lands as appropriate, considering the manageability and the context of competing resource demands" (WC-CA-G-1). The key phrase in this goal is "as appropriate." The Appropriateness of this overall goal or alternative-specific goals is not specified in the Draft RMP/EIS. The reader must review the management specific to each alternative to garner whether BLM believes it would be appropriate to maintain wilderness characteristics of non-Wilderness Study Area lands.	In Chapter 2 of the Final EIS, for the *Lands with Wilderness Characteristics* section (formerly *Non-Wilderness Study Area Lands with Wilderness Characteristics*), each alternative has a goal specific to that alternative. A reasonable range of alternatives for managing Lands with Wilderness Characteristics has been incorporated and analyzed. The Final EIS removed the term "as appropriate".
Lands with Wilderness Characteristics	On p. 2-119 of the Draft RMP/EIS, for Non-Wilderness Study Area with Wilderness Characteristics, we oppose any road closures for the areas mentioned. You are discriminating highly against the hunters and sportsmen in favor of rafters.	Closing Lands with Wilderness Characteristics managed for their wilderness characteristics to motorized travel was included in the range of alternatives analyzed in the Final EIS. The range of alternatives also included options that would not close these areas to motorized vehicle use. Alternative VI (Proposed RMP) does not close Lands with Wilderness Characteristics to motorized travel.
Lands with Wilderness Characteristics	On p. 3-62, Table 3-40, please indicate which section of Salmon Falls Creek you are referring.	The "Lands with Wilderness Characteristics" map was revised in the Final EIS (Map 49), to show that the area of Salmon Falls Creek referenced is between the Nevada border and Salmon Falls Reservoir (Browns Bench).
Lands with Wilderness Characteristics	On p. 2-120 of the Draft RMP/EIS, please identify which segment of Salmon Falls Creek you are referring. Again, we oppose any road closures in this section and any such designations for Salmon Falls Creek below Balanced Rock.	Map 42 of the Draft RMP/EIS displays The Salmon Falls Creek area referenced on p. 2-120. The area is on Browns Bench adjacent to the Nevada border. The Final EIS included an updated inventory for Lands with Wilderness Characteristics (see Map 49 "Lands with Wilderness Characteristics"), which followed direction in BLM Manual 6310.
Livestock Grazing	It is essential that BLM provide data on the actual use and utilization that has been occurring in each pasture under	Chapter 3 describes current conditions that are the result of past management and natural events, such as fire. The information

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	various stocking levels, under Temporary Non-renewable Authorization use, under seasons of use, residual grass height that remains under grazing schemes, cheat grass and other weed advance, micro biotic crust losses or degradation, forb losses, failed or poorly recovered fire and other rehab efforts, etc. Clearly lay out the degree and severity of impacts of existing uses on habitats and species so a reader can understand how the Draft RMP/EIS would change matters.	included in Chapter 3 is sufficient to provide the reader with an understanding of the baseline conditions of the affected environment. Chapter 4 describes the direct, indirect, and cumulative impacts of each alternative combined with reasonably foreseeable future actions, and provides the reader with a basis for comparison among the alternatives.
Livestock Grazing	Use grazing in conjunction with strip vegetation, to not only promote wildlife but to lessen the chance of gigantic fires that are starting to characterize the plant and animal ecology.	Alternative VI (Proposed RMP) analyzed the use of targeted grazing and vegetated fuel breaks as one of a number of tools to manage fuels (see management actions FE-VI-MA-3 and FE-VI-MA-4). After signing of the Record of Decision, project specific proposals will be developed and analyzed to identify the most effective combination of tools to manage fuel loadings.
Livestock Grazing	Although never clearly defined, the use of the word "livestock" must essentially mean cattle, at least in this particular document.	The Final EIS added the term "livestock" to the Glossary.
Livestock Grazing	It is also obvious to the reader that due to both the Stipulated Settlement Agreement, and the ever-changing Federal land management philosophy driven by multiple use and other concept that livestock grazing of Federal lands in the Draft RMP/EIS will be reduced. In the alternatives (Chapter 2), one would assume that reasonably accurate numbers of animal unit months (AUMs), etc. would be available. The first indication of livestock numbers appears in 2.4.1. Livestock Grazing - Management Specific to the No Action Alternative (p. 2-122). Under Allocation - Forage and Grazing Management Practices, LG-NA-A-2 we are told that, "Continue allocating approximately 200,000 AUMs for livestock". As the plan is implemented, between 160,000 and 260,000 AUMs could be issued for livestock depending on implementation of treatments described in the *Upland Vegetation* section. However, this information would be useless to the reader, as he already knows that the section, Management Specific to the No Action Alternative, is meaningless for the future of this RMP/EIS. However, the figure of 200,000 AUMs seems to suggest some historical perspective, and further, the figure of 260,000 AUMs seems to suggest considerable potential for the planning area.	The Final EIS revised Chapter 2 to reflect the estimated range of animal unit months allocated to livestock grazing under each alternative.

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	Under Management Common to All Action Alternatives (pp. 2-125 through 2-127), there is no further discussion of livestock AUMs or livestock numbers. Under Management Specific to Alternative IV (the Preferred Alternative) (pp. 2-139 through 2-143), there again is no further discussion of livestock AUMs or livestock numbers. There is a presentation of allocated vegetation production for watershed and wildlife, wild horses and livestock. However, without additional information, it is impossible to determine livestock numbers, estimated carrying capacity and a variety of other measurements pertinent to livestock interest under Alternative IV.	
Livestock Grazing	The Draft RMP/EIS does not indicate how long treated areas will be removed from grazing, nor does it clearly indicate how grazing will be curtailed (fencing, herding, etc.). It is difficult to understand how and why livestock grazing will be significantly curtailed in this plan. If as the Agency indicates the potential animal unit month (AUM) production could be as high as 427,000 AUMs and if as the Agency indicates allocation of only 4,859 AUMs to wildlife and horses, then potentially some 422,000 AUMs are available for livestock and watershed.	The Final EIS described allocations to livestock grazing in two ways: (1) areas of land available to livestock grazing, and (2) the amount of forage (animal unit months [AUMs]) available to livestock grazing. The Final EIS described forage allocation in each action alternative as a percentage of the total vegetation production allotted for resource use and protection and livestock grazing that would achieve resource objectives specific to that alternative. The Final EIS revised Chapter 2 to reflect the estimated range of AUMs allocated to livestock grazing under each alternative. Under NEPA, BLM is required to analyze a range of reasonable alternatives for livestock grazing and forage allocations. The 2005 Stipulated Settlement Agreement requires analysis of "at least one alternative in the EIS addressing significantly reduced grazing levels in those areas demonstrating livestock-related conflicts with other multiple-use values". The example used in this comment is specific to Alternative II, which focuses on increasing commercial uses. Whereas Alternatives IV-A, IV-B emphasize restoration of ecosystem structure and function, and V restoring historic native plant communities. These three alternatives would allocate less forage than Alternatives I, II, III, and VI. Between the Draft RMP/EIS and the Final EIS, BLM developed Alternative VI (Proposed RMP). Alternative VI focuses on

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		actively restoring the resiliency of sagebrush steppe ecosystem structure and functions through restoration projects and enhanced fire management while balancing resource protection and uses within the planning area. BLM considered comments received from the public on the Draft RMP/EIS, the analysis of effects described in the Chapter 4, and available science to select a level of forage allocation to livestock that provides for livestock grazing while meeting other resource objectives.
Livestock Grazing	The Draft RMP/EIS (p. 4-595) includes Table 4-282. Change in Forage Availability for Livestock Grazing Due to Vegetation Treatments by Alternative (AUMs). For Alternative IV-A and Alternative IV-B, after forage treatment the number of animal unit months (AUMs) that may be available for livestock could be as low as 89,000 (Alternative IV-A) or 92,000 (Alternative IV-B). This leaves an unreasonable amount of forage (upwards of 330,000 AUMs, or some 133,200 tons of annual production of forage material) that is unaccounted for. This reviewer cannot find anything in the Draft RMP/EIS stating anything about potential increase in catastrophic fire, or even fire for that matter. We consider leaving this amount of fuel buildup on an annual basis a significant mismanagement, regardless of Stipulated Settlement Agreement, or any other fact for that matter.	The Final EIS allocated vegetation production to watershed, wildlife, wild horses, and livestock under each alternative (see the *Livestock Grazing* sections in Chapter 2). Chapter 4 described the effects of these allocations. The Final EIS, *Wildland Fire Ecology and Management* section, describes the impacts of the vegetation allocations including discussion and evaluation of impacts to fire size relative to vegetation treatment and livestock grazing actions.
Livestock Grazing	The Draft RMP/EIS (p. 2-48) indicates development of some 75-ungrazed reference areas, compared to adjacent 75-grazed areas, to study the effects of livestock grazing (UV-IV-MA-29). The Draft RMP/EIS fails to mention how the ungrazed areas will be maintained in an ungrazed condition. If fencing is required, these approximately 160 acre fields will each require 2 miles of fencing, or 150 miles total. How is this fencing to be paid for, which could cost as much as $750,000 or more? What will BLM measure on both grazed and ungrazed sites? How much manpower will these measurements require? How long will BLM maintain these sites? Delete or explain this management action in detail. The Draft RMP/EIS (p. 2-59) indicates that BLM will study the effect of riparian habitat from 10 ungrazed riparian reference areas, compared to adjacent grazed reference areas (RI-IV-	Consideration of ungrazed reference areas was a requirement of the Stipulated Settlement Agreement. Details related to establishment and monitoring of reference areas are dependent on location of individual areas, topography, vegetation, special status species, and existing infrastructure. Generally, monitoring would be specific to capturing long-term response of vegetation and soils to exclusion of livestock grazing. Maps 11 to 15 provide estimates of where reference areas may occur, but final location, objectives, and monitoring plans would be addressed in detail following approval of the RMP. Alternative VI (Proposed RMP) analyzed establishment of up to 52 40-acre (see management action UV-VI-MA-25) upland and 10 riparian (UV-VI-MA-25) reference areas. BLM would exclude livestock grazing in the reference areas by using a combination of natural barriers and existing and new fences. Funding and

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	MA-4). Again no comment occurs in the draft how ungrazed areas will be maintained ungrazed, no mention is made of what measurements will be made, duration of the study, cost, etc. Explain this section in sufficient detail so that the reader can determine what BLM proposes, and how BLM will accomplish it, and what it will cost.	staffing will be an important consideration of establishment of the exclosures following the Record of Decision. The land use planning process does not secure funding but rather establishes goals, objectives, and priorities by which treatments would be applied within the planning area. Annual funding levels and priorities would determine treatments, personnel, or other resources to implement the plan.
Livestock Grazing	The discussion of livestock grazing impact throughout Chapter 4 frequently and repeatedly makes statements about various adverse effects that livestock grazing "could" produce. However, there are no scientific references related specifically to the planning area that support these statements. The frequent references to light or moderate utilization values attributed to Holechek and the purported vegetation response are not appropriate. None of the references relate directly to the planning area and further, the conclusions purported by Holechek are not based on information directly related to the planning area. This is a misuse of purported scientific information.	There is a body of literature that relates, in general, to livestock-related impacts to vegetation in the Great Basin. The use of studies or information gathered outside the planning area is an acceptable practice as long appropriate caution is used when applying the information. BLM made an extensive effort to collect and review internal and external resources and current and pertinent literature available related to allocation, stocking rates, and use levels by conducting multiple public meetings, and public review of the Draft RMP/EIS.
Livestock Grazing	It should be assumed that livestock grazing would continue to be managed to conform to the Idaho Standards and Guidelines, thus any adverse impacts that actually were occurring would be corrected through adaptive management. Consequently, remove all speculation as to what "could" happen from the analysis because it provides no reliable information as to actual environmental effects or future conditions.	The purpose of the analysis is to disclose foreseeable impacts resulting from allocations and management actions in each alternative. Because these actions could occur at various times throughout the life of the plan some reasonable theorizing as to what "could" happen must be made to predict environmental impacts. One cannot assume that all impacts can be accurately predicted, but to the extent possible current monitoring, literature, and professional judgment are used to reasonably predict impacts. BLM would manage livestock grazing to conform to the fundamentals of rangeland health per 43 CFR 4180.
Livestock Grazing	The Draft RMP/EIS reports: "Every rancher interviewed for the analysis had family members who would want to become ranchers if it were economically feasible (Evans, 2008), but it is assumed that it would require more forage allocation to support an additional rancher than current levels... It is assumed for the purposes of this analysis that a change of 10,000 animal unit months (AUMs) beyond the baseline AUM range in the No Action Alternative would change the size of the rancher	The Chapter 4 analysis in the *Social Conditions* section has been revised in the Final EIS. Changes in operator numbers using a ratio of animal unit months to operators is no longer used in the analysis of grazing in the Final EIS. The updated grazing analysis used established BLM methodology. Alevy and others (2007) inferred use of a "multiplier" to estimate the economic impact of federal grazing on ranch production. The

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	stakeholder group by one." However, using the 2.21 ranch level AUMs for each Federal land grazing AUM cited at p. 4-40, the 10,000 AUMs would equate to a 1,842 head cattle ranch. This is hardly the minimum economic size for one additional ranch. However, this assumption is in error by a factor of 4. An economic ranch unit (full time rancher) would likely be in 400 to 500 AUM range. Thus, using the mysterious 2.21 ranch level multiplier an increase of 2,500 Federal AUMs would support one additional full time ranch operation or a decrease of 2,500 AUMs would cause the loss of one full time rancher.	multiplier of 2.21 as stated in the Draft RMP/EIS was changed to 2.19 in the Final EIS. This multiplier was derived by using values displayed in Table 5 of Alevy and others (2007), and verified by Tables 6 and 7.
Livestock Grazing	I am writing concerning your proposal to close Allotment 01100 Diamond A 1429 Canyon to livestock grazing. This allotment is a vital part of the Stowell Ranch.	Alternatives I-VI kept Allotment 01100 Diamond A Bruneau Canyon unavailable for grazing. This allotment is currently vacant and not under a livestock grazing permit.
Livestock Grazing	It is time to evaluate the grass each year to determine animal unit months (AUMs) and turn out dates. Implement these vegetation allocations during the permit renewal process. Only adjust allocations during permit renewal based on available data. The purpose of allocating vegetation is to determine the total AUMs available for livestock grazing in the planning area. Allocation percentages are not the same as utilization, as the allocation is used to identify the total number of AUMs for livestock, while utilization identifies the amount of vegetation used by livestock in a specific area. The intention of allocation is not to prescribe what livestock can actually consume. Adjust allocations to reflect varying percentages when there is a mix of production type within a particular pasture.	The Final EIS identified lands available or not available for livestock grazing and identified on an area-wide basis the amount of forage available for livestock (in animal unit months) both at initial implementation and in the future with full implementation of the land use plan. Changes to allotment specific allocations only occur during permit renewals, which typically occur every 10 years. However, annual adjustments to numbers and grazing periods may occur in order to address specific resource issues determined through annual monitoring and current environmental factors.
Livestock Grazing	In light of the Soil Conservation Districts' long record of working cooperatively with numerous stakeholders to achieve results, the preferred alternative of the Draft RMP/EIS threatens to cripple the ability of the Soil Conservation Districts to continue working in the planning area. The primary issue the Twin Falls and Balanced Rock Soil Conservation Districts have concerns about is the failure of BLM to take into account unintended impacts from numerous proposed actions. Actions taken by BLM on Federal lands will have impacts on private and State lands, which will then in turn have impacts on Federal lands due to the connectivity of resource management, issues, or impacts don't stop at fence lines or property boundaries.	The Final EIS analyzed effects to private and State lands resulting from Federal actions in the Cumulative Impacts analyses. In addition, the Final EIS revised the Cumulative Impacts analyses to better explain the effects of Federal actions on adjoining lands as well as the combined effects of foreseeable actions on all landowerships within the cumulative impact analysis area (see Map 60 "Cumulative Impact Analysis Area for Livestock Grazing" in the Final EIS).

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	An example of this failure to adequately address the impacts occurs in the proposed action to reduce animal unit months (AUMs) on Federal land. It is unlikely there will be an actual reduction in livestock numbers within the planning area. Rather a shift in where livestock graze and when, as private and State lands will make up the AUM difference. It is reasonable to expect much of the increased forage production on private and State lands to come from the conversion of native vegetation to exotic plant communities. In addition, many of the changes in season of use on Federal acreage would require landowners to shift use to private and State lands. In most cases, this would not result in a net gain for the resource conditions in the planning area (all lands Federal, State, private). The Soil Conservation Districts have concerns that the proposed BLM actions would render inoperative numerous conservation projects and decades of working relationships as landowners readjust by making dramatic management changes. Many of the landowners' management changes are likely to lead to a decrease in water quality, destruction of wildlife habitat, increased soil erosion, and an abandonment of conservation plans. Has BLM fully accounted for all the impacts the Draft RMP/EIS will induce? The actions on Federal lands will have impacts elsewhere and in the case of the preferred alternative, these impacts may outweigh the perceived benefits if BLM considers a broader setting for the environment as required by law. Just as projects on private and State lands require a Federal analysis if Federal land is deemed to be part of what enables the project, cumulative impacts, the same is also true in the reverse. Federal actions must not degrade the overall environment even in cases where the action might improve the Federal lands.	
Livestock Grazing	There must be alternatives that provide for usage of fine fuels, and I believe that managed cattle grazing results in fire suppression, protections of wildlife habitat and improved diversity and abundance of native plant species. Grazing has proved to help reduce the incidence of catastrophic fires, which destroy watershed, wildlife and their habitat, especially in a year when the growing season produces too much vegetation/fuel.	Each alternative considered contains management actions addressing fine fuels and wildfire suppression. BLM developed Alternative III specifically to restore ecosystem structure and function through intensive management of fuels, including forage allocations to livestock. The Final EIS, *Wildland Fire Ecology and Management* section, addressed management of fine fuels and how allocations to livestock grazing would influence fuel loading and fire management.

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Livestock Grazing	We realize the establishment of livestock grazing enclosures is a requirement of the court ordered Stipulated Settlement Agreement, but in reality, the enclosures will add very little value to the management of the planning area. Ecological and range site descriptions are readily available to inform the manager of a sites potential in the absence of grazing. Because of this lack of value, enclosures should be restricted to the smallest number and size possible. UV-III-MA-20 on p. 2-43 is the best management action in regards to livestock grazing enclosures.	In most cases, 40-acre enclosures would be of sufficient size to isolate local environmental factors to allow evaluation of ecological changes due to management. Alternative VI (Proposed RMP) analyzed establishment of up to 52, 40-acre upland enclosures and 10 riparian enclosures, in major ecological sites within the planning area. Ecological site descriptions are a planning and evaluation tool. However, site potential in parts of the planning area have been altered to the extent ecological site descriptions may not fully address site conditions or potential, making tools such as reference areas valuable in monitoring change in potential.
Livestock Grazing	LG-IV-A-1 on p. 2-139 lists the Canyons or riparian corridors associated with the Bruneau and Jarbidge Rivers as not available for livestock grazing. LG-IV-MA -12 on p. 2-141 states that livestock grazing may be considered on a case-by-case basis in a portion of big game winter range in native shrub communities during winter. LG-IV-A-1 and LG-IV-MA-12 will potentially restrict or eliminate grazing in several allotments. These allocations/management actions disregard the relatively large amount of private property and State leased grazing lands that are located within and adjacent to the canyon areas/winter ranges, and these measures should only be implemented when information is available to illustrate a direct and site specific cause and effect relationship.	The 1987 RMP did not allocate forage to livestock grazing in the Bruneau and Jarbidge canyons (LG-NA-A-1, Map 52). Alternative VI (Proposed RMP) keeps the Bruneau and Jarbidge canyons unavailable to livestock grazing (LG-VI-A-1, Map 59).
Livestock Grazing	Remove management actions LG-CA-MA-9 (guidance for trailing in riparian areas) and LG-CA-MA-15 (priority list for fence modification) on p. 2-127 of the Draft RMP/EIS. This specificity should only be done on the activity level, not the land use planning level. Grazing to reduce fuels (LG-III-0-2, p. 2-135) should not be restricted to non-native perennial communities. Native perennial communities, with an overabundance of fuel, create fire hazards comparable to non-native perennials. Within the planning area, whenever livestock grazing has been concentrated on non-native perennial communities while use on native shrubland is restricted, the resultant fires will destroy the native shrubland communities due to the buildup of fine fuels.	LG-CA-MA-10 provided direction for trailing activities that would limit impacts to riparian resources. The management action provided flexibility to prescribe site-specific actions as needed at the project level. Maintaining fences on public lands to these specifications is policy and therefore required. Management action LG-CA-MA-16 simply prioritized areas in which this action would be implemented. Wildfire has affected both native and non-native vegetation types in recent history. The range of alternatives developed for the Final EIS allowed for the use of grazing to reduce fuel loading contributed by native and non-native communities. Alternative VI

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		(Proposed RMP) included flexibility necessary to determine site-specific actions to effectively manage fuel loadings in both native and non-native plant communities.
Livestock Grazing	In reference to LG-I, II, III, IV, V-A-I, Cat Creek Cattle Company has a valid grazing permit for the Bruneau Canyon Allotment, which is located along the Bruneau River, up-stream of its confluence with the Jarbidge River. The permit is administered by the Bruneau Field Office, Boise District BLM. , Cat, Creek Cattle Company owns approximately 2,040 acres of private land, and leases State sections for grazing within the canyon area. Simplot's Livestock Company also owns private land and leases State sections for grazing within the canyon area. Simplot's livestock operation requires the movement of cattle across the canyon at Black Rock Crossing and Indian Hot Springs. Any proposals developed for management of the Bruneau River Canyon should consider these facts and be tailored to prevent any disruption to traditional operations. The planning document recognizes the high probability of "cheatgrass invasion within the canyon lands following fire. Livestock grazing is the only viable method available to remove fine fuels, reduce fire hazard and prevent the encroachment of this unwanted species.	The proposed closure of the Bruneau Canyon would affect the Bruneau Canyon Allotment administered by the Bruneau Field Office. Should this action be carried forward in the Final EIS, the Record of Decision will detail how this issue should be handle in order to coordinate appropriately with the Bruneau Field Office and the affected permittee and private landowner.
Livestock Grazing	Elko County strongly urges the BLM and other public land management agencies to re-evaluate the current and proposed policies of the Draft RMP/EIS that prohibit or severely limit livestock grazing and other multiple uses on public land to help ensure that catastrophic wildfires don't occur. The Federal land management agencies must permit the grazing permits to utilize the maximum feed value while reducing the fuel loads on public lands to promote the health safety and welfare of the wildlife and environment including air quality.	The range of alternatives included various methods to manage fuel loading and wildfire through various vegetation treatments, fuel treatments, and livestock forage allocation. See Chapter 4 analysis in the *Upland Vegetation, Wildland Fire Ecology and Management,* and *Livestock Grazing* sections. Alternative VI (Proposed RMP) included FE-VI-MA-4, which provided for the use of targeted grazing and other options to create fuel breaks to reduce fire size.
Livestock Grazing	Specific to our Devil Creek family ranch, we are alarmed at the proposed option to close access to Clover Creek for animals from our BLM allotment in the Buck Flat AMP.	All exclosures, upland and riparian alike, will be analyzed at the site-specific level for their effects on resources and resource uses, including livestock grazing. BLM will coordinate with all affected permittees during the analysis, decision-making, and implementation stages of future projects to address specific issues such as access to livestock water.
Livestock Grazing	My first major concern is with the allocation of vegetation production under Alternatives IV-A, IV-B (the Preferred	The Final EIS included a wide range of forage allocation to livestock grazing to allow for an analysis of effects on resources

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	Alternatives) and Alternative V. Though these allocation percentages are not the same as utilization, if the allocations are set unrealistically low (0%), then they create an unworkable situation. More specifically, the 0% allocation of annual grasses, as well as, shrub and forb production, especially with sheep, is unworkable as fine grasses, shrubs and forbs are a major portion of their diet. In addition, this allocation is unhealthy to the resource as it advances the proliferation of cheatgrass and minimizes the vigor of the shrubs and forbs, through reduced utilization, by only allowing wildlife use. Only allocations, such as those in Alternative II, or something close to it, will create a workable and sustainable plan to maintain and improve a healthy resource. Especially in light of the rest rotation and deferred grazing management systems that are in place in this resource area. Also, allocations like those proposed, would significantly reduce the value of targeted grazing on annual grasses for the purpose of fuel breaks for fire.	and resource uses. Forage allocation in the Final EIS included percentages of native and non-native perennial, annual, and shrubs and forbs to more accurately represent actual diet selection of domestic livestock as well as facilitate management of fine fuels represented in the annual grass communities. The majority of the forage base that would be allocated to livestock would be made up of grasses. A lesser amount of shrubs and forbs would be allocated, recognizing these plants will make up some of their diets. During the development of Alternative VI (Proposed RMP), the BLM considered comments received from the public on the Draft RMP/EIS, the analysis of effects described in the Chapter 4, and available science to determine a level of forage allocation to livestock that would both provide the opportunity for livestock grazing and meet resource objectives.
Livestock Grazing	New unrealistic percentages have been implemented during the past decade based on the purported new science that has been published. When you read this new science however, you find that what it says is "consistent use of the resource, at levels of 50% to 60%, may begin to have an impact on the vigor of the forage." Therefore, it is difficult to understand, in light of the rest-rotation grazing systems that are in place, why we would lower utilization to levels of 25% to 40% (effectively 12.5% to 20% in rest-rotation systems) and leave 80+% of the fuels on the ground. It would appear that percentages, such as those used on our private lands in the proposed Jarbidge Foothills Area of Critical Environmental Concern (40% to 50%) would be more effective. Especially, since the management of this area, by this plans own admission, has created a resource that needs to be preserved. In addition, the fact that this same area has remained resistant to major wildfires, over the past 10 years, speaks volumes on the effectiveness of its management practices.	During the development of Alternative VI (Proposed RMP), the BLM considered comments received from the public on the Draft RMP/EIS, the analysis of effects described in the Chapter 4, and available science to determine a level of forage allocation to livestock that would both provide the opportunity for livestock grazing and meet resource objectives. The Final EIS did not prescribe annual use criteria. Percentages prescribed in Chapter 2 of the Final EIS were specifically for allocation of forage and should not be interpreted as prescribed utilization levels. Annual use criteria would be determined during the permit renewal process allowing BLM to consider site-specific resource conditions and management such as those presented in the comment.
Livestock Grazing	My second major concern stems from the Draft RMP/EIS's apparent lack of an effective brush control program in the parts	Management of livestock grazing is important for the success of vegetation treatments. Management actions in Alternative VI

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	of the resource area that remain in solid sage brush cover. Just as seas of waving grass may not be the best management of the resource or for wildlife, neither are solid oceans of brush. Break these areas up by mosaic open spaces, created by moderate prescribed burns or mechanical or chemical treatments of the brush. This type of management, while first reducing the areas susceptibility to major wildfires, also creates areas of new forbs and fine grasses for the sage-grouse while still providing them the edge effect and protection from the brush that they need. In conjunction with this brush control program, review the re-establishment of grazing protocols as well. More timely re-entry is going to be required if we want to prevent repetitive burns, and their denigration of the resource, before grazing is resumed.	(Proposed RMP) provide the necessary flexibility to coordinate cooperatively with permittees to plan for rest periods, as well as the timing of resumption of grazing following land treatments in order to meet resource objectives.
Livestock Grazing	The discussion of cumulative impacts related to livestock grazing at pp. 4-618 through 4-619 discusses alleged conflicts from proposed wind energy projects such as the China Mountain Wind Energy Project and livestock grazing. The narrative discusses a series of potential conflicts. Eliminate this discussion from the Final EIS because these potential conflicts are not reasonably foreseeable. As correctly noted in the narrative, the permanent infrastructure footprint of a commercial-scale wind energy project is small, consisting of several hundred acres. The project would permit livestock grazing to resume following construction and rehabilitation of the area, including rehabilitation of grasses and forbs that are palatable to livestock just as they were prior to construction. Limitations on movement of livestock, water conveyances, and possible fencing requirements are wholly speculative and unlikely to occur. Because these interferences are not reasonably foreseeable, this discussion should be altered or deleted.	The cumulative impacts of the China Mountain Wind Energy Project are reasonably foreseeable. Impacts from this proposed project cannot be limited to the project footprint but must include the entire zone of influence of the projects proposed actions. The cumulative impacts zone of this particular wind energy project is much larger than was analyzed in the Draft RMP/EIS and has been adjusted in the Final EIS to more accurately represent the potential effects. In addition to the proposed China Mountain Wind Energy Project, the expanded cumulative impact analysis in the Final EIS included wind energy projects planned and being constructed on adjoining public, private, and State lands. The effects of each energy project, as with all other activities within the analysis area, were analyzed for their effects on livestock grazing.
Livestock Grazing	Current fences are needed for livestock management to control livestock and keep them within defined areas. Fences are also needed to use specific areas at specific times to target grazing use to stimulate plant growth and harvest plant forage. Future fences both permanent and temporary are needed to control	The Final EIS analyzed management actions that allow for existing and new infrastructure if compatible with meeting resource objectives. The Final EIS, Chapter 4, analyzed at the planning area scale the direct and indirect effects as well as cumulative impacts of removing existing or restricting the

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	livestock to meet desired grazing conditions. Corrals have been put in place to work livestock. Removing corrals would result in the need for alternate working facilities. Incorporate future pipelines and troughs to improve livestock distribution and to improve more uniform use of forage.	installation of new infrastructure. The effects of altering or removing specific infrastructure, new or existing would be considered in site-specific analysis.
Livestock Grazing	The RMP should contain the following considerations for grazing utilization: -Issue Temporary Non-renewable Authorization where excess forage is available. -Allocate 40/50% native, 50/60% nonnative, 70/80% annual grass and 12/16% shrub and forbs production to livestock. -Allocations would not be a means or determination of allowed utilization. -No date restriction on livestock grazing on winter range.	The Final EIS analyzed a range of different allocations and management actions for domestic livestock, including the use of Temporary Non-Renewable permits. Alternative VI (Proposed RMP) considered public comments, analysis in the Draft RMP/EIS, and current science to select allocations and management actions that would allow for resource uses while meeting resource objectives.
Livestock Grazing	BLM fails to mitigate (reference 40 CFR 1508.20) the continued imminent fire danger through at least domestic livestock use, as well as to assess the cumulative impact of such fire danger.	The regulation at 40 CFR 1508.20 refers to mitigation of a BLM authorized action. Wildfire is not an authorized action so cannot be mitigated within this context. However, the alternatives in the Final EIS, including Alternative VI (the Proposed RMP), include objectives for upland vegetation and fuels to manage vegetation to restore the resiliency of the ecosystem structure and function and to manage vegetation communities to maintain or restore their fire regimes. These goals will guide future management that helps to reduce the risk of catastrophic fire. The Final EIS analyzed targeted grazing within the range of alternatives.
Livestock Grazing	The description of the affected environment omits/misrepresents certain details. There is significant under-utilization on several of our allotments including, but not limited to, Grassy Hills AMP, East and West Deadwood Trap, South Deadwood, and Horse Butte. This is causing imminent fire danger, subjecting other resources, including our grazing use, to significant harm. The Final EIS should allocate more animal unit months to deal with this severe underutilization and under-allocation.	The Final EIS revised the affected environment chapter to provide additional background information regarding current and historical stocking rates and 10-year average Temporary Non-Renewable permits. Though there is no discussion of under-utilization, this history does give an indication of forage production within the planning area. The Final EIS considered a wide range of allocations and management actions for livestock grazing, upland vegetation, and wildfire management. When developing Alternative VI (Proposed RMP), the BLM considered comments received from the public on the Draft RMP/EIS, the analysis of effects described in the Chapter 4, and available science to determine a

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		level of forage allocation to livestock that would both provide the opportunity for livestock grazing and also provide the tools and flexibility necessary to improve management of wildfire.
Livestock Grazing	On p. 2-140 of the Draft RMP/EIS, LG-IV-MA-2 establishes reserve common allotments. The management action states that "... in allotments where permits are relinquished, sold, or cancelled". It is unclear what this means. If it means that the BLM/Third parties implement a permit buyout system, we oppose that except to the extent fully coordinated as part of the Owyhee Initiative process.	Management actions providing for the creation of reserve common allotments did not introduce or promote any permit buyout or retirement proposal. The statements "relinquished, sold, or cancelled" refers to the voluntary action of current permittees, or in the case a permit is cancelled due to non-compliance with existing terms and conditions.
Livestock Grazing	Any closure to grazing in excess of 100,000 acres must be duly reported in accordance with 43 U.S.C. 1712(e) (2), and failure to complete such reporting would violate such section. See also 43 CFR 1610.6.	As noted in the BLM's planning regulations (43 CFR 1610.6), if BLM decided to eliminate one or more principal or major uses with respect to a tract of 100,000 acres or more, it shall be reported by the Secretary to Congress prior to implementation.
Livestock Grazing	The Draft RMP/EIS errors in establishing Area of Critical Environmental Concerns (ACEC) and in establishing additional no grazing reference areas (which may include some of the ACEC), and in establishing additional seasonal no grazing areas (as to deer winter range and bighorn sheep), which includes a related closure to grazing in Alternative IV as to 113,000 to 145,000 acres and in Alternative V as to 309,000 acres. Any closure to grazing, whether via an ACEC or reference area, would prevent us from using and otherwise accessing our stock water rights therein.	The Draft RMP/EIS did not establish Areas of Critical Environmental Concern (ACECs); the Draft RMP/EIS identified and analyzed areas that are being considered for ACEC designation. Grazing closures preventing access to stock water rights have no effect on the continued use of the quantity of water described under the water rights listed above, because the source of water for each of the water rights is Pence Spring, which is located on private land owned by the holder of the water rights. Therefore, the holder of the water rights can put the water source over which he has ownership and control to some other use. In addition, the existence of stock water rights on Federal lands does not confer an attendant right to graze on Federal lands in order to use the stock water rights. Joyce Livestock Co. v. US, 144 Idaho 1, 19-20, 156 P3d 502 (2007). Therefore, while the ability to use water rights on Federal lands may be of concern to the holder of those rights, that concern does not need to drive the BLM's land allocation decisions.
Livestock Grazing	Any closure to grazing, whether via an Area of Critical Environmental Concern or reference area, would occur in violation of 43 U.S.C. 1752(g). We have various range improvement permits and cooperative agreements within the intended closure areas. The Draft RMP/EIS fails to ensure compensation for such range improvements.	Federal regulations allow cancellation of permits for a wide range of reasons, including devotion to other public purposes, for example an Area of Critical Environmental Concern. However, if the BLM does choose to cancel a permit, both Federal law (43 U.S.C. 1752(g)) and BLM's regulations (43 CFR 4120.3-6 (c)) require reasonable compensation to permittees for the loss of

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		value to authorized permanent range improvements.
Livestock Grazing	Any closure to grazing, whether via an Area of Critical Environmental Concern or reference area, would effectively nullify our Idaho State Grazing Leases and otherwise impair the Idaho State Endowment Lands. We have various State Grazing Leases within the intended closure areas.	The Final EIS identified the effects of alternatives on private and State lands in the cumulative impacts analysis for each resource and resource use.
Livestock Grazing	Any Final EIS should protect the pre-existing rights and practices within the newly designated Wilderness areas. Grandfather our current livestock grazing practices, including both numbers and season of use, are historic, as well as ordinary and customary practices, into any continued and future use within the Poison Butte Allotment. In addition, any changes should conform to the direction of the Owyhee Wilderness Board.	Continued and future uses, including grazing, will be considered and analyzed on an allotment specific basis after the signing of a Record of Decision. Implementation of any management actions within the Bruneau-Jarbidge Rivers Wilderness will be consistent with the Owyhee Public Lands Management Act of 2009, including historic uses and practices related to livestock grazing and the applicable wilderness plan.
Livestock Grazing	The Draft RMP/EIS should ensure fairness and equity in allocating animal unit months (AUMs) between wild horses and livestock. For too long there has been a lopsided distribution of AUMs in favor of the latter. This disproportionate allocation shows up in the Draft RMP/EIS wherein, depending on the alternative, livestock are awarded 20 to 50 times the percentage of perennial grasses assigned to wild horses. The 1987 RMP gives 200,000 AUMs to cattle and 600 to wild horses. To begin to rectify the imbalance, AUMs in active status but not being used by livestock should be converted to wild horse AUMs, and the Appropriate Management Level should be increased accordingly.	The Final EIS analyzed a range of allocations for the wild horse Appropriate Management Level. The Federal Land Policy and Management Act of 1976 directs the BLM to manage public lands under the principles of multiple use and sustained yield. Managing use by cattle and sheep, together with wildlife and wild horses and burros, and a host of other uses is part of BLM's multiple-use mission. The regulations at 43 CFR 4710.3-2 indicated that Herd Management Areas might be designated to be managed principally, but not necessarily exclusively, for wild horse or burro herds.
Livestock Grazing	In addition to the economic impacts, grazing reduction has many other negative, if unintended, consequences. Grazing can and should continue to be used as a management tool to reduce the risk of fires, control invasive weeds, and ensure active management of the resource. The multiple-use plan includes provisions to allow this to happen. For instance, the multiple-use plan focuses on grazing at or near historic use for the reduction of fine fuels to lessen the intensity of fire. Resource managers would have the ability to control fuel loads with the grazing levels and targets in this multiple-use plan. There are several scientifically viable mechanisms and management to modify fuel loads with grazing. Grazing as described in this multiple-use plan also reduces biomass and	The range of alternatives of the Final EIS included a variety of grazing allocations and management tools to address vegetation resource objectives. Alternative VI (Proposed RMP) included an increase in forage allocation to livestock which is in part reflected by the inclusion of annual grass to aid in managing fine fuels. Additional actions proposed in the *Upland Vegetation* and *Wildland Fire Ecology and Management* sections of Alternative VI allow for a wide array of options to manage fine fuel loading, including fuel breaks and targeted grazing.

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	fuel loads and the continuity of fuels.	
Livestock Grazing	Appendix K: Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management should include the Guidelines section, which is part of the "Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management" document.	The Final EIS removed Appendix K: Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management. As stated, Appendix K in the Draft RMP/EIS only included a summary of the standards. The Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management are readily available and can be accessed at http://www.blm.gov/id/st/en/prog/grazing/Range-Health-Stds.html.
Livestock Grazing	The BLM should consider implementing different amounts of grazing utilization that may be above current levels, if needed to reduce fuels at the landscape level, while continuing to maintain and enhance sage-grouse habitat. BLM should allow flexibility to manage permits, allotments and pastures, to reduce fuels while continuing to maintain or enhance sage-grouse habitat; management could include rest periods, stocking rates, season of use, etc.	Utilization levels are an annual indicator used for monitoring the effectiveness of implementation of management actions in meeting resource objectives. Annual indicators will be determined on a site-specific basis during permit renewal and will take into consideration resource objectives including vegetation, wildlife habitat, and fuels management. Alternative VI (Proposed RMP) allocations and management actions that would flexibility to implement actions suggested in the comment. These actions would all be available for consideration during the livestock grazing permit renewal process after the signing of a Record of Decision.
Livestock Grazing	The Resource Advisory Council unanimously supports the use of LG-IV-MA-5 with a change in the order of priority. Move, Permittees- Lessees whose normally permitted allotments are under an approved vegetation treatment program to the top of the priority list. The rearrangement of priorities would help encourage the participation of cooperating permit holders in vegetation treatment programs.	The Final EIS incorporated this suggestion as part of Alternative VI (Proposed RMP), see LG-VI-MA-4.
Livestock Grazing	A majority of the Resource Advisory Council supports the use of LG-II-A-3 over the use of LG-IV-A-3 with a minority disagreeing. Temporary Non-renewable Authorizations (TNR) is a means of reducing fine fuels in years of above normal precipitation or forage growth. To restrict the use of TNR will limit the ability of BLM to make appropriate animal unit month adjustments or target areas where fuel loads may be excessive.	The Final EIS analyzed a range of alternatives concerning the use of Temporary Non-Renewable (TNR) permits. Alternative VI (Proposed RMP) increased the amount of the planning area available for TNR, but maintained the same criteria for issuing TNR as described in the Draft RMP/EIS for Alternatives I through IV.

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	The preferred alternative takes the planning area right back to a decision that resulted in litigation in the late 1990's. The use of TNR was restricted to non-native perennials. Permittees, because of this decision, started to use their native pastures first, saving the non-native pastures for TNR use. As the grazing season begins March 1, this concentrates livestock use on native range in the early spring versus on the non-native range that is better suited for early spring grazing.	
Livestock Grazing	A majority of the Resource Advisory Council supports replacing LG-IV-MA-12 with LG-II-MA-11 with a minority disagreeing. To specifically exclude some pastures from livestock winter use would make many of the current management systems infeasible. Even within individual allotments not all of the big game wintering habitat is occupied by livestock at any one point in time, when occupancy is spread across numerous allotments there is adequate acreage without the presence of livestock and in many cases there is a full season of growth for wildlife needs as the grazing plan in place has deferred use in that pasture. The big game wintering area as marked on Map 19 needs further refining. Some areas have undergone a questionable expansion (higher elevations) while other areas have been neglected, (Diamond A Desert, northern end of the planning area, Roseworth Point). Some of the most beneficial use of native range can occur during the dormant season. Adoption of LG-IV-MA-12 may lead to increased use of native range during the spring months, as these pastures are unavailable other times of the year. Spring use of native pastures can have adverse impacts.	The Final EIS analyzed a range of alternatives for livestock grazing management. Alternative VI (Proposed RMP) did not include LG-IV-MA-12. Management actions such as LG-CA-MA-4, LG-CA-MA-8, LG-VI-MA-2, LG-VI-MA-8, and LG-VI-MA-9 can achieve resource objectives at the allotment scale.
Livestock Grazing	We recommend the Final EIS include clarifying information related to livestock grazing. To prioritize the utilization of high resource, low conflict lands we recommend the Final EIS include a process for permit relinquishment. Consider replicating the approach adopted by the BLM Prineville District in the Upper Deschutes Resource Management Plan and Final EIS.	The current BLM Grazing Regulations provide permittees the option to relinquish permits if they desire. If a permit is relinquished, the BLM can then consider whether to make the allotment and/or animal unit months available to other qualified applicants. Alternative VI (Proposed RMP) provided the additional option to retain a relinquished allotment as a reserve common allotment to facilitate restoration efforts and rehabilitation following wildfire.

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		BLM reviewed the Upper Deschutes RMP and contacted Prineville District staff regarding their relinquishment process. Their resource area has to balance grazing with competing high recreational values and urban interface. The process described in the Upper Deschutes RMP for classifying allotment status is specific to their situation. The Jarbidge Field Office does not share the same level of conflict between livestock grazing, recreational use and urban interface. Where conflicts do occur they are localized and seasonal. Management actions in the Final EIS, such as TR-CA-MA-2 and TR-VI-MA-6, provide direction to mitigate conflicts between authorized grazing and other resources uses.
Livestock Grazing	To protect relevant planning area resources, we recommend the Final EIS consider the environmental benefits of timing restrictions for the grazing of cattle.	The Final EIS included management actions specifically addressing the timing and seasons-of-use of livestock grazing to achieve resource objectives (e.g. SS-CA-MA-16, LG-CA-MA-3).
Livestock Grazing	To analyze the impacts of reserve common allotments on water resources, we recommend the Final EIS include additional information. Stating that reserve common allotments will follow the Aquatic and Riparian Management Strategy does not sufficiently disclose the impacts of utilizing reserve common allotments (see Draft RMP/EIS. p. 4-105).	The Final EIS analyzed the creation of reserve common allotments to facilitate vegetation treatments and increase flexibility for livestock grazing; however, the location of reserve common allotments was not identified. Because the location of reserve common allotments is not known at this time, a detailed analysis of impacts to water resources could not be completed. When a reserve common allotment is created, an allotment management plan would be developed to ensure maintenance or achievement of resource objectives. This would include following the direction in the Aquatic and Riparian Management Strategy (Appendix D) which requires maintaining or improving instream habitat, riparian habitat, and water quality for water quality impaired streams. The Final EIS included this management direction in Alternative VI (Proposed RMP).
Livestock Grazing	We recommend the Final EIS include clarifying information with regard to the following impact from Temporary Non-renewable Authorizations (TNR), "Issuing TNR late in the grazing season would pose an increased risk to water quality where reduced condition is related to livestock grazing." (p. 4-104). We are unsure if this impact is indeed specific to TNRs. If this impact or others are indeed specific to TNRs (relative to other grazing allotments), we recommend that the Final EIS TNRs be designed in such a way that increased risks to water quality (or	management action LG-VI-MA-7 in Alternative VI (Proposed RMP) describes Temporary Non-Renewable (TNR) permit consideration criteria, one of which requires issuing TNR consistent with resource objectives. If monitoring data demonstrated additional forage to be available, project specific (application for TNR) analysis would be performed to determine how authorizing use of that forage would affect resources and resource uses.

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	other resources) are eliminated. It also appears that the Draft RMP/EIS allows for TNR in riparian areas.	
Livestock Grazing	The Draft RMP/EIS (p. 3-7) states: "Accelerated erosion exhibited by plant pedestals were documented during Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management assessments." However, this statement is misleading, erroneous, and incomplete. It is misleading because it implies that accelerated erosion as exhibited by plant pedestals was a universal finding of all of the standards and guidelines assessments. It is also erroneous because it fails to report the fact that BLM represented to Judge Williams, during a tour of the area, that the ungrazed Murphy Hot Springs Airport would not have met the standards that BLM applied in its assessment of grazed rangelands (because the pedestalling was a natural phenomenon of frost heaving or for other reasons). It is incomplete because it fails to report that, notwithstanding the belated revelations to Judge Williams, BLM and/or the permittees nevertheless undertook changes to grazing authorizations subsequent to the standards and guidelines assessments. Therefore, the grazing authorized prior to the assessment findings is not the same as the current situation. See also the "02/29/09 AMS/RMP Supplemental Comments" submitted to BLM by Intermountain Range Consultants, particularly as concerns "Ground Cover for 13 Allotments". In addition, we submit Exhibit 2, "Ground Cover for 23 Allotments", which relates to what are commonly termed the Stipulated Settlement Agreement Allotments (less data related to Browns Gulch, which is now managed under the auspices of a different RMP). Exhibit 2 documents that, relative to these 23 allotments (as was the case for the previously documented 13 allotments), ground cover is appropriate for the ecological site potential in each of the allotments.	Details of this comment and shared data are beyond the scope of this planning effort. BLM will consider this comment while performing Rangeland Health Assessments for specific allotments.
Livestock Grazing	It is not necessary for BLM to disturb the ground at all by ripping up a pipeline. BLM could just remove and recycle the troughs, plug the pipe, and leave it buried. This is illustrative of how BLM arbitrarily seizes on any possible excuse to scuttle any meaningful change, without any science-based or common	Consideration of range infrastructure removal will be determined on a site-specific basis. However, in order to remove and recycle a trough and plug a pipeline, it would be necessary to use heavy equipment, which would result in some ground disturbance.

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	sense rationale.	
Livestock Grazing	We know of no other landscape that is so tragically industrialized for the sole benefit of livestock. See Jarbidge Analysis of the Management Situation from 2007, the RMP's Water Development Map, Roading Map, and Map of Remnant sagebrush habitats. Much of the planning area is within 1 mile of water. Removal of half, two thirds or more of these water developments, including through expanding pastures and removal of fencing would assist in getting rid of some of the ecological blight, habitat fragmentation, and degradation caused by water developments. Cattle in flat landscapes are readily able to travel 2 miles from water sources. Ranchers have horses, and can work to herd livestock. Consider this in all grazing alternatives.	The Final EIS analyzed a range of infrastructure necessary for livestock, including reductions in existing systems. The Final EIS analyzed the effects of the removal or relocation of infrastructure documented to be contributing to not meeting resource objectives.
Livestock Grazing	The Draft RMP/EIS does not provide mandatory measurable use standards and other actions needed to comply with the fundamentals of rangeland health requirements. Specify how the Draft RMP/EIS should apply monitoring results.	The Final EIS contained a management action common to all action alternatives (LG-CA-MA-1) which provides direction for identifying grazing use indicators to monitor the effectiveness of implementation of the plan. Coupled with long-term monitoring, the annual use indicators will help determine if resource and special designation objectives are being achieved.
Livestock Grazing	There is no schedule for standards and guidelines analysis and re-analysis. BLM needs a schedule for compliance with the Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management. Even though the Stipulated Settlement Agreement requires new permits within 3 years, BLM never met the schedule for the Draft RMP/EIS, and will likely fail to meet the permit renewal schedule. Prioritize actions based on the importance of habitats in affected lands for rare and imperiled species like sage-grouse. Schedule standards and guidelines for re-assessment, as well.	BLM generally performs standards and guidelines assessments once during the 10-year permit cycle unless a specific event or monitoring indicates an assessment of conditions is warranted. Rangeland health assessments will be performed on allotments during the permit renewal process that will follow the signing of the Record of Decision (ROD). Scheduling of permit renewals following the ROD will consider findings in rangeland health assessments and resources such as special status species.
Livestock Grazing	BLM must analyze a range of alternatives that rely on 6 inches stubble height, analyzing 5% and 10% annual bank trampling requirements, and less than 10% woody browse. Livestock use reaching any of these levels must serve as a trigger for their removal from the pasture.	Specific standards or use indicators for livestock grazing will be determined during permit renewal process and will be based on site specific data, standards and guidelines assessments, analysis performed under NEPA, and consultation with the US Fish and Wildlife Service if Endanger Species Act listed species or their habitat are affected.
Livestock Grazing	BLM is so paralyzed and unable to control grazing impacts caused by politically powerful permittees that it even refuses under Alternative IV to prevent destructive sediment producing	The Final EIS analyzed broad goals and objectives to guide future management in the planning area. Decisions whether to allow livestock trailing events are site-specific implementation

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	cattle trailing and hill slope erosion caused by Brackett trailing across the East Fork Jarbidge River through bull trout critical habitat, redband trout habitat, and a campground/recreation site. There is a road and bridge that the cattle could use for a crossing. Significant loss of the unstable, cattle-trampled banks apparently will continue for the next 20 years. Yet a specific Alternative IV management action allows this herding to occur for the next 20 years.	decisions that are not included at this planning level.
Livestock Grazing	Affected animal populations on the National Forest are inter-connected and shared with BLM lands. BLM must examine the impacts and use levels of Forest grazing, livestock facilities such as the many pipelines, fence densities in grazed sagebrush lands, fire effects, inter-connected roads and use, and other activities. It must address all direct, indirect, and cumulative impacts.	Analyses of direct and indirect effects in the Final EIS were limited to actions proposed in the Final EIS. Analyses of cumulative impacts of reasonable and foreseeable actions were limited to the boundaries described within each section. In some cases, impacts extended into US Forest Service-managed lands, and were therefore included in the cumulative impacts analysis.
Livestock Grazing	The Draft RMP/EIS (p. 2-139), Alternative IV, allocates forage in broad and unspecific ways under no clear method, as discussed below. LG-IV-A-2 allocates 75% to 85% native perennial grass to watershed and wildlife and 70 to 80% non-native perennial grass to watershed and wildlife. In having a broad range, BLM is maximizing uncertainty and enabling a certain outcome and relentless conflict.	Setting the allocation of forage to livestock at one value across the planning area would limit the flexibility to consider site-specific livestock management actions necessary to meet resource objectives. Providing for a range in which to allocate forage would allow allocation at lower rates in allotments where sensitive resources exist or rangeland conditions need improvement.
Livestock Grazing	BLM cannot allow spring grazing due to severe conflicts with nesting sage-grouse, pygmy rabbits with kits in shallow natal burrows, nesting migratory birds, and other concerns. Where does the Draft RMP/EIS consider this? Spring grazing also poses severe threats to the health of native plants, and results in the depletion of native species in understories. Won't removal of spring grazing reduce livestock stocking by 25% or more?	The Final EIS analyzed effects of seasons-of-use, including limitations of spring use, on resources in each relative resource section. At the planning level, eliminating all spring livestock grazing may or may not achieve resource objectives. Analysis during the permit renewal process will consider the specific resources contained in individual allotments in determining the appropriate seasons-of-use and stocking levels.
Livestock Grazing	BLM will not be able to achieve its allocation of vegetation production unless it incorporates all of the necessary information into determining carrying capacity and suitability. BLM's table doesn't take into account the range of actions needed to provide for sage-grouse: habitat security, space, timing, removal of harmful fences/water developments, etc.	The Final EIS included allocations and management actions that provided the direction and framework to determine allotment-specific allocations and management. The purpose of a range of allocation percentages is to provide the necessary flexibility to address specific biological needs for sage-grouse, plants, soils, and other wildlife species. Additionally, multiple management actions in Alternative VI (Proposed RMP) are designed to meet specific habitat and life cycle needs for various plants and animals (e.g., SS-CA-MA-11, SS-CA-MA-16). The permit

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		renewal processes would consider specific habitat requirements.
Livestock Grazing	Under these simplistic forage-based analyses, will there be double, triple livestock numbers in the fall if spring and winter grazing are limited? If so, how will this impact resource?	The Final EIS did not analyze management prescriptions of this detail. The permit renewal analysis will address these issues in project level detail.
Livestock Grazing	The Management Common to All Alternatives section (pp. 2-125 to 2-126) contains many harmful provisions: The Draft RMP/EIS fails to require any measurable standards of use. There is no adequate framework for applying any scientifically defensible adaptive management. Incorporate specific triggers, sideboards, and required actions. Ranchers will claim riparian trampling, conservative levels of upland use that provide 9 inches of nesting cover, and other controls on livestock use are "not feasible" and under the Draft RMP/EIS BLM is not required to apply this. Under all alternatives, all of the above must be mandatory, measurable and based on current ecological science. Prescribe specific actions BLM would take if standards were not met. The Draft RMP/EIS also says allotment-specific decisions will apply "grazing use indicators and grazing use criteria" but does not specify these. There is no certainty that any proper criteria will be applied and will be required to be met.	The Final EIS provided the framework for development of specific management of all authorized uses. For livestock grazing, the permit renewal process would provide management specifics. The presence of special status species and results of rangeland health assessments will help determine the appropriate site-specific resource objectives and the appropriate indicators and use criteria to help achieve and or maintain those objectives.
Livestock Grazing	There is no evidence that grazing in spring on shrubs improves browse. In the "common to all alternatives" section, mule deer appear to be given more importance than sage-grouse.	The intent of spring grazing on big game winter range is to promote the recruitment of desirable shrubs by reducing grass competition and improving forage quality. There are several articles in peer-reviewed literature supporting the management of livestock grazing to reduce grass competition and promote establishment of browse (Austin and Urness, 1998; Austin 2000). Improving the nutritional quality of forage has also been reported (Anderson and Scherzinger, 1975; Alpe et al., 1999). Browsing also can increase the growth of individual bitterbrush plants (Ganskopp et al., 2004b). The Final EIS revised some common to all management actions to remove the confusion on priority species.
Livestock Grazing	There is no limitation on salting and the thousands of supplement feeding sites that are accelerating habitat declines and weed invasions. Nothing here guarantees removal of a single livestock facility.	The Final EIS provided for range infrastructure to be evaluated in site-specific project proposals in regards to its effectiveness in achieving resource objectives. Evaluations would occur during the standards and guidelines assessments and permit renewal

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		process. Project level NEPA would analyze use and locations of salting and supplement sites during the permit renewal process.
Livestock Grazing	In Alternative III under Fuels, BLM would modify pasture and allotment boundaries to concentrate livestock for fuels reductions - i.e. inflict extreme grazing disturbance that will promote flammable weeds and contribute to a further downward spiral and ecosystem unraveling in the planning area. Yet BLM staff told us that it relied on existing fence lines in its slickspot peppergrass proposals. So altering fences for a threatened plant species is given lower priority than accommodating cattle for fuels projects that are likely to result in even worse cheatgrass and flammable weed problems.	Each alternative analyzed in the Final EIS gives Threatened, Endangered, and other special status species a higher priority and first consideration over all resource uses, including livestock grazing. LG-VI-MA-1 in Alternative VI (Proposed RMP) would allow modification of existing fences to manage fuel and improve the success of meeting objectives in the *Wildland Fire Ecology and Management, Special Status Species*, and *Upland Vegetation* sections. Specific actions to achieve objectives would be determined and analyzed at the project level. Any alteration or relocation of existing infrastructure would be to improve livestock grazing practices in order to meet resource objectives.
Livestock Grazing	BLM has allocated vegetation without any reasoned consideration of impacts to soils and microbiotic crusts, and a specified plan and actions needed for maintenance and recovery. BLM has not shown that lands can recover when faced with continued grazing use in the face of cheatgrass and other weed expansion, or that restoration can be successful with high stocking rates. BLM must demonstrate this to ensure conservation of sage-grouse, bull trout watersheds, redband trout watersheds, and other critical habitats and populations. There is no science-based analysis supporting the allocation acreage numbers.	The Final EIS considered and analyzed the effects of a reasonable range of alternatives to establish and achieve resource objectives. During the development of Alternative VI (Proposed RMP), BLM considered comments received from the public on the Draft RMP/EIS, the analysis of effects described in Chapter 4, and available science to determine a level of forage allocation to livestock that would both provide the opportunity for livestock grazing and meet resource objectives.
Livestock Grazing	BLM provides a different allocation level for exotic species but fails to clarify if these levels will apply to entire pastures. Will this be based on a certain percentage of the pasture being exotics, or what basis will be used for determining non-native vs. native pasture? Or is BLM even planning to split use within the already tiny pastures? Protect all sagebrush and restoration habitats including smaller areas.	The dominant Vegetation Sub-Group within a pasture would be an important factor in determining allocation of forage and management of livestock. Specific resources (e.g., sage-grouse) will also be important in governing management of the pasture (e.g., season-of-use, length of grazing periods, and annual use criteria). If a pasture contains sage-grouse nesting habitat, season-of-use and use criteria would be considered in regards to meeting sage-grouse nesting habitat requirements.
Livestock Grazing	It's hard to understand how 100% of annual grass production could be allocated to watershed and wildlife - yet BLM claims it will be doing grazing to reduce fuels. Moreover, how does BLM plan to keep cows and sheep from eating forbs? BLM claims it would do this all during the permit allocation process. However, the way it would be done must be specified in detail and with clarity here.	The Final EIS analyzed a range of annual grass allocation of which only Alternatives IV and V allocated 100% of annual grass production to watershed and wildlife. Alternative VI (Proposed RMP) allocated 50% to 60% to watershed and wildlife and 40% to 50% to livestock. Although there is no single way to ensure livestock only forage

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		on certain types or species of plants, diets can be influence or managed. For example, cattle are generalists in diet selection and will consume grasses, forbs, and shrubs in varying proportions throughout the year. Cattle will prefer herbaceous plants (grasses and forbs) but as these plants mature and become less palatable as the growing season progresses their diets will start to include more shrubs because they remain more palatable later into the season. This diet switch becomes even more pronounced as utilization of the herbaceous component becomes higher. Recognizing this dietary tendency, utilization of different parts of the plant community can be managed with seasons-of-use and utilization levels.
Livestock Grazing	BLM allocates 100% of shrub and forb production to wildlife and watershed, yet cows consume significant amounts of shrubs as well as forbs in the planning area. How will BLM prevent cattle from consuming forbs and shrubs other than by removing livestock entirely?	The Final EIS analyzed a range of shrub and forb allocation; only Alternatives IV and V allocated 100% of shrub and forb production to watershed and wildlife. Alternative VI (Proposed RMP) allocated 86% to 89% of shrub and forb production to watershed and wildlife. Although there is no single way to ensure livestock only forage on certain types or species of plants, diets can be influence or managed. For example, cattle are generalists in diet selection and will consume grasses, forbs, and shrubs in varying proportions throughout the year. Cattle will prefer herbaceous plants (grasses and forbs) but as these plants mature and become less palatable as the growing season progresses their diets will start to include more shrubs because they remain more palatable later into the season. This diet switch becomes even more pronounced as utilization of the herbaceous component of a plant community becomes higher. Recognizing this dietary tendency, utilization of different parts of the plant community can be managed with seasons-of-use and utilization levels.
Livestock Grazing	Page 2-139 of the Draft RMP/EIS shows that BLM is never even planning to reduce animal unit months (AUMs) in association with restoration, or for conservation of sage-grouse and other values of the public lands. LG-IV-A-3 "forage available for livestock use would likely change as the RMP is implemented, although allocation percentages would remain the same". The Draft RMP/EIS punts to changes in AUMs in the future that would be determined after adequate monitoring	Table 4-282 in the Draft RMP/EIS presented and analyzed estimates of animal unit months (AUMs) that would be available to livestock grazing at initial implementation and at full implementation of the plan. Allocations of forage ranged from two fold increases to reductions of 78%. For example, in Alternative IVA the initial allocation would result in a 22-50% reduction, Alternative, IVB a 20-49% reduction, and Alternative V a 51-75% reduction from the No Action Alternative. Adjustments

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	and site-specific NEPA analysis through future permit renewal processes. It also appears that the AUM cuts seen in Table 4-282 would only occur if vegetation treatments were conducted. If there is no money for vegetation treatments, will there be no cuts? Where in the Draft RMP/EIS are stocking rate reductions specified if no or limited restoration occurs?	to current allocations would be a function of the reduced area available to livestock grazing and the reduced percentages of vegetation allocated to livestock. As the vegetation treatments prescribed for each alternative were implemented over the life of the plan, additional reductions could occur in area where vegetation was converted from non-native to native species. Following the Record of Decision, an evaluation of each allotment would occur and AUMs allocated to permits within the range of percentages described in the approved RMP. The reason for describing a range (i.e., 25-40% of native perennial grasses) is to provide the flexibility to consider site-specific resources. Areas that have resources, such as sage-grouse nesting, may be allocated at the lower range in order to provide for habitat characteristics for successful nesting. In contrast, other areas may be allocated at the upper end of the allocation range. As vegetation treatments are implemented over the life of the RMP, or successional changes in vegetation communities occur that result in changes in production, permits would be adjusted. Additionally, if vegetation treatments or successional change creates suitable habitat that is then occupied by a species such as sage-grouse, changes could be made to permits to ensure habitat requirement are maintained. For example, as sagebrush reoccupies burned areas and begin to provide suitable habitat for sage-grouse, allocations may be re-evaluated to determine if adjustments are necessary to meet seasonal habitat requirements for the bird.
Livestock Grazing	Under LG-IV-MA-I "Utilization would be determined on a case by case basis" to meet Riparian, Fish and Wildlife, and other Objectives. Since these other objectives are highly uncertain and unclear, it is impossible to understand what levels would be applied.	The Final EIS did not specify indicators and use criteria. Indicators would be determined during the permit renewal process considering site-specific information, including rangeland health assessment and other inventories and monitoring data that would help achieve resource objectives.
Livestock Grazing	LG-IV-MA-2 refers to reserve common allotments. Instead of retiring livestock grazing permits so any sound investment in habitat and restoration can occur, BLM would sacrifice lands to continue grazing abuse (p. 2-140). The Draft RMP/EIS even allows this harmful practice in intact native vegetation communities. BLM would even sacrifice these lands to permittees outside the planning area. It also appears that BLM	Management action LG-VI-MA-3 in Alternative VI (Proposed RMP) described the objectives and parameters for creating a reserve common allotment. The primary objective for establishing reserve common allotments would be to aid habitat restoration by providing alternate grazing areas for permittees who have temporarily been displaced from their allotments do to wildfire or areas with planned vegetation treatments. This

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	allows grazing of Owyhee wilderness lands under this scheme.	management action makes allotments within the Bruneau-Jarbidge Rivers Wilderness ineligible as a reserve common allotment. Once identified to be placed in reserve common allotment status, the allotment would have an allotment management plan developed that would maintain or achieve resource objectives.
Livestock Grazing	LG-IV-MA-8 would allow Temporary Non-renewable Authorization nearly everywhere except the Wilderness Study Area, one very small riparian pasture, pastures with more than 50% mule deer habitat, or pastures with more than 25% native plant community. Mule deer get higher priority than sage-grouse or slickspot peppergrass. In the extremely fragmented and burned Jarbidge Field Office, all remnant sagebrush is critical, yet BLM bases imposition of large herds of livestock and even potential repeated grazing bouts in the same year on barbed wire configurations of its tiny pastures.	The Final EIS analyzed a range of alternatives for Temporary Non-Renewable (TNR) permit consideration. Alternative VI (Proposed RMP) allowed consideration of TNR within the planning area except in pastures within the Bruneau-Jarbidge Rivers Wilderness and the Sand Point Area of Critical Environmental Concern (LG-VI-MA- 6**)**. Management action LG-VI-MA-7 described criteria for issuing TNR. Meeting resource objectives remains the priority above authorization of TNR.
Livestock Grazing	BLM has not provided detailed analysis of the impacts of previous Temporary Non-renewable Authorization (TNR) in promoting cheatgrass, depletion of native communities, and cheatgrass-fueled fires with resultant dense coarse grass and cheatgrass interspace seedings. The pasture and barbed wire form the entire basis of how these terribly depleted habitats would be managed. Under this bizarre scheme, even occupied bull trout habitat or slickspot peppergrass habitat, could be subjected to TNR.	The Final EIS analyzed the direct and indirect impacts of Temporary Non-Renewable (TNR) permits allowable under each alternative. The affected environment sections of the Final EIS takes into consideration the existing conditions of resources across the planning area. Past actions influence the existing conditions of resources in the planning area. Concerns identified in the comment may be considered in future TNR authorizations.
Livestock Grazing	Targeted grazing is uncertain, poorly defined, and there is no evidence that it is effective at anything other than further subsidizing livestock grazing operations.	The Final EIS revised the definition of targeted grazing in the glossary.
Livestock Grazing	BLM must analyze an expanded range of alternatives, including removal of livestock from all lands in the Sagebrush Sea Area of Critical Environmental Concern, and in areas identified as Areas of Critical Environmental Concern in the 2007 Western Watersheds Project (WWP) Alternative that BLM did not adequately address. Map 50 of the Draft RMP/EIS does not reflect the information provided by WWP to BLM during the scoping period and other public comments. It greatly reduces the land area closed to	The range of alternatives included various levels of livestock grazing use. Alternative V was the most restrictive, where 303,000 acres would be closed to livestock grazing. Grazing in the remaining 1,160,000 acres would be decreased through reduced forage allocation. This alternative only allocated 10-20% of the forage for livestock in native and non-native perennial grass production areas. All other vegetation production, including annual grass, shrubs, and forbs would be allocated to watershed functions, wildlife, and wild horses.

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	grazing compared to WWP's comments and communications with BLM.	The BLM considered the alternative submitted by Western Watersheds Project, known in the Draft RMP/EIS and the Final EIS as the “Habitat Restoration Alternative” but eliminated it from detailed study as a stand-alone alternative because it did not meet the purpose and need; contained internal inconsistencies; and was inconsistent with BLM planning criteria. Alternatives IV and V incorporated many components of the Habitat Restoration Alternative.
Livestock Grazing	All lands where restoration is undertaken must have livestock removed to protect the public's very costly investment needed to conserve the species. This has not been done in the past, and weed proliferation, desertification and biodiversity losses have been the result. See Jarbidge Analysis of the Management Situation, BLM's small mammal studies, Jarbidge Bartels and other pygmy rabbit studies.	The Final EIS addressed the removal of livestock from lands where restoration treatments are occurring in all action alternatives (I–VI) with the following management actions: UV-CA-MA-3. Rest vegetation treatment areas from uses, including but not limited to livestock and wild horse grazing and recreational use, until treatment objectives are met and are predicted to be sustainable. This guideline would not apply to uses that do not conflict with the treatment objectives. FE-CA-MA-10. Rest burned areas from uses, including livestock and wild horse grazing and recreational use, until Emergency Stabilization and Burned Area Rehabilitation objectives are met and are predicted to be sustainable or if the treatment is determined by the BLM to be unsuccessful. This would not apply to uses that do not conflict with the treatment objectives.
Livestock Grazing	BLM must also analyze a No Grazing Alternative for the entire planning area especially since it chose to analyze several near-status quo or even increased livestock grazing alternatives (if Temporary Non-renewable Authorization, Fuels, and all the uncertainty are taken into account).	The Final EIS analyzed a reasonable range of alternatives, from a large increase to a reduction of as much as 78% of current forage allocations for livestock grazing. The No Grazing Alternative was considered, but eliminated from detailed study because no issue or conflict has been identified during this land use planning effort that requires the complete elimination of grazing within the planning area for its resolution. Resource conditions do not warrant planning area-wide prohibition of any particular use, including livestock grazing; therefore, an alternative eliminating this use where resource conditions do not justify such measures is not reasonable.
Livestock Grazing	BLM discusses allocation (Draft RMP/EIS, p. 2-143) stating, "the purpose of allocating vegetation is to determine the total animal unit months (AUMs) available for livestock grazing". Then, BLM claims that allocation percentages are not the	The allocation of forage represents an estimate of the percentage of forage produced in a specific area allocated to livestock grazing. The smaller the percentage of vegetation allocated to livestock, the greater the percentage that is

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	same as utilization, as the allocation is used to identify the total number of AUMs for livestock, while utilization identifies the amount of vegetation used by livestock in a specific area. It divorces forage from all the other elements of habitat that sage-grouse and other species require.	allocated to other uses, such as wildlife. Once that allocation is made, livestock is managed to implement the allocation decision. Utilization is a monitoring tool that informs managers of the success of the implementation strategy. If utilization shows that key vegetation species are being consumed by livestock at higher rates than appropriate for the allocation, livestock stocking rates can be modified.
Livestock Grazing	BLM has failed to provide detailed mapping and analysis of all existing fences that were placed in piece meal fashion following fires since the 1987 RMP.	The Final EIS included all known existing fences on Map 51 “Range Infrastructure”.
Livestock Grazing	We are concerned that there is no specific mention of removing or greatly reducing livestock grazing to promote passive restoration.	Alternative V focused on passive restoration of native communities while reducing livestock grazing up to 78% when compared to current grazing levels. Alternative VI (Proposed RMP) allows for passive restoration where success is determined to be likely, but prescribes active restoration in highly altered sites where more aggressive techniques are necessary to achieve objectives.
Livestock Grazing	On p. 4-403 BLM states, "at 20% use, residual herbaceous heights of the same grasses are near or exceed the nesting cover requirements". However, this is nonsense because Sandberg bluegrasses, Stipa, Idaho fescue, etc. at 20% use do not meet or exceed the 9-inch residual cover requirements.	Ecological site and annual climatic fluctuations, as well as other variables influence herbaceous cover values and the ability of many species to meet recommended habitat values across the planning area. The Final EIS did not identify a specific cover value required for any wildlife habitat because seasonal requirements vary widely, usually changing as the season progresses. Instead, alternatives analyzed provided the flexibility to determine habitat values on site-specific bases in order to more effectively manage authorized uses. Habitat requirements and ecological site potential would aid in determining allotment or pasture specific use criteria.
Livestock Grazing	What does BLM mean on p. 4-403, "the No Action Alternative does not have specific utilization levels"? BLM claims that use ranges from less than 20% to more than 50% in pastures. Are these native, exotic, or blended?	The 1987 RMP did not specify forage utilization criteria. The range of utilization described in the Final EIS is a generalization of utilization occurring annually across the planning area.
Livestock Grazing	Reducing livestock utilization levels does not reduce trailing impacts on top of tiger beetles. Moving the illegal trough that ranchers placed in the midst of the habitat, requiring ranchers to actually work to herd cattle, and closing the pasture to grazing does.	Alternative II provided for increased commercial opportunity in the planning area, including increased livestock grazing. During the development of Alternative VI (Proposed RMP), the BLM considered comments received from the public on the Draft RMP/EIS, the analysis of effects described in the Chapter 4, and available science to determine a level of forage allocation to livestock that would both provide the opportunity for livestock

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		grazing and meet resource objectives. The use of allocations and management actions, on a site-specific basis, to enhance and protect special status species such as tiger beetles.
Livestock Grazing	The BLM would continue to graze vast areas of lands in the BLM alternative for the Sagebrush Sea Area of Critical Environmental Concern. The BLM never analyzes an alternative that would not do so.	Rather than close allotments, the Final EIS analyzed the impacts of differing levels of livestock grazing by varying the number of animal unit months allocated to that use. The Final EIS analyzed the Inside Desert Area of Critical Environmental Concern (ACEC) in Alternatives IVA and IVB for removal of livestock and associated infrastructure on approximately 73,000 and 41,000 acres, respectively. The Final EIS also analyzed the Sagebrush Sea ACEC in Alternative V, the most restrictive alternative for livestock grazing, effectively reducing livestock grazing by 78%.
Livestock Grazing	We vainly turned to the impacts from livestock grazing section, referred to here, to understand the referenced targeted grazing. We found minimal analysis.	The Final EIS revised and expanded the Chapter 4 analysis on targeted grazing. Alternative VI (Proposed RMP) analyzed and addressed targeted grazing in *Upland Vegetation, Noxious Weeds and Invasive Plants,* and *Wildland Fire Ecology and Management)*. Targeted grazing, like prescribed fire or herbicide use, is a vegetation treatment tool to accomplish resource objectives in the *Upland Vegetation, Noxious Weeds and Invasive Plants,* and *Wildland Fire Ecology and Management* sections.
Livestock Grazing	BLM references proper grazing management with no definition. What references did the BLM use to understand what is proper in the context of conserving sage-grouse or pygmy rabbit?	The definitions for proper grazing are broad and depend upon the objectives of implementing the grazing practice. For the purposes of the Final EIS, proper grazing is the application of grazing management practices that would help achieve resource objectives. Management practices would include allocation rates, as well as the use of management actions such as seasons-of-use, timing restrictions, and range infrastructure that would maintain or enhance resource values.
Livestock Grazing	There is no valid reason to allocate different amounts of forage percentages.	Forage allocation percentages were based on the emphasis, goals, and objectives of each alternative analyzed. Thus, the Final EIS allocated more forage to wildlife in alternatives that emphasize habitat improvements than in commodity production alternatives.
Livestock Grazing	Please examine the failed rehabilitation actions on US Air Force access roads grazed by BLM-managed livestock. What was seeded? What is now present, and in what condition, after several years of grazing? Factor this into any predictions of treatment outcomes in the Final EIS.	The affected environment sections of the Final EIS considered the existing conditions of resources across the planning area. Past actions influence the existing conditions of resources in the planning area.

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Livestock Grazing	In a hotter, drier, longer summer scenario, is it acceptable or sustainable to have any continued livestock disturbance (soil compaction, grazing, weed spread) to meadow, spring, intermittent, or ephemeral waters?	The Final EIS revised the presented climate change information to include both the effects of climate change on resources and resource uses, but also the effects of resource use on climate change. Rangeland health assessments and other monitoring would help identify impacts associated with livestock grazing that were leading to achieving or not achieving resource objectives. Continuation of grazing practices would consider contributing factors outside the control of permittees or the BLM, such as changing climatic conditions.
Livestock Grazing	Identify all fences or facilities built following fires and rehabilitation. Provide a range of alternatives that target these for removal.	The Emergency Stabilization and Burned Area Rehabilitation (ES&BAR) plans prepared after wildfires include criteria for installation and removal of temporary fences and other ES&BAR structures. The Final EIS, Chapter 4, analyzed the use of temporary fencing following vegetation treatments for wildfires.
Livestock Grazing	Draft RMP/EIS mapping is at a scale where necessary understanding of allocation of "forage", habitat, allotment, and other specifics is just not possible. Where is mapping that shows how much forage was allocated/or used in analysis in the Draft RMP/EIS - tied to each land area (pasture, allotment). Wouldn't the allocation change based on the configuration of facilities - as the position of water and fencing may serve to limit or reduce livestock use in some areas? So if that changed - allocations may be different.	The Final EIS analyzed allocation of forage to livestock grazing at the planning area level. Allocation of forage to livestock during this planning process would not allow the detailed analysis necessary to appropriately manage livestock at the allotment and pasture scale. Allocation of forage at the allotment and pasture scale would be performed during the permit renewal process where site-specific resource issues such as seasonal wildlife habitat needs, riparian and fishery conditions, and results of rangeland health assessments could be considered in deciding the appropriate forage allocation and manage necessary to meet resource objectives.
Livestock Grazing	BLM must not use the battery of existing fences as the baseline in all alternatives. It is clear that BLM does not even show the nightmare of pasture fences here. It only shows the crazy jigsaw puzzle allotment pattern.	The Land Use Planning Handbook, H-1601-1, states the EIS should describe the status, or present characteristics and condition of the public land; the status of physical and biological processes that affect ecosystem function in order to perform the analysis of the No Action Alternatives and all action alternatives. The Final EIS described fences in Table 3-52, Chapter 3, to portray the existing management situation.
Livestock Grazing	BLM must develop a specific avoidance protocol that includes livestock grazing during critical and important periods of use.	The BLM analyzed avoidance criteria for special status species in both the Draft RMP/EIS and Final EIS. A brief list of examples of avoidance criteria include the identification of riparian

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		conservation areas (RI-CA-MA-1) and the adjustment of authorized uses to avoid conflict with use of bighorn sheep habitat (SS-CA-MA-16).
Livestock Grazing	Western Watersheds Project (WWP) provided scoping comments requesting that the Jarbidge RMP include language that will enable relinquished or waived grazing permits to be held indefinitely for wildlife habitat and watershed health and not be reissued for livestock use. The Draft RMP/EIS did not include such a provision. WWP does not supported using such allotment permits as grass banks. This language needs to be part of each alternative in the Final EIS. The language WWP supports is as follows: Grazing privileges that are lost, retired, relinquished, canceled, or have base property sold without transfer would have attached animal unit months held for watershed protection and wildlife habitat.	Alternative V included language similar to that suggested; see management action LG-V-MA-2. However, this language is not included in each alternative as requested. BLM determined the goals, objectives, and management actions to include in each alternative based on the theme or emphasis for the alternative.
Livestock Grazing	Please enter the attached article “Grazing can increase flammability: botanist” into the record for the Draft RMP/EIS.	The article is not relevant to the planning area because it addresses tussock grasses in Tasmania, which is an ecological system vastly different from the planning area.
Livestock Grazing	I am attaching the abstract for Leonard and others (2010). Please enter this information into the RMP record. This abstract discusses the variation in the effects of vertebrate grazing on fire potential between grassland structural types.	The article is not relevant to the Final EIS because it addresses the effects of grazing on grasses in Tasmania, which is an ecological system vastly different from the planning area.
Livestock Grazing	No public use of any type will be allowed inside the fenced exclusive-use area of the Saylor Creek Range. Grazing use shall be permitted on the remainder of the area withdrawn by Public Land Order No. 1027, as amended.	The Final EIS revised maps to reflect the availability of BLM-managed lands to livestock grazing (Maps 52 to 59).
Maps	The maps designate State Endowment Trust Lands only as State lands. State Endowment Trust Lands are managed quite differently than other State owned lands. Please assist us designating these lands as State Endowment Trust Lands within the documents. State Endowment Trust Lands are not managed for the public at large and should not be referred to as public lands either specifically or in a generic sense.	Map 2 “Surface Management in the Jarbidge Planning Area” in the Final EIS continued to label State Endowment Trust Lands as “State” lands. This labeling in the legend followed BLM mapping standards.
Maps	On p. M-4, Map 3 “Mineral Estate Management in the Jarbidge Field Office” in the Draft RMP/EIS does not show military withdrawn lands, or the road network associated with the US Air Force. Analyze Military activities in detail. It is necessary to understand the footprint of the military here, and all direct, indirect and cumulative disturbances.	The Final EIS depicted Military withdrawn lands in Map 2 “Surface Management in the Jarbidge Planning Area”. The Final EIS analyzed the impact of military activities under cumulative impacts in Chapter 4.

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Maps	BLM must provide detailed mapping and analysis of springs, seeps, ephemeral and intermittent drainages. Provide an examination of their condition inside and outside enclosures.	The Final EIS maps depicting streams included perennial and intermittent flows(see Map 6 “Water Quality Impaired Streams”, Map 22 “Riparian Conservation Areas”, Map 23 “Habitat Condition Ratings”, and Map 24 “Bull Trout and Redband Trout Distribution”. Analyses of impacts to perennial and intermittent streams and riparian areas and wetlands were described in Chapter 4.
Maps	Provide full and detailed mapping and analysis of all post-fire "rehab" and grazing actions. Also, depict and examine Infrastructure "creep".	The requested level of detail is unnecessary to make an informed decision at the landscape scale. The existing conditions of the planning area has been described in Chapter 3, including sections on *Livestock Grazing*, *Wildland Fire Ecology and Management*, *Land Use Authorizations,* etc.
Maps	Provide new and updated mapping that shows the Long Butte Fire.	The Final EIS provided new and updated mapping of vegetation communities following the Long Butte Fire to project the baseline vegetation out to 2016. This projection accounts for fires through the end of 2011. See Map 10 “2016 Projected Vegetation”.
Maps	Please provide detailed mapping of all fuel breaks or green strips BLM has planted since the 1987 RMP, or prior.	Providing detailed mapping of all fuel breaks is beyond the scope of this planning effort. Map 9 “Existing Vegetation as of 2011” and Map 10 “2016 Projected Vegetation” accounted for seedings, fuel breaks, and other vegetation treatment information.
Maps	On p. M-33 “Range Infrastructure in the Saylor Creek Herd Management Area (HMA)” in the Draft RMP/EIS shows the HMA with all the fences. However, the other maps where wind, utility, or other energy and all kinds of activities are overlaid do not outline the HMA. Therefore, it is very difficult to tell what will and will not occur there. All mapping should include an outline of the HMA so that the public can clearly understand how the HMA and horses will be managed or protected.	The Final EIS added the Saylor Creek Herd Management Area boundary to maps for Fire Suppression Areas, Areas Available for Livestock Grazing, Special Recreation Management Areas, Recreation Management Zones, Travel Designations, Travel Management Areas, Utility Right-Of-Way Corridors, Expected Wind Energy Development Areas, Land Tenure, Potential Oil and Gas Development Areas, Potential Geothermal Development Areas, Leasable Minerals, Salable Minerals, and Locatable Minerals.
Maps	We have attached mapping showing fires that have occurred in the broader landscape context of the planning area from 1998 to 2010. Please view this map side-by-side with Map 24 from the Draft RMP/EIS “Wildland Fire Frequency, 1987-2007”, which shows significant burned areas of the Inside Desert during this period.	The Final EIS mapped wildland fire frequency in the planning area from 1987-2011. See Map 28 "Wildland Fire Frequency from 1987-2011".
Maps	Please consider the Nevada Department of Wildlife 2008 sage-grouse reporting and mapping that overlays Nevada fires with leks.	The Final EIS did not use the referenced literature since the report is for the entire State of Nevada. The map depicted a large number of fires in Elko County, but acreage by county is

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		not given. The literature reported that over 2,561,000 acres of sage-grouse habitat (11.6 %) burned in Nevada over a 9-year period. The Final EIS used fire data from Elko District BLM for the cumulative impacts analysis.
Maps	Maps should display State lands within the boundary of Juniper Butte Range.	The Final EIS updated Map 2 "Surface Management in the Jarbidge Planning Area" to depict State lands within the boundary of Juniper Butte Training Range.
Maps	Add Restricted Airspace R-3202 and R-3204 outside US Air Force (USAF) range boundaries. USAF has rights to use all airspace within these boundaries from ground level to 17,999 feet mean sea level. Display the southeast portion of the Jarbidge Military Operating Area (MOA). Part of the Paradise East MOA covers the Southwest part of the planning area.	The Final EIS updated maps displaying right-of-way avoidance areas (Maps 86 to 92) to include the Paradise East Military Operations Area and to exclude the depiction of military lands.
Minerals	The Draft RMP/EIS states that the entire planning area, including the potential oil and gas areas, has low potential for oil and gas leasing (Draft RMP/EIS, p. ES-31). However, all of the management alternatives make the majority of the planning area available to mineral leasing. The Preferred Alternative, which closes the most areas to leasing (with the exception of Alternative IV-A), still opens 85% of the planning area to mineral leasing, including areas open with moderate or major constraints (Draft RMP/EIS, p. 2-273). Leaving the vast majority of a planning area with low potential open to oil and gas development does not represent multiple uses, nor provide a true range of alternatives.	Chapter 2 provides a range of alternatives for leasable minerals. The lands closed to leasing have been determined to represent areas where other land uses or resource values cannot be adequately managed even with the most restrictive lease stipulations. The Final EIS identified sufficient moderate and major constraints to manage resources in the majority of the planning area.
Minerals	BLM often offers companies exceptions, modifications or waivers from the application of No Surface Occupancy and other lease stipulations, and the preferred alternative lists exceptions, modifications and waivers that may be granted for each stipulation. The Draft RMP/EIS states, “public review is required for exceptions, waivers, or modifications to stipulations that involve an issue of major concern to the public”. The exceptions, waivers, and modifications provided in the Preferred Alternative relate to key species and important historic resources, and therefore will always involve issues of major concern to the public. Therefore, we expect public review would always be required and so revise the Draft RMP/EIS to	BLM will follow the appropriate regulations concerning public review of leasing stipulations. The regulations at 43 CFR 3101.1-4 state: If the authorized officer has determined, prior to lease issuance, that a stipulation involves an issue of major concern to the public, modification or waiver of the stipulation shall be subject to public review for at least a 30-day period.

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	state that public review would be required for all exceptions, waivers, and modifications to lease stipulations.	
Minerals	It is essential for the BLM to provide salable minerals needed for community and economic purposes and facilitate their reasonable, economical, and environmentally sound development where available and compatible with resource objectives, SA-IV-O-I on p. 2-202. The Areas of Critical Environmental Concern listed and "non-Wilderness Study Area lands managed for their wilderness characteristics" in SA-IVA-I on p. 2-202 should be removed based on the reason noted above.	The Final EIS included a reasonable range of alternatives for providing salable mineral materials where they are compatible with other resources; see SA-CA-G-1 in Chapter 2, Alternative VI (Proposed RMP) in the *Salable Minerals* section.
Minerals	On ES-23, second issue, No Action Alternative does not identify which segment of Salmon Falls Creek canyon they are talking about. We oppose any such restriction below Balanced Rock.	The Salmon Falls Creek Canyon, from the Salmon Falls Creek Dam to Balanced Rock Road between canyon rims, is open to mineral leasing (excluding geothermal leasing) with No Surface Occupancy year-round.
Minerals	The Three Creek Highway District suggests the following objective and management common to all alternatives for Salable Minerals: Provide a source for maintenance materials needed for travel routes, backfills etc.	The Final EIS did not modify the objective common to all action alternatives for Salable Minerals. The objective does not specifically mention gravel for road maintenance; however, that is the intent. In the Final EIS the goal was to provide for salable mineral development opportunities where they are compatible with other resources.
Minerals	Add the following management action for salable minerals in Chapter 2. Locate suitable sources of gravel when distances begin to exceed 20 miles to existing sources.	The Final EIS analyzed a range of areas open to salable mineral development among the different alternatives. Under Alternative VI (Proposed RMP), the majority of the planning area would be open to salable mineral development, subject to site-specific NEPA analysis, stipulations, and 43 CFR 3600 regulations. Under Alternative VI, the following areas would be closed to salable mineral development: • The Bruneau-Jarbidge Rivers Wilderness; • Lower Salmon Falls Creek Wilderness Study Area; • Eligible, suitable, and designated Wild and Scenic River corridors; • The Oregon National Historic Trail protective zone; • The Kelton and Toana Freight Road protective corridors; • Areas of Critical Environmental Concern; and • Playas (300-feet buffer).

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Minerals	The Resource Advisory Council unanimously supports permitting gravel pits for highway district use as requested and at no cost to the highway districts. There is currently a shortage of gravel pits within the planning area for use by highway districts. In some cases, highway districts have forgone the use of some of these material sources due to the required environmental assessments and associated cost of completing the paper work.	The Final EIS provided for exploration of salable mineral development in Chapter 2. In all alternatives, consistent with law and BLM policy, proposed gravel pits for BLM and/or highway district purposes undergo a site-specific environmental analysis prior to ground disturbing activities.
Minerals	The Environmental Protection Agency has an ongoing interest in ensuring that future mining activities do not cause or contribute to existing environmental problems and would like to affirm the importance of including adequate and complete financial assurance information in all BLM Draft NEPA documents prepared for proposed mining projects.	Mining exploration and extraction activities that disturb the surface of the land are subject to surface management regulations 43 CFR 3809.
Minerals	BLM must prohibit any further gravel development in native shrub lands, native grasslands, - i.e. any native communities and sage-grouse recovery habitats. An example of the damage that extensive gravel pits do is the gravel pit developed above Clover Creek for the US Air Force destroying intact sagebrush. Rehabilitation has been a failure. Soil erosion continues.	Salable mineral development activities would avoid special status species habitat if the activity would have an adverse effect, unless those adverse effects can be mitigated. Permits would include mitigation for adverse effects on special status species and their habitats. (SA-CA-MA-1).
Minerals	The Oil and Gas mapping shows that BLM would even allow the critical Browns Bench sage-grouse area to be developed. BLM must place all lands in the southern and central portions of the planning area as proposed in Western Watersheds Project's Sagebrush Sea Alternative, and all lands important to sage-grouse conservation, as well as special habitat and wild horse areas in the north, off-limits to Oil and Gas development. BLM must analyze in detail all of the adverse impacts of modern day oil and gas production so it can understand the full implications of allocating even a single acre in the planning area for oil and gas	The Final EIS analyzed a range of Areas of Critical Environmental Concern (ACECs) including the Sagebrush Sea ACEC. Alternative VI (Proposed RMP) did not include the Sagebrush Sea ACEC. There has never been any oil and gas production in Idaho, despite drilling of approximately 150 wells in the State (Appendix K: Reasonably Foreseeable Development Scenario for Oil and Gas Development). Oil and gas development stipulations are included in the range of alternatives analyzed (Chapter 2, *Leasable Minerals*). Chapter 4 discussed impacts from leasable mineral development. Leasable mineral development activities would avoid special status species habitat if the activity would have an adverse effect, unless those adverse effects can be mitigated. Permits would include mitigation for adverse effects on special status species and their habitats (LE-CA-MA-7).
Minerals	Please review all of the information in the Holloran, Naugle, and other sage-grouse studies in Wyoming and Montana. See also Connelly and others (2004), and Knick and Connelly (2009). Please review all of the recent information about the	Chapters 3 and 4 of the Final EIS used information on sage-grouse contained in Holloran and others (2005), Naugle and others (2011), and Knick and Connelly (2011a) *Greater Sage-grouse Ecology and Conservation of a Landscape Species and*

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	Pinedale anticline. BLM has been unable to prevent deep losses to wildlife populations that occur with this development with the same meager measures that the Draft RMP/EIS relies on. We also stress that the sage-grouse, mule deer, and other populations in Wyoming were much less stressed and reduced than the crisis now facing the planning area. Anyone can understand that oil and gas, wind, geothermal, or large-scale energy of any kind - will result in calamity.	*Its Habitats*. This book contains all the mentioned articles and sage-grouse studies conducted in Wyoming and Montana.
Minerals	Why are so few areas closed to leasable mineral development under all alternatives? Not even potential Areas of Critical Environmental Concern or slickspot peppergrass habitats are closed under Alternative V.	Oil and gas development stipulations are included in the range of alternatives analyzed (Chapter 2, *Leasable Minerals*). Moderate and major constraints are identified to ensure that any mineral leasing is compatible with other resources. The Final EIS, Chapter 4, analyzed impacts from leasable mineral goals, objectives, management actions, and constraints.
Minerals	Chapter 4, Leasable Mineral-direct and indirect impacts, States in Alternative IV that 7-9% of planning area is inaccessible, 39% is accessible under standard lease terms. Yet there is no analysis of these impacts. Alternative V states 4% as inaccessible and 70% as accessible under standard lease terms.	The amount of constraint on mineral leasing was used as an indicator of impacts for leasable minerals. Table 4-373 in the Final EIS contained a summary of constraints for Alternative IV and Table 4-374 contained a summary for Alternative V. Impacts to soil resources, special status species, paleontological resources, and visual resources were described by alternative. The Final EIS provided a summary of direct and indirect impacts for minerals by all alternatives.
Minerals	Withdraw all lands in Areas of Critical Environmental Concern from locatable mineral or other mining and exploration.	Withdrawing lands within Areas of Critical Environmental Concern from locatable mineral exploration and development is included within the range of alternatives.
Minerals	Alternative IV allows locatable mineral development in lands east of Dave Creek including the East Fork area, and in the areas of the remaining lek complexes near Browns Bench-China Mountain, Three Creek, and other portions of the Jarbidge foothills. BLM can and must place these lands off-limits to locatable mineral development. This includes the Toana Freight Road and the Saylor Creek Horse Management Area.	Each alternative reflects a different management focus. Changing Alternative IV as suggested would reduce the range of alternatives analyzed.
Minerals	The loss of habitat due to groundwater extraction is the primary threat to the Bruneau Hot spring snail. We encourage the BLM to further expand conservation criteria within the Final EIS to prohibit geothermal leasing or other groundwater pumping activities in all areas that may affect Groundwater Management Basin 51 in Owyhee County (which includes the Bruneau	It is within the BLMs discretion to authorize or deny proposals for geothermal leasing or groundwater pumping on public land but it is not within the BLMs discretion to authorize or deny these activities on private or State lands. The comment recommends prohibiting these activities within a 15-mile radius of the Indian Bathtub Hot Spring but does not provide literature or data

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	Valley regional geothermal aquifer in the planning area), or are located within a 15 mile radius of the Indian Bathtub Hot Spring. Use of the strongest conservation measures available to control groundwater pumping activities in this area will contribute to the long-term survival and recovery of the Bruneau hot springsnail.	supporting this recommendation. A portion of the area within this 15-mile buffer is not within the Jarbidge planning area. The Final EIS included management direction to allow for mineral leasing subject to laws, regulations, and formal orders; areas may also be subject to additional constraints. The preparation of a site-specific analysis for geothermal leasing exploration or development and completion of Endangered Species Act (ESA) consultation for proposals that have the potential to directly, indirectly, or cumulatively affect geothermal springs containing Bruneau Hot springs snail would assure compliance with the ESA for this endangered species.
Minerals	BLM does not retain mineral rights on Saylor Creek Range and Juniper Butte Range. See Public Land Orders 1027 (1954), 3192 (1963), and 4302 (1970). This is correct on maps 92-106 of the Draft RMP/EIS.	The mineral estates are in US ownership. The US Air Force withdrawn lands are for military uses only. Saylor Creek Training Range is open to mineral leasing and Juniper Butte Training Range is closed to all mineral entry including leasing. See Title XXIX Juniper Butte Withdrawal Public Law 105-261.
Monitoring	Regarding Appendix P: Monitoring and Implementation Strategy, p. A-I55 of the Draft RMP/EIS, land use plans are supposed to establish intervals for monitoring. This RMP relies on properly functioning condition, and that it will use Multiple Indicator Monitoring to support this. There is no clear plan with clear monitoring requirements and milestones laid out for conserving sage-grouse, pygmy rabbit, redband trout, slickspot peppergrass, and monitoring to ensure this occurs. There are no annual, periodic or other milestones for moving toward goals/objectives/MAs.	The Final EIS, Chapter 2, *Monitoring Implementation and Effectiveness of RMP Decisions* section outlined a monitoring strategy for assessing the implementation and effectiveness of RMP decisions in meeting resource goals and objectives. This section identified resources/resource uses, monitoring strategies, and monitoring intervals as required for land use plans (43 CFR 1610.4-9).
Multiple Use Areas	It is time for the BLM to abandon the Multiple Use Areas. They make no ecological sense, just like the latest Vegetation Management Areas. They have served as a basis for justifying continued degradation and fragmentation of shrub and sage-grouse habitats.	Multiple Use Areas were a component of the 1987 Jarbidge RMP and were thereby included in the No Action Alternative. Due to differences in vegetation response to management and disturbance along a north-south gradient, the planning area was divided into Vegetation Management Areas (VMAs) based on potential natural community, elevation, and mean annual precipitation. The VMA boundary lines were further refined using pasture lines to facilitate proposed management of these areas as described in Chapter 2. See Map 8 “Potential Vegetation Communities and Vegetation Management Areas” in the Final EIS.

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National Historic Trails	Add the BLM trail management plan and the National Park Service comprehensive management plan to the Final EIS works cited section.	The BLM Boise District Oregon Trail Management Plan and the National Park Service's Comprehensive Management and Use Plan Update were added to the works cited section in the Final EIS.
National Historic Trails	We ask the BLM, in its preferred alternative, to consider identifying a broader protective corridor, particularly for the intact remnants of the North Trail segment and original wagon ruts near Three Island Crossing.	The Final EIS contained a range of corridor widths for the Oregon National Historic Trail (NHT). Alternative VI (Proposed RMP) expanded the Visual Resource Management Class II allocation to include 2 miles on either side of the Oregon NHT (4 mile total width) to provide consistency with the adjacent Snake River Birds of Prey RMP. This expansion should afford adequate protection from visual impacts to the trail's setting.
National Historic Trails	NHT-CA-MA-12 states, "Proposed land use actions that could affect the Oregon National Historic Trail (NHT) or the protective corridor would be analyzed to identify mitigation needs and ensure compliance with management objectives." We propose that this action statement read, "The Oregon NHT would be managed to ensure against adverse effects through avoidance or through mitigation of disturbance, when disturbance or destruction is unavoidable." NHT-CA-MA-13 states, "Developments such as roads, trails, pipelines, and power lines may be allowed to cross the Oregon NHT in areas where previous disturbance has occurred and after consultation with the State Historic Preservation Office (SHPO)." We suggest that this statement read, "Developments such as roads, trails, pipelines, and power lines may be allowed to cross the Oregon NHT where the affected segment is determined, with SHPO concurrence, to be noncontributing due to previous disturbance or visual intrusions." NHT-CA-MA-14 states, "Surface-disturbing equipment, such as bulldozers and road graders, cannot be used on the Oregon NHT or within the protective corridor without management approval, unless to protect life or property." We suggest that the statement read, "Surface-disturbing equipment, such as bulldozers and road graders, cannot be used on contributing segments of the Oregon NHT or within the protective corridor of such segments, unless to protect life or property."	Management action NHT-CA-MA-12 was changed to NHT-CA-MA-9 in the Final EIS. The wording was revised to read, "Adverse effects to the Oregon National Historic Trail (NHT) related to land use authorizations would be prevented through avoidance of impacting activities or through mitigation when disturbance or destruction is unavoidable." Management action NHT-CA-MA-13 was changed to NHT-CA-MA-10 in the Final EIS. The wording was revised to read, "Developments such as roads, trails, pipelines, fences, and power lines may be allowed to cross the Oregon NHT where the project is determined by the BLM, with State Historic Preservation Office concurrence, to not adversely affect the trail due to previous disturbance or visual intrusions." Management action NHT-CA-MA-14 was changed to NHT-CA-MA-11 in the Final EIS. The wording was revised to read, "Surface-disturbing equipment, such as bulldozers and road graders, cannot be used on contributing segments of the Oregon NHT, or within the protective zone of such segments, unless to protect life or property."

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National Historic Trails	Revise NHT-CA-MA-3 to read, "Manage the Oregon National Historic Trail protective corridor as an avoidance area for surface-disturbing activities unless use has previously been established in those areas, including but not limited to: • Placement of salting, supplemental feeding, watering, and holding facilities for livestock, • staging areas for recreational activities and events, • staging areas for fire suppression and rehabilitation activities. Many salt and supplemental feeding and watering areas have been in place for years, and forcing those items to a different location would result in unwarranted disturbance to additional areas."	The intent of this management action is to restrict new permanent developments and new or recurrent temporary facilities or activities from the Oregon National Historic Trail (NHT) protective zone in order to preserve the trail and its setting. The suggested revision would allow for the continuation of existing activities even if they impact the Oregon NHT. To clarify, the Final EIS revised the first bullet in NHT-CA-MA-3 to read "Placement of salting, supplemental feeding, temporary watering, and temporary holding facilities for livestock".
Noxious Weeds and Invasive Plants	The RMP needs to give additional analysis for prescribed fire as a management tool.	The Final EIS presented prescribed fire as a tool to accomplish goals and objectives and the analysis is commensurate with the planning area scale of the upcoming decision. The Final EIS does not include any site-specific proposals for applying prescribed fire.
Noxious Weeds and Invasive Plants	Keeley (2001) notes "there is no convincing demonstration that fire alone is an effective technique for diminishing the dominance by nonnative annuals" and "generally burning of annual grasslands does not greatly alter the native to nonnative composition, unless accompanied by active native plant restoration." Burn-related issues that still need to be addressed include (1) how vegetation composition (particularly native species) responds when sites are burned repeatedly over a period of years, and (2) whether burning can effectively control non-native species such as tumbleweeds, mustards, and prickly lettuce that are very widespread in some years and/or in some locations.	The *Upland Vegetation* section of the Final EIS allowed for the use of multiple tools from the tool box, not just prescribed fire. The Final EIS did not include any site-specific proposal to apply prescribed fire by itself or in combination with other treatments. The analysis you suggest is needed, is appropriate at the project-specific level when a project is proposed.
Noxious Weeds and Invasive Plants	We are concerned with the potential unintended consequences of prescribed fire, targeted grazing, and chemical treatments as noxious weed treatments and invasive species management tools. The BLM needs to clearly identify under what circumstances and after what successful model these treatments will be used. These treatments should not be used without analysis of a defined need in a specific place and potential side effects. These tools should be used with documented attention to their possible unintended consequences, monitoring to determine their effectiveness,	The Final EIS presented possible noxious weed and invasive plant treatment methods as tools to accomplish goals and objectives. The Final EIS does not include any site-specific proposals for applying any of these treatments in a specific place. Prior to applying noxious weed or invasive plant treatments, a separate, project-specific analysis would need to be completed. The project-specific NEPA analysis would consider treatment methods at specific locations and would disclose the predicted effects of implementing any treatment.

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	and adaptive management to rectify any environmental damage created by their use.	
Noxious Weeds and Invasive Plants	The BLM needs to add the following statement to page 3-49 in the *Noxious Weeds and Invasive Plants* section of the Draft RMP/EIS: "State Statute may "Not" be used to enforce the control of non-State designated species".	The Final EIS pertains to lands in Idaho and Nevada that are managed by the BLM. The Final EIS did not state, nor is it intended that State statutes would be used to enforce the control of non-State designated species.
Noxious Weeds and Invasive Plants	Use all tools available to optimize the reduction of noxious weeds in an effort to continue the enhancement of sage-grouse habitat.	All action alternatives, including Alternative VI (Proposed RMP), presented tools in the *Upland Vegetation* section and *Noxious Weeds and Invasive Plants* section of Chapter 2 to manage habitat for sage-grouse and allow for the prevention, elimination, and control of noxious weeds and invasive plants.
Noxious Weeds and Invasive Plants	Where and when has BLM sprayed herbicides in its post-fire treatments? There has been very little success in preventing cheatgrass. Rabbitbrush has been eliminated in many areas, as well, and prevented from re-sprouting. We have repeatedly observed non-target perennials and even shrubs killed or weakened by BLM herbicide use. We are very concerned BLM's industry-biased alternatives over-emphasize and rely on chemical use with likely very significant adverse impacts, not just to upland species but also to aquatic species as runoff occurs.	The BLM has considered the effects of past treatments in the description of the affected environment. Herbicides are one tool of many proposed for use in the Final EIS to control and eliminate noxious and invasive weeds. Prior to applying noxious weed or invasive plant treatments, a separate, project-specific analysis would be completed.
Noxious Weeds and Invasive Plants	BLM must provide detailed mapping and analysis fully examining cheatgrass composition in understories, and areas "at risk" of cheatgrass increase or dominance under a new range of much more conservation-oriented alternatives.	Map 9 “Post-2007 Fire Vegetation” and Map 10 “2012 Projected Vegetation (Baseline)” in the Draft RMP/EIS depict an Annual Vegetation Sub-Group that included cheatgrass. This sub-group was also included on maps in the Final EIS (Map 9 “Existing Vegetation as of 2011” and Map 10 “2016 Projected Vegetation”). The Final EIS presents a reasonable range of alternatives and provided analysis in Chapter 4 *Upland Vegetation* section and Noxious Weeds and Invasive Plants section. The analysis displayed the change in annual communities based upon proposed management for each alternative.
Noxious Weeds and Invasive Plants	Page 3-50, *Noxious Weeds and Invasive Plants* section of the Draft RMP/EIS, provides a shallow and greatly inadequate analysis of the vectors and causes of weeds. In the Jarbidge planning area where cows outnumber wild horses by more than one thousand to one, mentioning horses and livestock to an equal degree is just not informative.	Chapter 4 of the Final EIS provided an analysis on Noxious Weeds and Invasive Plants. The list of mechanisms for introduction and spread of weeds in the Final EIS Chapter 3 is simply a list and is not intended to imply the degree to which each mechanism may cause spread.

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Noxious Weeds and Invasive Plants	Chapter 3 section Noxious Weeds and Invasive Plants, of the Draft RMP/EIS doesn't even mention the severe impacts of livestock trampling in damaging microbiotic crusts and priming lands for weed invasion.	The Final EIS discussed impacts of livestock trampling in Chapter 4 *Soil Resources, Upland Vegetation*, and *Noxious Weeds and Invasive Plants* sections.
Noxious Weeds and Invasive Plants	We stress regular and repeated use of roads by military vehicles accessing remote sites poses a very significant threat for weed expansion.	Military vehicle use of the planning area was analyzed in the Chapter 4 *Noxious Weeds and Invasive Plants* section under Cumulative Impacts in the Final EIS as a past, present, and foreseeable action. BLM recognizes road use as a contributing factor to the introduction and spread of noxious weeds and invasive plants.
Noxious Weeds and Invasive Plants	US Air Force (USAF) lands at Saylor Creek are choked with rush skeleton weed and other aggressive invasive species. Military vehicles can readily transport these weeds into slickspot peppergrass and other habitats. We have watched in alarm as Mountain Home Air Force Base puts out press releases about bringing in military tanker aircraft to disperse herbicide to try to address the severe weed problems on its Saylor Creek site. There is strong risk of aerial drift of herbicide and effects to non-target vegetation. We have watched as the USAF destroyed sage brush, replacing it with crested wheatgrass as a so-called "fuel break" along the Bruneau Desert road. Then, some shrubs grew into the seeding - and the USAF mowed them - and intensive grazing continued. This resulted in cheatgrass expansion, and wildfires burned right over the fuel break.	Military use was analyzed in Chapter 4 as a past, present, and foreseeable action. Cumulative impacts to soil resources, upland vegetation, special status plants, noxious weeds and invasive plants, and cultural resources were considered.
Noxious Weeds and Invasive Plants	Page 3-49 of the Draft RMP/EIS, *Noxious Weeds and Invasive Plants* section addresses 57 weed species from a 2006 weed list. There is presently a 2008 weed list that lists 64 weed species. Tamarisk is now listed on the weed list.	The Final EIS, Chapter 3 *Noxious Weeds and Invasive Plants* section, has been updated to include the most current (2012) noxious weeds lists for Idaho and Nevada.
Noxious Weeds and Invasive Plants	There is no commitment of any kind to practicing integrated weed management, which must be a cornerstone of conserving native species. BLM must develop alternatives and allocations based on integrated weed management to protect sage-grouse and other habitats from grave weed threats.	Integrated weed management was incorporated into the alternatives in the Final EIS in the *Noxious Weeds and Invasive Plants* sections of Chapter 2. Also, BLM uses integrated weed management through direction provided in BLM Manual 9015 Integrated Weed Management.
Process	Apply and honor all of the instructions and requirements of the law under the Federal Land Policy and Management Act of 1976 to this project.	Acknowledgement of BLM's responsibilities under the Federal Land Policy and Management Act of 1976 are stated in Chapter 1, purpose and need for the plan.

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Process	Under reasonable management and use, natural resources are renewable and sustainable. Management for wilderness or roadless character does not improve environmental health. Multiple-use policies provide reasonable management and use for the benefit of all citizens. We ask that BLM base decision-making on restoring reasonable management and use of public lands.	The decision-maker will select an alternative based on analysis and conclusions in the Final EIS that meets the purpose and need and addresses the planning issues. The decision will provide management direction that balances resource conditions with resource uses.
Process	Elko County does not believe that the BLM has complied with NEPA process in that the document that has been provided to the public is of a nature that a layman cannot interpret, understand and provide timely pertinent and specific comment. The prohibitionary alternative actions of the 1,988 pages of bureaucratic information do not comply with NEPA and do not provide the best commercial data and support available. The document itself is too extensive and unnecessarily elaborate and it requires more time and effort to read, understand, and develop well-informed comments than the allotted 120-day comment period allowed for. The BLM is encouraged to limit these planning documents in the future to a reasonable and practical length. This will provide the reader, ultimately the citizen and local entity the ability to make relatable and knowledgeable comment.	We recognize that the Final EIS is lengthy. That is due to the scope and complexity of an RMP and the number of alternatives included in the analyses. The BLM extended the comment period 60 days, allowing reviewers a total of 150 days to review and comment on the document.
Process	The purpose and need statement in the Draft RMP/EIS does not enumerate the nine specific criteria for the development of the Jarbidge RMP. Rather, the purpose and need statement uses a different list of nine criteria, only one of which is consistent with the Federal Land Policy and Management Act of 1976 (FLPMA). The other eight are generic statements of environmental and multiple use principles. BLM should revert to the specific requirements of FLPMA in the development of the Final EIS and Record of Decision.	The BLM is considering the specific requirements of the Federal Land Policy and Management Act of 1976 (FLPMA) in development of the Jarbidge RMP. The purpose and need for the RMP was not an attempt to cite text directly from FLPMA, but rather paraphrase the law relative to local issues.
Process	BLM fails to respond to specific comment as required under 40 CFR 1503.4 (a). Intermountain Range Consultants submitted comments to the Analysis for Management Situation, highlighting errs and omissions therein, including irrational and unwarranted statements and actions. Many of these errors are included without any comment/correction in the Draft RMP/EIS.	The regulations at 40 CFR 1503.4(a) directs agencies preparing a final EIS to assess, consider, and respond to comments obtained after preparing the draft EIS (40 CFR 1503.1(a)). The BLM was not required to respond to specific comments on the Analysis of the Management Situation (AMS). However, the BLM recognizes that there were errors in the AMS. BLM designed the AMS to provide a snap shot in time approach to describe resource conditions in 2007. Resource conditions have changed

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		since 2007 due to large fires (e.g., Murphy Complex, Long Butte, and Kinyon Road) and other factors. The Final EIS used updated information to account for these changing resource conditions.
Process	I'm concerned about a recent article in the Times-News where one BLM official stated that comments from the Advisory Committee would be given more weight than the comments received from the local public. My concern is that we do not know whom those people are, who selected them and by what means they were selected.	The Twin Falls Resource Advisory Council (RAC) is an advisory committee established under the Federal Land Policy and Management Act of 1976. The RAC serves in an advisory capacity concerning the planning and management of the public land resources located within the geographic area of the Twin Falls District. Membership includes a cross section of Idahoans around the State representing energy, tourism and commercial recreation interests; environmental, archeological or historic interests; and elected officials, Tribes, and the public-at-large. Council members are selected for their ability to provide informed, objective advice on a broad array of public lands issues and their commitment to collaboration in seeking solutions to those issues. While the comments from the RAC on the Draft RMP/EIS are important to BLM, the BLM does not give more weight to the RAC comments than any of the other comments received. The BLM has the duty to consider all substantive comments.
Process	The five criteria on p. ES-3 of the Draft RMP/EIS in selecting Alternative IV-B do not rely on any comments from the local public in general, nor does it rely on anyone who actually uses the area identified in the plan.	Page ES-3 of the Draft RMP/EIS, directly after listing the five criteria for selecting the Preferred Alternative (Alternative IV-B), stated, “The Preferred Alternative indicates the agency’s preliminary preference. However, identification of this alternative as preferred does not represent a final BLM decision and may change between publication of the Draft RMP/EIS and Final EIS based on comments received on the Draft RMP/EIS, new information, or changes in BLM policies or priorities.” Alternative VI (Proposed RMP) reflects changes and adjustments to the Preferred Alternative based on information received during public comment on the Draft RMP/EIS, new information, or changes in BLM policies or priorities. It includes aspects of the various alternatives presented in the Draft RMP/EIS. The BLM had the discretion to select an alternative in its entirety or to combine aspects of the various alternatives presented in the Draft RMP/EIS to develop Alternative VI. Identification of an alternative as “Preferred” in the Draft RMP/EIS was not

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		equivalent to identification of Alternative VI in the Final EIS.
Process	I would be interested to know why BLM did not give presentations to any hunter or sportsman group or association listed on p. 1-17 of the Draft RMP/EIS. At the same time, BLM presented to a couple of organizations that are not in the local area. As a result, severe bias and discrimination occurred against the hunter groups while other user groups received preference.	The groups listed on p. 1-17 of the Draft RMP/EIS requested a special briefing from the BLM on the Draft RMP/EIS. BLM staff met with any group that requested a meeting. Additionally, numerous sportsman and hunter groups were included throughout the entire RMP process, including Backcountry Hunters and Anglers, Ducks Unlimited, Idaho Outfitter and Guides Association, Idaho Guide Services Inc., Mule Deer Foundation, Pheasants Forever, Sportsman Warehouse, Sportsmen for Fish and Wildlife, Boone and Crockett Club of America, Bow Hunting Preservation Alliance, Quail Unlimited, Orion--the Hunters Institute, Idaho Fish and Game, Idaho Outfitter and Guides Licensing Board, and the Congressional Sportsmen Foundation. BLM advertised all public meetings; these meetings were open to all people, including hunter groups.
Process	BLM fails to consider "significant new circumstances or information" associated with the existing vegetation within the whole of the planning area, including within the Blue Butte, Grindstone, Hagerman, and Kubic Allotments. Intermountain Range Consultants submitted comments to the Analysis for Management Situation, highlighting this information. BLM failed to account for this information in the Draft RMP/EIS.	The regulations at 40 CFR 1502.9(c)(1)(ii) provide direction when agencies prepare supplements to either draft or final environmental impact statements. In this instance, the information submitted by Intermountain Range Consultants is not significant new circumstances or information that would trigger the need to prepare a supplemental EIS. BLM considered the comments provided on the Analysis of the Management Situation during the preparation of the Draft RMP/EIS. Additionally, the BLM has updated the vegetation information in Chapter 3 of the Final EIS.
Process	The Draft RMP/EIS presented the affected environment section with a bias toward selection of the Preferred Alternative (Alternative IV-B), rather than as an objective description of the existing conditions and a balanced review of conditions. It is distinctly slanted toward “restoring” sagebrush steppe; however, such a position, if ultimately decided, should be the result of objective analysis, not a foregone conclusion and underlying premise of analysis. This is particularly the case in the Draft RMP/EIS discussion of fragmentation, wherein any departure from imagined pre-European settlement or imagined pristine conditions is termed	The Final EIS revised Chapter 3 and rewrote the *Wildlife* section, including the fragmentation discussion, to clarify that fire was a natural component of the sagebrush steppe. Past disturbances (including wildfire, rodent/rabbit population eruptions, disease, and insect outbreaks) have created mosaics of native plant community seral stages.

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	fragmenting of the planning area. For example, fire is a natural feature of the Great Basin, included within the planning area, so that it is more likely than not that at any one point in time, portions of the planning area were historically in some stage of post-fire fragmentation and some state of recovery from wildfires. Therefore, natural fragmentation by fire has always been a part of the planning area.	
Process	Under the Riparian section, the Upland Section, and indeed throughout the whole Draft RMP/EIS with its platitudinous and vague Goals, Objectives, and non-binding management actions, BLM doesn't have to act to do anything. BLM managers claim that the agency is not supposed to be specific in land use plans. Managers now are asserting that the plan is for a large landscape over a long time, so BLM must provide for flexibility in management. This completely ignores the ecological crisis facing the planning area, the large-scale losses of sage-grouse, and other species, the many outdoor-oriented recreational uses of the lands that are threatened by continued conversion of the land to artificial grass seeding, and cheatgrass advance under the synergistic adverse effects of livestock grazing, or other development and disturbance, and fire.	The direction contained in a resource management plan guides and controls future site-specific resource use levels. Chapter 3 of the Final EIS described the affected environment, including the impacts caused by events outside of the BLM's control (e.g., fire and private development) and impacts that resulted from BLM's past management (e.g., livestock grazing, vegetation treatments). Chapter 4 of the EIS described the impacts that are likely to result because of the management direction in each alternative. Admittedly, as a landscape scale document that addresses the allocation of land uses rather than the specific impacts of a particular action, the anticipated effects are not described in elaborate detail. However, the information disclosed in the Final EIS is sufficient for the reader to understand the effects of a combination of actions on resources within the planning area.
Process	The point of a land use plan is to enable BLM to make changes and be current in addressing the environmental and other issues and threats that these public lands face. This plan has little capability of enabling good choices, since BLM doesn't have to do anything, and it is unclear how any potential action would occur. BLM, instead of referencing vague lists of tools in a toolbox, must methodically lie out effective actions and ensure that they are realistically able to occur.	The purpose of a resource management plan is to establish desired outcomes (goals and objectives) and designate allowable, restricted, or prohibited uses and actions to achieve desired outcomes. Once BLM approves a resource management plan then subsequent implementation level decisions are put into effect. Implementation decisions are actions that are designed to achieve goals and objectives established in the Final EIS and, generally, are BLM's final approval before allowing on-the-ground actions to proceed. For example, the toolbox for upland vegetation treatments includes seeding and planting. Based on the goal to provide habitat for sage-grouse and other sagebrush obligate species, BLM may propose to seed or plant sagebrush in areas where little or no sagebrush exist.
Process	The Water Development Map (Map 22 on p. M-23 of the Draft RMP/EIS) is what is driving the planning process. BLM provides no mapping or any specificity of any kind showing it	Map 22 "Areas within 1 Mile of Water Developments" in the Draft RMP/EIS provided baseline information. The Final EIS does not include this map.

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	will ever remove a single pipeline or water trough to conserve and protect sage-grouse or other wildlife, or slickspot peppergrass.	A range of management actions allowing modification and/or removal of water developments are incorporated into the action alternatives in the *Riparian Areas and Wetlands* section in Chapter 2 of the Final EIS. See management action RI-VI-MA-2.
Process	What is the development of alternatives and analysis of impacts throughout the Draft RMP/EIS based on? Is it based on percentage of Grassland - Map 9 (p. M-10), or Map 10 (p. M-11), the projected 2012 that reflects grass and vast shrub less expanses in 2010)? On 33% grassland cover - or 60-70% grassland cover? Is it based on deer mice being key components of sagebrush guilds?	The Section 2.1.2 (Alternative Development Process) describes how and what the alternatives were based on.
Process	The Settlement Agreement requires BLM to "Make determinations for future management of the planning area, consistent with the requirements of the Federal Land Policy and Management Act of 1976 (FLPMA), NEPA, implementing regulations, and BLM's Planning Manual and Handbook". By developing alternatives with provisions, and in the case of Alternatives II, III, portions of IV, and V that are not consistent with FLPMA and NEPA in the context of the severely altered planning area. BLM has violated the Stipulated Settlement Agreement. BLM is also required to consider information including science submitted. Many components of the alternatives are not consistent with current ecological science in the context of the large-scale habitat losses and population declines for sagebrush species in the planning area. Nor in the context of the rarity of bull trout, the tiny remnant populations of redband trout in the Elk Mountain area, and other beleaguered populations. Looming predicted climate change effects magnify threats, especially in the context of this landscape that has suffered such a high degree of disturbance and desertification. We have provided copious comments throughout this process, including comments in meetings with BLM that the Draft RMP/EIS was not sufficient to conserve and enhance sage-grouse and other wildlife.	The Final EIS is consistent with the provisions of the 2005 Stipulated Settlement Agreement (SSA). The SSA required a range of alternatives, including a significantly reduced livestock grazing alternative. The Final EIS set out alternatives that described a range of management actions and the anticipated consequences of those management actions. Chapter 4 analyses are based on current science, which was confirmed after review of the information presented by Western Watersheds Project and others during the Draft RMP/EIS comment period. Where new studies or policy resulted in different management direction the BLM revised the analysis in the Final EIS. The Draft RMP/EIS developed the alternatives to contrast the impacts of various management actions. The alternatives themselves were not intended to be exactly what might be adopted in the Record of Decision. Alternative VI (Proposed RMP) incorporated elements from the other alternatives. The Final EIS modified the analysis of the impacts of Alternative VI to explain the impacts of the shifts in management direction under this alternative. As noted, the Murphy Complex Fires and other fires have changed the landscape since the 2007 Ecological Site Inventories. The action alternatives respond to the changed conditions by considering management that focuses on the

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	BLM expeditiously conducted the Ecological Site Inventories - only to have lands burn up in a whole series of fires. The Settlement requires that BLM "establish protocols and develop data necessary to evaluate current populations and habitats for BLM-designated "sensitive" species on the Jarbidge Field Office ... " The Draft RMP/EIS fails to do this for sage-grouse, pygmy rabbit, bull trout and other rare, declining and imperiled species. BLM has not developed appropriate "desired outcomes" to sustain, conserve and enhance biota and waters. BLM has not balanced uses or acted to sustain, conserve and enhance sage-grouse and other rare biota in identifying lands available or not available for livestock grazing. It has not adequately incorporated current science on soils, micro crusts, vegetation, watershed characteristics, invasive species, sensitive and imperiled species, and acted to protect them in goals, objectives, and management actions in the alternatives by zoning lands open to many forms of exploitation and developments. It has failed to develop a sustainable range of alternatives and appropriate allocations to address the many grave threats that native biota and other important values of the public lands face here.	minimization of fire threats (Alternative III), active conservation and restoration (Alternatives I and IV), passive conservation and restoration (Alternative V) and rehabilitation to support intensive commodity use (Alternative II). Each alternative set out general direction to achieve desired outcomes with respect to sensitive species. Chapter 4 of the Final EIS analyzed those impacts. Each alternative included monitoring protocols to assess conditions, and to guide management in the planning area. In all action alternatives, the BLM uses protocols established under the Inland Native Fish Strategy, sage-grouse policies, and other more general sensitive species inventory and monitoring direction. For example, in Alternative V, management within Areas of Critical Environmental Concern, which encompass approximately two-thirds of the planning area, focused on restoring native habitat conditions. While the planning area still managed for multiple uses, livestock grazing was significantly reduced, and land use authorizations for wind energy development and mineral extraction were very limited.
Range of Alternatives	The Draft RMP/EIS lists assumptions on page 4-11. One of those assumptions is that, “BLM will have the funding and workforce to implement the selected alternative.” Stated differently, BLM formulated the alternatives based on the assumption there would be an unlimited budget for implementation of any of the alternatives. This assumption is invalid and unrealistic. Given the state of the national economy and annual Federal deficit and mounting National Debt, BLM should assume there would be no increase in funding beyond that needed to maintain the status quo.	This particular assumption is necessary to create a “level playing field” for the analysis of all alternatives.

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Range of Alternatives	Table 4-36, on p. 4-84 of the Draft RMP/EIS provides an example of an impact rank comparisons (used in a number of places in the Draft RMP/EIS) that is entirely inappropriate. First, this approach implies an assumed equal value difference between the ranks. This is not true. Second, a ranking system does not confirm that the relationship of a given rank to the ranked resource impact is even significant. Third, a ranking at either end of the scale does not confirm that a real and significant difference exists. For example, a rank of 7 representing the highest adverse impact among the alternatives may still not represent a significant effect on the resource in question or a significant difference with other alternatives.	The Final EIS removed this table from the *Soil Resources* section of Chapter 4.
Range of Alternatives	For goals in Management Common to the No Action Alternative and All Action Alternatives, we are referred back to the goals in Management Specific in the No Action Alternative (of which there are none stated) and Management Common to All Action Alternatives.	The Final EIS corrected this error.
Range of Alternatives	BLM fails to assess in its Draft RMP/EIS a range of "reasonable alternatives". The Jarbidge Coalition for Multiple-Use met with the BLM and submitted comments and a Proposed Action to the BLM, highlighting not only a reasonable alternative, but a Proposed Action to be selected or adopted as the final RMP.	The Final EIS considered but eliminated the alternative submitted by the Jarbidge Coalition, known as the "Friends of the Jarbidge Alternative", from detailed study as a stand-alone alternative because it did not meet the purpose and need; contained internal inconsistencies; and was inconsistent with BLM planning criteria. Many components were incorporated into Alternatives I, II, and III.
Range of Alternatives	We recommend the following addition/replacement items for Alternative II: (1) Critical suppression areas defined in Alternative IV. (Goal WFM-CA-G-1). (2) Improve water availability defined in Alternative III. (Goal WFM-CA-G-1). (3) Manage to increase fire interval defined in Alternative III. (Goal FE-CA-G-1). (4) Fuel treatments within wildland urban interface as defined in Alternative III. (Goal FE-CA-G-1). (5) Fuel breaks would focus on strategic locations as defined in Alternative III. (Goal FE-CA-G-1). (6) Landscape-scale fuels reduction as defined in Alternative III. (Goal FE-CA-G-1).	Many of the suggested changes are unnecessary, as the goals stated by the commenter are Common to All Action Alternatives. The Final EIS analyzed a range of alternatives with specific goals and objectives unique to each Alternative. Replacing the goals, allocations, and management actions of Alternative II with goals, allocations, and management actions from other Alternatives would change the intent of Alternative II. This change in intent would reduce the range of alternatives.

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	(7) Objective FFE-III-O-3 rehabilitation as defined in Alternative III. (Goal FE-CA-G-1). (8) Habitat for Fish, Wildlife ... Goal UV-CA-G-1, Manage vegetation to reduce fire size and ... as defined in Alternative III (Goal UV-III-G-1). (9) Priority for vegetation treatments would be to lengthen fire return interval and protect native shrub land as defined in Alternative III. (Goal UV-CA-G-1). (10) Both targeted grazing and fire could be used for vegetation treatments as defined in Alternative III (Goal UV-CA-G-1). (11) Fire tolerant/resistant species for upland vegetation treatments as defined in Alternative III. (Goal UV-CA-G-1). (12) Livestock Grazing-provide for livestock grazing through the proper grazing management to reduce wildland fire size as defined in Alternative III. (Goal LG-III-G-1). (13) Livestock Grazing - Allow Temporary Non-renewable Authorizations to meet specific project management objectives as allowed under Alternative III. (14) Range Infrastructure - construct new infrastructure to help meet both fire suppression and resource management objectives as stated in Alternative III. (15) Land Use Authorizations include consideration of wildland fire prevention and suppression objectives.	
Range of Alternatives	Unfortunately, the Draft RMP/EIS fails to include a reasonable range of alternatives to address BLM's mismanagement of the range and policies set to maximize commercial livestock grazing at the expense of the public and Federally protected wild horses. Instead, the Draft RMP/EIS promotes land use plans that perpetuate intensive resource extraction and the development status quo.	The Final EIS analyzed a range of allocations for the Wild Horse Appropriate Management Level. Under the Federal Land Policy and Management Act of 1976, BLM manages public lands under the principles of multiple use and sustained yield. Managing use by cattle and sheep, together with wildlife and wild horses and burros, and a host of other uses is part of BLM's multiple-use mission. The regulations at 43 CFR 4710.3-2 provide that Herd Management Areas may be designated to be managed principally, but not necessarily exclusively, for wild horse or burro herds. The Saylor Creek Herd Management Area has not been designated for principal or exclusive use by wild horses. Alternative VI (Proposed RMP) would implement a balance between wild horses and other resource uses based on the analysis of the Draft RMP/EIS and public comment.

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Range of Alternatives	Despite repeated comments by the Western Watersheds Project and others throughout this process, and the BLM's own analysis of the management situation showing the ecological disaster for antelope, sage-grouse, and other values of the extremely high fence densities in the planning area. The BLM has structured all of its alternatives around allotment fences being immutable. There is no alternative that shows fence or other project removal and reconfiguration based on a plan to conserve sage-grouse.	Management actions designed to conserve sage-grouse by allowing removal, modification, and marking of fences have been included as common to all action alternatives. See LG-CA-MA-13, LG-CA-MA-16, and SS-CA-MA-12. SS-VI-MA-5 allows for other project specific removal.
Range of Alternatives	In Scoping, the Western Watersheds Project submitted an Alternative in a format/template style that BLM required at the time. We submitted many comments that relied on both active and passive restoration and a conservation centered management paradigm. Yet, BLM did not fully consider our concerns in the limited and industry-centered near-status quo alternatives of the flawed and inadequate Draft RMP/EIS.	The Final EIS considered but eliminated the alternative submitted by the Western Watersheds Project, known as the “Habitat Restoration Alternative”, from detailed study as a stand-alone alternative because it did not meet the purpose and need; contained internal inconsistencies; and was inconsistent with BLM planning criteria. Many components were incorporated into Alternatives IV and V.
Range of Alternatives	There is no commitment by the BLM to recover degraded ecological conditions.	The Final EIS analyzed a range of alternatives that contained goals and objects for restoration and recovery of the planning area. Alternative VI (Proposed RMP) commits to recover degraded ecological conditions. For example, the *Upland Vegetation* section describes both the current and desired number of acres in each Vegetation Sub-Group (VSG) by Vegetation Management Area (VMA). Management actions describe restoration priorities and treatments designed to achieve objectives (i.e., desired number of acres in each VSG by VMA).
Range of Alternatives	Just include a "plant shrubs" provision in Alternative V, and the direction of the change arrow would change! BLM has purposefully constructed alternatives to bias the outcome towards Alternative IV that will not conserve sage-grouse.	The Final EIS analyzed a range of alternatives. In Alternative V, non-native and native shrubland communities would not be a focus for active restoration treatments. By changing Alternative V to include a “plant shrubs” provision as suggested would change its intent and reduce the range of alternatives analyzed. Alternative VI (Proposed RMP) is designed to conserve sage-grouse by actively restoring and connecting habitat.
Range of Alternatives	BLM must develop a broad range of new alternatives, and project the outcomes of key and identified Idaho Fish and Game restoration sage-grouse habitat under all of them. Provide a full set of actions to minimize disturbance, and conserve and enhance habitats for sustainable populations. Provide a time frame of efforts made to achieve restoration and	The *Upland Vegetation* section describes both the current and desired number of acres in each Vegetation Sub-Group (VSG) by Vegetation Management Area (VMA). Management actions describe restoration priorities and treatments designed to achieve objectives (i.e., desired number of acres in each VSG by VMA). Specific time frames for achieving the objectives were not

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	disturbance-minimization goals.	identified because meeting restoration goals is dependent on a number of factors beyond the BLM's control (e.g. wildfire may burn an area restored 8 years ago which would delay the achievement of the goal; or severe drought may result in the failure of a recently restored area; etc.). Alternative VI (Proposed RMP) is designed to conserve sage-grouse by actively restoring and connecting habitat.
Range of Alternatives	Utility avoidance in Alternative V plus the Saylor Creek Herd Management Area with a five-mile buffer should be a minimum alternative. Provide a range of several more protective alternatives.	The Final EIS analyzed a range of alternatives with different right-of-way avoidance/exclusion areas and resource protection measures. The Final EIS did not analyze utility avoidance in Alternative V plus the Saylor Creek Herd Management Area with a five-mile buffer, as there was no explanation as to how the buffer would achieve resource objectives.
Recreation	Dispersed campsites and very desirable campsites should remain open. Limiting dispersed camping to 25 feet off the road is unacceptable and would close many of the desirable camping locations in the planning area. Closing these camping sites due to perceived resource damage is unacceptable.	The Final EIS analyzes a reasonable range of alternatives. Alternative VI (Proposed RMP) address the specific issue of dispersed camping by allowing it within 100 feet of the centerline of the road (TR-VI-MA-5). Resource impacts or environmental conditions may warrant the closure of dispersed campsites.
Recreation	The BLM must propose a range of alternatives that manages motorized uses in the planning area. The alternatives should range from no areas open to cross country travel, to the whole planning area being open to cross country travel. These alternatives should also consider restricting or allowing other activities and uses, such as livestock grazing in open area designations.	The Final EIS analyzed various locations and sizes of areas open to off-road motorized use in the range of alternatives. Alternative VI (Proposed RMP) does not exclude livestock grazing from areas open to cross country travel. BLM Manual 1626, Travel and Transportation Management (2011) directs designation of open areas to be; (1) Limited to a size that can be effectively managed and; (2) Expansive open areas allowing cross-country travel, without a corresponding and identified user need or demand will not be designated in RMP revisions or new travel management plans. The 1626 Manual also states that retention or designation of large areas open to unregulated cross-country travel is no longer a viable management strategy. Boundaries of the proposed open areas were identified to provide the opportunity for traditional and future recreational values while protecting sensitive resource values (i.e., wild horses, wildlife, and special status plants).
Recreation	We must have more access for all users and shared access for all users, or at least equal access for all users. Motorized users must have access to and more trails of multiple use or limited to motorize use only designation.	The Final EIS analyzed various levels of motorized use in the range of alternatives. The Chapter 2 *Transportation and Travel* sections describe the allocations for transportation and travel by alternative.

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Recreation	Adequate recreational opportunity for all visitors is an issue that must be addressed in this document. Most environmental documents have not taken into consideration the fact that motorized multiple use designation serves all recreation activities, instead of the few served by non-motorized/wilderness designations. The Recreation Opportunity Spectrum for motorized recreationists should consist of an equivalent number, type and quality of opportunities as compared to non-motorized recreationists including access to back country recreation areas, long distance back country discovery routes, back country airstrips and destinations including historic areas, lakes, vistas, streams and rivers.	Appendix H: Recreation Management Areas was developed to show the existing and expected recreation type and quality of opportunities in the planning area. The Final EIS used this information.
Recreation	Land management agencies must acknowledge that public land has significant meaning and socio-economic value to the public. The relative importance of recreation on a national basis is demonstrated by the Bureau of Economic Analysis statistics for spending on recreation. In 1979 the index for recreation spending was 32.537. In 2004, the index was 113.695 for an increase of 349%. No other sector has increased this dramatically. Off-highway vehicle recreation and tourism could be a significant boost to many local economies.	The Final EIS revised information on economic contributions from recreation in the planning area.
Recreation	We request that the BLM provide an adequate and fair evaluation of all existing routes including those meeting National Off-Highway Vehicle Rule guidelines and currently closed routes.	The National Off-Highway Vehicle Rule applies to National Forest System Lands managed by the US Forest Service. With the exception of Wilderness, US Air Force lands, other agency, or private lands, there are no closed routes in the planning area.
Recreation	The cumulative effect of all motorized closures has been significant and is growing greater every day, yet they have not been adequately addressed. The Jarbidge RMP/EIS must include adequate evaluation of cumulative effects so that motorized recreation will not be removed from our public lands. An adequate evaluation of cumulative effects would include all past, current, and reasonably foreseeable actions that have or will produce motorized closures.	Cumulative impacts analysis for open, limited, and closed motorized travel allocations within the planning area was included in the Final EIS. Travel management planning will occur following the signing of the Record Of Decision. The travel planning process will complete a cumulative impacts analysis.
Recreation	The environmental analysis must adequately address the human environment including issues, needs, alternatives, and impacts on the public associated with the reduction or lack of adequate motorized recreation. An adequate analysis would include evaluation of social, cultural, historical use, current use,	Analyses of direct and indirect impacts to recreation and travel are contained in Chapter 4.

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	future needs, economic impact, and quality of the human environment issues from the perspective of motorized recreationists. The BLM cannot assume that the impacts are adverse in nature.	
Recreation	Consider a true pro-recreation alternative and pro- off-highway vehicle alternative that maximize opportunity in the planning area. This alternative should include open areas that can expand with increased demand and that mitigate the impacts on the public from the loss of motorized access and motorized recreational opportunities.	The Final EIS analyzed a reasonable range of alternatives. Alternative I included the largest component of active recreation management. All of the alternatives provide for continued motorized recreation in a variety of settings, experiences, and challenges. The range of alternatives also included maintaining existing or increasing motorized route use.
Recreation	The BLM must use the most current numbers on off-highway vehicle (OHV) use and recreation activities in the planning area. This would include use of primitive roads and trails and numbers of OHV registrations.	The Final EIS used Idaho off-highway vehicle (OHV) registration numbers and regional trend data for OHV use. The *Recreation* sections of Chapter 3 and 4 in the Final EIS contain this information.
Recreation	We request that the BLM develop and implement screening procedures to identify influence groups with annual budgets greater than $100,000. The goal of this program would be to assure that the decision produces a wide sharing of resources and life's amenities. These additions to the planning process are needed to restore the basis of public benefit and are needed to remove the political influence that has obscured public benefit and needs from the current process.	Developing and implementing a screening procedure to identify influence groups with annual budgets greater than $100,000 is beyond the scope of this planning effort.
Recreation	Sadly, one indicator of the condition of the human environment in Montana is the suicide rate. Montana ranks number 2 in the nation. This significant problem has been specifically identified as requiring special attention by the Department of Health and Human Services. Motorized recreation is popular and it is a very healthy and positive human activity that can help address this significant human issue. The BLM can help address this significant problem by providing an adequate quantity and quality of motorized recreational opportunities. We ask that you adequately address this significant issue associated with the human environment.	There is no information to support that the suicide rate in Montana is influenced by motorized recreation or the lack of access to motorized recreation. The BLM acknowledges the relationship between quality of life and recreational opportunities provided for by the planning area.
Recreation	The use of off-highway vehicles (OHVs) for cross-country travel should be considered. In areas that cross-country travel is not allowed the BLM should implement route designation with the following in mind: • Designated roads, routes, and trails should be marked on	Travel management planning will perform a more thorough site-specific review of travel routes. This effort will include field data collection and verification and will take into account the concerns of the public when developing a designated road and trail system.

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	maps. • Routes and trails should be designated for different types of vehicles and different skill levels. • The OHV designated trail system must be adequate for current and future use. • Single-track routes should be included in the OHV trail system. We encourage looking at the use of cow trails as possible single-tracks for motorcycle use. • Route sharing between motorized and non-motorized users should be encouraged. • Creating new routes and providing for loops over cherry stems must be looked at. • Routes that provide access to wilderness boundaries, historic use areas, and historic cabins should be given priority for designation. • Designated routes should avoid riparian areas and other areas of high resource concern, (Slickspot peppergrass habitat, bull trout habitat, cultural sites, etc.). • Site-specific analysis should look at impacts from different uses and modes of travel instead of treating all OHVs as having the same impacts.	
Recreation	We request careful consideration of the multiple-use needs of the public and implementation of the objectives of multiple-use laws and policies as part of the proposed action. Motorized recreationists have been losing ground starting with the wilderness designations in the 1960's and continuing on with the Roadless rule, forest plans, resource management plans and travel plans. Non-motorized recreationists can use an infinite amount of cross-country opportunity and motorized recreationists cannot. Data shows more motorized recreation occurs on public land than non-motorized recreation, yet there is an imbalance of opportunities in favor of the non-motorized recreation opportunities. While we do not support segregation, if segregation is to be implemented on multiple-use lands then a corresponding goal would be to demonstrate a perfect 50/50 sharing of non-motorized and motorized trails as part of that segregation.	The Final EIS does not propose any segregation of motorized and non-motorized areas. In travel management planning, the BLM is required to plan for a wide variety of uses (including uses for recreational, traditional, authorized, commercial, educational, and other purposes), as well as all forms of motorized and non-motorized access or use, such as foot, pack stock or animal-assisted travel, mountain bike, off-highway vehicle, and other forms of transportation. The Final EIS is a multiple use plan that provides a range of alternatives which allow a wide variety of resource uses (e.g., outdoor recreation, minerals extraction, and livestock grazing) while meeting statutory and regulatory requirements for the protection of natural, biological, and cultural resources. Special Recreation Management Area (SRMA) designation provides focused management of recreation activities due to historical, present, and future recreational use trends. This focused management is intended to preserve the setting and recreational

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		experience of the area. SRMA designation does not exclude one recreation use over another recreation uses.
Recreation	We are concerned that all sediment runoff into streams is blamed on off-highway vehicle (OHV) activities. An understanding of the background sediment yield needs to be known before the finger is pointed at OHV recreation. Many things contribute to sediment yield (i.e. fire). Water bars at a reasonable spacing is a very effective way to reduce the sediment discharge from trails and roads, and many other best management practices are available.	The cumulative impacts analysis for aquatic resources (fish, special status fish and aquatic invertebrates, water resources and riparian areas and wetlands) all acknowledge there are many human uses and activities that contribute to the existing condition of aquatic resources in the planning area. There are natural sources of sediment that also have an additive effect on stream and riparian conditions. The environmental baseline includes these sediment sources. The travel planning process will further analyze sediment and erosion potential. The travel planning process will address maintenance levels and road development standards using management actions and best management practices for travel routes as guidance.
Recreation	Please provide an analysis that incorporates the following data in the Final EIS analysis. This will help the BLM adequately evaluate and disclose motorized and non-motorized recreational resource and opportunity information to the public. • Miles of roads, routes, and trails. • The different uses allowed on roads, routes, and trails. • The current and expected future use by motorized and non-motorized users on roads, routes, and trails. • Amount of cross-country opportunity available to motorized and non-motorized users. • Peer-reviewed literature must support the analysis.	Table 4-301, Travel Designations by Alternative (Acres), displays the off-highway vehicle (OHV) allocations proposed in the Final EIS. Analysis completed in the Final EIS used the best science available. Peer-reviewed science and methodology had greater consideration over that which was not peer-reviewed. The travel planning process will use specific data related to miles of OHV trails closed, open, limited, and the percent of motorized and non-motorized recreation opportunities in its analysis.
Recreation	Because of the significant impacts on motorized recreationists that are being proposed as part of the Jarbidge Resource Management Plan and because of the significant cumulative effect on motorized recreationists of all past and reasonably foreseeable motorized closures, the proposed action is beyond the scope of an environmental assessment and an environmental impact statement must be prepared.	An EIS supports the Jarbidge Resource Management Plan.
Recreation	We request that the Jarbidge Resource Management Plan Revision follow the intention of the final Off-Highway Vehicle Route Designation rule and that the rule not be used inappropriately as an action to create wholesale-motorized closures and a wholesale conversion of motorized to non-motorized routes.	The Off-Highway Vehicle Route Designation rule is applicable to US Forest Service lands.

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Recreation	Idaho's Trail Ranger program combined with cooperative management of National Forest lands provides over 9,000 miles of trail riding opportunities. We ask that this project adopt a similar goal.	After Travel Management Plan development, the BLM will pursue cooperative management agreements and develop volunteer programs.
Recreation	When developing travel management alternatives the agency must recognize the public's desire to keep existing opportunities open. We suggest the following: • Start with a comprehensive inventory of all existing motorized routes in use by the public. • The BLM should look for management alternatives that provide for mitigation of impacts instead of closure. • The public must be involved. • Use the Forest Service-643 Roads Analysis Manual in order to adequately account for the social, economic, cultural, and traditional values that motorized roads and trails provide to the public. • Work with adjoining Federal agencies to make a better trail system. • Include signing, maps, and brochures. • Avoid alternatives, or management guidance, directives etc. that require closure as the first or only option in reducing identified resource impacts. • The BLM should carefully consider displaced use. • Consider road closures in areas important to resources such as slickspot peppergrass.	A public process, during travel management planning, will help facilitate the development of the transportation and travel system for the planning area. The Travel Management Plan will determine the routes and trails to be designated, modified, closed, or rehabilitated as well as the maintenance level, modes of travel, and seasonal and access restrictions for designated routes (TR-CA-MA- 5). This includes analysis of road and trail connectivity with adjoining Federal lands. The travel management planning analysis will use existing roads and trails as the network to start the travel and transportation designation process. Public input will help determine use restrictions and route configurations in this plan. The travel planning process will use various BLM documents to evaluate and designate roads and trails, not US Forest Service documents. The travel planning analysis will use the BLM Roads and Trails Terminology Report and Planning and Conducting Route Inventories (BLM Technical Reference 9113-1).
Recreation	Analysis of motorized recreation opportunities within a reasonable distance from the users must use reasonable indicators. These indicators could include documented user conflicts, cumulative effects of this motorized closure combined with all other motorized closures, existing motorized recreation opportunities, and the need for expanding those opportunities.	These are good considerations for use in the development of the travel management planning process. Until implementation level travel planning occurs, a comparison of impacts from closures, additions, or route density to other resources cannot be analyzed.
Recreation	The document and decision must clearly disclose on maps, tables, and summaries all existing roads and trails that would be closed to motorized access and motorized recreationists.	The only motorized vehicle closures in Alternative VI (Proposed RMP) are for the Bruneau-Jarbidge Rivers Wilderness, Salmon Falls Creek Area of Critical Environmental Concern, and Lower Salmon Falls Creek Wilderness Study Area (WSA). Statute closed the Bruneau-Jarbidge Rivers Wilderness to motorized travel. The 1987 Jarbidge RMP closed the roadless areas of the Lower Salmon Falls Creek WSA and Salmon Falls Creek Area of

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		Critical Environmental Concern to motorized travel.
Recreation	Considered all available mitigation measures before closing routes with environmental concerns. We strongly support mitigation before motorized closure and, in fairness to the public, encourage the agency to adopt this policy also.	The travel planning process will designate routes along with maintenance levels and rehabilitation requirements (TR-CA-MA-5).
Recreation	We are asking for continued use of routes, including those defined by; the 3-State Off-Highway Vehicle decision and route definitions, 2477 roads, and other valid agreements, and Memorandums of Understanding with local highway districts.	The validations of R.S. 2477 rights are determined through a process that is entirely independent of the BLM's planning process. The 3-State Off-Highway Vehicle Record Of Decision covered BLM lands in Montana, North Dakota, and South Dakota but not Idaho. The BLM will, as stated in TR-CA-MA-3, “Continue to recognize valid agreements and Memoranda of Understanding with local highway districts for road maintenance.”
Recreation	There is also a significant public safety aspect associated with squeezing everyone into a small area, as accidents will increase with too many motorized recreationists on too few routes.	Safety and resource impacts will be included in the route analysis during the travel management planning process.
Recreation	There are no identifiable or named features and no road and trail numbers on the maps. It is very difficult for the public to orient themselves and to interpret the proposed action for each specific road and trail. Therefore, the public cannot adequately evaluate the proposal and cannot develop comments with reference to specific roads and trails.	The Final EIS revised the Travel Designation maps (Map 72 to 78) to include the names of major routes in the planning area. Designation of roads and trails will occur during travel planning process.
Recreation	Education should be the first line of action before pursuing other actions. Educational programs could include use of mailings, handouts, improved travel management mapping (that includes route depiction and skill level for route), pamphlets, TV, and radio spots, web pages, newspaper articles, signing, presentations, sign-in and information kiosks with mapping, and trail rangers.	The travel plan will determine roads and trails to be designated, modified, closed, as well as maintenance levels, modes of travel, and seasonal and access issues. Public education through signing, mapping, sign-in and information kiosks, and user contact will be necessary to develop stewardship of the BLM lands in the planning area. Education and interpretation program enhancement will occur during implementation projects after the completion of the RMP.
Recreation	We request that the document make a fair evaluation of all sources and uses that contribute to the noxious weed problem including hikers, mountain bikers, equestrians (non-use of weed-free hay), etc. The document should also fairly evaluate how natural processes and wildlife spread noxious weeds.	Chapter 3 of the Final EIS establishes a baseline of information for noxious weeds. Chapter 3 also includes a brief section on mechanisms that may spread noxious weeds or invasive species. Chapter 4 provides an analysis of each alternative on noxious weeds.
Recreation	Site-specific science based monitoring of motorized versus non-motorized use must be conducted to comprehend impacts.	Site-specific monitoring of motorized versus non-motorized use for each route is beyond the scope of this planning effort. Development of the Travel Management Plan will include

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		monitoring elements to determine the effectiveness after implementation. Monitoring needs may include: • Maintenance needs, • Safety issues, • Impacts to sensitive resources, and • Signing and kiosk condition and placement. These monitoring elements would pertain to travel allocations: Open, Limited, and Closed.
Recreation	Independent scientist should review and participate in all aspects of planning, broad-based assessments, local analysis, and monitoring. Scientists may come from within Federal or State agencies, or the public, and may hold a variety of important and influential positions.	The RMP planning process included the invitation of a number of State and local government agencies to participate as cooperating agencies. Representatives from Idaho Department of Fish and Game, Idaho Department of Lands, Idaho Department of Parks and Recreation, and Idaho State Department of Agriculture participated as members of the Jarbidge RMP Interdisciplinary Team. The Owyhee County Commissioners participated in the Jarbidge RMP through their existing coordination agreement with the Twin Falls District.
Recreation	If a private property owner closes a historic motorized access or route to public land through their property, then in order to be fair, to avoid special privileges; the public routes should be closed at the private property line to all motorized use and, where the route has access from the other end on public land, it should remain open so that it can provide an out and back motorized opportunity.	To provide access to public land the BLM may try to obtain access across private land. Travel planning will identify these routes. See LA-CA-MA-10.
Recreation	We are concerned with the way that comments are being used by agencies in the decision-making process. Agency management has said that the total number of comments received during the process is considered during the decision-making. There is a clear indication that decisions are being made based on those interests producing the most comments. We strongly disagree with a decision-making process using comments as a voting process.	The BLM reviewed each comment letter received on the Draft RMP/EIS. Each substantive comment was responded to, either by modifying one or more of the alternatives as requested; developing and evaluating suggested alternatives; supplementing, improving, or modifying the analysis; making factual corrections; or explaining why the comments do not warrant further agency response, citing cases, authorities, or reasons to support the BLM's policy and guidelines. The BLM did not consider "vote" comments substantive.
Recreation	We request that the adverse impact on the majority of the public resulting from the lack of information, education, training, understanding and acceptance of the NEPA process be evaluated and that the cumulative adverse impacts on the public be adequately mitigated.	Analyzing the adverse impact on the majority of the public resulting from the lack of information, education, training, and understanding and acceptance of the NEPA process is beyond the scope of this planning effort.

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Recreation	Designation of more wilderness should not take place. It is closed to motorized vehicles and equipment and therefore, multiple-use lands should be open to motorized vehicles and equipment. Wilderness criteria and standards should not be applied to multiple-use lands.	Wilderness designation is a function of Congress. Wilderness accounts for less than 5% of the planning area. Travel criteria and standards for wilderness, except closed, are not applied to other BLM lands.
Recreation	We request that the proposed action adequately address and comply with the recommendations of the study conducted to address P.L. 105-359 including items 1 and 7.	The Final EIS incorporated all regulations, laws, and BLM policies.
Recreation	We are concerned about the loss of access and impact on the handicapped, elderly and physically impaired produced by each motorized closure to historic sites and traditional use areas. We strongly urge you to manage these lands in a way that provides recreation for the disabled in accordance with the Americans with Disabilities Act.	A public process, during travel management planning, will help facilitate the appropriate travel and transportation system for the planning area. The design and layout of routes and recreation facilities during project implementation will take into consideration the access needs of physically impaired public land users. The BLM Travel and Transportation Manual (1626) states; "Wheelchair and mobility devises, including those that are battery-powered, that are designed solely for use by a mobility-impaired person for locomotion and that are suitable for use in an indoor pedestrian area are allowed in all areas open to foot travel. There is no legal requirement to allow people with disabilities to use motor vehicles on roads, primitive roads, or trails and in areas that are closed to motor vehicle use. Restrictions on motor vehicle use that are applied consistently to everyone are not discriminatory."
Recreation	Along with the standardization of signs, there is also a significant need to standardize or simplify seasonal closure dates as much as possible. We suggest that the number of different closures periods should be kept to a maximum of two, if possible, in order to avoid confusion and resulting misunderstandings.	The travel planning process will analyze seasonal and access closure periods.
Recreation	The Draft RMP/EIS refers to potential conflicts of passive and active users of public lands; however, the draft RMP does not express specifically the numbers of user conflicts from 1987 to 2007. Can the BLM provide current data to show the amount of user conflicts or is there no user conflict?	The planning area has documented reports of user conflicts during the last 15 years. These reports include concerns for noise related to off-highway vehicles (OHV) and adjacent private lands, livestock fencing gates being left open and careless OHV operators near county roads. The travel planning process will consider these documented user conflicts.
Recreation	Consider winter All-Terrain Vehicle areas as part of the proposed action.	The travel planning process will evaluate the season of use and modes of travel for the roads and trails within the planning area.

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Recreation	We request that the BLM involve motorized recreation planners and enthusiasts in order to adequately speak for the needs of multiple-use and motorized visitors. NEPA encourages direct coordination with the impacted public. Many comments by motorized recreationists are being dismissed by the agency as not being substantive. The NEPA process should have been an issues driven process and the significant issues should be those that have the greatest impact on motorized recreationists. We request that the EIS address all of the significant issues that affect motorized recreationists.	The public scoping process identified recreation as a planning issue. This issue covered all forms of recreation activities including motorized. The Final EIS included the topics of both motorized and non-motorized recreation. The Travel Management Plan will include a more detailed analysis of travel routes and subsequent route designation. Members of the Jarbidge RMP Team conducted briefings and presentations on the Jarbidge RMP revision process to the following off-highway vehicle (OHV) groups: Idaho All-Terrain Vehicle (ATV) Association Inc., Magic Valley ATV Riders, Inc., Magic Valley Trail Machine Association, Southern Idaho Desert Racing Association, and Treasure Valley Trail Machine Association. We also contacted other OHV groups in the RMP scoping process, including Blue Ribbon Coalition, Boise ATV Trail Riders, Mountain Home ATV Club, Southern Idaho Off-Road Association, and Wild West Off Roaders.
Recreation	The agency can no longer ignore that motorized access and recreation are the largest and fastest growing group of visitors to public land. The Draft RMP/EIS evaluation must adequately consider the growing popularity of motorized recreation, the aging population and their needs for motorized access, and the increased recreation time that the aging population has and looked forward to enjoying public lands in their motor vehicles.	The BLM used national and regional off-highway vehicle trends in the *Recreation* and *Transportation and Travel* sections for each alternative in the Final EIS.
Recreation	The BLM would like to limit group size to less than 30 and require 30 or more to acquire a special recreation permit. BLM requires that application be submitted 180 days before date of event. Please raise the group size.	The Final EIS has presented a reasonable range of alternatives on group size requiring a permit. Alternative VI (Proposed RMP) places the determination of issuing an organized group permit under the discretion of the authorized officer. The authorized officer will take into account the type, location, size, and intent of the organized group or proposed event when determining whether to require an organized group permit. Management action REC-VI-MA-13 does not specify group size.
Recreation	Recreation user should replace the words “non-motorized” in the RMP.	The terms motorized and non-motorized recreational user generally refer to the types of travel related to recreation opportunities.
Recreation	We actually need many more trails and campgrounds to accommodate the growing number of outdoor recreationalists, not reduce the amount.	The Final EIS analyzed a range of alternatives that provided varying levels of access and other recreational opportunities while providing a balance between resource use and resource values.

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Recreation	The RMP establishes Travel Management Areas, Special Recreation Management Areas, Areas of Critical Environmental Concern, Wilderness Study Areas, Wild and Scenic Rivers, Lands with Wilderness Characteristics and many other special designations that focus to restrict and prohibit multiple uses in these areas. Special designations are not required to properly manage the specific areas. The elimination of special designations would provide for all multiple uses and not prohibit or exclude any public uses.	The Final EIS incorporates new policy (BLM Manual 8320, Planning for Recreation and Visitor Services) which has three categories of allocation for Recreation Management Areas (RMAs): Special Recreation Management Areas, Extensive Recreation Management Areas, and public lands not designated as RMAs. Current BLM policy does not allow any new recommendations for Wilderness Study Areas (WSAs) designation and only Congress can designate wilderness areas. The Final EIS revised designations of Areas of Critical Environmental Concern and Lands with Wilderness Characteristics to reflect new policy, developing environmental concerns, and comments received through public review of the Draft RMP/EIS. Multiple uses of the land are allowed by the Final EIS but all uses may not be compatible on every inch of ground. Special designation may exclude some uses but, those uses could be allowed elsewhere. WSA management adheres to previous legislation and subsequent policy. The development of a wilderness management plan will outline management direction for wilderness within the planning area.
Recreation	Please provide a definition of Dispersed Recreation.	The Final EIS updated the glossary with the term “Dispersed Recreation”.
Recreation	All types of recreation including both motorized and non-motorized recreation have some sort of resource impact. The key to reducing those impacts is actively managing the recreation resource. Amend the goal to read, "Provide a variety of dispersed and developed recreation opportunities and experiences for visitors and residents while sustaining the recreation resource based and managing for resource impacts."	The Final EIS revised REC-CA-G- 1 based on public comment.
Recreation	Management action REC-IV-MA-6 gives priority for authorization of Special Recreation Permits (SRP) for events to applicants proposed to make use of less crowed weekdays. Most recreation events are held on weekends because this is when most event participants have time off work to compete in the event. Prior performance of the permit holder should provide priority for SRP authorization. Those permit holders	Alternative VI (Proposed RMP) removed weekday priority for Special Recreation Permits. See REC-VI-MA-11.

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	that have a good record of applying for and keeping the terms of the permit should be the ones that have priority. Weekdays should not receive priority.	
Recreation	How can BLM assume that recreational use will not increase over the next 20 years?	The commenter is referring to the statement on p. 4-472 of the Draft RMP/EIS, which states, "…recreation use in the Bruneau-Jarbidge and Jarbidge Forks Special Recreation Management Areas is not expected to increase…" This assumption is based on the existing and historical use of these areas, which is limited due to access, and season of use periods.
Recreation	We are greatly concerned that expanded off-highway vehicle (OHV) torn-up areas will adversely impact native reptiles. Bare soil areas and some semblance of native shrubs are found in areas of hillier terrain and specific soils where OHV use is now being greatly imposed.	The travel management planning process and the subsequent monitoring plans will analyze motorized uses, including the use of off-highway vehicles.
Reference Areas	Riparian exclosures, like the upland vegetation exclosures, will add very little value to the management of the planning area. In addition, numerous riparian areas currently exclude livestock grazing and these existing exclosures are fully capable of illustrating the effects from livestock. Because of this lack of value, exclosures should be restricted to the smallest number and size possible.	The Final EIS included a range of number and size of reference areas in compliance with the 2005 Stipulated Settlement Agreement. The Chapter 2, Alternative VI (Proposed RMP), *Riparian Areas and Wetlands* section (RI-VI-MA-4) identified the creation of 10 ungrazed riparian reference areas, encompassing up to 3,000 acres. The Final EIS, Maps 11 to 15, identified potential locations for the reference areas.
Reference Areas	In the Draft RMP/EIS, Chapter 2, RI-CA-G-1, it is not clear how riparian areas and wetland reference areas were determined.	The Final EIS was revised to include a description of the process used to identify riparian reference areas. Appendix O also contained this information. The Final EIS selected riparian reference areas from the Category 1 streams identified in the Aquatic and Riparian Management Strategy (Appendix D).
Reference Areas	The Draft RMP/EIS provides no monitoring requirements for reference areas. The RMP does not provide actions that will occur if monitoring shows adverse impacts.	The Final EIS provided for the development of a reference area-monitoring plan in which specific monitoring requirements will be determined. At a minimum, the BLM would use the Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management.
Reference Areas	BLM must close entire pastures or allotments for reference sites; otherwise the burden of fencing in this tragically industrialized landscape becomes even greater. The Stipulated Settlement Agreement says that the reference areas are to allow comparisons for future evaluations of livestock grazing. Therefore, there is no need for fencing of these areas in lands that will be closed to livestock.	The Final EIS analyzed a range of alternatives for reference area number, size, and locations. Reference areas in Alternative V include pasture sized reference areas. Refer to Map 14, "Potential Reference Areas in Alternative V".

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Reference Areas	Due to the large amount of evidence of adverse impacts of fences to sage-grouse, BLM must set aside existing pastures as reference areas.	The Final EIS analyzed a range of Alternatives that included pasture size reference areas. Reference areas in Alternative V include pasture sized reference areas. Alternative VI (Proposed RMP) proposed up to 52 40-acre upland reference areas.
Reference Areas	Where are all lands that BLM currently considers reference areas? All lands in good, better, or reference conditions? Identify these lands.	Currently, no reference areas exist. The Stipulated Settlement Agreement (SSA) required the BLM to identify, maintain, and/or establish ungrazed reference areas in both upland and riparian settings that represent a variety of ecological components, vegetation types, and elevational gradients. The Final EIS analyzed a reasonable range of alternatives to meet the SSA requirements.
Rights-of-Way	On p. 2-169, the Draft RMP/EIS does not, but should, contain language that would incentivize use of the designated utility right-of-way (ROW) corridors, thereby limiting the protective impacts of the utility ROW corridors.	See LA-CA-MA-1 in the Final EIS. This management action stated, “place new rights-of-way (ROWs) for oil and gas pipelines and overhead lines within ROW corridors where practical; other locations would be considered in areas not identified for ROW avoidance or exclusion, etc.” Using ROW corridors and previously disturbed areas increases the likelihood that a project may be approved thereby providing incentives to applicants to use designated utility ROW corridors.
Rights-of-Way	The Draft RMP/EIS notes that the proposed Gateway West Transmission Line project would be located in the planning area, but will be analyzed separately, although it is expected that the environmental impacts would be within the scope of that analyzed in the Draft RMP/EIS. However, the proposed location is outside the utility right-of-way (ROW) corridors analyzed in the Draft RMP/EIS. In order to limit the effects of this project on the other resources and uses of the public lands managed by the BLM, the Draft RMP/EIS should emphasize that any new projects, including the Gateway West Transmission Line, must consider siting within the designated utility ROW corridors and justify alternative locations.	See LA-CA-MA-2 in the Final EIS. This management action stated, “New rights-of-way (ROWs) would be located in areas of previous disturbance where practical.” A separate EIS will analyze the Gateway West Transmission Line Project. This separate EIS will take into account if the existing utility ROW corridors could accommodate the project.
Rights-of-Way	Incorporate The Gateway West Transmission Line right-of-way exclusion areas into the Final EIS.	The Final EIS discussed the Gateway West Transmission Line Project as a reasonably foreseeable development within the planning area. The proposed placement of the transmission line and the alternatives considered are beyond the scope of this planning effort.
Rights-of-Way	We request that agencies acquire private land and rights-of-way to provide access to blocked public land.	See LA-CA-MA-10 in the Final EIS. This management action stated, “Access across non-BLM lands would be identified and obtained, where possible, through easements, rights-of-way

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		(ROWs), or acquisitions to accomplish BLM objectives."
Rights-of-Way	Because of the designation of Wilderness and Areas of Critical Environmental Concern (ACECs) along the northeast margin, all alternatives listed in the current plan support moving new utility right-of-way (ROW) corridors/lines only along the existing ROWs and then essentially prohibiting them elsewhere. There are allowances made for Wind Farming where vegetation, etc. would allow and where current wind research indicates location. However, this is blind to the fact that the newest turbines are profitable at annual wind speeds averaging less than 16 mph, and that they could eventually occur in many more settings, although that potential is a moot point if one can't get line ROWs to connect this valuable resource to the grid. The Bush and Obama administrations listed the need for new electrical infrastructure as a national security interest. I must add that the major utility ROW crossing near Lilly Grade would no more affect the scenic value of Salmon Falls Creek Canyon (if strategically placed) than the motorized vehicles in which 99% of the people who see that placement would be riding. Major utility lines are already strategically placed across the Birds of Prey Area, Hells Canyon, the Salmon River, the lower Bennett Hills, and the Snake River near the Hagerman Fossil Beds, just to mention a few ACECs.	In the Final EIS, Alternative VI (Proposed RMP), LA-VI-A-2 stated, "…Upper Bruneau Canyon and Salmon Falls Creek Areas of Critical Environmental Concern (21,000 acres): New rights-of-way (ROWs) would be restricted to ROW corridors and locations of existing ROWs…" See Map 94 "ROW Exclusion Areas in Alternatives I, III, and VI (Proposed RMP)" and Map 92 "ROW Avoidance Areas in Alternative VI (Proposed RMP)". The Roseworth utility ROW corridor would allow for a ROW crossing in the Lily Grade area (See LA-VI-A-3).
Rights-of-Way	The BLM's Alternative IV has zoned vast areas for rights-of-way (ROWs) (see Map 76 p. M-77, ROW Exclusion Areas). This shows that nearly the entire planning area outside wilderness and canyons can be developed with ROWs granted under Alternative IV. Industrial-style development and extreme visual scarring may also occur under Alternative IV Visual Resource Management (Maps pp. M-40 to M-41), Oil and Gas, Geothermal, etc.	Outside of right-of-way (ROW) exclusion areas, ROWs would be consistent with avoidance stipulations. Maps 86 to 92 display ROW avoidance areas, and Maps 93 to 96 display ROW exclusion areas in the Final EIS.
Rights-of-Way	Right-of-way (ROW) mapping shows that the BLM plans for all manner of development to occur over vast areas. It becomes apparent that the BLM contrived components of Alternative V to be purposefully damaging so that it could more readily discard even this weak alternative for conservation. See Map 76, where ROW exclusion is identical between Alternatives IV and V; Map 90 Potential Oil and Gas Development Areas, which are the same under all of the alternatives; Map 91	The Final EIS analyzed a range of alternatives for land use authorizations and leasable, salable, and locatable minerals. The Final EIS revised right-of-way (ROW) exclusions areas for Alternatives IV and V (see Map 95 "ROW Exclusion Areas in Alternative IV" and Map 96 "ROW Exclusion Areas in Alternative V"). Appendix K of the Final EIS described the potential for oil and gas development in the planning area as low, See Appendix K: Reasonable Foreseeable Development Scenario For Oil And

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	Geothermal Development Potential, which are the same under all; Map 96, Leasable Mineral Allocations in Alternative V, where the BLM would have more wide-open damaging leasable mineral allocations than Alternative IV; Map 101 showing more wide-open damaging salable mineral allocations under Alternative V than Alternative IV; and Map 106, showing more wide-open damaging locatable mineral withdrawals under Alternative V than Alternative IV.	Gas Development. Appendix L described potential for geothermal development. See Appendix L: Reasonable Foreseeable Development Scenario For Geothermal Development.
Rights-of-Way	Western Watershed Project incorporates all of our comments and concerns provided for the China Mountain process into these comments.	This comment is beyond the scope of this planning effort. The BLM has deferred the China Mountain Wind Energy project until completion of the Idaho and Southwestern Montana Sub-Regional Greater Sage-Grouse RMP Amendment/EIS and the Jarbidge RMP.
Rights-of-Way	Why doesn't the BLM provide clear mapping of the utility right-of-way (ROW) corridors under all of the alternatives? Why has the BLM even considered a ROW south of Murphy Hot Springs, Idaho? If this is an existing power line, BLM must prohibit any expanded use on this route.	The Final EIS analyzed a range of alternatives for the utility right-of-way (ROW) corridor locations. Chapter 2 described designation of utility ROW corridors by alternative. Map 97 "Utility ROW Corridors" depicts the locations of utility ROW corridors in the planning area. Alternative VI (Proposed RMP) did not provide for a utility ROW corridor south of Murphy Hot Springs.
Rights-of-Way	In areas where a power line may be present, that use should be capped and no additional power lines, water, or other pipelines, structures, gas lines, etc. be built.	Restricting all power line and pipeline development did not fit the purpose and need described in the Final EIS, and is not necessary to protect resources. The Final EIS analyzed requiring that utility developments comply with applicable laws, regulations and policies. Where necessary, mitigation will be required to minimize or avoid impacts.
Rights-of-Way	The BLM must specify that the existing power line to the town of Jarbidge, Nevada is not a utility right-of-way corridor, other than for the current power line.	The Final EIS analyzed a range of alternatives for utility right-of-way (ROW) corridor locations. The utility ROW corridor to the town of Jarbidge was not included in Alternative VI (Proposed RMP).
Rights-of-Way	The BLM must zone the China Mountain and all areas of the Western Watershed Project Sagebrush Sea Alternative "off limits" to wind development under all alternatives.	The Sagebrush Sea Area of Critical Environmental Concern is a right-of-way (ROW) avoidance area and the Final EIS analyzed it in the range of alternatives. The Final EIS revised areas available for wind energy development. Alternative VI (Proposed RMP) commercial wind and solar energy developments would not be permitted inside the sage-grouse management area or within utility ROW corridors (LA-VI-A-4). Outside the sage-grouse management area, renewable energy site testing, monitoring, and development should avoid special status

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		species habitat unless unavoidable adverse effects can be mitigated (LA-VI-MA-4).
Rights-of-Way	The Juniper Butte Range should be included in the Utility Avoidance Areas. Consider Restricted Airspace R-3202 and R-3204.	The Final EIS updated maps displaying right-of-way (ROW) avoidance areas (Maps 86 to 92) to include the US Air Force Military Operations Areas as Utility Avoidance Areas and ROW Avoidance Areas.
Riparian Areas and Wetlands	In the Draft RMP/EIS (p. 2-57), the objectives in the *Riparian Areas and Wetlands* sections for Alterative I, III, IV and V are unrealistic and unlikely to be achieved due to conditions affecting proper functioning condition (PFC) that are outside of BLM control. The only acceptable alternative is Alterative II because it has the objective of "Maintain 85 miles of Priority 3 streams at PFC and improve the Priority 1 and 2 streams to be moving toward PFC in the life of the plan."	The Final EIS included a range of alternatives that would result in different rates of improvement in riparian condition. Of all action alternatives, Alternative II resulted in the fewest miles of stream achieving proper functioning condition (PFC) (140 miles) over the life of the plan. In the Final EIS, Alternative VI (Proposed RMP) would result in 183 miles of stream achieving PFC over the life of the plan (RI-VI-O-1). The Aquatic and Riparian Management Strategy (Appendix D) included restoration priorities for achieving this objective. Although some riparian area would continue to be affected by factors that are beyond BLM control, the stream reaches on the BLM will be managed to move toward or achieve PFC.
Riparian Areas and Wetlands	Priorities for restoration should be based on: (1) Fish Bearing Streams (2) Permanently Flowing Streams and (3) Ponds, Lakes, Reservoirs, Wetlands greater than 1 acre. Insignificant riparian areas and stream reaches should not be a focus for management (Chapter 2, *Riparian Areas and Wetlands* (Section 2.3.5.2), p. 2-55, RI-CA-MA-1). Priorities within the above categories can be broken down further as described by Chapter 2, *Riparian Areas and Wetlands* (Section 2.3.5.2), p. 2-56, RI-CA-MA-3: focusing just on streams with segments that are functioning-at-risk with no apparent trend (FAR-NA), or functioning–at-risk with a downward trend (FAR-DN), second on stream segments that are functioning–at-risk with an upward trend (FAR-UP), or non-functional (NF), and lastly on stream segments rated as proper functioning condition.	The priorities for riparian management are included in the Final EIS in Chapter 2, the *Riparian Areas and Wetlands* section in management action RI-CA-MA-3 and in the Aquatic and Riparian Management Strategy (ARMS), Appendix D, Tables D-3 through D-5. The ARMS based the priorities on proper functioning condition ratings and habitat condition ratings for streams containing special status fish. The Final EIS included management direction for riparian areas and wetlands according to the four categories identified in the Inland Native Fish Strategy (USDA, 1995). The Final EIS contained this information in Chapter 2, the *Riparian Areas and Wetlands* section in management action RI-CA-MA-1, and in Appendix D, under the subheadings *Riparian Conservation Areas*, *Riparian Conservation Area Widths*. Seasonally flowing and intermittent streams were included in the Final EIS because of their direct and indirect influence on fish-bearing streams. The Final EIS (RI-CA-MA-3; Appendix D, Table D-4 and Table D-5) does not specifically list seasonally flowing or intermittent streams (Category 4 streams) as a restoration priority because

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		they do not have a proper functioning condition rating. BLM may conduct restoration actions on Category 4 streams where site-specific analysis indicated they are preventing the achievement of riparian and wetland objectives.
Riparian Areas and Wetlands	Wind energy infrastructure is broadly referred to in the Draft RMP/EIS, Chapter 4, *Riparian Areas and Wetlands* (Section 4.3.5.2) p. 4-204 under the heading for Land Use Authorizations). The Draft RMP/EIS assumes that the land use authorizations for wind development would impact fish and aquatic environments. The BLM requires wind energy projects to conduct detailed hydrology studies, comply with stream buffers, and comply with all grading, drainage and storm water monitoring during construction and operations. If there are impacts, mitigation will be required. Therefore, impacts to fish and aquatic environments are not expected from wind energy projects. The Final EIS should not assume the land use authorizations related to wind energy development would impact fish and aquatic environments.	In the Draft RMP/EIS, Chapter 4, *Riparian Areas and Wetlands* and *Land Use Authorizations*, the analysis stated that land use authorizations, such as wind energy infrastructure, have the potential to impact riparian condition depending on their proximity to riparian areas and wetlands. The analysis also stated that infrastructure for wind projects in upland areas would have limited impacts to proper functioning condition ratings, but the road systems that support wind projects would pose risk for impacts to riparian and wetland condition. The Final EIS allocated public land for a variety of uses. Allocating lands for a specific use leads to the assumption that constructing and implementing the use could result in direct, indirect or cumulative impacts to resource values within the allocation area. Because the construction and operation of a wind energy project would require road construction, ground disturbance, and consumptive and non-consumptive uses of water, it was predicted to result in impacts to aquatic resources (water quality or quantity, riparian areas and wetlands, fish, and special status fish). The Final EIS clarified this assumption in, Chapter 4, *Riparian Areas and Wetlands* section, Methods and Assumptions. Mitigation measures applied at the project level would compensate for, rectify, or reduce the potential for negative impacts at the project level, but do not ensure all project-related impacts would be eliminated.
Riparian Areas and Wetlands	In the Draft RMP/EIS (p. ES-12), Objective RI-NA-O-l, I cannot tell from the information listed in the Alternatives, what stream segments they are talking about. I'm also against creating Riparian Conservations Areas of 300 feet from the edge of fish-bearing streams. This would eliminate any activity from occurring for any reason in the bottom of any canyon, including any energy-related development.	The Draft RMP/EIS included an Executive Summary with a table that displayed how management varied between the alternatives (p. ES-5 through ES-40). The Executive Summary is a condensed summary that does not include the level of detail provided in the Chapter 2, Chapter 3 and Chapter 4 portions of the Draft RMP/EIS. In the Draft RMP/EIS, Chapter 2, *Riparian Areas and Wetlands*, RI-NA-O-1 refers to Map 4 “MUAs in the No Action Alternative” for information on the Multiple Use Areas as part of the No Action Alternative. This information is also included in the Chapter 2, *Riparian Areas and Wetlands* section

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		of the Final EIS (see Map 3). The creation of Riparian Conservation Areas (RCAs) complied with current BLM management direction to incorporate the Inland Native Fish Strategy into RMP revisions. The RCA definitions are included in the Final EIS in Chapter 2, *Riparian Areas and Wetlands* section under RI-CA-MA-1 and in Appendix D: The Aquatic and Riparian Management Strategy under the subheadings of *Riparian Conservation Areas*, *Riparian Conservation Area Widths*. Authorized uses are allowed in the RCA as long as they maintain or promote the attainment of the RCA in proper functioning condition (Chapter 2, *Riparian Areas and Wetlands*, RI-CA-MA-8 and RI-CA-MA-9).
Riparian Areas and Wetlands	In the Draft RMP/EIS, Chapter 2, *Riparian Areas and Wetlands*, on pp. 2-56 through 2-59, we oppose all alternatives that suggest modification or removal of all water developments. That would suggest removing water developments that would have a great economic impact on a great deal of families and local communities who have for generations, depended on such developments for a living.	In the Draft RMP/EIS, Chapter 2, *Riparian Areas and Wetlands* section, Alternatives I through V identified either modification or removal of water developments as actions that would improve wetland and riparian condition. The intent of these management actions was to remove non-essential human-made structures and objects that reduce the function of floodplains (e.g., unused bridges abutments, unused diversions, and abandoned cars) as identified in the Draft RMP/EIS in RI-CA-MA-7. The Final EIS included RI-CA-MA-7 (Chapter 2, *Riparian Areas and Wetlands* section) with an added clarification to define the term water development in the glossary. The modification or removal of water developments was included in Alternative VI (Proposed RMP) as a tool for restoration of stream reaches (Final EIS, Chapter 2, *Riparian Areas and Wetlands*, RI-VI-MA-2).
Riparian Areas and Wetlands	In Chapter 4, *Riparian Areas and Wetlands*, under the subheading for Livestock Grazing (pg. 4-195, 4-234), the first sentence in the Impact for Management Common to All Action Alternatives section states, "livestock grazing would comply with management guidance in the ARMS". The Aquatic and Riparian Management Strategy (ARMS) is not a decision document and is not NEPA compliant.	The BLM created the Aquatic and Riparian Management Strategy (ARMS) using current BLM guidance as described in the introduction of the ARMS (Appendix D). In the Final EIS, the ARMS was revised to include the same goals, objectives, and management actions from Chapter 2. This Final EIS is the NEPA analysis of the ARMS and the forthcoming Record of Decision will be the decision document.
Riparian Areas and Wetlands	We are concerned that the preferred alternative would designate as open to minerals actions in the following Riparian Conservation Areas (RCAs) around water quality impaired streams: 16 miles for oil and gas leasing, 86 miles for geothermal, and 88 miles for salable mineral development	In the Draft RMP/EIS, Chapter 2, *Riparian Areas and Wetlands* section (RI-CA-MA-1), and in the Aquatic and Riparian Management Strategy (ARMS) (Appendix D) buffered all of the water quality impaired streams using the Riparian Conservation Area (RCA) definitions from the Inland Native Fish Strategy

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	(Draft RMP/EIS, p. 4-115 and 4-116). To reduce the risk of adverse impacts to water quality impaired streams, we recommend closing these areas to minerals actions. We appreciate that the preferred alternative does close many miles of the RCAs for water quality impaired streams (approximately 75 miles). If additional miles cannot reasonably be closed, the Proposed EIS should explain why and describe how Clean Water Act and Endangered Species Act requirements are met.	(USDA, 1995). The mineral leasing provisions in Alternative VI (Proposed RMP) allow for leasing subject to laws, regulations, and formal orders; areas may also be subject to additional constraints (LE-VI-A-1). Alternative VI identified additional seasonal restrictions in LE-VI-MA-1 for redband trout and bull trout and included guidelines for exceptions. Direction for salable mineral authorizations is provided in the Chapter 2 *Salable Minerals* sections in SA-CA-MA-5 and SA-CA-MA-6. All minerals activities in the RCA must be consistent with Chapter 2, *Riparian Areas and Wetlands* section, RI-CA-MA-8 and RI-CA-MA-9 which require management actions to attain proper functioning condition or movement toward proper functioning condition. Actions affecting RCAs must also be consistent with the ARMS which identified RCAs as areas where authorized actions are to maintain and restore riparian structure and function; benefit fish and riparian-dependent resources; enhance conservation of organisms dependent on the transition zone between upslope and in stream habitats; and improve connectivity of travel and dispersal corridors for terrestrial animals and plants and aquatic organisms. The process identified in the ARMS complies with Endangered Species Act requirements.
Riparian Areas and Wetlands	To protect fish, we recommend the Final EIS consider the benefits of screening pumps at drafting sites to prevent entrainment and the installation of one-way valves to prevent back-flow into streams. To protect water resources and riparian areas, we recommend the Final EIS consider prohibiting the installation of livestock handling, management or watering facilities within riparian management areas unless required for resource management.	Endangered Species Act consultation requirements for noxious weed and invasive plant treatments, wildland fire suppression, emergency stabilization and rehabilitation treatments, and restoration activities at stream crossings require the use of screens when drafting water from streams containing bull trout and other salmonids. The consultation documents related to these activities are included in the Final EIS, Aquatic and Riparian Management Strategy (Appendix D), in Table D-10. Direction for screening irrigation diversions is provided in the Final EIS, Chapter 2, *Special Status Species* section (SS-CA-MA-20). The Final EIS provided direction for management activities in riparian conservation areas in Chapter 2, *Riparian Areas and Wetlands*, in RI-CA-MA-2, RI-CA-MA-8, and RI-CA-MA-9. The direction for livestock grazing and related infrastructure is provided in Chapter 2, *Livestock Grazing*, LG-CA-MA-11 and LG-CA-MA-14.

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Riparian Areas and Wetlands	We appreciate the effectiveness monitoring proposed for Riparian Areas and Wetland in the Draft RMP/EIS, Appendix P, Table P-I. To maximize the usefulness of this monitoring, as an aspect of adaptive management (either related to Appendix D or Appendix P), we recommend the Final EIS include clarifying information on intervals and standards (consistent with 43 CFR Sub-part 1610.4-9), and, decision thresholds and adaptive management actions. Please disclose the potential usefulness of establishing decision thresholds based on one or more of the following: (1) The attainment of water quality standards. (2) The achievement of stream miles meeting proper functioning condition - e.g., 98 miles over the life of the plan for Alternative IV. (3) The establishment of healthy riparian conditions (e.g., potential natural vegetation). Please also design and propose, or discuss the potential usefulness of, specific adaptive management actions. Consider, for example and as appropriate, closing additional Priority 1 and 2 water quality impaired streams to livestock grazing, reducing wild horse herd numbers, travel management restrictions etc.	The Final EIS, Chapter 2 (Section 2.9), outlined a monitoring strategy for assessing the implementation and effectiveness of RMP decisions in meeting resource goals and objectives. This implementation and effectiveness monitoring is supplemented by the monitoring and adaptive management guidance for aquatic resources provided in Appendix D: Aquatic and Riparian Management Strategy. Site specific details on the intervals, standards, and monitoring for the achievement of resource objectives would be determined at the project or activity level. Because decision thresholds would vary according to site-specific conditions, they were not defined in the Final EIS. The Final EIS analyzed the achievement of water quality standards and proper functioning condition (PFC) ratings in the Chapter 2 sections for *Water Resources* and *Riparian Areas and Wetlands* for all action alternatives. The Final EIS, Chapter 2, Alternative VI (Proposed RMP), Water Resources section included the objective of meeting Federal and State water quality standards (WR-CA-O-1). In Chapter 2, Alternative VI (Proposed RMP), *Riparian Areas and Wetlands* section , would result in 183 miles of stream achieving PFC over the life of the plan (RI-VI-O-1).
Riparian Areas and Wetlands	The Draft RMP/EIS, Chapter 3 (pp.3-17 to 3-20), incorrectly identified, assessed, and reported the amount of lentic and lotic riparian and wetland resources within the planning area. The BLM has applied incorrect definitions, has included and assessed as Functioning-at-Risk with a Downward trend and Non-Functional to numerous areas that are excluded from the definition of riparian habitat.	The Draft RMP/EIS, Chapter 3, Riparian Areas and Wetlands provided a description of the five riparian functional condition ratings based on the descriptions provided in BLMs' "User Guide to Assessing Proper Functioning Condition and the Supporting Science for Lotic Areas" (Prichard et al., 1998a). The Final EIS revised Chapter 3, Riparian Areas and Wetlands, to provide clarity by including a more detailed description of riparian and wetlands conditions that would be rated as Functioning-at-Risk with a downward trend or Non-Functional. These definitions were also added to the Glossary for the Final EIS.
Riparian Areas and Wetlands	The Draft RMP/EIS (pp. 3-17 to 3-18) states: "Riparian areas are lands adjacent to or contiguous with permanent and intermittently flowing water bodies," citing Hansen and Hall, 2002. However, the definition in the Draft RMP/EIS is not the definition given by Hansen and Hall (2002).	The Final EIS revised the Chapter 3 *Riparian Areas and Wetlands* section to include a more detailed definition of riparian area as defined by Hansen and Hall (2002). The Final EIS also included definitions for perennial, intermittent or seasonal, and ephemeral streams, and wetland in the Chapter 3 *Riparian Areas and Wetlands* section and in the Glossary.

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Riparian Areas and Wetlands	It is important to note that Hansen and Hall (2002), as well as the BLM Technical References 1737-9 (Prichard et al., 1993) and 1737-11 (Prichard et al., 1998b) upon which Hansen and Hall (2002) rely, do not include ephemeral areas as a type of riparian or wetland.	The Final EIS revised the Chapter 3 *Riparian Areas and Wetlands* section and the Glossary to include a definition for ephemeral streams. Ephemeral streams are a type of riparian area, but they are not given a proper functioning condition rating according the BLM TR 1737-9 and TR 1737-11.
Riparian Areas and Wetlands	The Draft RMP/EIS infers in Chapter 3, *Riparian Areas and Wetlands,* Table 3-10 that canals and ditches (including any canals or ditches that are RS 2339 rights-of-way or equivalent) are streams (even though such areas may in whole or in part support riparian vegetation). These descriptions do not properly describe the Affected Environment.	The Draft RMP/EIS in the Chapter 3 *Riparian Areas and Wetlands* section, Table 3-10, identified the miles of canals and ditches as features that distribute surface water across the planning area. The Final EIS revised the Chapter 3 *Riparian Areas and Wetlands* section, Table 3-11 to remove any inference that ditches and canals are streams.
Riparian Areas and Wetlands	The Draft RMP/EIS is wrong in not pointing out that the permittees and/or BLM implemented management changes to livestock authorization because of proper functioning condition assessments, where BLM found that livestock management was causing undesired ratings.	The Final EIS did not incorporate the requested change into the Chapter 3 *Riparian Areas and Wetlands* section because Chapter 3 is the Affected Environment and provided a baseline for analysis.
Riparian Areas and Wetlands	The Draft RMP/EIS, Chapter 3 (p. 3-19), discusses various states of “functionality”, and states, relative to proper functioning condition: “Stream banks are stable, and evidence of degradation is minimal.” and states, relative to Functioning-At-Risk (FAR), Upward Trend: “Erosion and deposition are often observed.” However, “stable” and “minimal” are not quantified by the Draft RMP/EIS, and the statement leaves the erroneous inference that the natural setting does not have anything but “undisturbed” banks, with no erosion and deposition occurring. This is erroneous because the natural setting includes variation away from “undisturbed”. The BLM should re-assess any areas that were given a lowered rating to FAR from proper functioning condition because of any departure from “undisturbed”, and present corrected miles and percentages in the Final EIS.	The Draft RMP/EIS, Chapter 3, *Riparian Areas and Wetlands* section included a description of the five riparian functional condition ratings based on the summaries provided in BLMs’ “User Guide to Assessing Proper Functioning Condition and the Supporting Science for Lotic Areas” (Prichard et al., 1998a). The Final EIS revised Chapter 3 *Riparian Areas and Wetlands* section to include more detailed descriptions of riparian and wetland condition ratings. These definitions were also added to the Glossary. The Final EIS clarified Chapter 4 *Riparian Areas and Wetlands* section, Methods and Assumptions, to recognize that riparian systems have instability due to natural disturbances as described by Kershner and others (2004) and Kershner and Roper (2010). The definitions provided for the functional condition ratings in the Draft RMP/EIS did not use the term “undisturbed” to define any of the functional condition ratings. Because the BLM did not correlate “undisturbed” to a rating as proper functioning condition (PFC), streams not rated as PFC were not reassessed.

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Riparian Areas and Wetlands	The Draft RMP/EIS, Chapter 3 (pp. 3-19 to 3-20), discusses various states of "functionality", and states, relative to Functioning-at-Risk (FAR) with an Upward (UP) trend and FAR- No Apparent Trend (NA), respectively: The presence or absence of noxious weeds does not create a threshold which otherwise changes the site from a status of "proper functioning condition" to FAR-UP or FAR-NA (or too FAR-Downward Trend or Non-Functional). The BLM Technical References 1737-9 (Prichard et al., 1993) and 1737-11 (Prichard et al, 1998b) do not even contain the phrase "noxious weeds", and the uniform checklists provided therein do not include consideration of noxious weeds per se. Their presence or absence does not form a determination of hydrologic functionality or a threshold between states of functionality. Although Technical References 1737-9 and 1737-11 do provide for a lowered functionality-rating if "non-desirable species are present", this is in the context of whether bank-stabilizing vegetation is dominant or non-desirable other species is dominant on the stream bank. It is not in the context of the mere presence of one or more plant of one or more noxious weed species. The BLM should re-assess any areas that were given a lowered rating to FAR (or NF) from proper functioning condition because of the presence of noxious weeds. The Final EIS should present the corrected areas and percentages.	The Final EIS, Chapter 3, *Riparian Areas and Wetlands* section, under the subheading for proper functioning condition (PFC), included six bulleted items for riparian areas and wetlands that are functioning properly. One of the bullets refers to the presence of adequate vegetation to develop root masses that stabilize streambanks. This correlates to questions 9 and 11 on the PFC checklist (Prichard et al., 1998a), which considered if adequate riparian-wetland vegetative cover is present to protect banks and dissipate energy at high flows. Because noxious weeds and other invasive plants do not develop root masses capable of maintaining streambanks during periods of high flows, their occurrence in a riparian area or wetlands is an indicator of change in condition. PFC ratings were based on a compilation of 17 questions related to hydrologic, vegetative, and soil/erosion/deposition. The PFC assessments did not base PFC ratings solely on the occurrence of noxious weeds or invasive vegetation within the PFC assessment area. Therefore, streams not rated as PFC were not reassessed.
Riparian Areas and Wetlands	We are concerned that the BLM is going to use riparian areas as a reason to construct fencing, rather than require measurable standards of use for riparian areas.	The Final EIS stated the BLM would implement adaptive management using grazing use indicators to meet resource and special designation area objectives in LG-CA-MA-1. Utilization for riparian areas is one of the grazing use indicators that would be applied. The use of rangeland infrastructure, such as fences, is identified as a tool for managing livestock in LG-CA-MA-3.
Riparian Areas and Wetlands	Under BLM's 1997 National Riparian Goal, within five years, all streams were supposed to be in proper functioning condition (PFC). Yet here is the BLM, 13 years later, taking minimal steps towards attaining PFC with no clear path to achieve this condition on some of the streams in the planning area. There are no mandatory annual grazing use requirements and	In the Final EIS, Alternative VI (Proposed RMP), Chapter 2, *Riparian Areas and Wetlands*, included management actions for achieving or moving streams toward proper functioning condition (RI-CA-MA-1 through RI-CA-MA-9 and RI-VI-MA-1 through RI-VI-MA-4). Tables D-3 through D-5 in Appendix D: Aquatic and Riparian Management Strategy, summarized priority streams for

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	specified timely monitoring in the Draft RMP/EIS.	restoration. The *Monitoring Implementation and Effectiveness of RMP Decisions* section in Chapter 2 of the Final EIS included implementation and effectiveness monitoring for all resources including livestock grazing. Mandatory annual grazing use requirements and allotment specific monitoring strategies are developed at the allotment level and supported by rangeland health assessments and site-specific data.
Riparian Areas and Wetlands	Proper functioning condition (PFC) is the wrong goal. BLM should use a desired natural condition that far exceeds PFC. PFC does not address in stream habitat conditions for riparian areas. The BLM efforts to claim PFC can be "cross-walked" and translate into in stream conditions are not valid.	The Final EIS, Aquatic and Riparian Management Strategy (Appendix D), Figure D-1 and the paragraph below it acknowledged riparian condition has to improve beyond the initial rating of proper functioning condition (PFC) to achieve riparian, in stream, and water quality objectives. The Final EIS, Chapter 3 *Riparian Areas and Wetlands* section identified PFC as a broad scale qualitative assessment to determine if a riparian area is functioning properly. The BLM validated the PFC assessments using site-specific habitat condition (HC) data collected on multiple stream channel characteristics. This validation of PFC ratings was only done where the PFC and HC stream reaches overlapped. The validation process is possible because the riparian condition indicators (PFC checklist questions 3, 8, 9, 11, 14, and 15; Prichard et al., 1998a) correlate to the measured HC indicators (stream width and depth, vegetation composition and abundance, streambed composition). Photographs of the PFC and stream survey reaches were also used during the validation process. The validation process, as identified in BLMs' PFC protocol (Prichard et al., 1998a), was included in the Final EIS in Appendix D, under the subheading of Conservation and Restoration Reaches, Riparian Habitat. This validation process is also described in the BLM Technical Reference 1737-23; Multiple Indicator Monitoring of Stream Channels and Streamside Vegetation (Burton et al., 2011).
Riparian Areas and Wetlands	In the Draft EIS, the BLM provides no analysis of the effectiveness of the Multiple Indicator Monitoring (MIM) riparian monitoring. Under the BLM methodology of the MIM, the agency claims that it is not necessary to meet particular use levels every year. There is little grazing accountability with MIM.	The Multiple Indicator Monitoring (MIM) protocol in BLM Technical Reference 1737-23 (Burton et al., 2011) is a peer reviewed methodology and is the current riparian monitoring protocol adopted by the BLM. The Final EIS incorporated the use of MIM for monitoring riparian areas in Chapter 2, *Effectiveness Monitoring*, Table 2-5 and in Appendix D: Aquatic

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	The MIM measurements for riparian vegetation are taken right by the water's edge - the first line of vegetation where even the thinnest of green spikerush *(Eleocharis)* or other shallow-rooted poor bank stabilizers would be measured and considered towards meeting goals. The MIM sets no standards of use.	and Riparian Management Strategy, under Methodology for Watershed Analysis (Step 3). The MIM protocol established a procedure for monitoring riparian condition based on short- and long-term indicators. The protocol was not intended to establish specific use standards to be applied to all riparian areas. The MIM Protocol identified riparian data collection along the greenline, which is the linear grouping of plants near the water's edge along a stream channel. The greenline often forms at just below the bankfull level of the stream channel and forms a line along the annual scour of the stream channel during high water. The greenline often coincides with the presence of water in the plant-rooting zone, which allows for the growth of robust, hydrophytic plant species with deep roots that resist the erosive forces of the stream.
Riparian Areas and Wetlands	The Final RMP/EIS must set the standards for stubble height (including in meadows), bank trampling of livestock, accessible areas of stream banks, and riparian browse under a range of alterative to be measured by the Multiple Indicator Monitoring system.	In the Final EIS, the Aquatic and Riparian Management Strategy (Appendix D) provided guidance for achieving riparian goals and objectives for public land uses including livestock grazing. Allotment specific grazing standards are based on site-specific data collected according to current BLM methods and protocols such as the Multiple Indicator Monitoring Protocol (Burton et al.,2011), Rangeland Health Assessments, site-specific NEPA, Interim Grazing Management Plans, and Endangered Species Act consultation where Federally listed species or their habitat may be affected. Specific measurable standards, where necessary, are included in project-level decisions.
Riparian Areas and Wetlands	The Draft RMP/EIS does not include requirements for the many miles of intermittent tributaries that characterize large areas of the redband trout and bull trout tributaries in southern Idaho and northern Nevada. The BLM provides no commitment whatsoever to improve or address the intermittent and ephemeral tributaries.	In the Final EIS, all action alternatives included direction for intermittent streams (Chapter 2, *Riparian Areas and Wetlands* section, RI-CA-MA 1, Category 4). Alternative VI (Proposed RMP) included direction for seasonally flowing or intermittent streams in Chapter 2, *Riparian Areas and Wetlands* section, RI-CA-MA 1, Category 4. Management direction for seasonally flowing or intermittent streams is also included in the Final EIS, Appendix D: Aquatic and Riparian Management Strategy, Riparian Conservation Areas, under Category 4. The Final EIS, Chapter 3 *Riparian Areas and Wetlands* section, Table 3-11 identified the miles of intermittent (seasonally flowing) and ephemeral streams within the planning area. The Final EIS

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		considered impacts to intermittent stream channels in Chapter 4, *Riparian Areas and Wetlands* section, Methods and Assumptions.
Riparian Areas and Wetlands	The Aquatic and Riparian Management Strategy section discusses Watershed Analysis, and Monitoring and Adaptive Management. The Draft RMP/EIS does not provide information on the results of any watershed analysis. BLM cannot conduct a valid watershed NEPA analysis until BLM provides much more information on soils, soil erosion, micro biotic crusts, and vegetative conditions in watersheds. This is necessary to understand the risks associated with continued grazing or other allocations under the Draft RMP/EIS.	In the Draft RMP/EIS, the Aquatic and Riparian Management Strategy (ARMS), Appendix D included guidance for completing multi-scale assessments and ecosystem analysis at the watershed scale. The ARMS identified one Watershed Analysis that was completed by the BLM and US Forest Service. In the Final EIS, Appendix D clarified there were two Watershed Analyses completed in the Jarbidge Watershed, one in 1997 and one in 2004. The ARMS identified other more recent broad scale and mid-scale aquatic resource assessments, including Conservation and Recovery Plans (Table D-9) and Endangered Species Act consultation with the US Fish and Wildlife Service (Table D-10) that were completed in the planning area. The ARMS summarized the most current habitat condition data (Table D-3) and proper functioning condition data (Table D-5) as the baseline conditions for the aquatic resource analysis in Chapter 4. The Final EIS included information on soils, soil erosion, and micro biotic crusts in the Chapter 3 *Soil Resources* section. Vegetative conditions are described in Chapter 3 in the *Vegetation Communities* section.
Riparian Areas and Wetlands	On p. A-47, Appendix D: Aquatic and Riparian Management Strategy, in the Draft RMP/EIS shows that the timeframe for change or actions (like maintain or improve 70% to proper functioning condition (PFC) is the life of plan --- 20 years! There are no milestones to be met at 5 years (BLM used to say that PFC would be attained in 5 years in most instances), 10 years, etc. There is no analysis to show that this slow pace will sustain viable populations of native biota, or if this relatively low goal of improvement is even attainable under a series of near-status quo disturbance alternatives, especially with the added stressor of climate change. There is no real analysis of the adverse impacts of climate change, the timing and severity of grazing disturbances on BLM and Forest lands, road impacts and other direct, indirect or cumulative impacts that may impede progress or attainment.	The comment refers to the Draft RMP/EIS, Appendix D: Aquatic and Riparian Management Strategy, in Table D-1. This table displayed the Bull Trout Habitat Condition Indicators and Thresholds. The table identified the Indicators for Species Characteristics and the Thresholds for the Indicators (Functioning Properly, Functioning at Risk, Functioning at an Unacceptable Risk). It was developed by the US Fish and Wildlife Service (FWS, 1998) and created from the peer-reviewed literature that is provided at the end of the table. This table was included in the Final EIS, Appendix D as a basis for identifying conservation and restoration areas for Jarbidge River bull trout and their designated critical habitat. The purpose of the table was not to establish timelines for recovery. The Final EIS included an impact analysis in Chapter 4, *Riparian Areas and Wetlands*, and included an analysis of direct, indirect, and cumulative impacts relative to climate change, livestock grazing, and roads.

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Riparian Areas and Wetlands	The BLM's analysis in the Draft RMP/EIS, Chapter 4, *Riparian Areas and Wetlands*, p. 4-197, states "estimated use levels in the Sagebrush Sea Area of Critical Environmental Concern (ACEC) would be 10% to 20%, less than in other alternatives". Yet the BLM provides no information on the levels of use that have been occurring in riparian areas at present. The BLM proposes to continue livestock grazing in large areas of the ACEC with no mandatory annual measurable standards of use to riparian areas. Identify how the BLM plans to live up to the claims of 10% to 20% utilization for riparian areas within the ACEC.	The Draft RMP/EIS analyzed the impacts from livestock grazing in the Sagebrush Sea Area of Critical Environmental Concern in Alternative V. Across the range of alternatives, Alternative V had the fewest miles of perennial streams available to livestock grazing (63 miles). The Final EIS revised the analysis in *Riparian Areas and Wetlands*, Alternative V, to clarify that based on the miles of perennial streams available to livestock grazing (58 miles) and the reduced number of animal unit months at full implementation, it would pose the least risk for impacts to riparian condition. Measurable use standards for livestock grazing in riparian areas are to be developed based on site-specific NEPA analysis.
Riparian Areas and Wetlands	The objective for riparian areas is to "move toward objectives"- not even to make significant progress and to achieve goals and objectives.	The Final EIS included a range of riparian objectives for moving toward or achieving proper functioning condition (PFC). Alternative II had the fewest miles achieving PFC (85 miles) and the most miles moving toward PFC (145 miles). Alternative VI (Proposed RMP) Chapter 2, *Riparian Areas and Wetlands*, RI-VI-O-1, included a riparian objective for 183 miles of stream achieving PFC and 42 miles of stream to be moving toward PFC.
Riparian Areas and Wetlands	The Draft RMP/EIS must layout clear and required mandatory standards of use that serve as annual triggers from livestock removal from grazed riparian areas.	In the Final EIS, Chapter 2, *Riparian Areas and Wetlands*, provided management actions for achieving riparian goals and objectives for public land uses including livestock grazing. Allotment specific grazing standards are based on site-specific data collected according to current BLM methods and protocols such as the Multiple Indicator Monitoring protocol (Burton et al.,2011), Rangeland Health Assessments, NEPA, Interim Grazing Management Plans, and Endangered Species Act consultation where Federally listed species or their habitat may be affected. Specific measurable standards, where necessary, are included in project-level decisions.
Riparian Areas and Wetlands	The BLM must rely on non-structural methods to ensure functioning riparian areas and watershed processes. This includes closures, reduced stocking coupled with requirements for active herding of livestock.	The Final EIS analyzed a range of alternatives that included different methods for managing livestock grazing and maintaining or improving riparian areas. Non-structural methods for maintaining or improving riparian condition relative to livestock grazing included closures for resource protection, herding, and adjusting stocking rates (LG-CA-MA-3).
Riparian Areas and Wetlands	Requiring procedural and management actions to conform to the Aquatic and Riparian Management Strategy (ARMS) (Draft RMP/EIS, Chapter 2, WR-CA-MA-2; RI-CA-MA-2; FI-CA-MA-1;	The Draft RMP/EIS identified the Aquatic and Riparian Management Strategy (ARMS) as guidance for managing riparian areas in the planning area. To comply with current BLM

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	and SS-CA-MA-19) over a 20-year and likely even longer time frame is unwise because knowledge of stream/riparian system evaluation and management as well as assessment technology is always improving. Reliance on the ARMS does not allow BLM to adjust to significant new information and technology as it becomes available.	policy, this management strategy was included in the Final EIS (Appendix D). The ARMS established the baseline instream and riparian condition and identified priorities for Conservation and Restoration throughout the planning area. The current BLM policy is to use the most current science and available data to achieve aquatic resource goals and objectives as defined in the Final EIS (Chapter 2). This would apply to revisions to the current science, such as the Multiple Indicator Monitoring Protocol (Burton et al, 2011), or new peer-reviewed science or methodologies developed after the signing of the Record of Decision for the Jarbidge Proposed RMP/Final EIS.
Riparian Areas and Wetlands	As shown in the Aquatic and Riparian Management Strategy document, the guidance is derived from elements of the Interior Columbia Basin Ecosystem Management Plan (ICBEMP), which has never had a Record of Decision completed by which public input, or challenge of the entire concept could occur. The Congress of the United States denied funding to proceed with implementation of the ICBEMP; therefore, any effort to implement it by agreement, Memorandum of Understanding or other means has the appearance of circumventing the intent of Congress.	In the Final EIS, the Aquatic and Riparian Management Strategy (ARMS; Appendix D), complied with BLM direction to use the Interior Columbia Basin Ecosystem Management Plan science (Strategy and Framework) and other available science to improve riparian condition. The Jarbidge Proposed RMP/Final EIS and Record of Decision (ROD) are the NEPA documents that incorporated this management direction into the Jarbidge RMP. In accordance with current BLM policy, the ARMS incorporated the Inland Native Fish Strategy guidance, which has a completed ROD that amended the 1987 Jarbidge RMP.
Riparian Areas and Wetlands	One of the components of the Aquatic and Riparian Management Strategy (ARMS) derived from the Interior Columbia Basin Ecosystem Management Plan is the identification and establishment of Riparian Conservation Areas (RCAs). As has been previously pointed out, the manner of establishment of RCA boundaries is arbitrarily (Draft RMP/EIS, Appendix D, p. A-42) based on broad scale circumstance resulting in varied but predetermined RCA width without regard to site specific conditions and/or uses. The ARMS document itself allows for RCA width modification basis on site-specific circumstances, thus the entirety of all predetermined categorical RCAs is subject to modification in consideration of site-specific conditions.	The creation of Riparian Conservation Areas (RCAs) to prioritize streams was from the Inland Native Fish Strategy (INFISH) (USDA 1995), which amended the 1987 Jarbidge RMP. INFISH identified Riparian Habitat Conservation Areas (or RCAs) using standardized widths based on the occurrence or absence of fish or surface water (Chapter 2, *Riparian Areas and Wetlands*, RI-CA-MA-1; Appendix D: Aquatic and Riparian Management Strategy, *Riparian Conservation Areas*, *Riparian Conservation Area Widths*). The RCAs help identify activities and authorized uses that may affect riparian condition. The INFISH RCAs were developed based on science that supported the RCA widths as adequate to protect streams from non-channelized sediment and sufficient to provide other riparian functions. The Aquatic and Riparian Management Strategy included a process for using site-specific data and analysis to modify RCA widths where appropriate. In the absence of site-

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		specific analysis, the default widths are used.
Riparian Areas and Wetlands	In the Draft RMP/EIS, much of the Aquatic and Riparian Management Strategy (ARMS) document is devoted to listing and describing actions that are also addressed in the various management actions in the Alternatives, including the management actions determined by Owyhee County to be consistent with its own Owyhee County Natural Resources Plan. The frequent redundancy of objective and action that are described in different verbiage in the ARMS and Alternatives leads to considerable confusion as to what the guiding language would actually be.	In the Final EIS, the goals, objectives, and management actions for the *Water Resources, Riparian Areas and Wetlands, Fish, and Special Status Species* sections in Chapter 2 were made consistent with the goals, objectives and management actions provided in the Aquatic and Riparian Management Strategy (ARMS; Appendix D, Tables D-6, D-7, and D-8). ARMS also included the priorities for achieving those goals, objectives and management actions (Tables D-3 and D-5).
Riparian Areas and Wetlands	The proper functioning condition process is neither intended for nor suitable for determining trend and while it may be useful for documenting probable change over a very long term, it is not suited to the kind of trend analysis needed for short-term management decisions.	The Final EIS identified the use of proper functioning condition (PFC) assessments to determine if a stream channel is functioning properly, functioning-at-risk or non-functioning due to BLM authorized uses. The PFC assessments were used to identify where to focus inventory and monitoring and to assist in developing actions to improve riparian condition. Site-specific data using protocols such as Multiple Indicator Monitoring (Burton et al., 2011) would be used to determine short- and long-term trends in riparian and in-stream condition over time.
Riparian Areas and Wetlands	In the Draft RMP/EIS, the Aquatic and Riparian Management Strategy proposes the following relationship of priority status based on proper functioning condition (PFC) and Habitat Condition (HC) ratings. This approach, as modified below, appears to be generally consistent with the Owyhee County Natural Resources Plan. *HC Rating* — *PFC Rating* Conservation Reach — (PFC, PNC) High Priority Restoration Reach — Priority 1 (FAR-NA, FAR-DN) Mod. Priority Restoration Reach — Priority 2 (FAR-UP, NF) Low Priority Restoration Reach — Priority 3 (PFC) Where: PFC – Proper Functioning Condition PNC – Potential Natural Community FAR-NA – Functioning-at-Risk with No Apparent Trend FAR-DN – Functioning-at-Risk with a Downward Trend FAR-UP – Functioning-at-Risk with an Upward Trend	The comment refers to the Draft RMP/EIS, Appendix D: Aquatic and Riparian Management Strategy, in Table D-4. The table provided a crosswalk between priority rankings for special status fish habitat management and riparian area management. The comment correlated a habitat condition rating of Conservation Reach as proper functioning condition (PFC)/potential natural community (PNC). The Final EIS did not incorporate this comment. The Final EIS displayed the relationship between PFC and PNC in Appendix D, Figure D-1. The text below the figure states, “after a stream reach has reached PFC, vegetation continues toward the potential natural community, livestock forage increases, and aquatic habitat improves. Improvement in water quality to levels that would result in the delisting of water quality impaired streams…would not occur until riparian condition improved beyond the initial rating of PFC.” For this reason, PFC does not equate to a PNC because instream and riparian condition, as well as water quality, would continue to improve

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	NF- Non-Functioning	after the initial rating of PFC. The BLM's User Guide to Assessing Proper Functioning Condition and the Supporting Science for Lotic Areas (Prichard et al., 1998a), defined the potential of a stream as "the highest ecological status a riparian-wetland area can attain given no political, social, or economic constraints, and is often referred to as the potential natural community". Streams can be rated as PFC but not be at PNC.
Social Conditions	Recognize that ranchers derive a significant level of quality of life from stewardship of the land they utilize. Clearly, the increased effort to achieve management goals is an increased opportunity to achieve a higher quality of life. The BLM should review and consider information directly related to social and community impacts relevant to the planning area, e.g. "Social and Community Impacts of Public Land Grazing Policy Alternatives in the Bruneau Resource Area of Owyhee County, Idaho" by J.D. Wulfhorst, Neil Rimbey and Tim Darden (2003). The BLM's failure to consult and utilize this information leaves the Social Conditions section entirely inadequate. Consider and incorporate the discussions of the custom and culture of Owyhee County, contained in the Owyhee County Natural Resource Plan, into the environmental consequence analysis. The Draft RMP/EIS, beginning at p. 4-766, provides a purported Summary of Direct and Indirect Impacts affecting "Quality of Life". However, merely indicating the direction of change for each alternative does not provide a meaningful reference as to the magnitude or significance of changes or impacts. As noted in prior comment regarding the relative impact on livestock grazing opportunity, the variation among alternatives is in excess of 850%, which indicates a greater difference among alternatives than is indicated by mere direction of change. Clearly and accurately quantify the relative effect of each alternative for livestock grazing opportunity, recreation, and transportation and travel.	The Final EIS revised the *Social Conditions* section of Chapter 3 to include details on rancher quality of life from stewardship ethic, as well as detail from the report "Social and Community impacts of Public Land Grazing Policy Alternatives in the Bruneau Resource Area of Owyhee County, Idaho" (Wulfhorst et al., 2003). The tables that described impacts to quality of life for each alternative by identified stakeholders depended on qualitative information. Non-market values by their nature are difficult to quantify. Direction provided in the BLM Land Use Planning Handbook (H-1601-1) suggested the use of benefit transfer to evaluate the effects of these non-market values. The Final EIS discussed non-market values and social effects qualitatively in the absence of quantitative information.
Social Conditions	Twin Falls and Elko County communities stand to gain substantially once China Mountain Wind Project is operational. We provided you an unbiased independent analysis on	Financial data used in the Final EIS to characterize potential effects from wind energy development were from the National Renewable Energy Lab's Job and Economic Impact Assessment

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	financial and employment specifics of wind energy development.	Model, and utilize Federal sources of data (NREL, 2009c) and are considered unbiased.
Social Conditions	The China Mountain Wind Project would provide social features, as discussed in Section 4.6.1, to the local community. This would include access, especially to the hunters and anglers. The proposed project would not change livestock grazing in the area. Building the project would maintain the quality of life for all groups. Operation of a wind farm would not affect quality of life for ranchers or hunters using the area.	A separate EIS addressing the effects related to the China Mountain Wind Energy Project will occur after the completion of the Idaho and Southwestern Montana Sub-Regional Greater Sage-Grouse Resource Management Plan Amendment and the Jarbidge RMP.
Social Conditions	In the Draft RMP/EIS on p. 3-89, *Social Conditions*, you have left one significant "Connected" group out and those include "farmers' to which have a significant economic impact in the area and their livelihoods at stake. Why would you leave such a group out?	Cultural or emotional investment connects farmers to the planning area. This fits the definition of disconnected groups as currently defined in the Draft RMP/EIS. This categorization of connected and disconnected groups has been revised for the Final EIS in order to portray a more inclusive approach that does not categorize individuals and groups who are culturally and emotionally connected to the planning area as “disconnected.” Employment and income information for the Farm and Agricultural Services sectors was included in the Draft RMP/EIS (see Tables 3-52 and 3-53). The Final EIS revised this information to include the most recent available data on these sectors. In addition, information on the importance of agriculture was included in the Final EIS *Economic Conditions* section under Impacts from Livestock Grazing Actions. Chapters 3 and 4 of the Final EIS highlighted the importance of agriculture to the area.
Social Conditions	In the Draft RMP/EIS on p. 4-757, under Hunters and Fisherman, you do not mention upland game bird hunters.	In the *Social and Economic Features* section of Chapter 4, the term Recreators was broken down into more specific groups, including Hunters and Fishermen. This term included all types of hunters and fishermen that use the planning area. We did not break them down further as you have suggested.
Social Conditions	The State agrees that Alternative IV-B in the Draft RMP/EIS best accomplishes the need to restore the resiliency of ecosystem and structure and function through restoration projects and managing uses. However, the preferred alternative fails to both adequately account for the impact to wildlife from the deleterious impacts of wildfire and the impact to the human environment by unnecessarily restricting multiple-use activities.	The term “human environment” is defined as the “natural and physical environment and the relationship of people with that environment” (CEQ NEPA regulations, 40 CFR Sec. 1508.14). Both the Draft RMP/EIS and Final EIS consider a wide range of alternatives that allow varying levels of multiple-use activities. The *Wildlife* section of Chapter 4 analyzed the impacts of wildfire on wildlife by alternative. The *Social and Economic Features* section in Chapter 4 analyzed the effects to the human

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		environment, including social and economic conditions, for all alternatives.
Social Conditions	Please change the impactions from management specific to alternatives in the *Social and Economic Features* Impacts section of Chapter 4 in the Final EIS due to Owyhee Public Lands Management Act of 2009 creating the Bruneau-Jarbidge Wilderness and designated the Bruneau and Jarbidge Rivers Wild and Scenic Rivers. These two designations change the impacts. The Final EIS should document the impacts from this legislation.	The Final EIS revised the analysis in Chapter 4 due to the designation of the Bruneau-Jarbidge Rivers Wilderness and the Wild and Scenic Rivers. However, the impacts from the legislation of designating were not included in the Final EIS analysis as Congress made the designation, not the Final EIS. Any effects from designation would be the same for each alternative.
Social Conditions	It is critical that any Alternative selected by the Jarbidge Planning Team considers correct socio-economic analysis of development, multiple use, and resource management throughout the document.	When selecting an alternative, the BLM decision-maker will determine which alternative is the environmentally preferable alternative, taking into account both the human (social and economic) environment and the natural environment.
Soil Resources	Soil erosion created by BLM management activities and authorized uses should be mitigated regardless of the erosion potential. Conversely, if activity impacts can be mitigated there is no reason to arbitrarily disallow the activity based solely on percent slope.	A reasonable range of alternatives addressing soil erosion from a variety of resource activities and uses was analyzed in the Final EIS (Chapter 2, *Soil Resources* section). Management actions for minimizing soil erosion was also included in Alternative VI (Proposed RMP).
Soil Resources	The Water Erosion Potential map (Map 6) of the Draft RMP/EIS is in substantial error and should not include private lands that are currently being farmed and have their own erosion controls.	The “Water Erosion Potential” map (Map 5) has been updated in the Final EIS to display water erosion potential only on BLM-managed lands.
Soil Resources	Page 3-17 of the Draft RMP/EIS includes a footnote that shows the scale for the level of crust cover. What reference is used to determine the different level of percent of crust as being high, moderate and low? This section addresses some of the various plant communities on the percent of crust, but there is no reference to ecological sites and the potential of the percent crust by sites. The amount of crust should be addressed by ecological sites that would address the normal percent of crust and potential for each site. The information within a site write-up would identify some of the factors that influence the amount of crust like soil texture as noted in this section, various plant communities that may be influencing amount of crust.	The Final EIS has been updated by adding a reference to the crust cover scale and by further discussing crust cover potential within the planning area.
Soil Resources	Page 3-31 in the Draft RMP/EIS states that 33 percent of the planning area is mapped as grasslands but only 1 percent should be grassland based on soil site description. This paragraph should explain that the majority of the grasslands	As recommended, the discussion related to grasslands has been updated between the Draft RMP/EIS and the Final EIS

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	are an early successional stage of a shrub community which is the major community based on soil site descriptions.	
Soil Resources	Page 3-7 of the Draft RMP/EIS states "Most of the planning area contains soils with medium or greater potential for water erosion or moderate or greater potential for wind erosion. Some of these areas overlap (Table 3-2, Map 5, and Map 6)." However, Maps 5 and 6 cannot be relied upon because they reflect arbitrary different standards being used for different soil maps, and do not provide the public a reasonable opportunity to comment upon their veracity. For example, both maps show distinct "squared off" erosion potential lines as a result of changes in the definition and/or standard of reporting between soil surveys. This results in Map 5 reporting that wind erosion is "moderate" on one side of the arbitrary line but "severe" on the other side of the arbitrary line; is "slight" on one side of the arbitrary line but "moderate" on the other side of the arbitrary line, etc. The same type of differences occurs on Map 6, purportedly demonstrating Water Erosion Potential. It is impossible to know which, if either, survey is accurate, but they cannot both be relied upon for any decision-making by the BLM.	Natural Resources Conservation Service Soil Survey Geographic Database soils data was used in production of the Wind Erosion Potential and Water Erosion Potential Maps (Maps 4 and 5). The imperfections and abrupt line changes in the representation of the data are a consequence of soil mapping and survey areas and the process in which these separate mapping units are tied together into digital data.
Soil Resources	Page 3-7 of the Draft RMP/EIS states "Erosion resulting in rill and gully formation is estimated to be low over most of the planning area except on the sandy-alluvial soils of the Snake River Sediments and the clayey-rhyolitic soils of the Jarbidge Foothills. Some of the soils in these areas occur on steep slopes with naturally low vegetation cover and are inherently prone to erosion." However, the Draft RMP/EIS errs in not reporting the extent, acreage, or percentage of "most of the planning area" versus the "sandy-alluvial soils" and the "clayey-rhyolitic soils". This is important in planning and to the ability for the public to comment, because there is a difference in the "affected environment" if "most" means "50.1%" or if "most" means "99.9%" of the planning area. The lack of specificity prevents the public from making meaningful comment to this representation by the Draft RMP/EIS. The same is true of the statement that "some" of the soils are inherently prone to erosion."	The Chapter 3 *Soil Resources* section has been clarified in the Final EIS by removing generic quantifiers such as "most" and "some".

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Soil Resources	Page 3-17 of the Draft RMP/EIS discusses Biological Soil Crusts, but does not adequately describe the affected environment as it pertains to the ecological potential of the different soils, elevations, and precipitation areas. That is, the Draft RMP/EIS does not discuss the monitoring results in terms of what is "normal" or the "range of normal" for such different areas, and whether the monitoring concludes any departure from the "range of normal". In addition, the "scale" used to describe crust cover is an "absolute" scale, and is employed without regard for or discussion of the ecological potential. For example, the Draft RMP/EIS states: "Aspen, greasewood/basin wild rye, and mountain big sagebrush/blue bunch wheatgrass-Idaho fescue had no recorded cover of biological crust." However, little-to-no biological crust (i.e. "very low crust cover = less than 3%" on the absolute scale) within these vegetation types represents the "norm". The Draft RMP/EIS is wrong in not discussing this normality or degree of departure from the "norm" where it may exist.	Chapter 3 of the Draft RMP/EIS described the affected environment for biological soil crusts. Providing a description of what is "normal" or "the range of normal" is not the purpose of Chapter 3. The purpose of the affected environment is to provide a description of the existing environment to be affected by the alternatives to be analyzed (40 CFR 1502.15).
Soil Resources	The Draft RMP/EIS is wrong in not discussing that biological soil crusts also may inhibit seedling germination of non-native and native grass species, and may inhibit moisture infiltration into the soil.	The Final EIS has been updated and Chapter 4, in the *Soil Resources* section, discusses water movement in the soil profile and vegetation establishment.
Soil Resources	We submit "Biological Crust Cover for 23 Allotments", which relates to what are commonly termed the Stipulated Settlement Agreement Allotments. This paper demonstrates, relative to these 23 allotments (without even considering the effects of seedings, past burns, and other disturbances), biological crusts are being maintained within the range of their ecological potential.	BLM used data collected across the entire planning area during the 2006 and 2007 field seasons to adequately describe the affected environment. Relying on the data presented which is for 23 allotments and not the entire planning area would be arbitrary.
Soil Resources	In the *Upland Vegetation* section of the Draft RMP/EIS, there is no analysis of management actions that will be taken for biological crusts. We remind BLM that healthy biological crusts in the sagebrush matrix as well as on the surface of slickspots help prevent weed invasion into the matrix and slickspots.	Management actions for biological crusts were included in Alternatives I, IV, V, and VI of the Final EIS. An analysis of the management actions for biological crusts is included in Chapter 4, *Soil Resources* section and *Upland Vegetation* section.
Soil Resources	The presence of taller shrubs trap wind-blown soils. Wind-blown soils are of concern to slickspot peppergrass habitat and populations. Soil deposited on slickspots and the surrounding sagebrush matrix would adversely alter site hydrology, increase nutrient composition that may foster weed	The Final EIS analyzed the impacts of erosion on special status plant species in Chapter 4 of the Final EIS through the assumption that increasing perennial vegetation cover would reduce erosion. The Chapter 4 *Soil Resources* section provided an analysis of vegetation treatments, livestock grazing,

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	proliferation, and have many other adverse impacts. The disturbance from livestock grazing generates dust that erodes and is then deposited in slickspots. While mapping of "potential" is fine - how is the potential for wind erosion affected by the presence of vegetative cover? By livestock trampling disturbance? By both? BLM must provide mapping and analysis that examines these factors, and a set of alterative actions that addresses this.	trampling, and vegetative cover on soil erosion across all alternatives.
Soil Resources	Please provide detailed analysis and mapping of a range of alternatives that serve to minimize dust production from the planning area. This must include specific measurement of trampling impacts, and establishment of upland and riparian standards of livestock trampling disturbance use for any lands that continued to be grazed. An emphasis on restoration of biological crusts to minimize wind-caused soil erosion is critical.	The Chapter 4 *Soil Resources* section in the Final EIS provided an analysis of vegetation treatments and livestock grazing on soil erosion across all alternatives.
Soil Resources	There is a shocking lack of information and analysis of soils. BLM cannot develop a reasonable range of alternatives until it provides much more substantial information and analysis of the current degree and severity of soil degradation, losses, and desertification processes.	The Chapter 3 *Soil Resources* section of the Final EIS expresses potential for water and wind erosion and provided data on the condition of soil in the planning area. The Chapter 4 *Soil Resources* section provided an analysis of management for Soil Resources, Upland Vegetation, Wildland Fire Ecology and Management, Livestock Grazing, Transportation and Travel, Land Use Authorizations, and Minerals on soils and erosion for each alternative.
Soil Resources	BLM provides minimal information on land uses on soils. How will summer grazing disturbance impact soils of various types and condition compared to winter, or grazing when soils are saturated? How long-lasting are heavy to severe trampling impacts during these times on soils of varying types? How much of the planning area currently receives heavy trampling? Where? Where have soil horizons been lost due to erosion? Are depleted soils and monoculture coarse grasses responsible in part for the need to feed so many supplements to livestock? What is the current soil formation rate? How has past erosion exceeded that rate, and where? How will the various alternatives affect this rate? How will depleted or degraded soils hinder rehabilitation actions?	The Final EIS recognized erosion of soils occurs within the planning area (*Soil Resource* section Chapters 3 and 4) and some areas and soil types are more erosive than other areas and soils. The Final EIS also acknowledged human activities could accelerate the erosion of topsoil above what would occur naturally, through a variety of ground-disturbing activities. The Chapter 2 *Soil Resources* section identified management actions to reduce erosion from natural and human-caused disturbances. The Chapter 4 *Soil Resources* section provided an analysis of management for Soil Resources, Upland Vegetation, Wildland Fire Ecology and Management, Livestock Grazing, Transportation and Travel, Land Use Authorizations, and Minerals on soils and erosion and how each alternative affects soil resources.

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Soil Resources	BLM fails to provide mapping and analysis of the soil health, biological crust condition and composition, erosion rates from current activities, predicted erosion rates under all alternatives, measures of soil compaction, and a host of other information and analysis necessary to develop and analyze a suitable range of alternatives.	The Chapter 3 *Soil Resources* section of the Final EIS expressed potential for water and wind erosion and provided data on the condition of soil in the planning area. The Chapter 4 *Soil Resources* section provided an analysis of management for Soil Resources, Upland Vegetation, Wildland Fire Ecology and Management, Livestock Grazing, Transportation and Travel, Land Use Authorizations, and Minerals on soils and erosion for each alternative.
Soil Resources	The analysis of effects to soils under the limited alternatives is minimal. BLM basically points to other Draft RMP/EIS Sections - see 4-50, heaping all the confusion and uncertainty of the Vegetation, Fire, Treatments, and other sections on top of the substanceless soils section.	The Chapter 4 *Soil Resources* section of the Draft RMP/EIS on page 4-50 does not point the reader to other sections. It simply lists the sections of Chapter 2 that has management that impacts soil resources. These impacts from management to Soil Resources are analyzed in detail in the Chapter 4 *Soil Resources* section.
Soil Resources	There is no real analysis of the current loss of soil horizons, widespread pedestaling, depletion of essential nutrients, loss of biological crusts, ecological conditions of soils in slickspots and surrounding habitats, soil conditions in all vegetation communities that are still native in composition, etc.	The Final EIS Chapter 3 *Soil Resources* section has been updated to include more detailed information on the soils within the planning area. The analysis on how each alternative effects soil resources can be found in the Chapter 4 *Soil Resources* section.
Soil Resources	We have no idea how the information on the Water Erosion Potential map (Map 6) of the Draft RMP/EIS was obtained and how "high" erosion classifications were assigned. What reference material was used to develop the erosion potential information in Table 3-2 in the *Soil Resources* section?	BLM used Natural Resources Conservation Service Soil Survey Geographic Database soils data to identify erosion potential.
Special Recreation Management Areas	The BLM should provide further clarification on Special Recreation Management Area (SRMA) designations to comply with the new BLM guidance released in October 2010 (Instruction Memorandum 2011-004). This new BLM guidance modified the matrix the BLM used in the Appendix M of the Draft RMP/EIS to classify the existing and desired physical setting for each SRMA (Table M-1, A-119). The “physical setting” criteria have changed and will likely impact the existing, and potentially the prescribed, character of each SRMA. We recommend the BLM look at the new guidance on SRMA’s and make sure the classifications for proposed SRMA’s comply.	The Final EIS incorporates the new BLM Manual 8320, Planning for Recreation and Visitor Services, which has 3 categories of allocation for Recreation Management Areas (RMAs): Special Recreation Management Areas, Extensive Recreation Management Areas, and public lands not designated as RMAs.
Special Recreation Management	Do not designate the Canyonlands and the Jarbidge Foothills as Special Recreation Management Areas (SRMAs). SRMA designation must be limited to site-specific areas and not large-	The Canyonlands and Jarbidge Foothills Special Recreation Management Areas are presented and analyzed as part of a full range of alternatives. Alternative VI (Proposed RMP) designates

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Areas	scale landscapes. In addition, the increased recreational impact and pressure that will result from designation as a SRMA will adversely affect sensitive resources the BLM is trying to protect that are located within those areas. REC-I-MA-6 and 7 are unacceptable; as the activities proposed are already occurring under current management. The inaccessibility of these areas, the restrictions imposed by Omnibus Public Land Management Act of 2009, and transportation and travel management plans already prevent off - road use and other conflicting uses. There is no need for further restrictions.	Canyonlands and Jarbidge Foothills as Extensive Recreation Management Areas. The Final EIS incorporated these changes into Appendix H: Recreation Management Areas.
Special Recreation Management Areas	The BLM should manage the entire planning area as an Extensive Recreation Management Area.	The Final EIS and Alternative VI (Proposed RMP) incorporates the new policy direction found in BLM Manual 8320, Planning for Recreation and Visitor Services, which has 3 categories of allocation for Recreation Management Areas (RMAs). Special Recreation Management Areas, Extensive Recreation Management Areas, and public lands not designated as RMAs.
Special Recreation Management Areas	Special Recreation Management Areas (SRMA's), areas of focused management. In some cases, a focus on one form of recreation would lead to reduction in opportunities and restrictions placed on other users. For example, both the Jarbidge Foothills and Canyon Lands SRMA's in Alternative I and IV have a focused management of non-motorized recreation on 348,000 acres. In both of these SRMA's there is no mention of motorized recreation. Both of these areas have a good network of popular roads and trails. So, why do we need SRMAs?	The Final EIS analyzed the Canyonlands and Jarbidge Foothills Special Recreation Management Areas (SRMAs) as part of a full range of alternatives. Alternative VI (Proposed RMP) designates Canyonlands and Jarbidge Foothills as Extensive Recreation Management Areas (ERMAs). The focused management of recreation activities associated with SRMAs are used to manage an area due to historical, present, and future recreational use trends. This focused management is intended to preserve the setting and recreational experience of the area. SRMA or ERMA designations do not exclude one recreation use over another recreation use.
Special Recreation Management Areas	The No Action Alternative does not specify which segment of Salmon Falls Creek canyon would be managed as a Special Recreation Management Area (SRMA). It should be specific. It is difficult to tell what areas are being proposed as SRMA's for the other Alternatives, and what areas are being proposed for Extensive Recreation Management Areas. We oppose either designation for the segment below Balanced Rock crossing.	The No Action Alternative Special Recreation Management Area (SRMA) boundary was not clearly defined in the 1987 RMP for Salmon Falls Creek. Refer to Appendix H: Recreation Management Areas for a description of SRMAs and Extensive Recreation Management Areas focused management. See Maps 61 - 66 for SRMAs by Alternative.
Special Recreation Management Areas	Alternative IV proposes 5 different Special Recreation Management Areas (SRMAs). Looking at Map 54 of the Draft RMP/EIS, it appears that some of these SRMAs overlap each other. The Jarbidge Forks SRMA appears to overlap the	The Jarbidge Forks and the Canyonlands Special Recreation Management Area boundaries do not overlap. They have a shared boundary.

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	Canyonlands SRMA. While these two SRMA have a different emphasis, it might be possible to combine these two areas under the same SRMA plan.	
Special Recreation Management Areas	A majority of the Resource Advisory Council supports REC-1-MA-2, and REC-1-MA-3, with allowances for transmission lines, communication sites, and for current resource uses with a minority disagreeing. The Balanced Rock Special Recreation Management Area (SRMA) with its close proximity to Balanced Rock can provide picnicking/hiking for tourists and local community members. The Little Pilgrim SRMA offers access to the Snake River.	The Final EIS has presented a range of Special Recreation Management Area (SRMA) designations. Alternative VI (Proposed RMP), REC-VI-A-1, propose the Balanced Rock and Little Pilgrim SRMAs.
Special Recreation Management Areas	The Burley Resource Area side of Salmon Falls Reservoir is reaching full capacity. Further develop the Jarbidge side in order to handle increased public use. The off road vehicle play areas in the reservoir bottoms when the water levels allow are of extra value for the area. This Special Recreation Management Area (SRMA) has the potential to support a wide range of recreation uses if properly developed. Clearly define the boundaries, as currently there are portions that extend considerable distance from the water and could lead to impacts on other resource uses. An SRMA designation should not prohibit transmission lines or communication sites.	The Final EIS has presented a range of Special Recreation Management Area (SRMA) designations. Alternative VI (Proposed RMP) redesigned the SRMA boundaries for the Recreation Management Zones in the Salmon Falls Reservoir SRMA. The SRMA designation does not place right-of-way avoidance or exclusion prohibitions.
Special Recreation Management Areas	The Bruneau-Jarbidge Special Recreation Management Area (SRMA) and the Jarbidge Forks SRMA were in existence prior to Omnibus Public Land Management Act of 2009 and will continue to receive public recreation use. Neither of these SRMA's should degrade the wilderness area and Wild and Scenic Rivers designation and in some cases may help the BLM management. The current primary use of the Bruneau-Jarbidge SRMA is white water rafting, water levels only allow for a 1-2 month season of use. The creation of a trail system would allow for year around use of this area and expand the recreational opportunities this area has to offer.	The Final EIS has presented a range of Special Recreation Management Area designations. Omnibus Public Land Management Act of 2009 states (Sec.1503. Wilderness Areas (5) Trail Plan [A]); “The Secretary, after providing opportunities for public comment, shall establish a trail plan that addresses hiking and equestrian trails on the land designated as wilderness by this subtitle, in a manner consistent with the Wilderness Act (16 U.S.C. 1131 et seq.). The pending Owyhee Canyonlands Wilderness and Wild and Scenic Rivers Management Plan will analyze trail development in the wilderness.
Special Recreation Management Areas	We are very concerned that BLM has considered a broad range of off-highway vehicle (OHV) Special Recreation Management Areas (SRMAs) and not more non-motorized use SRMAs or non-OHV focused SRMAs	The Final EIS included a range of alternatives that would allow off-highway vehicle use as well as non-motorized use areas. Alternative VI (Proposed RMP) proposes designating multiple Extensive Recreation Management Areas (ERMAs) to facilitate a variety of recreational uses. The focused management of

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		recreation activities associated with Special Recreation Management Areas (SRMAs) are used to manage an area due to historical, present, and future recreational use trends. This focused management is intended to preserve the setting and recreational experience of the area. SRMA or ERMA designations do not exclude one recreation use over another recreation use.
Special Recreation Management Areas	We are greatly concerned that expanded off-highway vehicle (OHV) torn-up areas will adversely impact native reptiles. Bare soil areas and some semblance of native shrubs are found in areas of hillier terrain and specific soils where OHV use is now being greatly imposed.	The travel management planning process and the subsequent monitoring plans will analyze motorized uses, including the use of off-highway vehicle.
Special Recreation Management Areas	Aren't there also larger Special Recreation Management Areas near Salmon Falls Creek as well? Why not all of Antelope Pocket?	The Final EIS included Salmon Falls Reservoir Special Recreation Management Area as part of a range of Alternatives. Antelope Pocket is below the dam and projected to receive low recreation visits.
Special Recreation Management Areas	On p. ES-17, the third issue down states, "manage the Balanced Rock Special Recreation Management Area for non-motorized boating". It is not possible to float Salmon Falls Creek down from Balanced Rock. Please do not encourage Salmon Falls Creek as an area to participate in flat water kayaking, rafting, or canoeing.	The proposed Special Recreation Management Area is upstream from Balanced Rock Crossing not downstream and has 1.25 miles of shoreline and is an appropriate place to participate in non-motorized boating activities.
Special Status Fish and Aquatic Invertebrates	Some population information is provided on bull trout. Yet there is not an adequate analysis that reveals how few bull trout currently are present in the entire Distinct Population Segment, problems with connectivity between occupied reaches, and that examines the causes of low numbers. The BLM must examine the degree and severity of threats the Distinct Population Segment faces from climate change to livestock and road-produced sediment. This is needed to present a coherent and coordinated set of actions to restore and recover populations. A valid analysis of the cumulative impacts of roads, grazing, water developments, trailing, recent fire effects including Slide Rock, etc. must be undertaken. Population viability and persistence must be examined under a range of alternatives.	The Final EIS included bull trout distribution, migration, and genetic information that was not available in 2009 when the BLM released the Draft RMP/EIS for public comment. The supplemental information was collected by the US Geological Survey (USGS) (Allen et al., 2010) and is provided in the Final EIS in Chapter 3, *Special Status Fish and Aquatic Invertebrates*, Jarbidge River Bull Trout. Based on the results of the USGS study, there is estimated to be four times the number of bull trout present in the Jarbidge River Distinct Population Segment than the 500 bull trout estimated to be present in the US Fish and Wildlife Service's 2004 Draft Recovery Plan for the Jarbidge River Distinct Population Segment of Bull Trout (S*alvelinus confluentus*) (FWS, 2004). The cumulative impacts assessment for Alternative VI (Proposed RMP) considered threats to bull trout and their habitat from

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		livestock grazing, roads, water developments, wildland fire and other human activities and uses. This analysis is provided in Chapter 4, Cumulative Impacts, *Special Status Fish and Aquatic Invertebrates*. The Final EIS designed the restoration priorities in the Aquatic and Riparian Management Strategy (Appendix D) to promote population viability and persistence for bull trout in the long term. Conservation measures for the protection of Endangered Species Act-listed aquatic species are included in the Final EIS in Appendix E: Conservation Measures. These measures were also included in the Biological Assessment for the Proposed Jarbidge Resource Management Plan Final EIS.
Special Status Fish and Aquatic Invertebrates	Chapter 3 of the Draft RMP/EIS (Table 3-25 on p. 3-39) describes Columbia River Basin bull trout. What happened to consideration of the unique Distinct Population Segment living at the southern periphery of the species' range?	The Final EIS clarified the relationship between Columbia River Basin bull trout, the Jarbidge River bull trout Distinct Population Segment and the importance of the Distinct Population Segment relative to the southern-most portion of the species' range in Chapter 3, *Special Status Fish and Aquatic Invertebrates*, under Jarbidge River Bull Trout.
Special Status Fish and Aquatic Invertebrates	The BLM's stream surveys in Table 3-25 are 9 years old.	The information provided in the Draft RMP/EIS for Jarbidge River bull trout were the best information that was available at the time. Since then, the US Geological Survey (Allen et al., 2010) collected additional data regarding bull trout movements throughout the Jarbidge Watershed. The Final EIS incorporated the new information into Chapter 3, *Special Status Fish and Aquatic Invertebrates*, Jarbidge River Bull Trout.
Special Status Fish and Aquatic Invertebrates	The Draft RMP/EIS at p. 3-40 shows that there is very little movement of bull trout between the Jarbidge River and the East Fork Jarbidge River. This simplifies concerns about the small and very vulnerable population in the East Fork Jarbidge River, Dave Creek and Slide Creek as well as dewatering from Jim Bob Creek and other water development concerns, especially now that large areas in the Jarbidge Wilderness in the East Fork Jarbidge River watershed has burned.	The Final EIS included bull trout population and distribution information that was not available when the BLM released the Draft RMP/EIS for public comment. The US Geological Survey (USGS) (Allen et al., 2010) collected the supplemental information regarding bull trout movements throughout the Jarbidge Watershed. The Final EIS incorporated the new information into Chapter 3, *Special Status Fish and Aquatic Invertebrates*, Jarbidge River Bull Trout. Based on the results of the USGS study, there is estimated to be four times the number of bull trout present in the Distinct Population Segment than the 500 bull trout estimated to be present in the Draft Recovery Plan for the Jarbidge River Distinct

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		Population Segment of Bull Trout (*Salvelinus confluentus*) (FWS, 2004). The USGS study documented substantial movement of bull trout within the upper East Fork Jarbidge River and its headwater streams and within the upper West Fork Jarbidge River and its headwater streams, but very little bull trout movement between these two watersheds.
Special Status Fish and Aquatic Invertebrates	We are very concerned that this Draft RMP/EIS and the BLM Standards and Guidelines for Rangeland Health Assessments and other actions do not adequately address the role of intermittent and ephemeral drainages in a high desert ecosystem in transporting large volumes of sediment into canyon and other stream systems during a very brief period of intensive late winter-spring flows.	Alternative VI (Proposed RMP) included direction for seasonally flowing and intermittent streams in Chapter 2, *Riparian Areas and Wetlands*, management action RI-CA-MA-1, Category 4. In the Final EIS, information on the miles of intermittent and ephemeral (seasonally flowing) streams is provided in the Chapter 3 *Water Resources* section. Definitions for intermittent and ephemeral streams are provided in Chapter 3, *Riparian Areas and Wetlands*, and in the Glossary. The impacts analysis in Chapter 4 for *Special Status Fish and Aquatic Invertebrates* focused on perennial streams because they have the most influence on streams containing special status fish and aquatic invertebrates.
Special Status Fish and Aquatic Invertebrates	Make actions to restore bull trout and quality habitat and connectivity with US Forest Service lands in the upper Jarbidge River and Bruneau River watersheds a high priority of the Final EIS. This is necessary to recover populations, and the range of alternatives must examine it.	Actions to restore bull trout habitat on US Forest Service managed lands are beyond the scope of the Jarbidge RMP. The *Special Status Species* section for all action alternatives in Chapter 2 included management actions under Management for Special Status Species in Riparian Areas, Wetlands and Streams, SS-CA-MA-19 through SS-CA-MA-21 to improve habitat quality and connectivity for bull trout. The *Riparian Areas and Wetlands* sections included management actions RI-CA-MA-1 listed the riparian management priorities, with specific stream priorities in Appendix D: Aquatic and Riparian Management Strategy.
Special Status Fish and Aquatic Invertebrates	For bull trout, redband trout, spotted frog, California floater and other aquatic species, the BLM must analyze the degree of predicted impacts to watersheds, drainage networks, stream flows, pattern of runoff, etc. The BLM must provide baseline information in water flows over all seasons of the year. How can the BLM increase perennial flows?	The Final EIS included an impacts analysis for numerous aquatic species such as bull trout, redband trout, spotted frog, California floater, and their habitat. The Chapter 4 *Water Resources, Riparian Areas and Wetlands,* and *Special Status Fish and Aquatic Invertebrates* sections provided this information along with an assessment of direct, indirect and cumulative impacts.

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Special Status Fish and Aquatic Invertebrates	Please identify all critical bull trout habitat tributaries, all redband trout tributaries, all potential spotted frog, all sage-grouse brood rearing, and all tributaries including intermittent and ephemeral streams as priority waters.	The Final EIS analyzed a range of priority streams among the alternatives. Alternative VI (Proposed RMP) identified the priorities for streams containing bull trout, redband trout, and spotted frog in Chapter 2, *Riparian Areas and Wetlands*, in RI-CA-MA 1 through RI-CA-MA 7 and in RI-VI-MA-1 through RI-VI-MA-3. Map 24 "Bull Trout and Redband Trout Distribution" in the Final EIS display the streams containing redband trout and bull trout. The Final EIS included management direction for seasonally flowing or intermittent streams in Chapter 2, *Riparian Areas and Wetlands*, RI-CA-MA 1, Category 4 and in Appendix D: Aquatic and Riparian Management Strategy, *Riparian Conservation Areas*, *Riparian Conservation Area Widths*, under Category 4. The Final EIS identified streams containing special status fish as a higher priority than seasonally flowing or intermittent streams. The Final EIS in Chapter 4, *Riparian Areas and Wetlands*, *Methods and Assumptions*, *Riparian Areas*, considered the influence of intermittent streams on streams containing special status species.
Special Status Fish and Aquatic Invertebrates	When were redband trout lost from so many drainages near Elk Mountain? The BLM must set a timetable and establish a set of specific actions focused on livestock grazing removal and large-scale reductions in numbers of livestock in any remaining degraded watersheds in order to sustain isolated and threatened rare native fish species that are in danger of extinction.	The BLM assumed the comment referred to Map 18 "Streams Containing Bull Trout and Redband Trout" in the Draft RMP/EIS, which inadvertently omitted several known redband trout streams. The Final EIS updated the map to include all of streams containing bull trout and redband trout (Map 24). The Final EIS, Appendix D: Aquatic and Riparian Management Strategy, Table D-3 and Table D-5, contain information on the condition of the redband trout streams and their restoration priority. Chapter 3, *Special Status Fish and Aquatic Invertebrates*, under the subheading for Interior Columbia River Redband Trout, provided a summary of the current redband trout data.
Special Status Fish and Aquatics	On p. 3-84, Table 3-46 of the Draft RMP/EIS, please designate what portion of Salmon Falls Creek contains redband trout. It is not the section below Balanced Rock as shown on Map 18.	The Final EIS corrected the information on the distribution of redband trout and bull trout. The BLM contacted Idaho Department of Fish and Game and confirmed redband trout are present in Salmon Falls Creek downstream of Balanced Rock Crossing. Redband trout presence and abundance varies seasonally. The Final EIS display the updated information on Map 24, "Bull Trout and Redband Trout Distribution".

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Special Status Fish and Aquatics	Appendix H., p. A-94, provides a description of redband trout habitat based on Muhlfeld (2002). The Idaho Department of Fish and Game recommends consideration of research from Idaho and the project area that was recently published as a basis to change the habitat description to, "Occupies habitats with less fines (10%) and more cobble (>25%), in reaches with stable stream banks (>80%) that are more shaded (>20%), in water temperatures from 10-18°C (Meyer et al., 2010).	The Final EIS incorporated the information for substrate, stream banks streamside shade and water temperature for redband trout as provided in Meyer et al., 2010. The information can be found in the Aquatic and Riparian Management Strategy (Appendix D), Table D-2, Redband Trout Habitat Condition Indicators and Thresholds.
Special Status Plants	The Final EIS should incorporate the information collected from project related surveys, which include the fact that no slickspot peppergrass was found along the northern outbound haul route.	The Final EIS revised Chapter 3, *Special Status Plants* section, to include a discussion on slickspot peppergrass stage 1 inventories.
Special Status Plants	The Final EIS should refer to the Bureau of Land Management Slickspot Peppergrass Inventory and Clearance Standards, May 13, 2010 as the appropriate inventory method.	The Final EIS included a reference to the most current slickspot peppergrass inventory and clearance standards in Appendix E: Conservation Measures.
Special Status Plants	The Draft RMP/EIS states: “Allowing activities to occur with mitigation for adverse effects could result in destruction of special status plants, populations, seed banks, or habitats in localized areas.” This statement is inaccurate and presumptive. If mitigation were done properly, the opposite of the statement would be true.	The Draft RMP/EIS statement is correct because it is talking about localized areas. Mitigation can have a net benefit to special status species as a whole, but projects that have ground disturbing activities will locally impact plants within the project footprint. Plant surveys do not always detect populations of special status plant species, particularly annuals, and even though mitigation measures are in place adverse effects may still take place locally.
Special Status Plants	The State of Idaho takes particular umbrage with BLM's decision to nominate the Inside Desert Area of Critical Environmental Concern in order to protect Slickspot peppergrass. The State strongly encourages the BLM to drop this nomination in the final alternative. As you are undoubtedly aware, the State of Idaho and the BLM entered into a Candidate Conservation Agreement in 2003 to protect the species and its habitat while maintaining predictable levels of land use. Without any demonstrable scientific information linking the abundance of the species to livestock use, Federal grazing permittees willingly modified their operations to include conservation measures to avoid, mitigate, and monitor the effects of livestock use on *Lepidium papilliferum*. Not only does the BLM have the measures of the Candidate Conservation Agreement currently in place to	The Final EIS analyzed a range of different Areas of Critical Environmental Concern (ACECs) among the alternatives. Alternative VI (Proposed RMP) did not include a proposal for the Inside Desert ACEC. The Inside Desert ACEC was nominated during scoping and included measures designed to protect slickspot peppergrass and its habitat. The two primary threats to slickspot peppergrass as identified by the US Fish and Wildlife Service are wildfire and invasive non-native annual plants. Livestock grazing is listed as a secondary or an aggravating threat. Grazing amplifies degraded habitat conditions created by the primary threats. As stated in the 2009 listing decision, "Livestock pose a threat to *Lepidium papilliferum* primarily through mechanical damage to individual plants and slickspot habitat."

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	protect the species, but the BLM has the added regulatory protection of an Endangered Species Act -listing should credible scientific information demonstrate an actual need for increased protection.	
Special Status Plants	Consider the following: Species delimitation tests of endemic *Lepidium papilliferum* and identification of other possible evolutionarily significant units in the *Lepidium montanum* complex (Brassicaceae) of western North America by Steven R. Larson, C. M. Culumber, R. N. Schweigert, and N. J. Chatterton.	The presented literature is not relevant to the Final EIS analysis. The Final EIS included management actions, in Chapter 2 *Special Status Species* section, designed to provide protection to *Lepidium papilliferum*. The Final EIS added a more detailed discussion on slickspot peppergrass to Chapter 3 and 4, *Special Status Plants* sections.
Special Status Plants	Consider the following ground cover data taken for 23 Allotments within the planning area. The ground cover was taken for the following allotments: Blackrock Pocket, Blue Butte*, Bracket Bench, Bruneau Hill, Camas Slough, Canyon View*, Clover Crossing*, Cedar Creek, Coonskin, East Juniper Draw*, Echo 4, Echo 5, Echo Clover*, Flat Top, Grassy Hills AMP, Grindstone, Hagerman Group, Juniper Butte, Kubic, Noh Field, North Fork Field*, Pigtail Butte, Seventy-One Desert (* = No 2006 SWA data). Source: SWA RSD table and Cover Reports, Source: BLM 2006 Cover Reports, Access Database, "First Level"	The BLM used data collected across the entire planning area during the 2006 and 2007 field seasons as compared to the data presented which is for 23 allotments.
Special Status Plants	BLM has not conducted a necessary habitat and population analysis to ensure viability of slickspot peppergrass through preservation of habitats and restoration of degraded or fragmented areas of potential habitat.	The Final EIS added Map 21 “Slickspot Peppergrass Habitat” and revised Chapter 3 *Special Status Plants* section to include data on slickspot peppergrass and its habitat within the planning area.
Special Status Plants	BLM must provide detailed mapping of all potential habitat for slickspot peppergrass, as well as concrete plans for gazing removal and livestock facility decommissioning and some road removals in the affected areas.	The Final EIS added Map 21 “Slickspot Peppergrass Habitat”.
Special Status Plants	BLM must tie existing areas together and re-connect habitats. It must provide for pollinator habitat as well. How can BLM maximize continued existence and recovery? Provide an expanded range of alternatives.	The Final EIS analyzed a range of vegetation restoration objectives among the different alternatives. Alternative VI (Proposed RMP) included objectives and management actions in Chapter 2, *Upland Vegetation* and *Special Status Species* sections, that proposed to move plant communities towards a native shrubland community which would help reconnect habitat for sagebrush obligate species and provide habitat for pollinators of special status plant species.

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Special Status Plants	Special Status Plants (pp. 3-33 to 3-38) of the Draft RMP/EIS omits critical baseline information and analysis of the actual status of habitats and populations of these species. How degraded are habitats? How much of the habitat for all of these species is at risk to cheat grass invasion? How will the range of alternatives and each alternative aggravate conditions - and increase risk?	The Final EIS revised Chapter 3, *Special Status Plant* section, to include more up to date information on special status plants and specific information on slickspot peppergrass. Chapter 4 analyzed the impacts to special status plants from actions associated with upland vegetation treatments, noxious weed and invasive plant control, wildland fire, livestock grazing, transportation and travel, and Areas of Critical Environmental Concern management for each alternative in.
Special Status Plants	There is no basis for understanding the impacts of the severe grazing pressures under many parts of the range of alternatives on pollinators for native plants - including life stages in soils, and their dispersion across the landscape.	The Final EIS analyzed impacts to pollinators by alternative in Chapter 4 *Special Status Plants*.
Special Status Plants	Why does BLM put out a Draft RMP/EIS in late 2010 that has 2008 plant status?	The Final EIS updated the “Special Status Plants Occurring or Potentially Occurring in the Planning Area” table with the 2012 special status plant status.
Special Status Plants	Why is there no mapping that shows the location and dispersion of rare plant species in the planning area? The location of slickspot peppergrass potential vs. occupied habitat?	Not all special status plant species are mapped due to the lack of extensive inventory for these species. The Final EIS did add Map 21 “Slickspot Peppergrass Habitat”
Special Status Plants	Despite all the efforts made to try to conserve slickspot peppergrass by Western Watersheds Project and others, BLM merely lists this species in Table 3-22, claims population vigor "fair" and habitat quality Fair. This, of course, is counter to all the information habitat degradation affecting specific element occurrences.	The Final EIS add a more detailed discussion on slickspot peppergrass to Chapter 3 and 4, *Special Status Plants* section.
Special Status Plants	The BLM must examine the footprint of military-permitted grazing levels, and the disturbance and conflicts with wildlife, promotion of weeds, losses and disturbance to slickspot peppergrass and other impacts that are caused.	The Final EIS revised Chapter 4 to include the military-permitted grazing on Juniper Butte Training Range as a cumulative impact.
Special Status Plants	The US Fish and Wildlife Service recommends the Final EIS contain program-specific conservation measures for all land use plan programs, particularly regarding ground disturbing activities in occupied habitat (areas known to contain the plant), to ensure that injury or mortality to slickspot peppergrass plants and seeds or impacts to slickspot microsites are avoided or minimized during periods when slickspot micro site soils are saturated as well as when the species is flowering.	The Final EIS included program-specific conservation measures for slickspot peppergrass in Appendix E: Conservation Measures.

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Special Status Wildlife	The planning area, including the proposed Jarbidge Foothills Area of Critical Environmental Concern, contains one of a few Greater sage-grouse population strongholds in the State of Idaho. The US Fish and Wildlife Service (FWS) encourages the Bureau to use the land use planning process to implement land use plan level conservation measures to avoid habitat fragmentation within this Greater sage-grouse population stronghold, and to focus additional habitat restoration efforts in this area if habitat degradation or loss occurs due to catastrophic events such as wildfire. The FWS also encourages the use of conservation measures identified in the Idaho Sage-grouse Advisory Committee's 2006 Conservation Plan for the Greater Sage-grouse in Idaho in the Browns Bench area, including measures that avoid habitat fragmentation near areas important for breeding, wintering, and lekking.	There are several strongholds for sage-grouse in the State of Idaho, including the Bruneau Plateau to the west of the planning area and Shoshone Basin east of the planning area. Sage-grouse in the Brown's Bench area were linked to sage-grouse in Shoshone Basin and northern Nevada. The Proposed RMP prescribed restoration of habitat to enlarge and connect sagebrush habitats for sage-grouse in the planning area. The Jarbidge Local Sage-grouse Working Group Plan as well as the Idaho Sage-grouse Advisory Committee's 2006 Conservation Plan for Greater Sage-grouse were used when considering restoration of sage-grouse habitat.
Special Status Wildlife	We support the Preferred Alternative's approach of not allowing wind development within 5 miles of active sage-grouse leks (Draft RMP/EIS, p. 2-271). This is a progressive and important measure to protect the sensitive species. However, the most recent science indicates that 5.3 miles is a minimal necessary buffer (Doherty, 2008). The Final EIS should adopt the scientifically supported 5.3-mile buffer. We encourage the BLM to evaluate this management action on a continuing basis and make changes as needed to reflect emerging science and/or monitoring results.	The BLM reviewed Doherty's 2008 PhD dissertation. The dissertation dealt with coal bed natural gas field development in the Powder River Basin of Montana and Wyoming. Alternative VI (Proposed RMP) included current scientific literature including the adoption of Western Association Fish and Wildlife Agencies (WAFWA) sage-grouse management zone –IV Snake River Plain (Knick and Connelly, 2011b). Alternative VI adopted sage-grouse management areas (see LA-VI-MA-2 and LA-VI-MA-4 in Chapter 2 of the Final EIS). Naugle and others (2011) reported adverse impacts of gas and oil development continued to occur at 6.4 km (4.0 miles) but did not report at a larger 5.3-mile buffer distance.
Special Status Wildlife	The BLM should establish activity levels and implementation plan with Humboldt-Toiyabe National Forest to protect Sage Grouse/Pygmy habitats with Area of Critical Environmental Concern level protections.	Nothing in the Final EIS precluded interagency cooperation and restoration. BLM was not aware of pygmy rabbits being confirmed on Humboldt-Toiyabe National Forest adjoining the planning area. The BLM cannot obligate other agencies to enter such agreements.
Special Status Wildlife	On p. 2-78 of the Draft RMP/EIS, management actions SS-IV-MA-9 through SS-IV-MA-11 state Remove troughs and reservoirs --- Remove fences and corrals --- New troughs, reservoirs, permanent fences, all to be at least one (1) mile from bighorn sheep habitat. Displacing all water sources to at least a mile from existing bighorn habitat makes little sense.	Water in water troughs and ponds near bighorn habitat is not present year round. Water in troughs is present when livestock are in the pastures. Water in playas and ponds is present following precipitation events sufficient to produce run-off. Because water is not perennial the value to wildlife is somewhat reduced. Removal of waters in the uplands within 1 mile of

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	Are not these water sources used by all forms of wildlife. It would seem that the development of more strategically placed water troughs could be used to control livestock (cattle), but the old water sources would still provide a valuable tool for all wildlife. Further, is there any data that the existence of this infrastructure has harmed the bighorn? Current reported numbers seem to suggest that this has not been a problem in the past.	bighorn habitat would reduce potential competition and social displacement. Potential benefits of increasing water sources to wildlife depend on a number of factors including wildlife species, time of year, distance to other water sources, and habitat. The management actions in Alternative IV were included as part of the range of alternatives. Management actions for special status species in Alternative II, Chapter 2, were different from Alternative IV. The Final EIS revised management actions for special status species based on public comments.
Special Status Wildlife	On p. 2-78, SS -CA-MA-17 states "Schedule livestock grazing to avoid pastures that contain bighorn sheep habitat during breeding, wintering, and lambing periods to minimize disturbance during these important seasonal periods". Now lambing is interjected into this scenario, this document should be consistent! Again, where is the support for statements of this nature? If carried out, these decisions have the potential to further diminish livestock animal unit months on this very valuable and economically important resource.	There was an error in the Draft RMP/EIS. This management action was not intended to be common to all action alternatives. The Final EIS modified the management action for Alternative II and it was not common to all action alternatives. Chapter 2, SS-CA-MA-5 included a monitoring component for Special Status Species with adaptive management to mitigate impacts, SS-CA-MA-16 provided for change, "If a conflict is identified".
Special Status Wildlife	On p. 4-406, Impacts From Management (Impacts From Livestock Grazing Actions) Specific to Alternative IV (The Preferred Alternative) states, "Livestock grazing would be scheduled to avoid pastures with bighorn sheep habitat during the breeding and winter period, minimizing displacement during this time. Placement of additional infrastructure and supplements may still influence bighorn sheep habitat". Do grazing livestock (cattle) and bighorn sheep really ever share the same space, at least for a period long enough to influence bighorn sheep habitat use? This seems very doubtful, and the Draft RMP/EIS offers no data whatsoever to support any such conclusion.	With respect to overlapping time, cattle grazing occurs in pastures of the Diamond A (winter), Blackrock Pocket (late fall), Seventy One Desert (winter) and Poison Butte allotments (late fall through spring which overlaps bighorn habitat. Cattle graze Bruneau Canyon Allotment in the Bruneau Field Office during the winter. Depending on the year and allotment, livestock graze individual pastures a few weeks to 4 to 5 months overlapping bighorn habitat. The Final EIS included Map 27 "Bighorn Sheep Habitat and Distribution". Because the vast majority of bighorn locations were made following lambing, the data are likely skewed for this season. Spatial overlap between bighorn and cattle at other times of the year was poorly documented in the planning area. Bighorn have been observed in the upland more than 1.5 miles from the canyons.
Special Status Wildlife	We may be modifying and updating some provisions of (the Western Watersheds Project Alternative) due to the passage of 3 1/2 years, the expanded habitat loss in the sagebrush biome, greater scientific understanding of threats to sage-grouse and other biota, and other concerns. For example, there is much new information related to the problems fences may cause for sage-grouse - so large-scale riparian fencing is a concern.	The Final EIS updated the *Special Status Wildlife* sections in Chapters 3 and 4 using current sage-grouse literature including several chapters in Knick and Connelly (2011a) *Greater Sage Grouse Ecology and Conservation of a Landscape Species and Its Habitats,* Stevens (2011), and Stevens and others (2012). The BLM did not receive a letter that modified or updated the Western Watersheds Project alternative.

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Special Status Wildlife	Livestock grazing in the Bruneau Canyon is a historical use, and BLMs own documentation shows sheep routinely habituate to cattle. The only research documentation cited in the Draft RMP/EIS that relates to disturbance or displacement of sheep by cattle, applies only to recently relocated sheep. These restrictions fail to consider that the majority and most flourishing bighorn sheep populations within the area currently coexist with livestock, and significant areas of suitable habitat without livestock do not have any sheep. These restrictions fail to consider the fact that buffer distances within which concentrations of cattle are of concern are about 400 meters from canyon rims for ewes and 700 meters from canyon rims for rams. (Taylor, Elroy, and Dale E. Toweill. "Effects of spring cattle grazing on bighorn sheep habitat use." 2003 Desert Bighorn Council Transactions: Volume 47: p.54.)	Within the planning area only the Bruneau Canyon Allotment (#1100) (≈ 670 acres; 100 animal unit months) lies within the Bruneau Canyon. The 1987 Jarbidge RMP shows no other allotment which included the Bruneau, Jarbidge or East Fork of the Jarbidge Canyons until downstream of the confluence of Clover Creek. BLM did not locate any documentation showing bighorn routinely habituate to cattle. The document cited was an abstract submitted to the Desert Bighorn Council prior to a conference. BLM obtained a copy of the entire Taylor and Toweill (2003b) draft manuscript from one of the authors. The study did not address bighorn habituation. The Taylor and Toweill study found when cattle grazed the allotments bighorn ewes moved further into canyon habitat using steeper terrain than when cattle were absent. Other factors confounded potential changes, or lack of change, in bighorn distribution due to livestock. Ewe movements into canyons may have been in response to livestock or to lambing. Radio-collared ewes returned to the areas above the canyon rims after livestock left the allotment, which coincided with lambs being large enough for longer movements. Taylor and Toweill cautioned against using average distances because of the timing of their flights early morning. The majority of the flights occurred from April into July (weekly) whereas flights were monthly for the rest of the year, which may have skewed their data under representing habitat use at other times of the year. They noted bighorn ewes used areas up to a mile away whereas rams used areas up to 2.4 miles away from canyon rims.
Special Status Wildlife	Management actions should only be addressed and developed at the activity plan level using the conservation plans, strategies and agreements in Appendix G of the Draft RMP/EIS for guidance.	Management actions to achieve large-scale objectives are appropriate for landscape scale analyses. Many management actions varied by alternative. If warranted, the BLM would apply specific management actions, best management practices, or other mitigation at the activity plan/project plan level.
Special Status Wildlife	Any restriction on development near an active sage-grouse lek should use a sound scientific analysis, and the science does not exist with respect to wind energy's potential impact on sage-grouse. Further, numerous avoidance, minimization, and mitigation measures can be incorporated into any wind energy development, including extensive on-site and off-site mitigation, to provide a net benefit to sage-grouse. Mitigation	The science regarding gas/oil energy development impacts to wildlife continues to develop. Because wind energy lacks similar wildlife impact information, oil/gas development was used as a conservative surrogate for analysis. Although less infrastructure development may be needed, wind energy development contains several similarities to oil/gas development including an increase in road density, an increase in disturbance, and an

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	measures can include enhancement and restoration of sage-brush habitat, creation of riparian areas, and grazing management. Finally, the Planning Area could serve as a valuable scientific laboratory for long-term pre- and post-construction research on the effects of wind energy on sage-grouse and the effectiveness of mitigation measures.	increase other infrastructure. Mitigation measures would be determined and applied at the project level and are beyond the scope of this planning effort.
Special Status Wildlife	From 2008-2010, the BLM conducted extensive surveys in the proposed China Mountain Wind Project area and within a 2-mile vicinity of the project area. These surveys include detailed information on avian and bat use, sensitive wildlife and plant species, raptor nests, big game, cultural resources, and sage-grouse (visual observations, identification of active leks, and radio telemetry). The sage-grouse radio telemetry data collection is ongoing. In addition, the Idaho Department of Fish and Game (IDFG) has been collecting sage-grouse radio telemetry data near the project area since 1993. The Draft RMP/EIS does not include the data from these surveys into the affected environment description of resources in Section 3.2. Importantly, the key sage-grouse habitat described in Section 3.2.7.3 and in Map 21 is based on vegetation rather than evidence of sage-grouse use based on radio telemetry data and locations of active leks. The Draft RMP/EIS states “The majority of sage-grouse leks in the planning area are located within key sage-grouse habitat.” (p. 3-44), but this statement is not consistent with the active lek survey data conducted by the BLM within and in the 2-mile vicinity of the proposed China Mountain Wind Project (described in Renewable Energy Systems, Appendix D). For example, Map 21 identifies key sage-grouse habitat within the project area, but there are no active sage-grouse leks within the project area. In addition, Map 21 does not identify key sage-grouse habitat in large portions of Browns Bench, even though IDFG sage-grouse radio telemetry data from 1993-2009 has shown a concentration of sage-grouse use on Browns Bench (Renewable Energy Systems, Appendix E). The Final RMP/EIS should incorporate the data from the extensive surveys associated with the proposed China Mountain Wind Project area and the IDFG sage-grouse radio telemetry data	With respect to general wildlife (bats, raptors, songbirds) inventories, the BLM reviewed the data collected in the China Mountain considered it for inclusion. However, general wildlife was analyzed by habitat group rather than taxonomic groups so inclusion of the data was not practical. The Final EIS updated *Special Status Wildlife* and *Special Status Plants* sections in Chapter 3. Sage-grouse telemetry was not available at the time the Draft RMP/EIS was prepared, but were subsequently acquired. The majority of the planning area lacked long-term radio telemetry data on sage-grouse and other wildlife movements. Where available sage-grouse radio telemetry data were used to define movements from lek of capture and nest sites in Chapter 3 and define the cumulative impacts analysis for sage-grouse in Chapter 4. Because the majority of the telemetry work focused on nesting and brood rearing sage-grouse, the locations are not necessarily representative of use during other seasons. Basing key sage-grouse habitat solely on existing telemetry data or lek locations would likely miss other seasonally important areas used by sage-grouse. At the planning area scale, the majority of the active sage-grouse leks were in or in close proximity to sagebrush habitats. In Chapter 3 of the Final EIS, the BLM included sage-grouse key habitat. Portions of Browns Bench were not originally mapped as key habitat because key habitat was supposed to be relatively intact sagebrush. This does not mean grasslands in the Brown’s Bench area were not used by sage-grouse periodically. The sage-grouse habitat map was updated in the Final EIS (Map 25) to depict key sage-grouse habitat, leks, and the sage-grouse management area.

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	into the affected environment description of resources in Section 3.2.	
Special Status Wildlife	Regarding the Chapter 2 *Special Status Species* section (SS-I-MA-8, SS-II-MA-6, SS-III-MA-6, SS-IV-MA-8, and SS-V-MA-8), different distances from ferruginous hawks and prairie falcon nests are referred to in each of the alternatives. There is no rationale for these distances; the BLM should explain the rationale in the Final EIS.	The 1987 RMP previously identified distances from nest sites (shown in SS-NA-MA-11) for some raptors. Part of the variation in distance between alternatives was to provide a range for analysis. Current Idaho BLM direction (Information Bulletin IB-ID-2010-039) was to provide a 1.0 mile buffer for peregrine falcon and ferruginous hawk nests, 0.5 miles for goshawk, golden eagle and prairie falcon nests unless a more restrictive buffer is designated in the land use plan. The scientific support for the distances and time periods was found Whittington and Allen (2008) Draft Guidelines for Raptor Conservation in the Western United States, (and Table B draft Seasonal Buffers-in progress) Pagel and others (2010) Interim Golden Eagle Technical Guidance: Inventory and Monitoring Protocols; and Other Recommendations in Support of Golden Eagle Management and Permit Issuance;
Special Status Wildlife	The order of importance for fire management is 3 (out of 4) for Vegetation Management Area D except in the preferred alternative where it is 2 out of 4. Protection of sagebrush from wildfire in this area should be a higher priority.	Irrespective of Vegetation Management Area, suppression of wildland fires in key sage-grouse habitat is a priority in the Final EIS (see WFM-I-A-1, WFM-II-A-1, WFM-IV-A-I, and WFM-V-I-A-1). Allocation WFM-VI-A-1 in Alternative VI (Proposed RMP) in the Final EIS identified key sage-grouse habitat as a critical suppression area.
Special Status Wildlife	The Draft RMP/EIS states: “Female sage-grouse attend leks to breed, and most nest within 3 miles of the lek.” There is no reference for this statement. The BLM should substantiate any statement regarding distance of nesting from leks with detailed references that are specific to sage-grouse populations in the planning Area in the Final EIS. The Draft RMP/EIS states: “Between 1983 and 2006, active leks in the planning area declined between 1983 and 2006 from 152 to 39 leks due to habitat change.” The BLM should revise this statement to incorporate all relevant survey data (including data collected by the BLM associated with the China Mountain Wind Project) from 2006-2010 in the Final EIS. The statement also asserts that declines in active leks are due to habitat change, but the BLM does not provide any references to substantiate this claim. If there are declines in active leks,	The Final EIS updated the *Special Status Wildlife* sections in Chapters 3 and 4. The Final EIS updated Chapter 3 with respect to sage-grouse. It included summarized movements from lek of capture to nest sites. The Idaho Department of Fish and Game provided lek route information for the planning area. It included the current (2012) data with respect to sage-grouse leks monitored on lek routes. BLM used the 2011 sage-grouse lek data to summarize known sage-grouse leks in the planning area. The Final EIS indicated about 723,000 acres of sagebrush habitat have burned since 1987. The *Wildland Fire Ecology and Management* section noted a total of 1,394,000 acres burned

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	the BLM should provide detailed references as to the many factors that could be the cause of the decline. The Draft RMP/EIS states: "Sage-grouse populations in areas where formerly extensive sagebrush habitat is broken into small patches are at risk from increased predation and loss of habitat." There is no reference for this statement. The BLM should substantiate any statement regarding impacts of habitat fragmentation with detailed references.	between 1987 and 2007 and provided other fire information. The combined effect of these fires was a reduction of sagebrush habitat and fragmentation of remaining areas of sagebrush in the planning area. Johnson and others (2011) noted range wide the trends on leks declined where a greater proportion of their habitat burned range wide. Wisdom and others (2011) addressed other factors associated with the extirpation of sage-grouse. The Idaho Sage-grouse Advisory Committee (2006) addressed the influence of wildlife on the amount of sage-grouse habitat in Idaho.
Special Status Wildlife	The Draft RMP/EIS refers to potential impacts of roads, pipelines and power lines and other forms of infrastructure on habitat, but does not refer to avoidance, minimization and compensatory mitigation measures that can reduce impacts and have the ability to provide a net benefit to wildlife species. As described in Renewable Energy Systems Appendix D, the China Mountain Wind Project, for example, has avoided and minimized impacts to habitat to the maximum extent practicable and provides compensatory mitigation in the form of habitat enhancement and restoration to provide a net benefit to wildlife. The habitat restoration mitigation in particular could be done near the project to improve habitat connectivity in areas of the project burned by the Murphy Complex Fires.	Alternative VI (Proposed RMP) included additional avoidance and minimization guidance. Specific mitigation would be applied at the project scale as appropriate. Renewable Energy Systems Appendix D is a draft document without specifics on type, acreage, or location of the potential habitat mitigation. Any "net" benefits to wildlife would depend on wildlife species targeted by the mitigation as well as amount location and type of mitigation. Measures adopted in Wyoming and other areas for oil/gas and coal bed methane were not adequate to mitigate impacts to sage-grouse in the long term (see Naugle et al., 2011; Doherty et al., 2008). To date it has not been shown that mitigation results in a net benefit to sage-grouse.
Special Status Wildlife	Mitigation measures, both on-site and off-site, can render practices and uses acceptable within an Area of Critical Environmental Concern (ACEC). For example, development of wind energy facilities in sage-grouse habitat can be mitigated both on-site and off-site through careful planning and incorporation of mitigation requirements into a Record of Decision approving a commercial scale wind energy project. Mitigation, combined with avoidance and minimization measures, can further accommodate uses within a designated ACEC that has relevant and possibly important sage-grouse habitat.	Project specific mitigation within an Area of Critical Environmental Concern (ACEC) was beyond the scope of this planning effort. Suitability of a project and subsequent mitigation would be dependent on the relevant and important values of the particular ACEC.
Special Status Wildlife	Throughout the impacts assessment for all of the alternatives, the Draft RMP/EIS relies upon incorrect analysis from previous chapters. As stated in our comments on previous chapters, the incorrect analysis includes, but is not limited to; acreage associated with potential wind development areas,	Chapter 2 was a presentation of the alternatives, goals and objectives and management actions for the specific alternatives and management actions to attain the objectives, not an analysis. Based on public comment Chapter 2 was updated in the Final EIS. Chapter 3 was a presentation of the baseline data,

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	identification of key sage-grouse habitat, the proximity of potential wind development areas to active sage-grouse leks, and the impact of wind energy development on sage-grouse, sensitive species, fish and watersheds.	not an analysis and was updated in the Final EIS. Alternative VI (Proposed RMP) redefines areas available for renewable energy development and does not base it on present vegetation. Chapter 4 in the Final EIS used the updated baseline and references in the analyses.
Special Status Wildlife	The Draft RMP/EIS refers to Instruction Memorandum (IM) ID-2009-06 regarding guidelines related to meteorological towers near active leks. IM-ID-2009-06 expired on September 30, 2009 and as a result should not be referred to in the Final EIS. In addition, the Draft RMP/EIS states that because of IM-ID-2009-06, meteorological towers are “not to be placed within 2 miles of active leks unless there is visual obstruction that reduces the visibility of the tower.” Even if IM-ID-2009-06 was applicable to the EIS (which is not the case given that the Instruction Memorandum has expired), the Instruction Memorandum would not exclude met towers from within 2 miles of active leks. Rather, the Instruction Memorandum states “met towers shall be avoided (emphasis added) within two miles of active sage-grouse leks”. Finally, there is no scientific evidence to justify any restrictions on placement of meteorological towers away from active leks. Impacts from meteorological towers are de minimums. The Final RMP/EIS should remove all references to restrictions on locations of meteorological towers.	Information Bulletin IB-ID-2010-39 and attachment A modified the BLM policy in Idaho. The IB resulted in changes to Alternative VI (Proposed RMP) in Chapters 2 and Chapter 3 of the Final EIS and subsequent analysis in Chapter 4.
Special Status Wildlife	The Draft RMP/EIS assumes that transmission lines could result in increased predation on sage-grouse or make the habitat unsuitable. This assumption is inaccurate. Increased predation can be mitigated with perch guards or other deterrents and reduce the potential impacts. The BLM should remove this assumption in the Final EIS.	The Final EIS updated Chapter 4 and included discussion of perch deterrents and citations. (Lammers and Collopy, 2007; Prather and Messmer, 2010; Slater and Smith, 2010).
Special Status Wildlife	The Draft RMP/EIS states, “The vast majority of acres of sagebrush steppe, aspen, mountain mahogany/mountain shrub, and canyon land guild habitats were classified as having a marginal wind resource.” This statement confirms that there are very limited areas with these habitat types with commercially viable wind resource within the planning area. The BLM should insert following sentence immediately after the aforementioned sentence in the Final EIS, “As a result, commercial wind energy development would have limited	Amount and types of habitat in the wind development areas were updated. Impacts of specific projects on habitats can only be analyzed in detail in the environmental analysis for the project when the locations of infrastructure (roads, turbine lines, buildings, substations and power lines) and disturbance are known.

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	impacts on these habitat types."	
Special Status Wildlife	The Draft RMP/EIS states, "Wind energy development in the northern portion of the planning area would avoid sage-grouse habitat." This statement fails to mention that commercial wind energy is not viable in the northern portion of the planning area because the wind resources in this area fall into the "fair" or worse classification, and is therefore not cost-competitive. The Final EIS should state that the wind resource in the northern portion of the planning area is not commercially viable.	The Final EIS allocated areas available for potential development for each of the alternatives. The best area for wind energy development was not required to be allocated in all alternatives. The Final EIS changed areas available to wind energy development due to sage-grouse habitat in Alternative VI (Proposed RMP). Technology continues to change and areas with lower wind classifications may become viable for commercial development in the future. Over 100 turbines are presently located in the northern portion of the planning area on private land. Project proponent determines the commercial viability of a specific project.
Special Status Wildlife	We are concerned that the Draft RMP/EIS does not include any of the findings contained in the recent scientific monograph "Ecology and Conservation of Greater Sage-Grouse: A Landscape Species and Its Habitats" (available at http://sagemap.wr.usgs.gov/monograph.aspx) when describing the basis for Greater sage-grouse local and landscape scale habitat requirements. As a guidance document for the next 15 - 20 years, we believe it is imperative that the Final EIS base its management decisions on the best available science.	At the time the Draft RMP/EIS was prepared the manuscripts were in draft form. *Greater Sage-Grouse Ecology and Conservation of a Landscape Species and Its Habitats* by Knick and Connelly (2011a) was reviewed and appropriately cited in the Final EIS.
Special Status Wildlife	In 2005, the BLM Jarbidge Field Office, where the project is proposed, agreed to create a new Resource Management Plan and accompanying Environmental Impact Statement focused on restoring wildlife habitat. In 2007, the Murphy Complex Fire burned more than 425,815 acres in the planning area. Stemming from this fire, in 2009, the U.S. District Court summarized the new situation in Western Watersheds Project v. Dyer, CV-04-18l-BLW, 2009: • Between 1982 and 2006, the planning area lost 797,409 acres of native sagebrush steppe habitat. The Murphy Complex Fire in 2007 burned 425,815 acres, destroying 70% of remaining sage-grouse nesting habitat and over 80% of known occupied pygmy rabbit habitat. • The best remaining population stronghold for sage-grouse in the planning area is in the southern foothills area, which encompasses the proposed wind turbine project area. Under these new circumstances for wildlife and for land	The Draft RMP/Environmental Impact Statement (EIS) provided different areas for wind energy development that varied between some of the alternatives to create a range for analysis. The Final EIS revised the area available to wind energy development in *Special Status Wildlife* section based on the identification of sage-grouse management area for Alternative VI (Proposed RMP).

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	managers in southern Idaho, there are multiple reasons to shift wind energy development to another location where the loss of habitat will be lessened or mitigated, and the feasibility of wind development will be more predictable.	
Special Status Wildlife	The BLM's habitat mitigation policy codified at 43 CFR 1508.20, lists habitat mitigation actions in descending order of preference: avoidance, minimization, rectification, reduction, and compensation. Idaho Fish and Game research and other research has documented the importance of China Mountain and Brown's Bench to sage-grouse. Renewable Energy System's own Draft Sage-grouse Conservation Plan (the Plan) described at least 61% of the proposed project as key sage-grouse habitat. There is no possibility of constructing the project while avoiding key habitat. The Plan created by Renewable Energy Systems consultants is largely an offsite compensatory mitigation plan.	This comment was beyond the scope of this planning effort. Any decision regarding the China Mountain Wind Energy Project has been deferred until the Idaho/Southwest Montana Sub-regional Sage-Grouse Plan Amendment and the Jarbidge RMP have been completed.
Special Status Wildlife	One possible reason BLM might have tied wind energy development to native vegetation is sage-grouse concerns. If it is due to sage-grouse concerns, those concerns are not scientifically proven given the lack of comprehensive, well-designed, pre and post construction research regarding the potential impacts of wind energy development on sage-grouse. The BLM will need to permit projects in sage-grouse areas before impacts will be known. The BLM should require monitoring and data collection so the impacts can be quantified for use in other projects in the planning area and west wide. Further, sage-grouse use a wide variety of vegetation types, making any connection between wind energy development and native vegetation weak at best. The Browns Bench grouse stronghold is primarily composed of exotic communities and even though grouse have a year around presence here, the area under the BLM preferred alternative would be open for wind energy development. The use of native vegetation for sage-grouse habitat is not linked with reality and the true situation on the ground. The data exists to show where the leks are and where the birds spend the majority of their time, BLM should spend more time applying the data to proposed management actions.	The Final EIS revised areas available to wind energy development. Alternative VI (Proposed RMP) did not base areas available to wind development on vegetation for all alternatives in the Final EIS. Long-term monitoring required at the project level and was beyond the scope of this planning effort. However, the best management practices adopted by the Record of Decision for the Programmatic Wind Energy EIS stated at least 2 years of inventory for baseline data would be necessary (see Appendix B: Best Management Practices, Design Features, and Operating Procedures). Although some of the Brown’s Bench/Monument Springs area has some areas dominated by exotic vegetation, crested wheatgrass seedings, the area as a whole is primarily a native shrubland community. With respect to the use of native vegetation as sage-grouse habitat, Connelly and others (2011b) review the numerous studies across the range of the species linking sage-grouse with native vegetation, principally sagebrush communities.

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Special Status Wildlife	The BLM did not provide any justification for restricting development within a particular mileage distance from active leks. Comprehensive, well-designed pre- and post-construction research regarding the potential impacts from a number of the resource uses involved has not been conducted to-date. There is anecdotal information indicating that sage-grouse have been observed, lek attendance continues, and hens have nested within 500 meters of wind turbines. Research from oil/gas development (which is generally considered to have greater impacts than the development of wind energy, communication towers, transmission lines, geothermal energy, and meteorological towers) indicates some potential indirect impacts to sage-grouse within 1 kilometer of infrastructure (Johnson and Holloran 2010, Johnson 2010, DGSCP-CMWP Tetra Tech 2010, SWCA 2006 BLM 2003).	The Final EIS analyzed a variety of distances from leks as part of the range of alternatives. The 2-mile limit was from the current land use plan. The 5-mile distance from sage-grouse leks was a US Fish and Wildlife Service recommendation regarding wind development (Manville, 2004). Oil and gas development initially did not appear to impact sage-grouse; however, impacts occurred in the long term. Anecdotal observations do not provide context. Individuals of a species can respond differently than the species as a whole. Only through a properly designed study can preference or avoidance be determined. Some impacts to a species are manifest only after a period of years. BLM included Johnson and others (2011) in the Final EIS. (Commenter did not include full citations for Johnson and Holloran, 2010; Johnson, 2010; DGSCP-CMWP Tetra Tech, 2010; SWCA, 2006; and BLM, 2003, so these references could not be addressed).
Special Status Wildlife	On p. 2-68, please identify which segment of Salmon Falls Creek you are referencing under the first management action for habitat for bighorn sheep. We are assuming you refer to the Area of Critical Environmental Concern segment. Or, are you referring to the segment above Salmon Falls Dam?	Management action SS-NA-MA-1 in the No Action Alternative was stated as it was written in the 1987 RMP. It was unclear if the area for potential release was limited to the Wilderness Study Area or included all of the Area of Critical Environmental Concern. After the 1987 RMP was completed, the canyon was evaluated. Due to the proximity of domestic sheep/goats on private land and grazing allotments in the eastern portion of the planning area, Idaho Department of Fish and Game determined a bighorn population would not be established in any portion of Salmon Falls Creek Canyon.
Special Status Wildlife	In order to fulfill Endangered Species Act Section 7 consultation requirements, The US Fish and Wildlife Service (FWS) will need site-specific information. This site-specific information will allow the FWS to fully address the potential effects to listed and candidate species. To achieve this, we recommend conducting a programmatic consultation, followed by project-specific consultations. This approach is consistent with the RMP planning process adopted by the BLM.	The BLM will consult with the US Fish and Wildlife Service (FWS) to meet its Endangered Species Act (ESA) requirements. Since the Final EIS is at the broad, landscape scale and does not approve any site-specific projects, project specific information is not available. Through consultation with the FWS, BLM will identify best management practices (BMPs) to reduce or minimize impacts of projects. Not all BMPs will be required for all projects. The BLM will continue to complete project specific consultation as required to meet its ESA obligations.

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Special Status Wildlife	It would be helpful to indicate for appropriate Type I species their actual Federal status (endangered, threatened, or candidate). On March 23, 2010, the US Fish and Wildlife Service determined that the Greater sage-grouse warrants the protection of the Endangered Species Act, but that listing the species at this time is precluded by the need to address higher priority species first (75 FR 13910). The Greater sage-grouse has been placed on the candidate list for future action.	The Final EIS revised the table listing special status species in Chapter 3 to reflect Type I status, (Candidate) for Greater sage-grouse.
Special Status Wildlife	The BLM already has the necessary tools to protect Endangered Species Act-listed, candidate and sensitive species without creating Areas of Critical Environmental Concern (ACECs). These tools make the creation of ACECs largely redundant. The State also believes that these purported wildlife management goals can be better accomplished through on-the-ground decision making and consultation with the Idaho Department of Fish and Game and other stakeholders than through sweeping changes by administrative fiat.	A variety of Areas of Critical Environmental Concern (ACECs) and acreages were included in the various alternatives due to nominations received during scoping. ACECs acreage varies from 0 in Alternative II to 956,000 acres in Alternative V. Based on comments and Omnibus Public Lands Management Act of 2009; ACECs in Alternative VI (Proposed RMP) were modified from the Draft RMP EIS. ACECs in Alternative VI include Upper Bruneau Canyon (18,000 acres), Lower Bruneau Canyon (1,000 acres), Salmon Falls Creek (2,700 acres), and Sandpoint (950 acres). Special management for each ACEC was designed to protect relevant and important values associated with that ACEC which are not exclusively based on special status wildlife. Federal Land Policy and Management Act of 1976 states that ACECs need “special management attention”. ACEC designations by design should not provide redundant protection because they should need “special management attention.” Special management prescribed for ACECs was beyond the normal management for adjacent lands.
Special Status Wildlife	The State does not believe the Final EIS should automatically preclude (in contrast to the preferred alternative) the ongoing and requisite environmental analysis of this project so long as the developer can affirmatively demonstrate that it can effectively avoid or mitigate for the loss of key sage-grouse habitat.	The China Mountain Wind Energy Project has been deferred until the Idaho/Southwest Montana Sub-regional Sage-Grouse Plan Amendment and the Jarbidge RMP have been completed. An EIS specific to the China Mountain Wind Energy project would analyze the effects of the China Mountain Wind Energy project, including any proposed mitigation.
Special Status Wildlife	The draft RMP needs further clarification regarding the Browns Bench and China Mountain areas. Map 76 notes that Alternative IV right-of-way exclusion area, partially falling within the proposed project boundary (Map 77), contains the best potential wind resources within the planning area. By contrast, the Browns Bench area, which contains key sage-grouse habitat, is proposed (Map 82) as "Potential Wind Development	Areas allocated to renewable energy development varied between some of the alternatives. Areas allocated to energy development were updated in Alternative VI (Proposed RMP) in the Final EIS. The changes included identifying key sage-grouse habitat, sage-grouse management area, as well as eliminating the link to non-native vegetation.

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	Areas" while only containing marginal wind resources. The State suggests that the BLM better explain the apparent discrepancy.	
Special Status Wildlife	LA-IV-MA-2, on p. 2-175, specifies that transmission lines, phones lines, communication towers, meteorological towers, and wind turbines will be located more than 5 miles from "active" sage-grouse leks. While the State believes it is vitally important to protect key sage-grouse habitat, this conservation measure needs to be refined. Should the BLM adopt this measure in the Final EIS, the conservation measure should encourage (not require), to the extent practicable, infrastructure to be located at least 5 miles from leks with an occupied or undetermined status. The Final EIS should also afford project proponents the opportunity to demonstrate that an effective mitigation plan negates the applicability of this general measure.	The Final EIS had different mileage buffers proposed in some of the alternatives to create a range of alternatives for analysis. The 5-mile buffer was interim guidance recommended by the US Fish and Wildlife Service (Manville, 2004). Alternative VI (Proposed RMP) in the Final EIS modified management Actions in Chapter 2, *Special Status Wildlife* section.
Special Status Wildlife	Page 3-23, Big Game section, addresses bighorn sheep as a BLM Sensitive species. On p. 3-33 third paragraph in section 3.2.7 *Special Status Species* address that the BLM State Director cooperates with State wildlife agencies in the designation of sensitive species. At this time, the State of Idaho does not have bighorn sheep as a sensitive species and we question why BLM has identified bighorn sheep as a sensitive species?	BLM Manual 6840.04.E.4. The BLM State Director has the responsibility for designating BLM sensitive species, and periodically reviewing and updating the BLM sensitive species list, as appropriate, in *coordination* with State agencies that are responsible for fisheries, wildlife, and botanical resources and State Natural Heritage programs. The current Master Memorandum of Understanding between the Idaho Department of Fish and Game and the Bureau of Land Management identified California bighorn sheep as a sensitive species. Idaho Department of Fish and Game (IDFG) presently manages the bighorn sheep populations south of the Snake River in Idaho as California bighorn rather than Rocky Mountain bighorn north of the Snake River. As noted in SS-CA-MA-2. Special status species management would not apply to species that are removed from the BLM Sensitive species list. Those species would be managed according to applicable delisting requirements, conservation strategies, BLM policy, and IDFG or Nevada Department of Wildlife management guidance.
Special Status Wildlife	The Bruneau-Jarbidge Area of Critical Environmental Concern (ACEC) is not necessary since the BLM has complete authority to management of listed species and critical habitat under the Endangered Species Act, Wilderness Act and regulations for the authorization of uses in this area. With fire, being one of	The Final EIS modified the Bruneau-Jarbidge Area of Critical Environmental Concern boundary based on public comment and Omnibus Public Lands Management Act of 2009. The modification removed any of the designated Bruneau-Jarbidge Rivers Wilderness lands. Area of Critical Environmental Concern

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	the biggest threats to wildlife habitat and identified values, and with the new information that livestock is a viable tool to reduce fine fuel (Davies et al., 2010) that would lessen the fire occurrence, that an ACEC could be very restrictive to the BLM to change the management on a site specific location and on a landscape scale to reduce fires with the use of livestock throughout the year.	(ACEC) designation indicates that an area has values that meet criteria for relevance and importance. These values include historic, cultural, and scenic values; fish and wildlife resources; and natural systems and processes (Appendix M: Evaluation of Nominated Areas of Critical Environmental Concern). Management, including an increased fire suppression priority, associated with an ACEC designation is specific to the relevant and important values present in the ACEC. Special management would provide proactive measures to maintain or enhance those values as well as measures necessary to protect those values. Livestock grazing would continue to be authorized on the plateau area. The Wildand Fire Ecology and Management section in Chapter 4 briefly addressed the role of livestock in altering fuels.
Special Status Wildlife	The Jarbidge Foothill Area of Critical Environmental Concern (ACEC) (both large and small) is not necessary since the BLM has complete authority to management of listed species under the Endangered Species Act and regulations for the authorization of uses in this area. With fire being one of the biggest threats to the habitat in this area, and with the new information that livestock is a viable tool to reduce fine fuel (Davies et al., 2010) which would lessen the fire occurrence, an ACEC could be very restrictive to the BLM to change the management on a site specific location and on a landscape to reduce fires with the use of livestock throughout the year. The other concern with this ACEC is that private lands are intermingled throughout the area and that the ACEC could have major implications to private lands uses and access.	The Final EIS analyzed the Jarbidge Foothills Area of Critical Environmental Concern (ACEC) as part of the reasonable range of alternatives. Alternative VI (Proposed RMP) in the Final EIS did not designate this ACEC.
Special Status Wildlife	Management action SS-NA-MA-10 states, "Manage human use within big horn sheep habitat at levels that are not detrimental to the big horn sheep population". This management action is broad and can be interpreted in a couple of different ways. Some people might see any human use as detrimental to the big horn sheep population. At what use levels is human use detrimental to the sheep population? This management action needs to be modified to protect visitor use and access.	The BLM concurs this management could be interpreted in more than one manner. However, the management action is for the No Action Alternative, directly from the current RMP and was not changed. Management actions for bighorn sheep varied between some of the Alternatives to create a range for analysis.
Special Status Wildlife	The Jarbidge Sage-grouse Local Working Group (the Group) requests that BLM consider the existing Jarbidge Sage-Grouse Local Working Group Sage Grouse Conservation Plan	The Final EIS used various aspects of the Jarbidge Sage-grouse Local Working Group sage-grouse plan. Alternative VI (Proposed RMP) in the Final EIS also included management

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	(Jarbidge Sage-Grouse Local Working Group, 2007) as it pertains to the implementation of the Final EIS. The Group supports habitat development and management that maintains and enhances sage-grouse habitat and populations. The Group requests and supports cooperation between Jarbidge Local Working Group and the Jarbidge BLM Field Office in project planning and implementation.	actions based in part on the Jarbidge Local Working Group Plan. UV-VI-MA-21 and 22 make restoration of sage-grouse habitat a priority. WFM-VI-A-1 makes sage-grouse habitat a critical suppression priority. WFM-VI-MA-2 directs fire crews to suppress fire burning sagebrush islands once the fire is contained.
Special Status Wildlife	The BLM should: • Site new infrastructure using best available science to determine the potential negative impacts or positive benefits to sage-grouse and • Site infrastructure to be in the best interest of sage-grouse and sage-grouse habitat. However, if impacts from infrastructure developments are unavoidable, require effective mitigation to result in no net loss to sage-grouse habitat.	Several management actions in the Final EIS, Chapter 2, Alternative VI (Proposed RMP), involved the placement of infrastructure and mitigation for impacts to sensitive species habitat. They were contained in the following sections: *Special Status Species* (SS-CA-MA-9, SS-CA-MA-10, SS-VI-MA-8), *Livestock Grazing* (LG-CA-MA-15, LG-CA-MA-16, LG-VI-MA11), *Transportation and Travel* (TR-VI-MA-7), and *Land Use Authorizations* (LA-VI-A-2, LA-VI-MA-1, LA-VI-MA-2, LA-VI-MA-4, LA-VI-MA-5). Site-specific mitigation measures would apply at the project level, if the project were authorized.
Special Status Wildlife	Chapter 3 of the Draft RMP/EIS on p. 3-44 states, relative to Ferruginous hawks: “Wildfires have also eliminated several nest trees and altered the habitat used by their prey, mainly jackrabbits, mountain cottontail rabbits, and ground squirrels (Bechard and Schmutz, 1995).” However, Bechard and Schmutz, 1995 indicates that this bird uses a variety of nest sites, including nearly level ground, if they need to: “Birds seem to show a strong preference for elevated nest sites (boulders, creek banks, knolls, low cliffs, buttes, trees, large shrubs, utility structures, and haystacks), will nest on nearly level ground when elevated sites are absent. Trees in deserted homesteads or otherwise unbroken grasslands often serve as nest.”	The Final EIS revised the Sensitive Species portion of Chapter 3 regarding ferruginous hawks. In the planning area no ferruginous hawk nests have been observed on nearly level ground. About 20 ground nests have been documented, but these nest sites are on either rock outcrops or breaks. Checks of several ground ferruginous hawk nests in the northern part of the planning area did not find any nest sites marked as active in the late 1980’s as remaining active by the early 1990’s. Checks of known ferruginous hawk territories following fires have not shown they returned to the area to nest on the ground once the nest tree was destroyed. They have returned if the nest tree was not destroyed or if alternate nest trees were available. There are no artificial nest platforms for raptors in the Jarbidge Field Office.
Special Status Wildlife	Chapter 3 of the Draft RMP/EIS on p. 3-44 states: “Key sage-grouse habitat is defined by the Idaho Sage-grouse Advisory Committee as “areas of generally intact sagebrush that provide sage-grouse habitat during some portion of the year (Idaho Sage-grouse Advisory Committee, 2006).”	a. The precise definition of key sage-grouse habitat was in Appendix A of the Conservation Strategy for Greater Sage-grouse in Idaho (Idaho Sage-grouse Advisory Committee, 2006). The Final EIS added the definition in its entirety to the Glossary.

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	a. However, while this statement is contained in the referenced work, it has since been refined to more accurately state the definition. “Key sage-grouse habitat” is currently defined as, “areas of generally intact sagebrush that provide sage-grouse habitat during some portion of the year including winter, spring, summer, late brood-rearing, fall transition sites from winter to spring, spring to summer, summer/fall to winter. Key habitat may or may not provide adequate nesting, early brood-rearing, and winter cover due to elevation, snow depth, lack of early season forbs, limited herbaceous cover, or small sagebrush patch size” (Idaho Sage-grouse Local Working Group’s Statewide Annual Report 2009, p. 16 [Idaho Sage-grouse Advisory Committee, 2010]). b. In addition, it notes that Map 21, at Volume 3, p. M-22, which purports to depict key sage-grouse habitat is flawed in its depiction of intact sagebrush (which also continues to change annually due to wildfires).	b. The Final EIS revised the map of key sage-grouse habitat (Map 25 “Sage-Grouse Habitat”). The amount of sagebrush habitat varies annually, primarily due to wildfires.
Special Status Wildlife	Chapter 3 of the Draft RMP/EIS on p. 3-44 states, “The number of sage-grouse leks and numbers of sage-grouse on leks have declined throughout most of the planning area since the 1960s. Between 1983 and 2006, active leks in the planning area declined from 152 to 39 due to habitat change. In 2007, the Murphy Complex Fires burned approximately 30% of the remaining occupied sage- grouse habitat in the planning area. However, the Draft RMP/EIS does not accurately report the available information. A number of problems exist with these Draft RMP/EIS statements: First, lek counts can be highly variable and unreliable. a. “Breeding populations should be assessed by either lek counts (census number of males attending leks) or lek surveys (classify known leks as active or inactive) each year (Autenrieth et al., 1982). Depending on number of counts each spring (Jenni and Hartzler 1978, Emmons and Braun 1984) and weather conditions when the counts were made, lek counts may not provide an accurate assessment of sage-	The Final EIS revised the sage-grouse section of Chapter 3. Revisions include tables showing numbers of males per lek route based on the Idaho Department of Fish and Game (IDFG) sage-grouse lek database. a. Garton and others (2011) noted the initial concerns voiced by earlier authors with lek counts; however, they also noted lek counts were a useful index to the minimum number of breeding males. b. In Region IV, IDFG conducted a number of lek routes in the planning area since the 1990’s. The protocols adopted in the 1990’s were the basis for the 2006 guidelines. At the time the 2006 document was prepared several of the routes had data only for a limited number of years. Discussion and a table were added in Chapter 3 showing the long-term trends on the lek routes. There was 7 years of data for lek routes in the planning area compared to the Conservation Plan for Greater Sage-grouse in Idaho. The Conservation Plan truncated the data in 2004.

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	grouse populations (Beck and Braun 1980) and the data should be viewed with caution." From Connelly and others (2000), p. 975-976. b. Second, a review of the lek data relative to the planning area shows that such data has not been consistently gathered (in contrast to the requirements noted above), and it is not reliable. c. Third, the five-year running average of the Brown's Bench lek route (the only reliably monitored lek route) shows an overall upward trend between 1992 (actually 1994) and 2010. In addition, the Brown's Bench lek route had more males counted in 2006 than in any previous year. d. Fourth, it was not until about 2006, under the guidance of the Conservation Plan protocols, that Idaho began using a unified and systematic means of counting attendance at leks. In addition, prior to 2008, the leks in the planning area were counted in January, whereas since 2008, they have been counted in March or April. e. Fifth, lek count information received from Idaho Department of Fish and Game reports that 38 new leks or locations have been identified in the 2005-2009 time period in the Jarbidge SGPA. It appears that the more attention is given to obtaining accurate information, the more new leks are identified. f. Sixth, the Murphy Complex Fire and other subsequent fires likely have resulted in change of location of leks since 2007 (including perhaps the Brown's Bench lek route leks), which changed locations have not yet been identified.	c. A 5-year running average is not the best measure of male sage-grouse lek attendance. Only using a 5-7 year running average obscures potential cycles and long-term trends. d. In Region IV, IDFG adopted the protocol of counting lek routes multiple times in the spring (March to early May) at least a week apart, at the appropriate time of day (30 minutes before sunrise to an hour after sunrise), with suitable weather and wind conditions. IDFG and the BLM have used this protocol for at least a decade prior to 2006. The BLM and IDFG in the Magic Valley never ran sage-grouse lek routes in January. However, IDFG has collected some winter location data on sage-grouse in January. e. The Final EIS updated the sage-grouse portion of Chapter 3 to include recent leks as well as leks with more data. Some of the "new" leks are based on an observation in a single morning. A few of the "new" leks were not observed in subsequent checks the same year or in subsequent years. f. A number of the leks in the Murphy Complex still persist but at lower numbers. Some leks are no longer attended by sage-grouse. Some lek locations may have shifted as a result of habitat changes. It cannot be assumed the "new" leks were not already present, but they may not previously detected.
Special Status Wildlife	Please consider: Long-term effects of fire on sage-grouse habitat by Pamela J. Nelle, Kerry P. Reese, and John W. Connelly. Journal of Range Management. 53: 586–591 November 2000. Authors are former research assistant and professor, Department of Fish and Wildlife Resources, University of	The Chapter 4 *Special Status Wildlife* section was updated to include a brief discussion of fire impacts to sage-grouse habitat. Nelle and others (2000) was reviewed. However, the BLM cited Beck and others (2009) Recovery of Greater sage-grouse habitat features in Wyoming big sagebrush following prescribed fire in Restoration Ecology, which was similar but more recent than the Nelle and other (2000) reference. (Connelly and Reese

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	Idaho, Moscow, Ida, 83844; and principal wildlife research biologist, Idaho Department of Fish and Game, 1345 Barton Rd, Pocatello, Ida, 83204.	were also co-authors of the Beck and others (2009) article.)
Special Status Wildlife	Slickspot peppergrass is a threatened species, yet the BLM is holding fence lines that bisect critical habitats. It also appears that the whole Draft RMP/EIS is structured to give far more protections to disturbance-tolerant mule deer than it gives to sage-grouse, the sensitive California bighorn sheep, the pygmy rabbit, sensitive migratory birds, golden eagles, etc.	Alternative VI (Proposed RMP) in Chapter 2 included a number of allocations and management actions that to reduce impacts from a number of land uses to a variety of special status species and their habitats. Examples include: SS-VI-MA-5 which allowed for the modification of range infrastructure to maintain or enhance special status species or their habitat; SS-VI-MA-10 which addressed maintaining separation between bighorn and domestic sheep or goats; REC-CA-MA-2 which allowed scheduling restrictions to be applied to reduce impacts to fish and wildlife during important seasonal periods; LA-VI-A-2 which made bighorn habitat associated with eligible segment of Wild and Scenic Rivers an avoidance area for land use authorizations; SA-VI-A-1 which closed Areas of Critical Environmental Concern (ACECs) to salable minerals; LE-VI-A-2 which closed designated Wilderness, Wild and Scenic River segments and ACECs to leasable mineral development protected bighorn habitat; and WI-CA-MA-9 which addressed periods and buffer distances for nesting raptors.
Special Status Wildlife	Under Kleppe v New Mexico (1976), the Federal government has authority over wildlife on Federal lands, because it owns them. BLM has authority to protect habitat. Yet for sage-grouse, BLM defaults to the Idaho sage-grouse Plan and the industry-dominated Local Working Group and never bothers to show how these efforts would effectively conserve sage-grouse.	Kleppe v New Mexico (1976) involved wild burros federally protected under the Wild Horse and Burro Act. BLM manages habitat and cooperates with states and the US Fish and Wildlife Service to conserve or restore fish and wildlife. The Local Working Group Plan had a number of recommendations including making it a priority to suppress fires in key sage-grouse habitat, managing of wetlands and wet meadows, restoring 3,000 of sagebrush habitat per year, extending and connecting large islands of sagebrush, using native grasses and forbs in seed mixes, etc. Many of these recommendations were incorporated into allocations or management actions in some of the alternatives.
Special Status Wildlife	The BLM never presents a single map or plan or required action to remove a single one of these harmful habitat fragmenting, predator sink areas. These facilities promote West Nile virus, facilitate livestock depletion of sagebrush habitats, serve as infestations sites for weeds, and have many	Based on public comment the BLM added SS-VI-MA-9 which provided for the construction and maintenance of water facilities to minimize the production of mosquitoes which may carry West Nile virus - Chapter 2 in the Sensitive Species section Alternative VI (Proposed RMP). LG-VI-MA-14 provides for maintaining

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	other adverse impacts. See Connelly and others (2004), Knick and Connelly (2009), Declaration of Dr. David Dobkin (Dobkin and Sauder, 2004).	attaining adequate nesting winter cover by adjusting salt/supplement and water locations in sagebrush steppe habitat and other intact sagebrush stands which would benefit sage-grouse
Special Status Wildlife	The Draft RMP/EIS must prioritize areas and clearly identify what must be done to preserve and restore sage-grouse habitats. This must then be incorporated into determining carrying capacity and suitability for any continued livestock use. This then must form the basis of any allocation.	The BLM identified general areas (Vegetation Management Areas) and priorities for restoration for the various alternatives in the Chapter 2 *Upland Vegetation* sections. Specific locations were not identified due to the likelihood of future events (e.g. wildfires) altering treatment areas. With respect to habitat protection, individual alternatives define fire suppression priorities. Sage-grouse habitat was a high priority (critical suppression) in several alternatives identified in the Final EIS.
Special Status Wildlife	Big game habitat and restoration receive attention in Maps 19, Map 20 "Big Game Winter Range Restoration Areas". There is only one map for sage-grouse, i.e. Map 21. Despite the Stipulated Settlement Agreement, the BLM has provided no mapping and coherent planning for conserving sage-grouse - yet has laid out mapping identifying habitats for both winter range and restoration for mule deer. The BLM then uses this planning to overlay more restrictive mineral leasing, geothermal and other actions on mule deer habitats.	The Final EIS updated Chapter 3 and included Map 25 “Sage-grouse Habitat” which depicts key sage-grouse habitat. The Final EIS included management actions which directly or indirectly benefit sage-grouse and its habitat for *Land Use Authorizations, Minerals, Wildland Fire Ecology and Management,* and *Upland Vegetation* sections in Alternative VI (Proposed RMP) in the Final EIS.
Special Status Wildlife	The BLM does not even provide mapping that identifies crucial winter habitats for sage-grouse - such as the 71 Desert – where the BLM has long sought to pretend that sage-grouse are not a very significant concern.	Within the planning area, wintering sage-grouse have been observed in numerous locations varying from high elevation low sagebrush wind swept ridges to lower elevation black sagebrush and Wyoming big sagebrush sites. The Final EIS updated the sage-grouse habitat map (Map 25) to depict the current configuration. Key sage-grouse habitat shown on Map 25 will change over time due to future restoration and wildfires.
Special Status Wildlife	LG-IV-MA-10 states BLM will manage "for a variety of cover heights" for ground-nesting birds. It does not meet sage-grouse conservation requirements.	The Final EIS addressed habitat for a variety of wildlife. Some species prefer areas with little visual obstruction for nesting (curlew) whereas other species select areas with taller denser herbaceous vegetation for nesting (northern harrier). The intent of the management action was to provide habitat to a variety of species not just sage-grouse. This management action was not included in Alternative VI (Proposed RMP) in the Final EIS.
Special Status Wildlife	The BLM must apply mandatory measurable standards of use to provide 9-inch herbaceous nesting cover for sage-grouse to all permits as a provision of the Final EIS. It must reduce livestock impacts to understory diversity and shrub canopy	LG-CA-MA-1 prescribed adaptive management including using indicators to meet resource objectives. Specific indicators would be most effective when prescribed site-specifically using the most current science and monitoring data to meet resource

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	complexity. For many native bunchgrasses, essentially no grazing use can be made and this standard achieved until long-term rest has occurred.	objectives. LG-VI-MA-2 notes utilization limits would be determined on an allotment specific basis to meet objectives for Riparian Areas and Wetlands, Fish and Wildlife, and Special Status Species. Connelly and others (2011a) and Connelly and others (2000) mentioned 7 inches (18 cm) not 9 inches (≈23 cm) of residual herbaceous vegetation as being suitable for nesting sage-grouse. Residual grass height varies by grass species, annual growing conditions and amount of utilization by wildlife and livestock.
Special Status Wildlife	Other provisions of this preferred alternative section allow livestock grazing to occur in mule deer winter habitats (including burned lands where deer may face maximum stress), provide no limit on winter grazing in sage-grouse habitats, don't even identify sage-grouse seasonal habitats, and provide no limit on spring grazing in sage-grouse lekking and nesting habitats.	Areas without shrubs (previously burned) provide little winter browse or cover for wintering mule deer or pronghorn. In Alternative VI (Proposed RMP) of Chapter 2, LG-CA-MA-7 allows periodic spring grazing of big game habitat at levels to promote browse. WI-VI-MA-2 provides a restoration focus on big game winter range, which has burned. Planting of sagebrush, bitterbrush or other shrubs would also improve habitat for sage-grouse. SS-CA-MA-11 provided for the management of shrublands in a landscape context to ensure seasonal habitat needs are met for sage-grouse and other sagebrush obligates. LG-CA-MA-4 allows season of use changes to be made when warranted. LG-VI-MA-8 addressed livestock grazing in sage-grouse habitat.
Special Status Wildlife	There is no plan to conserve sage-grouse in Alternative IV. The livestock grazing section conserves all or nearly all animal unit months and perhaps even imposes more use through Temporary Non-renewable Authorizations, or by classifying areas as grasslands following rehabilitation or restoration.	In Alternative VI (Proposed RMP), management actions in the *Upland Vegetation, Riparian Areas and Wetlands*, and *Special Status Species* sections identify actions that will benefit sage-grouse habitat and indirectly populations. Additionally, allocations and management actions for resource uses in the *Land Use Authorizations, Livestock Grazing, Leasable Minerals,* and *Salable Minerals* sections also identify management actions allowing effective regulation of these authorized uses to maintain or enhance resource values, including sage-grouse. The BLM guidelines for sage-grouse habitat management considered recommendation in the following sources: Sage-grouse Advisory Committee 2006 Conservation Plan for the Greater Sage-grouse in Idaho and Jarbidge Local Working Group Sage-grouse Plans. The classification of areas without shrubs as grasslands is appropriate since they no longer have a substantive shrub

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		overstory. Alternative VI includes the identification of sage-grouse management area in accordance with current BLM guidance. This places additional management consideration for a number of land uses.
Special Status Wildlife	There are no components of Alternative IV that will clearly and effectively conserve sage-grouse habitats and populations.	Chapter 2 of the Final EIS contained numerous management actions to conserve sage-grouse habitats including: restoring habitat to enlarge and connect present islands of sagebrush habitat; increasing forbs in sagebrush habitat, making key habitat a critical suppression priority, and restrictions in land use authorizations, leasable and salable minerals, and livestock grazing.
Special Status Wildlife	On p. 2-141, what does variety of vegetation types mean? Sage-grouse are present and they need 9 inches of residual cover and abundant structurally complex sagebrush, and an absence of cheatgrass.	In the Draft RMP/EIS, management action LG-IV-MA-10 states "Manage livestock grazing to provide a variety of residual cover heights to meet the needs of ground nesting birds." This acknowledges that not all grassland bird species prefer taller grass habitats. Based on comments, the Final EIS did not include that management action. Regarding the 9-inch grass herbaceous height standard for sage-grouse, Connelly and others (2000), Connelly and others (2004; pp. 4-5) and Connelly and others (2011b; p. 74) noted successful nests had taller grass (7 inches [18 cm], not 9 inches) than unsuccessful nests.
Special Status Wildlife	Reference to a 6-inch residual cover is buried in the midst of best management practices at p. A-81, and there is no requirement that even this inadequate measure be applied to all sage-grouse habitats and to recover seeded areas.	Residual cover measured at sage-grouse nests in most studies usually occurred after the nest failed or the eggs hatched. Grasses actively grow during the nesting period. Retaining 6 inches of residual cover following grazing from late summer through winter should provide the 7 or more inches of residual cover for nesting the next spring. Residual cover is one of the tools that could be considered for sage-grouse nesting habitat during permit renewal.
Special Status Wildlife	On p. 4-404, Alternative II applies sage-grouse standards to "allotments with greater than 50% native plant communities". This is a non-starter as is this entire alternative. Alternative II is not a valid alternative for an RMP in the context of the woefully altered planning area landscape.	Alternative II was included in the Final EIS based on comments wanting commercial uses emphasized in the planning area. Alternative II also assists the BLM in establishing the range of alternatives. BLM received comments supporting all or aspects of the Alternative II.
Special Status Wildlife	On p. 4-405 in Alternative III, BLM claims (based on fire and resource objectives) impacts would be the same as Alternative I. The No Action Alternative, similar to Alternative I, has been a	Draft RMP/EIS stated “The overall effects of estimated utilization levels at 30% to 40% to achieve fire and resource objectives in Alternative III would be *similar* to Alternative I.” It does not state

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	complete and utter disaster in preventing fires.	Alternative III is the same or similar to the No Action Alternative. Monitoring over the past few years indicate comparatively low utilization levels on grass (fine fuels) in many pastures under the No Action Alternative. This is one factor contributing to fire.
Special Status Wildlife	The BLM cannot arbitrarily segregate endangered Bruneau dunes tiger beetles into a different sensitive species category. This is another attempt at segregation to avoid addressing impacts of commodity industrial uses on species. It is counter to requirements for conserving native wildlife violates Federal Land and Policy Management Act, and the Fundamentals of Rangeland Health.	Bruneau Dunes tiger beetle was identified as a BLM sensitive species (Table 3-27 in the Draft RMP/EIS) and was identified as a sensitive species in the Final EIS. Idaho BLM adopted type categories for sensitive species in coordination with the Idaho Department of Fish and Game over a decade ago. Although the Bruneau Dunes tiger beetle was not specifically mentioned, SS-CA-MA-13 provided for the protection and restoration of sensitive species habitat including the Bruneau Dunes tiger beetle.
Special Status Wildlife	Several recent papers by Fothergill and others demonstrate the extreme rarity and imperilment of the Bruneau dunes tiger beetles.	Although one author (Fothergill) was mentioned, no specific citation(s) were provided for Fothergill and others. Using Google Scholar, the BLM found the following articles: Fothergill (2010), which reported observed mating behavior of the Bruneau Dune tiger beetle, *Cicindela waynei*; and Goldberg and others (2012) which researched mitochondrial DNA that supported the species status for the Bruneau Dunes tiger beetle. Neither article assessed rarity or imperilment of Bruneau Dunes tiger beetle.
Special Status Wildlife	On p. 4-245, BLM elevates big game to special mention but does not do the same for sage-grouse? Why?	Big game and their habitat were identified issues by the public during scoping, as was sage-grouse. The Final EIS mentioned sage-grouse numerous times. Sage-grouse serve as the umbrella for the sagebrush group. Additional management direction for sage-grouse was developed since the printing of the Draft RMP/EIS and was incorporated into the Alternative VI (Proposed RMP) in the Final EIS.
Special Status Wildlife	On p. 3-44, the BLM underplays the crisis facing sage-grouse and sagebrush species. "Between 1983 and 2006, active leks ... declined from 152 to 39 due to habitat change". What are the numbers of birds on the remaining leks? How are they dispersed spatially?	The Final EIS revised Chapter 3 to include information on sage-grouse counts per lek on lek routes. Because not all leks are counted annually, similar data are not available for all leks. A new map was included in the Final EIS, Map 25 “Sage-Grouse Habitat” which depicts the locations of sage-grouse leks and key habitat in the planning area, and the sage-grouse management area.

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Special Status Wildlife	How can the BLM maximize the security of lekking, nesting, brood rearing and wintering sage-grouse? The Draft RMP/EIS and its alternatives simply do not answer this question. And this cannot be answered until BLM does what the Settlement Agreement requires it to do - conduct a detailed site-specific analysis of the current habitat conditions and population status of sage-grouse across the planning area - taking into full account the degree and severity of losses and degradation across the Field Office and surrounding lands as well as severe losses in other portions of the biome. Then it must develop effective conservation.	The NEPA does not require maximum protection or development for any resource. However, NEPA does require disclosure. Chapter 2 presented a variety of allocations and management actions for the various alternatives. Chapter 3 in the Final EIS provided information on the amount of sage-grouse habitat, sage-grouse leks and their status. The Final EIS incorporated sage-grouse habitat in the analysis. Chapter 4 addressed impacts of various resource uses for the Alternatives in the Final EIS. The cumulative impacts area for sage-grouse extends well past the planning area boundary.
Special Status Wildlife	In the *Special Status Species* Guilds section of Chapter 3, the BLM devotes a single paragraph to sage-grouse. This serves as no basis for conducting a valid analysis of any of the alterative, or for understanding threats, developing a viable plan to conserve the species, etc. The section on Habitat Fragmentation (p. 3-48) is minimal. There is no current science applied on the severity of losses to persistence of a viable population. It provides no overlay of all the threats tied to the land areas of the planning area so that proper sage-grouse conservation planning and alterative development can occur.	The Final EIS revised Chapter 3 to include more information concerning special status species in wildlife habitat groups. The Final EIS revised the analysis in the *Special Status Wildlife* section of Chapter 4.
Special Status Wildlife	BLM must radically revise its analysis of sage-grouse and all rare and declining species, and develop a range of alternative that would honestly act to conserve sage-grouse and other wildlife, rare plants, aquatic species, recreational uses, clean air and clean water, and other values of the public lands.	The BLM developed alternatives based on comments received during scoping. General themes included maintaining traditional uses, increasing commercial uses, reducing wildfire, a focus on active restoration of native vegetation, and a focus on passive recovery coupled with reduced commodity use. The alternatives create a range that was analyzed in the Draft RMP/EIS. Alternative VI (Proposed RMP) contained aspects of some of the alternatives and adds additional management actions to benefit sage-grouse.
Special Status Wildlife	The key sage-grouse habitat map (Map 21 in the Draft RMP/EIS) is inaccurate. BLM refuses to provide mapping of all key sage-grouse habitat in important land areas grazed by permittees.	The Final EIS updated the sage-grouse habitat map (Map 25) to include key sage-grouse habitat and leks.
Special Status Wildlife	The BLM does not define a sage-grouse lek radius. We assume the BLM is using a greatly inadequate two-mile distance. Current science suggests wind and other energy developments should be located 5 miles or more from leks. In the case of the planning area, where grouse are known to	The Final EIS analyzed different development lek buffer distances in the range of alternatives. A 5-mile buffer was included in Alternative V, whereas the No Action Alternative had a 2-mile radius and Alternative II included a 1-mile buffer distance from leks for the placement of new communications

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	move over large distances to nest and fulfill their seasonal needs, the entire area of the Sagebrush Sea Area of Critical Environmental Concern must be off-limits to wind development. There is no alternative that examines this.	towers, meteorological towers, and wind turbines. Alternative VI (Proposed RMP) refined areas available to energy development as areas outside sage-grouse management area and 4 miles.
Special Status Wildlife	The BLM also fails to provide a large context for its very high fence densities, roads and water developments, and many other sources of habitat disturbance that sage-grouse and other wildlife populations face.	The Final EIS updated the *Special Status Species* sections in Chapter 3 and 4. The cumulative impacts analysis in the *Special Status Wildlife* section in Chapter 4 included fence density, route density, and other infrastructure to the extent the information was available for bighorn sheep and sage-grouse cumulative impacts analysis areas.
Special Status Wildlife	We could find no on-line Nevada Forest or the BLM fence layer - but Idaho BLM must obtain this information from sister agencies so the fence Footprint on sage-grouse, antelope, migratory bird and other populations over a broader landscape can be understood.	The Final EIS revised the cumulative impacts to include fences on National Forest lands for sage-grouse and other wild species to the extent the information was provided or available.
Special Status Wildlife	What is the current direct, indirect and cumulative footprint of fragmentation and facilities that the Jarbidge grouse population faces?	The Final EIS analyzed the direct, indirect, and cumulative impacts of habitat alternation (wildfire), facilities, routes, transmission lines, and fences on sage-grouse and other wild species to the extent the information was available.
Special Status Wildlife	We recommend the Final EIS reflect the status of the Greater sage-grouse as a candidate species.	The Final EIS presented the updated Greater sage-grouse to Candidate status.
Special Status Wildlife	We recommend that program-specific land use plan level conservation measures be identified in the Final EIS, and that they be addressed within the section 7 conference process.	Alternative VI (Proposed RMP) in Chapter 2 of the Final EIS contains additional management actions (conservation measures) to protect sage-grouse habitat for land use authorizations, leasable and salable minerals, wildland fire, and livestock grazing. Specific conservation measures are given in Appendix E: Conservation Measures. BLM will enter Section 7 consultation with the US Fish and Wildlife Service on the final plan to be implemented prior to the signing of the Record Of Decision.
Special Status Wildlife	Alternative IV proposes designating the Jarbidge Foothills Area of Critical Environmental Concern (ACEC) for the conservation of special status species, including the Greater sage-grouse. The proposed Jarbidge Foothills ACEC boundary contains important habitat for lekking, nesting, wintering, and migratory Greater sage-grouse. The proposed larger boundary area Jarbidge Foothills ACEC contains almost twice the acreage of key sage-grouse habitat as the smaller boundary area ACEC (90,000 acres and 47,000 acres, respectively); and thus,	The Jarbidge Foothill Area of Critical Environmental Concern (ACEC) was not included in Alternative VI (Proposed RMP) because prescribed management, additional management actions, and restrictions (including key sage-grouse habitat) negated the need for special management as an ACEC. Spotted frogs in Rocky Canyon receive additional protection as a Wild and Scenic River segment and as a Type 1 sensitive species.

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	provides greater conservation value for the species.	
Special Status Wildlife	Although no longer included on the list of threatened and endangered species in the lower 48 states pursuant to the Act as of August 7, 2007, the bald eagle continues to be Federally protected under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. We encourage the Bureau to incorporate land use plan level conservation measures for both the bald eagle and the golden eagle into the Final EIS to ensure conservation needs for these species are adequately addressed.	Alternative VI (Proposed RMP) in the Final EIS contained an updated management action specific to eagles including a nest buffer (WI-CA-MA-5). The project proponent would develop an Eagle Conservation Plan and Avian Protection Plan in coordination with and approval of the US Fish and Wildlife Service. BLM does not develop or approve either plan. Design features from the Records of Decision for the Implementation of a Wind Energy Development Program and Associated Land Use Plan Documents (BLM, 2005) and the Solar Energy Development in 6 Southwestern States (BLM and DOE, 2012) Records of Decision were adopted for projects regarding siting, data collection prior to development for bats, raptors, and songbirds and other species, data collection during all seasons and post development monitoring needed for adaptive management to reduce impacts for raptors, bats, and songbirds.
Special Status Wildlife	BLM has failed to develop a realistic plan for the future to minimize noise and all other disturbances to sage-grouse.	Alternative VI (Proposed RMP) in Chapter 2 of the Final EIS contains management actions that directly and indirectly address noise or disturbances. LA-VI-MA-1 and SS-CA-MA-10 includes seasonal restrictions on construction and maintenance in sage-grouse habitat, LE-VI-MA-1 has seasonal restrictions during the spring for sage-grouse, SA-CA-MA-1 provided mitigation to avoid impacts to special status species and their habitat. REC-CA-MA-2 provided for imposing restriction to minimize impacts to fish and wildlife during important seasonal periods.
Special Status Wildlife	Please enter this scientific information on noise impacts into the record for the Draft RMP/EIS: The Impacts of Energy Development Noise on Breeding Greater Sage-Grouse Jessica Blickley, UC Davis, Evolution and Ecology 3:10 to 4:00 p.m. – 1003 Kemper Hall.	The referred document was an abstract printed in the Journal of the Acoustical Society of America regarding a conference. The BLM used Blickley and others (2012) “Experimental evidence for the effects of chronic anthropogenic noise on abundance of Greater sage-grouse at leks regarding noise” from *Conservation Biology,* a peer-reviewed journal. The Final EIS revised Chapter 4 with respect to noise in cumulative impacts analysis in the *Special Status Wildlife* section.
Special Status Wildlife	Please incorporate this information into the Draft RMP/EIS analysis: Sage Grouse 2011 Southwest Intertie Project Western Ecological Research Center Projects (USGS, 2011).	The referred to information was not available at the time the Draft RMP/EIS was prepared. The information is preliminary and briefly summarized and not peer reviewed.
Special Status Wildlife	Please incorporate this information into the Draft RMP/EIS analysis: Sage-grouse 2011 nesting rabbit brush Western Ecological Research Center Projects (USGS, 2011).	The information was not available at the time the Draft RMP/EIS was prepared. The information posted on the US Geological Survey Western Ecological Research Center web page for the

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		Southwest Intertie Project is preliminary, briefly summarized and not peer reviewed. Connelly and others (2011a, 2011b) in the peer reviewed Studies in Avian Biology No. 38 also included information regarding sage-grouse use of shrubs other than sagebrush for nesting. The Final EIS used this reference in Chapter 3 and Chapter 4.
Transportation and Travel	Why do you feel it is necessary to focus different areas Travel Management Areas (TMAs) for different types of use? Many of the TMAs do not have transportation as a focus; rather they focus on big game or sage-grouse habitat. Are these being used as ways to reduce motorized access? In addition, TMAs should not include portions of Owyhee and Twin Falls Counties together as Omnibus Public Land Management Act of 2009 has already set regulations on Owyhee county that do not apply to Twin Falls county.	The seven alternatives considered in the Final EIS provide a reasonable range of alternatives for Travel Management Areas (TMAs) within the planning area. Creation of the TMAs was to help with the manageability and area specific travel issues of the planning area. Some TMAs will have less controversy from an access and use standpoint while others will need a higher-level of public involvement and special resource considerations. The travel planning process will develop the designation of roads and trails for each of the TMAs.
Transportation and Travel	There is a significant need for youth motorized loops. Youth loops would include a small area of several acres, either contained by fencing or clearly marked boundary, with short, tight trail system that is designed to entertain kids under adult supervision. We request that this important need be adequately addressed in the preferred alternative.	Building a set of trails specifically benefiting one group is beyond the scope of this planning effort. Subsequent implementation projects for Special Recreation Management Areas and Extensive Recreation Management Areas will analyze opportunities for various recreation activities and experiences.
Transportation and Travel	Develop a national mapping standard for travel planning actions starting with the proposed action in order to address this inadequacy and the environmental justice issue associated with it.	The BLM will use various plans, manuals, handbooks, and technical references to develop the Jarbidge Travel Management Plan, such as the BLM Travel and Transportation Manual (1626); Travel and Transportation Management Handbook (H-8342-1); Planning and Conducting Route Inventories (BLM Technical Reference 9113-1); and Roads and Trails Terminology (BLM Technical Note 422).
Transportation and Travel	A reasonable travel management alternative would maintain existing travel ways that provide motorized recreationists with a system of loops and destinations. The preferred alternative should provide access to motorized looped trail systems, spurs for exploration and destinations, and motorized access to areas located outside the project area.	The Final EIS presented a reasonable range of alternatives, included having 25% of the planning area open to cross-country motorized travel (No Action Alternative) to various-sized limited and closed areas. The travel planning process will designate the travel system for the planning area.
Transportation and Travel	The BLM must produce a travel plan that specifically designates roads, trails and areas for motorized use, including what type of vehicles will be allowed on which routes and if seasonal restrictions apply. This plan should also include all trail uses, including mountain bike, equestrian and hiking.	The travel management planning process will consider and address a reasonable range of various modes of travel on designated routes and trails. These modes of travel will be motorized and non-motorized.

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	Sharing of single-track trails between motorized and non-motorized users is a strategy that should be considered.	
Transportation and Travel	Do not allow vehicular intrusions for the purposes of racing in the Herd Management Area.	All alternatives, except Alternative II and the No Action Alternative, would not allow or would limit commercial Special Recreation Permits in the Herd Management Area. Special Recreation Permits would be required for motorized vehicle racing.
Transportation and Travel	In Chapter 2.4.3, please provide a transportation and travel system that facilitates multiple use, with an emphasis on recreation, livestock grazing, wind energy development, all while minimizing perceived and real impacts to big game habitats.	The *Transportation and Travel* section (section 2.4.3) in the Draft RMP/EIS included the goal “Manage and provide for motorized, non-motorized, and non-mechanized access that would balance resource protection and use” for all action alternatives. The objective for Alternative II in both the Draft RMP/EIS and the Final EIS is to provide a transportation and travel system to facilitate multiple use with an emphasis on commercial use and minimizing impacts on native vegetation. This objective was developed because Alternative II focused on increasing commercial uses.
Transportation and Travel	BLM must allow permittee access for grazing management and administration purposes. Every alternative must contain this consideration. Reword TR-I-A-2 on p. 2-158 to remove "non-Wilderness Study Area lands managed for their wilderness characteristics" for the reason addressed above.	Alternatives I-IV and Alternative VI (Proposed RMP) have management actions authorizing administrative access. Alternative VI does not propose to not manage Lands with Wilderness Characteristics to maintain wilderness characteristics (WC-VI-G- 1).
Transportation and Travel	The preferred alternative does not allow game retrieval off designated routes. Alternative II allows it, except in areas closed to motor vehicles and Wilderness Study Areas. We urge the adoption of TR-II-MA-3 rather than Alternative IV language. We recognize there will be locations and conditions where Alternative TR-II-MA-3 may not be appropriate. The Travel Management Plan must address these concerns.	Allowing exceptions for cross-country travel would likely create a compliance situation, which would negate the point of having a designated travel and transportation system. Allowances for people to travel an arbitrary distance off of motorized routes to retrieve game makes it difficult for law enforcement officials to protect against resource damage.
Transportation and Travel	The BLM should define the phrase "during fire restrictions."	Fire restrictions are administrative restrictions due to the high risk of fire starts or numerous fires or public safety issues associated with a wildfire. The restrictions are short-term restrictions on activities or access which could contribute to fires or impair public safety.
Transportation and Travel	In TR-IV-MA-7 and TR-V-MA-7, the BLM should clarify if the restrictions in the Jarbidge Foothills Travel Management Area in Alternatives IV and V are directly associated with Area of	Specific management focus for Travel Management Areas is consistent with management objectives for all action alternatives in the Final EIS. Designation of routes in established Areas of

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	Critical Environmental Concern designations and associated land use management in Alternatives IV and V.	Critical Environmental Concern will occur through the travel planning process.
Transportation and Travel	The motorized closure trend has created significant cumulative effects and has reached the point where it is causing severe public distress. Reasonable alternatives to motorized closures must be pursued. This trend towards massive motorized closures is not responsible to the public's needs for motorized access and recreation and is contrary to the multiple-use management directives specified by congress. Any significant closing of motorized routes in the project area does not meet the basic requirement of the NEPA act of 1969 as stated in "Sec. 101 (b) (5) achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities".	The Final EIS analyzed a reasonable range of alternatives, as well as a cumulative impact analysis for motorized and non-motorized recreation in the *Transportation and Travel* section of Chapter 4. Alternative VI (Proposed RMP) allocates areas that are open, limited to designated trails, or closed to motorized use. Travel management planning will determine the actual designation of roads and trails upon completion of the Final EIS.
Transportation and Travel	BLM workers and permittees need a well-maintained roadway system for management. For firefighting, a well-maintained system would provide both a fire line for firefighting and access by BLM firefighters.	Road improvements for fire suppression were included in the range of alternatives with Alternative III having the largest amount of road improvements and maintenance for fire suppression activities. The travel planning process will designate roads and trails.
Transportation and Travel	Incorporate roads along the Jarbidge River into the management plan so that needed bank stabilization and channel work can be done under routine maintenance and not need special approvals for each incident.	These projects will require implementation level analysis. Road management agreements will include routine maintenance (TR-CA-MA-4).
Transportation and Travel	Any final RMP should ensure that pre-existing rights and practices are protected within the newly designated Wilderness areas. The Draft RMP/EIS did not deal with implications of the recently designated wilderness; we still wish to note our comment thereto beyond what we previously shared on June 19, 2009 and November 25, 2009. We acquired the right under ordinary and customary practices within Owyhee County to use pickups and all-terrain vehicles both on and off road to check livestock and move them.	The Owyhee Canyonlands Wilderness and Wild and Scenic Rivers Management Plan will address grazing management and travel associated with grazing facilities inside wilderness. The travel management planning process will address travel outside the wilderness.
Transportation and Travel	We oppose road closings in Multiple Use Areas 10 and 14 as depicted in Map 4 of the Draft RMP/EIS. We agree that all travel should be restricted to existing roads.	Omnibus Public Land Management Act of 2009 closed roads in the designated wilderness area (Bruneau-Jarbidge Rivers Wilderness), which is contained in Multiple Use Area (MUA) 10. Due to terrain, the Salmon Falls Creek Area of Critical Environmental Concern and Wilderness Study Area in MUA 14 have no inventoried roads contained within their boundaries (rim to rim).

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Transportation and Travel	On p. 2-159, TR-I-MA-7, regarding the Jarbidge Foothills, closing this area to motorized traffic is discriminating against hunters who need access for pickup and drop-off of hunters. It is also discriminating the person who is handicapped. You are proposing to close off another 137,000 acres to sportsmen.	Limiting the amount of motorized travel in the Jarbidge Foothills Travel Management Area (TMA) was included in the range of alternatives analyzed in the Final EIS. Closing the Jarbidge Foothills TMA to motorized travel is not included in Alternative VI (Proposed RMP). TR-VI-MA- 7 states: "Jarbidge Foothills TMA (135,000 acres): Focus on increasing core habitat size for sage-grouse and big game, while providing for motorized and non-motorized recreation experiences."
Transportation and Travel	We are opposed to any more road closings, especially the areas between the Jarbidge and Bruneau canyons and the Salmon Falls Area of Critical Environmental Concern. You are proposing to close prime hunting areas to hunters.	No Alternatives in the Final FIS close hunting management units.
Transportation and Travel	We suggest the following objective be common to all alternatives: Provide a travel and transportation system that is flexible enough to compliment multiple use, while addressing area specific challenges.	The Final EIS revised TR-VI-O-1 to provide more flexibility “Provide a transportation and travel system to facilitate habitat restoration, resource protection, and multiple use.”
Transportation and Travel	We suggest the following management action be common to all alternatives: TR-I-MA-6 (modified) Identify locations for and install gates and cattle guards on designated routes to minimize conflicts between grazing operations and motorized activities.	Alternative VI (Proposed RMP) states: “Install gates and cattle guards along designated routes to minimize conflicts between transportation-related activities and livestock grazing operations” (TR-VI-MA-6).
Transportation and Travel	Based on the map provided we cannot tell if Black Rock crossing is closed to motorized traffic. It appears open to motorized traffic but Idaho Department of Fish and Game recommends further clarification because the scale of the map does not provide sufficient clarity for review.	The Final EIS allocates Black Rock Crossing as limited to designated routes. See Map 78 "Travel Designations in Alternative VI (Proposed RMP)."
Transportation and Travel	Omnibus Public Land Management Act of 2009 (OPLMA) requires the BLM to complete travel planning before March 2012. Management action TRC-MA-5 states, "Complete a Comprehensive Transportation and Travel Management Plan (CTTMP) within 5 years of the signing of the Record Of Decision". This management action is inconsistent with OPLMA. The BLM should start travel planning immediately after the signing of the Record of Decision.	The BLM is aware of the timeline for travel management planning contained in Omnibus Public Land Management Act of 2009.
Transportation and Travel	The Canyonlands Travel Management Area (TMA) does not provide for public access. This TMA has jeep roads that provide a critical linking opportunity for motorcyclists and all-terrain vehicle riders looking to connect with Murphy Hot Springs and Jarbidge NV from the west. The TMA should be	The Final EIS presents a range of Travel Management Areas (TMAs) designations and management. Alternative VI (Proposed RMP) allows for motorized and non-motorized opportunities in the Canyonlands TMA (188,000 acres).

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	amended to provide public access.	
Transportation and Travel	Alternative IV would manage a couple of smaller open areas for motorized recreation, however Alternative IV will reduce motorized route opportunities by increasing core habitat size for wildlife. These effects should be documented in the Final EIS.	Chapter 4, *Transportation and Travel* section of the Final EIS discussed the effects of increasing core habitat size for wildlife on route density and location.
Transportation and Travel	Idaho Department of Lands (IDL) fully supports the BLM initiative to develop a Travel Management Plan with the understanding that approval by IDL is required for locating trails and roads on State Endowment Trust Lands.	The travel management process includes public input on the Travel Management Plan for the planning area. The involvement will be collaborative by incorporating internal and external input from agencies, communities, and interest groups.
Transportation and Travel	The Resource Advisory Council unanimously supports replacing TR-IV-MA-7 with a modified TR-II-MA-6.	The Final EIS analyzed a reasonable range of alternatives addressing transportation and travel. The Travel Management Area (TMA) definition in the BLM Travel and Transportation Manual 1626 states that TMAs can be used to separate specific areas from the larger planning area for a variety of reasons, such as the area's complexity or level of controversy, the need for higher level of public involvement, the consideration of special resource characteristics, or the improved manageability of the area. Between the signing of the Record Of Decision and the development of the travel management plan, site-specific resources or resource use situations could dictate some modification of the TMAs consistent with objectives in the RMP.
Transportation and Travel	A majority of the Resource Advisory Council supports removing TR-CA-MA-8, and replacing it with, “Route designation shall recognize that off-highway vehicle (OHV) travel on public lands is a legitimate use of these lands consistent with other values and resource considerations is not merely a feel-good phrase but an imperative. Adequate, varied and desirable OHV recreation opportunity is not to be offered only after all other competing interests have been satisfied, but as an integral part of the total output of the planning area. Route designations will be reviewed annually with public participation to meet changing needs and conditions. The authorized officer, throughout the life of the plan, shall seek and encourage assistance from interested parties, including OHV groups, to resolve localized resource issues including the use of volunteer labor whenever practical.”	The Final EIS analyzed a reasonable range of alternatives addressing transportation and travel. Alternative VI (the Proposed RMP) in the Final EIS does not include TR-CA-MA-8.

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Transportation and Travel	The RMP provides no baseline numbers on road densities, and no specific goals, objectives and management actions for removing miles of roads, or binding requirement to reduce road densities in important habitat areas to conserve wildlife.	The Final EIS provides maps of allotment facilities (Map 51 “Range Infrastructure”) and existing roads (Map 71 “Travel Routes as of 2011”). The travel management planning process uses a public procedure to determine the transportation and travel system for the planning area. The Travel Management Plan will determine the routes and trails to be designated, modified, closed, or rehabilitated as well as the maintenance level, modes of travel, and seasonal and access restrictions for designated routes.
Transportation and Travel	The issue of failing to clearly identify facilities (or at least a percentage of them) for removal is linked to BLM's ability to develop an appropriate travel planning process and lay a framework in the RMP. BLM must layout in the RMP targeted pipelines, troughs, and fencing for removal so that unnecessary roads can be removed and high road densities reduced to provide habitat security and limit human infusion, reduce or limit weed spread, decrease sage-grouse predator travel corridors, and provide many other habitat security benefits. These unnecessary roads can then be closed in the Travel Plan and slated for de-commissioning and rehabilitation.	The NEPA analysis that accompanies the Travel Management Plan would include, at a minimum, cumulative impacts assessments of road density and fragmentation of sage-grouse habitat. Alternative VI (Proposed RMP) proposes Transportation and Travel management actions specific to wildlife include: TR-CA-MA- 2, TR-CA-MA- 3, and TR-CA-MA- 6., In reference to fencing and range infrastructure see WI-CA-MA- 4, LG-CA-MA-13, LG-CA-MA-14, and LG-CA-MA- 16.
Transportation and Travel	Page 4-639 of the Draft RMP/EIS has phrasing that indicates BLM foresees increased recreational use. Yet BLM elsewhere claimed in some of the most important wild recreation areas there would not be an increase. How do you explain this contradiction?	The Final EIS does indicate that BLM foresees an increase in recreation when considering the planning area as a whole. These increases will take place in localized areas.
Transportation and Travel	BLM must greatly restrict snowmobile use in sage-grouse, big game and other habitats. These areas should be closed to snowmobile use. Snowmobiles must be restricted to roads. Not only is wildlife disturbed, shrubs may be broken off and crushed. Pygmy rabbit snow burrows may be collapsed.	The Final EIS does not analyze snowmobile use due to the marginal snowpack associated with the planning area and low use numbers. Further analysis of this use will be determined during the travel planning process.
Transportation and Travel	Page 4-646 of the Draft RMP/EIS refers to Alternative V, but this appears to be the Alternative IV section.	The Final EIS corrected the typographical error, found in Chapter 4 Transportation and Travel section.
Transportation and Travel	BLM must provide detailed analysis of the role of livestock infrastructure and management actions in expanding the road network within the planning area. Alternative V does not adequately layout a plan to close roads associated with livestock facilities, supplement artificial feeding, etc. in lands where grazing would not occur. Plus, it does not identify a protocol for terminating unnecessary roads in grazed areas if	The Final EIS Chapter 3 *Transportation and Travel* section presents the current condition of the road network within the planning area. The Travel Management Plan will determine the routes and trails to be designated, modified, closed, or rehabilitated as well as the maintenance level, modes of travel, and seasonal and access restrictions for designated routes. The permit renewal process will identify specific tools to for resource

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	ranchers were required to rely more on horses and herding to distribute livestock rather than fences and supplements.	protection on an allotment-specific basis.
Transportation and Travel	How does the road network in the planning area compare with that present in 1987?	Section 202(c) of Federal Land Policy and Management Act of 1976 lists the requirements of the BLM in developing RMPs. These requirements do not include comparing the current affected environment with the affected environment from the old RMP.
Transportation and Travel	There is nothing in the various development actions components to Alternative IV that prohibits new or expanded roads across nearly the entire Jarbidge Field Office.	The Travel Management Plan will determine the routes and trails to be designated, modified, closed, or rehabilitated as well as the maintenance level, modes of travel, and season and access restrictions for designated routes.
Transportation and Travel	BLM should develop a series of alternatives with specific goals for reduction of road densities in important areas and critical habitats, and layout a specific decision making process and time-frame to do so.	RMPs guide future management actions and subsequent site-specific implementation decisions. RMPs establish goals and objectives for resource management and the measures needed to achieve these goals. The Travel Management Plan will address road densities in support of the goals and objectives in the Approved RMP.
Transportation and Travel	BLM does not have management responsibility for Travel Designations on Saylor Creek Range and Juniper Butte Range. All roads within the exclusive use area on Saylor Creek Range and roads within Juniper Butte Range are unavailable as travel routes.	Decisions made in the Travel Management Plan will be limited to management of roads and trails on BLM-managed lands. Travel Designation maps (Maps 72-78) in the Final EIS depicts allocations related to travel and does not designate routes.
Transportation and Travel	Off-highway vehicles (OHVs) should not be allowed or greatly restricted in the planning area. If they are allowed, than the area open to their use should be small and limit the type of OHVs to less polluting 4-stroke models with noise muffling.	The Final EIS analyzed a reasonable range of alternatives. Alternative VI (Proposed RMP) would designate 4,000 acres within the Deadman and Yahoo Special Recreation Management Areas as open to cross-country motorized vehicle use. The Bruneau-Jarbidge Rivers Wilderness, Salmon Falls Creek Area of Critical Environmental Concern, and Lower Salmon Falls Creek Wilderness Study Area would be closed to all motorized vehicle use. Travel would be limited to designated routes in the remainder of the planning area. Current BLM policy does not limit model types of off-highway vehicles allowed on BLM-managed lands.
Transportation and Travel	Off-road vehicle use impacts wilderness areas immediately and for many years, so I would prefer that cross-country travel of off-highway vehicles be reserved for non-wilderness areas.	The Bruneau-Jarbidge Rivers Wilderness is closed to all motorized and mechanized vehicle use.
Transportation and Travel	Consequences for those who ride illegally in undesignated areas must also be enforced, this is an essential part of what you legislate because many off-road vehicle riders have a	Consequences for those illegally riding in undesignated areas are beyond the scope of this planning effort.

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	sense of entitlement regarding where they ride.	
Tribal Rights and Interests	Revise TI-CA-G-1 as follows to include the BLM's obligations to tribes beyond applicable treaty rights: "Manage public lands to protect resources and values associated with Native Americans as established by Federal statutes, regulations, government trust responsibilities, and, if applicable, treaty rights." Revise TI-CA-G-2 as follows to include protection of sacred sites and other cultural resources: "Manage and protect natural and cultural resources, including traditional cultural properties and sacred sites, of importance to the tribes consistent with the BLM's statutory obligations and general trust responsibilities in a manner respective of tribal beliefs, traditions, and values."	The first Goal and Objective under *Tribal Rights and Interests* in both the Draft RMP/EIS and the Final EIS applies to treaty rights because they are different from the BLM's obligations under general statutes. The second Goal and Objective applies to BLM's other obligations to the tribes. Between the Draft RMP/EIS and the Final EIS a third Goal and Objective, TI-CA-G-3, was developed. This goal reads, "Protect the physical condition of sacred sites and traditional cultural properties and preserve tribal access to such sites". The Final EIS adequately addressed sacred sites and traditional cultural properties with these goals, objectives, and management action TI-CA-MA-3 which states, "Work collaboratively with the tribes regarding the identification and management of traditional cultural properties".
Tribal Rights and Interests	The very broadly written management action TI-CA-MA-1 should include an iteration of the applicable statutes and authorities with which the BLM must comply. The BLM should consider revising the paragraph as follows: Consult with the Shoshone-Paiute Tribes and Shoshone-Bannock Tribes in accordance with the National Environmental Policy Act, the National Historic Preservation Act, the Archaeological Resources Protection Act, the Native American Graves Protection and Repatriation Act, the American Indian Religious Freedom Act, and Executive Order 13007, as well as BLM policy. Consultation would be an ongoing process between the BLM and the tribes, with the context of general management of public lands and programs, the BLM's general trust responsibilities, and scientific proposals that may affect natural and cultural resources of importance to the tribes.	The Draft RMP/EIS and Final EIS did not cite specific laws, regulations, and policies in the management actions for Tribal Interests due to the potential for change during the life of the plan. BLM is obligated to follow all pertinent statutes, regulations, and executive orders.
Tribal Rights and Interests	Revise management action TI-CA-MA-4 as follows: "Work collaboratively with the tribes to identify, manage, and protect traditional cultural properties".	In response to your comment, the Final EIS revised this management action, now numbered TI-CA-MA-3, to read, "Work collaboratively with the tribes regarding the identification and management of traditional cultural properties."
Tribal Rights and Interests	Revise management action TI-CA-MA-5 as follows to ensure confidentiality of traditional cultural properties: "Provide information to staff, contractors and any project proponent regarding existing and historic use of the Planning Area by the tribes while, when appropriate, maintaining information regarding cultural resources and traditional cultural properties,	The BLM revised this management action, now numbered TI-CA-MA-4, in the Final EIS to read, "Provide general information to staff and contractors regarding existing and historic uses of the planning area by the tribes, Federal government trust responsibilities, and the importance of Native American treaty rights in order to foster a greater understanding and appreciation

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	including inventories, evaluation records, maps, and reports, protected from public disclosure, as necessary to protect the resources."	of tribal rights and interests related to public land management." This management action is intended to enhance appreciation among BLM staff and contract employees for tribal rights and interests regarding public lands. It does not apply to confidential, protected information obtained through consultation or the Section 106 process.
Tribal Rights and Interests	The BLM should revise the last sentence at p. 3-1, second paragraph, as follows: "The relationship between Federal agencies and sovereign tribes is defined by numerous laws and regulations addressing the requirement of Federal agencies to notify and/or consult with Native American tribes…."	Based on the comment the BLM revised the Final EIS as suggested.
Tribal Rights and Interests	Revise the Draft RMP/EIS, Chapter 4, Tribal Rights and Interests section, the second paragraph on p. 4-15 under "Methods and Assumptions" by deleting the last sentence and inserting in its place "Thus, site specific land use authorization impacts will need to be addressed on a case-by-case basis in consultation with tribes."	The suggested revision is not necessary; the first assumption at the bottom of p. 4-15 in the Draft RMP/EIS covers the need to consult on site-specific land use authorizations. This assumption states: "Government-to-government consultation during implementation-level planning would identify and address potential impacts to tribal rights and interests at the project level".
Tribal Rights and Interests	Under the assumptions used when analyzing impacts to tribal rights and interests (p. 4-16 of the Draft RMP/EIS), the BLM should eliminate the last assumption and instead state, "Management actions that result in surface development and disturbance can be mitigated so as to coexist with tribal rights and interests, especially with the incorporation of existing best management practices (BMPs) from the 2005 amendments to the Jarbidge RMP regarding cultural and historical resources." Assume these BMPs in the analysis of cultural impacts with regard to wind energy development.	The assumption in question states: "Management actions that restrict surface development and disturbance generally protect natural and cultural resources associated with tribal rights and interests". Based on years of consultation with the Shoshone-Paiute and Shoshone-Bannock Tribes we feel this is a valid assumption for the planning area. The use of best management practices and mitigation measures may reduce effects to resources of importance to the tribes but rarely would they eliminate them.
Tribal Rights and Interests	Mitigation efforts and best management practices imposed on any project developer through existing amendments to the Jarbidge RMP offset cumulative impacts from wind energy development.	Best management practices and mitigation measures may or may not reduce effects to resources of importance to the tribes. Project specific analyses would assess the effectiveness of such measures.
Tribal Rights and Interests	Alternatives I, III, and IV, p. 4-26 of the Draft RMP/EIS, mislead the reader into believing that restrictions on location of wind energy development on Federal lands could result in more use of suitable state, private or adjacent public lands with fewer restrictions. Delete this sentence because it suggests that wind energy sites can be moved at will to avoid land use restrictions	The statement in question does not distinguish between commercial-scale and smaller wind energy projects. Suitable, in this context, refers to both the wind resource and the specific requirements of the project. If land use allocations restrict project development on "suitable" Federal lands to protect sensitive resources, it is reasonable to assume that development would

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	while still generating sufficient wind energy to be commercially viable. As shown from the wind resource maps included in the Draft RMP/EIS and in our comments above, and through onsite testing, commercial scale wind energy is available in very specific locations in the planning area regardless of the underlying land tenure. It is not possible to move a project to other locations to avoid land use restrictions and still maintain a commercially viable project.	occur on “suitable” but less restrictive non-Federal lands. This is precisely what has occurred in the northern portion of the planning area.
Tribal Rights and Interests	The cumulative impacts from the Alternative II discussion on p. 4-26 of the Draft RMP/EIS assumes that tribal interests could be adversely affected by commercial use or development to accommodate larger scale wind energy projects. This may or may not be true depending on the goals and objectives of the particular tribe with an interest in the area whose rights and interests may, in fact, be advanced by commercial scale wind energy development through a lessening of global warming impacts on tribal resources that are particularly affected by global warming (see Secretarial Order No. 3289A1), by the tribal interest in wind energy development on tribal lands and lessons learned from commercial developments off of tribal lands, from tribal opportunities to participate in monitoring and mitigation efforts associated with wind energy projects, from the energy produced by a wind energy project, and from other benefits to the rights and interests of tribes.	Analysis of project specific mitigation measures is beyond the scope of this planning effort. In general, large-scale developments adversely impact natural and cultural resources of importance to the tribes. In our experience, such projects always involve the development of design features and/or mitigation measures to reduce these impacts. The need for mitigation is evidence of expected impacts.
Upland Vegetation	The Final EIS needs to have more specific current vegetation communities especially sagebrush communities.	Map 10 “2016 Projected Vegetation” in the Final EIS is general and used only for comparison of alternatives. Geographical information system data exists that illustrates vegetation cover by plant community and with a minimum mapping unit of 20 acres. The Final EIS used this data in development of the vegetation baseline and maps.
Upland Vegetation	The priority of this Draft RMP/EIS should be management actions that decrease the frequency of fire, especially in areas that have burned in the past 20 years.	The BLM recognized that reducing the threat of fire was an important consideration in developing the alternatives for the planning area (see Issue 1a in Chapter 1). The Final EIS analyzed fire frequency reduction in the range of alternatives. Alternative III specifically focused on enhancing fire suppression capabilities and had the largest amount of fuels treatments across alternatives.

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Upland Vegetation	The preferred alternative seems to rely on a natural conversion of grassland to shrubland, which over time leads to a decrease in the quantity of fine fuels (grass) as the shrubs become more competitive.	The Final EIS analyzed a range of different restoration strategies. Alternative VI (Proposed RMP) in the *Upland Vegetation* section of Chapter 2 has management actions for active restoration of grassland communities to shrubland communities within each Vegetation Management Area.
Upland Vegetation	In the *Upland Vegetation* section of the Draft RMP/EIS the definition of unvegetated areas is given as, "Unvegetated Areas include breaks, barren areas, sand dunes, and Recent Burn vegetation communities, which may be present for up to two years following a fire." (p. 2-25) Numerous management actions state: "Unvegetated areas would not be a focus for vegetation treatments." Applying this to unvegetated areas, as defined above, will eliminate timely fire rehabilitation efforts across the entire planning area. Without emergency fire rehabilitation, funding it is doubtful that adequate appropriations will be available to complete the vegetation treatment and restoration projects called for in any of the action alternatives. In addition, the presence of many of the sand dunes, in the Northern portion of the planning area, is the result of repeated wildfires and the ebb and flow of drought like conditions. Arbitrarily eliminating restoration on these sites is unacceptable land management when restoration with appropriate fire resistant and drought tolerant vegetation will result in long-term stabilization of the sites.	The Final EIS has separated recent burns from unvegetated areas to add clarity to the document.
Upland Vegetation	Vegetation Management Areas should be to reduce or eliminate acres dominated by annual vegetation to increase the shrub component across the planning area, and where needed increase the amount of perennial grasses and forbs in the understory.	The first management action for each Vegetation Management Area (VMA) within each alternative of the Final EIS focused on reducing annual communities. Other management actions within the *Upland Vegetation* section called for restoring a shrub component and increasing forbs and perennial grasses across VMAs.
Upland Vegetation	All opportunities, priorities, acreages, and focus areas for vegetation treatments and restoration projects should be determined on a case-by-case basis after considering the over-riding objective/goal selected for the upland vegetation resource. Arbitrarily selecting number of acres or percent of a vegetation community to achieve or treat creates unrealistic expectations influenced by numerous external factors over which the local BLM office has no control.	The stated number of acres and percentages for vegetation treatments within the *Upland Vegetation* section helped to create a range of alternatives and provided the reader with a desired outcome based on management. Both a range of alternatives and a statement of desired outcomes are required components of an RMP by the Land Use Planning Handbook. Once an RMP is approved and goals and objectives are established, individual projects will be considered to achieve those goals and objectives.

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Upland Vegetation	During the summer of 2010, site visits to verify vegetation types provided by the BLM, revealed 10 of the 32 sites visited were incorrectly classified. On November 3, 2010, ground-truthing "intact sagebrush" revealed what was classified as Native Shrubland was, in reality, a non-native perennial site with very little sagebrush present. Within the Flat Top Allotment, a significant portion of what is classified as "intact sagebrush" contains a large crested wheatgrass island that was created by a recent bum within an old crested wheatgrass seeding dominated by sagebrush. These examples are illustrative, but not exhaustive, of areas incorrectly classified.	Map 10 “2016 Projected Vegetation” in the Final EIS was developed and validated according to the process outlined in Chapter 3 *Upland Vegetation* of the Final EIS. This mapping effort took place on a large scale and the BLM recognizes that the vegetation on the ground occurs in a mosaic at the small scale and that this causes site-specific discrepancies. These discrepancies do not change the Goals and Objectives or analysis of the Final EIS.
Upland Vegetation	Closely scrutinized Proposed management action to convert non-native perennial vegetation to native shrublands as being highly impractical and extremely cost prohibitive. It is highly unlikely that any successful long-term shrub restoration will occur without first significantly reducing wildfires. Once fire is reduced, shrub restoration can be readily achieved, but as the situation currently exists, repeated wildfire will prevent attainment of shrub restoration goals or restoration to historical Fire Regime Condition Class classifications.	The Final EIS analyzed a range of alternatives that presented multiple ways for reducing fire frequency and size. These management actions can be found in the *Wildland Fire Ecology and Management* section of Chapter 2. Alternative III is the most aggressive alternative for addressing fire.
Upland Vegetation	Automatic exclusion of non-native species in seed mixes is unacceptable and akin to eliminating any other item in a toolbox designed to manage an upland vegetation community. Seed mixes should be determined on a site-specific basis and be based on resource objectives, not the current fad of native species only. Many non-native species are capable of mimicking the structure and function of native species, while providing soil stability and habitat for various animal species. UV-I-MA-27 on page 2-33 of the Draft RMP/EIS is the best management action in regards to seed mixes.	The Final EIS analyzed different restoration strategies among the alternatives. Only Alternative V specified use of native seed only. Alternative VI (Proposed RMP) allowed for the use of native and non-native species in seed mixes.
Upland Vegetation	My second major concern stems from the plans apparent lack of an effective brush control program in the parts of the resource area that remain in solid sagebrush cover. Just as seas of waving grass may not be the best management of the	The range of alternatives analyzed a toolbox of options for vegetation treatments including; chemical, mechanical, targeted grazing, prescribed fire, seeding and planting vegetation, biological treatments, harrowing, and chaining. Alternative VI

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	resource or for wildlife, neither are solid oceans of brush. These areas need to be broken up by mosaic open spaces, created by moderate prescribed burns or mechanical or chemical treatments of the brush. This type of management, while first reducing the areas susceptibility to major wildfires, also creates areas of new forbs and fine grasses for the sage-grouse while still providing them the edge effect and protection from the brush that they need.	(Proposed RMP) would use this toolbox to achieve the Goals and Objectives of which does not specifically exclude brush removal.
Upland Vegetation	Management action UV-CA-G-1 of the Draft RMP/EIS is not clear on how upland vegetation reference areas are determined.	The Final EIS has been updated with Appendix O: Upland and Riparian Area Reference Areas.
Upland Vegetation	Vegetation is one of the least stable resources upon which to base resource decisions. Wildfire and invasive species are capable of transforming sites in a very short period. The Draft RMP/EIS should include specific time commitments to update the map so that as areas change to native vegetation they are excluded from consideration for wind projects.	Alternative VI (Proposed RMP) in the Final EIS does not base the availability of an area for wind projects on vegetation communities as the other alternatives do. Instead Alternative VI states, “Commercial wind and solar energy developments would not be permitted inside the sage-grouse management area.”
Upland Vegetation	Plant fuel breaks and green strips including but not limited to crested wheat and forage kochia.	Chapter 2 of the Final EIS contained management actions for all alternatives in the Upland Vegetation and *Wildland Fire Ecology and Management* sections that addressed vegetation use and fuel breaks. A project specific analysis would analyze specific species composition for fuel breaks.
Upland Vegetation	The vegetation map is incorrect in the Canal Field in the Conover Allotment. The map shows that it is sagebrush with native bluegrass understory, which is incorrect. It actually is a crested wheatgrass understory.	The Final EIS mapped the Canal Field and Conover allotments as Non-native Understory Vegetation Sub-Group. Map 10 “2016 Projected Vegetation” in the Final EIS was developed and validated according to the process outlined in Chapter 3 *Upland Vegetation* of the Final EIS. This mapping effort took place on a large scale and the BLM recognizes that the vegetation on the ground occurs in a mosaic at the small scale and that this causes site-specific discrepancies. These discrepancies do not change the Goals and Objectives or analysis of the Final EIS.
Upland Vegetation	The Draft RMP/EIS identifies a number of “no grazing use” reference areas. Many of these areas are not ideal as they have had high amounts of disturbance or are located in pastures that already contain exclosures. The BLM should rethink where they are placing “no grazing use” reference areas.	The reference areas varied by alternative to produce a range of alternatives. The Final EIS explained the process of selecting reference areas in Appendix O.

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Upland Vegetation	The BLM should re-seed small-stature native species instead of non-native grasses that have been seeded incrementally for livestock and following fires.	The Final EIS analyzed the use of native species in the range of alternatives.
Upland Vegetation	On page 247, in the *Upland Vegetation* section of the Draft RMP/EIS, please clarify what segment of Salmon Falls Creek canyon Objective UV-NA-O-I is referring to.	The Final EIS revised Chapter 2 to provide consistency between the alternatives and clarify the correct segment of Salmon Falls Creek Canyon.
Upland Vegetation	Management action NW-IV-MA-5, of the Draft RMP/EIS, requires the use of certified weed-free forage, seed and straw for all the BLM management activities and allowed uses. The Idaho State Office has already developed rules for this management action. Drop this management action since weed-free forage is already required in the planning area.	The BLM Idaho Policy as of August 20, 2011 is requiring the use of certified weed-free hay, straw and mulch. The BLM kept this as a proposed management action in Alternative VI (Proposed RMP).
Upland Vegetation	Manage sage-grouse habitat at a landscape level to contain both a diversity of species and successional stages, in order to reduce the potential for large and frequent fires.	Alternative VI (Proposed RMP) provided goals in Chapter 2 *Upland Vegetation* that focused on providing habitat for sage-grouse and other sagebrush steppe species and to manage vegetation to restore the ability of the ecosystem to recover following a disturbance and reduce fragmentation of habitat for sage-grouse and other native species.
Upland Vegetation	The vulnerability to fire in this area appears to be linked to the extensive non-native grasses present in this area, and which have been planted to maximize livestock grazing. The BLM appears to be compounding this problem by now proposing to plant non-native forage kochia – essentially a non-native weed -- that will prevent restoration of the range with native forage, including sagebrush.	The BLM recognized fire within the planning area as a large problem. The Final EIS, *Wildland Fire Ecology and Management* section, proposed the use of fuel breaks as part of a toolbox for fuel reduction and to help reduce the size of fires. Depending on the Alternative analyzed, non-native or native seed would be used in the fuel break. For the Alternatives that allowed for the use of non-native seeds this could include forage kochia.
Upland Vegetation	As an overall statement, a comparison of the *Upland Vegetation* Affected Environment (as disclosed at Table 3-7 and Table 3-9, at p. 3-16), of the Draft RMP/EIS, to the desired future vegetation proposed under the preferred alternative (as disclosed at pp. ES-9 and ES-10) indicates that the BLM projects that, in the life of the Plan, Annual vegetation would be reduced by roughly 74,000 acres; Non-native Perennial vegetation (seeding) would be reduced by roughly 188,000 acres; Non-native Understory vegetation (sagebrush over story, seeded understory) would be increased by roughly 68,000 acres (presumably by seeding sagebrush into existing seeding, or a sagebrush/non-native perennial conversion from Annual vegetation), Native Grassland would be reduced by roughly 274,000 acres (presumably by seeding sagebrush into	The BLM understands that budgets could be a limiting factor, as well as concerns related to wildland fire. The BLM will implement management actions as budget, workforce, and other legally binding requirements allow. The analysis for *Upland Vegetation* acknowledged there are logistical issues and challenges for achieving the identified goals and objectives. The Final EIS provided this information in the Methods and Assumptions section of the *Upland Vegetation* analysis in Chapter 4.

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	existing previously-burned areas with native understory), and Native Scrubland would be increased by roughly 470,000 acres. In total, an increase of about 540,000 acres with sagebrush cover would result. This endeavor would require the net successful seeding to sagebrush of 27,000 acres per year, every year, if no other fires occurred. However, the average acreage burned over the past 21-year period has been 66,000 acres per year (p. 3-52 Draft RMP/EIS). Therefore, in order to show a net increase in sagebrush-dominated landscape, it should be reasonably anticipated that an average of 93,000 acres must be successfully seeded to sagebrush, each year, for each of the 20 years of this plan. Assuming a 50% success rate (which is itself optimistic with today's state of the science and art), this would mean that about 150,000 acres would need to be seeded to sagebrush every year, with 150,000 pounds of sagebrush seed purchased, and a financial commitment approaching $750,000 per year, just for the seed (at today's price of $4.65). Obviously, if the success rate is lower than 50%, the endeavor would require higher repeat seeding acreage and higher attendant annual costs. While some of the necessary funding could be expected to come from fire rehabilitation funds, some could not. The Draft RMP/EIS does not adequately disclose these logistical issues and challenges, nor how they will be addressed in a real-world scenario.	
Upland Vegetation	With the state of knowledge and technology that presently exists, the successful conversion of non-native perennial seeding, native perennial grasslands, and annual grasslands to native shrubland with native species, on a landscape-scale of these dimensions, does not appear to be a reasonably attainable and rational expectation.	The BLM is currently working with cooperators to develop materials and techniques for vegetation treatments. The development of plant materials adapted to sites such as those found throughout the planning area is ongoing. The BLM is also working with cooperators to develop techniques to convert non-native vegetation types to native. Techniques and materials for restoration will continue to develop over the life of the plan.
Upland Vegetation	The Draft RMP/EIS Chapter 3 *Upland Vegetation* section, p. 3-12 states: "….vegetation communities were subsequently organized into five classes and six sub-classes (Table 3- 5) according to national standards (Grossman et al., 1998) with the exception of evergreen shrub lands dominated by sagebrush. In the planning area, these communities were	The referenced documents state that 10% sagebrush cover is a recommended minimum for winter sage-grouse (Connelly et al., 2004). Sather-Blair and others (2000) guidelines (Table 1) indicated that 10-14% sagebrush cover is marginal for sage-grouse nesting. However, they note, "However, if a site had suitable habitat conditions for all indicators, except sagebrush

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	defined as having 10% or more shrub cover rather than the national standard of more than 25% shrub cover. This was done to provide consistency with defined habitat needs (Wisdom et al., 2000) and proposed management objectives for Greater sage-grouse (sage-grouse).” This is nearly the same language as used in the Analysis of the Management Situation (AMS). Intermountain Range Consultants commented on this error within the AMS. The Draft RMP/EIS continues the errors of the AMS. Any Final EIS and subsequent decision-making should not do so. Wisdom and others (2000) does not support BLM’s unilateral and universal change to Grossman and others (1998) protocols. The only reference to sage-grouse cover of 10% is found at Wisdom Volume 2, pp. 353 and 354. To the extent that BLM took it upon themselves to (erroneously) infer that 10% sagebrush cover was recommended, such changes should have been applicable at most only to sage-grouse winter habitat.	canopy cover was only 5%, then this site would be unsuitable since sage-grouse must have sagebrush for nesting. Areas with 10% or greater sagebrush cover can meet sage-grouse needs if other indicators are rated suitable." Areas with 10% sagebrush cover can provide both nesting and winter habitat. Mapping areas with 10% sagebrush cover is appropriate.
Upland Vegetation	The *Upland Vegetation* section of the Draft RMP/EIS does not list an understory species for basin big sagebrush or evergreen mountain shrub. These are incomplete descriptions of the vegetation types.	The Final EIS classified vegetation communities into Vegetation Sub-Groups (VSGs). Basin big sagebrush is shown with an understory only when it would put it in a different category from native shrubland. For example, basin big sagebrush/crested is in the Non-Native Understory VSG.
Upland Vegetation	The *Upland Vegetation* section of the Draft RMP/EIS Table 3.5 lists “bluegrass” as the understory dominant cover under Rabbitbrush and Wyoming Big Sagebrush. However, as noted by the Draft RMP/EIS at p. 3-15, bluegrass cover does not equate to production. Nor does “cover” equate to vertical cover or hiding/nesting cover for sage-grouse and other species; however, many such areas mapped as dominated by “bluegrass cover” contain perennial species that do provide other types of “cover” than “ground cover”. The Draft RMP/EIS is wrong in not reporting these distinctions.	The protocol used to determine Vegetation Sub-Groups only represented the dominant vegetation and does not reflect vertical or hiding/nesting cover values. The Final EIS, Chapter 3 *Upland Vegetation* section, lists multiple grass species as understory components of Wyoming big sagebrush.
Upland Vegetation	The *Upland Vegetation* section of the Draft RMP/EIS states: “Bluegrass communities include those communities whose production is primarily from non-native perennial grasses, but whose cover is dominated by bluegrass; these are areas	The Final EIS revised Chapter 3 *Upland Vegetation* to clarify bluegrass cover and how it relates to areas that contain bluegrass and have dominate native and non-native perennial grass production.

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	referred to as Sandberg/non-native perennial areas." Except for clarification to the public, relative to the relationship of cover to production, it is unclear why this statement is made.	
Upland Vegetation	The Draft RMP/EIS alternatives fail to take into account and allocate based on removal of non-native perennial grasses to reduce coarse dense unpalatable fuel hazards, and to provide for recovery of the full component of native vegetation and healthy microbiotic crusts required to support sagebrush ecosystems and sage-grouse.	The Final EIS analyzed a range of alternatives, which have a variety of objectives, goals, allocations, and management actions. The Final EIS outlined restoration priorities in the *Upland Vegetation* sections, which delineate the priority of areas for restoration. Native vegetation, sage-grouse and other wildlife habitat were considerations in prioritizing broad restoration areas. Alternative VI (Proposed RMP), management action UV-VI-MA-28, would manage biological soil crust to move towards site potential.
Upland Vegetation	Alternatives should not allocate any annual grass to watershed and wildlife. The BLM should act to restore these weed lands.	The Final EIS analyzed a range of alternatives for restoring annual communities. Alternative VI (Proposed RMP), *Upland Vegetation* section, proposes restoring 33%-75% of annual communities to native shrubland by Vegetation Management Area.
Upland Vegetation	Please provide full and detailed analysis of the effects of using small statured native plants such as Poa and yarrow vs. use of exotics, and place management emphasis on healing and recovering microbiotic crusts in interspaces to prevent cheatgrass and other annual weed invasions.	In the Final EIS, management actions FE-V-MA-5, UV-V-MA-24, and goal UV-V-G-1 restricted vegetation treatments to native species with a goal of improving, sustaining, and increasing native plant communities. Chapter 4, *Upland Vegetation*, analyzed these management actions.
Upland Vegetation	The BLM under all alternatives must consider large-scale removal of crested wheatgrass, Siberian wheatgrass and other large statured coarse and unpalatable flammable grasses. Replace these with small native Poa, yarrow, and the likes. The livestock grazing, facility, and all other components of the Draft RMP/EIS must mesh with this essential removal of disastrous post-fire and other livestock forage-based seedings.	In the Final EIS, the management direction for crested and Siberian wheatgrass seedings is in Chapter 2, *Upland Vegetation*, and lumps them as non-native perennials and varies by alternative. Alternatives IV, V, and VI would manage for a reduction in non-native perennials.
Upland Vegetation	The BLM greatly complicates the vegetation section (ES-9 to ES-13). The vegetation totals are now different due to the Long Butte fire.	The Final EIS included more detailed information on upland vegetation in Chapters, 2, 3 and 4 than what the Executive Summary of the Draft RMP/EIS provided. Wildland fires are continually changing the on-the-ground picture. The Final EIS updated vegetation on Map 9 "Existing Vegetation as of 2011" and Map 10 "2016 Projected Vegetation".
Upland Vegetation	The BLM must consider an alternative that removes livestock to improve lands across the planning area through natural plant succession in all native community areas.	In the Final EIS, Alternative V proposed significantly reduced grazing. Alternative V, *Upland Vegetation* section, proposed management actions that manage for natural succession.

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Upland Vegetation	There is no clarity provided on what will comprise a native plant community. Will crested wheatgrass with some sagebrush be treated as non-native? Crested wheatgrass and rabbitbrush?	The Final EIS defined native plant communities in the *Upland Vegetation* section of Chapter 3, both in Tables and in the text. Sagebrush or rabbitbrush with a crested wheatgrass understory was classified as a Non-native Understory Vegetation Sub-Group).
Upland Vegetation	The acres in the VSGs (yet another acronym) have already changed due to fires.	Fires are continually changing the on the ground picture. The Final EIS updated vegetation on Map 9 “Existing Vegetation as of 2011” and Map 10 “2016 Projected Vegetation”. The BLM has spelled out acronyms more frequently in the Final EIS. The Final EIS has also provided a list of acronyms. This acronym is also defined in the beginning of the *Upland Vegetation* section in Chapter 2, beginning of the *Upland Vegetation* section in Chapter 3, and in the beginning of the Chapter 4 *Upland Vegetation* section, first bullet under the heading for Indicators.
Upland Vegetation	Why in the world would the BLM want to manage for "native grassland" of 130,000 acres in Vegetation Management Area (VMA) B unless it was giving overwhelming weight to ranchers over sage-grouse and other imperiled species habitat needs? Or for other vast grassland acreages elsewhere in the other VMAs? The goal should be to recover native shrubs in as many areas as possible - so if a fire does occur, relative losses will not be as great.	The number of desired acres of native grassland varies by alternative. The Final EIS provided the goals and objectives for restoring native plant communities in Chapter 2 of the *Upland Vegetation* section.
Upland Vegetation	The BLM has not provided clarity on how it categorized lands into Vegetation Sub-Groups. Provide detailed mapping and analysis so that the public can understand this process.	Chapter 3 of the Final EIS described how vegetation communities of the planning area where classified into Vegetation Sub-Groups (VSGs). The Chapter 2 introduction to *Vegetation Communities*, *Upland Vegetation* section, in the Final EIS also provided the criteria used for categorizing the VSGs. The Final EIS updated vegetation on Map 9 “Existing Vegetation as of 2011” and Map 10 “2016 Projected Vegetation”.
Upland Vegetation	The BLM fails to provide adequate detailed mapping, analysis and ecological science for understanding the complexities of its segregation of the planning area into yet another category the Vegetation Management Area. This segregation appears to have very little to do with conserving and recovering sagebrush dependent species with viable and thriving populations.	Chapter 3, *Upland Vegetation* section, of the Final EIS identified why the BLM created Vegetation Management Areas (VMAs). Chapter 4, *Upland Vegetation* section, provided a VMA analysis by alternative. The Final EIS mapped VMAs on Map 8 “Potential Vegetation Communities and Vegetation Management Areas”.

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Upland Vegetation	The BLM appears to be clinging to some hope that it can "conserve" sage-grouse by focusing its efforts in large part on only some portion of the land area of Vegetation Management Area D - 20% or less of the planning area. Why else would the BLM propose goals, objectives, and management actions as it does on pp. 2-39 to 2-53 of the Draft RMP/EIS? Why else would the BLM propose under its Preferred Alternative to only designate a small sagebrush Area of Critical Environmental Concern and to allow all manner of development and extractive use and despoliation of resources to occur over the great majority of the planning area under all alternatives - in defiance of all current ecological science?	Alternative V in the Final EIS analyzed the Sagebrush Sea Area of Critical Environmental Concern that would cover 70% of the planning area. Chapter 2, *Upland Vegetation* section, presents management actions that propose management for all Vegetation Management Area to focus restoration treatments on habitat for sage-grouse.
Upland Vegetation	At p. 4-144, in the *Upland Vegetation* section of the Draft RMP/EIS, the BLM's preferred alternative would create mid-seral shrub lands. BLM refers to monitoring microbiotic crusts - but this appears to be in relation to reference areas. The BLM established no annual required monitoring protocol for livestock trampling impacts to microbiotic crusts.	Alternative IV, as analyzed in Chapter 4 of the Final EIS, would create a landscape dominated by native vegetation with an emphasis on mid-seral shrubland communities through the conversion of annual, non-native perennial, and non-native understory communities. Monitoring will take place in the reference areas as well as throughout the planning area. The Final EIS, Chapter 2, *Monitoring Implementation and Effectiveness of RMP Decisions* section states, "Effectiveness monitoring would be an annual effort, with a portion of the planning area being monitored each year…"
Upland Vegetation	In the *Upland Vegetation* section of the Draft RMP/EIS at 4-145, we learn than BLM's definitions and predictions of "mid-seral" are based on categorizing mid-seral as 5-25% sagebrush canopy cover. Yet sage-grouse require at a minimum 15% cover, and it is increasingly known that especially in depleted areas - much higher canopy cover is required - as shown by Mono Lake and other recent sage-grouse research. There is a big difference between 5% and 25% sagebrush cover. In the past, the BLM refused to consider 5% sagebrush canopy cover as the basis for management as sagebrush habitats. Now, when it is to the BLM's advantage to paint it's deeply flawed and limited range of alternatives in a favorable light - we are suddenly told by the BLM that 5% is "mid-seral" sagebrush habitat.	The Final EIS revised Chapter 4 to remove the link between seral stage and a percentage of shrub canopy cover.

Category	Comment	Response
Upland Vegetation	The BLM provides no mandatory measurable standards of sagebrush breakage or trampling of seedlings, and no required mandatory measurable standards of use to prevent continued advances of cheatgrass in understories.	Standards would be identified and measured based on the Standards and Guides process during permit renewal.
Upland Vegetation	Vegetation Management Area (VMA) A actions continue to promote grass seedings. VMA B and VMA C actions (4-146, of the Draft RMP/EIS) continue intensive livestock grazing in native shrub and grass areas. This fails to recover vast areas of native and perennial grasslands.	In the Draft RMP/EIS, p. 4-146 has no discussion on livestock grazing. It presented the outcome of an analysis of Alternative IV management actions on upland vegetation, which showed an increase in native vegetation communities across the planning area.
Upland Vegetation	Vegetation Management Area C on p. 4-146 of the Draft RMP/EIS proposes "assisted succession" i.e. further fragmentation and destruction of shrubs in sagebrush communities in order to attempt to get some forb or grass growth. Many research projects have shown this is a waste and will only lead to further losses.	Pp. 4-146-147 of the Draft RMP/EIS focuses on the addition of shrubs to vegetation communities within Vegetation Management Areas (VMAs). The analysis on VMA C in Chapter 4 (4-146-147, of the Draft RMP/EIS) stated, "assisted succession of native shrubland communities by introducing forbs and late-seral grasses to the understory." There is no mention of shrub removal, but it does emphasize this would add structural complexity. These pages of the Draft RMP/EIS also discussed treatments to add shrubs into vegetation communities within the VMAs and this has been included in the Final EIS.
Upland Vegetation	It is not possible to understand what is supposed to occur under various alternatives given statements like Vegetation Management Area C for Alternative II, UV-III-MA-9 of the Draft RMP/EIS. This part refers to other confusing sections of the Draft RMP/EIS such as the confusing "noxious weeds and invasive plants, and wild land fire ecology sections.	The *Upland Vegetation* section of the Final EIS referred readers to the *Noxious Weeds and Invasive Plants* and *Wildland Fire Ecology and Management* sections because these sections contained management actions that resulted in treating vegetation.
Upland Vegetation	Under Alternative III (p. 2-43, of the Draft RMP/EIS,) it is clear protecting forage from burning up is the priority -as it focuses first on Vegetation Management Area A. Isn't that the case?	The Final EIS Summary of Alternatives in Chapter 2 made it clear that Alternative III was a fire centric alternative.
Upland Vegetation	Alternative III and others also greatly over-emphasize herbicide use while continuing to inflict severe livestock grazing disturbances on public lands.	The use of herbicide is a tool found in the *Noxious Weeds and Invasive Plants* section of Chapter 2. Herbicide use is not the only tool presented for controlling weeds in the Final EIS.
Upland Vegetation	What NEPA coverage does the BLM believe it will have for its treatments?	The BLM would complete site-specific NEPA for vegetative treatments.
Upland Vegetation	UV-IV-MA-5, of the Draft RMP/EIS, allows further destruction of sagebrush, even though abundant studies now show this is ineffective.	Management action UV-IV-MA-5 in the Final EIS allowed for the introduction of forbs and late-seral grasses, but does not allow for removal of sagebrush.
Upland Vegetation	Removal of livestock and allowing required mandatory measurable standards of use, significant rest or passive recovery is not even a fundamental part of Alternative IV.	The Final EIS analyzed substantially reduced grazing as part of Alternative V.

Category	Comment	Response
Upland Vegetation	There is no emphasis on recovering microbiotic crusts, as there are no measurable standards to limit chronic grazing disturbance, no goals for percent recovery, and no goals to protect remnant better conditions areas. These concerns apply to all of the Vegetation Management Areas and alternatives in the Draft RMP/EIS.	Chapter 2 of the Final EIS provided management actions for the recovery of microbiotic crusts (see UV-IV-MA-31, UV-V-MA-27, and UV-VI-MA-28). Chapter 4 analyzed impacts to microbiotic crusts in the *Upland Vegetation* section.
Upland Vegetation	Vegetation Management Area B is nearly 2/5 of the land area of the planning area, and it is a large portion of the land area is essential to recover for a viable and inter-connected population of sage-grouse to thrive. There is no current baseline identifying areas of annuals, non-native perennials, etc. It is impossible to understand where the percentages came from, how they may relate to existing infrastructure, etc.	The percentages of vegetation came from calculating acres of dominate cover for a vegetation type compared to the acres within the Vegetation Management Area.
Upland Vegetation	Alternative IV would even allow native shrublands to be treated and sagebrush or rabbitbrush killed to promote grass and forbs even though 20% or less of the lands in this Vegetation Management Area now are native shrubs.	Alternative IV in the Draft RMP/EIS allows for the introduction of forbs and late-seral grasses to shrublands, but does not discuss removal of sagebrush.
Upland Vegetation	What is the basis for defining shrublands? What canopy cover or other values?	The Final EIS defined shrubland communities in Chapter 3 *Upland Vegetation* as communities that have 10% or greater shrub cover.
Upland Vegetation	In reference to vegetation management, are whole pastures managed based on the "majority" species?	The Final EIS described vegetation management by Vegetation Sub-Group in each Vegetation Management Area to meet objectives.
Upland Vegetation	As before, the BLM refers to "additional vegetation treatments in the *Noxious Weeds and Invasive Plants* and *Wildland Fire Ecology and Management* sections". This means vast areas could be "treated" with fuel breaks - and more coarse unpalatable or non-native species seeded. There is no adequate mapping and analysis that shows what all of this treatment would really look like, and where it could occur, and if it would be meaningful or effective at recovering sage-grouse.	Much of this would occur at project level; Spraying of weeds and creating fuel breaks are part of the toolbox in the Final EIS. The Vegetation Management Area (VMA) objectives provide a general acreage of possible treatments, VMA priorities for treatment vary by alternative and the general intent of treatments vary by alternative. Map 10 "2016 Projected Vegetation" in the Final EIS provided a base for reconnecting or expanding sagebrush habitats for management actions in the *Upland Vegetation* sections. The Final EIS does not specify exact areas due to future changes in vegetation, which would affect where treatments would occur.
Upland Vegetation	The maps that are provided (8-10, of the Draft RMP/EIS) conflict in many ways. Will "Unvegetated" areas on Map 10 not be treated if post-fire seedings fail-as they already appear to have with vast areas having minimal sagebrush establishment?	The Final EIS updated vegetation on Map 9 "Existing Vegetation as of 2011" and Map 10 "2016 Projected Vegetation" by removing recent burn areas from the Unvegetated category. "Recent burn" is now its own category on the vegetation maps and in the text of the document.

Category	Comment	Response
Upland Vegetation	In order to allow a reader to even begin to understand what any of the Vegetation Management Area (VMA) vegetation treatment planning means, the BLM must provide current baseline mapping showing where and how it categorizes the underlying communities on top of which the VMA is imposed. At present - where are all exotic annual grasslands? Perennial exotic grasslands? Native "grasslands" (early seral communities)?	The Final EIS described Vegetation Sub-Groups (VSGs) and Vegetation Management Areas (VMAs) in the Chapter 2, *Upland Vegetation* section. Chapter 3, *Upland Vegetation* section under the VSG and VMA subsections, explain the categorization process in detail. The Final EIS updated vegetation on Map 9 “Existing Vegetation as of 2011” and Map 10 “2016 Projected Vegetation”.
Upland Vegetation	Where in Map M-II (Vol. 3, of the Draft RMP/EIS) has sagebrush been seeded in the past 10 years? Where are there now sagebrush seedlings? How will the BLM effectively recover all the areas where sagebrush has been reseeded?	The Final EIS described the current information regarding the composition of vegetation in the planning area in the *Upland Vegetation* sections of Chapter 2 and 3. The Final EIS updated vegetation on Map 9 “Existing Vegetation as of 2011” and Map 10 “2016 Projected Vegetation”.
Upland Vegetation	In viewing Maps 9 and 10 (Vol. 3, of the Draft RMP/EIS) we are greatly concerned that the BLM categorizes lands on Browns Bench as non-native understory with an apparently different criteria being used than in other areas. We cannot understand how the BLM actually decided what was and was not a "non-native understory" for management purposes, and setting up its whole elaborate Vegetation Management Area, Vegetation, Fire Regime Condition Class, Forage and other schemes. Clearly define this, as so much of the planning area has been treated with herbicides, disked, railed, burned and seeded with exotics in some composition. It is hard to understand how the BLM has separated out these often-blended communities.	Some of the land on Browns Bench was planted to intermediate wheatgrass and crested wheatgrass in the 1960’s. The vegetation mapping process applied criteria consistently across the planning area. Chapter 2 and 3, *Upland Vegetation*, of the Final EIS explained that communities are based on dominant cover.
Upland Vegetation	The BLM continues to use large coarse exotics in many seedings with some native species thrown in. However, with minimal post-fire rest, it is often the exotics that thrive, dominate and out-compete natives, especially local ecotype natives. The plowing-style seeding techniques often destroy native species. The BLM must clarify whether seedings where sagebrush and some other natives were seeded are located. Where in these sagebrush seedings is the plant community now is dominated by large exotic grasses - if these are considered native or non-native seedings? How are plant communities on the ground really delineated and defined -and how are they then fed into the morass of Vegetation Management Area, Fire Regime Condition Class, Fuel breaks, Forage allocations, and the rest of the confusion of the	The Final EIS, *Upland Vegetation* sections of Chapter 2 and 3, described the current information regarding the composition of vegetation in the planning area. The Final EIS updated vegetation on Map 9 “Existing Vegetation as of 2011” and Map 10 “2016 Projected Vegetation”.

Category	Comment	Response
	livestock-industry centered Draft RMP/EIS?	
Upland Vegetation	Why is there no mapping and science-based analysis that shows where and how vegetation will be managed and restored to conserve sage-grouse habitats and populations and other sagebrush-dependent species? Why isn't this the foremost part, and the basis of all alternatives, in the Draft RMP/EIS? Why is there no mapping of sage-grouse leks and other seasonal habitats in the Draft RMP/EIS? How can a plan to conserve sage-grouse be developed without this? This mapping and analysis must include adjacent Burley and Bruneau lands, as well as the Forest Service and Elko BLM lands to the south. What are the cumulative impacts of fire, fences, water developments, treatments, energy developments, etc. on this landscape that is used by sage-grouse?	The Final EIS added Map 25 “Sage-Grouse Habitat” that included the sage-grouse management area and key sage-grouse habitat. More information for restoring sage-grouse habitat can be found in Chapter 2, 3 and 4, *Upland Vegetation* and *Special Status Wildlife*. Priorities for vegetation treatments varied by alternative for Vegetation Management Areas. The Final EIS revised the cumulative impacts analysis area for sage-grouse to include more of the lands surrounding the planning area.
Upland Vegetation	Alternative IV MA-25, in the *Upland Vegetation* section of the Draft RMP/EIS, (applies to all Vegetation Management Area [VMAs]) states "the first priority to improve would be VMA D" is not defined. Since the preceding management actions for Alternative IV under the VMA category never mention removal of livestock - but do indeed specify "treating" shrublands (MA 23) in grouse habitat", it is clear that "improve" means destroy more sagebrush - even though current ecological science shows this will not help sage-grouse. Then after more sagebrush is destroyed, the BLM would consider treatments to expand and connect habitats in VMA C.	Management action UV-IV-MA-25 in the Draft RMP/EIS simply identifies priorities to restore sage-grouse habitat; there is no mention of removing sagebrush.
Upland Vegetation	UV-IV-MA-31, in the *Upland Vegetation* section of the Draft RMP/EIS, states that the BLM will assess microbiotic crusts and manage to move them towards potential by modifying grazing. It already is required to do this under the Fundamentals of Rangeland Health regulations. There is no mandatory trampling or other standard to limit grazing disturbance, no milestones, and no concrete information provided on how this would be achieved. There is no comparison provided on predicted recovery with or without grazing, or mapping of the conditions of the crusts from the information BLM already has on hand.	UV-IV-MA-31, of the Draft RMP/EIS, does not say that biological crusts would be managed to move towards potential by modifying grazing. Rather it says, “Assess biological soil crusts and manage them to move toward site potential by modifying levels and timing of BLM management activities and authorized uses during periods when soil crusts are most vulnerable to damage.” This statement is more inclusive than just grazing.

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Upland Vegetation	How depleted are crusts? Where? What season of use may cause more significant harm to crusts? Since fire kills or reduces crusts, and they can take many years to recover, BLM in the much-burned Jarbidge landscape must apply annual measurable standards for trampling in upland habitats. This can be done with transects. Define the desirable crust communities and percent cover, and measurable standards put in place to achieve this, the BLM has Technical and other references that address crusts.	The Final EIS updated Chapter 3, *Upland Vegetation* section, with biological crust cover percentages in the planning area and what the biological crust cover potential is across the planning area. Chapter 4, *Upland Vegetation*, provided the analysis of the different impacts by alternatives on biological crusts.
Upland Vegetation	There is no requirement to use only native species in restoration. We have communicated with the BLM many times with concern about their continued use of exotics mixed in with large-sized coarse native cultivars.	The sole use of natives in restoration is included in Alternative V, UV-V-MA-24 and FE-V-MA-5.
Upland Vegetation	MA-28, in the *Upland Vegetation* section of the Draft RMP/EIS, provides all kinds of excuses for the BLM to never have to use native species. There is no reference of any kind emphasizing relying on local native ecotypes.	The Final EIS provides a range of alternatives for use of native and non-native species for vegetation treatments. Alternative V limits upland vegetation treatments to native species only. Alternative IV emphasizes use of natives but allows for use of non-natives to meet management objectives and goals, and Alternative II focuses on using primarily non-native species. Alternative VI (Proposed RMP) carries forward the use of native and non-native species with an emphasis on native species.
Upland Vegetation	Alternative V, 2-49 to 2-53, of the Draft RMP/EIS, appears to rely on the Fire Regime Condition Class contrived "historic" vegetation communities. Just what the BLM believes this to be in 2011 is not defined.	Fires are continually changing the on the ground picture. The Final EIS Chapter 3, *Wildland Fire Ecology and Management* section, discussed Fire Regime Condition Class and how it is a classification of departure from Historic Fire Regime (HFR). This section also provided a crosswalk table that allows the reader to go from HFR to Potential Natural Community.
Upland Vegetation	Page 2-49 in the *Upland Vegetation* section of the Draft RMP/EIS provides extremely limited management actions that are designed to not significantly alter the vast wastelands of exotic seedings. Here, the BLM would not even try to restore "native grasslands. Vegetation Management Area A (UV-V-MA-3).	The emphasis of Alternative V is passive restoration but allowed for active restoration in the Vegetation Management Areas. Other alternatives provided for more active restoration management actions. This provided a range of alternatives for analysis in the Final EIS.
Upland Vegetation	We support Alt V, Vegetation Management Area B, and Goal IV, which is to "restore 50% of sagebrush sea annual communities". MA-6 "treats 67% of non-native perennials to introduce shrubs - and also add to this the following: "remove significant acreages of large non-native perennials and re-seed with natives to produce natural composition, function, and	This revision would be active restoration not passive restoration as is the emphasis for Alternative V. Other alternatives provided for more active restoration management actions. This provided a range of alternatives for analysis.

Category	Comment	Response
	structure".	
Upland Vegetation	*Upland Vegetation* MA-7, of the Draft RMP/EIS, would restore much too little native "grassland". Why wouldn't the BLM try to restore all of this - as it is the easiest plant community to try to recover native biodiversity?	The emphasis of Alternative V was passive restoration but allowed for active restoration in the Vegetation Management Areas. Other alternatives provided for more active restoration management actions. This provided a range of alternatives for analysis in the Final EIS.
Upland Vegetation	Vegetation Management Area C, p. 2-51, of the Draft RMP/EIS. The BLM must specify in detail what managed treatments mean in Wilderness Study Areas/Wilderness. What would be a "Minimum" of treatment? What would it be?	Any treatments in Wilderness or a Wilderness Study Area (WSA) would be consistent with WSA/Wilderness policy.
Upland Vegetation	Page 2-53 of the Draft RMP/EIS in the *Upland Vegetation* section, Alt V, All Vegetation Management Areas (VMAs). Why in the world, in an EIS that is supposed to conserve sage-grouse, does BLM place as its highest priority of all the implementation of vegetation treatments in VMA A "to move toward perennial vegetation"?	Chapter 1 of the Final EIS described the Purpose and Need for Action. The purpose of the EIS is not to conserve sage-grouse as stated. The alternatives provided a range of management options, goals, and objects for analysis in the Final EIS. The Alternative V *Upland Vegetation* section focused on passive restoration. Vegetation Management Area A is the farthest from the desired vegetation condition making it the highest priority for active restoration treatments in an alternative that focused on passive restoration.
Upland Vegetation	*Upland Vegetation* MA-23 of the Draft RMP/EIS, which limits treatments in non-native vegetation communities, is to ensure that the crested wheatgrass/Siberian wheatgrass or forage kochia weeds cannot be removed.	The Alternative V *Upland Vegetation* section focused on passive restoration. Other alternatives provided for more active restoration management actions. The alternatives provided a range of management options, goals, and objectives for analysis in the Final EIS.
Upland Vegetation	The BLM must radically revise this Vegetation Management Area (VMA) segregation of the planning area - and get rid of the artificial VMA categories that draw arbitrary lines east west across the planning area. This is meaningless to sage-grouse and other wildlife in the planning area - where research has long shown that birds move all over the landscape.	Due to the difference in vegetation response to management and disturbance along a north-south gradient, the planning area was divided into Vegetation Management Areas (VMAs) based on the potential natural community, elevation, and mean annual precipitation. The Final EIS, Chapter 3 *Upland Vegetation* section, provided more information on VMAs.
Upland Vegetation	The BLM constantly downplays the importance of rabbitbrush - ignoring that this species provides functions of moderating micro-site climate, produces blooms that are alive with native insects that are a critical part of biodiversity, and it provides winter and other food in a greatly depleted environment.	The Final EIS discussed rabbitbrush in Chapter 3 *Upland Vegetation* section.
Upland Vegetation	In the *Wildlife* section, pp. 3-28 to 3-29, of the Draft RMP/EIS. Since aspen communities comprise so little of the planning area. Across the west, they are now recognized to be greatly threatened by new diseases and climate change. Grazing	Aspen are present within the planning area but are not a dominant component of the vegetation within the planning area. The Final EIS analyzed aspen in Chapter 4 *Upland Vegetation* and *Wildlife* sections.

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	exacerbates aspen health problems and understory condition. Mechanical browsing or trampling injury wounds trees and promotes fungal infections. Given all the stresses on aspen, and the importance of the avian and other wildlife associated with them, removal of livestock grazing stress from all aspen communities is critical to ensure they are conserved and sustained in the planning area.	
Upland Vegetation	Map-6 of the Draft RMP/EIS. Wind erosion potential. The BLM must provide full analysis of the synergistic effects of loss of shrubs that has altered winds near the ground surface in the Jarbidge at the micro-site scale. How has this affected fire spread? Could an increase in taller shrubs actually serve to reduce fire risk - not only through providing windbreaks - but also through shading the ground surface and slowing snowmelt and runoff, as well as retention of rainwater moisture on site? Provide full analysis of how significant native shrub cover may ameliorate micro-site/local climate. If sites dry out one, two, three or even more weeks later if shrub cover has helped retain moisture on-site how might that, help to reduce the time period of fire risk? We stress that many devastating fires have occurred in July, and with climate change, too, sites are predicted to dry out faster. So sound management must include providing taller shrub composition to retain moisture on-site and limit early-onset of fire season.	The Final EIS analyzed the impacts of wind erosion and the introduction and increase in shrub cover at the planning area scale in the Chapter 4 *Soil Resources* and *Upland Vegetation* sections.
Upland Vegetation	The BLM must provide mapping showing changes over the next 2 years - based on current vegetation recovery in all sage-grouse habitats. This is also necessary to understand what areas sagebrush, rabbitbrush or other shrubs will have to be replanted, and how and where restoration can best be accomplished.	Map 10 “2016 Projected Vegetation” in the Final EIS presented in the Final EIS is general and used only for comparison of alternatives. Geographic information system data exists that illustrates vegetation cover by plant community and with a minimum mapping unit of 20 acres. The Final EIS used this data in development of the vegetation baseline and maps.
Upland Vegetation	Why is there not more detailed information and mapping of the ecological site inventory in the Draft RMP/EIS?	The Final EIS used the data collected in the ecological site inventory effort to establish the existing conditions described in Chapter 3 *Upland Vegetation* and depicted on Map 9 “Existing Vegetation as of 2011” and Map 10 “2016 Projected Vegetation”.
Upland Vegetation	The BLM must provide detailed mapping and analysis that shows the current sagebrush and other vegetation communities, and depict key habitat.	The Final EIS updated vegetation on Map 9 “Existing Vegetation as of 2011” and Map 10 “2016 Projected Vegetation”.

Category	Comment	Response
Upland Vegetation	Please provide mapping and analysis of the land area that must be recovered to provide viable populations, disturbance reduced, and protection measures taken to comply with the BLM conservation plan for sage-grouse.	The BLM planning regulations do not require analysis for viable populations. Best management practices would be applied for specific projects and include consideration of the site. The Final EIS updated vegetation on Map 9 “Existing Vegetation as of 2011” and Map 10 “2016 Projected Vegetation”.
Upland Vegetation	Identify a full analysis of the location, species seeded, and year seeded, and current composition of all Fuel breaks.	Seedings, fuel breaks and other vegetation treatment data helped in developing the vegetation map and are reflected in Map 10 “2016 Projected Vegetation”.
Upland Vegetation	The BLM should focus fuels projects on using small statured native species and reductions in the large unpalatable exotic grass monocultures.	This approach was analyzed in the Final EIS as part of Alternative V in the *Wildland Fire Ecology and Management* section. This alternative would only allow for the use of native species and would work on reducing the fuel continuity of non-native perennial communities.
Upland Vegetation	We have attached a file based on 2006-2007 agency cheatgrass mapping.	The Final EIS did not use the attached map of 2006-2007 annual grass. Vegetation mapping in the planning area used field observations, field cover data, and National Agricultural Imagery Program imagery. The Final EIS updated vegetation maps and incorporated fires, seedings, and fuel treatment data through 2011. See Map 9 “Existing Vegetation as of 2011” and Map 10 "2016 Projected Vegetation". Cheatgrass is included in the Annual Vegetation Sub-Group on the maps.
Upland Vegetation	Our review of the Draft RMP/EIS alternatives and analysis shows the BLM does not adequately map and include rabbitbrush and sagebrush-rabbitbrush communities in displaying sage-grouse habitat. Nor does it act to protect and conserve these communities in many areas.	Rabbitbrush and sagebrush communities are predominantly mapped within the Native Shrubland Vegetation Sub-Group (VSG), but also in the Annual and Non-Native Understory VSGs (see Chapter 3 for a full description of VSGs). Management actions have been included in the Final EIS to protect sage-grouse habitat.
Upland Vegetation	We incorporate by reference into these comments all the BLM post-fire seeding, grazing, facility, and wildlife habitat related actions NEPA documents from 1998 to the present. It is essential that the full information and analysis of past actions all fences or facilities that were built following fires and rehab must be identified, and a range of alternatives must be developed that target these for removal. The BLM must similarly provide a detailed accounting of all post-fire rehabilitation actions it has taken. Seedings, species, location, etc. and show where it has told the public it would recover sagebrush.	The requested background information comprises the Affected Environment as described in Chapter 3 *Upland Vegetation* and *Livestock Grazing* sections of the Final EIS. The Final EIS analyzed the cumulative impacts vegetation treatments in the *Upland Vegetation, Wildlife*, and *Special Status Species* sections in Chapter 4.

Category	Comment	Response
Visual Resource Management	NEPA requires that the BLM takes measures to "assure for all Americans . . . Aesthetically pleasing surroundings." In addition, the Federal Land Policy and Management Act of 1976 directs the agency to manage the public lands in a manner that will protect scenic values. BLM should meet this requirement by protecting more areas as Visual Resource Management (VRM) II, such as Areas of Critical Environmental Concern and recreation management areas. Furthermore, BLM should manage non-Wilderness Study Area lands with wilderness characteristics as VRM I. BLM should ensure visual resources are protected and appropriately managed in the Draft RMP/EIS by designating special management areas and other scenic areas as VRM I and II.	The Final EIS analyzed a reasonable range of alternatives addressing Visual Resource Management classes.
Visual Resource Management	Explain how the BLM concluded to identify the same area as Visual Resource Management (VRM) Class II-IV in the various alternatives. The BLM should provide an explanation. VRM Management with regard to wind energy development is discussed both in BLM Instruction Memorandum 2009-043 and in the best management practices that have already been incorporated by amendment of the existing Jarbidge RMP. The Instruction Memorandum requires BLM to consider management class designations in areas of high wind energy resource potential. The Instruction Memorandum. notes that the goal of the VRM program is to apply basic principles of design of wind energy projects at the site-specific project level to mitigate or minimize visual resource impacts and meet VRM objectives established in the land use plan. The I.M. instructs BLM staff to perform view-shed analyses in high wind energy areas to, among other things, "avoid unwarranted exclusion and avoidance designations." Finally, the Instruction Memorandum instructs BLM to work collaboratively with wind energy operators to "seek creative ways to provide for renewable energy development while protecting visual resource values on the public lands."	Visual Resource Management (VRM) class designation varies by alternative based on the alternative theme. The Final EIS analyzed a reasonable range of alternatives addressing VRM classes.

Category	Comment	Response
Visual Resource Management	The best management practices incorporated into the Jarbidge RMP for wind energy development address visual resources as part of the preparation of the Plan of Development, during construction and during operations. Change the Draft RMP/EIS to recognize the incorporation of the existing visual resource protections imposed upon wind energy development projects in the planning area.	The Final EIS incorporated Visual Resource Management (VRM) classes into the Chapter 4 analysis of wind energy. VRM classes I and II were considered unavailable for wind energy development.
Visual Resource Management	Designate the Herd Management Area as a Visual Resource Management (VRM) Class 2 and not a VRM Class 4.	The Final EIS describes impacts from land use authorizations on the Herd Management Area (HMA) in the *Wild Horse* section of Chapter 4. The right-of-way avoidance area includes 64,000 acres of the 94,987 acres in the HMA.
Visual Resource Management	On pp. 2-113 to 2-118 of the Draft RMP/EIS, under *Visual Resources*, identify which segment of Salmon Falls Creek you are referring for all alternatives. We agree with the Visual Resource Management - IV classifications as specified in Map 35 of the Draft RMP/EIS, No Action Alternative and Map 37, Alterative II. I cannot tell which segments you are referring on pp. 2-113 to 2-118.	The Final EIS provides maps of Visual Resource Management (VRM) classes for each alternative (Maps 41 to 48). VRM classes do not apply to State or private land. All Alternatives would manage Salmon Falls Creek Wilderness Study Area from Salmon Falls Dam to Lily Grade as VRM Class I. Alternative VI (Proposed RMP) would manage a 1-mile wide right-of-way (ROW) corridor centered on Lilly Grade as VRM Class III. All action Alternatives (Alternative VI from the ROW corridor) would manage the Salmon Falls Creek Wild and Scenic River corridor from Lilly Grade to Balanced Rock Park as VRM I, except a 1-mile ROW corridor in Alternative III which would be managed as VRM III . All action Alternatives would manage Balanced Rock Park to Balanced Rock road as VRM Class III. For VRM classes described above (i.e. Salmon Falls Dam to Balanced Rock road), the VRM classes extend west approximately 0.25 mile from the center of the stream channel or approximately 0.1 mile beyond the canyon rim. All action Alternatives would manage Balanced Rock road to 2 miles north of Balanced Rock road as VRM Class IV. Alternatives I, III-V would manage approximately 2 miles north of Balanced Rock road to 0.5 miles from the Snake River as VRM Class III. Alternative II would manage approximately 2 miles North of Balanced Rock road to 0.5 miles from the Snake River as VRM Class IV.
Visual Resource Management	On p. 2-117 of the Draft RMP/EIS, VR-IV-A-3, please list what segment of Salmon Falls Creek (from Toana Road protective corridor and Salmon Falls Creek).	The Final EIS included maps of Visual Resource Management (VRM) classes for all alternatives (Maps 41 to 48). VRM Class III in Alternative IV-A extends from the Toana Freight Road protective corridor to approximately 0.1 mile beyond the Salmon Falls Creek canyon rim, excluding the managed Lands with

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		Wilderness Characteristics which will be VRM Class II. VRM classes do not apply to State or private land.
Visual Resource Management	Management action IV-A designates Visual Resource Management (VRM) Class 1 areas under Alternative IV. Check the acres and areas designated with the Bruneau-Jarbidge Wilderness boundary. Wilderness requires a VRM Class I designation.	The Final EIS revised all alternative boundaries to include the Bruneau-Jarbidge Rivers Wilderness and to manage it as Visual Resource Management Class I.
Visual Resource Management	The majority of the Resource Advisory Council (RAC) voted in favor of the least restrictive visual resource allocations in Alternative II over more restrictive allocations in Alternative IV. The minority of the RAC voted in favor of Alternative IV over Alternative II. Wind energy, oil/gas, geothermal energy, transmission lines, and communication sites must be built where either the resource exists or where they are needed. Selection of Alternative II for visual resources would allow these resources to be located where the resource and needs exists, while providing a cost effective means of accomplishing the task.	The Final EIS analyzed a reasonable range of alternatives addressing visual resource allocations in Chapter 2*, Visual Resources*.
Visual Resource Management	Visual resource allocation in Alternative IV could force utilities to site large transmission lines on private property. The NEPA process failed to study these impacts adequately enough to revise the Draft RMP/EIS.	The Final EIS revised the analysis of visual resources in Chapter 4 to include a discussion on the potential for Visual Resource Management classes on BLM-managed land to impact adjacent private land.
Visual Resource Management	The Draft RMP/EIS on p. 3-61 describes three steps in Ratings: A, B, and C. From BLM's verbal description of this at the RMP meeting, it appears the BLM interjected a strong bias against shrub steppe habitats. The methodology that BLM described using has inherent bias against sage-steppe. BLM claims it relied on adjacent scenery, and scarcity, and looked at modification. BLM will not be able to conserve and recover sage-grouse habitat under Visual Resource Management (VRM) III and VRM IV designations/allocations. BLM ignores the fact it can use VRM to limit any further intrusions, and to aid in restoration and sage-grouse conservation efforts. It can use VRM to manage lands to conserve sage-grouse.	BLM used the Visual Resource Inventory (VRI) process in assigning VRI classes (BLM Manual Section H-8410-1; Draft RMP/EIS 3.2.13; BLM Visual Inventory Technical Report 2008a (updated 2013)). After overlaying scenic quality, sensitivity and distance zone maps and applying the criteria for assigning VRI Classes, 71,000 BLM-managed acres were identified as VRI class I, 90,000 acres as VRI class II, 51,000 as VRI class III, and 1,159,000 acres as VRI class IV. Map 40 “Visual Resource Inventory Classes” displays the results of the VRI. The Final EIS analyzed a reasonable range of alternatives addressing Visual Resource Management (VRM) classes. VRM is not the only way in which BLM can manage for sage-grouse conservation and habitat restoration. Management actions specific to sage-grouse conservation are contained in the following sections: *Upland Vegetation, Riparian and Wetlands, Wildlife, Special Status Species, Wildland Fire Ecology and Management, Livestock Grazing, Transportation and Travel, Land Use Authorizations,*

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		and *Minerals.*
Visual Resource Management	The first sentence in the RMP Visual discussion states: "the Jarbidge ...is known for its unique geology of broad, gently rolling plateau lands with deeply incised rivers, which provide a variety of scenic values. Yet in the Visual Resource Management (VRM) process, BLM discarded the visual qualities of the vast rolling plateau areas. The Draft RMP/EIS admits that BLM has a responsibility that scenic values are considered, before allowing uses that may have adverse impacts. BLM got around this by just writing off the scenic values over vast areas under all alternatives so that it would not have to protect the lands from more grazing industrialization, energy developments, and other intrusions. Since the broad rolling plateau over such a vast area is part of the unique landscape of the planning area, how can BLM then turn around and claim it has no visual appeal, and proceed to impose VRM III and IV over vast areas? Redo the visual analysis and take into account the context, as well as the high sensitivity of wide-open sagebrush landscapes to visual intrusions.	BLM used the Visual Resource Inventory (VRI) process in assigning VRI classes (BLM Manual Section H-8410-1; Draft RMP/EIS 3.2.13; BLM Visual Inventory Technical Report 2008a (updated 2013)). After overlaying scenic quality, sensitivity and distance zone maps and applying the criteria for assigning VRI Classes, 71,000 BLM-managed acres were identified as VRI class I, 90,000 acres as VRI class II, 51,000 as VRI class III, and 1,159,000 acres as VRI class IV. Map 40 “Visual Resource Inventory Classes” displays the results of the VRI. The Final EIS analyzed a reasonable range of alternatives addressing Visual Resource Management classes.
Visual Resource Management	The discussion of Visual Resource Inventory (VRI) and Visual Resource Management (VRM) is murky. BLM assigns VRI I to lands where a "management decision has been made". There could be degraded lands, but because a decision had been made, it receives high priority, even though the visual quality is not different from immediately adjacent lands? This makes no sense. How does a management decision per se change the Visual Quality, from Class I to Class III? This all just proves the point that VRM is used by BLM to manage to protect lands, or in the case of this Draft RMP/EIS to allow all manner of industrial development to occur over vast areas (as in Alternative IV and even more so in Alternative V with vast areas Zoned III and IV).	Visual Resource Inventory Class I is assigned to those areas where a management decision has been made previously to maintain a natural landscape. This includes areas such as national wilderness areas, the wild section of national wild and scenic rivers, and other congressionally and administratively designated areas where decisions have been made to preserve a natural landscape (BLM Manual Section H-8410-1). The Final EIS analyzed a reasonable range of alternatives addressing Visual Resource Management classes.
Visual Resource Management	BLM's shortchanging of the visual setting of the planning area enables widespread continued destruction of visual setting and further severe habitat intrusions and reductions in recreational activities.	The Final EIS analyzed a reasonable range of alternatives addressing Visual Resource Management classes.

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Visual Resource Management	BLM can use Visual Resource Management to manage lands. BLM has not even provided the public with its Visual Report.	The Final EIS cites the Visual Inventory Technical Report (2008 (updated 2013)) and the public can obtain it upon request.
Visual Resource Management	There is no possible rationale for BLM to designate Visual Resource Management (VRM) IV (maximum disturbance allowed) over such a vast area. The VRM actions would allow industrial development, mining, energy or other development to occur across nearly the entire planning area, including the very lands that elsewhere are supposed to be "restored" for conservation of rare and declining species.	The Final EIS analyzed a reasonable range of alternatives addressing Visual Resource Management (VRM) classes. Any development would have to comply with all allocations and management actions presented in the RMP, not just VRM.
Visual Resource Management	Why is there no mapping of the No Action Alternative Visual Resource Management?	Mapping of Visual Resource Management for the No Action Alternative was included in the Draft RMP/EIS on Map 35. A similar map was also included in the Final EIS, Map 41.
Visual Resource Management	Do Visual Resource Management I and II categories under the current RMP mean that development would be constrained in the China Mountain area?	A separate EIS addressing the effects related to the China Mountain Wind Energy Project will occur after the completion of the Idaho/Southwest Montana Sub-regional Sage-Grouse Plan Amendments and the Jarbidge RMP.
Water Resources	Water quality standards are typically composed of numeric standards, narrative standards, designated uses, and/or an anti-degradation policy. The Draft Plan, however, only reflects numeric standards as “water quality standards.” That narrow view is incorrect. The Supreme Court held in Public Utility District No. 1 of Jefferson County v. Washington Department of Ecology, 511 U.S. 700 (1994), that all components of water quality standards are enforceable limits. Consequently, the Draft RMP/EIS is required to outline not only the ways in which BLM will meet or exceed the numeric standards, but also how it will manage its lands to ensure compliance with the State’s designated uses, narrative standards, and anti-degradation policy. Adopting this legally sanctioned view of water quality standards is important. For example, a typical designated use for a stream might state that the stream is “protected for cold-water species of game fish and other cold-water aquatic life, including necessary organisms in their food chain.” Designated uses of this sort encompass a far more holistic, ecosystem-based view than focusing on, say, the concentration of ammonia in the stream (a numeric standard). Consequently,	The comment refers to the Draft RMP/EIS, Chapter 3 *Water Resources* section which described the baseline water resource conditions within the planning area. BLM revised the Chapter 3 *Water Resources* section in the Final EIS to include a more detailed description of the Idaho water quality standards (numeric, narrative and anti-degradation) and the role of the Environmental Protection Agency, Idaho Department of Environmental Quality (DEQ), and Nevada Division of Environmental Protection (NDEP) in developing and enforcing water quality standards that protect beneficial uses such as drinking water, cold-water fisheries, industrial water supply, recreation, and agricultural water supply. The goals, objectives and management actions to achieve water quality standard are included in Alternative VI (Proposed RMP) in the Chapter 2 sections for *Water Resource, Fish, Riparian Areas and Wetlands,* and *Special Status Species.* All of these aquatic resource sections include the use of the guidance in the Aquatic and Riparian Management Strategy (ARMS) to improve riparian condition, in stream conditions and water quality. Implementing the guidance in the ARMS would be consistent

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	the Draft RMP/EIS should provide that designated uses be fully achieved, and if they are not, require prompt management changes even if numeric standards are otherwise being met. Similarly, the BLM should develop and commit to an active monitoring protocol to meet numeric standards, and develop their monitoring protocol to take into account narrative standards as well.	with the attainment of the State of Idaho and State of Nevada's designated uses, narrative standards, and anti-degradation policy for water quality. In the Chapter 2, Alternative VI *Water Resources* section, WR-CA-MA-7 through WR-CA-MA-9 included direction to coordinate with Idaho Department of Water Resources, DEQ, and NDEP to comply with State water quality standards.
Water Resources	In addition to the anti-degradation policy's protections for waters that are meeting water quality standards, where State water quality standards have not been achieved despite implementation of point source pollution controls, section 303(d) of the Clean Water Act requires a State to develop a list of those still-impaired waters, with a priority ranking, and to set Total Maximum Daily Load of pollutants for the stream "at a level necessary to implement the applicable water quality standards. . . ." 33 U.S.C. §1313(d) (1) (C). Consequently, to the extent waters within the BLM's jurisdiction have been identified as water quality impaired segments, or contribute stream flow to such segments, the Draft RMP/EIS should include affirmative steps toward reducing that impaired status. If any specific load allocation has been made by the State for activities on BLM-managed lands, the BLM should ensure that all activities are in compliance.	The Final EIS, Chapter 2, Alternative VI (Proposed RMP) *Water Resources* section included goals, objectives and management actions to meet State water quality standards (WR-CA-MA-1 through 4; WR-CA-MA-7 through 10). This direction included working closely with Idaho Department of Water Resources, Idaho Department of Environmental Quality (DEQ), and Nevada Division of Environmental Protection (NDEP) to identify opportunities to improve water quality and to be consistent with water quality restoration and Total Daily Maximum Loads. The specific steps that would be taken to achieve water quality standards would be determined at the project level and would be based on site-specific conditions and in coordination with DEQ and NDEP.
Water Resources	The Proposed Plan should also ensure full compliance with sections 401 and 404 of the Clean Water Act. Section 401 requires State certification of compliance with State water quality standards prior to authorization of certain actions on BLM lands (33 U.S.C. § 1341). Section 404 requires permits to discharge dredged or fill material into navigable waters, and BLM, through the Draft RMP/EIS, should assist the Environmental Protection Agency and US Army Corps of Engineers with implementation and enforcement of this requirement, which, of course, is a powerful means for the protection of wetlands. See 33 U.S.C. § 1344.	The Final EIS, Chapter 2, Alternative VI (Proposed RMP) *Water Resources* section included goals, objectives and management actions to meet State water quality standards and attain designated beneficial uses. The result of this direction is full compliance with Section 401 and 404 of the Clean Water Act. In the Final EIS, Appendix D: Aquatic and Riparian Management Strategy included guidance for applying the *Idaho Stream Channel Alteration Rules* (IDWR, 1993) to actions involving construction activities within the high water lines of streams in the planning area. This guidance included obtaining Section 404 Permits from the US Army Corps of Engineers when required.
Water Resources	The Draft RMP/EIS appears to be missing crucial baseline data necessary for making planning decisions for water resources. For instance, BLM States that fish tissue mercury levels are not	The Final EIS revised the Chapter 3 *Water Resources* section under Impounded Waters and Reservoirs to include information on mercury contamination in the Salmon Falls Creek Reservoir

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	published for Salmon Falls Creek Reservoir. The mercury level for fish tissue in Salmon Falls Creek Reservoir was published in Idaho Department of Environmental Quality's 2008 "Arsenic, Mercury, and Selenium in Fish Tissue from Idaho Lakes and Reservoirs: A Statewide Assessment" (Essig and Kosterman, 2008) and in the Salmon Falls Creek Subbasin Assessment and Total Maximum Daily Loads (DEQ, 2007). The sub basin assessment states that for Salmon Falls Creek Reservoir fish tissues "to achieve the water quality standard, mercury levels would need to be reduced by 69 percent."	and the source of the contamination, which is not within the planning area. The source for this information is Essig and Kosterman (2008). Actions to reduce airborne sources of mercury contamination to Salmon Falls Creek reservoir are beyond the scope of the Final EIS.
Water Resources	The BLM states in the 2007 Analysis of the Management Situation that it has no data on nutrient levels in the Snake River or Bruneau River watersheds (pp. 43 and 45), even though several streams are water quality limited in these watersheds for nutrients. Without baseline data on nutrients, BLM cannot effectively manage for special status species such as the Snake River white sturgeon, which is sensitive to nutrient levels (Draft RMP/EIS p. 3-41).	The Final EIS revised the Chapter 3 *Water Resources* section to include links to the most current information for water quality impaired streams within the planning area. Every two years Idaho Department of Environmental Quality (DEQ) and Nevada Division of Environmental Protection (NDEP) update their lists of water quality impaired streams. The Final EIS provided links to the most current water quality information available, as displayed on the DEQ and NDEP web.
Water Resources	We urge the BLM to provide a list of best management practices (BMPs) for riparian areas, make these BMPs mandatory, and make the No Surface Occupancy stipulation next to perennial streams non-waivable.	The Final EIS included best management practices (BMPs) for all resources and resource uses within the planning area (Appendix B: Best Management Practices, Design Features, and Operating Procedures). The use of specific BMPs would be determined on site and project-specific basis. In the Final EIS, management actions for leasable minerals activities in the Riparian Conservation Areas (RCAs) containing special status species are provided in Chapter 2, *Leasable Minerals* section, management actions LE-CA-MA-2, LE-CA-MA-3, LE-CA-MA-4, LE-CA-MA-7, LE-CA-MA-8 and LE-VI-MA-1. For salable minerals, requirements for actions in RCAs with special status species were included in SA-CA-MA-1 through SA-CA-MA-7. Direction for management activities and authorized uses is also provided under *Riparian Areas and Wetlands*, RI-CA-MA-8, which identifies the modification of existing management and activities and authorized uses in RCAs to attain proper functioning condition and ensure that habitat conditions of streams, riparian areas, and wetlands are moving toward or achieving the goals and objectives for riparian areas and wetlands.

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Water Resources	Analyze the impacts to water resources from commercial and recreational uses.	The Chapter 4 Alternative VI (Proposed RMP) *Water Resources* section included an analysis of impacts from a variety of land uses (Recreation, Transportation and Travel, and Land Use Authorizations) on water resources. The comment did not provide the BLM with enough specific information on how to address the portion of the comment regarding commercial uses.
Water Resources	The BLM needs to establish baseline water quality conditions, and develop a monitoring system and enforcement protocol which not only considers numeric standards, but also meets or exceed narrative standards, designated uses, and anti-degradation rules.	The Final EIS revised the Chapter 3 *Water Resources* section to include a more detailed description of the Idaho water quality standards (numeric, narrative and anti-degradation) and the role of the Environmental Protection Agency, Idaho Department of Environmental Quality (DEQ), and Nevada Division of Environmental Protection (NDEP) in developing and enforcing water quality standards that protect designated beneficial uses such as drinking water, cold-water fisheries, industrial water supply, recreation, and agricultural water supply. The Chapter 2, Alternative VI (Proposed RMP) *Water Resources* section included direction to coordinate with Idaho Department of Water Resources, DEQ, and NDEP in compliance with State water quality standards in WR-CA-MA-7 through WR-CA-MA-9.
Water Resources	In the Draft RMP/EIS, Table 4-62 (page 4-125).purports to provide a Summary of “Impacts to Proper Functioning Condition (PFC) rating” for water quality impaired Listed Streams By Alternative.” The values (miles of stream) appear to be related only to the acres assigned to various resource use designations. This approach is predicated on assumptions about the potential risk to stream PFC rating of the various resource use designations. However, there is no valid basis is for assuming a risk solely related to resource use, especially when consideration is given to management of permitted uses to maintain or achieve stream PFC. Assume that management related to resource use that is intended to achieve improved PFC ratings would be largely successful, thus removing the purported risk. Delete this table, as it provides no useful information relative to the true and relative environmental consequence of the alternatives. (See also Table 4- 287. Summary of Impacts to Livestock Grazing and Table 4- 363 Comparison of Alternative by Livestock Grazing Indicators).	In the Draft RMP/EIS, Chapter 4, Water Resources, Table 4-62 included a summary of predicted impacts to proper functioning condition (PFC) ratings for water quality impaired streams based on the acres allocated for various public land uses. The table provided a general comparison of predicted impacts across all of the alternatives so the differences were easy to identify. The same table was included in the Final EIS in Chapter 4, Water Resources, Table 4-77. The Final EIS included the assumption that allocating an area to a specific resource would affect the resources within the allocation area. For example, an authorized use within a riparian area would result in some level of risk to PFC ratings. Authorized livestock grazing in pasture with riparian areas, could not eliminate all potential risks to the PFC rating. Table 4- 287 (Chapter 4, Livestock Grazing, Summary of Impacts to Livestock Grazing) and Table 4- 363 (Chapter 4, *Social and Economic Features*, Comparison of Alternatives by Livestock Grazing Indicators), were not included in the Final EIS.

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Water Resources	The Owyhee County Natural Resources Plan has established the Idaho Agricultural Pollution Abatement Plan as the standard for management of water quality resources in Owyhee County Natural Resources Plan (Ch. 4).The process for addressing water quality impaired streams involves basin or sub-basin assessment for achievement of assigned beneficial uses by waters within the basin or sub-basin. The next step is the development of a Total Maximum Daily Load (TMDL) for pollutant input limits. Upon completion of the sub-basin assessment and TMDL, each area develops an implementation plan including the management actions expected to achieve the TMDL. The Ag Plan (adaptive management) management identified, implemented, monitored and modified as necessary. This process has been the standard in Idaho and Owyhee County for many years and must continue as the one comprehensive approach to water quality management throughout the County. While some of the science and data developed through the Interior Columbia Basin Ecosystem Management Plan (ICBEMP) may be useful on a basin wide scale, the management strategies and actions such as the Aquatic and Riparian Management Strategy (ARMS) cannot be implemented in the absence of a Record of Decision. The application of the ARMS through the Land Use Planning process does not conform to the NEPA requirements for coordination with Owyhee County (40 C.F.R. § 1502.16 and 1502.2) specifically in regard to the ICBEMP and its component strategy (ARMS). Nor does this approach comply with requirements of the Federal Land Management Planning Act for coordination and consistency with local plans and policies of Owyhee County. The ARMS as presented in Appendix D consists of 37 pages and is essentially a decision document with regard to management strategies and actions therein to apply through the Draft RMP/EIS. As such, this document is subject to a public review process and an EIS as required by NEPA before implementation. Furthermore, the ARMS strategy has never been presented to the County for	In the Final EIS, the *Water Resources* sections in Chapter 2 and Chapter 3 were revised to include a more detailed description of the Idaho and Nevada water quality standards (numeric, narrative and anti-degradation) and the role of the Environmental Protection Agency, Idaho Department of Environmental Quality (DEQ), and Nevada Division of Environmental Quality (NDEP) in developing and enforcing water quality standards that protect beneficial uses such as drinking water, cold-water fisheries, industrial water supply, recreation, and agricultural water supply. Information on coordination with DEQ and NDEP to identify opportunities to mitigate impacts to water quality (WR-CA-MA-7) and during the Total Maximum Daily Load development process (WR-CA-MA-8) was included in the Final EIS. The Final EIS, which included the Aquatic and Riparian Management Strategy (ARMS; Appendix D), conforms with BLM direction to use the Interior Columbia Basin Ecosystem Management Plan Strategy and Framework and other available science to improve riparian condition. This Final EIS is the NEPA analysis of the ARMS and the forthcoming Record of Decision (ROD) will be the decision document. The ARMS incorporates the Inland Native Fish Strategy guidance which has a completed ROD and amended the 1987 Jarbidge RMP. In December, 2010, Owyhee County provided the BLM with written comments on the Draft RMP/EIS, which included comments on the ARMS, as part of their review for consistency with the Owyhee County Resource Management Plan (ORMP). The BLM met with representatives of Owyhee County on February 14, 2011 in Murphy, Idaho to discuss the County's comments on the ARMS in detail. Owyhee County provided the BLM with additional comments on the ARMS on March 6, 2011.

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	consideration under their coordination agreement.	
Water Resources	Another area of concern for the Twin Falls County Soil and Water Conservation District and the Bruneau River Soil and Water Conservation District would include easements/diversions for water development, both irrigation and livestock. Many of the Soil and Water Conservation Districts' efforts relating to improvements for both water quality and quantity are related to the conversion of irrigated acres from furrow irrigation to sprinkler and off stream livestock water development. The ability of BLM to provide sufficient flexibility and cooperation will be crucial to the implementation of many future resource conservation projects.	In the Final EIS, the Chapter 2 Alternative VI (Proposed RMP) *Water Resources* section would not preclude easements or diversions for water development projects. New projects or modifications to existing water developments would have a site analysis to assure project objectives can be met without preventing the attainment of Federal and State water quality standards. Actions related to irrigation uses and modifications on private lands are beyond the scope of this planning effort.
Water Resources	Use of the Aquatic and Riparian Management Strategy (ARMS) is not appropriate because the goals and objectives for water resources relate to Federal and State water quality standards as called for in the Clean Water Act and not to the riparian and aquatic conservation and restoration guidance contained in the ARMS (Appendix D).	To comply with current BLM policy, the Aquatic and Riparian Management Strategy (ARMS) was included in the Final EIS (Appendix D). The ARMS supports the goals, objectives and management actions in Chapter 2, *Water Resources* and provided a framework for meeting Federal and State water quality standards as called for in the Clean Water Act. Appendix D, Figure D-1 displayed the relationship between riparian functional condition, aquatic habitat condition and State water quality standards. In the Final EIS, Alternative VI (Proposed RMP) used the ARMS to improve riparian condition, instream conditions and ultimately water quality to levels that meet Federal and State water quality standards.
Water Resources	The Draft RMP/EIS errs in eliminating/prohibiting in one or more alternatives, including the preferred alternative, the livestock trailing/crossing on the East Fork of the Jarbidge River above Murphy Hot Springs. (1) Any elimination/prohibition of such trailing/crossing is unwarranted by the facts, as discussed in our previous comments, including the stream water quality information. (2) A BLM Biological Assessment dated September 2, 1998, and a US Fish and Wildlife Service Memorandum dated September 10, 1998, determined that such trailing/crossing "is not likely to adversely affect bull trout".	In the Final EIS, this activity was removed from the management actions in Chapter 2 because it is not a land use plan level decision. It is identified in Appendix D: Aquatic and Riparian Management Strategy, Table D-10 as an ongoing action with Endangered Species Act completed consultation.
Water Resources	In the Draft RMP/EIS (p. 3-11), *Water Resources*, second paragraph, the Idaho Department of Environmental Quality listed only one small segment of Salmon Falls Creek as water quality limited, not the whole creek.	The Final EIS revised the Chapter 3 *Water Resources* section to include links to the most current information for water quality impaired streams within the planning area. The water quality impaired stream segments for Salmon Falls Creek was clarified

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		based on Idaho's 2010 Integrated Report prepared (DEQ, 2011). In this report, Salmon Falls Creek is water quality impaired near the Nevada State line.
Water Resources	In the Draft RMP/EIS, Chapter 4, *Water Resources*, on pp. 4-87 to 4-132, the BLM mentioned numerous times that motorized vehicle use affects water quality. The use of roads generally does not affect water quality, especially roads up on the plateau. Do not use this as an excuse to close roads. The factor that the BLM does not mention is mother nature. When there is a substantial snow pack and then fast melting occurs, a substantial amount of runoff occurs and it usually runs in the already existing ravines or gullies, not roads. The same is true for torrential rain or hailstorms. The fact that the BLM does not mention this anywhere in the Draft RMP/EIS misleads the public for the purpose of road closure.	The comment refers to the Draft RMP/EIS, Chapter 4, analysis in the *Water Resources* section, Impacts from Transportation and Travel Actions which referenced Furniss and others (1991) to support the conclusion that roads contribute substantial amounts of sediment to streams. The discussion of impacts in that section acknowledged that roads in riparian areas are a greater source of sediment to streams than roads in upland areas. The Final EIS also used the reference for Furniss and others (1991) in assessing impacts to Water Resources from Transportation and Travel actions. The comment did not provide the BLM with literature to consider that supports the view that roads do not affect water quality. The Final EIS revised the Chapter 3 *Soil Resources* section to include additional information regarding the natural erosion processes within the planning area.
Water Resources	In the Draft RMP/EIS, Chapter 4, *Water Resources*, (pp. 4-87 to 4-132), I cannot tell to which streams and segments you are referring.	The Final EIS, Chapter 4 *Water Resources* section was revised to include references to the maps for Water Quality Impaired Streams (Map 6); Proper Functioning Condition Ratings (Map 16); Riparian Conservation Areas (Map 22); Habitat Condition Ratings (Map 23; and Appendix D: Aquatic and Riparian Management Strategy, Maps D-1 through D-9); and Bull Trout and Redband Trout Distribution (Map 24).
Water Resources	In the Draft RMP/EIS, on p. 4-132, we take exception to your comment "Designating the Sagebrush Sea Area of Critical Environmental Concern as a Critical Suppression Area with management objectives that include minimizing public land uses would reduce the potential for impacts to water quality in water quality impaired streams and riparian areas not at Proper Functioning Condition".	The comment refers to the Draft RMP/EIS, Chapter 4, *Water Resources* section, Cumulative Impacts from Alternative V (p. 4-132). The Sagebrush Sea Area of Critical Environmental Concern (ACEC) was included in Alternative V and emphasizes reduced authorized uses to restore resource conditions over time. The Water Resources analysis for Alternative V predicted fewer cumulative impacts to proper functioning condition (PFC) ratings and water quality due to having the least amount of authorized uses. In addition, designating the Sagebrush Sea (956,000 acres) as a Critical Suppression Area would reduce the potential for cumulative impacts to PFC ratings and water quality from wildland fire. The analysis for the impacts to water quality in the Sagebrush Sea ACEC relative to critical suppression areas was clarified in the Final EIS in Chapter 4, *Water Resources* section, Impacts from Wildland Fire Ecology and Management

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		Actions, Alternative V.
Water Resources	Draft RMP/EIS, Section 2.3.4, *Water Resources*: An inconsistency in the management of water resources in relation to the Yahoo Creek area and the proposed Deadman/Yahoo Special Recreation Management Area (SRMA) may exist (WR-CA-MA- 1, p. 2-24). The proposed Deadman/Yahoo SRMA (Map 54) in Alternative IV of the Draft RMP/EIS included a portion of Yahoo Creek. Improving water quality on priority streams (Map 17), including Yahoo Creek, is a stated goal common to all action alternatives and this area is designated to allow off-road travel. Vehicle travel through streams in SRMAs would increase sediment and nutrient loads and impede water quality improvement. Any actions implemented to increase water quality upstream would be likely be compromised by this action in the SRMA downstream. Eliminating the section of the SRMA that included Yahoo Creek or implementing stream crossings designed to protect water quality in the Yahoo Creek section of the SRMA would address this issue. The latter would dually protect water quality and uphold off road travel. Additionally, WR-CA-MA-4 (p. 2-25) states that uses can be suspended if they are a factor in not meeting water quality standards. If the BLM anticipates that off-road stream crossings that protect water quality cannot be implemented, then Idaho Department of Fish and Game suggests it would be prudent to amend the SRMA at this stage of the planning process rather than suspending the use later.	The comment refers to the Draft RMP/EIS, Chapter 2, *Water Resources* section, WR-CA-MA-1 and how it relates to the Chapter 2, *Recreation* section, and REC-IV-A-1 which designates a 34,000 acre Deadman/Yahoo Special Recreation Management Area (SRMA). This SRMA encompasses Yahoo Creek which is a water quality impaired stream. Alternative VI (Proposed RMP), Chapter 2, *Recreation*, REC-VI-A-1 created a separate Yahoo SRMA (3,000 acres) and Deadman SRMA (13,000 acres). A map displaying the revised SRMA boundaries is included in the Final EIS (Map 66). With the revised SRMA boundaries, Yahoo Creek is within the Yahoo SRMA. The Final EIS, Chapter 2, *Recreation*, included management actions to reduce impacts to water quality in the Yahoo SRMA during the development of an implementation and monitoring plan for the SRMA (REC-CA-MA-1), to implement resource protection measures (REC CA-MA-2), or to design new or modify, relocate or discontinue existing recreation-related activities and facilities if they are not maintaining aquatic and riparian conditions (REC-CA-MA-3). The *Transportation and Travel* section includes direction for new, replacement and reconstructed stream crossings (i.e., culverts, bridges and other stream crossings) (TR-CA-MA-14). These management actions, used in conjunction with adaptive management, would reduce impacts to water quality and support the attainment of water quality objectives in the Yahoo SRMA. The restoration priorities in the Aquatic and Riparian Management Strategy (Appendix D) would be used to address water quality concerns within the Yahoo SRMA.
Water Resources	While the Draft RMP/EIS in Chapter 3, *Water Resources*, discusses water rights as related to surface water diversions for irrigation purposes (p. 3-10, 3-11, 3-40) and as related to Desert Land Entries (p. 3-70), the Draft RMP/EIS does not discuss such water rights related to livestock watering.	The Final EIS revised the Chapter 3 *Water Resources* section to clarify that surface water is diverted from streams under water rights granted by Idaho Department of Water Resources. The Final EIS removed the distinction for water rights related to private land irrigation.

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Water Resources	As an overall statement, while the Draft RMP/EIS in Chapter 4, *Water Resources* discusses water rights as related to administration by the States (p. 4-4, p. 4-391), as related to private land use (p. 4-130, p. 4-225), briefly as related private and public land uses (p. 382), as related to wild horses (p. 4-502, p. 4-509), and as related to Oil and Gas operations (p. 4-505, p. 4-610), the Draft RMP/EIS does not discuss such water rights as related to livestock watering. The exception to this rule occurs as related to wild horses, wherein the Draft RMP/EIS understands that the alternative(s) would create conflict; but, the Draft RMP/EIS treats water rights as some kind of burden on the permittee: "If the amount of forage available to livestock in the Saylor Creek Herd Management Area (HMA) decreases substantially, the permittees would no longer need to maintain or provide access to those private water rights within the HMA. In that case, in order to maintain sufficient water availability for wild horses, water rights would need to be secured, and new wells would need to be drilled on BLM-managed land." (see Draft RMP/EIS, p. 4-502). However, the Draft RMP/EIS entirely fails to recognize that water rights are a property right, and entirely fails to assess the implications of these water rights under the various alternatives.	The Draft RMP/EIS, Chapter 4, Introduction (p. 4-4) acknowledged surface water rights are allocated by the Idaho Department of Water Resources and the Nevada Division of Water Resources. The Final EIS considered that surface water management is not under BLM discretion or authority, but has direct, indirect and cumulative impacts to BLM-managed streams in the Chapter 4 analysis in the *Water Resources, Riparian Areas and Wetlands,* and *Special Status Fish and Aquatic Invertebrates* sections. The recognition of water rights as a property right and the need for an assessment of the implications of water rights is beyond the scope of this planning effort. The Draft RMP/EIS, Chapter 4, *Wild Horses* recognized that a private water right is used to supply water to wild horses on the Saylor Creek Herd Management Area (HMA). Because the permittees have a vested interest in the wells and pipeline systems, they conduct the majority of the maintenance. The analysis identified the potential for future changes in the management of surface waters within the HMA which could lead to a shift in the maintenance of the water system to the BLM or the need to develop water on the public land if the water right holder decides to use the water outside of the HMA and a portion of the private water right cannot be committed to the HMA through a cooperative agreement. Additionally, because portions of the water supplied to the HMA comes from a private well through an agreement between the permittees and the owner of the well, there would be no guarantee the BLM would be able to continue accessing that water for use within the HMA.
Water Resources	The non-perennial stream segments are likely to be particularly important to sage-grouse, since many of these areas are not in steep canyons, and so they are used by grouse for brood rearing and water.	In the Final EIS, management direction for seasonally flowing or intermittent streams is included in Alternative VI (Proposed RMP), Chapter 2, *Riparian Areas and Wetlands*, RI-CA-MA-1 (Category 4) and in the Aquatic and Riparian management Strategy (Appendix D) on p. 2 (Category 4).
Water Resources	Did BLM place any thermometers in the currently unoccupied reaches? BLM has no idea how high the temperatures are in the streams that are currently unfit for trout to live in. (see Draft EIS, Chapter 3, p.3-40).	The comment refers to the Draft RMP/EIS, Chapter 3 *Special Status Fish and Aquatic Invertebrates* section, under the subhead for Interior Columbia River Redband Trout. Water temperature monitoring sites focused on streams that contain Endangered Species Act-listed or BLM sensitive aquatic species. The sites for monitoring water temperature in the bull

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		trout occupied watersheds were coordinated with the US Fish and Wildlife Service in Reno, Nevada, and US Geological Survey in support of a bull trout migration study under a Cooperative Agreement between these two agencies. The placement of thermographs in the redband trout occupied watersheds was based on the occurrence of redband trout and the confluence of perennial tributaries that could have a measurable effect on water temperature. The Final EIS revised Chapter 3, *Special Status Fish and Aquatic Invertebrates*, to include the BLM water temperature data that was collected between 2008 and 2011 for redband trout and bull trout streams.
Water Resources	There is no analysis of cumulative impacts of resuming grazing in burned watersheds or for activities on the Forest Service lands that comprises the upstream portion of bull trout watersheds.	In the Final EIS, the Chapter 4 analyses in *the Water Resources, Riparian Areas and Wetlands,* and *Special Status Fish and Aquatic Invertebrates* sections considered the cumulative impacts from activities that occur on the Humboldt-Toiyabe National Forest managed lands in the upper Jarbidge River Watershed. The resumption of authorized uses after a wildland fire is based on site-specific objectives and determined by an Interdisciplinary Team.
Water Resources	Which sections of streams have lost beaver dams, and how has this impacted hydrology, perennial flows, and aquatic species persistence?	The comment refers to the Draft RMP/EIS, Chapter 3, *Special Status Wildlife* section under the subheading for the Riparian/Wetland Guild. The discussion noted the beaver ponds that were present in Bear and Shack Creeks and Timber Canyon have failed and no longer provide habitat for spotted frog. The proper functioning condition assessments displayed in the Final EIS in Chapter 3, *Riparian Areas and Wetlands* (Table 3-12) and in Appendix D: Aquatic and Riparian Management Strategy (Table D-5) reflect the impacts of beaver dams on riparian areas. Habitat condition data for these streams is included in Appendix D (Table D-3). The impacts analysis for special status species is included in Chapter 4 of the Final EIS in the *Special Status Fish and Aquatic Invertebrates* and *Special Status Wildlife* sections.
Water Resources	The BLM refers to a 1997 Watershed Analysis. This analysis pre-dated Bull Trout Endangered Species Act listing for the Jarbidge Distinct Population Segment. The reference to this document highlights the need for the BLM to analyze cumulative impacts of livestock grazing caused by the same BLM-managed lands that herds graze on the shared Forest watershed. These herds, and this same very small number of	In the Draft RMP/EIS, the Aquatic and Riparian Management Strategy (ARMS; Appendix D) included guidance for completing multi-scale assessments and ecosystem analysis at the watershed scale. The ARMS identified one Watershed Analysis that was completed by the BLM and US Forest Service in 1997. The ARMS identified other broad scale and mid-scale aquatic resource assessments, Conservation and Recovery Plans

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	permittees affects populations of bull trout, redband trout, as well as sage-grouse, pygmy rabbit and other wildlife over a huge land area.	(Table D-9) and Endangered Species Act consultation with the US Fish and Wildlife Service (Table D-10) that were completed in the Jarbidge planning area. The ARMS summarized the most current habitat condition data (Table D-3) and proper functioning condition data (Table D-5) which define the baseline conditions for the aquatic resource analysis in Chapter 4. The Final EIS, Appendix D, included a clarification there were two watershed analysis completed in the Jarbidge River Watershed. The second watershed analysis, Watershed Analysis for the East Fork Jarbidge River, was completed by the Forest Service in 2004.
Water Resources	Under this Plan, the BLM has no obligation to do water quality monitoring. This runs counter to the Fundamentals of Rangeland Health. The BLM must monitor for *E. coli* and other bacteria on a required and specific schedule associated with livestock and other use impacts.	The Final EIS, Chapter 2 Alternative VI (Proposed RMP) *Water Resources* section included management direction for coordination with Idaho Department of Water Resources (IDWR, 1993), Idaho Department of Environmental Quality (DEQ), and Nevada Division of Environmental Protection (NDEP) to identify and mitigate impacts of public land management on water resources (WR-CA-MA-7 and WR-CA-MA-8). This coordination included monitoring of water quality indicators, data sharing for Total Maximum Daily Load development, and other coordination to reduce duplication of effort for these agencies. The Final EIS, Chapter 2 (Table 2-5) also identified coordination with Idaho Department of Water Resources, DEQ, and NDEP to monitor water quality impaired or other priority streams as resource conditions warrant.
Water Resources	BLM must identify all causes of water quality standards exceedances, and examine all direct, indirect and cumulative impacts - including activities on private lands.	The Final EIS revised Chapter 3 to include links to the most current information for water quality impaired streams within the planning area. The causes for not attaining water quality standards can be attributed to numerous public land uses and environmental factors. The process for identify the causes for exceedances are determined at the site–specific level. The Chapter 2 Alternative VI (Proposed RMP) *Water Resources* section included management direction for coordination with Idaho Department of Water Resources, Idaho Department of Environmental Quality, and Nevada Division of Environmental Protection to identify and mitigate impacts of water management on public land resources (WR-CA-MA-7). The Final EIS included an analysis of the direct, indirect and cumulative impacts to water resources in the Chapter 4 *Water Resources* section.

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Water Resources	The Draft RMP/EIS refers to the Idaho Agricultural Pollution Abatement Plan and does not explain that this is voluntary. It lists best management practices, but the list does not show how management would occur, and how the BLM would achieve significant positive change.	In the Final EIS, Chapter 2 *Water Resources* section, management action WR-CA-MA-4 identified the use of best management practices, where applicable, to maintain or improve water quality (Appendix B: Best Management Practices, Design Features, and Operating Procedures) and to implement recommendations from State water quality plans to achieve water resource goals and objectives. The management action identified the Idaho Agricultural Abatement Plan as an example of a State water quality plan. This management action was included in Alternative VI (Proposed RMP). Alternative VI also included management direction to coordinate with Idaho Department of Water Resources, Idaho Department of Environmental Quality, and Nevada Department of Environmental Protection to identify opportunities to mitigate impacts to water quality from management on public land resources (WR-CA-MA-7). This interagency coordination would improve water quality within the planning area.
Water Resources	There has never yet been a full and detailed analysis of water developments and all direct, indirect and cumulative impacts in the Jarbidge planning area. The Draft RMP/EIS lacks information on flows and changes in flows over time.	The Draft RMP/EIS identified the location of water developments within the planning area on Map 22. The water developments used to transfer water under private water rights are considered in the Final EIS in the Chapter 4 sections for *Water Resources, Riparian Areas and Wetlands,* and *Special Status Fish and Aquatic Invertebrates* under the Cumulative Impacts. All of the aquatic resources sections identify cumulative impacts from water developments.
Water Resources	We are concerned the BLM has been conducting limited water quality monitoring, and does not have an adequate baseline data for sedimentation, turbidity, algal growth, temperature and bacterial contamination of waters due to livestock grazing impacts, and in some cases, the combined impacts of grazing and roads.	The Final EIS revised the Chapter 3 *Water Resources* section to include links to the most current information for water quality impaired streams within the planning area and the role of the Environmental Protection Agency, Idaho Department of Environmental Quality (DEQ), and Nevada Division of Environmental Protection (NDEP) in developing and enforcing water quality standards that protect designated beneficial uses. In Alternative VI (Proposed RMP), Chapter 2, *Water Resources* section, WR-CA-MA-7 included direction to coordinate with Idaho Department of Water Resources, DEQ, and NDEP to comply with State water quality standards. This coordination included monitoring of water quality indicators, data sharing to reduce duplication of effort, and coordination on Total Maximum

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		Daily Load development for water quality restoration (WR-CA-MA-8).
Water Resources	Clarify how the BLM post-fire grazing and other activities heighten water quality problems.	In the Final EIS, the Chapter 4 *Water Resources* section analysis described the general impacts from wildland fire and livestock grazing on water quality under the subheadings for Impacts from Wildland Fire Ecology and Management Actions and Impacts from Livestock Grazing Actions, respectively. The analysis stated the impacts to water quality from wildland fire vary according to fire frequency, severity, and the functional condition of the riparian area. The loss of vegetation can increase erosion rates to levels which impacts water quality. Emergency stabilization and rehabilitation actions, as well as modification or suspension of authorized land uses, reduces impacts to water quality from wildland fire and expedites resource recovery within the burned area. Alternative VI (Proposed RMP), Chapter 2, *Wildland Fire Ecology and Management* section, under Fuels and Emergency Stabilization and Burned Area Rehabilitation, included management direction to rest burned areas from authorized uses, such as livestock grazing, until Emergency Stabilization and Burned Area Rehabilitation objectives have been met (FE-CA-MA-10).
Water Resources	The Draft RMP/EIS fails to provide required mandatory monitoring of bacterial contamination sediment, temperature, and other water quality concerns during periods of livestock use, when runoff occurs, and other critical time periods. It fails to provide thresholds/triggers for rectifying exceedances by minimizing disturbance such as livestock degradation of uplands and riparian areas. There is not a reasonable range of alternatives to address water quality issues.	In the Final EIS, the Chapter 2 Alternative VI (Proposed RMP) *Water Resources* section included management direction for coordination with Idaho Department of Water Resources, Idaho Department of Environmental Quality, and Nevada Division of Environmental Protection to identify and mitigate impacts to water quality from public land management (WR-CA-MA-7). This coordination included monitoring of water quality indicators, data sharing to reduce duplication of effort, and coordination on Total Maximum Daily Load development for water quality restoration (WR-CA-MA-8). The Draft RMP/EIS, the Chapter 2 *Water Resources* sections included goals, objectives and management actions for maintaining or improving the chemical, physical and biological integrity of water resources and meeting Federal and State water quality standards for all action alternatives. The Clean Water Act requires compliance with Federal and State water quality standards and therefore does not vary for the alternatives

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		analyzed. In the Final EIS, the Chapter 2 Alternative VI *Water Resources* section included this same goal to maintain or improve the chemical, physical, and biological integrity of water resources (WR-CA-G-1) and make progress towards meeting Federal and State water quality standards (WR-CA-O-1).
Water Resources	Estimating some degree of temperature increase is essential to understanding if water quality criteria can be met with continued commodity uses or management stresses on systems. Since shading vegetation is critical to maintaining cool water temperatures, the BLM must have much stronger recovery goals than proper functioning condition in some places over the next 20 years. Examine the combined cumulative effects of livestock grazing and trampling in watersheds, existing flow reductions for diversions and developments, along with the additional stresses posed by climate change on ecosystems.	In the Final EIS, the Chapter 2 Alternative VI (Proposed RMP) *Water Resources* section included the goal to improve the chemical, physical, and biological integrity of water resources (WR-CA-G-1) and make progress towards meeting Federal and State water quality standards (WR-CA-O-1). Appendix D: Aquatic and Riparian Management Strategy, Figure D-1 displayed the relationship between riparian functional conditions (proper functioning condition [PFC], habitat condition, and State water quality standards). Improvement in water quality to levels that could result in the delisting of water quality impaired streams occurs when riparian condition improves beyond the initial rating of PFC. For this reason, the goals, objectives and management actions for maintaining or improving water quality are to meet Federal and State water quality standards, not for attaining PFC. The combined effects of multiple land uses on water quality are included in the Final EIS, Chapter 4 *Water Resources* section under Cumulative Impacts.
Wild and Scenic Rivers	The Draft RMP provides for management of designated segments of the Bruneau and Jarbidge Rivers to maintain or enhance their outstandingly remarkable values. However, the Wild and Scenic Rivers Act requires preparation of a comprehensive management plan for designated river segments. 16 U.S.C. § 1274(d) (1). The Draft RMP/EIS does not mention this important next step. We assume that the forthcoming wilderness plan by the Boise District BLM will include a management plan for Wild and Scenic Rivers in the planning area.	The Final EIS updated management related to the Omnibus Public Land Management Act of 2009 and Wild and Scenic Rivers that occurred just prior to the release of the Draft RMP/EIS. In the Final EIS, management action WSR-CA-MA-1 provides direction to “Manage the designated segments of the Bruneau and Jarbidge Rivers in accordance with the Owyhee Canyonlands Wilderness and Wild and Scenic Rivers Management Plan to maintain or enhance their Outstandingly Remarkable Values, free-flowing condition, water quality, and classification.”
Wild and Scenic Rivers	The prescriptions for opening designated, suitable and eligible river segments to salable mineral development and mineral leasing are not sufficiently protective. Designated, suitable, or eligible segments should not be available for right-of-way development.	The comment refers to Alternatives II and III in the Draft RMP/EIS where Eligible, Suitable, and Designated Wild and Scenic Rivers (WSR) would be available for leasable mineral development with a No Surface Occupancy stipulation with exception and waiver clauses if environmental analysis determines Outstandingly Remarkable Values (ORVs) would not be impaired (LE-II –MA-1; LE-III-MA-1). Eligible, Suitable and

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		Designated WSR would be available for salable mineral development in Alternative II (SA-II-MA-1). In the Final EIS, Alternative VI (Proposed RMP) includes management direction that designated, suitable, and eligible WSR would be closed to exploration and development of leasable or salable minerals. Management direction also states designated, suitable, and eligible WSR corridors would be a right-of-way (ROW) avoidance area that retained the existing utility corridor south of Murphy Hot Springs on Jarbidge River, East Fork and Jarbidge River. In addition, new ROWs within designated, suitable, and eligible WSR corridors must maintain or enhance the river segment's ORV, free-flowing condition, water quality, and tentative classification.
Wild and Scenic Rivers	Section 2.5.3 Wild and Scenic Rivers (WSRs) of the Draft RMP/EIS is irrelevant. The Wild and Scenic Rivers Act was originally designed to regulate dam construction across significant rivers and maintain those rivers in their free flowing state. The proposal to designate the small streams, such as Dave Creek, Cougar Point Creek, and Rocky Canyon Creek, as WSRs is an abuse of agency discretion and authority that far exceeds the intent of Congress.	The determination of eligibility during land use planning is required under Section 5 (d) (1) of the Wild and Scenic Rivers Act. The BLM identifies areas that meet the eligibility and suitability criteria but does not have the authority to make the designation official. The segments identified in the Final EIS meet criteria set forth in the Act. The Final EIS revised management related to the Omnibus Public Land Management Act of 2009 and Wild and Scenic Rivers that occurred just prior to the release of the Draft RMP/EIS.
Wild and Scenic Rivers	Map 113 indicates that a segment of Rocky Canyon Creek is eligible for inclusion in the nation's system of wild and scenic rivers. The management common to all action alternatives suggests restrictions that could interfere with wind energy development. In fact, while this segment of the creek may be within the overall boundary of a proposed wind energy project, the creek would not be physically impacted by a project. The BLM should explain this in the Final EIS.	Through Section 5 (d) (1) of the Wild and Scenic Rivers Act, the BLM is required to assess rivers under its management jurisdiction and determine eligibility for these rivers by applying standardized criteria through a documented evaluation process. The Final EIS describes this process in Section 3.4.3 and in Appendix N: Wild and Scenic River Eligibility Determination. Because the Omnibus Public Land Management Act of 2009 does not "release" eligible or suitable segments of rivers that were not designated (Sec.1504), Rocky Canyon Creek was included in Alternative VI (Proposed RMP) in Chapter 2 (WSR-C-A-3) as eligible for inclusion in the National Wild and Scenic Rivers System. A determination of site-specific impacts of a proposed project is not appropriate at the land use planning level. The potential impacts to this eligible segment would be determined in a project specific NEPA analysis.

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Wild and Scenic Rivers	Because Congress has spoken, no additional segments or portions of rivers should receive special status or management prescription in the planning area.	The comment refers to Chapter 2, Section 2.5.3, (WSR-C-A-1, WSR-C-A-2) which recommended segments of the Bruneau River (Blackrock Crossing to Hot Creek) and Jarbidge River (Jarbidge Forks to Bruneau River) as suitable for inclusion in the Wild and Scenic River system. Because the Omnibus Public Land Management Act of 2009 (OPLMA) does not "release" eligible or suitable segments of rivers that were not designated by OPLMA (OPLMA, Sec.1504), these river segments retain their eligible or suitable status.
Wild and Scenic Rivers	In Appendix W of the Draft RMP/EIS please clarify the following statement in the fourth paragraph: "However, the Wild and Scenic River corridor only extends 0.25 miles above the high water mark on each side of the river, which does not provide any protection for these values outside the Wild and Scenic corridor". Actually, this stretch of the Salmon Falls Creek Area of Critical Environmental Concern is not accessible to anyone, contains steep canyon walls, and is virtually covered by large lava rocks for the whole segment of that river. It is virtually impossible to even hike it. It does not warrant any further protection.	The Final EIS, Appendix N: Wild and Scenic River Eligibility Determination includes description of the relevant and important values for the Salmon Falls Creek Area of Critical Environmental Concern. The Wild and Scenic Rivers Act (WSRA) (Sec. 4-d) states the boundaries of any river proposed for potential addition to the National Wild and Scenic Rivers System shall generally comprise that area measured within one-quarter mile from the ordinary high water mark on each side of the river. The WSRA defined this corridor and BLM does not have discretion to adjust it.
Wild and Scenic Rivers	Salmon Falls Creek offers recreational opportunities and the Resource Advisory Council has supported an Special Recreation Management Area designation with allowances for transmission lines. The Salmon Falls Creek area is currently a transmission line chokepoint due to several designations, Furthermore; the issue needs to be addressed cooperatively with the Burley Field Office to ensure consistency.	Alternative VI (Proposed RMP) would designate the Roseworth right-of-way corridor for utilities across Lily Grade, LA-VI-A- 3.
Wild Horses	I urge that the following tenets be incorporated in the Draft RMP/EIS: - Designate all Herd Management Areas (HMAs) principally for wild horse or burro herds as allowed under 4.3 CFR 4710.3-2. -Decrease or eliminate livestock grazing in HMAs pursuant to 43 C.F.R. 4710.5[a]). - Base Appropriate Management Levels on scientific and rational principles that provide adequate herd size for genetic viability.	43 CFR 4710.3-2 states “Herd management areas may also be designated as wild horse or burro ranges to be managed principally, but not necessarily exclusively, for wild horse or burro herds”. It is not necessary to designate the Saylor Creek Herd Management Area (HMA) as a “Horse Range” because the criteria described in the Wild Horses and Burros Management Handbook (H-4700-1) has not been determined to exist. Criteria for consideration as a Horse Range include the presence of one or more of the following: unique herd characteristics, outstanding viewing opportunities, unique landscape, or significant historical or cultural features.

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	- Allocate resources equitably. Do not allocate more resources to ranching and other commercial usages than given to wild horses and burros.	43 CFR 4710.5(a) states "If necessary to provide habitat for wild horses or burros, to implement herd management actions, or to protect wild horses or burros, to implement herd management actions, or to protect wild horses or burros from disease, harassment or injury, the authorized officer may close appropriate areas of the public lands to grazing use by all or a particular kind of livestock." It is not necessary to close the Saylor Creek HMA to grazing because the closure criteria described in the above CFR does not exist. The Appropriate Management Level (AML) as analyzed in Alternative VI (Proposed RMP) would maintain a wild horse population between 50 and 200 animals. Determination of the AML conforms to the Wild Horses and Burros Management Handbook (H-4700-1) by performing the 3-tier analysis and report. Review of published scientific literature (Coates-Markle, 2000) supports selection of the population range in the Proposed RMP as being able to maintain and promote genetic fitness and be in balance with livestock grazing and available water on the HMA. If genetic testing indicates diversity is declining, introduction of 1 or 2 mares every generation would strengthen the genetic pool. The Saylor Creek HMA is not an exclusive use area and the Proposed RMP balances competing uses through allocation and management of resources in order to maintain or achieve resource objectives established by the Final EIS.
Wild Horses	I urge that the following tenets be incorporated the Draft RMP/EIS: -Utilize range management to address wild horses and burros who wander across the borders of Herd Management Areas (HMAs) instead of permanently removing them. - Removals of any kind should be rare and minimal. Employ other methods of management and give them a fair opportunity to succeed before removing the horses. If a limited removal is necessary, complete it in a humane manner that respects	The Final EIS analyzed a wide array of tools to manage population growth in a balance with the ecosystem and other uses of the Herd Management Area (HMA) that will reduce the need for gathers and removals in order to maintain Appropriate Management Level (AML). See management actions WH-VI-MA- 1-7. Alternative VI (Proposed RMP) analyzed an AML of 50-200 animals. This AML would balance resource objectives and the need of users groups with the need to manage the wild horse herd at a number that would sustain genetic viability and

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	horse social structure and keeps families intact. - Range management and controlling populations on the range should be the cornerstone of management of 'wild horses and burros. Allow the development of water resources, such as a system of guzzlers in the HMA.	maximize the interval between gathers. Exceeding 200 wild horses would require removal of excess horses. The Final EIS considered the effects of allocation of forage and use of infrastructure to manage wild horses, wildlife, and livestock grazing on meeting resource objectives. Implementation of AML and other management actions would maintain or improve rangeland conditions and herd health. Alternative VI would allow for the establishment of water collection systems for meeting water needs of horses in the HMA.
Wild Horses	Support public/private partnership for on-the-range management of wild horses and burros and the creation of wild horse preserves (i.e. Soldier Meadows proposal).	Alternative VI (Proposed RMP) analyzed the use of a wide array of measures for managing Saylor Creek wild horses, including development of public/private partnerships.
Wild Horses	Incorporate protection for predators in and around Herd Management Areas as a part of managing wild horses and burros.	Wildlife population management is the responsibility of the State of Idaho. The Final EIS analyzed a range of alternatives that provided habitat improvement for multiple species including prey species that would support a broader array of predator species.
Wild Horses	The BLM has an Herd Management Area (HMA) in the planning area. The BLM is required to leave the designated HMA as an HMA, but they are not required to have any wild horses in the area. The decision on how many horses are allowed in the area and how other users are handled in this area is up to the BLM. This area is located south of Glenn's Ferry in a very popular off-highway vehicle (OHV) use area The BLM would like to restrict OHV use in this area during the spring, which is when most of the OHV use occurs. During this time, motorized traffic would be allowed only on major gravel roads, which are extremely limited in this area. This restriction would amount to a closure of OHV activity in the area from March to June of each year. OHV travel would be limited to designated roads and trails under the Draft RMP/EIS to prevent resource damage, yet the BLM does not seem to be concerned about the damage that a herd of wild horses could inflict. To restrict activity to other users because of the wild horses goes against the policy of multiple use of public land. The approval of a certain use should not constitute restriction to other users.	Policy and regulation requires the BLM to provide a safe environment for wild horses to exist within designated Herd Management Areas (HMAs). Documented conflicts between wild horses and recreational activity have occurred within the Saylor Creek HMA over the last number of years. Much of the disturbance has occurred during important seasonal periods for the horses such as foaling. Management action WH-VI-MA- 5 would provide the ability to restrict motorized use in the HMA during foaling periods only if conflicts were determined to exist. Alternative VI (Proposed RMP) analyzed managing the wild horse herd to maintain a population size of 50-200 animals. The population ranges were determined to be a balance between competing uses of the resource, and would maintain or improve rangeland resources within the HMA.

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	BLM should manage the herd size to allow it to coexist with other users. Alterative IV would be the proper alterative for HMA management. Manage HMA as a multiuse area. OHV use would be allowed on inventoried roads and trails within the HMA.	
Wild Horses	The BLM has a Herd Management Area (HMA) in the planning area. Problem with this: The BLM is required to leave the designated HMA as an HMA, but they are not required to have any wild horses in the area. The decision on how many horses are to be allowed in the area and how other users are handled in this area is up to the BLM. This area is located south of Glenn's Ferry in a very popular off-highway vehicle (OHV) use area The BLM would like to restrict OHV use in this area during the spring, which is when most of the OHV use occurs. During this time, motorized traffic would be allowed only on major gravel roads, which are extremely limited in this area. This restriction would amount to a closure of OHV activity in the area from March to June of each year. There is also the issue of the amount of forage these animals would eat that could be utilized by livestock grazers. OHV travel would be limited to designated roads and trails under this RMP to prevent resource damage, yet the BLM does not seem to be concerned about the damage that a herd of wild horses could inflict. To restrict activity to other users because of the wild horses goes against the policy of multiple use of public land. The approval of a certain use should not constitute restriction to other users. Solution: Manage the herd size to allow it to coexist with other users. Alterative IV would be the proper alterative for HMA management. Manage HMA as a multiuse area. OHV use would be allowed on inventoried roads and trails within the HMA.	Policy and regulation requires the BLM to provide a safe environment for wild horses to exist within designated Herd Management Areas (HMAs). Conflicts between wild horses and recreational activity have been documented to occur within the Saylor Creek HMA over the last number of years. Much of the disturbance has occurred during important seasonal periods for the horses such as foaling. Management action WH-VI-MA- 5 would restrict motorized use during foaling periods only if conflicts were determined to exist. Alternative VI (Proposed RMP) would manage the wild horse herd to maintain a population size of 50-200 animals which would balance competing uses of the resource and would maintain or improve rangeland resources within the HMA.
Wild Horses	Remove fencing in the Herd Management Area would allow the horses to better utilize the range and maintain their wild and free-roaming behavior. However, any re-designing of pasture configurations or fence removal should involve	The Final EIS analyzed a range of options for fence removal and pasture reconfiguration among the different Alternatives. Management action WH-VI-MA-3 in Alternative VI (Proposed RMP) allows re-design of pasture configurations and fences

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	coordination with livestock grazing permittees and the development of a Herd Management Area Plan with full public participation.	within the Herd Management Area where necessary to facilitate genetic exchange and free-roaming character. Consideration of pasture reconfiguration or any other action that affects grazing allotments would require close coordination between the BLM, permittees and other users to ensure achievement of management objectives for the Saylor Creek wild horse herd while also meeting, to the extent possible, the needs of other user groups.
Wild Horses	Alternative III is acceptable however; the initial herd size should be at least 200 reproducing wild horses rather than 130.	The Final EIS analyzed a range of Alternatives for the size of the wild horse herd in the Saylor Creek Herd Management Area. Alternative VI (Proposed RMP) proposes a herd size of 50-200 which would balance the wild horse herd with ecological environment as well as user groups.
Wild Horses	The Draft RMP/EIS should state that it is issued conditionally, depending on the findings of the report issued by the National Academy of Sciences (NAS) following its study of the Wild Horse and Burro Program. (The NAS review is expected to take 2 years.) The Draft RMP/EIS should advise that it is subject to immediate amendment pursuant to the findings and corrective actions outlined in the NAS report.	BLM's management of public land and its resources is subject to current laws and policy. If the National Academy of Sciences report results in changes to current law or policy, or new science that required changes to existing management of the Herd Management Area and wild horses, necessary changes to the Final EIS and Herd Management Area Plan would be made in order for the BLM to remain compliant.
Wild Horses	All alternatives must include fertility control, where necessary, to control wild horse reproduction and avoid mass removals of wild horses from the range. The Draft RMP/EIS should provide that, until a herd's population reaches the level deemed adequate for genetic viability, fertility controls would not be used. Further, the Draft RMP/EIS should provide for the transition to an improved contraceptive as soon as one is available. The current amino-suppressive drug has too many adverse side effects.	The Final EIS analyzed a range of Alternatives that provide the opportunity for selection of the most effective tools to manage the horse herd within the Appropriate Management Level (AML) to maintain genetic diversity but would not limit incorporation of new, more effective tools to manage the Saylor Creek wild horse herd within AML.
Wild Horses	All alternatives must accommodate horse population numbers over Appropriate Management Level through conversion of livestock grazing animal unit months to wild horses. Increase grazing fees during the phase-out period to cover BLM's true costs of managing livestock grazing activities.	The Final EIS analyzed a range of Alternatives for the herd size of the Herd Management Area. Alternative VI (Proposed RMP) has an Appropriate Management Level (AML) of 50-200 animals. This AML would balance resource objectives and the need of users groups with the need to manage the wild horse herd at a number that would sustain genetic viability and maximize the interval between gathers. Exceeding 200 wild horses would require removal of excess horses.

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		Determination of grazing fees on public lands is beyond the scope of this planning effort.
Wild Horses	Close the Herd Management Area (HMA) to all motorized vehicles at all times, not just seasonally. I also support a buffer zone to limit noise pollution and disturbance from activities taking place outside the HMA.	The Final EIS did not analyze year round exclusion of motorized actives. Documented conflict between motorized recreation and horses does not warrant year round closure due to the infrequent and small extent of such conflicts in the Saylor Creek Herd Management Area. However, WH-VI-MA-5 would provide for appropriate travel restrictions when conflicts between wild horses and uses are identified.
Wild Horses	The Draft RMP/EIS should provide for experimentation with innovative approaches for managing the Wild Horse and Burro Program. For instance, to help support the Program without complete dependence on the annual budget, there could be a campaign called "Adopt a Mustang on the Range." For a nominal yearly fee, thousands of moderate-income persons across the country could each "own" a wild horse. Such a program would likely be so "wildly" popular that BLM might even run out of enough horses to accommodate the number of would-be sponsors. The income generated could be put to good use in range-pasture improvements and the development of water resources.	Consideration of a specific pilot project as described in the comment is beyond the scope of this planning effort. However, Alternative VI (Proposed RMP) would not limit future exploration of a proposal of this type.
Wild Horses	When you publish the Final EIS, you would do well to improve the clarity of the various maps and charts. The public should be able to see clearly the location of wind, utility, and energy development projects and where they stand relative to the Herd Management Area.	The Final EIS revised maps to include the Saylor Creek Herd Management Area (HMA) where the HMA is affected, such as Expected Wind Development Areas (Maps 99 to 105), Land Tenure (Maps 106 to 113), Areas Available and Unavailable for Livestock Grazing (Maps 52 to 59), Geothermal Development Potential (Map 115), Leasable Minerals (Maps 116 to 122), Salable Minerals (Maps 123 to 129), and Locatable Minerals (Maps 130 to 135).
Wild Horses	In paragraph two of p. 3-57, the Draft RMP/EIS notes that there are no naturally occurring perennial water sources in the Herd Management Area (HMA) and that the wild horses rely solely on water sources that are installed facilities for livestock management and to support the horse herd. In paragraph five, noted regulation 43 CFR 4700.0-6(a) that wild horses be managed as self-sustaining population of healthy animals in the balance with other uses and the productive capacity of their habitat. With an artificial water source, it is not clear in the section on how this water source is self-sustaining to sustain	The Final EIS recognized the lack of naturally occurring water as an issue in the analysis. The importance of water supplied through systems installed to support livestock grazing, and the fact the majority of maintenance of these systems is performed by permittees was recognized as critical to successfully sustaining the wild horse herd. In the case of the Saylor Creek Herd Management Area (HMA), part of balancing the horse herd with the environment and meeting resource objectives, is consideration of the effects horses have on the water supply systems in terms of both water use, and increased maintenance

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	the horse herd without some sort of maintenance of the water system. Will this plan address the maintenance of the water system to sustain the wild horse herd in the HMA?	costs. The Final EIS included management direction in Alternative VI (Proposed RMP) to increase the reliability of artificial water sources for wild horses within the HMA (Chapter 2, *Wild Horses*, WH-VI-MA-4).
Wild Horses	The Resource Advisory Council unanimously supports WH-IV-A-2. Wild horses are an ongoing drain on the operating budget of the BLM. The Saylor Creek herd is composed of abandoned animals with no unique genetic value. This herd is entirely dependent on artificial water and is not capable of continued existence without the intervention of man. It makes sense to manage this herd area as a non-breeding population with herd numbers capped at 200. The herd areas across multiple states will be able to provide surplus horses to keep this area fully populated. The BLM while still having the costs associated with horse management would no longer have gathering costs except in the case of wildfire.	The Final EIS analyzed a range of wild horse herd sizes. Alternative VI (Proposed RMP) sets the Appropriate Management Level (AML) at 50-200 head of wild horses. This AML was determined following consideration of the analysis of effects of the AML within the range of alternatives on resources and resource uses in the Draft RMP/EIS, and public opinion expressed through comments. The proposed AML would balance the size of the horse herd with resource objectives, while giving consideration of the input to maintenance of the water supply system by permittees.
Wild Horses	When revising its land use policies and establishing Appropriate Management Levels for wild horses and livestock grazing allotments, BLM must consider social factors including prevailing public opinion. This was highlighted in a 1982 National Research Council report on the BLM's wild horse and burro program: Biologically, the area may be able to support 500 cattle and 500 horses, and may be carrying them. However, if the weight of public opinion calls for 1,000 horses, the area can be said in this context to have an excess of 500 cattle. For these reasons, the term excess has both biological and social components. In the above example, biological excess constitutes any number of animals, regardless of which class above 1,000. Social excess depends on management policies, legal issues, and prevailing public preference. This public outcry constitutes a "prevailing public preference" and provides sufficient reason for the BLM to reanalyze the division of resources within the Herd Management Area. This	The Final EIS analyzed a range of wild horse herd sizes. Alternative VI (Proposed RMP) set the Appropriate Management Level (AML) at 50-200 head of wild horses. This AML was determined following consideration of the analysis of effects of the AML within the range of alternatives on resources and resource uses in the Draft RMP/EIS, and public opinion expressed through comments. The proposed AML would balance the size of the horse herd with resource objectives, while giving consideration of the input to maintenance of the water supply system by permittees.

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	strong public preference also mandates the BLM to fully consider all alternatives that would accomplish this goal and avoid the mass capture and removal of wild horses from public lands.	
Wild Horses	Unfortunately, the limited and industry-centered range of alternatives presented in the Draft RMP/EIS fail to provide the necessary protections to wild horses, as well as for sage-grouse, pygmy rabbit, songbirds, eagles and other wildlife for which the public values protection.	The Final EIS analyzed eight alternatives that included a wide range of allocations to resources and resource uses. For example, allocations (forage and areas available) to livestock ranged from two fold increases to reductions of 78%. For example, in Alternative IVA the initial allocation would result in a 22-50% reduction, Alternative, IVB a 22-50% reduction, and Alternative V a 51-75% reduction from the No Action Alternative. Adjustments to current allocations would be a function of the reduced area available to livestock grazing and the reduced percentages of vegetation allocated to livestock in order to meet wild horse, special status species, wildlife, soils, and vegetation resource objectives.
Wild Horses	Further, all alternatives presented in the Final EIS should include options for: (1) Maximize conditions for wild horse population in the Herd Management Area. (2) Break the unsustainable cycle of roundups and removals. (3) Manage horses on the range in a humane and cost-effective manner.	The Final EIS analyzed a range of wild horse herd sizes. Development of Alternative VI (Proposed RMP) considered comments received from the public on the Draft RMP/EIS, the analysis of effects described in the Chapter 4, and the best available science to determine the Appropriate Management Level (AML) would establish the AML at 50-200 wild horses. This AML would increase the interval between roundups, decrease stress to the horses during gathers and while placed in temporary holding facilities, and decrease costs to the tax-payer related to these activities.
Wild Horses	All alternatives must declare the Herd Management Area closed, off-limits to geothermal/fluid mineral leasing, mineral allocations, locatable mineral development, and gas and oil exploration, and mining.	The Wild Free-Roaming Horse and Burro Act and the BLM's Wild Horses and Burros Management Handbook do not preclude energy and mineral exploration and development. Activities within the Herd Management Area (HMA) would be required to have stipulations to protect the health and welfare of the wild horses and HMA. Only Congress can close the HMA to locatable mineral development so this request is beyond the scope of this planning effort.
Wild Horses	All alternatives must prohibit transmission or energy corridors in the Herd Management Area (HMA). Create a five-mile buffer zone around the HMA, to be "off-limits" to development and all	The Wild Free-Roaming Wild Horse and Burro Act and the BLM's Wild Horses and Burros Management Handbook do not preclude transmission and energy corridors. Authorization of

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	kinds of leasing, given the HMA's small size and the vulnerability of the horses to disturbance.	activities within the Herd Management Area would require stipulations to protect the health and welfare of the wild horses.
Wild Horses	All alternatives must place the Herd Management Area as a priority for fire suppression, utilizing strategies that restore native plant communities and reduce or eliminate livestock grazing.	The Final EIS analyzed a range of Alternatives for critical suppression areas. Alternative VI (Proposed RMP) would add the Herd Management Area to the critical suppression areas. Multiple management actions in the *Wildland Fire Ecology and Management* section provide direction for managing fuels to reduce fire size and intensity to help achieve resource objectives.
Wild Horses	All alternatives must focus fuels projects on use of small-stature native species and reductions in the large unpalatable exotic grass monocultures it has seeded incrementally for livestock and following fires. These past efforts have cost taxpayers significant funds, but have exacerbated the fuels and weed problems in the area.	A wide range of plant materials for fuels projects were included in the Draft RMP/EIS and Final EIS. Alternative VI (Proposed RMP) did not limit plant material use in fuels project to low stature plants but would allow their use where appropriate.
Wild Horses	All alternatives must avoid "zeroing out" of wild horse or burro herds.	The Final EIS analyzed a range of Alternatives for the herd size of the Herd Management Area (HMA) from depopulating the HMA (Alternative II) to an Appropriate Management Level (AML) as high as 600 horses (Alternative VI). Alternative VI (Proposed RMP) has an AML of 50-200 animals that would balance resource objectives and the need of users groups with the need to manage the wild horse herd at a number that sustain genetic viability and maximize the interval between gathers. Exceeding 200 wild horses would require removal of excess horses.
Wild Horses	The term or concept of thriving natural ecological balance (TNEB) is included in the Wild and Free Roaming Horse and Burro Act (WFRHBA). Though the term TNEB is not itself defined in the WFRHBA or its implementing regulations, it is used to define the term "excess animals" to include wild horses that "must be removed from an area in order to preserve and maintain a thriving natural ecological balance and multiple-use relationship in that area." WFRHBA at Section 2(f). An explanation of TNEB is provided, however, in the BLM's Wild Horses and Burros Management Handbook which specifies that "to achieve a TNEB on the public lands, Wild Horses and Burros should be managed in a manner that assures significant progress is made toward achieving the Land Health Standards for upland vegetation and riparian plant communities, watershed function, and habitat quality for	Thriving Natural Ecological Balance (TNEB) is not quantifiable, but Appropriate Management Level (AML) is. AML is the number of adult horses (expressed as a range) to be managed within an Herd Management Area (HMA), where the upper limit of the AML range results in a TNEB and avoids deterioration of the range or is out of balance with competing uses of the same resource. The Final EIS revised the analysis of how BLM determined the AML range. The Wild Free-Roaming Wild Horses and Burro Act does not preclude livestock grazing in HMAs. 43 CFR 4700.0-2 states, "The objectives of these regulations are management of wild horses and burros as an integral part of the natural system of the public lands under the principle of multiple use." Further, 43 CFR 4710.3-2 states "Herd management areas may also be

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	animals populations, as well as other site-specific or landscape-level objectives, including those necessary to protect and managed Threatened, Endangered, and Sensitive Species." 1 Handbook at 4.1.5. This suggest that there the TNEB must be a quantifiable measure (based on Land Health Standards for various components of the ecosystem) that is used by the BLM to determine if or when wild horses constitute "excess animals" and must be removed. It is not, and given the plain language of the WFRHBA cannot be, a nebulous concept or phrase used to justify a particular management action without any evidence of what the TNEB is, how it is measured or quantified, and whether there is sufficient data to demonstrate that the TNEB has been impaired or degraded thereby justifying management action including, in the case of wild horses, management removals. Moreover, in regard to wild horse management, the BLM cannot simply claim that the number of wild horses are preventing achievement of TNEB but, rather, must demonstrate explicitly how wild horses (versus livestock, wildlife, recreation, or other potential threats) are causing any relevant land health standards not to be achieved in order to use a failure to achieve TNEB as a trigger for management actions.	designated as wild horse or burro ranges to be managed principally, but not necessarily exclusively, for wild horse or burro herds." The Saylor Creek HMA is not managed principally for wild horses. Other activities are allowed in HMAs and include recreational and commercial uses such as livestock grazing and energy and mineral exploration and development.
Wild Horses	If there are to be adjustments in forage allocations on BLM lands used or occupied by wild horses, such adjustments must take into consideration the needs of "other wildlife species which inhabit such lands." Again, the statutory language does not refer to livestock, domestic livestock or other animals indicating that adjusted forage allocations on wild horse occupied lands are not to consider wild horse use. Furthermore, the BLMs proposed allocation of less than 1 percent of native and non-native perennial grass production and no annual grass or shrub/forb production to wild horses in Alternatives I, III, IV, and V which does not reflect anything resembling a natural balance either between wildlife and wild horses or between wildlife, wild horses, or domestic livestock.	All the alternatives prioritize forage allocations to resources (i.e., watershed, soils, and wildlife) over resource uses such as livestock grazing. Alternatives I, III, IV, V, and VI allocate more forage to wildlife than to livestock. Wild horses are considered a "Resource" and would be given consideration above all Resource Uses, including livestock grazing. Alternative VI (Proposed RMP) allocates approximately 2400 animal unit months (AUMs) for wild horses, an increase from 600 AUMs in the 1987 Jarbidge RMP. The wild horse forage allocation of less than 1% is based on the entire planning area, not just the Herd Management Area (HMA). The analysis in the Final EIS Chapter 4 *Wild Horses* section was updated to include a comparison of forage allocation to wild horses and livestock within the HMA as well as at the planning level.
Wild Horses	A second legal issue of relevance in the analysis of the Draft RMP/EIS is the BLM's proposal to establish either small wild horse populations and/or non-reproducing herds of wild horses	The No Action Alternative (the 1987 RMP) analyzed and an Appropriate Management Level 50 wild horses. A non-breeding herd was analyzed in Alternatives IV and V to help create a

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	within the Saylor Creek Herd Management Area. This is clearly inconsistent with regulations implementing the Wild Free-Roaming Wild Horses and Burro Acts, which states, "wild horses and burros shall be managed as self-sustaining populations of healthy animals in balance with other uses and the productive capacity of their habitat." 43 CFR 4700.0-6(a).	range of alternatives. Alternative VI (Proposed RMP) would manage the wild horse herd to maintain a population size of 50-200 animals which would balance competing uses of the resource and would maintain or improve rangeland resources within the Herd Management Area.
Wild Horses	Despite the apparent lack of legal authority to establish non-reproducing wild horse herds, the BLM provides no explanation in the Draft RMP/EIS as to why it believes establishing such non-reproducing herds (as it proposes to do in two of the alternatives in the Draft RMP/EIS) is permitted under its own laws and regulations. Admittedly, the BLM's Wild Horses and Burros Management Handbook does contain provisions authorizing the establishment of such non-reproducing herds (see section 4.5.4 and 4.5.4.1), if there is no legal authority for the creation of non-reproducing herds then the policy is invalid.	The Wild Free-Roaming Wild Horses and Burro Acts and Handbook provide the necessary authority to establish a non-breeding wild horse herd. However, Alternative VI (Proposed RMP) sets the Appropriate Management Level (AML) at 50-200 head of wild horses. This AML was determined following consideration of the analysis of effects of the AML within the range of alternatives on resources and resource uses in the Draft RMP/EIS, and public opinion expressed through comments.
Wild Horses	Before the BLM can authorize the establishment of non-reproducing herds, it must, particularly given the statutory and regulatory standards that seemingly prohibit such herds, provide a rational explanation for the legal basis for the creation of such herds.	The Wild Free-Roaming Wild Horses and Burros Act and Wild Horses and Burros Handbook provide the necessary authority to establish a non-breeding horse herd. The Final EIS analyzed a range of Alternatives for the size of the wild horse herd in the Saylor Creek Herd Management Area. Alternative VI (Proposed RMP) proposes a herd size of 50-200 which would balance the wild horse herd with ecological environment as well as user groups.
Wild Horses	The Wild Horses and Burros Management Handbook (H-4700-1) provides the BLM with two separate strategies for setting or revising wild horse Appropriate Management Level (AML). The first option is through the Land Use Plan or RMP process while the second option is to establish AML through a Herd Management Area Plan (HMAP). Indeed, the BLM Handbook reports "habitat or population management and monitoring objectives regarding the management of a specific Herd Management Area (HMA) or complex of HMAs are normally identified in a HMAP rather than a Land Use Plan." Handbook at 2.4.1. The Wild Horses and Burros Management Handbook (H-4700-1) also points out that when the AML is established in a Land Use Plan, the BLM is to follow the process outlined in the Land	The Wild Horses and Burros Handbook states: 2.5.1.1 Appropriate Management Levels (AML) Established in Land Use Plans • When AML is established in a Land Use Plan, follow the process outlined in the Land Use Plan to adjust AML. • When the Land Use Plan does not outline a process for AML adjustment, the Land Use Plan may need to be amended or revised to adjust AML. • The Final EIS does not prescribe a process for AML adjustment. If future adjustments to AML are necessary, the current plan would be amended using existing direction from the Wild Horses and Burros Handbook (H4700-1) to address current conditions.

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	Use Plan to adjust AML. When the Land Use Plan does not outline a process for AML adjustment, the Land Use Plan may need to be amended or revised to adjust AML.	
Wild Horses	More specifically, Herd Management Area Plans (HMAPs) are intended to establish short- and long-term management and monitoring objectives for a specific Wild Horse and Burro herd and its habitat including actions to be taken to accomplish herd and habitat management objectives. HMAPs "tier to and must be in conformance with the applicable Land Use Plan" or, if not, then either the Land Use Plan must be amended or the proposal should be modified or rejected. HMAPs must also be subject to analysis in an environmental assessment or environmental impact statement as required under the National Environmental Policy Act.	Development of the Herd Management Area Plan (HMAP) will occur following the issuance of a Record of Decision and Approved Jarbidge RMP. The HMAP would follow applicable procedures described by policy and regulation. The goals and objectives in the Approved Jarbidge RMP would function as general goals and objectives, with more specific resource and herd objectives identified in the HMAP. Implementation and effectiveness monitoring would also be detailed in the plan to validate progress towards identified goals and objectives.
Wild Horses	If the Appropriate Management Level (AML) in the Land Use Plan defers analysis of how it set AML to the Horse Management Area Plan, it is violating the law by failing to provide the AML analysis in the Land Use Plan.	The Final EIS analysis of the Appropriate Management Level (AML) in the *Wild Horses* sections is in conformance with BLM Wild Horses and Burros Management Handbook section 4.2.2.1. The AML will be set in the Record of Decision.
Wild Horses	In the context of the Draft RMP/EIS, the problem is that the BLM has not engaged in any of the analysis contained in its handbook for establishing or adjusting Appropriate Management Level (AML). It does not provide an in-depth evaluation of intensive monitoring data, it does not specify how or if wild horses are affecting land health within the project area, nor does it disclose intensive monitoring data including any studies of grazing utilization (by wild horses, livestock or wildlife), range ecological condition and trend data, or climate/weather data. It is not even clear if the BLM has three to five years of monitoring data for the project area. Similarly, the BLM has not disclosed information about the current year's forage production and water flows, the seasonal distribution/movement of wild horses, evidence related to the condition of wild horses, or any other data that its own policies specify must be collected to establish/adjust AML and to achieve other management objectives. Without providing such information and/or the required analysis, the BLM cannot complete the Draft RMP/EIS.	The BLM considered comments received from the public on the Draft RMP/EIS, the analysis of effects described in the Chapter 4, and available science to analyze the Appropriate Management Level (AML) in all alternatives considered in the Final EIS including Alternative VI (Proposed RMP). The AML analysis in Chapter 4 of the Final EIS follows direction established in the BLM Wild Horses and Burros Management Handbook section 4.2.2.1.

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Wild Horses	What is the wild horses' allocation in the Herd Management Area relative to livestock?	The *Wild Horses* section in Chapter 2 has been updated to include allocation of vegetation to wild horses relative to livestock within the Herd Management Area.
Wild Horses	The Draft RMP/EIS should allow for consideration of expansion of the Herd Management Area (HMA) if livestock permits in adjacent lands to the HMA are bought out and retired.	The Wild Horses and Burros Management Handbook (H-4700-1), 2.1.5, provides for adjusting Herd Management Area (HMA) boundaries through a Land Use Plan amendment to address conflicts or achieve resource objectives. Adjustments to an HMA boundary would be required to remain within the Herd Area (HA) boundary established by Congress with the passage of the Wild Free-Roaming Wild Horses and Burros Act.
Wild Horses	BLM must fully explain all the changes that have occurred in the Herd Management Area (infrastructure expansion, seedings including species used, etc.) over all periods since the Wild Horse and Burro Act.	The Final EIS revised the *Wild Horses* section in Chapter 3 to include more details of the development of the Herd Management Area and origin of the wild horse herd.
Wild Horses	What is the basis for the current allocation of forage to wild horses?	The Draft RMP/EIS and Final EIS based forage allocations on resource objectives and vegetation production. Priority of allocation of vegetation was to watershed, wildlife, wild horses, and livestock; in that order. The Wild Horses and Burros Management Handbook (H-4700-1) directs forage allocations expressed in animal unit months (AUMs) to be determined using the higher Appropriate Management Level (AML) range. For Alternative VI (Proposed RMP) the AML would be set at 50-200 horses. Using the upper range of 200, 2,400 AUMs (200 animals X 12 months) would be allocated to wild horses.
Wild Horses	Designate the Herd Management Area (HMA) should as a Visual Resource Management (VRM) Class 2 and not a VRM 4. The latter would allow the HMA to be turned into an industrial zone.	The No Action Alternative and Alternative II would manage the entire Herd Management Area (HMA) as Visual Resource Management (VRM) Class IV, however, Alternatives I, III, IV-A and IV-B would manage part of the HMA as VRM III, but most of the HMA would be VRM IV. Alternative VI (Proposed RMP) would manage the portion of the HMA in the Oregon National Historic Trail Protective Corridor as VRM II, with the majority of the area as VRM IV. Other uses (i.e., livestock grazing, commercial recreation use, and energy/mineral exploration) are allowed in HMAs as long as the activities have safeguards to protect the health and welfare of the wild horses. Management actions that would place restrictions on authorized uses within the HMA would be more effective at meeting objectives for managing wild horses than VRM classification.

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Wild Horses	The RMP should include an Oregon Trail, Wild Horse, and Fossil Bed Recreational Scenic Resource Management Area. Promoting wild horse eco-tourism, along with other public visitor interests should be a priority.	At a national level, the BLM has several programs that promote ecotourism, including the National Watchable Wildlife Program, Tread Lightly, and Leave No Trace. At the local level, wild horse ecotourism proposals could be considered as long as resource damage is avoided or minimized. A Special Recreation Permit would need to be obtained for commercial use, competitive use, vending, special area use, and organized group activity/event use. These actions are provided for in Alternative VI (Proposed RMP) REC-VI-MA-12, as long as they are compatible with management of the Herd Management Area (WH-VI-MA-7).
Wild Horses	Interior Secretary order N0. 3270 issued March 9, 2007 established agency policy to incorporate Adaptive Management into agency management programs. Under this policy, land use decisions can be adjusted in order to meet environmental, social and economic goals; to increase scientific knowledge; and to decrease tensions among stakeholders. Clearly, the high public interest in wild horses mandates reconsideration of current policies that maximize livestock grazing opportunities at the expense of wild horses.	Adaptive management is a major component of the BLMs Wild Horses and Burros Management Handbook. The Herd Management Area Plan will incorporate adaptive management strategies based on the results of monitoring and evaluation.
Wild Horses	I encourage your agency to work very closely with Madeleine Pickens' new eco-sanctuary, which is the only solution so far that represents a sustainable and humane future for these animals.	Ms. Pickens' proposal is outside the planning area and beyond the scope of this planning effort.
Wild Horses	A goal should be established for an "in the wild" management plan for the Saylor Creek Wild Horse herd. This would avoid costly and unnecessary round-ups and removals.	It is not made clear by the commenter what "in the wild" management actually is or how it would be different from any of the alternatives presented in the Draft RMP/EIS. However, the goal of Alternative VI (Proposed RMP) is to manage the Saylor Creek Wild Horse Herd Management Area for a thriving natural ecological balance.
Wild Horses	I feel it is an outdated method used by the BLM for determining Appropriate Management Level for wild horses. Where are the independent scientists and biologists, who are not part of the BLM, without any bias to do the counts? Where are environmental impact reports on any plans to remove horses from lands deliberately set aside for them? These lands that were not to be taken away from mustangs and given to cattle.	The method the BLM uses to determine Appropriate Management Level (AML) is outlined in the Wild Horses and Burros Management Handbook (H-4700-1) updated in 2010. AML is established through a site-specific, multi-tiered analysis process (NEPA) that considers the four essential habitat components (forage, water, cover, and space), the amount of sustainable forage available for wild horse use, and whether the herd size is sufficient to maintain genetically diverse populations.

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Wild Horses	The Saylor Creek Area, at over 94,000 acres, will support several thousand wild horses. As the monies collected from cattle grazing leases is a negligible amount in comparison to the cost of caring for the horses outside the Herd Management Area, the horses should take precedence as they are under the auspices of the BLM, while privately owned cattle are not and do not significantly contribute to either the preservation of the area nor do they pay their own way to repair the damage they cause.	The Appropriate Management Level (AML) upper limit determined in the Final EIS is the maximum number of wild horses that would result in a thriving natural ecological balance and avoid deterioration of the range due to overpopulation on the Saylor Creek Herd Management Area (HMA). One of the critical factors considered in determining AML was the availability of water. Though forage is not a limiting factor in the Saylor Creek HMA, there is no naturally occurring water. All water is provided though pipeline systems developed to support livestock grazing as well as wild horses. Currently, permittees assume the majority of the responsibility and costs associated with maintaining and operating the water system. If livestock were removed the responsibility for maintenance and operation would fall entirely upon the BLM.
Wild Horses	The Draft RMP/EIS fails to include a reasonable range of alternatives to meet the current conservation challenges in the Herd Management Area and in the planning area as a whole. Instead, the Draft RMP/EIS promotes land use plans that perpetuate intensive resource extraction and the development status quo.	Land Use Plans normally contain general habitat and population goals and objectives. Habitat and population objectives specific to Herd Management Areas (HMAs) are normally identified in Herd Management Area Plans rather than a Land Use Plan. Wild horse habitat is composed of four essential components: forage, water, cover, and space. Alternatives I, III, IV, V, and VI (Proposed RMP) have goals and objectives that address these essential components, such as allocating sufficient forage, increasing the number and reliability of artificial water sources, and considering relocation or removal of fences to facilitate free-roaming characteristics. Alternatives IV and VI (Proposed RMP) have management actions that focus on vegetation restoration treatments in the HMA. Alternative VI (Proposed RMP) designates the HMA as a critical wildfire suppression area. Alternatives I, III, and VI require seasonal restrictions for motorized travel in the HMA during foaling season. These are just some examples of how the range of alternatives were developed and analyzed for effectively meeting the current conservation challenges in the Saylor Creek HMA.
Wild Horses	Formulate the Draft RMP/EIS in consideration of and around those previously designated “other” special uses. Or restated: Land use plans centered in or around or having to do or effecting wild free-roaming horse and burro lands, must clearly specify in those land use plans, that the lands are designated as principally for wild equines, and that any proposed new	Under 43 CFR 4700.0-6(b), Wild horses shall be considered comparably with other resource values in the formulation of Land Use Plans. Wild horses are a resource value and considered in the same manner as other resource values (e.g., cultural, historic, scenic, wildlife, and vegetation) as opposed to a land use or special use.

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	plans must work around and preserve and protect that special use, In structure and purpose, the Wild Free-Roaming Horses and Burros Act is nothing more than a land use regulation enacted by Congress to ensure the survival of a particular species of wildlife. Free roaming wild horses/burros are protected as a non-game wildlife species of special concern.	
Wild Horses	The Government Accountability Office in 1990 reported that wild horse removals did not significantly improve range conditions, pointing to millions of cattle as the culprit as they greatly outnumber wild horses and burros on our western public lands. If BLM wishes to protect rangeland from further deterioration and restore a thriving natural ecological balance, they should seriously consider removing livestock from designated wild horse areas.	The 1990 Government Accountability Office Report concluded, "With nearly 60 percent of Federal rangelands in unsatisfactory condition, improvements are needed. In this context, wild horse removals based on reliable carrying capacity and range condition data make sense. However, our work during this and several previous reviews demonstrates that reliance on wild horse removals alone to improve range conditions cannot work. Since domestic livestock substantially outnumber wild horses on Federal rangelands and are a primary cause of range deterioration, any strategy for rangeland improvement must also include plans for improving the management of livestock to give the native vegetation more opportunity to grow and as necessary reducing authorized livestock grazing levels. Since wild horse removal and livestock grazing reduction decisions need to be based on reasonably up to date carrying capacity and range condition data, efforts to develop these data need to move ahead without delay. Moreover, once data are developed, we believe BLM needs to pursue the actions suggested by the data, both for wild horses and domestic livestock. Wild horse removal levels based on these data may be less than historic levels. To this end, we believe BLM'S decision to manage wild horse removals based on the number that can be adopted is prudent. " In the 2008 Report, the Government Accountability Office concluded, "BLM has made significant progress in setting and meeting Appropriate Management Level for the Herd Management Areas. Our 1990 report was critical of BLM's decisions on the number of wild horses and burros to remove from the range. At that time, we concluded that the decisions were made without adequate information about range carrying capacity or the impact of the animals on range conditions. Since then, in August 2005, BLM updated its formal policy on gathers and removals and specified the key factors that should be

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		considered in the decision making process. Since the passage of the 1971 act, there has been controversy over the number of wild horses and burros that BLM manages in the wild and the amount of public land available for their management. There is concern by some, including wild horse and burro advocacy groups, that the number of animals managed in the wild is too low to protect their genetic integrity; that the numbers are based on insufficient rangeland monitoring data; and that BLM gives preference to other users of the range, primarily livestock and wildlife. For instance, groups often point out that BLM permits far more cattle and sheep to graze on BLM-managed lands than horses. Specifically, in fiscal year 2007, approximately 567,000 head of cattle or sheep grazed BLM public lands. However, livestock are managed on 160 million acres of BLM lands, compared to the 29 million BLM acres that are available for wild horses and burros." The 1990 GOA Report was a report on the National Wild Horse and Burro Program level and was general in addressing conditions of rangelands and wild horse and livestock management. The Draft RMP/EIS and Final EIS specifically addressed conditions and management within the planning area. Neither the Draft RMP/EIS nor the Final EIS proposes eliminating livestock grazing in the Saylor Creek Herd Management Area. However, Alternative VI (Proposed RMP) would allow consideration of reducing or eliminating domestic livestock grazing if monitoring data suggests those measures were necessary to achieve resource objectives, including those described for wild horses.
Wild Horses	I put forth that now is the time to match the agency's rhetoric with actions by implementing a humane and progressive management program for the Saylor Creek mustangs before it is too late. The Senate directed the BLM to develop a new comprehensive long-term plan for wild horse populations. The time has come to implement a sustainable plan to preserve OUR wild herds on OUR Western public lands (not non-reproducing herds in the east) and restore their protections set forth in the 1971 Wild	In February 2011, the BLM released "Details of the BLM's Proposed Strategy for Future Management of America's Wild Horses and Burros" and "Caring for America's Wild Horses and Burros: Fundamental Reforms—An Overview". This national initiative would create a cost-efficient and sustainable Wild Horse and Burro Program. Over time, implementation of the Secretary's initiative would reduce the number of wild horses and burros in short-term corrals or long-term pastures; reduce the costs to the American taxpayer for their care; and conserve, protect, and manage these animals in the West for future

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	Free-Roaming Horse and Burro Act allowing these magnificent animals to live in peace on their rightful ranges. This “new direction” needs to be taken to save our national heritage from the managed extinction plans of the BLM.	generations to enjoy. Specific to the Saylor Creek Herd Management Area, a more detailed Herd Management Area plan will be developed following the Record of Decision.
Wild Horses	The BLM's wild horse program is costing taxpayers millions and is destroying America's wild horse and burro herds. I am demanding that you stop all round-ups until a National Academy of Science review is completed. We want real, accurate numbers; numbers=science! Then, we want to conduct a full congressional investigation with advocate testimony at which point humane, responsible and innovative reform will be wholeheartedly considered and put in place. It is time to listen to the American people.	Addressing national policy regarding wild horse gathers is beyond the scope of this planning effort. BLM is required to follow current policy and regulation, if policy changes occur following completion of the Final EIS, the RMP would be amended as necessary.
Wild Horses	In preparing the Final EIS, please take this opportunity to make corrections to manage a true “thriving ecological balance” by reducing the ever-increasing numbers of livestock and supporting a viable number of wild horses within this Herd Management Area who have been allocated a disproportionately low percentage of resources. Include buffer zones, natural barriers and predators in your plan and allow the wild horses to fill their niche and naturally self-stabilize. This would eliminate the need for helicopter roundups and removals.	The Final EIS analyzed a range of wild horse herd sizes. Under Alternative VI (the Proposed RMP), the Saylor Creek Wild Horse Herd Management Area (HMA) would be managed for a thriving natural ecological balance, with a herd of 50 to 200 wild horses. While the HMA would remain open to livestock grazing, grazing levels on an allotment-specific basis would be adjusted if monitoring demonstrated it to be necessary to maintain the health and welfare of the wild horse herd.
Wilderness and Wilderness Study Areas	Key management prescriptions applicable to Wilderness Study Areas should be specifically detailed in the RMP. The Draft RMP should also fulfill the requirements of Instruction Memorandum ID-2008-016 in terms of documenting pre-Federal Land Policy and Management Act of 1976 uses and future monitoring for motorized vehicles, as well as commitments to adjust management of motorized use if impairment of wilderness character is occurring.	The only remaining Wilderness Study Area (WSA) in the planning area is the Lower Salmon Falls Creek WSA. One documented instance of off-highway vehicle impairment for the Lower Salmon Falls Creek WSA exists. BLM manages the WSA in accordance with BLM Manual 6330, Management of BLM Wilderness Study Areas. This manual became effective in August 2012.
Wilderness and Wilderness Study Areas	A number of areas in the planning area have been designated as wilderness through the Omnibus Public Lands Act of 2009. However, these areas are not acknowledged in the management section of the Draft RMP. Again, we are aware that there is a management plan currently being developed for Wilderness within Owyhee County, but it is unclear if there is a need to develop a separate plan. The RMP should identify the	Congress designated one wilderness area in the planning area, the Bruneau-Jarbidge Rivers Wilderness (Omnibus Public Lands Management Act of 2009, P.L. 111-11). The 89,996-acre Bruneau-Jarbidge Rivers Wilderness will be managed in accordance with the Wilderness Act of 1964, the enabling legislation, regulations for wilderness management at 43 CFR 6300, BLM Manuals 8560 and 8561, BLM Handbook H-8560-1,

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	recently designated Wilderness areas and provide for preparation of wilderness management plans for each area.	and the Owyhee Canyonlands Wilderness and Wild and Scenic Rivers Management Plan which will be prepared by the BLM (WD-C-MA- 1). The Final EIS included the Bruneau-Jarbidge Rivers Wilderness Area.
Wilderness and Wilderness Study Areas	BLM must consider all lands that may be adjacent to designated Wilderness as potential Wilderness Study Area lands, as well as adjacent to US Forest Service lands where the total would be significant. A complete and thorough inventory must be done, including significant wild land areas less than 5000 acres in size. There are several areas in or near China Mountain, Dave Creek and other areas that, although small in size, should be considered for Wilderness status due to the very appealing, scenic and beautiful character of the land. We look forward to seeing Secretarial Order 3310 and the new guidance on inventory and planning incorporated into the Jarbidge RMP.	On December 22, 2010, the Secretary of the Department of the Interior issued Order 3310 to address the BLM's management of wilderness resources under its jurisdiction and to use the land use planning process to designate certain Lands with Wilderness Characteristics as "Wild Lands." On April 14, 2011, the US Congress passed the Department of Defense and Full-Year Continuing Appropriations Act (Public Law 112-10) (2011 CR), which includes a provision (Section 1769) that prohibits the use of appropriated funds to implement, administer, or enforce Secretarial Order 3310. On June 1, 2011, the Secretary issued Instruction Memorandum 2011-154 to the BLM Director that in part affirms BLM's obligations relating to wilderness characteristics under Sections 201 and 202 of the Federal Land Policy and Management Act of 1976 (Public Law 94-579, 1976). This Instruction Memorandum further clarifies that the requirements of Sections 201 and 202 of the Federal Land Policy and Management Act of 1976 remain in effect. It also provided direction on how to conduct and maintain wilderness characteristics inventories and how to consider Lands with Wilderness Characteristics in the land use planning process. The Final EIS included an inventory for Lands with Wilderness Characteristics, which followed direction of this Instruction Memorandum and BLM Manual 6310. The wilderness characteristics inventory inventoried lands within the planning area.
Wilderness and Wilderness Study Areas	Designating even more of the area as wilderness and locking out access is unacceptable.	Designation of wilderness is outside the scope of the RMP.
Wilderness and Wilderness Study Areas	There seems to be a considerable amount of confusion concerning exactly where the downstream end of the Salmon Falls Creek Wilderness Study Area is located and what segments are eligible/suitable Wild and Scenic River's with	The Lower Salmon Falls Creek Wilderness Study Area is located downstream from Salmon Falls Creek Dam to the Lilly Grade crossing (see Map 145 in the Final EIS). The Salmon Falls Creek Area of Critical Environmental Concern (ACEC) is located

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	Scenic Outstandingly Remarkable Value's. The websites for the Burley (in 2008) and Jarbidge (in 2009) BLM offices have previously listed the downstream end as being Lilly Grade. Yet the Draft RMP/EIS lists the downstream end as being the start of Balanced Rock Park (p. A-256).	downstream from the Salmon Falls Creek Dam to the upstream end of Balanced Rock Park (see Map 142 in the Final EIS). Map 146 "Wild and Scenic River Segments" in the Final EIS display the "eligible" portion of Salmon Falls Creek. The ACEC and eligible Wild and Scenic River segments of Salmon Falls Creek are all above Balanced Rock Park. There has been no change in these boundaries since the ACEC designation in 1990.
Wilderness and Wilderness Study Areas	Language in Omnibus Public Land Management Act of 2009 clearly intended that lands not included in wilderness were to be released to multiple uses within Owyhee County. The RMP should honor the bargain that Congress made. I believe any additional wilderness areas or Wilderness Study Areas in Idaho should be put on hold.	The Final EIS does not propose creating additional Wilderness Study Areas (WSAs). After passage of Omnibus Public Land Management Act of 2009, the only designated WSA remaining in the planning area is the Lower Salmon Falls WSA, which is common to all alternatives.
Wilderness and Wilderness Study Areas	The BLM wants to manage some non-wilderness areas for their Wilderness characteristics. These lands are not Wilderness; they have been managed as multiple use lands forever. Some do not even meet the criteria for Wilderness Designation. Alternative IV, the preferred alternative lists 53,000 acres to be included in this designation. The BLM states these areas will be "closed to motorized travel". Yes, they would manage them as Wilderness. The Monument Springs road, a graveled well-traveled main road goes through the middle of one of these proposed Wilderness Study Areas.	Regarding Lands with Wilderness Characteristics, Section 201 of the Federal Land Policy and Management Act of 1976 (FLPMA) requires the Secretary of the Interior to "prepare and maintain on a continuing basis an inventory of all public lands and their resource and other values." Consistent with FLPMA and the BLM Land Use Planning Handbook (H-1601-1), the Jarbidge RMP Team evaluated and identified BLM-managed Lands with Wilderness Characteristics outside the existing wilderness and Wilderness Study Area. The Final EIS revised the inventory of Lands with Wilderness Characteristics following the direction in BLM Instruction Memorandum 2011-154 and BLM Manual 6310. The Final EIS analyzed a range of Lands with Wilderness Characteristics and associated management. Alternative VI (Proposed RMP) does not propose to manage inventoried Lands with Wilderness Characteristics to maintain their wilderness character (WC-VI-G-1). Note: The Monument Springs Road formed the boundary between two separate areas.
Wilderness and Wilderness Study Areas	The preferred alternative has failed to analyze what the impact would be to establishing Wilderness Study Areas or lands managed in that fashion, the impact being local access, hunting, recreation, grazing while maintaining compliance with national priorities like renewable energy development.	The Final EIS cumulative impact analysis includes Wilderness Study Areas and Lands with Wilderness Characteristics within and adjacent to the planning area. Impacts to ranchers, local residents, and recreationists are addressed in the *Social and Economic Features* section.
Wilderness and Wilderness Study Areas	I have driven most of the roads in the area including the Little House Creek drainage, Monument Springs, Devils Creek, all the roads on Brown Bench, over to the Bruneau overlook, Clover Creek, Sailor Cap and many others. Without motorized	Designating wilderness is beyond the scope and authority of this planning effort. The travel planning process designates routes, roads, and trails.

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	access to these areas, I would not have been able to experience the beauty, the wildlife, and this unique country. This area should not be Wilderness or have restricted motorized access. It should be open for all to use.	
Wilderness and Wilderness Study Areas	The Final EIS should clarify whether the northern end of the Lower Salmon Falls Creek Wilderness Study Area could impose restrictions on realignment of the county road along Lilly Grade and, if so, accommodate the potential for road realignment that would be necessary for large truck traffic.	This is beyond the scope of this planning effort. Road re-alignment is a site-specific project and not a RMP level decision.
Wilderness and Wilderness Study Areas	The *Non-Wilderness Study Area Lands with Wilderness Characteristics* section of the Draft RMP/EIS should be expanded to address the value and need for the identified lands with wilderness characteristics. Additionally, there should be a further discussion of roads within these potential 5,000 acre or greater blocks of land. BLM apparently believes that fences, reservoirs, and meteorological towers do not detract from naturalness.	The Final EIS included an inventory for Lands with Wilderness Characteristics which followed direction in BLM Manual 6310 (Conducting Wilderness Characteristics Inventory on BLM Lands). Each of the areas identified in the wilderness characteristics inventory met the criteria set forth in BLM Manual 6310. In accordance with the inventory direction, the presence of fences, stock ponds, and other man-made features may be considered substantially unnoticeable and do not automatically disqualify an area from consideration. The Final EIS analyzed a reasonable range of alternatives addressing Lands with Wilderness Characteristics. Alternative VI (Proposed RMP) does not manage inventoried Lands with Wilderness Characteristics to maintain their wilderness character.
Wilderness and Wilderness Study Areas	Do wilderness areas necessarily need to be very large? Perhaps they can be relatively small and still protect what is aesthetically appealing, archaeologically unique, and ecologically most valuable.	Congress determines the size of wilderness areas during the designation process. Such determinations are beyond the scope of this planning process.
Wilderness and Wilderness Study Areas	Management action AAV-CA-MA-1 under *Air and Atmospheric Values* manages the planning area as a Class II air shed. The Bruneau-Jarbidge Rivers Wilderness is also in the planning area. Wilderness typically requires a Class I air shed designation. This management action should be revised to reflect the Omnibus Public Land Management Act of 2009 designations.	All BLM-managed lands in the planning area are designated as a Class II air shed unless reclassified by the State through the process prescribed in the Clean Air Act. Omnibus Public Land Management Act of 2009 did not designate the Bruneau-Jarbidge Rivers Wilderness as a Class I air shed.
Wilderness and Wilderness Study Areas	The Travel Route designations in Alternative V are clearly preferable for a Wilderness experience in the near linear and narrow Wilderness areas of the planning area. How do the sights and sounds of vehicles, coupled with livestock activities, intrude on wilderness areas? On untrammeled view sheds, solitude? Primitive and unconfined recreation? What	“The fact that non-wilderness activities or uses can be seen or heard from areas within a wilderness area designated by this subtitle shall not preclude the conduct of those activities or uses outside the boundary of the wilderness area” (Omnibus Public Land Management Act 2009 Sec.1503-10-B; 43 U.S.C. 1712). Nothing in this subtitle restricts or precludes low-level over flights

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	cumulative or indirect adverse intrusions -such as military over flights - add to the disturbance footprint in the wilderness areas?	of military aircraft over the areas designated as wilderness.
Wilderness and Wilderness Study Areas	The planning area is a beautiful and one-of-a-kind place that should be maintained as protected habitat and wilderness.	Congress designates wilderness and this is outside the scope of the RMP.
Wildland Fire Ecology and Management	Fire management is a growing concern with climate change and with the recent fire history in the planning area. However, excessive fuel reduction efforts can cause damage, and the cost effectiveness of fire management activities needs close examination. The combination of fuel treatment management actions in Alternative V will reduce Relative Risk Ratings while preserving existing habitat. Therefore, the BLM should use the fire suppression guidance identified in Alternative V. The BLM should assess the relative effectiveness of fuels treatments at preventing wildland fire, and develop metrics for assessing the cost effectiveness, including the costs in both dollars and in lost ecosystem health.	The Final EIS analyzed a range of alternatives for fire and fuels management. Alternative VI (Proposed RMP) included a combination of elements from each of the other alternatives. The Final EIS, Chapter 2, *Monitoring Implementation and Effectiveness of RMP Decisions* section outlines a monitoring strategy for assessing the implementation and effectiveness of RMP decisions in meeting resource goals and objectives. This section identifies resources/resource uses, monitoring strategies, and monitoring intervals as required for land use plans (43 CFR 1610.4-9).
Wildland Fire Ecology and Management	Classify the entire area for critical suppression. The Clover, Murphy and Long Butte Fires are proof that wildland fire moves very rapidly across the planning area. If a fire starts within what the Draft RMP/EIS calls a "conditional suppression area" it can and will move rapidly to areas classified for "critical response."	If multiple fires occur critical suppression areas have a higher priority based on values but every fire is evaluated as to potential and receives a commensurate response.
Wildland Fire Ecology and Management	Reconsider the risk rating for the residential area along Bell Rapids Road. There are many homes bordering BLM ground or within 1/4 mile of it.	The Final EIS based the hazard risk rating for wildland urban interface on fuels, fire occurrence, and population density. The hazard risk rating classified the area along Bell Rapids Road as a moderate risk area; the area is a critical suppression area in all of the action alternatives. As a result, if a fire occurs near Bell Rapids, the BLM will prioritize its fire response to protect life and property.
Wildland Fire Ecology and Management	Fire suppression should concentrate on sensitive areas including but not limited to big game winter range, sage-grouse habitat, and slickspot peppergrass habitat.	The Final EIS analyzed a range of fire suppression priorities. Alternative VI (Proposed RMP) identifies habitat for slickspot peppergrass, critical habitat for bull trout, and key sage-grouse habitat as critical suppression areas. These areas overlap substantially with big game winter range.
Wildland Fire Ecology and Management	Roads should be developed and maintained to allow fire equipment to respond quickly to minimize the response time.	The Final EIS addressed roads for fire management in the range of alternatives, specifically in Alternative III and in Alternative VI (Proposed RMP) under management action WFM-VI-MA-6.
Wildland Fire	The State strongly urges the BLM to adopt the more	The Final EIS analyzed a range of options for fire suppression

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Ecology and Management	aggressive fire suppression actions contained in Alternative III as part of any final alternative. BLM's primary rationale for selecting Alternative IV-B as the preferred alternative is to protect native upland and riparian/wetland habitat for fish and wildlife resources. However, BLM will not achieve this objective unless BLM augments the preferred alternative with the necessary tools contained in Alternative III, as wildfire is the most responsible agent for negatively affecting the native habitat that supports shrub-steppe obligate species like the Greater sage-grouse.	and reduction while protecting resources. Alternative VI (Proposed RMP) was developed as a mix of the other alternatives to restore the ability of the ecosystem to recover following a disturbance and reduce fragmentation of habitat for sage-grouse and other native species.
Wildland Fire Ecology and Management	The third paragraph on p. 4-152 of the Draft RMP/EIS that addresses fire suppression actions does not address livestock grazing as a tool to remove the fine fuels. Address livestock grazing on a landscape scale, since a majority of the area is grazed. Recent research states: "Moderate levels of long-term cattle grazing have significant impacts on fuel characteristics and subsequently may alter the risk, size, severity and continuity of wildfires on sagebrush rangelands" (Davies et al., 2010).	The Draft RMP/EIS analyzed the effects of livestock grazing on fine fuels (Chapter 4, *Livestock Grazing*, p. 4-472). The effects of grazing in fine fuels were included in the analysis for all action alternatives. The toolbox of fuels treatments considered targeted grazing. The Final EIS analyzed the impacts of livestock grazing on wildland fire ecology and management.
Wildland Fire Ecology and Management	The *Livestock Grazing* section states: the analysis under *Upland Vegetation* and *Noxious Weeds and Invasive Plants* sections showed no change to vegetation from grazing, and that there would be no change to the Fire Regime Condition Class from grazing. This section needs to be re-analyzed with the new information in the article (Davies et al., 2010) that states: "Moderate livestock grazing reduces the risk of wildfires on sagebrush rangelands by decreasing the amount of fine fuels available for ignition and limiting potential fire spread by reducing fine fuel continuity, accumulation and height".	The impacts analysis in the *Wildland Fire Ecology and Management* section in the Draft RMP/EIS, Chapter 4, included an explanation of the Fire Regime Condition Class (FRCC) methodology used in the analysis. The referenced sentence begins “For example if the analysis under Upland ...”. The identified sentence gives an example scenario and does not suggest that grazing had no effects on fuels. However, if the vegetative component does not change relative to the historical reference vegetation then the FRCC would not change since FRCC is a measure of departure from the historical condition in both fire regime and vegetation. FRCC is not a direct measure of fire behavior or a fuel complex. The Final EIS also analyzed the effects of grazing in decreasing fire size. Fire Research and Management Exchange System (www.frames.gov) and the Interagency Fire Regime Condition Class Guidebook provide more information on FRCC.
Wildland Fire Ecology and Management	Modify table 4-178 if grazing does have an effect on the Fire Regime Condition Class.	The Final EIS in Chapter 4 *Wildland Fire Ecology and Management* section indicates that livestock grazing does have an effect on Fire Regime Condition Class (FRCC) ratings. The referenced table in the Draft RMP/EIS, Table 4-178, also

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		indicated grazing had an effect on FRCC.
Wildland Fire Ecology and Management	The BLM should consider the use of additional grazing, including increased utilization, as a tool to reduce fuels and support fire reduction.	The Final EIS analyzed the effects of forage allocation on fuel loading and management. In addition to authorized livestock grazing, the Final EIS identified targeted grazing as an additional tool for manipulating fine fuel loading and vegetative continuity. Alternative VI (Proposed RMP), management actions UV-VI-MA-23 and FE-VI-MA-4, allowed for targeted grazing.
Wildland Fire Ecology and Management	The Resource Advisory Council unanimously supports adding WFM-IV-MA 10 with language that addresses large fire prevention and suppression actions. The management actions in the *Wildland Fire Ecology and Management* section focus on fire suppression rather than fire prevention. Develop alternatives for large fire prevention by employing management techniques that reduce fuel availability in critical zones, expand natural and manmade firebreaks in strategic locations and use active vegetation manipulation to reduce the likelihood of large fires. Forage kochia has the potential to greatly aid in large fire control measures. When conditions are ripe for a fire or fires to become large fires, fire suppression should be paramount and the ordinary rule of "fire suppression consistent with other resource objectives" should be set aside.	The Final EIS analyzed a range of alternatives for fire prevention and suppression actions. The goal of Alternative VI (Proposed RMP) is to “Strive to reduce average wildland fire size, number of human-caused fire starts, and number of acres burned within and outside wildland urban interface throughout the planning area.” Every fire is evaluated as to potential and receives a commensurate response. All action alternatives in the Final EIS included management action WFM-CA-MA-9 to address fire prevention. The use of specific species of plant in fuels treatments would be analyzed at the project level but Alternative VI (Proposed RMP) allows for the consideration of non-native species in management action FE-VI-MA-6.
Wildland Fire Ecology and Management	The Resource Advisory Council unanimously supports the following management actions versus the management actions of the preferred alternative. Alternative I: Implement fuels treatments to reduce fuel loads with consideration for other resource and resource use objectives. Alternative III: Fuels treatments in wildland urban interface would focus on areas with high, high/moderate, and moderate relative risk ratings in the northern portion of the planning area and near Roseworth and Three Creek. Fuel breaks would focus on strategic locations to disrupt the continuity of fuels and to protect structures and important resources such as habitat for sage-grouse and slickspot peppergrass.	The Final EIS analyzed a range of alternatives for fire prevention and suppression actions. The following management actions are included in Alternative VI (Proposed RMP). FE-VI-MA- 1. Implement fuels treatments to reduce fuel loads with consideration for other resource objectives. FE-VI-MA- 2. Fuels treatments in wildland urban interface (WUI) may include fuels reduction treatments and fuel breaks. Fuels treatments in WUI would focus on areas with high, high/moderate, and moderate relative risk ratings in the northern portion of the planning area and near Roseworth and Three Creek. FE-VI-MA- 7. Fuel breaks would focus on strategic locations to disrupt the continuity of fuels and to protect structures and

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	Unless more effective prevention/suppression of large-scale catastrophic fires is accomplished, many of the goals and actions of the Draft RMP/EIS will be meaningless. The success or failure of the Draft RMP/EIS will ultimately depend on fire management. The above management actions offer BLM the best means of reducing the chances of large-scale catastrophic fires.	important resources such as habitat for sage-grouse and slickspot peppergrass. Construct fuel breaks consistent with objectives in the *Upland Vegetation* section.
Wildland Fire Ecology and Management	The Draft RMP/EIS (p. 3-52) states, “Between 1987 and 2007, an average of 66,000 acres burned in the planning area each year, with a total of 1,394,000 acres burning during that 21-year period. The number of acres burned each year varied from a low of 700 acres in 1993 to high of 505,000 acres in 2007. The majority of the total acres (713,000) only burned once during this 21-year period. A total of 304,000 acres burned more than once.” The Draft RMP/EIS states, “Fire Regime Condition Class (FRCC) 1 (low departure) is considered within the historic range of variability of a given Historic Fire Regime (HFR), while FRCC 2 (moderate departure) and FRCC 3 (high departure) are outside the historic range of variability.” Wyoming big sagebrush has an HFR of 35- 100+ years. It is reasonable to conclude that acreage within the planning area that has burned more than one time in the 21 years reported is outside HFR, and therefore assign an FRCC of 2 or 3 to that acreage. However, it is not reasonable, based on the description of HFR within the Draft RMP/EIS, to assign an FRCC of more than 1 to the acreage that has burned once, because normal fire frequency of 35-100+ years exists in sagebrush steppe habitat. Therefore, an FRCC class of 1 should apply to the approximate 713,000 acres that only burned once. Additionally, since the Draft RMP/EIS states that native shrubland equates to the later seral stages, an FRCC of 1 would apply to nearly 390,000 acres of shrubland. Yet these acreages do not appear in Table 3-35 at p. 3-55. The Draft RMP/EIS also does not rationally explain how “uncharacteristic” S-Class is treated in the fire model, and does not contain a sample of the LANDFIRE model that was apparently used to classify the FRCCs.	Fire Regime Condition Class (FRCC) measures the departure from historical vegetation seral classes and fire frequency. The Final EIS, *Wildland Fire Ecology and Management* section provides a brief discussion of FRCC. The Final EIS provided the source information used for determining successional class (S-Class) reference conditions. FRCC is a landscape-level assessment that evaluates the relative proportion of vegetation S-Classes. The determination is based on this proportion, not the mere presence of a single seral state within a defined area. Therefore, areas mapped as “native shrubland” do not necessarily qualify to be rated as FRCC 1. Uncharacteristic vegetation is not defined by model, but rather is considered vegetation that is a result of invasion (e.g. dominated by exotic invasive annuals) or human intervention (e.g. crested wheatgrass seedings) that would not occur through natural successional patterns (i.e. alternative stable states). For the 713,000 acres, which have burned once, the vegetation would be in an early seral class and would be departed from the historical reference. However, as stated in the paragraph preceding Table 3-35 of the Draft RMP/EIS, "the results should not be interpreted to indicate the condition of each acre within a potential natural vegetation group as the FRCC rating applies to an entire potential natural vegetation group."

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Wildland Fire Ecology and Management	We have repeatedly commented on the many shortcomings associated with the use of the Fire Regime Condition Class (FRCC) 1, 2, 3 categories as a basis for credible land use planning in the context of the planning area. FRCC was developed for forested large tree areas (like ponderosa pine forests). Inputs/supposed science on which disturbance intervals are based are ever changing and depend on whose research one believes. FRCC factors in this information. BLM than uses this to claim that lands need to be further disturbed, or they will be outside a historical range of disturbance. Plus, lands in FRCC 1 or 2 as BLM applies this loose, uncertain and ever changing fuel description system to sagebrush landscapes, typically have few shrubs and provide unsuitable habitat for nearly all native wildlife.	Fire Regime Condition Class (FRCC) classification techniques are well documented and supported. FRCC 1 would be assigned to a landscape-scale area where the current state of the vegetation resembles the historical state based on an understanding that the state is dynamic and would be comprised of different levels of vegetative succession. Even though classified as FRCC 1 the entire landscape would not be a homogeneous cover of mature sagebrush or a homogeneous cover of grasses, for example, but a composition of different seral states. BLM utilizes FRCC in subsequent fire planning as per BLM manual and handbook direction and it is appropriate to address in the Final EIS. See http://www.frames.gov/partner-sites/frcc/frcc-home/.
Wildland Fire Ecology and Management	It is likely that the fire disturbance interval used in preparation of the Draft RMP/EIS is now already outdated. Please review the W. L. Baker (2009) article in Knick and Connelly (2009) and other chapters discussing fire. What fire disturbance intervals is the Fire Regime Condition Class analysis based on? Will BLM update this and provide detailed analysis of how it arrived at claimed disturbance intervals in analysis of an expanded range of alternatives?	The fire return intervals in the Draft RMP/EIS were based on Hann and Bunnell (2001) and the Interagency Fire Regime Condition Class Guidebook Version 1.3.0 (Hann et al., 2004). Fire return intervals in Chapter 3 of the Final EIS, *Wildland Fire Ecology and Management* section, were updated using Interagency Fire Regime Condition Class Guidebook Version 3.0 (Barrett et al., 2010). The Final EIS described the assignment of historical fire regimes (HFR) to the potential natural vegetation group. Sagebrush communities are assigned a HFR from III to V depending on the community. HFR III and IV are a return interval of 35-200 years while HFR V is a 200+ interval. These fire disturbance intervals correspond with the article cited by William Baker.
Wildland Fire Ecology and Management	We repeatedly brought up the flaws and shortcomings of Fire Regime Condition Class (FRCC) and BLM ignored these concerns. BLM must provide detailed analysis of how fire/disturbance and vegetation characteristics have changed since the FRCC analysis and alternatives development. BLM must provide a detailed appendix that lays this all out and explains in detail how they derived it. BLM must also provide mapping that shows the current 2011 FRCC categories for the field office. We have seen agency-accepted fire/disturbance intervals lengthened by 100% - just in the time the Draft RMP/EIS was prepared. The dire status of sage-grouse and	Fire Regime Condition Class (FRCC) is an interagency, standardized tool for determining the degree of departure from reference condition vegetation, fuels and disturbance regimes. FRCC classification techniques are well documented and supported (see www.frames.gov). Assessing FRCC can help guide management objectives and set priorities for treatments. The Final EIS revised information related to wildfires and vegetation.

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	the sagebrush ecosystem has resulted in much more critical examination of range scientists who BLM has relied on in the past. Range scientists who wrongly claimed fires were frequent (50-75 years or so) in many sagebrush communities.	
Wildland Fire Ecology and Management	BLM does not adequately explain how Fire Regime Condition Class applies to all the exotic crested wheatgrass or coarse cultivar and cheatgrass lands.	Exotic plant species are by definition not a component of the historical vegetation and would result in or contribute to a departure from the reference condition (i.e., Fire Regime Condition Class 2 or 3). The Final EIS, Chapter 4 *Upland Vegetation* section, considers cultivars of native species as native.
Wildland Fire Ecology and Management	BLM has not provided necessary information and analysis on how sparse and simplistically vegetated, as well as how structurally simplified and desertified lands would be if managed under Fire Regime Condition Class (FRCC) 1 and 2. Lands would be nearly devoid of all species of sagebrush-dependent wildlife. What species would thrive under each FRCC Class?	Fire Regime Condition Class (FRCC) is a measure of the departure from the historical fire regime and vegetation. Therefore, management actions that would lead to the historical vegetation and fire regime would lead to FRCC 1. Management actions that would lead away from the historical vegetation and fire regime would lead towards FRCC 3. FRCC does not provide specific management direction for a particular vegetation complex. FRCC 1 and 2 would not be structurally simplified and “desertified” as suggested in the comment.
Wildland Fire Ecology and Management	Why do Alternatives I and II show suppression primarily only in the wildland urban interface? This is not realistic in a Draft RMP/EIS that is to conserve sage-grouse. Since Fire Regime Condition Class (FRCC) requires a certain percentage of vegetation communities to be in the arbitrary and ever-changing ideal "disturbed" states, to develop a range of alternatives based on FRCC results in BLM is considering many actions that everyone knows it will never adopt, and that are not realistic in the planning area over the next 20 years. How can BLM conserve sage-grouse with such limited suppression in the Proposed Alternative?	The purpose of the Final EIS is to analyze and provide overall management and long-term direction for lands and resources in the planning area. One of the many considerations is to promote diversity and resilience of biological resources including special status species. Each of the alternatives considered in detail had a different emphasis as described in Chapter 2 of the Final EIS. The BLM did not develop alternatives based on Fire Regime Condition Class results as suggested. As noted in the Draft RMP/EIS Preferred Alternative (Alternative IV) key sage-grouse habitat is one of the areas identified as critical suppression. The Final EIS, Alternative VI (Proposed RMP), identified key sage-grouse habitat as a critical suppression area. The objective for suppression actions in critical areas is to reduce fire size, reduce the number of human-caused fire starts, and reduce the number of acres burned.
Wildland Fire Ecology and Management	Remove the entire Fire Regime Condition Class section. BLM under vegetation, wildlife, etc. should have a goal of full suppression across all alternatives, with protection of all existing and recovering native communities, surrounded by a 5-mile buffer, being the highest priority to conserve and	The Final EIS did not remove the Fire Regime Condition Class discussion. The Final EIS included a reasonable range of alternatives with differing goals, objectives, and management actions related to fire suppression actions. The Final EIS, Alternative VI (Proposed RMP), identified key sage-grouse

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	enhance sage-grouse habitats.	habitat as a critical suppression area. The objective for suppression actions in critical areas is to reduce fire size, reduce the number of human-caused fire starts, and reduce the number of acres burned.
Wildland Fire Ecology and Management	The primary "fuels" treatments in the planning area aim at restoring annual grass and weed lands under all alternatives.	Fuels treatments target reduction of hazardous fuels in order to reduce fire size. Chapter 3, *Noxious Weeds and Invasive Plants*, considered both annual grasses and noxious weeds as hazardous fuel. The *Upland Vegetation* sections in Chapter 2 of the Final EIS outline the goals and objectives for vegetation treatments, including restoration treatments.
Wildland Fire Ecology and Management	Fuel treatments are not effective in the planning area. All fuels treatments that reduce or simplify native vegetation should be greatly restricted. BLM uses fuel concerns to excuse/justify manipulation of native shrubs and trees to promote livestock forage. Often weedy flammable annual grasses thrive in the aftermath of fuels treatments, thus exacerbating wildfire concerns.	Fuel treatments in Alternative VI (Proposed RMP) would conform to the goals, objectives, and management actions in the *Wildland Fire Ecology and Management, Upland Vegetation, and Noxious Weeds* and *Invasive Plants* sections. Generally, the proposed goals and objectives for wildland fire are to reduce fire size, number, and to progress towards Fire Regime Condition Class 1. Goals for upland vegetation are to promote soil stability, water infiltration, nutrient cycling, and energy flow. Goals for noxious weeds and invasive plants are to prevent, eliminate or control these species. Management actions to implement these goals should promote a more resilient ecosystem.
Wildland Fire Ecology and Management	There are large irrigated meadows/pastures by Three Creek, as well as large irrigated areas near Rogerson. These irrigated areas form fuel breaks that are much more substantial and effective than anything BLM could do. Mapping and analysis must factor in what is actually present on these lands so the public can understand how limited the risk is in many of these areas. Massive habitat disturbance from fuel breaks and similar "treatments" would result under all alternatives.	The Final EIS does not propose any specific fuel breaks. Alternative III focuses on restoring the ecosystem through intensive management of fuels and enhanced fire suppression capabilities. Management actions for Alternative III did include an emphasis on fuel breaks; however, this and other alternatives did not propose any specific location for fuel breaks. If and when the BLM proposes to construct a fuel break, site-specific analysis would be completed and consideration would be given to the existing condition of the specific area.
Wildland Fire Ecology and Management	Incorporate a full and science-based analysis of the impacts of livestock grazing in spreading flammable cheat grass in the discussion of fuels. Incorporate actions to significantly reduce livestock disturbances and promote micro biotic crusts.	The Final EIS addressed the impact of grazing on cheatgrass spread in the Chapter 4 *Noxious Weeds and Invasive Plants* section, Impacts from Livestock Grazing Actions.
Wildland Fire Ecology and Management	Alternative V allows fuel breaks along designated roads and primitive roads. This means that there could be hundreds or even thousands of miles of fuel breaks of unknown width-drastically adding to the adverse footprint and habitat fragmentation of the road network in the planning area. See	The Final EIS analyzed a range of alternatives with differing goals, objectives, and management actions related to fire suppression actions. Alternative V would consider fuel breaks; it would not construct them along every designated road or primitive road. Alternative VI (Proposed RMP) does not propose

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	Draft RMP/EIS Map 56 that shows the appalling number and density of roads in the planning area.	roads as the main consideration in fuel break placement.
Wildland Fire Ecology and Management	The fuel break action that we support is replacement of large-statured coarse exotic and cultivar grasses with small native Poas and yarrow, while disturbing no native shrub communities. Consider this in an expanded range of alternatives that rely on removal of the vast coarse over-sized densely planted grasslands as a fuels and habitat action. Simply replace flammable and other exotics with small statured natives.	The Final EIS analyzed a range of alternatives with differing species allowed in fuel breaks. The BLM would decide and analyze the composition of a specific fuel break at the project level. Alternative V analyzed the use of native plants as the only material for use in fuel breaks.
Wildland Fire Ecology and Management	Page 3-52 of the Draft RMP/EIS shows BLM still obsesses over "fire fulfilling its role in the ecosystem and accomplishing resource objectives". The presentation of information in this section appears designed to minimize the severe effects of the fires - and the disaster that BLM's post-fire seedings have caused - in promoting repetitive fires. (See Table 3-31, Vegetation Management Area [VMA] A and B). These VMAs contain many of the harmful dense fire-promoting crested wheatgrass and other seedings.	The introductory paragraph merely depicts the current state of fire suppression within the planning area. All action alternatives in the Final EIS preclude Wildland Fire Use.
Wildland Fire Ecology and Management	Please describe in detail just what the Fire Regime Condition Class was in the lands before the Long Butte fire, the Clover Fire, and areas seeded after the Murphy fire.	The Final EIS determined baseline Fire Regime Condition Class (FRCC) at the landscape scale. The baseline FRCC accounted for fires through 2011.
Wildland Fire Ecology and Management	We want to highlight p. 3-53 stating, "FRCC is a classification of the amount of departure from the Historic Fire Regime". Then, "Departure from HFR is based on comparison of current fire return interval and fire severity to the historical fire return interval and fire severity". In the case of the planning area where credible science would show fire might have burned on the average every 200 or more years, what is the interval BLM used? Then, if we super-impose "fire severity" on this - based on what is actually on the ground - we get much lower fire severity than in sagebrush communities.	Table 3-44 in the Final EIS displays the Historic Fire Regimes assigned to each potential natural vegetation group. Table 3-43 shows the associated fire return interval for each Historic Fire Regime.
Wildland Fire Ecology and Management	The (Fire Regime Condition Class [FRCC]) model appears to imply that the severity is based on potential natural communities (PNC) and whatever in the world a "VSG" is. Then, "HFR in the planning area was determined based on potential vegetation. HFR is further defined in the LANDFIRE models used to describe the planning area's HFR. Table 3-34 assigns the potential natural vegetation groups ... from the	VSG is Vegetation Sub-Group. Fire Regime Condition Class (FRCC) is a measure of the departure from the historical fire regime and vegetation. The historical fire regime is based on the fire return interval and fire severity, not potential vegetation. Potential natural communities are the potential vegetation community. This community may exist or historically existed within the planning area. Potential natural communities are

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	LANDFIRE model to an HFR, PNC (based on information from SSURGO), and a VSG". BLM further complicates this by a reference to "HFR" as defined in the cohesive strategy. All of this FRCC modeling confusion was designed to model timber country, not greatly altered coarse seedings and sagebrush.	assigned to a vegetation model, potential natural vegetation groups, which were developed for FRCC modeling. See http://www.frames.gov/partner-sites/frcc/frcc-home/ for Interagency Fire Regime Condition Class Guidebook and further discussion and documentation of FRCC methodology.
Wildland Fire Ecology and Management	There is little evidence that the arbitrary categories in the Historic Fire Regime Definitions Table have any real relevance to understanding fires, controlling fires, or protecting sage-grouse habitat in the planning area.	The Historic Fire Regime Definitions Table in Chapter 3 of the *Wildland Fire Ecology and Management* section of the Final EIS identifies the Historic Fire Regime definitions used by BLM as defined by Hann and Bunnell (2001). The Final EIS presented this information because it was used in Fire Regime Condition Class analysis.
Wildland Fire Ecology and Management	BLM's artificial division of the planning area into the meaningless Vegetation Management Areas adds yet another arbitrary and artificial category to this all.	Due to differences in vegetation response to management and disturbance along a north-south gradient, Vegetation Management Areas divided the planning area based on potential natural community, elevation, and mean annual precipitation. This aids in the analysis in Chapter 4 and ultimately in implementation of management actions.
Wildland Fire Ecology and Management	The acres are no longer correct in Table 3-35 of the Draft RMP/EIS.	The Final EIS revised Chapter 3 to include updated vegetation data.
Wildland Fire Ecology and Management	Page 3-55 of the Draft RMP/EIS states that seral class (S-Classes) had more influence than changes in fire frequency and severity in determining Fire Regime Condition Class ratings. Does this mean that the coarse woody grasses have burned more frequently? Does BLM consider crested wheatgrass and Siberian wheatgrass "successional"?	The statement that "S-Classes had more influence than the changes in fire frequency and severity in determining Fire Regime Condition Class (FRCC) ratings for each potential natural vegetation groups" does not mean that crested and Siberian wheatgrasses have burned more frequently. Crested wheatgrass and Siberian wheatgrass are not a component of the succession of vegetation for the potential natural vegetation groups described in the Final EIS. Crested wheatgrass and Siberian wheatgrass belong to the uncharacteristic succession class (S-Class U) in FRCC modeling.
Wildland Fire Ecology and Management	Page 3-55 states that fuel models do not account for fire return intervals, changes in landscape patterns, or length of fire season. What does? Did the Long Butte Fire just burn a great big hole in the Fire Regime Condition Class and fuels? There, the Vegetation Management Areas (northernmost part of the planning area), had 0 acres with an extreme spread rating. Yet the Lone Butte fire burned at an extreme rate, nearly 300,000 acres in just 2 days.	Climate, weather, and topography play a large role in fire return intervals, changes in landscape patterns, and length of fire season. Models do not exactly duplicate all elements that influence fire behavior. The Fire Behavior Prediction System outputs are rate of spread, fire line intensity, British thermal units per square foot, and flame length. The models used do not produce outputs related to fire return intervals, changes in landscape patterns, or length of fire season as stated in the Final

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		EIS. The Long Butte fire did not burn a hole in Fire Regime Condition Class (FRCC) and fuels modeling tables. The Long Butte fire burned an area that was primarily non-native vegetation so the FRCC did not substantially change post-fire. The adjective ratings, for example “extreme” are from the Standard Fire Behavior Fuel Models (Scott and Burgan, 2005) as assigned to each fuel model. As previously stated fuel models are not an exact duplicate of all elements that influence fire behavior.
Wildland Fire Ecology and Management	Why doesn't BLM have "number of fires" (not just human-caused) as an indicator?	Chapter 4 of the Final EIS described the total number of fires and the number of human-caused fires. The planning area averages 23 fires per year, of which an average of 9 fires are caused by human actions. The Final EIS used the number of human-caused fires as an indicator for the analysis because it measures the effectiveness of management actions that reduce the number of fires caused by humans. There are no reasonable methods to reduce or alter the number of fires caused by lightning.
Wildland Fire Ecology and Management	On top of the jumble for the fire discussion from Chapter 3, BLM in Chapter 4 imposes the jumble of uncertainty from livestock grazing, recreation, travel, and claims impacts from management in the *Vegetation Communities* and *Noxious Weeds and Invasive Plants* sections were captured in *Wildland Fire Ecology and Management*. What does this mean?	See Section 4.1.1 How to Read This Chapter to understand how each section relates to the other sections in the analysis portion of the Final EIS. The *Wildland Fire Ecology and Management* section analyzed impacts to fire management from management actions in the *Upland Vegetation* and *Noxious Weeds and Invasive Plants* sections from Chapter 2.
Wildland Fire Ecology and Management	The Draft RMP/EIS, p. 4-472, states, "estimated utilization levels of non-native vegetation were compared between the alternatives". What is the basis for understanding utilization levels under any alternative? Please provide details. Then BLM states, "it was assumed that higher utilization levels in non-native vegetation would have an immediate effect in decreasing fire size" and cites the Murphy Fire Report (Launchbaugh et al., 2008). Unfortunately, that is not what the Murphy report said. That report, and Steve Bunting in the BLM press conference, admitted that only under the cool, calm prescribed fire conditions does his modeling of grazing use levels show any effect on fire behavior. These are not the	Launchbaugh and others (2008) as cited in the Draft RMP/EIS (p. 4-472) states “Fire modeling revealed that grazing in grassland vegetation can reduce surface rate of spread and fire-line intensity to a greater extent than in shrub land types. Under extreme conditions (low fuel moisture, high temperatures, and gusty winds), grazing applied at moderate utilization levels has limited or negligible effects on fire behavior. However, when weather and fuel-moisture conditions are less extreme, grazing may reduce the rate of spread and intensity of fires allowing for patchy burns and low levels of fuel consumption.” The report indicates that in the sagebrush models “The potential

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	conditions when wildfires naturally burn. This, it appears that BLM' s entire basis for analyzing fuels, the high levels of grazing and extreme number of treatments of Alternative III and targeted grazing in Alternative IV is based on the assumption that wildfires in the planning area burn under the cool, calm spring or fall temperatures and moisture conditions of prescribed fires! BLM's misleading and incorrect use of the Murphy Fire report is inexcusable. It is being done to ensure very high and harmful levels of use continue in the planning area.	role of grazing to reduce fuel loads and fire behavior is more feasible and effective under cooler and more humid conditions." But in grass, the report states "The cheat grass and seeded grass models were run at 6, 8, 10, and 12 percent dead fuel moisture levels. Simulated grazing reduced measures of fire behavior at all fuel moisture levels, but was more pronounced under more moist conditions (that is higher dead fuel moisture values)." Although the cheatgrass and seeded grass models were nearly identical, all fire behavior variables were reduced by the lower grass volumes (that is, the ratio of surface area to volume) in the seeded grass model. This effect on grass volume was evident even at 6 percent dead fuel moisture, but it was more pronounced at higher dead fuel moisture values (Launchbaugh et al., 2008). In major findings and lessons learned the report states "A few abrupt contrasts in burn severity coincided with apparent differences in actual use by livestock and other grazing factors, as illustrated by fence-line contrasts. Consequently, opportunities to influence fire behavior through livestock grazing are greatest in grassland vegetation types. Fire modeling suggests grazing in grassland vegetation can reduce surface rate of spread and fire line intensity to a greater extent than in shrub land types where woody fuels generally are not reduced by cattle or sheep grazing." Reduced fuel volume and loading contributes to reduced fire behavior especially in the fine fuels (Scott and Burgan, 2005). Utilization levels were used for comparison purposes to estimate a relative effect of grazing on fuel loading and volume and therefore fire behavior and fire size (Table 4-170). The analysis was not based on season or particular weather scenario.
Wildland Fire Ecology and Management	BLM cannot simplistically claim that limiting travel to roads alone is going to reduce fires. Very little off-highway vehicle off-road use occurs except on the hill outcrops in small sections in the north.	The Final EIS assumed increased motorized vehicle access increased the risk of human-caused wildland fires. Areas identified as open to cross-country motorized vehicle use would increase human-caused wildland fires. Areas identified as limited to designated routes or ways and areas closed to motorized vehicle use would decrease human-caused wildland fires.

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Wildland Fire Ecology and Management	What is the basis for analyzing the Land Use Authorizations – rights-of- way, oil and gas, geothermal, military activity, etc.? Pages 4-472 to 4-473 in reality say nothing concrete. Wouldn't large-scale oil and gas development increase flammable cheat grass and likelihood of explosions and other human-caused fires? So shouldn't BLM prohibit oil and gas development in all remaining sagebrush habitats and recovery/restoration habitats to protect the habitat?	The discussion in the Draft RMP/EIS discloses that BLM assumed, for purpose of analysis, that the potential for human-caused fires would increase based on the amount of area available for development. The Final EIS assumed increased activities associated with developments increased the risk of fire starts.
Wildland Fire Ecology and Management	Page 4-47 of the Draft RMP/EIS states that vegetation treatments that change the current plant community could also change the fuel model and rate of spread. BLM predicts that under Alternative IV, vegetation treatments would affect the rate of spread on 5% of the planning area. How much of a difference will the rate of spread make? Where is a map that shows this bioengineering? Does this mean that 5% of the land area will be engineered for fuel breaks?	Vegetation treatments that change the current plant community could change the fuel model and rate of fire spread. The 5% is the amount of acreage that would see a decreased rate of spread resulting from all vegetation treatments within the alternative as identified in the *Upland Vegetation* section. The differential change in rates of spread was identified in the Draft RMP/EIS in Table 4-166 for Alternative IV (the Preferred Alternative). There is no map showing specific vegetation treatments since the Final EIS did not propose any specific treatments.
Wildland Fire Ecology and Management	BLM somehow comes up with 916,000 acres "Improved" and claims it is more than any alternative. BLM must provide all acreages, livestock stocking rates, use levels, treatments, changes in cheat grass predicted over 20 years under Alternative IV. What does improved mean?	The term “improve” in this context refers to the changes in vegetation, as measured in acres, from the vegetation goals objectives and management actions and how those changes would match the composition of the potential natural vegetation group or the historical vegetation. Fire Regime Condition Class (FRCC) measured the degree to which the changes would match the historical vegetation. FRCC 1 indicated the landscape meets the historical vegetation composition. The requested information on acreages, stocking rates, use levels, treatments, and changes in cheatgrass are not available and are not needed to make a choice among alternatives. The Final EIS will establish goals and objectives for future management. BLM’s future implementation level decisions will move on-the-ground conditions toward the established goals.
Wildland Fire Ecology and Management	What are the climate conditions (humidity, wind speed, fuel moisture, etc.) that are used in the predicted rate of spread? What percent cheat grass is in all the communities here? What is the vegetation that BLM assumes is in the fuel break?	The inputs used for the Fire Behavior Prediction System are dead fuel moistures of 3%, 4%, 5%; live fuel moistures of 30%; slope of 20%; and wind speed of 10 mph. The vegetation data used for upland vegetation baseline and analysis in the Final EIS are an aggregation of plant community-level mapping with a 20-acre minimum mapping unit. Any area

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		with 50% or greater cover of annual species, including but not limited to cheatgrass, were classified as annual in both the community-level and aggregated classifications. The BLM does not have data on cheatgrass cover in all plant communities in areas where it does not comprise at least 50% of the vegetative cover. The BLM does not assume a specific composition of vegetation within any fuel break. Specific details of fuel breaks will be determined during the project level analysis. The only assumption is that the vegetation will meet the goals, objectives, and management actions of the alternative.
Wildland Fire Ecology and Management	How has military activity caused fires on both BLM and US Air Force (USAF) lands? How has the risk of military associated fires increased? BLM should work with the USAF on USAF lands to develop fuel breaks. This is also likely to expand with increased use, use of white phosphorus, etc.	Fires that start on lands associated with the impact area of the Mountain Home Air Force Base are managed by the US Air Force (USAF) unless assistance is requested. BLM may respond to a fire report within the area but would coordinate with the USAF. Contact the USAF for information pertaining to those fires. The USAF has constructed a firebreak around the Saylor Creek Impact Area and they maintain it on a yearly basis. However, this is not the case with the Juniper Butte Training Range. The Final EIS analyzed a range of alternatives for wildland management firebreaks. Management action WFM-CA-MA- 7 in Alternative VI (Proposed RMP) addresses the issue and would allow the development of fuel breaks adjacent to USAF lands.
Wildland Fire Ecology and Management	Please provide analysis of risk of military flare-caused fires. Has BLM, since expansion of the US Air Force (USAF) Bombing Range, ever required the USAF to stop using flares during periods of very hot and dry conditions? How many fires have occurred on USAF lands from 1987 to the present? Where? This includes at least one fire in slickspot peppergrass habitat on Juniper Butte. Many of the roads and portions of accessing routes would go for days or weeks and receive no human motorized use except for the USAF. So what is the manner of use and disturbance to wildlands and wildlife that is actually occurring, and is foreseeable, over the life of this plan? How do military lights interfere with dark night skies?	Management of US Air Force (USAF) activities on USAF lands is beyond BLM authority. BLM does not record information regarding fires that occur in the impact area from military activity. BLM has recorded 67 fires between 1987 and 2011 on USAF lands outside the impact area. Lightning caused the majority (65%) of the fires. Travel planning will analyze travel routes and access more thoroughly in the subsequent travel management plan. A specific analysis of military lights is beyond the scope of this planning effort, as the BLM does not have the authority to decide when and how much artificial light is used.

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Wildland Fire Ecology and Management	The Draft RMP/EIS Fire Vegetation mapping and data is outdated due to the Long Butte, China Mountain, and other fires. Create clear mapping and analysis for all sagebrush seedings and rehabilitation actions and success (or failure) following Clover, Murphy, and subsequent fires that have occurred. Some measure and reporting of rehabilitation and other planting success based on monitoring of recent rehabilitation efforts must be provided.	The Final EIS revised the Draft RMP/EIS "Post-2007 Fire Vegetation" and "2012 Projected Vegetation (Baseline)" maps to include wildland fires, Emergency Stabilization and Burned Area Rehabilitation seedings, and fuel treatments through 2011. The new maps are the "Existing Vegetation as of 2011" and "2016 Projected Vegetation" maps (Maps 9 and 10).
Wildland Fire Ecology and Management	On what basis does BLM consider a seldom-occupied ranch, such as at Clover Creek, a wildand urban interface?	Wildland urban interface data was created for the *2007 Idaho Interagency Assessment of Wildland Fire Risk to Communities* as identified in Chapter 3. The source was a geographic information system point layer of urban wildland communities identified in the Federal Register (66 Fed. Reg. 753, January 4, 2001) and 2000 Census data which was processed by the Wildlife Spatial Analysis Lab, University of Montana.
Wildland Fire Ecology and Management	We note that Map M-26 shows sagebrush-shrub habitats in areas where BLM purposefully left them off the preceding key habitat map for sage-grouse.	The purpose of Map 26 in the Draft RMP/EIS is to show critical suppression areas in Alternative I. Map 26 shows wildand urban interface; Bruneau-Jarbidge Area of Critical Environmental Concern (ACEC), Lower Bruneau Canyon ACEC, Middle Snake ACEC, and Salmon Falls Creek, ACEC; and key sage-grouse habitats. The key sage-grouse habitat shown on Map 21 in the Draft RMP/EIS is only a subset of the critical suppression areas shown on Map 26.
Wildland Fire Ecology and Management	Alternative V is the minimum of suppression that should be done here. This should just be a part of all alternatives.	Suppression areas for each alternative were developed based on the emphasis of the alternative described in Chapter 2.The amount of suppression areas continues to vary from alternative to alternative in the Final EIS.
Wildland Fire Ecology and Management	It makes no sense to include an alternative that would not place the single, small Horse Management Area as a priority for suppressing fires.	The Final EIS analyzed a range of alternatives concerning priority areas for fire suppression. Alternative VI (Proposed RMP) included the Saylor Creek Herd Management Area within a Critical Suppression Area.
Wildland Fire Ecology and Management	Please read and include data from the article "Variation in the effects of vertebrate grazing on fire potential between grassland structural types" into the record for the Final EIS. It adds to the evidence refuting the livestock industry/BLM range conservationist grazing stops fire myth that pervades the deeply flawed Draft RMP/EIS.	The referenced study examines the degree to which vertebrate grazing affects the fire potential in native grasslands in Tasmania Australia. The grazing regime of natural grazers (wallaby) and 1 sheep per 2 acres is not representative of the planning area. The study did not provide any additional information relevant to the analysis of impacts in the Final EIS.

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Wildlife	Currently, WI-NA-MA-17 on p. 2-64, in the *Wildlife* section of Chapter 2 reads as follows: "Restrict occupancy for oil and gas activities in crucial wildlife habitats as is shown below…Mid-March through June within 0.25 miles of Western burrowing". Our monitoring of breeding Burrowing Owls in northwestern Utah and northeastern Nevada for >10 years suggests that the seasonal protection for this species should instead be mid-April through July. Additionally, we would also recommend adding spatial protections of 0.5-mile radius for Prairie Falcons (April–June), Ferruginous Hawks (April–early July), and Red-tailed Hawks (late March–early July) based on our recent assessment of the relationship between oil and gas development and nesting raptors in Utah and Wyoming (see BLM Technical Note 433; available online at: http://hawkwatch.org/images/stories/NewsEvents/BLMTN433-2.pdf) and our research on breeding season windows for these species.	Management actions associated with the No Action Alternative cannot be changed because they are current management. The Final EIS updated the *Wildlife* section of Chapter 2 to reflect current Idaho BLM policy with respect to raptors nest sites and buffer distances. WI-CA-MA-5 defines the raptor seasonal period as February 1 through July 31 and modified the associated buffer distances. These time frames were adopted statewide Information Bulletin IB-ID-2010-39.
Wildlife	On p. 2-123; LG-NA-MA-4: Livestock season of use would be adjusted in Multiple Use Areas 10, 15, and 16, if necessary, to resolve any conflicts on mule deer, pronghorn and bighorn sheep ranges. These adjustments would entail the reduction in spring of fall livestock grazing use from a specific period of a grazing year. What and where is the rational and/or support for this statement? What are the conflicts, how extensive might they be, and what might be the impact to the livestock producer, especially in light of the fact that this action might cause the loss of spring and fall grazing?	LG-NA-MA-4 was a management action for the current RMP, current management, and cannot be changed. The rationale was these Multiple Use Areas (11, 15, and 16) contained crucial winter range for mule deer, and pronghorn. The 1987 RMP did not specify conflicts or an extent of conflicts, but provided a mechanism to make changes, if necessary.
Wildlife	On p. 2-141; LG-IV-MA-13: During big game calving, fawning and lambing, livestock grazing management would provide adequate cover for big game species; appropriate to site potential. Clarify this statement, does "would" mean should, must or something else?	In the Draft RMP/EIS, LG-IV-MA-13 "would" meant, "would" not could or should.
Wildlife	On p. 2-141; LG-IV-MA-14: Adjust livestock grazing so livestock season of use would not overlap bighorn sheep breeding and winter periods in those pastures that contain bighorn sheep habitat. Again, where is the rational and/or support for this statement? This definitely is a new, and I might add dangerous, management concept that the BLM seems to be initiating in the Draft RMP/EIS that could ultimately have	The Final EIS updated Chapter 2. Due to public comment, Alternative VI (Proposed RMP) has no similar management action. The Final EIS modified SS-CA-MA-16 to require the identification of a conflict before changing a schedule to avoid wintering and lambing. In the planning area all bighorn lambing occurs in canyon areas not accessible to livestock. Bighorn winter habitat includes the canyon and adjoining plateaus. The

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	very negative impacts on livestock (cattle) use of Federal lands throughout the west. These and similar statements throughout the text must be based on scientific, provable assumptions, not agenda driven agency management decisions.	rationale for the management action was to minimize displacement or movement during critical time periods, due to livestock grazing, if problem was identified. Seasons of use or livestock class would only be changed following NEPA analysis (see LG-CA-MA-4).
Wildlife	There have been no adequate studies of night-time migrants, little to no information on eagle populations across the region, and it is quite likely that the individuals from the same populations of migrating bats that will suffer mortality from Spring Valley or other Ely-Utah borderlands areas wind projects will be killed if China Mountain goes forward.	The China Mountain Wind Energy Project has been deferred until the Idaho/Southwest Montana Sub-regional Sage-Grouse Plan Amendment and the Jarbidge RMP have been completed and records of decision signed. Without baseline migratory movement information it is speculative to assume or discount additive migratory bat mortality for species moving through China Mountain to other areas.
Wildlife	In section 2.3.6.2. *Wildlife*: The impacts of the mushrooming elk population need to be addressed (WI-CA-MA-4, p. 2-64). The elk are not only affecting our livestock operations, but the unchecked population will soon be displacing and adversely impacting other wildlife species. In reference to WI-CA-MA-3 on p. 2-64; Idaho Department of Fish and Game and Nevada Department of Wildlife have not developed guidelines with public participation or NEPA analysis.	Based on public comments WI-CA-MA-4 “Management specific to elk would not be implemented unless requested by Idaho Department of Fish and Game (IDFG) or Nevada Department of Wildlife (NDOW); management actions for elk are allowed consistent with habitat management for priority wildlife species” in the Draft RMP/EIS was not carried forward. NDOW and IDFG have authority to manage a variety of wildlife including elk. State wildlife agencies have their own authorities and processes to determine harvest, seasons and weapon type (archery muzzle loader, rifle) for hunted species. The BLM would analyze specific projects such as restoration of winter range at the project level, but would also be consistent with NDOW and IDFG plans for mule deer and other game species.
Wildlife	The Federal public land management agencies must also further identify and recognize the correlation between livestock grazing and the positive growth and health of wildlife. Many studies provide information that confirms that livestock grazing has many positive impacts on wildlife heath and quantities.	The Final EIS revised the *Wildlife* section of Chapter 4 to include benefits to wildlife from livestock grazing. The commenter’s letter provided no literature or literature citations.
Wildlife	WI-CA-MA-10—Wind energy-related activities can avoid or minimize disturbance to priority species and their habitat pursuant to the best management practices (Appendix N) and BLM’s Instruction Memoranda related to wildlife and migratory birds. Note this in the discussion of this management action.	Management action LA-C-MA-1 incorporated programmatic policies and design features from the Record of Decision on Wind Energy Development on BLM-Administered Lands in the Western United States to all alternatives (see Appendix B: Best Management Practices, Design Features, and Operating Procedures for best management practices for wind energy and other resource uses).

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Wildlife	On p. 2-62, we believe upland game nesting and cover habitat should be improved, not maintained, in the Multiple Use Areas in general in Map 4.	The objective referenced (WI-NA-O-1) was the objective from the current 1987 RMP. The wildlife objective in Alternative VI (Proposed RMP), WI-VI-O-1, states “maintain or improve wildlife habitat by managing uses and activities and actively restoring annual, non-native perennial, and native communities”.
Wildlife	Include areas designated on Map 20, Big Game Winter Restoration, as critical fire suppression areas. In short, without significant progress in controlling and suppressing wildfire, most of the preferred alternative's wildlife objectives are meaningless.	Alternatives I, III, IV and VI (Proposed RMP) identified key sage-grouse habitat as critical suppression areas to help protect remaining winter range and sagebrush habitat from wildfires.
Wildlife	Where grazing may impact portions of big game winter range due to potential competition for limited winter food and cover resources, existing tools as well as additional criteria that consider localized resource conditions can effectively resolve the issue.	Management actions in Alternative VI (Proposed RMP) (LG-VI-MA-2, LG-VI-MA-9, and SS-CA-MA-11) produced flexibility to provide or manage residual cover for upland game and big game species. Through adaptive management, changes would be implemented if monitoring shows resource objectives were not being met.
Wildlife	The Draft RMP/EIS refers to "bighorn sheep habitat". No definition or delineation of bighorn sheep habitat exists in the document. Idaho Department of Fish and Game recommends that the BLM designate bighorn sheep habitat consistent with the Idaho Big Horn Sheep Management Plan (2011). Consistency with this plan would define occupied habitat.	The Final EIS added Map 27 “Bighorn Sheep Habitat and Distribution” to delineate bighorn sheep habitat for the planning area. The identified area was consistent with the Idaho Department of Fish and Game (IDFG) (2010) Idaho Bighorn Sheep Management Plan. The electronic copy of the 2010 Plan on the IDFG web site mentions the 2010 plan was updated January 2011.
Wildlife	The citation on p. 4-806 “Does Wildlife Threaten Extinction for Salmonids?” is incorrect. "Wildlife" should be "wildfire" in the Final EIS.	The Final EIS corrected this typographical error.
Wildlife	Idaho Department of Fish and Game (IDFG) raises the issue about the potential for livestock use of designated big game winter range during the winter due to potential competition for limited winter food and cover resources as a concern. To address this issue, IDFG suggests either inclusion of additional criteria for evaluation during the decision-making process including big game presence, weather severity, habitat condition and availability, and winter timing or we suggest some mechanism for the BLM consultation and consideration of circumstances with the relevant wildlife managers. IDFG offers our assistance for defining and evaluating these criteria as well as technical assistance for consultation and consideration.	Alternative VI (Proposed RMP) in the Final EIS provided various tools for use during evaluation of resources, including big game habitat, to determine allocations and specific grazing management practices that would maintain or enhance habitat values (see WI-CA-MA- 2, LG-CA-MA- 7, LG-VI-MA- 7, LG-VI-MA-8, LG-VI-MA-9, and ACEC-VI-MA- 6). Additionally, Idaho Department of Fish and Game and other publics would have the opportunity to provide more site-specific comments and recommendations for big game or other wildlife during the permit renewal or specific proposed projects.

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Wildlife	On p. 3-24, the third paragraph in Big Game Winter Range Section, the last two sentences are more speculative statements than factual. Recommend to remove the two sentences.	The Final EIS removed the two sentences from the affected environment discussion.
Wildlife	On p. 3-25, Mountain Cottontail Rabbits section states in the last sentence that no monitoring data is available, but cottontail rabbit numbers have generally declined. This is a speculative statement since there is no factual data on cottontail rabbit populations. Remove the last sentence.	The Final EIS updated the Upland Game Section, specifically the mountain cottontail rabbit discussion, of Chapter 3.
Wildlife	On p. 3-31, the first paragraph in Grassland Guild states that thirty three percent of the planning area is mapped as grasslands but only one percent should be grassland based on soil site description. This paragraph should explain that the majority of the grasslands are an early successes stage of a shrub community, which is the major community, based on soil site descriptions.	The Final EIS revised the discussion related to grasslands in Chapter 3 to acknowledge grasslands may be an early seral state to some other habitat.
Wildlife	All places where the phrase "bighorn sheep habitat" is used should be replaced by the phrase "occupied bighorn sheep habitat" to prevent unnecessarily reducing forage availability for livestock.	Bighorn sheep habitat in the planning area is the portion of the Bruneau-Jarbidge bighorn population management unit. This conforms to the Idaho Department of Fish and Game bighorn sheep management plan. The Final EIS added Map 27 “Bighorn Sheep Habitat and Distribution” to delineate bighorn sheep habitat for the planning area.
Wildlife	The Resource Advisory Council unanimously supports that further consideration and analysis of wildlife tracts needs to be given in the Draft RMP/EIS, none of the alternatives presented appear to resolve the issue adequately. The wildlife tracts are a leftover from the Desert Land Entry process. The original, I intention was to provide some residual level of wildlife habitat in areas approved for transfer to private hands for farming purposes. In some cases, water was to be provided to further aid in the creation of wildlife habitat. In recent years, the area has seen large tracts of farmland dewatered and returned to rangeland. The timing is ideal to reevaluate the current wildlife tracts and plan for the future. It would seem appropriate to consolidate acreage and concentrate it in areas most likely to support wildlife needs and benefit public recreation. The Draft RMP/EIS appears to give only superficial attention to the opportunities and challenges	The Final EIS revised Chapters 3 and 4 with respect to the wildlife tracts. The Final EIS added Map 18 “Wildlife Tracts in the No Action Alternative and Alternatives I, II, III, IV, and V” to show changes in the wildlife tracts for the original alternatives and Map 19 “Wildlife Tracts in Alternative VI (Proposed RMP)” for Alternative VI. The following management actions specific to wildlife tracts appear in Alternative VI: WI-VI-MA-6. Establish desirable perennial grasses, forbs, and shrubs to improve habitat for upland game on wildlife tracts; WI-VI-MA-7. Upland game (pheasant, gray partridge, chukar, mourning dove and California quail) would be the primary focus for the Wildlife Tracts. All other authorizations would have to be consistent with improving habitat on tracts: WI-VI-MA-8. Prepare a new Wildlife Tract management plan with Idaho Department of Fish and Game, which outlines specific habitat improvement projects. Wildlife tracts were identified for retention in the *Land Tenure* section (see LT-CA-MA-3).

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	wildlife tracts present. Considerable flexibility on the part of the BLM will be required to achieve the necessary land trades if the value of these tracts for wildlife purposes is to be maximized. This section should be included or cross-referenced with the *Land Tenure* section.	
Wildlife	The representation that placement on the Species of Greatest Conservation Need (SGCN) "identifies the species as at risk for decline" is erroneous. Intermountain Range Consultants addressed SGCN extensively in Comments to the AMS. The Draft RMP/EIS continues the same type of erroneous reporting as found in the Analysis of the Management Situation.	The Final EIS revised the leopard dace discussion in the Chapter 3 *Fish* Section. The sentence now reads, "Idaho Department of Fish and Game (IDFG) Comprehensive Wildlife Conservation Strategy (2005) identified leopard dace as a Species of Greatest Conservation Need (SGCN). Leopard dace were included as a SGCN because of changes in taxonomy resulted in a lack of essential information pertaining to status (IDFG, 2005). The lack of essential information includes abundance and population trend (IDFG, 2005)."
Wildlife	A species may be included on the Species of Greatest Conservation Need for a number of reasons, "e.g., status under the Endangered Species Act, high threats, declining trend, disjunction population, isolated populations, restricted distribution, endemic to Idaho, taxonomic uniqueness, etc." Idaho Department of Fish and Game (IDFG, 2005) p. 6. Please list the IDFG process and criteria for having a species included on this list.	Determining the Species of Greatest Conservation Need (SGCN) was an Idaho Department of Fish and Game (IDFG) process. Listing all the factors that may result in a species being qualified as a SGCN does not contribute to the affected environment. All the criteria can be reviewed on the IDFG's web site http://fishandgame.idaho.gov/public/wildlife/cwcs/
Wildlife	Chapter 3 of the Draft RMP/EIS, p. 3-23 states: "Nevada Department of Wildlife (NDOW) is managing for a herd for 1,000 elk in the Jarbidge Mountains (NDOW, 2000) and another 1,250 head in the Bruneau River area." However, no source is cited regarding the "Bruneau River area". This lack of disclosure makes it impossible for the public to present reasoned comment. As to NDOW, 2000, the document states: "The elk population objective for this area will be to reach 1,000 adult animals by the year 2010. The population will be maintained at 1,000 adult animals plus or minus 10%." Further, Martin, 2007 (see reference citation below) does not support the Draft RMP/EIS statement. Martin, 2007 states: "The elk management targets are set at 1,000 and 1,500 head for the two hunt units that border Idaho for a total of 2,500 elk."	Since the release of the Draft RMP/EIS, the BLM contacted Nevada Department of Wildlife (NDOW), who provided updated information (NDOW, 2012a). This information was included to revise the Nevada portions of the elk section in Chapter 3 for the Final EIS. The correction includes NDOWs current population targets for both Jarbidge and Bruneau River elk herds. The Bruneau River area refers to the Nevada hunt units 61 and 71. Jarbidge Mountain area refers to Nevada hunt units 72 and 74. The planning area contains only a small portion of any Nevada hunt units.

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	Thus, there is a discrepancy between the unsupported Draft RMP/EIS representation of 1250 animals and the Martin, 2007 representation of 1500 animals. Correct this and other discrepancies.	
Wildlife	This statement suggests elk consume primarily grass, with some minor component of their diets composed of browse, and that they only turn to browse when the grass is covered by snow. Peek (2003) does not classify elk diets in the manner stated in the Draft RMP/EIS. Peek (2003) did not suggest that elk only consume browse when snow covers the herbaceous component – in fact, snow cover is never mentioned by Peek, 2003 as affecting winter diet. Peek, 2003 also identified changing diets with changing seasons (none of which Peek attributed to snow cover).	The Final EIS expanded on Chapter 3 to better address elk food habits and included information from a study conducted in Jarbidge Mountains of northern Nevada (Beck and Peek, 2005) and winter diets (Christianson and Creel, 2007).
Wildlife	Chapter 3 of the Draft RMP/EIS, p. 3-23 states, “Mountain lions are widespread at low densities in the planning area. Because individual mountain lions have large territories, mountain lion numbers in a given area are naturally low, approximately 1 lion per 103 square miles (Pierce and Bleich, 2003).” However, Pierce and Bleich (2003) did not report the density of mountain lions reported by the Draft RMP/EIS. Pierce and Bleich (2003) reported 10 different studies from different states and provinces, which reported densities ranging from 0.4 lions per 100 square kilometers to 7.1 lions per 100 square kilometers. These equate to a range of densities of 1 lion per 96.5 square miles to 1 lion per 5.4 square miles. None of the studies reported 1 lion per 103 square miles. Relative to Idaho, Pierce and Bleich (2003) reported a study by Seidensticker and others (1973) which reported a mean density of 0.6 mountain lion per 100 square kilometers. This equates to a density of 1 mountain lion per 64 square miles, not 1 lion per 103 square miles. In addition, Seidensticker and others (1973), as cited by Pierce and Bleich (2003), monitored home ranges in the Idaho Primitive Area, which is not within the planning area, and which area likely has different climatic conditions and prey abundance than the planning area.	The Final EIS revised Chapter 3 for mountain lion and included information on territory size on mountain lions occurring in southeastern Idaho and food habits, closer to the planning area.

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Wildlife	Chapter 3 of the Draft RMP/EIS on p. 3-23 states: "Historically, substantial numbers of mule deer from Nevada migrated to the planning area during the winter (IDFG, 2007b). However, IDFG (2007b) does not make the statement attributed by the Draft RMP/EIS.	The Draft RMP/EIS had an erroneous citation. The correct citation should have been Idaho Department of Fish and Game 2007 Project W-170-R-31, Progress Report, Mule Deer Study 1 Job 2, Boise, ID 113 pages. The Final EIS updated the mule deer discussion in the Chapter 3 *Wildlife* section using the most recent Idaho Mule Deer Plan.
Wildlife	Chapter 3 of the Draft RMP/EIS, p. 3-23 states: a) While the Idaho Department of Fish and Game (IDFG) has no population data for mule deer in the planning area, data from adjacent big game management units in southern Idaho indicate mule deer numbers and fawn recruitment have generally trended downward since the late 1980s (IDFG, 2008d). Similarly, data from adjacent management units in northern Nevada indicate a general declining trend in the number of wintering mule deer north of the Jarbidge Wilderness area (NDOW)." However, IDFG (2008d) is a document specific to pronghorn, and does not make the statement attributed to it relative to mule deer. Further, Nevada Department of Wildlife (NDOW) is stated to be unpublished data, and is not an appropriate reference, because it does not permit the public a reasonable opportunity to comment to BLM's reliance on such information. If the information is not published, it is presumably not available to the BLM, and reliance upon such an unverified source is not appropriate to a description of the Affected Environment. If the unpublished information is available to the BLM and the BLM relies upon it, then make it available for public review of the Affected Environment.	a) The Draft RMP/EIS had an erroneous citation. The correct citation should have been Idaho Department of Fish and Game. Mule Deer Project W-170-R-32 Progress Report (IDFG, 2008c). The mule deer section of Chapter 3 was revised in the Final EIS and used the Idaho Mule Deer Management Plan 2008-2017 (IDFG, 2008a) as a base. b) A variety of unpublished data was used including proper functioning condition data, stream bank alteration, water temperature, and aquatic habitat. The BLM has access to a variety of wildlife data through a data sharing agreement with State wildlife agencies including sage-grouse count lek data, sage-grouse movement data, rare plant and animal data, mule deer harvest data, pronghorn harvest data, winter wildlife location data from aerial flights, radio-telemetry data on sage-grouse collected as part of graduate studies or other projects. These types of data qualify as unpublished data. Reference to unpublished data is allowed where the author(s) are familiar or have field information/data sets that were collected but have not been published. Data provided by State wildlife agencies were appropriately listed as unpublished data.
Wildlife	Chapter 3 of the Draft RMP/EIS (p. 3-23) states: "The habitat requirements of mule deer in the planning area …. Deer fawning, foraging, hiding and migrating." However, no appropriate literature source, appropriate research, planning area-specific monitoring data, or site-specific monitoring data is cited in support of the statements purporting the habitat requirements of mule deer in the planning area. This does not permit reasonable review and comment by the public.	The Final EIS added a brief generalized presentation of mule deer cover to the mule deer section of Chapter 3. Sources BLM reviewed for the general discussion on mule deer habitat included Wallmo (1978) and Mackie and others (2003). Neither general source was cited. BLM acknowledges no research regarding mule deer fawning has been conducted in the planning area.

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Wildlife	Chapter 3 of the Draft RMP/EIS, p. 3-23 states: "Pronghorn are widely distributed in the planning area. Pronghorn numbers throughout most of the planning area have generally declined since the early 1990s (IDFG, 2008d). Suspected reasons for the decline include habitat alteration and fragmentation due to wildland fire, conversion of burned areas to non-native perennial grass, increases in invasive annuals, failure of seeded forbs (e.g., alfalfa) to persist in crested wheatgrass seedings, increased road and trail densities, and increased fence densities." In hunt units 46 and 47, in the 19-year period from 1989 to 2007, Idaho Department of Fish and Game never offered fewer permits than were offered in 1988 and; in those 19 years, Idaho hunters harvested more pronghorns each year than were harvested in 1988. Please correct the false assumption that pronghorn numbers are on the decline.	The Final EIS revised the pronghorn section of Chapter 3. The section now includes a table of pronghorn harvest for Hunt Units 46 and 47 and a summary.
Wildlife	Chapter 3 of the Draft RMP/EIS (p. 3-24) states: "Pronghorn are adapted to large open expanses and rarely jump fences (Sheldon et al., 2006)." However, Sheldon and others (2006) did not study whether pronghorn jump fences. Sheldon and others (2006) studied the effects on pronghorn of different types of roads (including minor and major highways) and roads in combination with different types of fence. They also studied home range selection and migration routes.	The Final EIS revised the pronghorn section in Chapter 3 to provide information on pronghorn crossing fences, fence density, and wildlife friendly fence.
Wildlife	Of particular note are Sheldon and others (2006) findings relative to what they defined as "wildlife friendly" fence. They defined wildlife-friendly fence as a four-wire fence with smooth bottom wire and at least 41 cm (16 in) above the ground. Regarding home range selection: Pronghorn consistently selected significantly lower densities of all fence types except wildlife-friendly fence. Regarding selection of migration routes: There was weak evidence that pronghorn antelope were selecting migration routes with different fence densities than found within the study area. Fence densities within buffered migration routes were not significantly different from the study area in any of the four	A three or four strand barbed wire fence may be constructed to wildlife friendly standards; however, a variety of wildlife from big game to birds die in collisions with fences annually. Accumulations of tumbleweeds or snow can also make wildlife friendly fences barriers to some wildlife movements. With respect to wildlife friendly fences Table 8 in Sheldon and Lindzey (2005) shows pronghorn selecting areas with lower fence densities at times. However, the avoidance was not as consistent as with other fence types. Sheldon and Lindzey (2005) wrote "Fence density, however, including all fence types, was lower in seasonal home ranges overall than in the study area. Location of seasonal ranges was influenced by fence density, with pronghorn choosing those areas within the study area with lowest densities." Sheldon and Lindzey (2005)

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	migration periods. Regarding crossing fences on migration routes: Crossing rates for wildlife-friendly fence did not differ between actual and random routes except in fall 2003. Regarding fences within home ranges: Wildlife-friendly fence has been used by the agency.	recommend, "As little fencing as possible should be constructed on pronghorn range." Similar statements regarding fences are present in other peer reviewed pronghorn ecology and management reference books.
Wildlife	Chapter 3 of the Draft RMP/EIS on p. 3-24 purports statements made by O'Gara and Yoakum (2004). However, the copy of O'Gara and Yoakum (2004) provided is not the entire document, and the characterizations attributed to these authors do not appear in the copy provided. This omission of records does not permit reasonable analysis and comment by the reviewing public.	Chapter 3 with respect to pronghorn was revised in the Final EIS. O'Gara and Yoakum (2004) is a published document. The book could be obtained online or requested through an interlibrary loan.
Wildlife	Chapter 3 of the Draft RMP/EIS on p. 3-24 states: "The availability of forbs in shrub steppe habitats may have important implications for pronghorn because they are rich in nutritional values required for reproduction (Pyrah, 1987)." However, the copy of Pyrah (1987) provided is not the entire document. This omission of records does not permit reasonable analysis and comment by the reviewing public. The Draft RMP/EIS's reliance on Pyrah (1987) is not appropriate, because its work is specific to the Yellow Water Triangle of central Montana. The Draft RMP/EIS erroneously represents Pyrah (1987).	Pyrah (1987) is a published document that is available online. However, the Final EIS updated the pronghorn section in Chapter 3 using information from southeastern Oregon, which has similar climate and vegetation to the planning area rather than Pyrah (1987). The revision also included information on research on pronghorn conducted within the planning area.
Wildlife	Chapter 3 of the Draft RMP/EIS, on p. 3-24, states, "Idaho Department of Fish and Game (IDFG) and Nevada Department of Wildlife (NDOW) provided updated maps to depict the distribution of big game winter range in the planning area (Map 19)." Map 19 is found in Draft RMP/EIS Volume 3, p. M-20. However, the Draft RMP/EIS is wrong in failing to report what criteria IDFG and NDOW used to describe and display "Big Game Winter Range" and what criteria were used to "update" the mapping of big game winter range. For example, were actual occupancy, the average winter snow depth, vegetation characteristics, some "model", or some other criteria and method used to describe and display "Big Game Winter	Nevada Department of Wildlife (NDOW) used more than 10 years of winter flight information with the locations of mule deer and elk observations. They used field information from their staff. Idaho Department of Fish and Game (IDFG) used winter flight information in which they collected locations of wintering mule deer, pronghorn and elk. They also used field information from their staff. Neither NDOW nor IDFG designated separate mule deer or pronghorn winter range due to the presence of two or more species of big game in the same general area. Information from IDFG or NDOW was not available to identify by species, spring, summer or fall areas.

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	Range"? This lack of transparency makes it impossible to comment on the reliability (or any lack thereof) of Map 19 as it relates the Affected Environment. The Draft RMP/EIS errs in not identifying the spring, summer, fall, and winter habitat areas for each of the wildlife big game species.	The Final EIS updated the bighorn sheep section in Chapter 3 and added Map 27 "Bighorn Sheep Habitat and Distribution" to delineate bighorn sheep habitat for the planning area consistent with the IDFG bighorn management plan.
Wildlife	Chapter 3 of the Draft RMP/EIS, on p. 3-24, states, "Snow 15 to 18 inches deep can preclude use of an area by mule deer (Gilbert et al., 1970; Poole and Mowat, 2005)." However, the BLM should not rely upon these two sources, because the study areas are different from conditions found within the planning area. However, to the extent the BLM wishes to rely upon these two sources, (Gilbert et al., 1970; Poole and Mowat, 2005) conclude that mule deer prefer not to use areas of deeper snow (above 18 inches and above 15 inches, respectively). It is important to note that deer are mobile creatures that readily move to lower elevations, and to topographic features with lower snow cover, when they are unsatisfied with accumulating snow.	The Final EIS revised the winter range section of Chapter 3. The differences in study areas do not change the general statement that snow depth can preclude mule deer use of habitat during winter (MacKie et al., 2003). In general, as snow depth increases energy needed for movement increases and available herbaceous forage decreases.
Wildlife	Chapter 3 of the Draft RMP/EIS on p. 3-24 states: "Increases in energy use for movement (Parker et al., 1984), thermoregulation, and basic metabolic function during the winter are factors in increased mortality for mule deer fawns when compared to adult females (Hobbs, 1989)." As to Parker et al., 1984: This sentence infers that Parker and others (1984) assessed mortality in deer fawns and adult females as it is affected by energy use by the animals. Contrary to this inference, Parker and others (1984) did not study mule deer mortality. The sentence also infers that energy use by deer is a singular cause of increased mortality, which is also an incorrect inference.	The sentence did not infer Parker and others (1984) studied mortality, but clearly indicated they studied energy use for movement (locomotion). The Final EIS revised the Chapter 3 discussion for winter range and energy use.
Wildlife	Chapter 3 of the Draft RMP/EIS on p. 3-24 states, "Although rabbit brush may be eaten by wintering big game, it generally has less nutritional value than other browse….Rabbit brush, which responds by re-sprouting following burning (Tirmenstein, 1999a and 1999b), is prevalent on some winter ranges."	This section in the Draft RMP/EIS was about big game winter range to provide a general background, which included a brief discussion on structure, cover, and forage. The Final EIS revised Chapter 3 to identify rubber rabbit brush and green rabbit brush species present on some winter ranges, and added a brief

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	However, the Draft RMP/EIS does not specify what species of rabbit brush was/were identified within the "Big Game Winter Range", and does not identify which subspecies of either species was identified. This is an important consideration, of which the Draft RMP/EIS lacks any discussion or recognition. This is an important consideration because Tirmenstein (1999a and 1999b) states that the importance to wildlife and livestock, palatability, nutritional value, and use by different wildlife species, can vary considerably depending upon which subspecies is/are present, and depending on season of use: "In general, wildlife and livestock forage only lightly on this species during the summer, but winter use can be heavy in some locations (80)…. The forage value of rubber rabbit brush varies greatly among subspecies and ecotypes.	discussion of nutritional variation within browse species. Timing of the browse surveys precluded the identification of subspecies of rabbit brush. Several studies have documented nutritional value varies within a variety of shrub species with some ascensions within shrub subspecies being more nutritional than others. However, BLM does not collect nutritional information on browse or other plants for the planning baseline.
Wildlife	Chapter 3 of the Draft RMP/EIS on p. 3-24 states, "The BLM conducted big game winter range evaluations in the southern portion of the planning area in 2006 and 2007. The evaluations indicated chokecherry, Utah serviceberry, and four-wing saltbush was most heavily utilized, although it is unknown what portion of this use is attributed to big game or fall and winter livestock grazing (Klott et al., 2007)." However, the Draft RMP/EIS errs in suggesting or stating that Klott and others (2007) monitored utilization in terms of removal of current year's production. Klott and others (2007) did not monitor utilization in terms of removal of current year's production, but rather monitored (among other types of information) "percent nipping" information using the Extensive Browse Method. Relative to use of the forage, this Method only asks whether a twig was un-nipped or nipped, but does not assess the degree of annual forage removed.	The Final EIS revised the Chapter 3 discussion on big game winter range in the *Wildlife* section to indicate browsing or nipping rather than utilization.
Wildlife	Chapter 3 of the Draft RMP/EIS on p. 3-24 states (still referring to Klott et al., 2007): "The evaluation also showed moderate hedging within most Wyoming big sagebrush and antelope bitterbrush sites." This statement infers some degree of concern (it should be noted that "hedging" means "form class", not "browsing" or "utilization"), and the Draft RMP/EIS fails to clarify that moderate hedging is the norm, not an issue of concern. This is ignored by the Draft RMP/EIS, but verified by Klott and others	The statement was only intended to convey information not infer a concern. The Final EIS revised the Chapter 3 *Wildlife* section to note that moderate hedging was expected on big game winter ranges.

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	(2007) p. 51: "Browse on the winter range was generally considered all available and moderately hedged. Moderate hedging is usually expected on big game winter range."	
Wildlife	Chapter 3 of the Draft RMP/EIS on p. 3-24 states (still referring to Klott et al., 2007), "Relatively high amounts (10% to 29%) of rabbit brush in winter ranges classified as salt desert shrub, low sagebrush, Wyoming big sagebrush, mountain big sagebrush, and mountain shrub indicate higher disturbance sites; these disturbances can include fire, livestock grazing management, or use by wildlife. However, the Draft RMP/EIS fails to report that rabbit brush is a natural component of the vegetation types discussed (See Tirmenstein, 1999a and 1999b) and fails to report the "natural" or "undisturbed" range for the species and subspecies.	The Final EIS revised the Chapter 3 *Wildlife* section to note the role of rabbit brush in natural systems. BLM is not aware of a "natural" range for amounts of rabbitbrush. In general rabbitbrushes are usually a minor (rare of absent) component in late seral and climax shrub communities. However, rabbitbrush may dominate disturbed sites. Within the planning area usually rabbitbrush increases following fire if it was present prior to the burn.
Wildlife	Chapter 3 of the Draft RMP/EIS on p. 3-24 states (still referring to Klott et al., 2007), "The majority of shrubs observed in the winter range evaluations were classified as mature; however, more than 20% of Wyoming big sagebrush was categorized as decadent or dead in most habitats. This may indicate sagebrush in winter range is old." The Draft RMP/EIS appropriately recognizes that decadence is a natural component of the life cycle of shrubs, but the Draft RMP/EIS infers some concern, which is not a rational inference.	The Draft RMP/EIS did not intend to infer concern. The Final EIS revised the Chapter 3 *Wildlife* section to include that young shrubs are expected to replace old shrubs over time.
Wildlife	Chapter 3 of the Draft RMP/EIS on p. 3-25 states, "Gray partridge, quail, and chukar numbers commonly experience short-term fluctuations, but have been generally stable throughout the planning area since the mid-1980s (Hayden et al., 2006)." However, this representation of stable populations of these species is the same misrepresentation that the Analysis of the Management Situation stated. The Draft RMP/EIS does not correctly report the Affected Environment relative to these species and their population trends over time.	The Final EIS revised the upland game portion in Chapter 3 to reflect estimated hunter harvest and added a table including pheasant, chukar, gray partridge and quail harvest from 1985 to 2009. The indicates a substantial increase in California quail, chukar, and gray partridge harvest.
Wildlife	Chapter 3 of the Draft RMP/EIS on p. 3-25 states, "Late fall and winter livestock grazing (Leptich, 1992) combined with increases in livestock water sources in allotments adjacent to farmland and wildlife tracts also may reduce available winter and nesting cover for pheasants (Leptich, 1992) and gray	The Final EIS revised the discussion on pheasant in Chapter 3 to provide information on the existing environment and removed the discussion and reference regarding late fall and winter grazing (Leptich, 1992).

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	partridge." However, the attribution and inferred attribution to Leptich, 1992 are wrong, and the BLM should not otherwise rely upon Leptich, 1992. The Draft RMP/EIS discussion of Leptich, 1992 does not describe the affected environment.	
Wildlife	Chapter 3 of the Draft RMP/EIS on p. 3-25 states: "No significant population trend has been detected for mourning doves in the western United States, including the entire State of Idaho, over the last 10 years; however, significant declines have occurred over the entire 42-year monitoring period (Dolton et al., 2007)." However, the Draft RMP/EIS does not accurately report Dolton and others (2007). Dolton and others (2007) does not report that Idaho showed the same population trends as the "western United States" "Population Trends: 10 and 42-year.—Unit-wide, no significant trend in numbers of doves heard was indicated over the most recent 10 years although a significant decline was apparent over 42 years (Table 1). Analyses of doves seen showed the same pattern (Table 2)." Dolton and others (2007), p. 7. The Draft RMP/EIS discussion of Dolton and others (2007) does not accurately describe the affected environment.	The Final EIS revised Chapter 3 to reflect 10-year and 46-year mourning dove population trends for Idaho based on the most recent monitoring report (Seamans et al., 2011). There was no apparent mourning dove population trend in Idaho for the last 10 years, but there was a declining trend over the last 46 years.
Wildlife	Chapter 3 of the Draft RMP/EIS on p. 3-27 lists at Table 3-16 "Species of Greatest Conservation Need (Non-Special Status) Observed in the Planning Area". While the Draft RMP/EIS assigns these species to "habitat guilds" this does not adequately describe either their specific habitat needs or other information particular to each of the species. In this manner, the Draft RMP/EIS errs in the same manner as the Analysis of the Management Situation. In Idaho, *Cicindela plutonica* is mainly found in alpine habitat over 2700 meters (8500 feet), although it may not be completely restricted to alpine habitats. However, the planning area does not extend to these elevations; therefore, discussion of this species is irrelevant to the affected environment.	The Final EIS revised the Species of Greatest Conservation Need in Chapter 3. The RMP was not intended to be a detailed overview of habitat use, abundance, ecology for all sensitive species. Due to a lack of observations for *Cicindela plutonica* in the Idaho Department of Fish and Game natural heritage database in the planning area, the Final EIS removed this species from Chapter 3. The current distribution of this species in Idaho shows *Cicindela plutonica* present in Bruneau Dunes State Park, near Hot Creek south of Bruneau, and north of the Snake River near Hammett. These locations are all at low elevations (3,000 feet to 4,000 feet).
Wildlife	Chapter 3 of the Draft RMP/EIS on p. 3-28 states: "Based on soil site descriptions, sagebrush steppe plant communities were historically the dominant over story vegetation on 93% of the planning area. Throughout the planning area, wildland fire and historic vegetation manipulation projects have resulted in a substantial loss of sagebrush steppe habitat. Since 1987,	a. The Final EIS revised the sagebrush section of Chapter 3. Past disturbances (including wildfire, rodent/rabbit population/insect eruptions, disease, created mosaics of native plant communities. b. The Draft RMP//EIS made no statement regarding any

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	723,000 acres of sagebrush steppe habitat in the planning area has burned. This has altered the amount and distribution of sagebrush steppe habitat, particularly in the northern portion of the planning area. The Murphy Complex Fire burned roughly 500,000 acres in 2007. Of this, roughly 200,000 acres was sagebrush steppe….” a. However, soil site descriptions cannot describe what the historical dominant over story vegetation was; they can only inform as to the potential vegetative community (assuming range site descriptions are rationally based upon soils alone). Because of constant disturbance on the landscape, whether by lightning-set wildfire, by Asian-immigrant-set fire, by European immigrant-set fire, by insects, by wildlife or livestock grazing, by drought, by flood, or by other disturbances, it is extremely unlikely that the area was ever, historically or prehistorically, actually dominated by late-seral or pristine sagebrush steppe plant communities over 93% of the planning area. b. This Draft RMP/EIS passage also infers that the classical theories of secondary succession apply (e.g. “remove the disturbance, and the landscape will change back toward the ‘pristine’”). These theories are now widely recognized as being outdated or at least not universally applicable across the landscape. The Draft RMP/EIS at this passage completely ignores the reality of “states and transitions”, even though much of the planning area has already crossed one or more thresholds into different stable states (e.g. Annual vegetation class). c. Moreover, the Draft RMP/EIS is wrong in failing to report that over 35% of the rangeland in the early 1980s was in a vegetative state other than “native”, and most of the “native” range was in “poor” ecological condition. The Draft RMP/EIS also fails to discuss that the BLM planned (and decided in 1987) that the planning area landscape would look, in large part, as it does today.	successional pathway. The Final EIS revised the Chapter 3 *Wildlife* section. The *Upland Vegetation* section lists tools available to reach goals by Vegetation Management Area. Due to the complexity and differing opinions across successional theory (linear, cone, states and transitions succession models, identification of thresholds) including a discussion on successional theory within the *Wildlife* or *Upland Vegetation* sections was not pertinent or fitting as it would lead to confusion for the reader as to how Goals and Objectives were going to be reached for each alternative. The *Upland Vegetation* section of Chapter 2 in the Final EIS presented a desired vegetation condition and management actions that will be used to reach this condition. The *Upland Vegetation* section of Chapter 3 described the current vegetation condition. c. The projected vegetation treatments outlined in the 1987 Jarbidge RMP are not relevant to the baseline for the new RMP due to the large amount of the planning area burned in wildfires. The existing environment presents the current conditions not the 1987 RMP projected conditions. The 1987 Jarbidge RMP proposed brush control on totally of approximately 48,000 acres in Multiple Use Areas 11, 12, 13, 15, and 16. They 1987 Jarbidge RMP prescribed the maintenance of a total of approximately 350,000 acres of seedings in MUAs 6, 7, 10, 11, 12, 13 and 15. The decrease in shrublands which has occurred was substantially different than envisioned by the 1987 RMP. The Draft RMP/EIS and Final EIS used data to represent the current baseline, not a baseline envisioned in the previous RMP.

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Wildlife	Chapter 3 of the Draft RMP/EIS on pp. 3-29 to 3-30 states: "Heavy browsing of aspen sprouts by ungulates including elk (Bartos et al., 1994), mule deer (Kay and Bartos, 2000), or livestock (Kay and Bartos, 2000) after fire or cutting decreases the number of aspen sprouts and may result in elimination of aspen stands (Bartos et al., 1994)." However, the inference relative to livestock is not supported by either study.	The Final EIS revised the aspen portion of Chapter 3 to only present the basic aspen information for the planning area.
Wildlife	Chapter 3 of the Draft RMP/EIS on p. 3-44 states: "There are nearly 200,000 acres of sagebrush steppe habitat within 1 mile of a livestock water source and 3 miles of an active or status unknown sage-grouse lek, There are 0.9 miles of fence and nearly 0.4 miles of water pipelines per square mile in sage-grouse habitat within 3 miles of sage-grouse leks. Hundreds of miles of fences, water pipelines, routes and other infrastructure for management of livestock are present in the planning area, which contributes to habitat fragmentation (Freilich et al., 2003)." However, the Draft RMP/EIS should not rely upon Freilich and others (2003) for a number of reasons: 1) Freilich and others (2003) is not a research paper, but is rather an opinion "forum" paper expressing the personal, not professional, views of the authors; 2) The authors' focus is on the Great Plains, with Wyoming in particular, not the Jarbidge Field Office; 3) The authors' "baseline" by which they compare the "ecological costs of ranching" consists of real or imagined conditions before European settlement of the West; 4) While these authors purport to discuss the "ecological effects of ranching", they purport to do so in 6 narrative pages. The Draft RMP/EIS errs in omitting these facts, and thereby errs in reporting the affected environment.	The Final EIS revised Chapter 3 removing any reference to Freilich, and others, 2003). However, the reduction and separation of sagebrush habitats (fragmentation) was a concern identified by the public in the planning area.
Wildlife	Chapter 3 of the Draft RMP/EIS (p. 3-44) states: "Piute and Wyoming ground squirrels are found in both sagebrush and grassland habitats. During a drought period and prolonged winter in southern Idaho between the summer of 1992 and the 1992/1993 winter, ground squirrel populations were more	Piute ground squirrels were classified as Townsend ground squirrels during the Van Horne and others (1997) study. However, Piute ground squirrels have since been elevated to species level based on genetic analyses. Steenhof et al., (2006) also noted that sagebrush habitats provide more stable habitat

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	stable in sagebrush habitat than in grassland habitat (Van Horne et al., 1997)." However, to the extent the BLM wishes to rely upon research on Townsend's ground squirrels to describe the affected environment of Piute and Wyoming ground squirrels, the Draft RMP/EIS fails to report that the conditions which Van Horne and others (1997) studied weren't just any run-of-the-mill drought, but instead "spanned a drought near the extreme of the 130-yr record followed by prolonged winter conditions." However, "130-year drought followed by prolonged winter conditions" does not represent the affected environment within the planning area. The Draft RMP/EIS does not address the norm as reported by Van Horne and others (1997). Note that the Van Horne and others (1997) study showed that the populations in both shrubland and grassland persisted into the following years, and neither population was extirpated. Therefore, since Piute and Wyoming ground squirrels are found in both grasslands and shrub lands, in the climatically normal environment it should be expected that grasslands would support higher densities of these species than are supported by shrub lands. Fires in sagebrush stands would expand those populations and enhance the quantity of highest quality habitat within the planning area, whereas restoration of sagebrush stands would be expected to diminish the quantity of highest-quality habitat.	and stable populations for Piute ground squirrels in southern Idaho. Piute ground squirrels in sagebrush habitats were also larger (Steenhof et al., 2006). The Final EIS revised Chapters 3 and 4 with respect to Piute ground squirrels.
Wildlife	Chapter 3 of the Draft RMP/EIS on p. 3-47 reports the purported status of bighorn sheep, citing Idaho Department of Fish and Game (IDFG, 2007b). However, IDFG (2007b) does not address bighorn sheep; it is the 2007 Idaho Hunting Seasons and regulations. Draft RMP/EIS Chapter 3, p. 3-47. The Draft RMP/EIS reports that the current number of bighorn sheep, estimated to be 200 animals. We note that this currently estimated population is also at, or very near, the potential for the area. The Idaho Bighorn Sheep Management Plan (IDFG, 2010a) states, relative to the Bruneau/Jarbidge Population	The citation in the Draft RMP/EIS was in error. The Final EIS revised Chapter 3 to incorporate updated information. Idaho Department of Fish and Game Bighorn Sheep Management Plan (IDFG, 2010a) notes the habitat model estimated the carrying capacity of 759 for the Bruneau/Jarbidge Population Management Unit. IDFG state the model needs to be refined for desert habitat. The refinement would likely reduce the estimate of potential population size (p. 89). They report survey data indicates the area was capable of supporting >200 bighorn (p. 89). Stating bighorn are currently at carrying capacity is speculative. The sharp population decline following counts in

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	Management Unit: "Given previous survey data, the Bruneau-Jarbidge area seems capable of supporting ≥200 bighorn sheep." A carrying capacity of around 200 head also seems reasonable, since bighorn populations in the Population Management Unit declined from over 200 animals in 1997 to under 200 animals in 1998, and declined from over 200 animals in 1999 to under 200 animals in 2000. The population is presently estimated to be 212 animals. See IDFG (2010a) pp. 89, 90. Therefore, bighorn sheep potential numbers (carrying capacity) has been attained under the current RMP management, including livestock authorization and related livestock management practices.	1997 coincided with domestic sheep and goats on private lands at Murphy Hot Springs.
Wildlife	Chapter 3 of the Draft RMP/EIS on p. 3-47 states: Bighorn sheep use canyon habitats and seasonally forage on adjacent plateaus and avoid areas with conifers (Krausman and Bowyer, 2003; Tilton and Willard, 1982). a. However, these authors did not characterize or study the planning area or the Bruneau/Jarbidge bighorn sheep Population Management Unit. b. As to Tilton and Willard (1982), these researchers did not find that bighorns avoid areas with conifers. They studied 4 cover types: Rockland (nonbryoid canopy cover, <25%), shrub and grassland (canopy cover of 0-24% for conifers and 25-100% for shrubs and grasses), open forest (conifer canopy cover, 25-75%), and closed forest (conifer canopy cover, >75%). Therefore, even the shrubland-grassland that these authors studied had a component of canopy cover by Douglas fir. These authors found: "Sheep selected against upper elevations, drainage bottoms, upper slopes on ridges, and areas with a slope steepness of 10-35%, east and southeast aspects, areas greater than 320 m from steep terrain, and closed forests. Preferences (P< 0.1) were shown for cliffs, areas with slope steepness greater than 80% and closer than	a. There has been no research conducted in the Bruneau/Jarbidge population of California bighorn sheep. Krausman and Bowyer (2003) was a summary article in a peer reviewed scientific reference *Wild Mammals of North America: biology, management and conservation (*2nd edition*),* which provides an overview of bighorn sheep life history and ecology in a variety of areas and habitats and was an appropriate general citation. The bighorn sheep portion of Chapter 3 has been revised based on information for California bighorn in southeastern Oregon. Although the topography was different, the overall vegetation communities are similar to those found in the planning area. b. The Final EIS removed Tilton and Willard (1982) as a reference. Chapter 3 did not purport that winter bighorn range extended one mile from canyon rims. Chapter 4 contained analysis-comparing alternatives that had restrictions within 1-mile of bighorn sheep habitat, such as SS-VI-MA- 8, which states, "New troughs, reservoirs, permanent fences, and corrals would be located at least 1-mile from bighorn sheep habitat." Data collected by Idaho Fish and Game from aerial surveys and bighorn radio telemetry data in Owyhee County, showed the vast majority of all bighorn sheep locations are within 1 mile of

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	320 m to steep terrain or cliffs, and shrub land-grassland and open forest vegetation types." Therefore, these researchers found that bighorn sheep winter habitat avoided areas greater than 320 m, or 1050 feet (0.2 mile) from escape terrain. The bighorns also avoided areas with greater than 75% tree canopy cover, but sheep selected for (meaning they used it in greater proportion than its availability on the landscape) tree canopy cover of less than 75% and also selected for areas less than 320 meters from the steep terrain. Further, while we recognize that Chapter 4 purports that winter bighorn range extends one mile from the edge of the canyon, such one-mile area is unwarranted. These researchers found wintering sheep remained within less than ¼ mile of escape terrain (which in this case would be the canyons of the Bruneau/Jarbidge). It should also be noted that bighorn sheep lambing areas do not extend out of the canyon lands (see, e.g. Draft RMP/EIS p. 3-75), as bighorns lamb on steep slopes, usually a ledge on a cliff that provides good visibility. Such lambing habitat would obviously not extend onto the plateau, and certainly not 1 mile out onto the plateau.	bighorn sheep habitat. Management for that 1-mile area included the vast majority of habitat used by bighorn sheep. Page 3-75 of the Draft RMP/EIS stated "the canyon lands provide secure lambing habitat." This did not imply that lambing habitat was 1 mile from the canyon rims.
Wildlife	Chapter 3 of the Draft RMP/EIS on p. 3-47 states: "The tiger beetle population in the planning area appears to have been extirpated by 2008. Monitoring conducted in the 1990s indicated this species was declining since the early 1990s (Baker and Munger, 2000). The tiger beetle habitat within the nominated Area of Critical Environmental Concern has been invaded by cheatgrass and Russian thistle (Baker and Munger, 2000) and planted with crested wheatgrass, reducing habitat for tiger beetle larvae." a. However, the Draft RMP/EIS provides no rational basis for the claim of extirpation by 2008, b. and provides no explanation for the purported planting of crested wheatgrass, which Baker and Munger (2000) did not find.	a. The Final EIS revised the section on Bruneau Dunes tiger beetle in Chapter 3. The Idaho Conservation Data Center conducted inventory for the Bruneau Dunes tiger beetle between 2007 through 2009 including the Windmill Site. They only found Bruneau Dunes tiger beetles near the main dune in Bruneau Dunes State Park (Bosworth et al., 2010). b. Following wildfire in the 1970's, crested wheatgrass was planted over the burned area, which included the Windmill Site. The Draft RMP/EIS did not intend to infer the planting was recent. c. Specific to the Windmill site Baker and Munger (2000) wrote, "The data indicate that plant species, especially cheatgrass, are invading the areas normally used for reproduction by this species."

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	c. Baker and Munger, 2000 reported cheatgrass, Russian thistle, and tumble mustard, but not crested wheatgrass, at "site C". These authors also reported that, in response to increased annual invasive, the beetles were moving to other locations. They also report that declines in the mid-90 were believed to be due to drought. d. They noted that their 1998 count at "Windmill site" occurred after a soaking rain, which may have adversely affected the counts of the burrows. They reported that a general survey at that time showed most of the other sites of occupation were still being used (the Site C and Windmill sites are not the only sites occupied by the species). e. Further, Baker and Munger (2000) do not report the presence or trailing by livestock at the Windmill site in 1998, or that such trailing or presence was having any effect on the species. They do report that "Site C" is not subject to livestock grazing.	d. Baker and Munger (2000) were referring rain possibly being a factor in not being able to detect recently hatched larvae (2 mm burrows). They indicated if the larvae entered diapause earlier than previous years the burrows would have been closed. Baker and Munger (2000) state the counts for the larger burrows dropped for three years. No obvious explanation for the drop in larval numbers can be given at this time. e. Livestock trails and cross-country motorized vehicle tracks were documented through formerly occupied larval habitat at the Windmill site during the 2006 field season.
Wildlife	Chapter 3 of the Draft RMP/EIS on p. 3-48 discusses "habitat fragmentation", citing Faaborg and others (1995) and Franklin and others (2002) for the definition, and citing Davis (2004) regarding "edge to interior habitat ratio". The Draft RMP/EIS does not rationally compare and contrast the existing Affected Environment which contains various vegetation types - and which has had further vegetation type changes as a result of wildfires – for the different plant and animal species in the planning area. Instead, the Draft RMP/EIS simplistically and erroneously "lumps" groups of species as though they all have the same habitat and habitat needs. This is not a rational description of the existing Affected Environment.	Chapter 3 in the Draft RMP/EIS only intended to provide a simple overview of fragmentation for the general public, not a detailed account of fragmentation processes or wildlife responses. The Final EIS revised the habitat fragmentation and infrastructure overview in Chapter 3. Grouping wildlife into groups is one method used for large scale analysis. The species included for each group were revised in the Final EIS. Although wildlife within groups may use the same habitat differently (sage sparrow and least chipmunk), large increases in habitat would have a similar impact on the species within the group. For example, long-term increases in sagebrush steppe would increase habitat for sagebrush voles, pygmy rabbits, sage thrashers etc. and would be appropriate for landscape scale analysis.

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Wildlife	Chapter 3 of the Draft RMP/EIS on p. 3-48 states, "The probability of successfully raising young may be reduced as the size of the habitat patch decreases or amount of edge or infrastructure increases (Davis, 2004; Humple and Holmes, 2006; Vander Haegen et al., 2002)." As to Davis (2004) this author did not document nesting or rearing success, but rather studied adult bird abundance. As to Humple and Holmes (2006) these authors did not relate nesting success to any kind of infrastructure, but rather to the effects of a fire affecting their study area. As to Vander Haegen and others (2002) these authors did not relate nesting success to any kind of infrastructure (utility lines, roads, pipelines, water troughs, etc.) in a rangeland setting similar to the planning area. Rather, these authors assessed nest predation near agricultural areas in eastern Washington State. These authors attributed higher nest predation in patches within the agricultural area to the Common Raven.	The Final EIS reduced the habitat fragmentation and infrastructure discussion in Chapters 3. The Davis (2004) and Humple and Holmes (2006) citations were removed. With respect to the Draft RMP/EIS, in some cases citations were moved to the end of the sentence during editing. Vander Haegen and others (2002) examined nest success in areas of contiguous shrub steppe (sagebrush) and well as sagebrush areas fragmented by agriculture. This was similar to conditions in the northern portion of the planning area (Bell Rapids, Blue Gulch, and Roseworth).
Wildlife	Chapter 3 of the Draft RMP/EIS on p. 3-48 states, "In Florida, researchers found isolated reptile populations are vulnerable to extirpation by localized catastrophic events, whereas extirpation risk is less when populations are not isolated (Hokit and Branch, 2003). This could apply to the isolated population of black collared lizards in the lower Bruneau Canyon." However, Hokit and Branch, 2003 found no such thing.	The Final EIS updated the habitat fragmentation discussion in Chapter 3 and the Hokit and Branch (2003) citation was removed.
Wildlife	Chapter 3 of the Draft RMP/EIS on pp. 3-48 to 3-49 states, "Although infrastructure developments (e.g., roads, fences, power lines) usually do not create physical barriers to wildlife movements, disturbance associated with human use of infrastructure developments and behavioral avoidance of man-made structures can displace wildlife from otherwise suitable habitat (Andrews and Gibbons, 2005; Barton and Holmes, 2007; Connelly et al., 2004; Lyon and Anderson, 2003; Pitman et al., 2005; Rost and Bailey, 1979; Sheldon et al., 2006)."	The Final EIS revised the Chapter 3 *Wildlife* section regarding infrastructure. a. A few studies have attempted to directly assess the physiological response in wildlife (e.g. increased heart rate) of stressors (jet aircraft noise) in some game species. Heart rates recovered in less than 10 minutes. b. Anecdotal observations (e.g. deer, bighorn, sage-grouse walking into yards) often lack context and should not be used to

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	With regard to roads, fragmentation can result from traffic and habitat edge avoidance (Ingelfinger and Anderson, 2004). Roads, pipelines, and fences may create pathways, which facilitate movements for some predators (Frey and Conover, 2006; James and Stuart-Smith, 2000), increasing the potential for predation in close proximity to the road, pipeline, or fence. We concur that these features do not usually create physical barriers. a. However, as to behavioral avoidance, this is a natural response to many things in the natural setting, which include stress, habitat differentiation, and micro-niche selection among individuals of a species and between different species. Wildlife species are adapted to these natural settings and stresses. b. At the same time, wildlife often displays behavior that does not avoid human contact and/or changes from the "natural" habitat. Mule deer, bighorn sheep, and sage-grouse have walked onto people's lawns and yards and strolled down small-town streets in rural areas, when no need to do so is apparent. c. As to at least some of the cited publications, the applicability to the planning area is questionable, if not erroneous: Andrews and Gibbons (2005) studied snakes' willingness to cross a two-lane paved highway in South Carolina. However, neither two-lane paved roads nor South Carolina snakes (such as the cottonmouth) are ubiquitous in the planning area.	indicate the observed behavior or habitat use was typical for the species as a whole or provides a benefit. For example, one study showed that sage-grouse in agricultural fields had increased mortality from the application of insecticides. c. The intent was not to suggest cottonmouth were present in the planning area, but vehicles influence the behavior of snakes on roads. The Final EIS revised the use of literature in the *Wildlife* and *Special Status Wildlife* sections of Chapters 3 and 4 to reflect research on snakes and roads in sagebrush habitat in southern Idaho when possible. There are some two-lane paved roads in portions of the planning area. Paved roads within the planning area include the Three Creek Highway and roads to Grindstone Farms, Bell Rapids, Blue Gulch, Magic Waters, and Roseworth (two-lane paved roads approximately 20 feet in total width). The same behaviors that snakes use while crossing paved roads are expected to apply to dirt roads. Snakes use both paved and maintained dirt roads to aid in thermoregulation in the morning during spring and fall, a portion of which are struck by vehicle tires.
Wildlife	Chapter 3 of the Draft RMP/EIS on p. 3-49 states, "Disturbance areas (e.g. ditches, ruts, or other areas where vegetation has been reduced or removed) associated with infrastructure development can also serve as corridors and starting points for the expansion of non-native invasive plants (Trombulak and Frissell, 2000)." The Draft RMP/EIS then ties this statement to Map 22 (Volume 3, p. M-23), which depicts a 1-mile radius (2-mile diameter) zone around water sources, and the Draft RMP/EIS then ties this "buffered" area to purported use by livestock. This	The splitting of habitat into smaller parcels is a form of fragmentation. In some instances, roads are non-habitat and have associated disturbances that provide sites for invasive non-native plants. The Final EIS did not include the Draft RMP/EIS Map 22 "Areas within 1 Mile of Water Developments" nor any reference to Trombulak and Frissell (2000) in the abbreviated discussion of habitat fragmentation.

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	erroneously infers a fragmenting of the landscape of the planning area. However, Trombulak and Frissell (2000) made no such statement relative to ditches, ruts, or other areas where vegetation has been reduced or removed, and especially not by grazing within the planning area.	
Wildlife	Chapter 3 of the Draft RMP/EIS (p. 3-50) states, "Rehabilitation or restoration treatments, such as seeding burned or otherwise disturbed areas with native or non-native perennial vegetation, reduce potential for introduction and spread of noxious weeds and invasive plants (Evans and Young, 1978; Thompson et al., 2006)." a. However, Evans and Young (1978) did not seed native species; they seeded crested wheatgrass and intermediate wheatgrass. b. Further, Thompson and others (2006) did not study seeding of any species; they studied habitat use and productivity of early brood sage-grouse. While they recommended enhancing forb cover within sage-grouse habitat, they cautioned against decreasing sagebrush cover to do so. They did not make any recommendations whether to use native forbs or non-native forbs.	a. The Draft RMP/EIS used Evans and Young 1978 citation only to support the use of non-native species. The Final EIS has moved the citation to provide clarity. b. There should have been two Thompson and others (2006) references. Thompson and others (2006a) Fire rehabilitation using native and introduced species: a landscape trial. Rangeland Ecology and Management 59(3):237-248; Thompson and others (2006b). Early brood-rearing habitat use and productivity of Greater sage-grouse in Wyoming. Western Northwest Naturalist 66(3):332-342. The reference for the article on fire rehabilitation was accidently omitted from the works cited in the Draft RMP/EIS and this was corrected in the Final EIS.
Wildlife	As an overall statement, many of the literature references in Chapter 4 continue the same kind of irrational, erroneous, or unwarranted misinterpretation and misapplication of what the researchers actually found, or present circumstances that is unusual to, or not found in, the planning area. One such example is reference to Bissonnette and Steinkamp (1996) to assess predicted changes in bighorn sheep movement because of proximity to cattle. However, these authors studied a newly introduced herd of bighorn, not an established herd as is found in the planning area.	Bissonnette and Steinkamp (1996) was the only peer-reviewed article, which attempted to directly examine potential cattle/bighorn interactions. Thirteen of the bighorn had been present for at least 1.5 years another 10 bighorn had been present for at least 0.5 years prior to the study in 1988. The 1988 bighorn release was in November at least 6 months prior to the start of 1989 field season. This should have provided time for bighorn to adjust to the area particularly when other bighorn were already present. Bissonnett and Steinkamp observed bighorn for 3 months in 1988 and 3 months in 1989. Only once (14 -16 August 1989 for 40 hours) did they hold 5 cattle in a 0.8 km^2 area in close proximity to bighorn using riders. The effect on bighorn was more extreme than occurred when livestock were free moving. The Final EIS revised the bighorn discussion in

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		Chapter 3 to provide clarity.
Wildlife	Chapter 4 of the Draft RMP/EIS, on p. 4-402 states, “The relationship between livestock grazing and impacts to sage-grouse and their habitat are complex and influenced by numerous factors including but not limited to time of year, distribution of livestock, utilization levels, grass species present, and plant growth as influenced by weather. One of the hypothesized links is the relationship between residual cover (vegetation height) available during nesting and early brood rearing (Connelly et al., 2000). Connelly and others recommended that residual herbaceous cover average 18 centimeters (about 7 inches) to provide adequate cover for sage-grouse nesting and early brood rearing. Hausleitner and others (2005) reported that grass height increased 2 inches or more between nest initiation to hatch in Colorado due to grass growth. However, the Draft RMP/EIS entirely misrepresents the findings that Hausleitner and others made. Connelly’s residual height recommendations are based primarily on measurements made post hatch, and the purpose of the Hausleitner research was to determine residual heights that nest initiating hens are selecting for at the time of nest initiation, rather than after-the-fact measurements. Hausleitner and others observed successful nest locations one year, and measured the residual heights at the same locations before nest-initiation the following year (sage-grouse hens show high fidelity to the same nest-bush in repeated years). Hausleitner and others determined that residual heights of 3-4 inches were available at these preferred nest sites at the time of nest initiation, which then grew another 2 inches by post hatch, closely resembling the 7 inches post hatch that Connelly and others had recommended based on post-hatch measurements. The entire analysis of residual stubble heights and livestock authorized utilization levels focuses on Connelly and others (2000) (post hatch). This does not represent the current state of the science, since Hausleitner and others (2005)	Herbaceous cover averaging 7 inches, the Connelly and others (2000) guidelines, in height has been identified as an important characteristic at successful sage-grouse nests (Wakkinen 1990, Gregg et al.,1994; Connelly et al., 2011a). Hausleitner and others’ (2005) research mentioned in the Draft RMP/EIS accurately disclosed the >2 inch growth of grass between nest initiation and hatch. Further, Hausleitner and others cautioned, "These results represent a single year of sampling and need to be verified under different climatic conditions and geographical locations within the Greater sage-grouse range." Hausleitner and others conducted the research in Moffat County, Colorado, which receives an average of 17.9 inches of precipitation yearly, which was substantially more than the majority of the planning area. These are not the same conditions as most of the planning area. Sandberg bluegrass, needle and thread and Western wheatgrass are present in both areas. However, the planning area also contains areas with Idaho fescue, bluebunch wheatgrass, squirreltail and Thurber’s needlegrass, which Hausleitner and others did not report. Although female sage-grouse exhibit fidelity to general nesting areas, (Connelly et al., 2011a) the reuse of the same nest shrub has not been documented. Connelly and others continue to recommend adequate residual cover for sage-grouse nesting.

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	demonstrated that nest-initiation residual heights at successful nests were in the range of 3-4 inches, not 7 inches.	
Wildlife	Map 14 in the Draft RMP/EIS shows existing fence areas. The BLM stratified allotments, and randomly selected points in an elaborate scheme based in part on existing fences. However, this new reference fencing scheme must be much simplified we can foresee BLM claiming that the exact configuration of fences must be maintained because the reference areas are based on the current configuration. The burden of additional fencing hazards to sage-grouse, raptors, antelope and other big game would be much reduced if the BLM did not fence areas in lands where grazing was to be removed at the same time as significantly reducing the Footprint of fencing in the lands that remain open to grazing.	Map 14 “Reference Areas in Alternative V” in the Draft RMP/EIS was expressly for Alternative V and displays the current pasture boundaries, which would require no additional fence construction. Retention or removal of other fences within the references areas could occur (e.g. fences resource protection or bordering private land). Removal or modification of fences could be done to reduce impacts to sensitive species including sage-grouse (see SS-CA-MA-12, SS--MA-6, SS-II-MA-4, and SS-IV-MA-6). Additional specific management actions were included in Chapter 2 for Alternative VI (Proposed RMP) of the Final EIS (see SS-VI-MA-9).
Wildlife	Page 2-142. Livestock facility management actions will only exacerbate sage-grouse and other wildlife declines. The BLM must focus on removing spring developments, and other facilities - not on building even more.	Alternative VI (Proposed RMP) addressed range infrastructure around springs and in special status species habitat with the following management actions; SS-CA-MA-12, SS-VI-MA-5, SS-VI-MA-9, LG-CA-MA-1, LG-VI-MA-14. These management actions allow for the construction, modification, or removal of spring developments, water developments, range infrastructure, and other facilities as necessary to maintain or enhance special status species and their habitat.
Wildlife	It is inappropriate for the BLM to rely on lumping so many important species into guilds.	The Final EIS replaced the term guild with group to be more accurate. The adoption of groups was intended to simplify the analyses for the general public and help reduce document length. Identified groups in the Draft RMP/EIS and Final EIS generally align with habitats outlined in Idaho and Nevada State wildlife conservation plans. Both State plans include a general overview of habitats within their respective states. However, the State identified habitats do not use identical terminology. The Final EIS added Table 3-22 showing the crosswalk between the State wildlife conservation plans and the habitat groups used in Chapter 3 for the Final EIS. A number of the habitats listed in both State plans are either not present in the planning area (any of the coniferous forest types, etc.) or are not managed by the BLM (large open water reservoirs). Idaho Department of Fish and Game was a cooperating agency and believed the groups were appropriate.

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		For example the loss of extensive acreage of sagebrush would have a similar impact to sagebrush voles, least chipmunk, pygmy rabbit, sage-thrashers, sage sparrows, Brewer's sparrow, and sage-grouse. Wisdom and others (2000) Source habitats for terrestrial vertebrates of focus in the Interior Columbia Basin Broad scale trends and management implications Volume 1 - Group 33) also lumped pygmy rabbit, Brewer's sparrow, sage sparrow and sage-grouse together.
Wildlife	The BLM claims for analysis purpose, all treatments would be implemented in 5 years. It is very difficult to believe the BLM will act with this much speed. The BLM needs to analyze an expanded range of alternatives with significant animal unit month cuts. Yet it appears that the BLM is going to try to tie cuts to treatments/restoration.	The BLM acknowledged that implementing the RMP was contingent on a number of factors including funding and staff to prepare the project/site specific environmental analyses. The Draft RMP/EIS and Final EIS provided for a range in livestock grazing animal unit months (AUMs) which varied by alternative for analysis. Alternative II had the most AUMs analyzed and Alternative V had the least AUMs analyzed.
Wildlife	The BLM's trends table on p. 4-249 is not based on adequate baseline and supporting information and analysis for anyone to understand if the arrow directions and predicted changes are accurate. For example, the massive fuels actions in Alternative II could well result in a large-scale loss of habitat.	Alternative III has more fuels treatments including unvegetated fuel breaks compared to Alternative II. Table 4-97 in the Chapter 4 *Wildlife* section on p. 4-251 of the Draft RMP/EIS displayed anticipated impacts to the reader. In the Final EIS, the BLM used geographic information systems to quantify changes in acreage in association with vegetation treatments. Tables depicting expected trends with arrows were removed from the Final EIS.
Wildlife	Table 4-97 points out the failure and refusal of the BLM to develop any real conservation alternatives. Because of subterfuges in claiming Alternative V would have less shrub recovery because the BLM purposefully structured Alternative V to have no shrub planting (active restoration) and just passive restoration.	The development of Alternative V focused on passive restoration that would display impacts from achieving restoration goals and objectives using primarily natural rates of recovery. However, Alternative V provides for some active restoration. UV-V-MA-21 emphasized restoration of sage-grouse habitat in all Vegetation Management Areas. UV-V-MA-22 listed the tools used to implement vegetation treatments. UV-V-MA-25 prescribed the use of native species or cultivars of native species for upland vegetation treatment. Including primarily passive restoration in one of the alternatives helped provide for a range in the alternatives.
Wildlife	The BLM uses indicators like acres of habitat for wildlife guilds, fragmentation due to habitat patches and distance between patches, miles of riparian areas in proper functioning condition, yet there is no reasoned analysis of all the data required to make such predictions. There is also no risk assessment.	The analyses were at the broad landscape scale. As such, only generalizations regarding relative changes in patch size, distance between patches, etc. can be made. As the Final EIS indicated, there would be some lag time between when an area was treated and when the restored community would be functional.

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Wildlife	What happens if the tools in the toolbox (like targeted grazing or herbicides) fail?	The BLM would use adaptive management in order to achieve the desired outcome. This could involve changes in resource management, incorporating new technologies, or applying different tools.
Wildlife	Mountain lions are native predators -lumping them in with big game masks their biological role, life history requirements and relegates them to a "commodity" rather than an animal that serves a critical role in predator-prey relations.	The Final EIS revised the mountain lion discussion in the *Wildlife* section in Chapter 3 to acknowledge the predator role of mountain lions. However, the Idaho and Nevada State wildlife agencies categorized mountain lions as big game. The inclusion of mountain lion as big game was appropriate.
Wildlife	On p. 3-23 of the Draft RMP/EIS, it is impossible to believe that Idaho Department of Fish and Game has no data on mule deer. The BLM forgets how dire the situation is for pronghorn - as shown in the Analysis of the Management Situation. Now with more fires and alternatives that would impose even more fencing, and maintain near-status quo use (allocations and Temporary Non-renewable Authorizations) there is no clear path for protection of big game species and their habitats.	Idaho Department of Fish and Game (IDFG) data for mule deer within the planning area was generally limited to location data collected on occasional flights in the winter and spring. No radio telemetry studies had been conducted for mule deer or pronghorn by IDFG. The Final EIS updated the *Wildlife* section of Chapter 3 to include current information on pronghorn, mule deer, and elk. Because the available information covers areas larger (Hunt Units 46 and 47 in Idaho) than just the planning area direct comparisons cannot be made. The Final EIS analyzed a range of alternatives for big game habitat management. Alternative VI (Proposed RMP) provided general direction for habitat management for mule deer, pronghorn, bighorn sheep, and elk. The State wildlife agencies are expected to continue to manage game populations according to their State plans and subsequent game plan revisions.
Wildlife	How is BLM reducing livestock competition with elk?	The Final EIS provided some general information elk in Chapter 3. Elk were not specifically analyzed in Chapter 4, which focused on indicators for wildlife groups. Competition between elk and livestock were believed low due to stocking rates and amount of available forage. In northern Nevada, Beck and Peek (2005) noted a potential for forage competition mule deer and elk if elk number reached moderate to high density. They did not mention competition between elk and livestock.
Wildlife	The BLM's small mammal and other animal inventories found large-scale absence of nearly all native species over large areas. So by the BLM placing the one species that was abundant, the disturbance related deer mouse, which is a species that thrives in a devastated landscape, in its sagebrush guild, the BLM created biases in the RMP alternatives.	The 2006 inventory documented presence and relative abundance of small mammals in areas sampled. The Final EIS revised Chapter 3. Deer mice are a generalist wildlife species found in all terrestrial habitats in the planning area and were removed from the sagebrush or any other wildlife group.

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Wildlife	Why is the badger in a grassland guild and not a sagebrush guild? Burrowing owls occupy sagebrush communities, too - they are not only grassland species. Why is Brewer's blackbird in the grassland guild?	The Draft RMP/EIS (page 3-26) stated a wildlife species may be listed in one guild habitat the species may occur in other guild habitats. Final EIS revised the *Wildlife* section in Chapter 3. In the revision, the BLM acknowledged even though a species was listed in one habitat group they can and often do occur in other group habitats. The lists of species in tables for group habitats were modified and the badger was removed from the grassland group. The intent of the listing wildlife with a group was not to list every species to within every group, but to give the general public an idea of which species tend to be associated with a habitat.
Wildlife	These lists fail to take into account elevation changes, and vegetation change with elevation.	Brewer's sparrows are found in big sagebrush habitats in the planning area from the Snake River Plain to Monument Springs across an elevational gradient of nearly 4,000 feet. Other wildlife that are present in a group habitat across the elevation gradient include sage-grouse, least chipmunk, white-throated swift, canyon wren, cliff swallow, horned lark and other species.
Wildlife	Why are golden eagles in a canyon land guild, but not a sagebrush guild? Yes, they nest in canyons but require vast areas of sagebrush inhabited by jackrabbits to flourish.	Golden eagles were placed in the canyon group because that was where the majority nest. Golden eagles forage in a variety of habitats not just sagebrush and consume a variety of prey species during the year and between years as the prey base and conditions change.
Wildlife	Page 3-26 describes guilds for various habitats. The Draft RMP/EIS is woefully lacking in honest detail and analysis of the loss of many of these species across vast areas of the planning area.	The Final EIS revised the analysis in Chapter 4. The Alternatives vary in the amount and type of habitat restoration. The analysis focused on the amount and type of future habitat restoration.
Wildlife	The Draft RMP/EIS on p. 3-31 admits that less than 1 % of the planning area should be grassland, where shrub cover is less than 2%, yet 33% is mapped as grassland. It appears that this percentage of 33% does not reflect the current reality and does not adequately take into account the aftermath of the Murphy Fire. If it does not, then the percentage is likely 60-70%. Map 10 shows around 33% non-native perennial, and perennial and annual grassland. This map has nearly one-third of the planning area shown as Unvegetated - i.e. the Murphy Complex. If a reader closely scrutinizes the following Map, Map 10 (p. M-ll), the Projected 2012 Vegetation, it appears that, 60-70% of the Field Office is grassland.	The Draft RMP/EIS was based on soil surveys which indicated a small amount of the planning area would have been grassland at climax. The Final EIS notes wildland fires which burned sagebrush habitats would have functioned as grassland until shrubs re-established. The Final EIS updated vegetation maps from the Draft RMP/EIS. The new maps are Map 9 "Existing Vegetation of 2011" and Map 10 "2016 Projected Vegetation". Areas previously classified as Unvegetated, which were Recent Burn, were assigned to a Vegetation Sub-Group category to create the 2016 Projected Vegetation map.

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Wildlife	Mountain mahogany avian species would be much at risk for wind farm development - since so much of the remaining mahogany habitat is in the China Mountain area. The BLM in all instances must analyze impacts to species of its allocations/alternatives. In addition, why does this list include pinyon jay as a species in the mahogany guild?	The Final EIS updated Chapter 4 to show the amounts of habitat in areas allocated for wind development for all alternatives. In the Final EIS a table (Table 4-132) was included which shows the amount of each group habitat present in areas of expected wind energy development. Analysis for specific projects would be conducted at the time the project was proposed. Over the years the only observation of pinyon jay within the planning area was in mountain mahogany habitat, thus its inclusion in this group for the planning area.
Wildlife	The BLM lumps sagebrush species together that were not combined in the Wisdom Interior Columbia Basin Ecosystem Management Plan analyses. In fact, salt desert and lower elevation sagebrush species were analyzed separately from other sagebrush species.	In order to keep the document short, the Final EIS wildlife groups are generally broader than those used by Wisdom and others (2000). The Interior Columbia Basin Ecosystem Management Plan and Land Use Plan are different types of analyses for different purposes. The identified groups were appropriate to the scale of the analysis in the Final EIS. Salt desert shrub communities in the planning area contain some amount of Wyoming big sagebrush and black sagebrush. Sagebrush steppe group wildlife in salt desert shrub, would be respond similarly to sagebrush steppe wildlife in mountain big sagebrush. black sagebrush, and low sagebrush to fire, the primary factor influencing wildlife habitat or habitat restoration.
Wildlife	The BLM erroneously claims, "limited information is available" for special status wildlife (including sage-grouse that are lumped in with the guild). This is not true. There are many studies available especially for some species (sage-grouse, pygmy rabbit), and numerous studies on loggerhead shrike and other migratory bird species, as well as raptors.	The Final EIS updated Chapters 3 and 4. The context f in the Draft RMP/EIS of “limited information being available” was regarding the local populations, population trends, and distribution of many of sensitive species. Much of the information was anecdotal observations, rather than intensive systematic inventory and long-term population monitoring. While there have been a number of articles in peer reviewed scientific journals regarding habitat use, ecology and impacts from fire, and land uses for some of the sensitive species (sage-grouse, pygmy rabbit, Brewer’s and sage sparrow) but much less information was available on other species (spotted bat, ferruginous hawk, Piute ground squirrel, Great Basin collared-lizard, Western ground snake).
Wildlife	The statement that 1,277,000 acres historically contained sagebrush, and "currently 463,000 acres of sagebrush steppe remain". How much less is that now following more fires? Some of the areas that the BLM has mapped as native shrub	The Final EIS updated sage-grouse habitat and vegetation information through the 2011 fire season in Chapter 3.

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	land in M-II have very little sagebrush or other shrubs.	
Wildlife	The BLM uses old and outdated information on sage-grouse nesting in relation to leks. The BLM knows that grouse, in the planning area, may move considerable distances to nest, and exhibit a degree of nest site fidelity.	The Final EIS revised Chapter 3, Special Status *Wildlife* section to include sage-grouse movement data collected in the planning area. Connelly and others (2011a, 2011b) was also reviewed for movements of sage-grouse in general and site fidelity.
Wildlife	Artificially segregating habitat and analysis into Vegetation Management Areas meaningless to sage-grouse and serves no purpose other than to complicate matters.	Vegetation Management Areas (VMAs) were based primarily on the potential natural community, elevation, and mean annual precipitation (described in Chapter 3, *Upland Vegetation* section) in the Final EIS, not sage-grouse habitat. The VMAs are useful in assessing and prioritizing restoration of habitat for wildlife including sage-grouse.
Wildlife	Please provide detailed analysis of the current military disturbances and stresses on ecosystems. This must include direct, indirect and cumulative effects. For example, sage-grouse in the planning area are subject to extreme plane noise disturbance for several hours a day, and at nighttime too during periods of intensive training. How do the sounds from these activities affect sage-grouse? Bighorn sheep? Other wildlife? Recreational users?	BLM has no authority to regulate military activities. The effects of military operations were included in the cumulative impacts analysis in the *Wildlife* and *Special Status Wildlife* sections of Chapter 4 in the Final EIS.
Wildlife	There is a very large and unexamined footprint of military actions that have direct (vehicle-caused mortality of migratory birds, reptiles, and other wildlife, for example), indirect and cumulative impacts on habitats and populations of wildlife species.	Chapter 4 included a brief cumulative impacts analysis regarding military activities in the *Special Status Wildlife* section of Chapter 4 in the Final EIS.
Wildlife	What actions can the BLM take at some level to mitigate the severe adverse impacts of near non-stop noise and visual disturbances from low-flying aircraft on sage-grouse, bighorn sheep, and other wildlife?	Although BLM was not mitigating impacts from military operations, Restoration proposed in the some of the Alternatives in the Final EIS including Alternative VI (Proposed RMP) in and away from the military operating areas, which would benefit wildlife mitigating some potential effects of military activities. In the planning area, noise from military aircraft is often for short duration with longer periods of minimal noise. Research on the noise from jet aircraft in other areas indicated mule deer, pronghorn and bighorn sheep apparently habituated to low level jet noise in those studies.
Wildlife	These lands provide critically important bighorn sheep habitat, why does the BLM only provide coarse-scale mapping for some big game species?	The Final EIS included Map 27 “Bighorn Sheep Habitat and Distribution” for the planning area. This map included the population management unit boundary in the 2010 Idaho Bighorn Management Plan (IDFG, 2010a).

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Wildlife	Provide a detailed mapping and analysis of conflicts between land uses/disturbances and bighorn sheep, mule deer, pronghorn antelope, elk, and all aspects of livestock grazing. This includes loss of structural complexity of hiding and thermal cover, loss of fawning/birthing habitats, fence hazards and barriers, disturbance from livestock during periods when young animals are present.	The BLM used a geographic information system to determine acreages of baseline conditions and impact analyses. Part of the baseline was key sage-grouse habitat, big game winter range, etc. Part of the analyses in Chapter 4 included overlaying the baseline maps with areas allocated for various resource uses. The analysis between land uses/disturbances and bighorn sheep, mule deer, pronghorn antelope, elk, and livestock grazing was revised in Chapter 4 in the Final EIS.
Wildlife	What exactly does the BLM mean when it labels maps for big game restoration?	General areas for habitat restoration for big game include those where wildfires have reduced or eliminated desirable browse species, including sagebrush, has been reduced or eliminated. Shrubs establishment would occur by planting seedlings or seeding the desired shrub species.
Wildlife	We request that non-BLM outside biologists/ecologists with US Geological Survey or some other impartial entity be brought in to produce a scientifically valid and tenable management document.	Through regulation and policy, the BLM was charged with land use planning. In some instances BLM contracts land use plans to be prepared by others.
Wildlife	The BLM must clearly define what Key Habitat means.	The BLM used the definition contained in the Conservation Plan for Greater Sage-grouse in Idaho (Idaho Sage-grouse Advisory Committee, 2006) which generally defines key habitat as "Areas of generally intact sagebrush that provide sage-grouse habitat during some portion of the year." The Final EIS added the definition to the Chapter 3 *Special Status Wildlife* section and the Glossary.
Wildlife	What toll is wind development on private lands in the area of these wildlife tracts taking on wildlife? Aren't these tracts now more important than ever?	Nearly all of the wildlife tracts burned between 2003 and 2011. Wind energy was developed in the area over a similar time frame confounding the effects of wind energy development. The Cumulative impacts analysis considered wind energy projects on private land. BLM did not locate any information regarding bird or bat collisions with wind turbines on private land at the northern part of the planning area. Due to public comments, the Final EIS addressed the wildlife tracts in more detail in Chapters 2 and 4. Allocations and management actions (Chapter 2 *Wildlife* section) were refined or added and restoration and habitat improvements were analyzed in the Chapter 4 *Wildlife* section.

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Wildlife	Provide an overlay of native vegetation, critical and key sage-grouse and other wildlife habitats, and restoration-focused lands as a basis for the BLM developing a set of alternatives that remove developments on an orderly and scheduled basis where removal is important to achieve wild lands and wildlife habitat restoration goals.	The Final EIS analyzed a range of alternatives, which have a variety of objectives, goals, allocations, and management actions. Alternative VI (Proposed RMP) included new management actions (SS-CA-MA-12, SS-VI-MA-5) which helped prioritize, modifying or removing some types of infrastructure in sage-grouse habitat. The *Upland Vegetation* section outlined restoration priorities and general areas. Native vegetation, sage-grouse, and other wildlife habitat were considerations in prioritizing broad restoration areas (see SS-CA-MA-11, SS-CA-MA-13, SS-CA-MA-14, SS-VI-MA-6, and SS-VI-MA-9).
Wildlife	Alternative IV has a seasonal restriction for big game winter habitat protection of 509,000 acres. Yet sage-grouse get a mere 248,000 acres for sage-grouse habitat protections in Alternative IV-B.	The big game seasonal restriction covers a different time period (winter) than the sage-grouse seasonal restriction (breeding and nesting periods). Big game winter range overlapped the majority of remaining sage-grouse habitat providing protection for wintering sage-grouse. New guidance resulted in changes to seasonal periods for wintering big game (November 15 - April 30 as well as sage-grouse breeding and nesting periods (March 1 - June 30). BLM calculated new acreages for key sage-grouse habitat (311,000 acres) and the sage-grouse management area (990,000 acres).
Wildlife	There is no evidence whatsoever that all of the areas shown on map 95 are indeed critical mule deer habitat.	Map 95 “Leasable Mineral Allocations in Alternative IV-B (the Preferred Alternative)” in the Draft RMP/EIS depicted areas allocated for Leasable Minerals in Alternative IV-B, not critical mule deer winter range. Maps 92 through 96 in the Draft Plan/EIS portrayed areas with various restrictions for the leasable minerals by alternative, not critical winter mule deer winter range. In coordination with State wildlife agencies, big game winter range was identified, which accounted between year use and variation by wintering mule deer, pronghorn, and elk. The 1987 RMP only identified crucial winter range for mule deer and pronghorn.
Wildlife	BLM fails in all parts of the Draft RMP/EIS to provide adequate baseline information, mapping and analysis to understand the severity of impacts and threats from grazing, fire, energy, and other activities that sage-grouse and other species of concern face across the biome, region, and area of relevance to local populations. See Knick and Connelly (2009).	Chapter 3 of the Final EIS described baseline information for livestock grazing, wildland fire ecology and management, land use authorizations, wildlife, special status species, etc. Chapter 4 analyzed expected changes to the base line for the alternatives. Maps were provided for existing range infrastructure, existing routes, areas allocated as available or not available for some resource uses.

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Wildlife	The Draft RMP/EIS must determine the relative value to the public of bighorn sheep recovery vs. one sheep operation. We have included a map showing the relationship of existing bighorn sheep populations and domestic sheep operations.	Chapter 4 *Economic Condition* section included hunting in recreation for the analysis but did not separate the values for each big game species. The economic section did not separate the value of animal unit months into domestic sheep, horses, or cattle. At this time, there are 3 livestock grazing operations, which include domestic sheep. The cumulative impacts analysis contains information on domestic grazing allotments and bighorn habitat.
Wildlife	The US Fish and Wildlife Service (FWS) recommends conservation measures of similar or greater conservation value for listed, proposed, and candidate species be incorporated into the Final EIS. In addition, although the Idaho spring snail, the Utah valvata snail, and the bald eagle currently have no status under the Act, we encourage the inclusion of conservation measures for these species in the Final EIS as described in the 2006 Conservation Agreement between our agencies. The FWS recommends the inclusion of land use plan-specific conservation measures for all candidate species (Columbia spotted frog, yellow-billed cuckoo, and Greater sage-grouse) in the Final EIS. The Draft RMP/EIS indicated that all current conservation measures in biological opinions and letters of concurrence would be followed. However, our 2006 Conservation Agreement for multiple species and our 2009 Conservation Agreement for the slickspot peppergrass state that programmatic direction for listed, proposed, or candidate species "will be included in the new or revised Land Use Plan or amendment, and the Conservation Agreement or portions thereof, in the case of programmatic amendments, will no longer apply to the planning area." The FWS recommended that the Final EIS attach individual species-specific conservation measure tables similar to those developed for the 2006 and 2009 conservation agreements to provide adequate information in order to complete section 7 consultation on the final plan. In addition, similar conservation	Management direction was provided for listed, proposed and candidate species in Chapter 2 of the Final EIS in the *Special Status Species* section. Alternative VI (Proposed RMP) listed following specific management actions. SS-C-MA-1 and SS-CA-MA-4 addressed the BLM commitment specific to following conservation measures identified in conservation strategies, biological opinions, and consultation. SS-CA-MA-1 addressed critical habitat for listed and proposed species and SS-CA-MA-7 addressed minerals impacts to special status species and their habitat. SS-CA-MA-9 and SS-CA-MA-10 addressed communication sites and other rights-of-way; SS-VI-MA-7 addressed BLM sensitive raptor nest sites. A number of management actions are specific to sage-grouse and their habitat including SS-CA-MA-11, SS-CA-MA-12, SS-CA-MA-18, and SS-VI-MA-6. Other management actions associated with limiting impacts of fire, restoration and land uses (land use authorizations, minerals, livestock grazing, etc.) are found in those sections. The Aquatic and Riparian Management Strategy indirectly addressed Columbia spotted frog through water quality and riparian improvement. Appendix E: Conservation Measures in the Final EIS included the various conservation measures for species from the various consultations and agreements in more detail.

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	measure tables for recently identified listed, proposed, or candidate species such as the Greater sage-grouse should also be developed for inclusion in the Final EIS.	
Wildlife	The US Fish and Wildlife Service encourages the BLM to incorporate additional conservation measures into the Final EIS to further address the survival and recovery of listed species such as the Bruneau hot spring snail, and to further enhance the conservation of candidate species such as the Greater sage-grouse, especially in the Browns Bench area.	The Final EIS updated Alternative VI (Proposed RMP) included more conservation measures that protect sensitive species. For example, see SS-C-MA-1 states “follow conservation measures in biological opinions and letters of concurrence. Conservation measures can be updated, revised, or replaced through future consultation with the US Fish and Wildlife Service”. See also LA-VI-A-4, which would not allow commercial wind and solar energy development inside the sage-grouse management area.
Wildlife	The Final EIS for the planning area should place an emphasis on habitat protection and non-destructive activities.	The Final EIS analyzed a range of alternatives based on general focuses. Alternative II was the least restrictive while Alternative V was most restrictive regarding development and land uses. Alternative VI (Proposed RMP) focused on actively restoring the resiliency of ecosystem structure and function while balancing uses within the planning areas. All activities proposed in the planning area will undergo a more specific NEPA analysis to determine potential impacts.
Wildlife	I hope you will act to protect ground-dwelling birds and other wildlife in the Jarbidge Foothills area, particularly by banning off-road vehicle use there, which is very damaging to ground-dwelling birds and other natural values.	In Alternative VI (Proposed RMP), the focus of the Jarbidge Foothills Travel Management Area was on increasing core habitat size for sage-grouse and big game, while providing for motorized and non-motorized recreation experiences. Motorized travel would be limited to designated routes in this area. The travel and transportation planning process will designate specific routes.

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