

Chapter 4—Consistency/Coordination with Other Plans

Local, state, and federal agencies and tribal governments have a vested interest in land use planning involving public lands administered by the Upper Snake FO. Representatives from these agencies and tribes bring vast knowledge, a broad range of interests, and important issues from the entities they represent to the planning process.

BLM planning regulations require that BLM land use plans be consistent with officially approved or adopted resource-related plans of other federal, state, local, and tribal governments to the extent those plans are consistent with federal laws and regulations applicable to public lands.

Plans formulated by federal, state, local, and tribal governments that relate to management of lands and resources have been reviewed for the AMS and will be considered as the Upper Snake RMP/EIS is developed. The plans identified include, but are not limited to, the following:

- Bingham County (Idaho) Wildfire Protection Plan (April 2007)
- Bingham County Comprehensive Plan (2005)
- Black bear management plan 1999–2010 (IDFG 1998)
- Blaine County Comprehensive Plan
- Blaine County, Idaho, Wildfire Protection Plan (October 2004)
- Bonneville County Wildfire Protection Plan (September 2008)
- Butte County General Plan (2000)
- Butte County, Idaho, Wildfire Protection Plan (August 2004)
- Caribou National Forest Revised Forest Plan and EIS (USFS 2003)
- City of Ashton Comprehensive Plan (1997)
- City of Blackfoot Comprehensive Plan (2000)
- City of Idaho Falls Comprehensive Plan (2000)
- City of Rexburg 2020 Comprehensive Plan (2008)
- City of Rigby Comprehensive Plan (2006 draft)
- Clark County, Idaho, Wildfire Protection Plan (May 2003)
- Comprehensive Management and Use Plan/EIS for the California National Historic Trail, Pony Express National Historic Trail, Oregon National Historic Trail, and Mormon Pioneers National Historic Trail (NPS 1998)
- Comprehensive State Water Plan/Henry’s Fork Basin
- Comprehensive State Water Plan/South Fork Snake River Basin
- Conservation Agreement for Yellowstone Cutthroat Trout (*Oncorhynchus clarkii bouvieri*) in the States of Idaho, Montana, Nevada, Utah and Wyoming (2009)

- Conservation Plan for the Greater Sage-grouse in Idaho (ISAC 2006)
- Cooperative Agreement for Tex Creek Management Area (BLM, BOR, IDFG 1981)
- Craters of the Moon National Monument and Preserve RMP
- Custer County Comprehensive Plan (2004, revised 2006)
- Custer County Wildland Fire Mitigation Plan (March 2009)
- Fisheries Management Plan (2007–2012)
- Fremont County Comprehensive Plan (2008)
- Fremont County, Idaho, Wildfire Protection Plan (September 2004)
- Grizzly bear recovery plan (USFWS 1993)
- Habitat Conservation Assessment and Conservation Strategy for the St. Anthony Evening Primrose. (Idaho State Conservation Effort 1995)
- Habitat Conservation Assessment and Conservation Strategy for the Idaho Dunes Tiger Beetle (Idaho State Conservation Effort 1996)
- Idaho Comprehensive Wildlife Conservation Strategy (IDFG 2005)
- Idaho Hazardous Materials/Weapons of Mass Destruction Incident Command and Response Support Plan (Idaho Bureau of Homeland Security 2008)
- Idaho Mule Deer Management Plan 2008–2017 (IDFG 2008)
- Idaho National Laboratory Cultural Resource Management Plan (DOE 2009)
- Idaho State Board of Land Commissioners State Trust Lands Asset Management Plan (2007)
- Idaho State Water Plan (Idaho Water Resource Board 1996)
- Idaho Wolf Management Plan 2008–2012 (IDFG 2008)
- Idaho’s 2006–2010 Statewide Comprehensive Outdoor Recreation Plan, Recreation Next (IDPR 2006)
- Implementation Plan for the Control of Air Pollution in the State of Idaho (IDEQ, Region 10)
- Interim Strategy for managing separation between Bighorn sheep and domestic sheep in Idaho (February 2008)
- Interior Columbia Basin Final EIS
- Jackson/Teton (WY) Comprehensive Plan (1994)
- Jefferson County Comprehensive Plan
- Jefferson County, Idaho, Wildfire Protection Plan (September 2004)
- Lemhi County Comprehensive Plan (2007)
- Lemhi County, Idaho, Wildfire Protection Plan (June 2007)
- Madison County 2020 Comprehensive Plan (2008)
- Madison County, Idaho, Wildfire Protection Plan September 2004

- Management Plan for Conservation of Yellowstone Cutthroat Trout in Idaho (2007)
- Management Plan for the Conservation of Snake River White Sturgeon in Idaho (2008)
- Master Memorandum of Understanding between the Animal and Plant Health Inspection Service USDA and the BLM (1995)
- Master Memorandum of Understanding between the IDFG and the BLM (1986)
- Medicine Lodge Subbasin Review, Portions of Clark and Jefferson Counties, Idaho (BLM, USFS Caribou–Targhee National Forest)
- Memorandum of Understanding between DOE, Idaho Operations Office, and the BLM (2008)
- Montana/Idaho Airshed Group Operating Guide (M/IAG 2008)
- Mountain Whitefish Conservation and Management Plan for the Big Lost River Drainage, Idaho (2007)
- Mule Deer Initiative Action Plan (IDFG 2007)
- National Bald Eagle Management Guidelines (USFWS 2007)
- National Soil Survey Handbook (USDA NRCS 2007)
- Nez Perce National Historical Park and Big Hole Battlefield Draft General Management Plan/EIS (NPS 1995)
- Pacific Flyway management plan for the Rocky Mountain Population of Trumpeter Swans, Pacific Flyway Study Committee (Subcommittee on Rocky Mountain Trumpeter Swans 2008)
- Plan for Increasing Sage-Grouse Populations (Upper Snake Sage Grouse Local Working Group 2009)
- Pocatello RMP 1988
- Power County, Idaho, Wildfire Protection Plan (February 2004)
- Recovery Plan for Three of the Five Distinct Population Segments of Bull Trout, Draft (*Salvelinus confluentus*), Chapter 19, Little Lost River Recovery Unit, Idaho; Bull Trout (*Salvelinus confluentus*) Draft Recovery Plan (2002)
- ROD and RMP Amendments for Geothermal Leasing in the Western United States (BLM, USFS 2008)
- Salmon–Challis National Forest Plan
Salmon–Challis National Forest Travel Management Plan DEIS (Salmon–Challis National Forest 2008)
- Sand Creek Wildlife Management Area Management Plan (IDFG 1999)
- Shoshone–Bannock Tribes Fire Management Plan (2001)
- Shoshone–Bannock Tribes Forest Management Plan (2004)
- Shoshone–Bannock Tribes Position Statement Regarding Developed Campgrounds on Federal Lands (2006)

- Snake River Activity and Operations Plan EA, decision record (Upper Snake FO and Caribou–Targhee NF 2009)
- Snake River Aquatic Species Recovery Plan (1995)
- Species Conservation Assessment and Strategy for Townsend’s Big-eared Bat (IDFG 1999)
- State of Idaho Bull Trout Conservation Plan (1996)
- Subbasin Assessments and Total Maximum Daily Loads for all Fourth Level HUC Watersheds in the BLM Upper Snake FO (IDEQ)
- Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006 (Avian Power Line Interaction Committee 2006)
- Teton County (ID) Comprehensive Plan (2008)
- Teton County, Idaho, Wildfire Protection Plan (2009)
- Teton River Canyon Resource Management Plan Finding of No Significant Impact and Final Environmental Assessment (BOR 2006)
- The Policy of the Shoshone–Bannock Tribes for Management of Snake River Basin Resources
- The Shoshone–Bannock Tribes’ Position Regarding the Disposition, Sale or Transfer of Federal Lands
- Ute ladies’-tresses (*Spiranthes diluvialis*) agency review draft recovery plan (USFWS 1995)
- White-tailed deer management plan 2004–2015 (IDFG 2004)
- White-tailed deer Management Plan 2005–2014 (IDFG 2005)
- White-tailed deer, mule deer, and elk management plan (IDFG 1999)

Chapter 5—Specific Mandates and Authority

Chapter 5 presents the laws and EOs affecting BLM land use planning and management. These are the primary laws governing BLM activities; they include General Authorizing Legislation, which authorize the general activities of the BLM or govern the manner in which BLM's activities are conducted; and Specific Authorizing Legislation, which govern specific program activities or activities in specific or designated areas. The primary specific mandates and authorities are presented in alphabetical order under the name by which they are most commonly known.

Name	Summary
43 U.S.C. 1715	Provides the Secretary of the Interior authorization to acquire, by purchase, exchange, donation, or eminent domain (for access to public lands only), land and interests in lands.
43 U.S.C. 2	Provides that the Secretary of the Interior, or such officer as s/he may designate, shall perform all executive duties appertaining to the surveying and sale of the public lands of the United States, or in anyway respecting such public lands, and, also, such as relate to private claims of land and the issuing of patents for all grants to land under the authority of the Government.
43 U.S.C. 31(a)	Provides for the classification of the public lands and examination of the geological structure, mineral resources, and products of the national domain.
43 U.S.C. 52	Provides that the Secretary of the Interior, or such officer as s/he may designate, shall cause to be surveyed, measured, and marked, without delay, all base and meridian lines through such points and perpetuated by such monuments, and such other correction parallels and meridians as may be prescribed; that all private land claims shall be surveyed after they have been confirmed by authority of Congress, so far as may be necessary to complete the survey of the public lands; and that he shall transmit general and particular plans of all lands surveyed by him to such officers as he may designate.

Name	Summary
78 Stat. 986	Provides for the classification of certain lands administered exclusively by the Secretary of the Interior to provide for their disposal or interim management under principles of multiple-use and to produce a sustained yield of products and services. Although this authority has expired, the classifications remain in effect.
Act of December 22, 1928 (45 Stat. 1069), as amended (43 U.S.C. 1068, 1068a)	Allowed patents to be issued for claims of long standing, without reservation of minerals to government
Act of July 26, 1866, also known as the Lode Act (14 Stat. 251)	Granted ROWs over “public domain” for highways and to ditch and canal owners. Repealed and superseded by FLPMA.
Act of May 24, 1928 (49 U.S.C. App. 211–213)	Authorizes the Secretary to lease contiguous unappropriated public lands (not to exceed 2,560 acres) for a public airport.
American Indian Religious Freedom Act of 1978 (42 U.S.C. 1996)	Declares the United States policy of protecting and preserving the inherent right of freedom to believe, express, and exercise traditional religions; including access to religious sites, use and possession of sacred objects, and freedom to worship through ceremonials and traditional rites; for the American Indian, Eskimo, Aleut, and Native Hawaiian.
Americans with Disabilities Act Accessibility Guidelines	Sets guidelines for accessibility to places of public accommodation and commercial facilities by individuals with disabilities.
Antiquities Act of 1906 (16 U.S.C. 431 et seq.)	Protects cultural resources on federal lands, and imposes penalties for excavation or appropriation without a permit.
Archaeological Resources Protection Act of 1979, as amended (16 U.S.C. 470a, 470cc, and 470ee)	Requires permits for the excavation or removal of federally administered archaeological resources, encourages increased cooperation among federal agencies and private individuals, provides stringent criminal and civil penalties for violations, and requires federal agencies to identify important resources vulnerable to looting and to develop a tracking system for violations.
Atomic Energy Act of 1952 (42 U.S.C. 2001)	Provides for both the development and the regulation of the uses of nuclear materials and facilities in the United States by civilians and for military use.

Name	Summary
Bald Eagle Protection Act of 1940, as amended (16 U.S.C. 668-668d)	Provides for the protection of the bald eagle (the national emblem) and the golden eagle by prohibiting, except under certain specified conditions, the taking, possession and commerce of such birds (including their parts, nests, or eggs).
Bankhead Jones Farm Tenant Act of 1937 (7 U.S.C. 1010 et seq.)	Authorizes management of acquired farm tenant lands, and construction and maintenance of range improvements. It directs the Secretary of Agriculture to develop a program of land conservation and utilization to adjust land use to help control soil erosion, conduct reforestation, preserve natural resources, develop and protect recreational facilities, protect watersheds, and protect public health and safety.
Carey Act of 1894, as amended (43 U.S.C. 641)	Authorizes and empowers the Secretary of the Interior, given Presidential approval and proper application, to donate, grant, and patent desert lands to a state for irrigation, reclamation, and occupation. Lands may be restored to the public domain if reclamation requirements are not satisfied within stated time limits.
Carlson-Foley Act of 1968 (42 U.S.C. 1241–1243)	Authorizes BLM to reimburse states for expenditures associated with coordinated control of noxious plants.
Clean Air Act (1970, 1977) (42 U.S.C. 1857)	In its early form (the 1967 Air Quality Act), guided states in controlling sources of air pollution according to a set of principles. As of the 1970, 1977, and 1990 amendments, states apply and administer detailed control requirements prescribed through federal regulations.
Clean Air Act of 1990 as amended (42 U.S.C. 7401, 7418, 7642)	Requires BLM to protect air quality, maintain federal and state designated air quality standards, and abide by the requirements of the state implementation plans.

Name	Summary
Comprehensive Environmental Response, Compensation, and Liability Act of 1980 as amended by the Superfund Amendments and Reauthorization Act of 1986 (42 U.S.C. 9601–9673)	Provides for liability, risk assessment, compensation, emergency response, and cleanup (including the cleanup of inactive sites) for hazardous substances. Requires federal agencies to report sites where hazardous wastes are or have been stored, treated, or disposed, and requires responsible parties, including federal agencies, to clean-up releases of hazardous substances.
Condemnation Act of 1888, as amended (40 U.S.C. 257)	Authorizes officers of the government to procure real estate for the erection of a public building or for other public uses, through condemnation, under judicial process, whenever it is necessary or advantageous to the government to do so.
Control of Pollution from Federal Facilities (33 U.S.C. 1323)	Established that federal agencies shall be subject to all requirements and administrative authorities, processes, and sanctions respecting the control and abatement of water pollution in the same manner, and to the same extent as any nongovernmental entity, including the payment of reasonable service charges.
Declaration of Taking Act of 1931 (40 U.S.C. 258(a), (e))	Authorizes the United States to acquire an interest in land immediately upon the filing of a declaration of taking with a court and the deposit in the court of the estimated compensation stated in the declaration.
Department of the Interior and Related Agencies Appropriations Act, 1996 (P.L. 104–134)	Directs the Secretary of the Interior, acting through the BLM, to develop and implement a pilot recreation fee demonstration program to determine the feasibility of cost recovery for operation and maintenance of recreation areas and sites.
Desert Land Act of 1877 (43 U.S.C. 321–323)	Provides authority to reclaim arid and semi-arid public lands of the western States through individual effort and private capital.
Domestic Minerals Program Extension Act of 1953	States that each department and agency of the federal government charged with responsibilities concerning the discovery, development, production, and acquisition of strategic and critical minerals and metals shall undertake to decrease further, and to eliminate wherever possible, the dependency of the United State on foreign sources of supply of such material.

Name	Summary
Emergency Planning and Community Right-To-Know Act of 1986 (42 U.S.C. 11001–11050)	Requires the private sector to inventory chemicals and chemical products, to report those in excess of threshold planning quantities, to inventory emergency response equipment, to provide annual reports and support to local and state emergency response organizations, and to maintain a liaison with the local and state emergency response organizations and the public.
Emergency Wetlands Resources Act of 1986 (P.L. 99–645)	Removed a prior prohibition on the purchase of wetlands with LWCF monies. Transferred monies to the Migratory Bird Conservation Fund through import duties and entrance fees at National Wildlife Refuges. Provided for planning, mapping, and inventory of wetlands in the United States; and reports to Congress on wetlands loss and the contribution of federal programs to wetlands loss.
Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.)	Directs federal agencies to ensure that their actions do not jeopardize T&E species and that, through their authority, they help bring about the recovery of these species.
Energy Independence and Security Act of 2007	States that the United States is to move toward greater energy independence, increase the production of clean renewable fuels, and support modernization of the nation’s electricity transmission and distribution system.
Energy Policy Act of 2005	Encourages energy efficiency and conservation, promotes alternative and renewable energy sources, reduces dependence on foreign sources of energy, increases domestic production, modernizes the electrical grid, and encourages the expansion of nuclear energy.
Engle Act of February 28, 1958 (43 U.S.C. 156)	Provides that withdrawals for the Department of Defense for more than 5,000 acres shall be made by Congress.
Executive Order 11514, Protection and Enhancement of Environmental Quality, March 5, 1970 (35 FR 4247)	Refines implementation of NEPA of 1969, by directing the federal government to provide leadership in protecting and enhancing the quality of the Nation’s environment to sustain and enrich human life, and to initiate measures needed to direct their policies, plans and programs so as to meet national environmental goals.

Name	Summary
Executive Order 11644, Use of Off-Road Vehicles on Public Lands, February 8, 1972 (37 FR 2877)	Establishes policies and provides for procedures for controlling or directing use of off-road vehicles on public lands, with the goal of protecting resources, promoting the safety of all users, and minimizing conflicts among the various uses.
Executive Order 11987, Exotic Organisms, May 24, 1977 (42 FR 26949)	Directs federal agencies to restrict the introduction of exotic species into natural ecosystems on public lands, to encourage other entities to prevent such introduction, and to restrict federal programs, funds, and authorities from exporting native species for introduction into natural ecosystems outside of the United States.
Executive Order 11988, Floodplain Management May 24, 1977 (42 FR 26951)	Provides for the restoration and preservation of national and beneficial floodplain values, and enhancement of the natural and beneficial values of wetlands in carrying out programs effecting land use.
Executive Order 11989, Off-road vehicles, May 24, 1977 (42 FR 26959)	Clarifies agency authority to define zones of use for off-road vehicles on public lands.
Executive Order 11990, Protection of Wetlands May 25, 1977 (42 FR 26961)	Directs that wetland and riparian habitats on the public lands be identified, protected, enhanced, and managed.
Executive Order 12088, Federal Compliance with Pollution Control Standards October 17, 1978 (43 FR 47707)	Sets the requirements for standards applicability, agency coordination, and limits on exemptions from standards.
Executive Order 12548, Grazing fees, February 14, 1986 (51 FR 5985)	Provides for establishment of appropriate fees for the grazing of domestic live-stock on public rangelands. Directs that the fee shall not be less than \$1.35 per animal unit month.
Executive Order 12962, Recreational Fisheries June 7, 1995 (60 FR 30769)	Directs all federal agencies to enhance recreational fish species and provide increased recreational fishing opportunities.

Name	Summary
Executive Order 13007, Providing for American Indian and Alaska Native Religious Freedom and Sacred Land Protections, May 24, 1996 (61 FR 26771)	Directs federal agencies to accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and avoid adversely affecting the physical integrity of such sacred sites.
Executive Order 13084, Consultation and Coordination with Indian Tribal Governments May 14, 1998 (63 FR 27655)	Provides for consultation with Indian tribal governments in developing regulatory policies that would significantly or uniquely affect Indian tribal communities, increasing flexibility for Indian tribal waivers, and use of consensual mechanisms where appropriate for developing regulations on issues related to tribal self-government, trust resources, or treaty and other rights.
Executive Order 13112, Invasive Species February 3, 1999 (64 FR 6183)	Directs federal agencies to prevent the introduction of invasive species, provide for their control, and minimize the economic, ecological, and human health impacts that invasive species cause.
Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, January 10, 2001 (66 FR 3853)	Directs agencies within the Executive Branch to take certain actions to further implement the Migratory Bird Treaty Act, with the goal of promoting the conservation of migratory bird populations.
Executive Order 13195, Trails for America in the 21st Century, January 18, 2001 (66 FR 7391)	Directs federal agencies to protect, connect, promote, and assist trails of all types throughout the United States to the extent permitted by law and where practicable, and in cooperation with tribes, states, local governments, and interested groups.
Executive Order 13443, Facilitation of Hunting Heritage and Wildlife Conservation, August 23, 2007 (72 FR 160)	Directs federal agencies, such as the BLM, which have a measurable effect on public land management, outdoor recreation, and wildlife management, to facilitate the expansion and enhancement of hunting opportunities and the management of game species and their habitat.
Federal Cave Resource Protection Act of 1988 (16 U.S.C. 4301)	Provides for the protection of caves on lands under the jurisdiction of the Secretary, and the Secretary of Agriculture. Establishes terms and conditions for use permits, and penalties for violations.
Federal Insecticide, Fungicide, and Rodenticide Act of 1975 (7 U.S.C. 136 et. seq.)	Establishes an extensive regulatory system for controlling the sale, distribution, and application of pesticides.

Name	Summary
<p>Federal Land Policy and Management Act of 1976, as amended (43 U.S.C. 1701 et seq.)</p>	<p>As amended, provides for the public lands to be generally retained in federal ownership; for periodic and systematic inventory of the public lands and their resources; for a review of existing withdrawals and classifications; for establishing comprehensive rules and regulations for administering public lands statutes; for multiple-use management on a sustained yield basis; for protection of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archaeological values; for receiving fair market value for the use of the public lands and their resource; for establishing uniform procedures for any disposal, acquisition, or exchange; for protecting areas of critical environmental concern; for recognizing the Nation’s need for domestic sources of mineral, food, timber, and fiber from the public lands, including implementation of the Mining and Mineral Policy Act of 1970; and for payments to compensate states and local governments for burdens created as a result of the immunity of federal lands from state and local taxation. Outlines functions of the BLM Directorate, provides for administration of public lands through the BLM, provides for management of the public lands on a multiple use basis, and requires land-use planning including public involvement and continuing inventory of resources. The act establishes as public policy that, in general, the public lands will remain in federal ownership, and also authorizes:</p> <ul style="list-style-type: none"> • acquisition of land or interests in lands consistent with the mission of the Department and land use plans; • permanent appropriation of road use fees collected from commercial road users, to be used for road maintenance; • collection of service charges, damages, and contributions and use of funds for specified purposes; • protection of resource values; • preservation of certain lands in their natural condition; • compliance with pollution control laws; • delineation of boundaries in which the federal government has right, title, or interest; • review of land classifications in land use planning; and modification or termination of land classifications when consistent with land use plans; • sale of lands if the sale meets certain disposal criteria; • issuance, modification, or revocation of withdrawals;

- review of certain withdrawals by October 1991;
- exchange or conveyance of public lands if in the public interest;
- outdoor recreation and human occupancy and use;
- management of the use, occupancy, and development of the public lands through leases and permits;
- designation of federal personnel to carry out law enforcement responsibilities;
- determination of the suitability of public lands for rights-of-way purposes (other than oil and gas pipelines) and specification of the boundaries of each ROW;
- recordation of mining claims and reception of evidence of annual assessment work.

**Federal Land Transaction
Facilitation Act of 2000
(43 U.S.C. 2301)**

Allows the BLM to retain receipts from land sales and to use them to cover administrative costs and acquire properties to improve the Nation's land management pattern.

**Federal Noxious Weed Act of
1974, as amended
(7 U.S.C. 2814)**

Provides for the designation of a lead office and a person trained in the management of undesirable plants; establishment and funding of an undesirable plant management program; completion and implementation of cooperative agreements with state agencies; and establishment of integrated management systems to control undesirable plant species.

**Federal Onshore Oil and Gas
Leasing Reform Act of 1987
(30 U.S.C. 226, et seq.)**

Establishes a new oil and gas leasing system, and changes certain operational procedures for onshore federal lands.

**Fish and Wildlife
Conservation Act of 1980
(16 U.S.C. 2901–2911)**

Authorizes financial and technical assistance to the states for the development, revision, and implementation of conservation plans and programs for nongame fish and wildlife.

**Fish and Wildlife
Coordination Act of 1958
(16 USC 661 et seq.)**

Provides for wildlife conservation to be given equal consideration and coordination with other features of water resource development.

**Fort Bridger Treaty of 1868
(15 Stat. 673)**

Ratified in 1869, the Treaty reserved approximately 1.8M acres in south-central Idaho as the Fort Hall Reservation for the Shoshone and Bannock Tribes.

Name	Summary
General Allotment Act (or Dawes Act) of 1887, as amended (24 U.S.C. 388–391)	Called for the allocation of a parcel of land to all members of an Indian tribe, based on the theory that Indians would be become more quickly assimilated if they were owners of a parcel of land and encouraged to pursue civilized agricultural pursuits as opposed to traditional means of existing by hunting, fishing and gathering.
General Mining Law of 1872, as amended (30 U.S.C. 22 et seq.)	Provides for locating and patenting mining claims where a discovery has been made for locatable minerals on public lands in specified states, mostly in the western United States.
Geothermal Steam Act Amendments of 1988	Lists significant thermal features within the NPS requiring protection, provides for lease extensions and continuation of leases beyond their primary terms, and requires periodic review of cooperative or unit plans of development.
Geothermal Steam Act of 1970 (30 U.S.C. 1001)	Authorizes the Secretary to issue leases for the development of geothermal resources.
Highway Safety Act of 1966, as amended (23 U.S.C. 401–403)	Requires the federal government to encourage and assist each of the States in the establishment of a highway safety system.
Historic Sites Act of 1935 (16 U.S.C. 461)	Declares national policy to identify and preserve historic sites, buildings, objects, and antiquities of national significance, providing a foundation for the NRHP.

Name	Summary
Materials Act of 1947, as amended (30 U.S.C. 601–604 et seq.)	Provides for the sale of common variety materials for personal, commercial, or industrial uses and for free use for local, state, and federal governmental entities.
Migratory Bird Conservation Act of 1929, as amended (16 U.S.C. 715), and treaties pertaining thereto	Provides for habitat protection and enhancement of protected migratory birds.
Mineral Leasing Act for Acquired Lands (30 U.S.C. 351–359)	Provides for the leasing of coal, phosphate, oil, oil shale, gas, sodium, potassium, and sulfur which are owned or acquired by the United States and which are within the lands acquired by the United States, with the consent of the head of the agency having jurisdiction over the lands containing such deposits.
Mineral Leasing Act for Acquired Lands of 1947 (30 U.S.C. 351–359)	Provides for the leasing of coal, phosphate, sodium, potassium, oil, gas, oil shale, and sulfur which are owned or acquired by the United States and which are within the lands acquired by the United States, with the consent of the head of the agency having jurisdiction over the lands containing such deposits. It provides that all mineral leasing receipts derived from leases under this act shall be paid into the same funds or accounts in the Treasury and shall be distributed in the same manner as prescribed for other receipts from the lands affected by the lease. The intention is that this act shall not affect the distribution of receipts pursuant to legislation applicable to such lands.

Name	Summary
Mineral Leasing Act of 1920, as amended (30 U.S.C. 181, et seq.)	Provides for leasing of coal, phosphate, sodium, potassium, oil, gas, oil shale, native asphalt, solid and semi-solid bitumen, bituminous rock, and gilsonite on lands containing such deposits owned by the United States, including those in national forests, but excluding those within the national petroleum and oil shale reserves. It preserves the right of pre-1920 oil shale mining claims to be patented, mandates a broad spectrum of requirements for lease management, and authorizes the Secretary to determine suitability of public lands for oil and gas pipeline ROWs.
Mining and Minerals Policy Act of 1970, (30 U.S.C. 21a) (30 U.S.C. 1601, et seq.)	Declares that it is the continuing policy of the federal government to foster and encourage private enterprise in the development of a stable domestic minerals industry and the orderly and economic development of domestic mineral resources. This act includes all minerals, including sand and gravel, geothermal, and oil and gas.
National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.)	Requires the preparation of environmental impact statements for federal projects that may have a significant effect on the environment. It requires systematic, interdisciplinary planning to ensure the integrated use of the natural and social sciences and the environmental design arts in making decisions about major federal actions that may have a significant effect on the environment.
National Historic Preservation Act of 1966, as amended (16 U.S.C. 470)	Expands protection of historic and archaeological properties to include those of national, state and local significance. It also directs federal agencies to consider the effects of proposed actions on properties eligible for or included in the NRHP.
National Materials and Minerals Policy, Research and Development Act of 1980	Requires the Secretary of the Interior to improve the quality of minerals data in federal land use decision making.
National Parks and Recreation Act of 1978 (16 U.S.C. 1242–1243)	Establishes a number of national historic trails that cross public lands.

Name	Summary
Native American Graves Protection and Repatriation Act of 1990 (25 U.S.C. 3001)	Requires agencies to inventory archaeological and ethnological collections in their possession or control (which includes non-federal museums) for human remains, associated funerary objects, sacred objects, and objects of cultural patrimony; identify them geographically and culturally; and notify appropriate tribes within 5 years.
Nuclear Waste Policy Act of 1982 (42 U.S.C. 10101 et seq.)	Established a plan for the safe handling, storage, and disposal of the nation's spent nuclear fuel and high-level radioactive waste, and a program of research, development, and demonstration regarding the disposal of spent nuclear fuel and high-level radioactive waste.
Occupational Health and Safety Act of 1970 (29 U.S.C. 651 et seq.)	Assures safe and healthful working conditions for working men and women by providing for standards; enforcement; assistance to states in their efforts; and research, information, education, and training in the field of occupational safety and health.
Pollution Prevention Act of 1990 (42 U.S.C. 13101–13109)	Requires and encourages prevention and reduction of waste streams and other pollution through minimization, process change, and recycling. Encourages and requires development of new technology and markets to meet the objectives.
Protection Act of September 20, 1922 (16 U.S.C. 594)	Authorizes the Secretary of the Interior to protect and preserve, from fire, disease, or the ravages of beetles, or other insects, timber owned by the United States upon the public lands, national parks, national monuments, Indian reservations, or other lands under the jurisdiction of the Department of the Interior owned by the United States.
Protection Act of September 20, 1922 (16 U.S.C. 594)	Provides for the Secretary of the Interior to protect and preserve, from fire, disease, or the ravages of beetles or other insects, timber on the public lands owned by the United States.

Name	Summary
Public Rangelands Improvement Act of 1978 (43 U.S.C. 1901 et seq.)	Provides for the improvement of range conditions on public rangelands, research on wild horse and burro population dynamics, and other range management practices.
Public Rangelands Improvement Act of 1978 (43 U.S.C. 1901-1908)	Provides for the improvement of range conditions to assure that rangelands become as productive as feasible for watershed protection, livestock grazing, wildlife habitat, and other rangeland values. The act also authorizes: <ul style="list-style-type: none"> • research on wild horse and burro population dynamics, and facilitates the humane adoption or disposal of excess wild free roaming horses and burros, and • appropriation of \$10 million or 50% of all moneys received as grazing fees, whichever is greater, notwithstanding the amount of fees collected.
Reciprocal Fire Protection Act of May 27, 1955, as amended (42 U.S.C. 1856)	Authorizes agencies that provide fire protection for any property of the United States to enter into reciprocal agreements with other fire organizations to provide mutual aid for fire protection.
Recreation and Public Purposes (R&PP) Act of 1926, as amended (43 U.S.C. 869)	Authorizes the Secretary to classify public lands for lease or sale for recreation or public purposes. The R&PP Amendment Act of 1988 provides that suitable public lands may be made available for use as solid waste disposal sites, in a manner that will protect the United States against unforeseen liability.
Rehabilitation Act of 1973, Section 504 (29 U.S.C 791)	Requires federal agencies to ensure that federally assisted or federally conducted programming is accessible to people with disabilities. Access needs of people with visual impairments, hearing impairments and learning impairments must also be considered.
Reservoir Salvage Act of 1960 (16 U.S.C. 469), as amended by the Archaeological and Historic Preservation Act of 1974	Provides for the preservation of historical and archeological data (including relics and specimens) that might otherwise be irreparably lost or destroyed as the result of flooding or terrain alteration for any project, including dam construction, undertaken or licensed by an agency of the United States.

Name	Summary
Rivers and Harbors Act of 1899 (33 U.S.C. 403 10)	Prohibits obstructing, building structures outside of established harbor lines, and altering the course, location, condition or capacity of waters of the United States, except under certain specified circumstances or permits.
Safe Drinking Water Act Amendments of 1977 (42 U.S.C. 201)	Requires compliance with all federal, state, or local statutes for safe drinking water.
Sikes Act (or the Act of September 15, 1960), as amended (16 U.S.C. 670 et seq.)	Provides for cooperation by the Departments of the Interior and Defense with state agencies in planning, development and maintenance of fish and wildlife resources on military reservations throughout the United States. Authorizes conservation and rehabilitation programs on BLM and other lands (as of the 1974 law).
Soil and Water Resources Conservation Act of 1977 (16 U.S.C. 2001)	Provides for conservation, protection, and enhancement of soil, water, and related resources.
Soil Conservation and Domestic Allotment Act of 1935, as amended (Pub. L. 74-46)	Designed to support farm income by making soil-conservation and soil-building payments to participating farmers.
Soil Info. Assistance for Community Planning and Resource Development Act of 1996 (42 U.S.C. 3271 et seq.)	Directed that the USDA soil survey program of the United States should be conducted so that soil surveys would be available to meet needs of the states and other public agencies in connection with community planning and resource development.
Surface Mining Control and Reclamation Act of 1977 (30 U.S.C. 1201 et seq.)	Provides that lands may be declared unsuitable for surface coal mining where significant adverse impacts could result to certain wildlife species.
Taylor Grazing Act of 1934 (43 U.S.C. 315), as amended by the Act of August 28, 1937 (43 U.S.C. 1181d)	Authorizes the establishment of grazing districts, regulation and administration of grazing on the public lands, and improvement of the public rangelands. It also authorizes the Secretary to accept contributions for the administration, protection, and improvement of grazing lands, and establishment of a trust fund to be used for these purposes.

Name	Summary
Toxic Substances Control Act of 1976 (15 U.S.C. 2601 et seq.)	Provides for EPA to restrict, limit, or otherwise control the use and distribution of chemicals that present an unreasonable risk of injury to health or the environment, with the goal of preventing the discharge of such chemicals into the environment.
Transportation Safety Act of 1974, Hazardous materials Transportation Act amendments of 1976 and 1990 (49 U.S.C. 1801 et seq.)	Empowers the U.S. Department of Transportation to regulate the transportation of hazardous materials by rail, aircraft, vessel, and public highway.
Uniform Federal Accessibility Standards (49 FR 31528)	The standards used to enforce the Architectural Barriers Act of 1968.
Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1971 (42 U.S.C. 4601)	Provides policy for federal acquisition of lands and interests in lands, and ensures the fair and equitable treatment of persons whose real property is acquired or who are displaced as a result of a federal or federally-assisted project.
Uranium Mill Tailings Radiation Control Act of 1978, as amended (42 U.S.C. 2014 et seq.)	Provides for a program of assessment and remedial action at inactive mill tailings sites; to regulate mill tailings during uranium or thorium ore processing at active mill operations; and to stabilize and control tailings after operations in a manner that is safe, environmentally sound, and minimizes or eliminates radiation health hazards to the public.
Water Quality Act of 1987, as amended from the Federal Water Pollution Control Act of 1977 (33 U.S.C. 1251)	Reauthorized the Water Pollution Control Act (or Clean Water Act) of 1972 and strengthened pollution control standards.
Water Resources Planning Act (42 U.S.C. 1962)	Encourages the conservation, development, and utilization of water and related resources of the United States on a comprehensive and coordinated basis by the federal government, states, localities, and private enterprise.
Wild and Scenic Rivers Act of 1968, as amended (16 U.S.C. 1271 et seq.)	Provides for the development and management of certain rivers. Authorizes the Secretary to exchange or dispose of suitable federally-owned property for non-federal property within the authorized boundaries of any federally-administered component of the NWSRS.
Wilderness Act of 1964 (16 U.S.C. 1131 et seq.)	Provides for the designation and preservation of wilderness areas.

Chapter 6—Public Scoping

6.1. Summary

The public scoping period began with the publication of the NOI to prepare an RMP and EIS in the *Federal Register* on February 28, 2008. As part of the scoping process, BLM prepared and mailed an informational package to the public; local, state and federal agencies; and to the Shoshone–Bannock Tribes. The intent of this package was to inform the public about the RMP process; present the planning issues and the areas where new or updated management direction was needed; and invite the public and tribes to several open-house scoping meetings. Approximately 1,000 information packages were mailed and, in response, 60 people registered their attendance at the open-house meetings. Comments were requested at the meetings and resulted in BLM receiving 68 pieces of correspondence that, through the comment analysis process, generated 684 unique comments.

The final scoping report includes a detailed description of the scoping process and activities, summary of the comments submitted by the public, an in-depth discussion of the planning issues raised, and an overview of the planning schedule. In summary, the following seven issues were raised by the public and will be used to develop alternatives to be evaluated in the EIS:

- **Acquiring and Maintaining Public Access:** How will the planning process address the need for acquiring and maintaining access to public lands while also protecting private property rights?
- **Land Tenure Adjustment:** How will the planning process identify lands for land tenure adjustment including retention, acquisition, exchange, and disposal, and what will be the priority for such land tenure adjustments?
- **Livestock Grazing:** How will conflicts associated with livestock grazing be managed within the planning area?
- **Sagebrush Steppe:** How will plant communities within the sagebrush ecosystem be managed to maintain long-term health and sustainability for terrestrial and aquatic species while maintaining the principles of multiple use?
- **Socioeconomics:** How will social and economic benefits of commodity and amenity uses be balanced within the planning area?
- **Recreation Management:** How will the increase in recreational use and demand for quality recreational opportunities be balanced within the planning area?
- **Travel Management:** How will motorized, non-motorized, and mechanized travel be managed to provide commodity, amenity, and recreation opportunities, as well as to protect natural resources?

Through scoping, the public also provided feedback to the preliminary planning criteria. Their comments were reviewed and incorporated, and resulted in the final approved planning criteria presented within the final scoping report.

The Public Scoping Report, Upper Snake Field Office Resource Management Plan, may be viewed on the internet through the Upper Snake RMP website at http://www.blm.gov/id/st/en/fo/upper_snake/Planning/Upper/snake/rmp.html or by contacting the Bureau of Land Management, Upper Snake Field Office, at 1405 Hollipark Drive, Idaho Falls, Idaho, 83401, 208-524-7500.

Chapter 7—Preparers

The Upper Snake FO RMP IDT would like to thank the following organizations for their involvement and support in the development of the AMS:

- BLM Idaho State Office, Boise, Idaho.
- BLM National Operations Center (NOC), Denver, Colorado.
- BLM IFD Office, Idaho Falls, Idaho
- IDFG, Upper Snake Region Office, Idaho Falls, Idaho.

Following this paragraph are experience descriptions from resource specialists of the BLM Upper Snake FO, IFD, NOC, IDFG, and contracted support (i.e., the ITD) involved in the preparation of this AMS.

Arn Berglund (Upper Snake FO), Fisheries Biologist

Mr. Berglund graduated from the University of Idaho (UI) with a bachelor of science (B.S.) degree in wildlife and fisheries resources and has completed graduated courses in fisheries at Colorado State and Utah State Universities. He has 17 years experience with the BLM and over 30 years in natural resource management and public education that includes employment with the UI, Boise (Idaho) Public School District, IDFG and the USFS. Mr. Berglund started as a forestry technician on the Salmon NF and has served as a research aid and technician for the UI's College of Forestry, Wildlife and Range Sciences; a vocational natural resource teacher in the Boise Career Education Program; a watershed technician, fish and wildlife biologist, State fisheries program lead, and resource coordinator for the BLM State Office in Utah and for various BLM FOs and USFS ranger districts in Idaho and Nevada; and as a research technician and conservation officer for the IDFG. Mr. Berglund's achievements for the BLM include serving on numerous fisheries recovery and conservation teams for special status species, including teams for five subspecies of cutthroat trout; team lead for the Winnemucca FO *Soldier Meadows Activity Plan*; and initiation of the *Hands on the Land* program in the Challis FO. Mr. Berglund was an honorary mention recipient for the BLM Environmental Educator of the Year Award in 2000. Arn is an avid fly fisherman, bird hunter, bird dog trainer, and youth ice hockey coach. He has resided in the Intermountain West for 39 years and in Idaho Falls, Idaho, since 2002.

Bill Boggs (Upper Snake FO), Outdoor Recreation Planner

Mr. Boggs graduated from Merritt College in Oakland, California, with an associate of science (A.S.) degree in biological sciences. He served 2 years in the U.S. Navy on the USS *Albert David* DE-1050 during the Vietnam conflict. After his honorary discharge, he received a B.S. degree in environmental resources from California State University (Sacramento). Mr. Boggs has over 35 years combined experience with the BLM and USFS, starting as a forestry technician on the Siskiyou NF where he managed recreation facilities and a wilderness area. He continued in recreation with the USFS on the Gifford Pinchot NF, and then transferred to the BLM as a wilderness specialist, administrating the wilderness review process program on the Burley District, Idaho. Mr. Boggs continued with the District as its outdoor recreation planner and served on two land use planning teams, completed the wilderness review process on roadless areas on the District, co-managed the City of Rocks area with other

government agencies before it became a National Historic Reserve, and promoted the upgrading of recreation facilities throughout the District. Mr. Boggs has served the last 16 years for the Upper Snake FO as an outdoor recreation planner and currently manages the recreation programs in the FO outside the river corridors. He served two terms as the Idaho Parks and Recreation Society's eastern director. Mr. Boggs spends as much time as he can outdoors with his family and plays racquetball with his coworkers.

Jarom Gilbert (Upper Snake FO), GIS Specialist

Mr. Gilbert graduated magna cum laude from Utah State University (USU) with a B.S. degree in geography. Mr. Gilbert joined the BLM in 2009 with 8 years prior experience with geographic information systems (GISs). He worked for USU's Remote Sensing GIS laboratory and for private consulting firms North Wind and Post, Buckley, Schuh and Jernigan (PBS&J). His GIS project experience ranges from landcover classification methods focused on sagebrush, to providing GIS support for all Idaho BLM 2005 fire management plans, to crown fire risk classification using fire severity analysis, to support for a myriad of engineering projects in the Las Vegas Valley. Of notable mention is that Mr. Gilbert provided GIS services for the *Las Vegas Valley Flood Control District Management Plan Update*, which included developing a highly complex and labor-intensive 74 x 55 in. wall map that is permanently displayed in a number of government offices in and around the Las Vegas Valley. Mr. Gilbert enjoys the area's mountain and road cycling opportunities and river rafting, particularly the whitewater sections. Jarom and his wife, Candise, have resided in Idaho Falls since February 2009.

Glen Guenther (Upper Snake FO), Supervisory Natural Resource Specialist

Mr. Guenther graduated from Montana State University with a master of science (M.S.) degree in rangeland science. He also has a B.S. degree in biology from the University of Puget Sound in Washington State. Mr. Guenther has worked in the Upper Snake FO for 20 years, starting as a range conservationist, then as a lead rangeland management specialist, and currently he is a supervisory natural resource specialist. Mr. Guenther has been the primary author on numerous environmental assessments and has led several NEPA IDTs. In 2008, Glen was selected as BLM's Rangeland Management Specialist of the Year for Idaho and was recognized with this award at the Society for Range Management's 62nd Annual Meeting and Trade Show. Under Glen's leadership, the Upper Snake FO fully processed all grazing permits before the 2009 congressional deadline. He has resided in Idaho Falls since 1989.

Richard D. Hill (Upper Snake FO), Archaeologist and Cultural Resource Specialist

Mr. Hill graduated from Indiana University with a B.A. in anthropology. As an undergraduate, Mr. Hill worked at archaeological sites in the Midwest and eastern United States. He continued graduate studies at Idaho State University (ISU) in Great Basin archaeology and vertebrate paleontology. Mr. Hill has over 30 years experience with the BLM starting as an archaeological technician with the BLM in Salmon, Idaho Falls, and Pocatello. He has worked as a District and FO archaeologist for the Upper Snake and Pocatello FOs. Mr. Hill's archaeological achievements for the Bureau include excavations at Bobcat Cave, test excavations and evaluations of Raptor Cave, test excavations of Roadside Cave, and rock art surveys (Challenge Cost Partnership 1999–2009) throughout the Snake River Plain and the Lost River and Portneuf Valleys. Mr. Hill also completed a pioneering graffiti removal project at Jackknife Cave in the Black Canyon WSA, coordinated IFD participation in the Oregon Trail Sesquicentennial and other historic emigrant projects (1991–2009). He has worked on numerous projects related to the Nez Perce National Historic Trail including preparation of an auto tour route brochure, mapping rifle pits at the Camas Meadows Battle Site, and installation of a kiosk at the Birch Creek Skirmish Site. Richard enjoys

outdoor activities and travel. He is active in the Idaho Falls Ski Club and volunteers every winter at Harriman State Park's Jones House. Richard has resided in Idaho Falls since 1979.

Chuck Horsburgh (Upper Snake FO), Geologist

Mr. Horsburgh graduated from Brigham Young University with a B.S. degree in geology. He has 34 years experience with the BLM including the Rawlins District in Wyoming, the Richfield District in Utah, and the IFD. Chuck has served as a team member on planning teams in Wyoming, Utah, and Idaho. He has also served as the team leader on several EISs, has taught extensively at the Bureau's National Training Center in Phoenix, has evaluated the validity of mining claims throughout the West, and has coauthored a Bureau Handbook on Industrial Minerals.

David O. Howell (IFD), Resource Coordinator

Mr. Howell graduated from the University of Utah (U of U) with a B.A. degree in mass communications and a M.Ed. in educational studies. Mr. Howell has more than 18 years experience in federal service: 7.5 years with the DOE's Western Area Power Administration in Salt Lake City, Utah, and Phoenix, Arizona; and 11 years with the BLM in Idaho Falls. For 16 years he served as a public affairs specialist before being named as a resource coordinator for the IFD in December 2006. He served as the team leader for the *Challis Comprehensive Travel Management and Transportation Plan Environmental Assessment* in 2006, completing the process in June 2008. In 2009, he was named as Idaho BLM's team leader for projects funded under the American Recovery and Reinvestment Act of 2009. Mr. Howell has resided in Idaho Falls since 1998.

Delilah Jordahl (NOC), Social Scientist and Economist

Ms. Jordahl has an M.S. with distinction in environment and development from the London School of Economics. She joined the BLM as a Presidential Management Fellow in 2008. In her role at BLM's National Operations Center, Ms. Jordahl is responsible for providing socio-economic expertise on the Bureau's projects and programs. Prior to joining BLM, she worked for a British think tank where she co-authored a report on community-inspired regeneration for the United Kingdom's Department for Communities and Local Government. Ms. Jordahl currently resides in Denver, Colorado.

Dan Kotansky (Upper Snake FO), Supervisory Hydrologist

Mr. Kotansky graduated from Southeastern Illinois College with an associate of applied science (A.A.S.) degree in forestry technology; from Southern Illinois University with a B.S. degree in forest resource management; and from USU with an M.S. degree in watershed science. Mr. Kotansky worked in reclamation for the Peabody Coal Company in southern Illinois, and for the last 25 years he has worked for the BLM in Wyoming (4 years) and Idaho (21 years). In Casper, Wyoming, Mr. Kotansky measured and sampled water resources and conducted NEPA analyses for oil and gas development, and for BLM's Upper Snake FO, he leads the watershed, hazardous materials, and abandoned mine lands programs. He successfully applied for/received two minimum stream flow water rights from the Idaho Department of Water Resources on BLM streams, stabilized stream banks, re-diverted streams back to their historical channels, and has removed and remediated several abandoned mine and hazardous waste sites. Dan is an avid outdoorsman, "soccer Dad," and soccer referee and has lived in Idaho Falls with his wife, Teri, and two children since 1988.

Margo Lasky (Portage), Assistant Project Manager

Ms. Lasky graduated with high honors from ISU with a B.S. degree in ecology and the Outstanding Biologist award. She also has completed graduate coursework in natural resources and applied nuclear energy. Ms. Lasky served 4 years for the State of Idaho at ISU and 13 years in private consulting where she has served the gamut of roles from field technician to technical writer to project management in support of remediation and environmental regulatory programs of the DOE for various locations nationwide. She has also supported and co-led NEPA analyses for proposed federal actions of the USFS and the BLM in Idaho, Montana, and Utah. Ms. Lasky is an outdoor enthusiast and has summited 67 mountains in several states, including Mts. Whitney, Elbert, Rainier, Gannet, Owen, Teewinot, and the Grand, Middle, and South Tetons. Margo has resided in Pocatello since 1987.

Becky Lazdauskas (Upper Snake FO), Realty Specialist

Ms. Lazdauskas graduated from Western Oregon State College with a B.S. degree in natural science, with an emphasis in geology and a minor in biology. Ms. Lazdauskas has 14 years experience with the Federal Government including service with the Wallowa Whitman and Malheur NFs, and the BLM in Oregon and Idaho. Ms. Lazdauskas served as a team member for the BLM Pocatello RMP. Becky along with her husband and two daughters has resided in Idaho Falls since 2008.

Joe W. Lowe (Upper Snake FO), Wildlife Management Biologist

Mr. Lowe graduated from Texas A&M University with a B.S. degree in wildlife biology and completed graduate courses in forestry and statistics at the Stephen F. Austin State University School of Forestry. He served with the U.S. Army in Thailand during the Vietnam War. Mr. Lowe has 28 years of experience working for the BLM in Idaho, Nevada, and Wyoming and his roles have included resource area wildlife biologist, surface compliance specialist for energy programs, and district wildlife and recreation program lead. Mr. Lowe worked as an assistant project manager for the City of Tyler, Texas, community development and planning departments for 4 years. He has also worked in the private sector as a realtor and rancher. Joe's interests include increasing wildlife on farms and ranches, and he has lived in Idaho Falls with his wife and son since 1995.

Theresa Mathis (Upper Snake FO), Wildlife Biologist

Ms. Mathis graduated summa cum laude from Eastern Washington University (EWU) with a B.S. in biology, a minor in secondary education, and with the Outstanding Senior award. Ms. Mathis subsequently returned to EWU and graduated with a M.S. degree in biology. Ms. Mathis has 5 years experience with the Federal Government, starting under the student temporary employment program, as a wildlife technician in the BLM Border Resource FO in Spokane, Washington. Currently she serves as a wildlife biologist for the Upper Snake FO. Ms. Mathis' achievements for the Bureau include maternity roost protection of Townsend's big-eared bats and restoration of the Telford Wetland, as part of a joint cooperative venture. Ms. Mathis owns four dogs, one of which she shows in agility and rally competitions. She also enjoys birding in her spare time and has traveled throughout the western U.S., Mexico, and Costa Rica pursuing her hobby.

Wendy Reynolds, Upper Snake FO Manager

Ms. Reynolds began her career in the Federal Government with the USFS on the Medicine Bow-Routt NF as the NEPA analyst and EIS project coordinator for the Lake Catamount Ski Area EIS, the Steamboat Springs Ski Area Expansion EIS, and the Fish Creek Municipal Water Supply EIS. She was the appeals and litigation coordinator in addition to being the national NEPA appeals and litigation facilitator. Ms.

Reynolds transferred to Douglas, Wyoming, with the Medicine Bow-Routt NF and Thunder Basin National Grassland where she was the special project coordinator for the *Dakota, Minnesota & Eastern Railroad Powder River Basin Expansion Project EIS*. She was also the public affairs specialist on the *Northern Great Plains Management Plan Revision*. After 6 years, she transferred to Craig, Colorado, with the BLM as the planning and environmental coordinator (P&EC) for the Little Snake Resource Area covering northwest Colorado. She was then selected as the BLM Burley (Idaho) FO manager, where she served for 3 years. Afterwards, she transferred to Idaho Falls, Idaho, and has been the Upper Snake FO manager for the past 4 years, during which time she was also the acting Pocatello FO manager for nearly 1 year. Prior to her career with the Federal Government, Ms. Reynolds owned and operated a legal support service providing paralegal services in Steamboat Springs, Colorado. Wendy has two daughters, owns a farm in Iowa, and enjoys fishing and golfing.

Terry Lee Smith (IFD), P&EC and Planning Project Manager

Mr. Smith graduated from the Pennsylvania State University with a B.S. degree in agriculture, with an emphasis in wildlife and forestry, and Washington State University with a M.S. in range and forest management. Mr. Smith has 26 years experience working for the BLM, in Nevada and Idaho, as a rangeland management specialist, supervisory rangeland management specialist, and P&EC. For the last 6 years, as the IFD planning project manager, Mr. Smith has directed the *Fire Fuels and Related Vegetation Management Direction Plan Amendment*, the *Pocatello FO Resource Management Plan*, and the Upper Snake FO RMP planning efforts. Terry's spare time activities, with his wife Carrie, include raising American Paint horses and successfully promoting and showing them in competitive American Paint Horse Association (APHA) halter classes. The Smiths have received the APHA's Certificate of Recognition and Superior at Halter Recognition for several of their horses.

Mike Stoddard (Upper Snake FO), Natural Resource Specialist

Mr. Stoddard served in the U.S. Air Force, where he graduated as an honor student from basic and technical schools of aircraft and structural firefighting. After his honorable discharge, Mr. Stoddard attended UI where he graduated with a B.S. degree in range management. Mr. Stoddard has 21 years experience with the BLM. He began as a seasonal range technician for the Pocatello FO and was later hired as a rangeland management specialist for the Upper Snake FO, where he has served the last 16 years. In conjunction with his rangeland management specialist duties, Mr. Stoddard also supervised the noxious weed program. Mr. Stoddard also served as a supervisory natural resource specialist for District Operations, with crews in Idaho Falls and Salmon, Idaho. After serving in this capacity, he returned to the Upper Snake FO full-time as a natural resource specialist, which he continues to date. Mike is an avid outdoorsman taking part in hunting, fishing, hiking, and camping. He has also spent many years assisting a wilderness backcountry outfitter. Mike was raised, and resides, in Idaho Falls.

Channing Swan (IFD), Zone Forester

Mr. Swan graduated from Oregon State with a B.S. in forest management and has completed graduate course work in resource conservation from the University of Montana. Mr. Swan has 9 years of experience working in state service and the private sector. Mr. Swan first served the BLM in 2001 for a year as a forestry technician with the Missoula, Montana, FO. During the following 6 years he worked for the states of Montana, as a forest manager for the Lubrecht Experimental Forest, and Washington, as a compliance forester, and for the Stimson Lumber Company as an inventory/reforestation forester. Channing then returned to the BLM in the IFD in 2007 and currently serves as a zone forester for both the

Pocatello and Upper Snake FOs. Channing is an outdoor enthusiast and enjoys fishing, camping, and alpine and back-country skiing. Channing has resided in Pocatello, Idaho, since 2007.

Deena Teel (Upper Snake FO), Supervisory Natural Resource Specialist

Ms. Teel graduated with honors from ISU with a B.S. degree in ecology. Ms. Teel has 18 years experience with the Federal Government, starting as a hydrological technician with the USFS. She has been an ecologist for the Upper Snake FO for 14 years where she served as a riparian specialist, ACEC coordinator, water rights specialist, monitoring coordinator, and NEPA coordinator. For the past 2 years, Ms. Teel has supervised the recreation and realty staff for the Upper Snake FO, while continuing duties as riparian specialist and ACEC coordinator. Ms. Teel's achievements include facilitating the first use of fixed-wing aerial reconnaissance in Idaho BLM to field investigate unauthorized agricultural use of public lands to resolve objections associated with the largest water right adjudication in U.S. history. Ms. Teel also conducted the first low-level aerial flight project in Idaho BLM to investigate the feasibility of using very large scale aerial photography for rangeland monitoring. She initiated the resource monitoring program and created the associated database that the Upper Snake FO currently uses. Deena enjoys outdoor activities, particularly camping, hiking, skiing, and riding motorcycles. Deena was raised, and resides, in Idaho Falls.

Gary M. Vecellio (IDFG), Wildlife Biologist

Mr. Vecellio graduated from Slippery Rock University with a B.S. degree in recreation and from Pennsylvania State University with an M.S. degree in fisheries and wildlife science. Mr. Vecellio has 19 years of professional experience as a wildlife biologist with various State fish and wildlife agencies, including 14 years with the IDFG. Mr. Vecellio has broad experience with big game and cervid wildlife species including white-tailed deer, elk, and moose. Recently Mr. Vecellio has focused on land use planning and environmental review for the Upper Snake FO area of Idaho. He has served as a team member on the *Revised Caribou National Forest Management Plan* and is a member of the BLM IFD Resources Advisory Council. Gary works on county planning and development, wetland and riparian protection and mitigation, and licensing of power generation and transmission projects.

Wendy Velman (Upper Snake FO), Botanist

Ms. Velman graduated from ISU with a B.S. in botany. Ms. Velman has 10 years experience with the BLM starting as a biological technician (plants) for the Cottonwood FO and then serving as a temporary non-renewable specialist for the Jarbidge FO. She is the botanist and water rights specialist for the Upper Snake FO. Ms. Velman's achievements for the Bureau include development of special status species field guides for both the Cottonwood and Upper Snake FOs. She also provided water rights support for the BLM throughout the Snake River Basin Adjudication. Ms. Velman has been active in the Idaho Native Plant Society (INPS) for 14 years. She has served as a chapter vice president and president for the eastern Idaho area, and is currently the INPS state president. Wendy enjoys camping, fishing, crocheting, and spending time with her family. She has resided in eastern Idaho since 1993.

Jason S. Wright (Upper Snake FO), Fire Ecologist

Mr. Wright graduated from the University of Nevada, Las Vegas, with a certificate in biological sciences for federal land managers. Mr. Wright has 13 years experience with the BLM, which he began as a fire fighter and then as a range technician. He was a range technician (weed program) for 7 more years, and he has spent the last 5 years as a fire ecologist/fire use specialist for the Upper Snake FO fuels program. Jason was raised, and still resides, in Idaho Falls.

Monica Zimmerman (Upper Snake FO), Outdoor Recreation Planner

Ms. Zimmerman graduated from U of U with a B.S. degree in resource management and recreation and completed graduate studies in conservation social sciences from UI. Ms. Zimmerman has worked in the field of recreation for the past 18 years ranging from work with a ski resort, private recreation concessionaire, to federal service. Ms. Zimmerman has 14 years experience with the BLM, starting as a range technician fighting wildland fires to her current position as an outdoor recreation planner. Ms. Zimmerman has worked on numerous recreation development projects coordinating design and leading the NEPA analysis for the projects. She also led the NEPA analysis for the *Snake River Plan Revision* and teaches watercraft safety and recreation courses for the BLM. Monica loves being outside skiing, hiking, and whitewater rafting. She was raised, and still resides, in Idaho Falls.

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Chapter 8—Glossary

Active Dune. A type of sand dune that is dynamic and free flowing as compared to a stabilized sand dune.

Air Quality Class. Classification established under the prevention of significant deterioration portion of the CAA, which limits the amount of air pollution considered significant within an area. Class I applies to areas where almost any change in air quality would be significant; Class II applies to areas where the deterioration normally accompanying moderate well-controlled growth would be insignificant; and Class III applies to areas where industrial deterioration would generally be insignificant.

Allotment. An area of land where one or more operators graze livestock. An allotment generally consists of public lands but may include parcels of private or state-owned lands. The number of livestock and period of use are stipulated for each allotment.

Allotment Management Plan. A concisely written program of livestock grazing management, including supportive measures if required, designed to attain specific, multiple-use management goals in a grazing allotment.

All-terrain Vehicle. A wheeled (three or more wheels) or tracked vehicle, other than a snowmobile or work vehicle, designed primarily for recreational use or the transportation of property or equipment exclusively on undeveloped road rights-of-way, marshland, open country, or other unprepared surfaces.

Alluvial Soil. A soil developing from recently deposited alluvium and exhibiting essentially no horizon development or modification of the recently deposited materials.

Alluvium. Clay, silt, sand, gravel, or other rock materials transported by moving water. Deposited in comparatively recent geologic time as sorted or semi-sorted sediment in rivers, floodplains, lakes, and shores, and in fans at the base of mountain slopes.

Ambient Air Quality. The state of the atmosphere at ground level as defined by the range of measured and/or predicted ambient concentrations of all significant pollutants for all averaging periods of interest.

Animal Unit Month. The amount of forage necessary to sustain one cow or its equivalent for a period of one month.

Appropriate Management Response. Any specific action suitable to meet fire management unit objectives. Typically, the AMR ranges across a spectrum of tactical options (from monitoring to intensive management actions such as full suppression).

Aquatic. Living or growing in, or on, the water.

Aquatic Nuisance Species. Non-native, undesirable and harmful aquatic plants, animals or microscopic organisms.

Archaeological Resource. Site(s), area(s), structure(s), object(s), or other material evidence of prehistoric or historic human activity.

Archaeological Site. A geographic location containing structures, artifacts, material remains, and/or other evidence of past human activity.

Area of Critical Environmental Concern. An area designated through the planning process, as provided in the FLMPA, 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; or to fish and wildlife resources or other natural systems or processes; or to protect life and afford safety from natural hazards.

Argillic Subsurface Horizon. A soil layer that forms from the accumulation of clay from layers above it. The clays in this layer are found as coatings or clay skins on the surface of pores or peds and form bridges between sand grains and around rock fragments.

Attainment Area. A geographic area in which levels of a criteria air pollutant meet the health-based NAAQS for that specific pollutant.

Bear Recovery Zone. The area in within which the population and habitat criteria for achievement of [bear] recovery will be measured (USFWS definition).

Beneficial Use. Any of the various uses that may be made of the water of Idaho, including, but not limited to, domestic water supplies, industrial water supplies, agricultural water supplies, navigation, recreation in and on the water, wildlife habitat, and aesthetics. The beneficial use is dependent upon actual use, the ability of the water to support a non-existing use either now or in the future, and its likelihood of being used in a given manner. The use of water for the purpose of wastewater dilution or as a receiving water for a waste treatment facility effluent is not a beneficial use.

Best Management Practice. Standard, innovative, dynamic, and improved environmental protection practices/strategies applied to mining, forestry, oil and gas development, road construction, grazing and other land uses to ensure activities are conducted in an environmentally responsible manner.

Biological Treatment. The use of natural enemies (e.g., insects, goats) to retard growth, prevent re-growth and seed formation of a target weed.

Big Game. Larger species of wildlife that are hunted, such as elk, deer, bighorn sheep, and pronghorn antelope.

Biodiversity (or Biological Diversity). The variety of life and its processes, and the interrelationships within and among various levels of ecological organization. Conservation, protection, and restoration of biological species and genetic diversity are needed to sustain the health of existing biological systems. Federal resource management agencies must examine the implications of management actions and development decisions on regional and local biodiversity.

Biological Assessment. A written document developed by an action agency (e.g., BLM) that analyzes and determines the effect of that agency's actions on a federally listed species. This is part of the ESA, Section 7; formal consultation process with one of the regulatory agencies (e.g., USFWS or National Marine Fisheries Service) designated to administer the ESA.

Biological Opinion. A document prepared by the USFWS stating their position as to whether or not a federal action will likely jeopardize the continued existence or adversely modify the habitat of a listed threatened or endangered species.

Biological Soil Crust. See Microbiotic Soil Crust.

Burned Area Rehabilitation. Efforts undertaken within 3 years of containment of a wildfire to repair or improve fire-damaged lands unlikely to recover naturally to management approved conditions, or to repair or replace minor facilities damaged by fire.

Cambic Horizon. The cambic horizon is a slightly altered layer that lacks cementation or hardness and has not undergone enough accumulation of dissolved or suspended soil materials in one area or horizon as a result of the transportation of that material within the soil by the movement of water when rainfall exceeds evaporation to become argillic. A cambic horizon is common in immature and poorly developed soils and have developed different color or structure from that of the parent material (C horizon). A cambic horizon must have a sandy loam or finer texture, it cannot have a texture of sand or loamy sand.

Candidate Species. Species designated as candidates for listing as threatened or endangered by the USFWS and/or National Marine Fisheries Service. A list has been published in the Federal Register.

Capillary Fringe. The subsurface layer in which groundwater seeps up from a water table by capillary action to fill pores.

Cave. A cave is defined as any naturally occurring void, cavity, recess, or system of interconnected passages occurring beneath the surface of the Earth or within a cliff or ledge large enough to permit an individual to enter, whether or not the entrance is naturally formed or human-made.

Cave Resource. Any material occurring in caves located on federal lands that is a biological, geological, mineralogical, paleontological, cultural, hydrologic or other fragile and non-renewable resource.

Channel Potential/Channelization. Potential/process of a stream channel to evolve naturally given its location, soils, topography, natural setting, flow regime and vegetation capability, while considering its past history and past and present land uses. Some channels will evolve naturally and meander and stabilize with mature riparian vegetation; other channels may remain confined and “gullied” due to highway and railroad narrowing, steepness of slope or added streamflow.

Chemical Treatment. Application of herbicides to control invasive species/noxious weeds and/or unwanted vegetation. To meet resource objectives, the preponderance of chemical treatments would be used in areas where cheatgrass or noxious weeds have invaded sagebrush steppe. In these areas, fine fuel loads are extremely high as a result of cheatgrass dominance within the understory. The effectiveness of chemical treatments increases if they are applied following prescribed or wildland fire.

Closed (OHV designation). Designated areas and trails where the use of OHVs is permanently or temporarily prohibited to protect resources, promote visitor safety, or reduce use conflicts.

Commercial Special Recreation Permit. Commercial use is defined as recreational use of public land and related waters for business or financial gain. When any person, group, or organization makes or attempts to make a profit, receive money, amortize equipment, or obtain goods or services, as compensation from participants in recreational activities occurring on public land, the use is considered commercial (e.g., outfitters and guides; National Outdoor Leadership School; Outward Bound) and requires a permit.

Community-at-Risk. A group of homes and other structures with basic infrastructure and services (such as utilities and collectively maintained transportation routes) that are (1) within or adjacent to federal

land, (2) have conditions conducive to a large-scale wildland fire disturbance event, and (3) have a significant threat to human life or property as a result of wildland fire disturbance event.

Competitive Lease. A mineral lease issued by competitive bidding.

Competitive Special Recreation Permit. Competitive Use means any organized, sanctioned, or structured use, event, or activity on public land in which two or more contestants compete and either (1) participants register, enter, or complete an application for the event, or (2) a predetermined course or area is designated (e.g., raft, OHV or mountain bike races).

Community Wildfire Protection Plan (CWPP). A plan for a community/county within Idaho that identifies and prioritizes areas for hazardous fuel reduction treatments and recommends the types and methods of treatment on federal and non-federal land that will protect one or more at-risk communities and essential infrastructure. The plan also recommends measures to reduce structural ignitability throughout the at-risk communities and may address issues such as wildfire response, hazard mitigation, community preparedness, or structure protection. The National Fire Plan recommends the development of CWPPs, however in Idaho these plans were completed at the county level.

Criteria Pollutant. EPA uses six criteria pollutants as indicators of air quality and has established for each of them a maximum concentration above which adverse effects on human health may occur. These threshold concentrations are called National Ambient Air Quality Standards. The criteria pollutants are ozone, carbon monoxide, nitrogen dioxide, sulphur dioxide, particulate matter and lead.

Crucial Winter Range. A BLM definition that applies to elk, pronghorn, and mule deer comprised of areas defined by IDFG as winter concentration areas and severe winter range.

Cubic Feet per Second (cfs). As a rate of stream flow, a cubic foot of water passing a referenced section in 1 second of time. One cfs flowing for 24 hours will yield approximately 1.98 acre-feet of water.

Cultural Heritage Tourism (see also Heritage Tourism). Cultural heritage tourism is traveling to experience places, artifacts, and activities that authentically represent stories and people of the past and present. It includes cultural, historic, and natural resources. Heritage tourism has positive economic and social impacts. It establishes and reinforces shared identity, preserves cultural heritage, and facilitates harmony and understanding among people. Its objectives include conservation of cultural resources, accurate interpretation of resources, offering an authentic visitor experience, and stimulation of revenues. Cultural heritage tourism is concerned with identification, management, and protection of the heritage values, but is also involved in understanding effects of tourism on communities and regions. Heritage tourism destinations and examples in the Upper Snake FO include historic emigrant trails, mining areas, abandoned railroad grades, Big Southern Butte and the Snake River Plain, Nez Perce National Historic Trail, and the Sacajawea Historic Byway through the Birch Creek Valley.

Cultural Property. A cultural property is a definite location of past human activity, occupation, or use identifiable through field inventory, historical documentation, or oral evidence. Cultural properties include archaeological, historic, or architectural sites, structures, or places with important public and scientific uses, and possible religious importance to specified social and/or cultural groups. Concrete material places and things that are classified, ranked, and managed through a system of inventory, evaluation, planning, protection, and utilization.

Cultural Resource. Location(s) of human activity, occupation, or use. A cultural resource includes archaeological, historic, or architectural sites, structures, or places with important public and scientific uses, and locations of traditional cultural or religious importance to specified social and/or cultural groups.

Cultural Resources Inventory. This is an inventory completed to assess the potential presence of cultural resources. There are three classes of surveys. Class I: An existing data survey. This is an inventory of a study area to (1) provide a narrative overview of cultural resources by using existing information, and (2) compile existing cultural resources site record data on which to base the development of the BLM's site record system. Class II: A sampling field inventory designed to locate, from surface and exposed profile indications, all cultural resource sites within a portion of an area so that an estimate can be made of the cultural resources for the entire area. Class III: An intensive field inventory designed to locate, from surface and exposed profile indications, all cultural resource sites in an area. Upon its completion, no further cultural resources inventory work is normally needed.

Desired Future Condition. The condition of vegetative resources, on a landscape scale, that meet management objectives. It is based on ecological, social, and economic considerations during the land planning process. It is usually expressed as ecological status or management status of vegetation (species composition, habitat diversity, and age and size class of species) and desired soil qualities (soil cover, erosion, and compaction).

Designated Route. Specific route (including roads and trails) identified by the BLM in limited areas where some type of motorized vehicle use is appropriate and allowed either seasonally or yearlong.

Diversity. The relative abundance of wildlife species, plant species, communities, habitats, or habitat features per unit of area.

Drought. A long period of abnormally low rainfall, especially one that adversely affects growing conditions.

Easement. Right afforded a person or agency to make limited use of another's real property for access or other purposes. The BLM acquires easements for access across private or other agency's land.

Eligible River Segment. A section of a river that qualifies for inclusion into the NWSRS through determination that it is free-flowing and, with its adjacent land area, possessing at least one river-related value considered to be outstandingly remarkable.

Emergency Stabilization. Planned actions to stabilize and prevent unacceptable degradation to natural and cultural resources, to minimize threats to life or property resulting from the effects of a fire, or to repair/replace/construct physical improvements necessary to prevent degradation of land or resources. Emergency stabilization actions must be taken within 1 year following containment of a wildfire (620 DM 3.3E).

Endangered Species. Any species which has been federally listed under the Endangered Species Act that is in danger of extinction throughout all or a significant portion of its range (BLM Manual 6840).

Environmental Assessment (EA). A public document prepared to provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact. An EA includes a brief discussion of the need for the proposal, alternatives considered, environmental impact of the proposed action and alternatives, and a list of agencies and individuals consulted.

Environmental Impact Statement (EIS). A formal public document prepared to analyze the impacts on the environment of a proposed project or action and released for comment and review. An EIS must meet

the requirements of NEPA, Council of Environmental Quality guidelines, and directives of the agency responsible for the proposed project or action.

Ephemeral Stream. A stream or stretch of a stream that flows only in direct response to precipitation. It receives no water from springs and no long-continued supply from melting snow or other surface source. Its stream channel is at all times above the water table. These streams do not normally flow for at least 30 consecutive days.

Existing Route. The roads, trails, or ways that are used by motorized vehicles (jeeps, all-terrain vehicles, motorized dirt bikes, etc.), mechanized means (mountain bikes, wheelbarrows, game carts), pedestrians (hikers), and/or equestrians (horseback riders) and are, to the best of BLM's knowledge, in existence at the time of RMP/EIS publication.

Experimental Population. A population that is released separate geographically from non-experimental populations of the same species. This definition includes non-essential and essential experimental populations. Although the species of an experimental population can be listed as threatened or endangered, each member of an experimental population is generally treated as threatened.

Extensive Recreation Management Area. Areas where recreation is planned for, and actively managed on, an interdisciplinary-basis in concert with other resources/resource programs. ERMA's offer recreation opportunities that facilitate visitors' freedom to pursue a variety of outdoor recreation activities and attain a variety of outcomes. They include all lands not designated as an SRMA or closed to public use.

Field Office Area (FOA). Those public lands administered by the Upper Snake FO within the identified planning area for the development of the Upper Snake FO RMP. The FOA comprises approximately 1.8M acres of public lands.

Fire Regime Condition Class (FRCC). A classification of a vegetation community's variance or departure from historic fire conditions. FRCCs can be: (1) FRCC 1, representing low departure from historic fire regime; (2) FRCC 2, representing moderate departure from historic fire regime; or (3) FRCC 3, representing high departure from historic fire regime.

Forb. A non-woody flowering plant that is not a grass or grasslike.

Forage. All browse-and herbaceous foods that are available to grazing animals.

Functional at Risk (Riparian–Wetland). A condition class where riparian–wetland areas are in functional condition, but an existing soil, water, or vegetation attribute makes them susceptible to degradation.

Grazing Lease. A document that authorizes grazing use of the public lands outside of a grazing district, which is an area(s) defined under the Taylor Grazing Act of 1934. A grazing lease specifies the terms and conditions under which lessees make grazing use during the term of the lease.

Grazing Lessee. One who is authorized to graze under a grazing lease.

Grazing Permit. A document that authorizes grazing use of the public lands within a grazing district, which is an area(s) defined under the Taylor Grazing Act of 1934. A grazing permit specifies the terms and conditions under which permittees make grazing use during the term of the permit.

Grazing Permittee. One who is authorized to graze under a grazing permit.

Grazing System. Scheduled grazing use and non-use of an allotment to reach identified goals or objectives by improving the quality and quantity of vegetation is a grazing system.

Guzzler. An artificial water source developed for the use by wildlife.

Habitat. A specific set of physical conditions that surround a single species, a group of species, or a large community. In wildlife management, the major components of habitat are considered to be food, water, cover, and living space.

Habitat Management Plan. A written and approved activity plan for a geographical area which identifies habitat management activities to be implemented in achieving specific objectives of planning decisions. The plan also specifies objectives, actions, and procedures for evaluating accomplishments.

Hazardous Material. A substance, pollutant, or contaminant that, due to its quantity, concentration, or physical or chemical characteristics, poses a potential hazard to human health and safety or to the environment if released into the workplace or the environment.

Heritage Education. Heritage education is a nationwide BLM program that seeks to strengthen children's sense of personal responsibility for the stewardship of America's cultural heritage and to use historic and archaeological resources in math and science education.

Heritage Tourism. See Cultural Heritage Tourism.

High Potential (Classifications for *Geothermal Resource*—BLM Manual H-1624-1). Inclusion in a known geothermal resource area; or the existence of a hydro-thermal convection demonstrated by geological evidence of a structural fault/fracture and related thermal spring activity or other thermal features (i.e., geysers, fumaroles, mud volcanoes, vents, etc.), and high subsurface temperatures measured in wells and/or from geochemical temperature indicators. Demonstrated existence is defined by physical evidence or documentation in the literature.

High Potential (Classifications for *Oil and Gas Resource*—BLM Manual H-1624-1). Inclusion in an oil and gas plan defined by the U.S. Geological Survey (USGS) national assessment or in the absence of a plan designated by the USGS, the demonstrated existence of source rock, thermal maturation, and reservoir strata possessing permeability, and/or porosity, and traps. Demonstrated existence is defined by physical evidence or documented in literature.

Highly Erodible Soil. Soil(s) with an erodibility index of 8 or greater. Several factors are considered in determining the erodibility index for wind or water erosive soils. Factors considered for water erodible soils include rainfall, susceptibility of soil to water erosion, and the combined effects of slope length and steepness. Factors considered for wind erodible soils include wind speed and surface soil moisture, susceptibility of the soil to wind erosion, and soil loss tolerance.

Historic Property. A term used in the National Historic Preservation Act that refers to a cultural resource that is considered eligible to be listed or is listed on the National Register of Historic Places.

Impact. The effect, influence, alteration, or imprint caused by an action.

Impairment. The degree to which a distance of clear visibility is degraded by pollutants.

Impoundment. An artificial water body, usually smaller than a reservoir, that may be fed by precipitation, snowmelt, or a small spring and may not flow back to any natural drainage. Impoundments may be located far from their spring source.

Intermittent Stream. A stream or reach of stream that flows only at certain times of the year when it receives water from springs or from surface source (e.g., melting snow). Intermittent streams usually are divided with respect to the source of their water into spring-fed or surface-fed intermittent streams. These streams generally flow continuously during periods of at least 1 month, or more, during the year.

Interpretive Site. Sites where the local prehistory, history, environment, and/or current land use practices are explained through signs, brochures, and other media.

Introduced Species. A species of plant or animal that was relocated (usually inadvertently) to a geographic area where it was not historically found. An example is the brook trout which is native to the eastern and middle U.S. and Canada but was introduced to the streams of the Upper Snake planning area.

Invasive Species. An exotic plant whose introduction does or is likely to cause economic or environmental harm or harm to human health.

Invertebrate. An invertebrate is an animal lacking a backbone or spinal column.

Karst. A landform developed in limestone, gypsum, or other soluble rock types. Karst features and characteristics may include underground drainage, sinking streams, sinkholes, and caves.

Key Habitat (i.e., sage-grouse). Generally large scale, intact sagebrush steppe areas that provide sage-grouse habitat.

Land Tenure Adjustment. The transfer of land or interest in land (e.g., easement) between the United States and private individuals, entities, or state and local governments.

Land Treatment. All methods of artificial range improvement and soil stabilization such as reseeding, brush control (chemical and mechanical), pitting, furrowing, and water spreading.

Land Use Authorization. The term Land Use Authorization includes ROW grants, leases, and permits as provided for under Titles III and V of the FLPMA. Title V gives BLM the authority to issue grants for systems or facilities over, under, on, or through public lands for transportation and utility systems, i.e., roads, transmission lines, pipelines, electronic transmission systems. Title III gives BLM the authority, as the Secretary deems appropriate, the use, occupancy, and development to utilize public lands for any use not specifically authorized under other laws or regulations, i.e., ROWs, grazing permits. Public lands may be leased or permitted for habitation, cultivation, and development.

Late Brood Rearing Habitat. Variety of habitats used by sage-grouse from late June to early November. Habitats used include, but not limited to, meadows, farmland, riparian areas, dry lakebeds, sagebrush areas.

Lava Vent Area. The opening of a volcanic crack or hole in the Earth's crust from which lava secretes.

Leasable Mineral. The mineral(s) or material(s) designated as leasable under the Mineral Leasing Act of 1920. They include coal, phosphate, asphalt, sulfur, potassium and sodium minerals, and oil and gas. Geothermal resources are also leasable under the Geothermal Steam Act of 1970.

Lek. Areas used by sage-grouse during the mating season where males display to attract receptive females. These sites are characterized by low vegetation with sparse shrubs often surrounded by big sagebrush communities. Strutting grounds or leks are considered to be the center of sage-grouse activities.

Lentic Wetland. Wetland areas associated with standing water ecosystems that lack a defined channel and floodplain. Included are permanent (e.g., perennial) or intermittent bodies of water such as lakes, reservoirs, vegetated playas, potholes, marshes, ponds, wet meadows, and springs or seeps not associated with a defined channel.

Limited (OHV designation). Designated areas and trails where the use of OHVs is subject to restrictions such as limiting the number or types of vehicles allowed, dates and times of use (seasonal restrictions), permitted or license use only, limiting use to existing roads and trails, or limiting use to designated roads and trails, or other limitations if restrictions are necessary to meet resource management objectives, including certain competitive or intensive use areas that have special limitations.

Lithic Site. An archaeological site containing debris left from the manufacture, use, or maintenance of flaked stone tools.

Listed Species. Species officially listed as threatened or endangered by the Secretary of the Interior under the provisions of the Endangered Species Act (BLM Manual 6840).

Locatable Mineral. Mineral(s) or material(s) subject to claim and development under the Mining Law of 1872, as amended. Generally includes metallic minerals such as gold and silver and other materials that have unique physical characteristics (some bentonites, limestone, talc, zeolites, etc.). Whether or not a particular mineral deposit is locatable depends on such factors as quality, quantity, mineability, demand, and marketability.

Long-term Effect. The effect could occur for an extended period after implementation of an alternative. The effect could last several years or more.

Lotic Wetland. Riparian-wetlands associated with running water systems found along rivers, streams, and drainage ways, and some springs. Such wetlands contain a defined channel and floodplain. The channel is an open conduit that periodically, or continuously, carries flowing water, and dissolved and suspended material. Beaver ponds, seeps, springs, and wet meadows on the floodplain of, or associated with, a river or stream are part of the lotic wetland.

Low Potential (Classifications for *Geothermal Resource*—BLM Manual H-1624-1). Existence of a conduction-dominated area demonstrated by geologic evidence or radiogenic heat production or geopressured environment and higher than normal geothermal gradient as documented in existing literature.

Low Potential (Classifications for *Oil and Gas Resource*—BLM Manual H-1624-1). Specific indications that one or more of the following may not be present: source rock, thermal maturation, and reservoir strata possessing permeability and/or porosity, and traps.

Major Surface Disturbance. Actions that alter landscape topography, completely denude areas of vegetation, or result in widespread exposure of mineral soil.

Mechanical (Treatment). A management action that includes mowing, chaining, chopping, drill seeding, aerial seeding, and/or cutting vegetation to meet resource objective(s). Mechanical treatments generally occur in areas where fuel loads or invasive species need to be reduced prior to prescribed fire application;

when fire risk to resources is too great to use naturally started wildland fires or prescribed fires; or where opportunities exist for biomass utilization or timber harvest. Examples include mountain shrub areas adjacent to wildland urban interface areas, crucial wildlife habitat (e.g., sage-grouse key habitat), vegetation cover types in which burning would increase the likelihood of cheatgrass invasion (e.g., juniper encroachment into mid-elevation shrub), juniper or aspen/conifer cover types in which the harvest or thinning of trees may be desirable.

Medium Potential (Classifications for *Geothermal Resource*—BLM Manual H-1624-1). Existence of a hot igneous system demonstrated by geologic evidence of late Tertiary or Quaternary volcanism and higher than normal geothermal gradient as documented in existing literature.

Medium Potential (Classifications for *Oil and Gas Resource*—BLM Manual H-1624-1). Geophysical or geological indications that the following may be present source rock, thermal maturation, and reservoir strata possessing permeability and/or porosity and traps. Geological indications are defined by geological inference of indirect evidence.

Mesic. Moderately moist habitat.

Microbiotic Soil Crust (MSC). The community of organisms living at the surface of the desert soils formed by living organisms and their by-products, creating a crust of soil particles bound together by organic materials. They differ from chemical and physical crust which are inorganic features such as salt crust or platy surface crust, often formed by trampling. Major crust components are cyanobacterias, green algae, microfungi, mosses, liverworts, and lichens.

Mineral Material. Common varieties of sand, building stone, gravel, clay, moss rock, etc., obtainable under the Minerals Act of 1947, as amended.

Mitigation. Alleviation or lessening of possible adverse effects on a resource by applying appropriate protective measures or adequate scientific study. Mitigation may be achieved by avoidance, minimization, rectification, reduction, and compensation.

Motorized Travel. Moving by means of vehicles that are propelled by motors including, but not limited to, cars, trucks, off-highway vehicles, motorcycles, and boats.

Multiple Indicator Method (MIM). A riparian monitoring protocol developed by the BLM to evaluate current livestock grazing management practices to determine if the vegetation, stream channel, and streambanks are responding as anticipated. Seven procedures provide indicators for long-term (trend) monitoring, while three procedures provide indicator data to determine if current season's livestock grazing is meeting the criteria established to make progress toward meeting resource objectives.

Multiple Use. Management of the various surface and subsurface resources so that they are jointly utilized in the manner that will best meet the present and future needs of the public, without permanent impairment of the productivity of the land or the quality of the environment.

National Register of Historic Places (NRHP). The NRHP is a listing of architectural, historical, archaeological, and cultural sites of local, state, or national significance established by the Historic Preservation Act of 1966 and maintained by the National Park Service.

Native Species. A species of plant or animal that historically inhabited an area without the movement of the species by the actions of man. Examples of native species found in the planning area are sage-grouse, Yellowstone cutthroat trout, and mountain big sage.

Naturalness. Refers to an area that “generally appears to have been affected primarily by the forces of nature, with, the imprint of man’s work substantially unnoticeable” (Set 2[c] of the Wilderness Act of 1964).

Non-attainment Area. Any area that does not meet (or that contributes to ambient air quality in an area that does not meet) the national or secondary standard for the pollutant.

Non-essential, Experimental Population. It is an authorized release of a population outside the current range of the species to further the conservation of such species by the Secretary (of the Interior or Commerce). This population is not considered essential to the continued existence of the species and is to be treated as a proposed species.

Nonfunctional Riparian–Wetland. A condition class where riparian-wetland areas are clearly not providing adequate vegetation, land form, or woody debris to dissipate stream energy associated with high flows, and thus are not reducing erosion, improving water quality, etc.

Non-motorized Travel. Moving by foot, stock or pack animal, boat, or mechanized vehicle such as a bicycle.

Noxious Weed. Any living stage (including, but not limited to, seeds and reproductive parts) of any parasitic or other plant of a kind, or subdivision of a kind, which is of foreign origin, is new to or not widely prevalent in the United States, and can directly or indirectly injure crops, other useful plants, livestock, or poultry or other interests of agriculture, including irrigation, or navigation or the fish and wildlife resources of the United States or the public health.

Need for Change Topic. Resource or land use initially identified by the BLM that requires new management direction to address current laws, regulations, and policies, or to respond to changes in conditions, such as increased recreational demand.

Off-highway Vehicle (OHV). Synonymous with off-road vehicles and defined in 43 CFR 8340.0-5 (a): off-road vehicle means any motorized vehicle capable of, or designed for, travel on or immediately over land, water, or other natural terrain, excluding: 1) Any nonamphibious registered motorboat; 2) Any military, fire, emergency, or law enforcement vehicle while being used for emergency purposes; 3) Any vehicle whose use is expressly authorized by the authorized officer, or otherwise officially approved; 4) vehicles in official use; and 5) any combat or combat support vehicle when used in times of national defense emergencies.

Off-highway Vehicle (OHV) Designation. Refers to the land use plan decisions that permit, establish conditions, or prohibit OHV activities on specific areas of public lands. All public lands are required to have OHV designations (43 CFR 8342.1). The CFR requires all BLM-managed public lands to be designated as open, limited, or closed to off-road vehicles and provides guidelines for designation.

Open (Off-highway vehicle designation). Designated areas and trails where the use of off-highway vehicles is not restricted and where there are no compelling resource protection needs, user conflicts, or public safety issues to warrant limiting cross-country travel.

Organized Group Activity and Event Use Special Recreation Permit. A permit for noncommercial and noncompetitive group recreational activity and recreation event(s) (e.g., a large scout camp out, a fraternity activity or a large family reunion).

Overstory. That portion of a plant community consisting of the taller plants on the site: the forest or woodland canopy.

Paleontological Resource. A paleontological resource is the physical remains or other physical evidence of plants and animals preserved in soils and sedimentary rock formations. Paleontological resources are important for correlating and dating rock strata and for understanding past environments, environmental change, and the evolution of life.

Particulate Matter (PM). One of the six criteria pollutants for which the Environmental Protection Agency established National Ambient Air Quality Standards. Particulate matter is defined as two categories, fine particulates, with an aerodynamic diameter of 10 micrometers (PM-10) or less, and fine particulates with an aerodynamic diameter of 2.5 micrometers or less (PM-2.5).

Patent. A grant made to an individual or group conveying fee simple title to selected public lands.

Patented Claim. The physical remains or other physical evidence of plants and animals preserved in soils and sedimentary rock formations. Paleontological resources are important for correlating and dating rock strata and for understanding past environments, environmental change, and the evolution of life.

Perennial Stream. A stream or reach of a stream that flows continuously. They are generally fed in part by springs. Surface water elevations are commonly lower than water table elevations in adjacent soils.

Permitted/Authorized Activity. Requires permit or signed document authorizing that specific activity (e.g., special recreation permit, right-of-way, grazing permit, land use permit).

Planning Area. The geographical area encompassed by the administrative boundary of the Upper Snake FO for which land use and resource management plans are developed and maintained. The planning area is defined as approximately 7,130,480 acres.

Planning Issue. Concern, conflict, and/or problem with the existing management of public lands. Frequently issues are based on how land uses affect resources. Some issues are concerned with how land uses can affect other land uses, or how the protection of resources affects land uses.

Potential. Capable of being, but not yet in existence; the ecological community that would be established if all successional sequences of its ecosystem were completed without addition human-caused disturbance under present environmental conditions; often referred to as “potential natural community.”

Prehistoric Site. A geographic location where Native American cultural activities took place during a period when Native Americans were not yet influenced by contact with Euro–American peoples.

Prescribed Fire Treatment. A pre-planned, management-ignited fire designed to meet specific resource objectives, such as reducing fuel loads, preparing a site for chemical treatment or seeding, or promoting vegetation regeneration. Prescribed fires are useful for reducing fuel loads and providing or promoting vegetation regeneration. Prescribed fires can be performed anywhere that specific fire prescriptions can be met and fire risks to resources are mitigated after site-specific planning and NEPA analysis. Prescribed fires may be used to reduce undesirable species and fire hazard in low-elevation shrub (especially areas dominated by cheatgrass, in preparation for chemical and seeding treatments), to reduce juniper encroachment on mid-elevation shrub, reduce conifer encroachment into decadent aspen stands, and rejuvenate decadent mountain shrub.

Primary Conservation Area. An area that provides the minimum seasonal habitat components needed to support a recovered grizzly bear population.

Primitive and Unconfined Recreation. Non-motorized and undeveloped types of outdoor recreation.

Priority Species. A species that is significant for at least one of the following factors: density, diversity, size, public interest, remnant character, or age.

Probable Sale Quantity. The allowable harvest levels for the various alternatives that could be maintained without decline over the long term if the schedule of harvests and regeneration were followed.

Proper Functioning Condition (Riparian–Wetland). Riparian–wetlands function properly when adequate vegetation, landform, or large woody debris is present to dissipate stream energy associated with high water flows. The functioning condition of these areas is influenced by geomorphic features, soil, water, and vegetation. Proper functioning condition also refers to the interdisciplinary process or technique of assessing riparian–wetland areas.

Proposed Species. Species that have been officially proposed for listing as threatened or endangered by the Secretary of the Interior.

Public Lands. Any land and interest in land (outside of Alaska) owned by the United States and administered by the Secretary of the Interior through the BLM.

Raptor. Bird of prey with sharp talons and strongly curved beaks, e.g., hawks, owls, vultures, eagles.

Reclamation. Returning disturbed lands to a form and productivity that will be ecologically balanced and in conformity with a predetermined land management plan.

Recreation Opportunity Spectrum. A land delineation system commonly used by federal land management agencies to address the need for a range of recreational opportunities within the planning area.

Recreation Setting Characteristic (RSC). The RSC is derived from the Recreation Opportunity Spectrum. It is a continuum divided into a spectrum of classes from primitive to urban recreation settings. The continuum of classes is characterized by three components; physical, social and operational.

Recreation Use Permit. Authorization for use of developed facilities that meets the fee criteria established by the Land and Water Conservation Fund Act of 1964, as amended, or subsequent authority (e.g., the pilot fee demonstration program). Recreation use permits are issued to ensure that U.S. residents receive a fair and equitable return for the use of those facilities to help recover the cost of construction, operation, maintenance, and management of the permits.

Recreation Visit. The entry of a person onto lands or waters administered by the BLM for pursuit of recreation experiences.

Relic Riparian–Wetland Area. A stream reach or other wetland area with minimal evidence of human impact that represents a reference by which more disturbed riparian-wetland areas with similar vegetative communities, channel morphology, hydrology, and sediment regimes may be compared. Relic riparian-wetland areas are characterized as those sites that have an overall riparian health rating of 90% or greater.

Reportable Quantity. The quantity of a hazardous material or substance that is considered reportable under the Comprehensive Environmental Response, Compensation, and Liability Act. Reportable quantities are 1 lb or greater, or an amount as established and listed at 40 Code of Federal Regulations 302.4, or under Section 111 of the Clean Water Act.

Research Natural Area (RNA). A type of ACEC that is assigned using the ACEC designation process, and are established and managed to protect ecological processes, conserve their biological diversity, and provide opportunities for observational activities associated with research and education. Activities within these areas may only be allowed if they do not interfere with natural processes (see also **Area of Critical Environmental Concern**).

Reservoir. An artificial (dammed) water body with at least 20 acres covered by surface water. Usually fed by and flows back to a stream or river.

Resource Management Plan. A land use plan that establishes multiple-use guidelines, and management objectives for a given planning area.

Restoration. The continuation of rehabilitation beyond the initial 3 years or the repair or replacement of major facilities damaged by the fire. Restoration activities must be funded through sources other than the emergency stabilization and rehabilitation sub-activities.

Restoration Habitat. Areas that currently are, or were, historically sage-grouse habitat that, if restored, would provide better habitat at some time in the future.

Riparian. Situated on or pertaining to the bank of a river, stream, or other body of water. Normally describes plants of all types that grow rooted in the water table or sub-irrigation zone of streams, ponds, and springs.

Riparian or Wetland Ecosystem. The ecosystem located between aquatic and terrestrial environments and identified by hydric soil characteristics and riparian or wetland plant species that requires or tolerates free water conditions of varying duration.

Riparian Zone. A geographically delineated portion of the riparian ecosystem based on management concerns.

Road. Vehicle route that has been improved and maintained by mechanical means to ensure relatively regular and continuous use. (A way maintained strictly by the passage of vehicles does not constitute a road.)

Roadless. Refers to the absence of roads that have been constructed and maintained by mechanical means to ensure regular and continuous use.

Route. A combination of roads, trails, or ways that are used by a motorized vehicle(s) (e.g., jeeps, all-terrain vehicles, motorized dirt bikes), mechanized uses (e.g., mountain bikes, wheelbarrows, game carts), pedestrians (hikers), and/or equestrians (horseback riders).

Rutting. The result on routes and trails that occurs when the ground is too soft to support the weight of a vehicle and rider. Rutting usually occurs when the ground is wet and soft. Ruts collect rainwater and runoff, keeping the trail wet. Ruts channel water, leading to trail erosion.

Sagebrush Area. Area with generally at least 5% sagebrush canopy cover.

Sage-grouse Breeding Habitat. Leks, nesting, and early brood-rearing occur in breeding habitats.

Sage-grouse Winter Habitat. Sagebrush habitats that provide access to food and cover during the winter.

Salinity. Refers to the solids such as sodium chloride (table salt) and alkali metals that are dissolved in water.

Scoping Process. An early and open public participation process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action.

Section 303(d) Stream List. Section 303(d) of the Clean Water Act where individual states were given authority to determine which waters within their state do not meet water quality standards and/or have impaired beneficial uses. 303(d) streams are sometimes referred to as water quality-limited streams.

Seeding. Seeding is a vegetation treatment that includes the application of grass, forb, or shrub seed, either aerially or from the ground. In areas of gentle terrain, ground applications of seed are often accomplished with a rangeland drill. Seeding allows the establishment of native species or placeholder species and restoration of disturbed areas to a perennial-dominated cover type; thereby, decreasing the risk of subsequent invasion by cheatgrass or other exotic annual grasses. Seeding would be used primarily as a follow-up treatment in areas where disturbance or the previously described treatments have removed exotic, annual grasses and their residue.

Sensitive Species. Species designated by a State Director, usually in cooperation with the state agency responsible for managing the species and State Natural Heritage Programs (e.g., Conservation Data Centers), as sensitive. They are those species that (1) could become endangered in or extirpated from a State, or within a significant portion of its distribution; (2) are under status review by the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service; (3) are undergoing significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution; (4) are undergoing significant current or predicted downward trends in population or density such that federal listed, proposed, candidate, or State listed status may become necessary; (5) typically have small and widely dispersed populations; (6) inhabit ecological refugia or other specialized or unique habitats; or (7) are State listed but which may be better conserved through application of BLM sensitive species status (BLM Manual 6840).

Severe Winter Range. That part of the overall range where 90% of the individuals are located when the annual snowpack is at its maximum and/or temperatures are at a minimum in the two worst winters out of ten.

Short-term Effect. An impact that occurs only during or immediately after implementation of an action and lasts for a relatively short duration of time.

Significant Cave. A significant cave is a cave that includes at least one of the following values: geological/paleontological, recreation, science/education, cultural, biological.

Silviculture. The art and science of producing and tending a forest. The application of knowledge of silvics in the treatment of a forest or the theory and practice of controlling forest establishment, composition, structure, and growth.

Site Potential. Potential of a site, given its soil type and characteristics, elevation, aspect, precipitation, slope, wind conditions, and where the site is located within an allotment. The potential of the site varies

greatly for infiltration and runoff rates, for instance, between a low elevation, rock-dominated, steep hillslope soil to a high elevation, fairly flat, forest/litter soil.

Source Habitat. A subset of key habitat that supports concentrated sage-grouse populations. Source habitats are also commonly referred to as population strongholds.

Solitude. The state of being alone or remote from habitations; isolation. A lonely or secluded place. Factors contributing to opportunities for solitude may include size, natural screening, topographic relief, vistas, physiographic variety, and the ability of the user to find a secluded spot.

Special Recreation Management Area (SRMA). SRMAs are designated administrative units where a commitment has been made to emphasize recreation by managing for specific recreation opportunities and settings on a sustained or enhanced long-term basis.

Special Recreation Permit. An authorization that allows for recreational use of public lands and related waters. They are issued as a means to manage visitor use, protect natural and cultural resources, as a means to achieve the goals and objectives of the field office recreation program as outlined in a land use plan, and as a mechanism to authorize five types of recreational use (see also: **Commercial** Special Recreation Permit, **Competitive** Special Recreation Permit, **Vending** Special Recreation Permit, **Special Area** Use Special Recreation Permit, and **Organized Group Activity and Event** Special Recreation Permit).

Special Area. An area officially designated by statute or Secretarial Order and may include components of the National Trails System; the NWSRS; the National Wilderness System; National Conservation Areas, National Monuments, or National Recreation Areas.

Special Area Use Special Recreation Permit. Permit that may be required for individual (private, noncommercial) recreation use in a special area (see also **Special Area**).

Special Status Species. Includes the following: proposed species, listed species (endangered and threatened), candidate species, state-listed species, and sensitive species.

State-listed Species. Species listed by a State in a category implying, but not limited to, potential endangerment or extinction. Listing is either by legislation or regulation.

Stubble Height. Residual vegetation measurement usually collected after the grazing and/or growing season.

Succession. Change through time.

Suitable River. A river segment found, through administrative study by an appropriate agency, to meet the criteria for designation as a component of the NWSRS, specified in Section 4(a) of the Wild and Scenic Rivers Act.

Supplemental Value. Resources, associated with wilderness, which contribute to the quality of wilderness areas.

Sustained Yield. The 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 use.

Switchback. Zig-zaging of a trail on a slope, which is designed to lessen the trail's steepness and to minimize the effects of erosion.

Terrestrial. Living on, or growing in, the land.

Thermal Cover. A habitat feature (e.g., stand of trees or other vegetative canopy) for wildlife and fish where there is protection against changes to an animal's body temperature above and below their critical tolerance.

Threatened Species. Any species that has been federally listed under the Endangered Species Act that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

Timber. Standing trees, downed trees, or logs which are capable of being measured in board feet.

Total Dissolved Solid. Salt (or an aggregate.....that forms a salt) concentration levels in a given liquid, usually water.

Total Maximum Daily Load (TMDL). Refers to both a process and a specific quantity. The TMDL process is where various agencies and private individuals work through watershed area groups steered by the Idaho Department of Environmental Quality (IDEQ) to complete subbasin assessments and analyze pollutant loads for each 303(d)-listed stream in that watershed. The specific quantity is the IDEQ-listed daily load of that pollutant that is permissible; quantities above the TMDL are impermissible and reduced through TMDL implementation plans by each agency or individual.

Traditional Cultural Property. A cultural property that is eligible for inclusion in the National Register of Historic Places because of its association with a living community's cultural practices or beliefs that are rooted in that community's history and are important in maintaining the community's continuing cultural identity.

Traditional Use. Traditional uses are longstanding, socially conveyed, customary patterns of thought, cultural expression, and behavior, such as religious beliefs and practices, social customs, and land or resource uses. Traditions are shared generally within a social and/or cultural group and span generations. Usually traditional uses are reserved rights resulting from treaty and/or agreements with Native American groups.

Trend. The direction of change in condition over a period of time.

Trespass. Any unauthorized use of public lands.

Understory. That portion of a plant community growing underneath the taller plants on the site.

Unique Plant Association. A plant community which (1) occurs only in Idaho, (2) is common elsewhere but represented by only a few occurrences in Idaho, (3) could easily be eliminated from Idaho, or (4) is considered to be in its natural state.

Utility Corridor. A parcel of land either linear or areal in character that has been identified through the land use planning process as being a preferred location for existing and future right-of-ways and suitable to accommodate more than one type of right-of-way or one or more rights-of-way which are similar, identical, or compatible.

Vagrant Lichen. A free-moving, un-attached lichen that can reproduce.

Valid Existing Right. Legal interest that is attached to a land or mineral estate that cannot be divested from the estate until that interest expires or is relinquished.

Vegetation Treatment Method(s). There are six types of vegetation treatment methods: biological, wildland fire use, prescribed fire treatment, chemical, mechanical, and seeding.

Vegetation Type. A plant community with immediately distinguishable characteristics based upon and named after the apparent dominant plant species.

Vending Special Recreation Permit. A temporary, short-term, non-exclusive, revocable authorization to sell goods or provide services on public land in conjunction with a recreation activity (e.g., t-shirt sales in conjunction with a competition).

Vertebrate. An animal having a backbone or spinal column.

Visitor Day. A visitor day represents one person using BLM-managed public lands for all or part of one day. For example, if one person spent one night camping on public lands, it is counted as two visitor days.

Visual Resource. The visible physical features on a landscape (topography, water, vegetation, animals, structures, and other features) that comprises the scenery of the area.

Visual Resource Management. The inventory and planning actions taken to identify visual resource values and to establish objectives for managing those values, and the management actions taken to achieve the visual resource management objectives.

Visual Resource Management (VRM) Class. VRM class identifies the degree of acceptable visual change within a characteristic landscape. A classification is assigned to public lands based on the guidelines established for scenic quality, visual sensitivity, and visibility.

Visual Sensitivity. Visual sensitivity levels are a measure of public concern for scenic quality and existing or proposed visual change.

Watershed. Topographical region or area delineated by water draining to a particular watercourse or point.

Waterway. Any body of water including lakes, rivers, streams, and ponds whether or not they contain aquatic life.

Watch Species (Species of Concern). Species not considered BLM sensitive species and associated sensitive species policy guidance does not apply. Watch list species include species that may be added to the sensitive species list depending on new information concerning threats, species biology or statewide trends. The Watch List includes species with insufficient data on population or habitat trends or the threats are poorly understood. However, there are indications that these species may warrant special status species designation and appropriate inventory or research efforts should be a management priority.

Wet Meadow. Meadow that supports mesic vegetation (e.g., sedges, rushes).

Wilderness. An area formally designated by Congress as a part of the National Wilderness Preservation System.

Wilderness Characteristic. Identified by Congress in the Wilderness Act of 1964, namely, size, naturalness, outstanding opportunities for solitude or a primitive and unconfined type of recreation, and supplemental values such as geological, archaeological, historical, ecological, scenic, or other features.

Wildland Fire. Any wildland fire that requires a suppression response. A prescribed burn may be declared a wildfire if part of it escapes from the control line or if weather conditions deteriorate and become unacceptable, as described in the burning plan.

Wildland Fire Use (WFU). A pre-planned vegetation treatment that involves taking advantage of a naturally-ignited wildland fire in an area where fire would benefit resources. WFU would be conducted in specific areas needing treatment after a site-specific plan and NEPA analysis are completed and only if predetermined prescriptive parameters (e.g., weather/fire behavior) can be met. Until this planning and NEPA analysis are accomplished, wildland fires would be suppressed using an appropriate management response.

Wildland–Urban Interface (WUI). The line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels.

Winter Concentration Area. That part of winter range where densities are at least 200% greater than the surrounding winter range density during the same period used to define winter range in the average five winters out of ten.

Winter Range. An Idaho Department of Fish and Game definition that applies to elk and mule deer. That part of the overall range where 90% of the individuals are located during the average five winters out of ten from the first heavy snowfall to spring green-up, or during a site-specific period of winter.

Withdrawal. An action that restricts the use or disposal of public land and which holds them for specific public purposes. The action may also segregate the land from the operation of some or all of the public land and mineral laws. A withdrawal can also transfer jurisdiction of management of public lands to other federal agencies.

Woodland. Plant community in which trees, often small and characteristically short-bowled relative to their depths of crown, are present but form only an open canopy, the intervening areas being occupied by lower vegetation, commonly grass. Woodland forests contain major and minor forest products (or any wood fiber) that have, or may have, merchantability.

Xeric. Having dry or desert like conditions.

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Chapter 9—References

Code of Federal Regulations (CFR)

- 36 CFR I §79 et seq. Curation of Federally-Owned and Administered Archaeological Collections. Parks, Forests, and Public Property. National Park Service, Department of the Interior. *Code of Federal Regulations* online at www.access.gpo.gov/nara/cfr/cfr-table-search.html#page1.
- 36 CFR VIII § 800 et seq. Protection of Historic Properties. Parks, Forests, and Public Property, Advisory Council on Historic Preservation. National Park Service, Department of the Interior. *Code of Federal Regulations* online at www.access.gpo.gov/nara/cfr/cfr-table-search.html#page1.
- 40 CFR I § 130 et seq. Water Quality Planning and Management. Protection of Environment. Environmental Protection Agency, *Code of Federal Regulations* online at www.access.gpo.gov/nara/cfr/cfr-table-search.html#page1.
- 43 CFR I § 37 et seq. Cave Management. Bureau of Land Management, Department of the Interior. Public Lands. *Code of Federal Regulations* online at www.access.gpo.gov/nara/cfr/cfr-table-search.html#page1.
- 43 CFR II § 1600 et seq. Planning, Programming, Budgeting, Bureau of Land Management, Department of the Interior, Public Lands. *Code of Federal Regulations* online at www.access.gpo.gov/nara/cfr/cfr-table-search.html#page1. (also §§ 1610 4-4, 4-5, 4-6)
- 43 CFR II § 2930 et seq. Permits for Recreation on Public Lands Public Lands. Bureau of Land Management, Department of the Interior, Public Lands. *Code of Federal Regulations* online at www.access.gpo.gov/nara/cfr/cfr-table-search.html#page1.
- 43 CFR II § 3809 et seq. Surface Management. Mining Claims under the General Mining Laws. Bureau of Land Management, Department of the Interior, Public Lands. *Code of Federal Regulations* online at www.access.gpo.gov/nara/cfr/cfr-table-search.html#page1.

Federal Register (FR) Notices and Executive Orders

- 40 FR 145, 1975. Amendment Listing the Grizzly Bear of the 48 Conterminous States as a Threatened Species. *Federal Register*. Department of the Interior, Fish and Wildlife Service. July 28. pp. 31734–31736.
- 47 FR 23, 1982. Wilderness Study Policy; Policies, Criteria, and Guidelines for conducting Wilderness Studies on Public Lands. Part II. *Federal Register*. Department of the Interior. Federal Register. February 3. pp. 5097–5122.
- 47 FR 173, 1982. Wild and Scenic River Guidelines for Eligibility, Classification and Management of River Areas, Final Revised Guidelines. *Federal Register*. Department of the Interior and Department of Agriculture. September 7. p. 39454.

- 50 FR 17, 1984. Establishment of a Nonessential Experimental Population of Gray Wolves in Yellowstone National Park in Wyoming, Idaho, Montana, Central Idaho and Southwestern Montana; Final Rules. *Federal Register*. Department of the Interior. Fish and Wildlife Service. November 2. pp. 60252–60281.
- 59 FR 32, 1994. Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Population and Low-Income Populations. *Federal Register*. Presidential Documents. W. J. Clinton. February 16. pp. 7629–7631.
- 63 FR 96, 1998. Executive Order 13084. Consultation and Coordination with Indian Tribal Governments. *Federal Register*. Presidential Documents. W. J. Clinton. May 14. pp. 27655–27657
- 65 FR 218, 2000. Executive Order 13175. Consultation and Coordination with Indian Tribal Governments. *Federal Register*. Presidential Documents. W. J. Clinton. November 6. pp. 67249–67252.
- 66 FR 37, 2001. Endangered and threatened wildlife and plants: 90-day finding for a petition to list the Yellowstone cutthroat trout as threatened. U.S. Fish and Wildlife Service. Federal Register. Department of the Interior. Fish and Wildlife Service. February 23. pp. 11244–11149.
- 66 FR 143, 2001. Endangered and Threatened Wildlife and Plants; 12-Month Finding for a Petition to List the Yellow-billed Cuckoo (*Coccyzus americanus*) in the Western Continental United States. Department of the Interior. U. S. Fish and Wildlife Service. pp. 38611–38626.
- 66 FR 160, 2001. Urban Wildland Interface Communities within the Vicinity of Federal Lands that are at High Risk from Wildfire. Department of Agriculture, Forest Service, Department of the Interior, Bureau of Indian Affairs, Bureau of Land Management, Fish and Wildlife Service, National Park Service. *Federal Register*. August 17. pp. 43383–43435.
- 69 FR 196, 2004. Endangered and threatened wildlife and plants; 90-day finding on a petition to delist the Ute ladies’-tresses orchid and initiation of a 5-year rule. Department of the Interior, U.S. Fish and Wildlife Service. *Federal Register*. October 12. pp. 60605–60607.
- 72 FR 60, 2007. Endangered and Threatened Wildlife and Plants; Final Rule Designating the Greater Yellowstone Area Population of Grizzly Bears as a Distinct Population Segment; Removing the Yellowstone Distinct Population Segment of Grizzly Bears From the Federal List of Endangered and Threatened Wildlife; 90-Day Finding on a Petition To List as Endangered the Yellowstone Distinct Population Segment of Grizzly Bears. *Federal Register*. Department of the Interior, Fish and Wildlife Service. pp.14866–14938.
- 73 FR 39, 2008. Endangered and Threatened Wildlife and Plants; Final Rule Designating the Northern Rocky Mountain Population of Gray Wolf as a Distinct Population Segment and Removing This Distinct Population Segment From the Federal List of Endangered and Threatened Wildlife. Final Rule. *Federal Register*. Department of the Interior, Fish and Wildlife Service. pp. 10514–10516.

73 FR 104, 2008. Notice of Intent To Prepare a Programmatic Environmental Impact Statement To Evaluate Solar Energy Development, Develop and Implement Agency-Specific Programs, Conduct Public Scoping Meetings, Amend Relevant Agency Land Use Plans, and Provide Notice of Proposed Planning Criteria. Department of Energy and Department of the Interior, Bureau of Land Management (BLM). *Federal Register*. Thursday, May 29. p. 30908.

74 FR 150, 2009. Endangered and Threatened Wildlife and Plants; Initiation of Status Review for Mountain Whitefish (*Prosopium williamsoni*) in the Big Lost River, Idaho. *Federal Register*. Department of the Interior. Fish and Wildlife Service. August 6. pp. 39268–39269.

General Land Office, 1927. Executive Order of April 17, 1926, Public Water Reserve #107. Circular 1066: 51–Decisions of the Department of the Interior. General Land Office. W. Spry, Commissioner. Washington, D.C. pp. 457–458.

Public Laws

Public Law 57–16, 1902. National Reclamation Act, also known as the Newlands Act. Fifty-seventh Congress. Sess. I. Chapter 1093. 32 Stat. 388. June 17.

Public Law 104–134, 1996. Omnibus Consolidated Rescissions and Appropriation Act of 1996, as amended, 1996, 1997, and 1998. April 26.

Public Law 106–291, 2000. 106th Congress. Department of the Interior and Related Agencies Appropriations Act, 2001. § 345. 114 Stat. 998. October 11.

Public Law 108–447, 2004. Consolidated Appropriations Act; Div. J, Title VIII, Federal Lands Recreation Enhancement Act. December 8.

Public Law 110–5, 2007. Revised Continuing Appropriations Resolution, 2007. Chapter 5—Department of the Interior, Environment, and Related Agencies. 121 Stat. 26. February 15.

Public Law 111–11, 2009. The Omnibus Public Land Management Act of 2009. Title IX—Bureau of Reclamation Authorizations. 123 Stat. 991-1456. March 30. 466 pp.

U.S. Statutes at Large, 1877. An act to provide for the sale of desert lands in certain States and Territories, also known as the Desert Lands Act of 1877. Forty-fourth Congress. Sess. II. Vol. 19, Chap. 107, p. 377. 19 Stat. 315. 377 March 3. Act of March 3, 1877, 19 Stat. 377

United States Code (U.S.C.)

16 U.S.C. 1A § 470 et seq. National Historic Preservation Act, as amended. Historic Sites, Buildings, Objects, and Antiquities. *United States Code* online accessed via the Internet at www.gpoaccess.gov/uscode/browse.html.

16 U.S.C. 7 § 701 et seq. Protection of Migratory Game and Insectivorous Birds. *United States Code* online accessed via the Internet at www.gpoaccess.gov/uscode/browse.html.

-
- 16 U.S.C. 12 § 791 et seq. Federal Regulation and Development of Power. *United States Code* online accessed via the Internet at www.gpoaccess.gov/uscode/browse.html.
- 16 U.S.C. 23 § 1131 et seq. National Wilderness Preservation System. *United States Code* online accessed via the Internet at www.gpoaccess.gov/uscode/browse.html.
- 16 U.S.C. 28 § 1271 et seq. Wild and Scenic Rivers Act of 1968. *United States Code* online accessed via the Internet at www.gpoaccess.gov/uscode/browse.html.
- 16 U.S.C. 35 § 1531 et seq. Endangered Species Act of 1973, as amended. *United States Code* online accessed via the Internet at www.gpoaccess.gov/uscode/browse.html.
- 16 U.S.C. 63 § 4301 et seq. Federal Cave Protection Act of 1988. *United States Code* online accessed via the Internet at www.gpoaccess.gov/uscode/browse.html.
- 16 U.S.C. 84 § 6501 et seq. Healthy Forests Restoration Act of 2003, as amended. *United States Code* online accessed via the Internet at www.gpoaccess.gov/uscode/browse.html.
- 30 U.S.C. 2 § 21 et seq. Mineral Lands and Mining, also known as the Mining Law of 1872, as amended. *United States Code* online accessed via the Internet at www.gpoaccess.gov/uscode/browse.html.
- 16 U.S.C. 1B § 470aa et seq. Archaeological Resources Protection (Archaeological Resources Protection Act of 1979), as amended *United States Code* online accessed via the Internet at www.gpoaccess.gov/uscode/browse.html.
- 30 U.S.C. 3A § 181 et seq. Federal Onshore Oil and Gas Leasing Reform Act of 1987. *United States Code* online accessed via the Internet at www.gpoaccess.gov/uscode/browse.html.
- 30 U.S.C. 23 § 1001 et seq. Geothermal Steam Act Amendments of 1988, as amended. *United States Code* online accessed via the Internet at www.gpoaccess.gov/uscode/browse.html.
- 33 U.S.C. 26 § 1251 et seq. Federal Water Pollution and Control Act, also known as the Clean Water Act. Navigation and Navigable Waters. Water Pollution Prevention and Control. *United States Code* online accessed via the Internet at www.gpoaccess.gov/uscode/browse.html.
- 42 U.S.C. 55 § 4321 et seq. The National Environmental Policy Act of 1969 (NEPA). *United States Code* online accessed via the Internet at www.gpoaccess.gov/uscode/browse.html.
- 42 U.S.C. 82 § 6901 et seq. Resource Conservation and Recovery Act of 1976. Solid Waste Disposal, The Public Health and Welfare. *United States Code* online accessed via the Internet at www.gpoaccess.gov/uscode/browse.html.
- 42 U.S.C. 85 § 7401 et seq. Air Pollution Prevention and Control, also known as the Clean Air Act. The Public Health and Welfare. *United States Code* online accessed via the Internet at www.gpoaccess.gov/uscode/browse.html.

- 42 U.S.C. 103 § 9601 et seq. Comprehensive Environmental Response, Compensation, and Liability. The Public Health and Welfare. *United States Code* online accessed via the Internet at www.gpoaccess.gov/uscode/browse.html.
- 42 U.S.C. 149 § 15801 et seq. National Energy Policy Act of 2005. *United States Code* online accessed via the Internet at www.gpoaccess.gov/uscode/browse.html.
- 43 U.S.C. 14 § 641 et seq. Carey Act. *United States Code* online accessed via the Internet at www.gpoaccess.gov/uscode/browse.html.
- 43 U.S.C. 20 § 869 et seq. Reservations and Grants to States for Public Purposes. Disposal of lands for public or recreational purposes. *United States Code* online accessed via the Internet at www.gpoaccess.gov/uscode/browse.html.
- 43 U.S.C. 35 § 1701 et seq. The Federal Land Policy and Management Act of 1976 (FLPMA). *United States Code* online accessed via the Internet at www.gpoaccess.gov/uscode/browse.html.
- 43 U.S.C. 41 § 2301 et seq. Federal Land Transaction Facilitation Act of 2000. *United States Code* online accessed via the Internet at www.gpoaccess.gov/uscode/browse.html.

Treaties

USA and Shoshone–Bannock Tribes, 1868. Fort Bridger Treaty of 1868. 15 Stat., 673. July 3. Ratified Feb. 26, 1869.

Bureau of Land Management (U.S. Department of the Interior [DOI] BLM)

BLM, 2009a. 7300—Air Resource Management. BLM Manual, Rel. 7-109. January 16. 21 pp.

———, 2009b. Discussion about impacts of moratorium order on new irrigation wells and new irrigation water right claims during the last 17 years. Personal communication, D. Kotansky, Upper Snake Field Office, Bureau of Land Management, and L. Swank, regional manager, Idaho Department of Water Resources.

———, 2009c. Approved Resource Management Plan Amendments and Record of Decision for Designation of Energy Corridors on Federal Land in the 11 Western States. BLM/WO-GI-09-005-1800. J. Caswell and F.L. Wade, signatories. January 14. 104 pp.

———, 2008a. Surface Management Agency for Upper Snake Field Office (federal, state, and private lands) 2008, map and data. Upper Snake Field Office and Idaho State Office, Geographic Sciences. DOI, BLM, Idaho Falls District. Idaho Falls, Idaho. August 26.

———, 2008b. Record of Decision, Fire, Fuels, and Related Vegetation Management Direction Plan Amendment, A Regional Assessment for Southeast and South Central Idaho. DOI, BLM, Idaho Falls and Twin Falls Districts. Idaho Falls and Twin Falls, Idaho. July 25.

-
- , 2008c. Special Status Species Management–6840, BLM Manual, Rel. 6-125. DOI, BLM. December 12. 48 pp.
- , 2008d. Wilderness Characteristics Analysis Upper Snake Resource Management Plan. D. O. Howell, lead, B. Boggs, G. Guenther, D. Loomis, D. Teel, B. Weihausen, M. Zimmerman, contributors. DOI, BLM, Upper Snake Field Office. Idaho Falls, Idaho. December 3. 41 pp.
- , 2008e. Cave and Karst Resource Management–8380, BLM Manual, Rel. 8-80. DOI, BLM. October 28. 12 pp.
- , 2008f. Snake River Activity/Operations Plan Revision Environmental Assessment, No. ID-310-2006-EA-3398. DOI, BLM, Idaho Falls District, Upper Snake Field Office, and U.S. Forest Service, Caribou-Targhee National Forest, Palisades Ranger District. Idaho Falls, Idaho. 195 pp.
- , 2008g. Finding of No Significant Impact and Decision Record for the Snake River Activity/Operations Plan Revision. DOI, BLM, Idaho Falls District, Upper Snake Field Office. Idaho Falls, Idaho. 25 pp.
- , 2008h. “Information Bulletin No. 2008-107, Bureau of Land Management Energy and Mineral Policy,” and Attachment 1, dated August 26, signed by J. Caswell, director. DOI, BLM. Washington, D.C., September 5. 2 pp.
- , 2008i. “Instruction Memorandum No. 2009-043, Wind Energy Development Policy.” DOI, BLM, Washington Office. December 19.
- , 2008j. National Environmental Policy Act Handbook, H-1790-1, BLM Manual, Rel. 1-1710. DOI, BLM, Washington Office. January 30. 174 pp.
- , 2008k. Payments in Lieu of Taxes, 2008. Accessed May 11 from <http://www.doi.gov/pilt>.
- , 2007a. Burned Area Emergency Stabilization and Rehabilitation Handbook, H-1742-1, BLM Manual, Rel. 1-1702. DOI, BLM. February 12. 87 pp.
- , 2007b. Memorandum of Understanding between DOI, BLM, Twin Falls District Shoshone Field Office; Twin Falls District, Burley Field Office; and Idaho Falls District, Upper Snake Field Office, concerning Management of Lands Within and Adjacent to Craters of the Moon National Monument and Preserve. L. Armstrong, K. Miller, and W. Reynolds, signatories. July 23.
- , 2007c. Record of Decision, Vegetation Treatments using Herbicides on Bureau of Land Management Lands in 17 Western States, Programmatic Environmental Impact Statement. BLM/WO/GI-07/018+6711. Reno, Nevada. September.
- , 2007d. Guidance for Establishing Implementation Priorities for Land Use Plans, Instruction Memorandum No. 2008-041. DOI, BLM, Washington Office. December 10.

-
- , 2006. Right-of-Way Management, Wind Energy Land Use Plan Amendments, Wind Energy. Instruction Memorandum No. 2006-216, DOI, BLM, Washington Office. August 24.
- , 2005a. Land Use Planning Handbook, H-1601-1, BLM Manual, Rel. 1-1693. DOI, BLM. March 11. 161 pp.
- , 2005b. Final Programmatic Environmental Impact Statement on Wind Energy Development on BLM-Administered Lands in the Western United States. FES 05-11. DOI, BLM. June.
- , 2005c. Record of Decision, Implementation of a Wind Energy Development Program and Associated Land Use Plan Amendments. DOI, BLM. December 15. 43 pp.
- , 2005e. Menan Butte Communication Site Plan. DOI, BLM, Upper Snake River District, Idaho Falls Field Office. Idaho Falls. Idaho. August 25.
- , 2004a. Land Use Plan Evaluation Report, Consolidated Reports of USFO Land Use Plans. Thacker, K., and D. Howell. DOI, BLM, Idaho Falls District. Idaho. October. 9 pp.
- , 2004b. Pygmy Rabbit Survey of the Crooked Creek, Medicine Lodge and Sand Creek Desert Areas. North Wind, Inc., for DOI, BLM, Idaho Falls District, Idaho. November. 18 pp.
- , 2004c. Identifying and Evaluating Cultural Resources Manual–8110, BLM Manual, Rel. 8-73. DOI, BLM. December 3. 42 pp.
- , 2003a. Sensitive Species Supplement to the Master Memorandum of Understanding between the Idaho Department of Fish and Game and the BLM. BLM MOU ID-253. S. Huffaker, Idaho Fish and Game, and K. L. Bennett, BLM, signatories. March 3.
- , 2003b. Consideration of Wilderness Characteristics in Land Use Plans (Excluding Alaska). Instruction Memorandum No. 2003-275. DOI, BLM. Washington, D.C. September 29.
- , 2003c. East Butte Communication Site Plan. DOI, BLM, Upper Snake River District, Idaho Falls Field Office. Idaho Falls. Idaho. September 9.
- , 2002a. Cultural Resource Considerations in Resource Management Plans. Information Bulletin No. 2002-101. DOI, BLM, Renewable Resources and Planning. Washington, D.C. May 24.
- , 2002b. Areas of Critical Environmental Concern Surveillance Report. Unpublished report. DOI, BLM, Idaho Falls District. Idaho Falls, Idaho. 1 p.
- , 2001. Biological Soil Crusts: Ecology and Management. TR 1730-2. DOI, BLM, National Science and Technology Center. Denver, Colorado.
- , 2000a. Land Use Planning Manual–1601, BLM Manual, Rel. 1-1666. DOI, BLM. November 22. 25 pp.

-
- , 2000b. St. Anthony Sand Dunes. Brochure available through the Eastern Idaho Visitor Information Center. DOI, BLM, Idaho Falls District, Upper Snake Field Office. Idaho Falls, Idaho. 2 pp.
- , 1999a. Photographic Guide to Median Stubble Heights. Idaho Technical Bulletin No. 1999-01. DOI, BLM. Boise, Idaho.
- , 1999b. Upper Snake River District Cave Management Plan. DOI, BLM, Upper Snake River District. Idaho Falls, Idaho. October 28. 42 pp.
- , 1999c. Cave Management Rules for Idaho. BLM Informational Bulletin ID-99-210. DOI, BLM, Idaho State Office. Boise, Idaho. September 30. 4 pp.
- , 1999d. Challis Resource Area Record of Decision and Resource Management Plan. DOI, BLM, Idaho State Office. Upper Columbia—Salmon Clearwater Districts Challis Resource Area Salmon, Idaho. July. 192 pp.
- , 1998a. A User Guide to Assessing Proper Functioning Condition and the Supporting Science for Lotic Areas. BLM Technical Reference 1737-15. DOI, BLM. 126 pp.
- , 1998b. Process for Assessing Proper Functioning Condition. BLM Technical Reference 1737-9. DOI, BLM. 58 pp.
- , 1998c. Riparian Area Management. Process for Assessing Proper Functioning Condition for Lentic Riparian—Wetland Areas. Technical Reference 1737-11. 1994, Revised 1998. DOI, BLM. 38pp.
- , 1997a. Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management. Final. DOI, BLM. August. 18 pp.
- , 1997b. Environmental Assessment—Land Use Plan Amendment for Henry’s Lake ACEC Designation. Environmental Assessment No. ID-030-96-066. DOI, BLM. 24 pp.
- , 1996a. Utilization Studies and Residual Measurements. Cooperative Extension Service; U.S. Department of Agriculture, Forest Service; Natural Resource Conservation Service, Grazing Land Technology Institute; DOI, BLM, National Applied Resource Sciences Center. BLM/RS/ST-96/004+1730. 166 pp.
- , 1996b. Guidance for Processing Withdrawal Reviews Using Federal Land Policy and Management Act Sections 204(a) and 204(l) Authorities. Instruction Memorandum No. 96-145. DOI, BLM. July 16.
- , 1995. BLM Manual Handbook H-8550-1- Interim Management Policy for Lands under Wilderness Review. DOI, BLM. July 5. 52 pp.

-
- , 1993. Wild and Scenic Rivers—Policy and Program Direction for Identification, Evaluation, and Management. BLM Manual 8351. Release 8-62. DOI, BLM. December 22. 74 pp.
- , 1992a. Big Butte Resource Area RMP Inventory of Proposed ACECs—Kettle Butte Kipuka. Unpublished report. DOI, BLM, Idaho Falls District. Idaho Falls, Idaho. 3 pp.
- , 1992b. Big Butte Resource Area RMP Inventory of Proposed ACECs—Cedar Butte. Unpublished report. DOI, BLM, Idaho Falls District. Idaho Falls, Idaho. 4 pp.
- , 1991a. Badger Creek Executive Summary. Unpublished report prepared for the Idaho Department of Water Resources by the DOI, BLM, Idaho Falls District. Idaho Falls, Idaho. 9 pp.
- , 1991b. Badger Creek ACEC Inventory. Unpublished report. DOI, BLM, Idaho Falls District. Idaho Falls, Idaho. 3 pp.
- , 1991c. Idaho Wilderness Study Report. Vol. 1–4. BLM-ID-PT-91-018-433. DOI, BLM. Boise, Idaho. August 19. 1,075 pp.
- , 1990. Fish, Wildlife, and Special Status Plant Resources Inventory and Monitoring. BLM Manual–6600, Rel. 6-117. DOI, BLM. August 2. 18 pp.
- , 1989. Final Environmental Impact Statement, Small Wilderness Study Areas Statewide. DOI, BLM, Idaho State Office. Boise, Idaho. August. 9 pp.
- , 1988a. Environmental Assessment and Decision Document for Oil and Gas leasing on Lands Administered by the Bureau of Land Management’s Pocatello and Medicine Lodge Resource Areas, and Cooperating Caribou National Forest. EA Number ID-0309-12. DOI, BLM, Idaho Falls District, and U.S. Department of Agriculture, Forest Service, Caribou National Forest. December. 57 pp.
- , 1988b. Areas of Critical Environmental Concern. BLM Manual–1613. Rel.1-1541. U.S. Department of the Interior, BLM. Washington, DC. September 29.
- , 1988c. Medicine Lodge Final Environmental Impact Statement, Wilderness. U.S. Department of the Interior, BLM. Idaho Falls District. Idaho Falls, Idaho. 94 pp.
- , 1986a. Visual Resource Inventory. BLM Manual Handbook H-8410-1. U.S. Department of the Interior, BLM. January 17.
- , 1986b. Visual Resource Contrast Rating. BLM Manual Handbook H-8431-1. U.S. Department of the Interior, BLM. January 17.
- , 1986c. Big Lost Pahsimeroi Final Environmental Impact Statement, Wilderness. U.S. Department of the Interior. BLM. Salmon and Idaho Falls Districts. 130 pp.

-
- , 1986d. Eastern Idaho Proposed MFP Amendment and Final Environmental Impact Statement, Wilderness. Eastern Idaho Wilderness Study. U.S. Department of the Interior. BLM. Idaho Falls District. 163 pp.
- , 1985. Medicine Lodge Proposed Resource Management Plan and Final EIS. 1985-0-593-051/25,000. U.S. Department of the Interior, BLM, Idaho Falls District, Idaho. 120 pp.
- , 1984. Medicine Lodge Resource Management Plan—Draft Environmental Impact Statement. Idaho Falls District.
- , 1983. Big Lost Management Framework Plan. Upper Snake River District, Idaho Falls Field Office. December 15. 13 pp.
- , 1981a. Big Butte Resource Area, Big Desert Management Framework Plan. October 13. 42 pp.
- , 1981b. Little Lost/Birch Creek Management Framework Plan. August. 35 pp.
- , 1981c. Cooperative Agreement for Tex Creek Management Area (Sikes Act Authority). U.S. Department of the Interior, BLM, Idaho State Office, B. Buffington; Bureau of Reclamation, Pacific Northwest Region, R.W. Lloyd; Idaho Department of Fish and Game, Idaho State Office, J.M. Conley. Boise, Idaho. August 4. 8 pp.
- , 1980. Idaho Intensive Wilderness Inventory Proposed Decision. U.S. Department of the Interior, BLM, Idaho State Office. Boise, Idaho. April. 159 pp.
- BLM and IDEQ, 2006. State Regulatory Oversight of Environmental Compliance Issues, Cooperative Agreement. T. Hardsy, Idaho Department of Environmental Quality, Boise, Idaho, and C. Shaver, U.S. Department of the Interior, BLM, Idaho State Office, Boise, Idaho. Assistance Agreement Number DLA060248. September 25. 30 pp.
- BLM and DOE, 2008. Memorandum of Understanding between Department of Energy, Idaho Operations Office, and the Bureau of Land Management. MOU No. GM07-031D11451. W. F. Hamel, Department of Energy, Idaho Operations, and W. Reynolds, U.S. Department of the Interior, BLM, Upper Snake River District, signatories. April 28. 10 pp.
- BLM and the Idaho Cave Survey National Speleological Society, 1994. Cooperative Management Agreement. CMA No. 8380. L. Ferguson, U.S. Department of the Interior, BLM, Idaho Falls District, Idaho Falls, Idaho, and S. Earl, Idaho Cave Survey, Idaho Falls, Idaho. 5 pp.
- BLM and IDFG, 2009. Sand Creek big game question. Personal communication, email correspondence, between T. Mathis, wildlife biologist, BLM, Upper Snake Field Office, Idaho Falls, Idaho, and J. Rydalch, regional wildlife biologist, Idaho Department of Fish and Game, Upper Snake Region, Idaho Falls, Idaho. October 8.

BLM and the National Speleological Society and Cave Research Foundation, 2006. Memorandum of Understanding between U.S. Department of the Interior, BLM, and National Speleological Society and Cave Research Foundation. BLM MOU WO-250-2007-01. K. Clarke, BLM; W. Tozer, National Speleological Society; C. Groves, Cave Research Foundation. August. 5 pp.

BLM and the Nature Conservancy, 1998. Measuring and Monitoring Plant Populations. BLM Technical Reference 1730-1, BLM/RS/ST-98/005+1730. C. L. Elzinga Ph.D., Alderspring Ecological Consulting; D. W. Salzer, The Nature Conservancy of Oregon; and J. W. Willoughby, U.S. Department of the Interior, BLM. 496 pp.

Literature Cited

Amstrup, S. C., 1978. Activities and habitat use of pronghorns on Montana–Wyoming coal lands. *Proc. Pronghorn Antelope Workshop* 8:270–306.

Anderson, R. A., 1948. Reconnaissance Survey of the Geology and Ore Deposits of the Southwestern Portion of the Lemhi Range, Idaho. Idaho Bureau of Mines and Geology Pamphlet No. 80. 28 pp.

Anderson, R. C., 2000. Current Status of Populations of the Idaho Dunes Tiger Beetle, *Cicindela arenicola Rumpff*, in the St. Anthony Dunes Complex.

Bailey, R. G., 1995. Rocky Mountain Research Station, U.S. Forest Service, Fort Collins, CO.

Baily, E., 1982. Forest management and protection requirements. Department of Natural Resources, Nova Scotia. Canada. *Conservation*: 6(2).

Baker, C. W., 2003. Idaho point-headed grasshopper surveys, 2002-2003. Unpublished report prepared for the U.S. Department of Interior, Bureau of Land Management, Boise District Office. Boise State University. Boise, Idaho.

Ballard, W. B., D. Lutz, T. W. Keegan, L. H. Carpenter, and J. C. deVos, Jr. 2001. Deer-predator relationships: A review of recent North American studies with emphasis on mule and black-tailed deer. *Wildlife Society Bulletin* 29(1):99-115

Beal, M. D., 1980. *The Utah and Northern Railroad Narrow Gauge*. Idaho State University Press. Pocatello, Idaho.

Bechard, M. J., K. D. Hague-Bechard, and D. H. Porter, 1986. Historical and Current Distributions of Swainson's and Ferruginous Hawks in Southern Idaho. Report prepared for the U.S. Department of Interior, Bureau of Land Management, Idaho State Office. Boise, Idaho.

Belnap, J., 1995. Surface disturbances: their role in accelerating desertification. *Environmental Monitoring and Assessment*, v. 37. pp. 39–57.

- Belnap, J., 1994. Potential role of cryptobiotic soil crust in semiarid rangelands. In: Monsen, S.B., and S.G. Kitchen, eds. Proceedings—Ecology and Management of Annual Rangelands. General Technical Report INT-GTR-313. USDA Forest Service, Intermountain Research Station, Ogden, Utah. September pp. 179–185.
- Belnap, J., and J. S. Gardner. 1993. Soil microstructure of the Colorado Plateau: the role of the cyanobacterium *Microcoleus vaginatus*. *Great Basin Naturalist* 53: 40–47.
- Belnap, J., J. H. Kaltenecker, R. Rosentreter, J. Williams, S. Leonard, and D. Eldridge, 2001. Biological soil crusts: Ecology and management (Technical Reference 1730-2). U.S. Department of Interior, Bureau of Land Management, National Science and Technology Center. Denver, Colorado.
- Berger, J., 2004. The last mile: how to sustain long-distance migration in mammals. *Conservation Biology*. 18:320-331.
- Boccard, B., 1980. *Important Fish and Wildlife Habitats of Idaho*, An Inventory. U.S. Department of the Interior, Fish and Wildlife Service. Oregon-Idaho Area Office. Boise, Idaho. March. 161 p.
- Braun, C. E., J. W. Connelly, and M. A. Schroeder, 2005. Seasonal Habitat Requirements for Sage-Grouse: Spring, Summer, Fall, and Winter in Sage-Grouse Habitat Restoration Symposium Proceedings. USDA Forest Service Proceedings RMRS-P-38.
- Bunte, K., and S. R. Abt, 2002. Sampling surface and sub-surface particle size distributions in wadeable gravel- and cobble-bed streams for analysis in sediment transport, hydraulics, and streambed monitoring. General Technical Report, RMRS-GTR-74. U.S. Department of Agriculture, Forest Service, Rocky Mountain Experiment Station. 450 pp.
- Burton, T. A., E. R. Cowley, and S. J. Smith, 2008. Monitoring stream channels and riparian vegetation—multiple indicators. Interagency Technical Bulletin 2008. BLM/ID/GI-08/001+1150. U.S. Department of Interior, Bureau of Land Management, Idaho State Office. Boise, Idaho. 153 pp.
- Butler, B. R., 1978. A Guide to Understanding Idaho Archaeology, Upper Snake and Salmon River Country, Special publication of the Idaho Museum of Natural History. Pocatello.
- Caicco, S. L., and C. A. Wellner, 1983a. Research Natural Area Recommendation for St. Anthony Sand Dunes. Unpublished report prepared for the U.S. Department of Interior, Bureau of Land Management, Idaho Falls District. Idaho Natural Areas Coordinating Committee. 10 pp.
- , 1983b. Research Natural Area Recommendation for Menan Buttes. Unpublished report prepared for the U.S. Department of Interior, Bureau of Land Management, Idaho Falls District. Idaho Natural Areas Coordinating Committee. 10 pp.
- , 1983c. Research Natural Area Recommendation for Knoll Kipuka. Unpublished report prepared for the U.S. Department of Interior, Bureau of Land Management, Idaho Falls District. Idaho Natural Areas Coordinating Committee. 12 pp.

- , 1983d. Research Natural Area Recommendation for Southwest Lemhi Range. Unpublished report prepared for the U.S. Department of Interior, Bureau of Land Management, Idaho Falls District. Idaho Natural Areas Coordinating Committee. 14 pp.
- , 1983e. Research Natural Area Recommendation for Middle Canyon Alluvial Fan. Unpublished report prepared for the U.S. Department of Interior, Bureau of Land Management, Idaho Falls District. Idaho Natural Areas Coordinating Committee. 10 pp.
- , 1983f. Research Natural Area Recommendation for Big Southern Butte. Unpublished Report prepared for the Idaho Falls BLM District. Idaho Natural Areas Coordinating Committee. 12 pp.
- Cameron, R. E., 1966. Desert algae: soil crusts and diaphanous substrata as algal habitats. Jet Propulsion Lab Technical Report 32-971: 1-41.
- Clements, C. D. and J. A. Young. 1997. A viewpoint: Rangeland health and mule deer habitat. *Journal of Range Management* 50(2): 129-138.
- Coles-Ritchie, M. C., R. C. Henderson, E. K. Archer, C. Kennedy, and J. L. Kershner, 2004. The repeatability of riparian vegetation sampling methods: How useful are these techniques for broad-scale, long-term monitoring? General Technical Report RMRS-GTR-138. U.S. Department of Agriculture, Forest Service, Rocky Mountain Experiment Station. 18 pp.
- Comer, P., D. Faber-Langendoen, R. Evans, S. Gawler, C. Josse, G. Kittel, S. Menard, M. Pyne, M. Reid, K. Schulz, K. Snow, and J. Teague, 2003. Ecological systems of the United States: A working classification of U.S. terrestrial systems. *NatureServe*. Arlington, Virginia.
- Commission for Environmental Cooperation (CEC), 2006. Ecological Regions of North America Level I Map and Level II Map. 393 rue St- Jacques Ouest, Bureau 200, Montréal (Québec), Canada H2Y1N9. <http://www.cec.org>.
- , 1997. Ecological Regions of North America Toward a Common Perspective (Level 1 descriptions). 393 rue St- Jacques Ouest, Bureau 200, Montréal (Québec), Canada H2Y1N9. <http://www.cec.org>.
- Compton, B. B., 1998. Status and objectives of Idaho's white-tailed deer, mule deer, and elk resources. Idaho Department of Fish and Game, Boise, Idaho.
- Connelly, J. W., S. T. Knick, M. A. Schroeder, and S. J. Stiver, 2004. Conservation Assessment of Greater Sage-grouse and Sagebrush Habitats. Western Association of Fish and Wildlife Agencies. Unpublished report. Cheyenne, Wyoming. June.
- Connelly, J. W., M. A. Schroeder, A. R. Sands, and C. E. Braun, 2000. Guidelines to manage sage grouse populations and their habitats. *Wildlife Society Bulletin* 28: 967-985.
- Copeland, J., 1996. Biology of the wolverine in central Idaho. MS Thesis, University of Idaho, Moscow, Idaho. 138pp

- Cosgrove, D. M., B. A. Contor, and G. S. Johnson, 2006. Enhanced Snake Plain Aquifer Model Final Report. Idaho Water Resources Research Institute, University of Idaho for the Idaho Department of Water Resources with guidance from the Eastern Snake Hydrologic Modeling Committee. Idaho Water Resources Research Institute Technical Report 06-002. Eastern Snake Plain Aquifer Model Enhancement Project Scenario Document Number DDM-019. July. 232 pp.
- Cowley, E. R., 2004. Monitoring the current year streambank alteration by large herbivores. Unpublished report. U.S. Department of Interior, Bureau of Land Management, Idaho State Office. Boise, Idaho.
- Craig, T., and E. Craig, 1999. Territory Occupancy by Ferruginous Hawks in the Crooked Creek, Reno Gulch and Lower Birch Creek Valleys. Unpublished report. Submitted to the U.S. Department of Interior, Bureau of Land Management, Idaho Falls District. Idaho Falls, Idaho.
- DOE, 2009. Pollutants and Health. Energy Efficiency and Renewable Energy. Department of Energy. Online via: <http://www.eere.energy.gov>. Updated July 10.
- DOE-ID, 2007. Idaho National Laboratory Geosciences Research—Seismic Monitoring, Seismic Network, and Earthquake Activity websites via <http://www.inl.gov/geosciences>, accessed 2/2008. Department of Energy, Idaho Falls Office. Idaho National Laboratory, operated by Battelle Energy Alliance. Idaho Falls, Idaho.
- , 1991. Federal Facility Agreement and Consent Order for the Idaho National Engineering Laboratory, U.S. Department of Energy, U.S. Environmental Protection Agency Region 10, Idaho Department of Health and Welfare, Administrative Docket No. 1088-06-29-120, December 9.
- Ecological Solutions Group, 2009. Riparian and Wetland Data Site. www.ecologicalsolutionsgroup.com. Stevensville, Montana. Accessed November 16.
- Eldridge, D. J., and R. S. B. Greene, 1994. Microbiotic soil crusts: a review of their roles in soil and ecological processes in the rangelands of Australia. *Australian Journal of Soil Research* 32: 389–415.
- EPA, 2009. National Ambient Air Quality Standards, Technology Transfer Network. Environmental Protection Agency. <http://www.epa.gov/ttn/naaqs> (Last Modified: May 21, 2009).
- , 2007. NPL [National Priorities List] Fact Sheet, Idaho National Laboratory Idaho EPA ID# ID4890008952. EPA Region 10. Online via: <http://yosemite.epa.gov/r10/nplpad.nsf/epaid/id4890008952>. Accessed February 2009.
- , 2006. EPA Concurrence with INL Site-Wide Five Year Review, 2006. Letter from D. Opalski, Director, Office of Environmental Cleanup, to N. Jensen, U.S. Department of Energy, Idaho Operations Office, NE-ID. December 4.
- , 1998. Interim Air Quality Policy on Wildland and Prescribed Fires. U. S. Environmental Protection Agency. April 23. 43 pp.

- , 1996. Areas Affected by PM-10 Natural Events. M. Nichols, Assistant Administrator for Air and Radiation. May 30.
- , 1992. Clarification of Prevention of Significant Deterioration (PSD) Guidance for Modeling Class I Area Impacts. U. S. Environmental Protection Agency, Office of Air Quality Planning and Standards. North Carolina. October 9. 4 pp.
- Federal Geographic Data Committee, 2008. National Vegetation Classification Standard. FGDC-STD-005-2008 (Version 2). Vegetation Subcommittee, FGDC Secretariat, U.S. Geological Survey. Reston, Virginia.
- Fenneman, N. M., 1931. *Physiographic Regions of the Western United States*. McGraw Hill Book Company, New York, New York.
- Fertig, W., R. Black, and P. Wolken, 2005. Rangewide Status Review of Ute Ladies'-Tresses (*Spiranthes diluvialis*) prepared for the US Fish and Wildlife Service and Central Utah Water Conservancy District. February. 94 pp.
- Fisher, R. A., 1994. The effects of prescribed fire on the ecology of migratory sage-grouse in Southeastern Idaho. Dissertation, University of Idaho, Moscow.
- Fiori, F. A., 1981. Historic Themes in: Southeastern Idaho Class I Cultural Resource Inventory, by J. G. Franzen, Bureau of Land Management, Burley and Idaho Falls Districts, Burley and Idaho Falls, Idaho.
- Fremont County Board of Commissioners, 2008. Fremont County Comprehensive Plan. December 17. 161 pp.
- Friedmann, E. I., and M. Galun, 1974. Desert algae, lichens and fungi. In: Brown, G. W., ed. *Desert Biology*. Academic Press, New York. pp. 165–212.
- Friedmann, E. I., and R. Ocampo-Paus, 1976. Endolithic blue-green algae in the Dry Valley: primary producers in the Antarctic Desert ecosystem. *Science* 193: 1247–1249.
- Fritts, S. H., R. O. Stephenson, R. D. Hayes, and L. Boitani, 2003. "Wolves and Humans," In *Wolves: Behavior, Ecology, and Conservation*, L. D. Mech and L. Boitani (eds.). University of Chicago Press. Chicago, Illinois. pp. 289–316.
- Garabedian, S. P., 1992. Hydrology and Digital Simulation of the Regional Aquifer System, Eastern Snake River Plain, Idaho. U.S. Geological Survey Professional Paper 1408-F. U.S. Government Printing Office, Washington, D.C. 102 pp.
- Genter, D. L., 1989. "Townsend's big-eared bat *Plecotus townsendii*," in *Rare, Sensitive, and Threatened Species of the Greater Yellowstone Ecosystem*. Clark, T. W., A. H. Harvey, R. D. Dorn, D. L. Genter, and C. Groves. Northern Rockies Conservation Cooperative, Montana Natural Heritage Program, The Nature Conservancy, and Mountain West Environmental Services. pp. 103–104.

- Gibbons, S., 1992. National Natural Landmark Brief—Menan Buttes. Unpublished report prepared for the U.S. Department of the Interior National Park Service and Bureau of Land Management, Idaho Falls District. 2 pp.
- Gillies, K. E., 2004. Idaho Bat Conservation Plan, Draft. R. Dixon and C. Harris, eds. Nongame and Endangered Wildlife Program Technical Report. Idaho Department of Fish and Game. Boise, Idaho.
- Goddard Institute for Space Studies, 2009a. Datasets and Images—Annual Mean Temperature Change for Three Latitude Bands (Last Modified: January 9, 2009). Online at: <http://data.giss.nasa.gov/gistemp/graphs>.
- , 2009b. GISS Surface Temperature Analysis Global Temperature Trends: 2008 Annual Summation Originally posted Dec. 16, 2008, with meteorological year data. Updated Jan. 13, 2009.
- Gruhn, R., 1961. The Archaeology of Wilson Butte Cave South-Central Idaho, Idaho Museum of Natural History, Idaho State University, Pocatello, Idaho.
- Hagwood, S., 2006. Field Guide to the Special Status Plants of the Bureau of Land Management Twin Falls District, Jarbidge Field Office Area. Idaho Technical Bulletin 206-01. U.S. Department of the Interior, Bureau of Land Management. Twin Falls, Idaho.
- Hamilton, R. A., and J. E. Johnson, 1994. Forest management strategies to minimize drought damage. North Carolina Cooperative Extension Service, Publication #AG-519-9. December.
- Hann, W. J., and D. L. Bunnell, 2001. Fire and land management planning and implementation across multiple scales. *International Journal of Wildland Fire* 10: 389–403.
- Hansen, P. L., 1991. Conversation record discussing limber pine population along Badger Creek. P. Hansen, Montana Riparian and Wetland Association, and K. Rice, U.S. Department of the Interior, Bureau of Land Management, Idaho Falls District. Idaho Falls, Idaho. 1 p.
- Hansen, P. L., and J. B. Hall, 2002. Classification and Management of U.S. Department of the Interior Bureau of Land Management's Riparian and Wetland Sites in Eastern and Southern Idaho. Bitterroot Restoration, Inc. Corvallis, Montana. September. 304 pp.
- Hardy, C. C., K. Schmidt, J. Menakis, and R. Sampson, 2001. Spatial data for national fire planning and fuel management, *Intern. J. Wildland Fire* 10 (2001) (3–4), pp. 353–372.
- Harper, K. T., and J. Belnap, 2001. The influence of biological soil crusts on mineral uptake by associated vascular plants. *Journal of Arid Environments*. Volume 47, Issue 3, March. pp. 347–357.

- Henderson, R., E. Archer, A. Anderson, and D. Dugaw, 2004. Effectiveness Monitoring for Streams and Riparian Areas within the Upper Columbia Basin—Sampling Protocol for Integrator Reaches—Stream Channel Parameters. Multi-Federal Agency Monitoring Program. U.S. Department of Agriculture, Forest Service. Logan, Utah.
- Henrikson, S. L., 1996. Prehistoric Cold Storage on the Snake River Plain: Archaeological Investigations at Bobcat Cave (No. 1996). Idaho State Historical Society, Boise, Idaho.
- Higgins, K. F., A. D. Kruse, and J. L. Piehl, 1989. “Effects of fire in the northern great plains—effects of fire on upland grasses and forbs,” In: Effects of fire in the Northern Great Plains. U.S. Fish and Wildlife Service and Cooperative Extension Service, South Dakota State University, Brookings, South Dakota. Extension Circular 761. Jamestown, North Dakota: Northern Prairie Wildlife Research Center Online. <http://www.npwr.usgs.gov/resource/habitat/fire/index.htm> (Version 16MAY2000).
- Holmer, R.N., 1986. Common Projectile Points of the Intermountain West, in Anthropology of the Desert West, Essays in Honor of Jesse D. Jennings, University of Utah Anthropological Papers No. 110, edited by C.J. Condie and D.D. Fowler, pp. 90-115, University of Utah Press, Salt Lake City, Utah.
- , 1994. In Search of the Ancestral Northern Shoshone. In Across the West: Human Population Movement and the Expansion of the Numa. Edited by D.B. Madsen and D. Rhode, pp. 179-187. University of Utah Press, Salt Lake City.
- Idaho Conservation Data Center, 2007a. 2007 Ute ladies’-tresses (*Spiranthes diluvialis*) monitoring on the South Fork Snake River, Idaho: fifth year results. Idaho Department of Fish and Game, Boise, Idaho. 56 pp., plus appendices.
- , 2007b. Idaho Special Status Plants. Idaho Department of Fish and Game, Boise, Idaho. Available at http://fishandgame.idaho.gov/cms/tech/CDC/plants/vascular_plants_status.cfm.
- Idaho Department of Environmental Quality (IDEQ), 2009a. Annual Ambient Air Quality Monitoring Network Review. Idaho Department of Environmental Quality. Air Quality Division. Boise, Idaho. May 28. 23 pp.
- , 2009b. Crop Residue Burning Program 2008 Annual Report. Idaho Department of Environmental Quality. Air Quality Division. Boise, Idaho. April. 62 pp.
- , 2007a. Air Quality Monitoring Data Summary. Department of Environmental Quality. Boise, Idaho. 72 pp.
- , 2007b. Idaho Air Quality Planning Areas, map (updated by DEQ/MMEI/GLR). Nonattainment and Maintenance Areas in Idaho. IDEQ website via http://www.deq.idaho.gov/air/data_reports/monitoring. January.

-
- , 2005. IDEQ website explaining the Eastern Snake River Plain Aquifer and the “sole source” designation. ww.deq.idaho.gov/inl_oversight/library/newsletter_0505.pdf.
- , 2002. Wildfire Natural Events Action Plan. Air Quality Division, Idaho Department of Environmental Quality, Boise, Idaho. March 29.
- Idaho Department of Fish and Game, 2008a. Wolf Reintroduction Timeline. Available online at <http://fishandgame.idaho.gov/cms/wildlife/wolves/timeline.cfm>.
- , 2008b. Idaho Wolf Management Plan 2008-2012. Boise, Idaho. 85 pp.
- , 2007a. Mule Deer Surveys and Inventories. Federal Aid Progress Report, Idaho. Project W-170-R-31. Job 2. 90 pp.
- , 2007b. Pronghorn surveys and inventories. Federal Aid Progress Report, Idaho. Project W-170-R-31. Job 4. 14 pp.
- , 2007c. Elk survey and inventories. Federal Aid Progress Report, Idaho. Project W-170-R-31. Study 1. Job 1. 135 pp.
- , 2005a. Idaho Comprehensive Wildlife Conservation Strategy. Idaho Conservation Data Center, Idaho Department of Fish and Game, Boise, Idaho. <http://fishandgame.idaho.gov/cms/tech/CDC/cwcs.cfm>
- , 2005b. White-tailed deer Management Plan 2005–2014. Boise, Idaho. 62 pp.
- , 2005c. Waterfowl Fall and Winter Surveys, Banding, and Harvest. Federal Aid Progress Report Idaho. Project W-170-R-29. Study 11, Job 3.
- , 1999. Sand Creek Wildlife Management Area Management Plan. Upper Snake Region. Idaho Falls, Idaho. July. pp. 81.
- , 1990. Bighorn Sheep Management Plan, 1991-1995. Boise, Idaho. 37 pp.
- Idaho Department of Lands, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service, 2007. Idaho Interagency Assessment of Wildland Fire Risk to Communities – Working Paper. Jones, J. (editor). January 9. 35pp.
- Idaho Department of Parks and Recreation (IDPR), 2007. Idaho Motorbike/ATV Registration Statistics 2002–2006. Idaho Department of Parks and Recreation Registration Information System, J. Cook (analyst). October 22.
- , 2006. Idaho’s 2006-2010 Statewide Comprehensive Outdoor Recreation Plan, Recreation Next. IDPR Comprehensive Planning, Research and Review Department and SCORTP Task Force. Boise, Idaho. 396 pp.

- Idaho Greater Yellowstone Ecosystem Bald Eagle Research Team, 2009. Bald Eagles of Eastern Idaho, Greater Yellowstone Ecosystem. 2009 Annual Productivity Report. Forest Service, Caribou-Targhee National Forest; Bureau of Land Management, Idaho Falls District; Idaho Department of Fish and Game; and Northern Rockies Conservation Cooperative. Driggs, Idaho. 32 pp. and appendix.
- Idaho Invasive Species Council Technical Committee, 2007. Idaho Aquatic Nuisance Species Plan, A Supplement to Idaho's Strategic Action Plan for Invasive Species. November 26. 145 pp.
- Idaho National Engineering Laboratory, 1991. Annual Report of Elk Use of the INEL. Idaho National Engineering Laboratory. 13 pp.
- Idaho Native Plant Society, 2005. Meeting Notes (unpublished). Conservation Working Group Agendas and Notes, 2005 Idaho Rare Plant Conference. February 15–16, 2005. Boise, Idaho.
- Idaho Sage-Grouse Advisory Committee (ISAC), 2006. Conservation Plan for the Greater Sage-grouse in Idaho. July. 358 pp.
- Idaho State Conservation Effort. 1996. Habitat conservation assessment and conservation strategy for the Idaho Dunes Tiger Beetle. U.S. Fish and Wildlife Service, Bureau of Land Management, Regions 1 and 4 of the U.S. Forest Service, Idaho Department of Fish and Game, and Idaho Department of Parks and Recreation, P. Makela, BLM (ed.). Report No. 7. Boise, ID.
- Intergovernmental Panel on Climate Change (IPCC), 2007. Summary for Policymakers. In: Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M.Tignor and H.L. Miller (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, New York.
- Jefferson County Commissioners, 2005. Jefferson County Comprehensive Plan, "2005 Update." The Jefferson County Comprehensive Plan Committee. April 27. 156 pp.
- Jimenez, J., 1996. The Ahvish Phase at Wahmuza and the Numic Affiliation of the Dietrich and Lemhi phases of southern Idaho, Unpublished Master's thesis, Department of Anthropology, Idaho State University.
- Kaltenecker, J. H., M. Wicklow-Howard, and R. Rosentreter, 1997. Microbiotic crusts of the Lemhi Resource Area and their effect on soil-water relationships in sites recovering from long-term grazing. Unpublished report submitted to the U.S. Department of the Interior, Bureau of Land Management, Salmon Field Office, Salmon, Idaho. 58 pp.
- Kempthorne, D. 2009. Climate Change and the Department of the Interior. Order No. 3226, Amendment No. 1. U.S. Department of the Interior, Bureau of Land Management. Washington, D.C. January 16. 4 pp.

- Kiilsgaard, T. H., 1951. The Geology and Coal of the Horseshoe Creek District, Teton County, Idaho. Idaho Bureau of Mines and Geology Pamphlet No. 92. 42 pp.
- Kjelstrom, L. C., 1995. Streamflow gains and losses in the Snake River and ground-water budgets for the Snake River Plain, Idaho and Eastern Oregon. U.S. Geological Survey Professional Paper 1408-C. U.S. Government Printing Office. Washington, D.C. 47 pp.
- Klopatek, J. M., 1992. Cryptogamic crusts as potential indicators of disturbance in semi-arid landscapes. In: McKenzie, D. H., D. E. Hyatt, and V. J. McDonald, eds. *Ecological Indicators*. Elsevier Applied Science, New York. pp. 773–786.
- Kunz, M. A., E. C. Spiker, M. Rubin, D. E., Champion, and R. H. Lefebvre, 1986. Radiocarbon Studies of Latest Pleistocene and Holocene Lava Flows of the Snake River Plain, Idaho. *Quaternary Research* 25:163–176.
- Leopold, A., L. K. SOWLS, and D. L. Spencer, 1947. A survey of over-populated deer ranges in the United States. *Journal of Wildlife Management* 11(2):162-177.
- Le Treut, H., R. Somerville, U. Cubasch, Y. Ding, C. Mauritzen, A. Mokssit, T. Peterson and M. Prather, 2007. Historical Overview of Climate Change. In: *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, New York.
- Mancuso, M., 2006. Field survey for plant species of conservation concern on BLM land in the Medicine Lodge Creek Area. Idaho Conservation Data Center, Idaho Department of Fish and Game, Boise. 16 pp., plus appendices. http://fishandgame.idaho.gov/cms/tech/CDC/cdc_pdf/u06man04idus.pdf.
- McCarty, R. S., Jr., 1982. Little Lost-Birch Creek antelope habitat management plan. U.S. Department of the Interior, Bureau of Land Management. Idaho Falls, Idaho. 35 pp.
- McCune, B., and J. A. Antos, 1982. Epiphyte communities of the Swan Valley, Montana. *The Bryologist* 85: 1-12.
- McGrath C. L., A. J. Woods, J. M. Omernik, S. A. Bryce, M. Edmondson, J. A. Nesser, J. Shelden, R. C. Crawford, J. A. Comstock, and M. D. Plocher, 2001. Ecoregions of Idaho (color poster with Level III and VI maps, descriptive text summary tables, and photographs). Reston, Virginia. U.S. Geological Survey (map scale 1:1,350,000).
- McLaughlin, B., 2008. Community Assessment Results, Eight Communities throughout the Field Office Area (draft). May 27–29, 2008, presentation.

- McNees, L.M., W.M. Harding, B.R. McClelland, J.D. Marmor, D.W. Newton, B.A. Barrows, S.P. Powley, J.A. Lowe, and C.S. Smith, 1993. Phase I Cultural Resource Investigations for the Northwest Pipeline System Expansion II Project, Muddy Creek North and Kemmerer North Loops, Lincoln County, Wyoming. Report prepared for Ebasco Environmental and Northwest Pipeline Company. TRC Mariah Associates Inc. Laramie, Wyoming.
- Merigliano, M. F., 1996. Ecology and Management of the South Fork Snake River Cottonwood Forest. Idaho BLM Technical Bulletin 96-9. Riparian and Wetland Research Program, School of Forestry. The University of Montana. Missoula, Montana. May.
- Miller, S. J., 1972. Weston Canyon Rockshelter: Big-Game Hunting in Southeastern Idaho, Unpublished Master's Thesis, Idaho State University, Pocatello.
- Mitchell, J. C., L. L. Johnson, and J. E. Anderson, 1980. Geothermal Investigation in Idaho-Potential for Direct Heat Application of Geothermal Resources. Idaho Department of Water Resources, Water Information Bulletin 30, Part 9. 396 pp. and 1:500,000 scale map.
- Mosely, R., 1991. Conversation record discussing limber pine population along Badger Creek. R. Mosely, Idaho Conservation Data Center, and K. Rice, U.S. Department of the Interior, Bureau of Land Management, Idaho Falls District. 1 p.
- Montana and Idaho Airshed Group (M/IAG), 2008. Operating Guide, draft. Montana/Idaho Airshed Group. Missoula, Montana. 59 pp.
- Nadeau, M. S., C. Mack, J. Holyan, J. Husseman, M. Lucid, B. Thomas, and D. Spicer, 2008a. Wolf conservation and management in Idaho, progress report 2007. Idaho Department of Fish and Game, 600 South Walnut, Boise, Idaho. Nez Perce Tribe, P.O. Box 365, Lapwai, Idaho. 73 pp.
- Nadeau, M. S., J. Hayden, J. Crenshaw, D. Koehler, J. Rohlman, R. Smith, R. Berkley, D. Meints, J. Short, and T. Keegan, 2008b. Project W-170-R-32, Progress Report, Black Bear. Study I, Job 9, July 1, 2007 to June 30, 2008. Idaho Department of Fish and Game. Boise, Idaho. September. 125 pp.
- National Academy of Sciences, 2008. Understanding and Responding to Climate Change—Highlights of National Academies Reports—2008 Edition. Available online at: http://dels.nas.edu/dels/rpt_briefs/climate_change_2008_final.pdf.
- National Park Service, 2009. The Nationwide Rivers Inventory, Idaho Segments. Rivers, Trails, and Conservation Assistance Program. U.S. Department of the Interior, National Park Service. Washington, D.C.
- National Soil Survey Center, 1996. Soil Quality Information Sheet. Indicators for Soil Quality Evaluation. Prepared in cooperation with the Soil Quality Institute, Natural Resources Conservation Service, USDA, and the National Soil Tilth Laboratory, Agricultural Research Service, U.S. Department of Agriculture. April. 2 pp.

- National Weather Service (NWS), 2009. Glossary. National Oceanic and Atmospheric Administration. Online via: <http://www.nws.noaa.gov>. Updated June 25.
- Oar, J., 2007. Nesting of raptors in the Little Lost River Valley with emphasis on the Ferruginous Hawk. Unpublished report submitted to U.S. Department of the Interior, Bureau of Land Management, Upper Snake Field Office. Idaho Falls, Idaho.
- O’Gara, B. W., and J. D. Yoakum, 2004. Pronghorn Ecology and Management. Wildlife Management Institute. University Press of Colorado. 903 pp.
- O’Laughlin, J., 2002. Idaho Forest Health Conditions—2002 Update, Contribution No. 958, Idaho Forest, Wildlife and Range Station. University of Idaho. Moscow, Idaho.
- O’Laughlin, J., J. G. McCracken, D. L. Adams, S. C. Bunting, K. A. Blatner and C. E. Keegan, III, 1993. Forest Health Conditions in Idaho, Report No. 11, Idaho Forest, Wildlife and Range Policy Analysis Group. University of Idaho. Moscow, Idaho.
- Olendorff, R. R., 1993. Status, biology, and management of Ferruginous Hawks: A review. Raptor Res. and Tech. Asst. Cen., Special Report, U.S. Department of the Interior, Bureau of Land Management. Boise, Idaho. 84 pp.
- Pierson, E. D., M. C. Wackenhut, J. S. Altenbach, P. Bradley, P. Call, D. L. Gener, C. E. Harris, B. L. Keller, B. Lengus, L. Lewis, B. Luce, K. W. Navo, J. M. Perkins, S. Smith, and L. Welch, 1999. Species conservation assessment and strategy for Townsend’s big-eared bat (*Corynorhinus townsendii townsendii* and *Corynorhinus townsendii pallescens*). Idaho Conservation Effort, Idaho Department of Fish and Game. Boise, Idaho.
- Plew, M. G., 2000. The Archaeology of the Snake River Plain. Department of Anthropology, Boise State University. Boise, Idaho.
- Ponzetti, J., B. Youtie, D. Salzer, and T. Kimes, 1998. The effects of fire and herbicides on microbiotic crust dynamics in high desert ecosystems. Unpublished report submitted to the U.S. Geological Survey, Biological Resources Division, Forest and Rangeland Ecosystem Science Center, Portland, Oregon. 89 pp.
- Public Employees for Environmental Responsibility, 2007. Rangers Call Off-Road Vehicles Biggest Threat to Public Lands—Rangers for Responsible Recreation” Launched to Combat “Wreck-reation.” Tucson, Arizona. June 28.
- Quigley, T. M., R. W. Haynes, and R. T. Graham, 1996. Integrated scientific assessment for ecosystem management in the interior Columbia basin. PNWGTR-382. Portland, Oregon: U.S. Department of Agriculture, Forest Service. Pacific Northwest Research Station.
- Reed, W. G., J. W. Ross, B. L. Ringe, and R. N. Holmer, 1987. Archaeological investigations on the Idaho National Engineering Laboratory. SCARLab Reports of Investigations 87-1. Idaho State University. Pocatello, Idaho.

-
- , 1986. Archaeological investigations on the Idaho National Engineering Laboratory, 1984-1985. Report to EG&G, Idaho, Earth and Life Sciences Division, Idaho Falls, Idaho. Swanson/Crabtree Anthropological Research Laboratory, Report of Investigations 86.
- Reynolds, T. D., and C. I. Hinckley. 2005. A survey for Yellow-billed cuckoo in recorded historic and other likely locations in Idaho. Final Report.
- Rexburg City Council, 2008. City of Rexburg Vision 2020 Comprehensive Plan. November 19. 200 pp.
- Ringe, B. L., 1995. Locational analysis and preliminary predictive model for prehistoric cultural resources on the Idaho National Engineering Laboratory. Thesis. Idaho State University. Pocatello, Idaho.
- Ringe, B.L. and W.M. Harding, 1986. Ceramics, In Shoshone–Bannock Culture History, Swanson/Crabtree Anthropological Research Reports of Investigations 85-16, edited by R.N. Holmer, pp 149-155, Idaho State University, Pocatello, Idaho.
- Ringe, B.L., W.G. Reed, and R.N. Holmer, 1988. Current Perspectives on the Prehistory of the Eastern Snake River Plain. Paper presented at the 41st Annual Northwest Anthropological Conference, Tacoma, Washington.
- Roberts, H. B., 2004. Survey of pygmy rabbit distribution and habitat use in the Idaho Falls Field Office area, Idaho (continuation). Unpublished report. U.S. Department of the Interior, Bureau of Land Management. Idaho Falls, Idaho. 7 pp.
- , 2003. Survey of pygmy rabbit distribution and habitat use in the Idaho Falls Field Office area, Idaho. Unpublished report. Submitted to U.S. Department of the Interior, Bureau of Land Management Idaho Falls, Idaho. 6 pp.
- Roby, R. N., 1948. Investigation of the Hornsilver Lead-Zinc Property, Butte County, Idaho. U.S. Bureau of Mines R.I 4277. 52 pp.
- Rosentreter, R., 1991. Conversation record discussing limber pine population along Badger Creek. R. Rosentreter and K. Rice, U.S. Department of the Interior, Bureau of Land Management, Idaho State Office, Boise, Idaho, and Idaho Falls District, Idaho Falls, Idaho (respectively). 1 p.
- , 1986. Compositional patterns within a rabbitbrush (*Chrysothamnus*) community of the Idaho Snake River Plain. In: McArthur, E. D., and B. L. Welch, comps. Proceedings—Symposium on the Biology of *Artemisia* and *Chrysothamnus*. General Technical Report INT-200. USDA Forest Service, Intermountain Research Station, Ogden, Utah. pp. 273-277.
- Rosentreter, R., and J. Belnap, 2001. Biological soil crusts of North America, In: J. Belnap and O. L. Lange, eds., *Biological Soil Crusts: Structure, Function, and Management*. Springer-Verlag, Berlin. pp. 31–50,

- Roundy, B., T. W. Thompson, E. D. McArthur, B. D. Jessop, B. Waldron, and J. N. Davis, 2006. Fire rehabilitation using native and introduced species: A landscape trial. *Rangeland Ecology & Management* 59:237-248.
- Russell, B., 2008. Idaho wins major climate change research grant. The Spokesman-Review. Spokane Washington. September 13.
- Rust, S. K., 2005. National Natural Landmark Evaluation—Middle Canyon Alluvial Fan (Idaho). Columbia Plateau Natural Region—Salt Desert Shrub Theme—Low Shrub, Upland Salt Desert Shrub Subtheme. Prepared for U.S. Department of the Interior, National Park Service. Idaho Conservation Data Center, Department of Fish and Game, Boise, Idaho. 19 pp.
- , 1996. “Game Creek Research Natural Area description,” p. D-13, In *Conservation Strategy for Henry’s Fork Basin Wetlands*. M. Jankovsky-Jones. Idaho Conservation Data Center. Department of Fish and Game, Boise, Idaho. 189 pp.
- Saab, V., 1993. Personal communication of the presence of Yellow-billed cuckoos at Reid Canal Island RNA. V. Saab, U.S. Department of Agriculture, Intermountain Research Station, and K. Rice, U.S. Department of the Interior, Bureau of Land Management, Idaho Falls District. Idaho Falls, Idaho.
- Saban, R. J., 2005. Letter to Bureau of Reclamation regarding Teton River Canyon resource management plan scoping. Idaho Department of Fish and Game, Idaho Falls, Idaho. 5 pp.
- Satter, N. L., 1982. Mineral Character Determination for Withdrawal Review I-15331—China Cup Butte Natural Area. Unpublished report prepared for the BLM, Idaho Falls District, Idaho Falls, Idaho. 4 pp.
- Savage, C. N., 1961a. Geology and Mineral Resources of Bonneville County, Idaho. Idaho Bureau of Mines and Geology County Report No. 5. 42 pp.
- , 1961b. Distribution and Economic Potential of Idaho Carbonate Rocks. Idaho Bureau of Mines and Geology Bulletin No. 23. 51 pp.
- Seinfeld, J. H., 1986. Atmospheric Chemistry and Physics of Air Pollution. Wiley Interscience. New York.
- Shenon, P. J., 1928a. Geothermal Potential of Idaho. Idaho Bureau of Mines and Geology, Pamphlet No. 27. 16 pp.
- , 1928b. Geology and Ore Deposits of the Birch Creek District, Idaho. Idaho Bureau of Mines and Geology Pamphlet No. 28. 25 pp.
- Shoshone–Bannock Tribes, 2009a. Shoshone-Bannock Tribes Comments to the Upper Snake Field Office Resource Management Plan. Fort Hall Business Council, Fort Hall Indian Reservation. 17 pp.

- , 2009b. Historical Background, 2009. Accessed May 28 from <http://www.shoshonebannocktribes.com>.
- Sims, C., 1979. The Centennial Mountains, a Cultural Resource Overview, Forest Service, Targhee National Forest, St. Anthony, Idaho.
- Stern, A. C., H. C. Wohlers, R. W. Boubel, and W. P. Lowry, 1973. *Fundamentals of Air Pollution*. Academic Press, New York.
- Steward, J.H. and E. Wheeler-Voeglin, 1941. Culture Element Distributions: XIII, Nevada Shoshoni, *Anthropological Records* 6(3), University of California, Berkeley.
- Stewart, J. L., H. D. Brown, D. R. Hamel, and D. W. Johnson, 1984. "Forest insect and disease management," In *Forestry Handbook*, K. F. Wenger (ed.), New York, John Wiley and Sons. pp. 143–188.
- Stoddart, L. A., A. D. Smith, and T. W. Box, 1943. *Range Management*. McGraw-Hill, New York, New York. 532 pp.
- Strait, R., S. Roe, A. Bailie, H. Lindquist, A. Jamison, 2008. Idaho Greenhouse Gas Inventory and Reference Case Projections 1990-2020. Center for Climate Strategies. Idaho Department of Environmental Quality. Boise, Idaho. 97 pp.
- Swanson, E.H., 1972. *Birch Creek: Human Ecology in the Cool Desert of the Northern Rocky Mountains, 9000 B.C.-A.D. 1850*. Pocatello: Idaho State University Press.
- Thornbury, W. D., 1965. *Regional Geomorphology of the United States*. John Wiley & Sons, Inc., New York, New York. 609 pp.
- Toweill, D., and G. Vecellio, 2004. Shiras Moose in Idaho, Status and Management. *Alces* 40 (p 33–43).
- Tungate, A. M., 1995. Hydrographs of Water Levels in Observation Wells in Idaho, 1944-1993. U.S. Geological Survey Open File Report 95-458. Boise, Idaho. 422 pp.
- Union of Concerned Scientists (UCS), 2007. *Avoiding Dangerous Climate Change, A Target for U.S. Emissions Reductions*. Fact Sheet based on the report, *How to Avoid Dangerous Climate Change: A Target for U.S. Emissions Reductions* by A. L. Luers, M. D. Mastrandrea, K. Hayhoe, and P. C. Frumhoff. Cambridge, Maine. 4 pp.
- United Nations Environment Programme, 2009. *Climate in Peril, A popular guide to the latest IPCC reports*. Birkeland Trykkeri, Norway. February 10. 60 pp.
- U.S. Bureau of Labor Statistics, 2009. *Current Employment Statistics, 2009*. U.S. Department of Labor. Accessed 11 May from <http://www.bls.gov>.

- U.S. Census Bureau, 2008. Population Estimates, 2008, Table GCT-T1-R. U.S. Department of Commerce, American Factfinder. <http://www.census.gov>. July 1.
- , 2007. People Quick Facts, 2007. U.S. Department of Commerce, State and County QuickFacts. Accessed May 11 from <http://quickfacts.census.gov>.
- , 2005. County Business Patterns, 2005. U.S. Department of Commerce. Accessed April 27 from <http://www.census.gov/econ/cbp>.
- , 2000. Demographic Profile Highlights, 2000, Tables SF1, SF3. U.S. Department of Commerce, American FactFinder. Accessed April 27 from <http://factfinder.census.gov>.
- , 1990. Demographic Profile Highlights, 1990, Table SF1. U.S. Department of Commerce, American FactFinder. Accessed April 27 from <http://factfinder.census.gov>.
- U.S. Bureau of Economic Analysis, 2009. Regional Economic Information System, 2009, CA1-3 tables for Planning Area counties. U.S. Department of Commerce. Accessed May 11 from <http://www.bea.gov/regional/reis>.
- , 2006. Regional Economic Information System, 2006, CA30 tables for planning area counties. U.S. Department of Commerce. Accessed April 27 from <http://www.bea.gov/regional/reis>.
- U.S. Bureau of Reclamation (BOR), 2006. Teton River Canyon Resource Management Plan Finding of No Significant Impact and Final Environmental Assessment. Department of the Interior, Bureau of Reclamation, Snake River Area Office. Boise, Idaho.
- U.S. Department of Agriculture (USDA), 2006. Affected Environment and Environmental Consequences in Forest Plan Amendment for Grizzly Bear Habitat Conservation for the Greater Yellowstone Area National Forests: U.S. Forest Service. Final Environmental Impact Statement. <http://www.fs.fed.us/rl/wildlife/igbc/Subcommittee/yes/YEamend/EIS/final-EIS/complete-FEIS.pdf>.
- , 2002. The National Fire Plan, Managing the Impact of Wildfires and Communities and the Environment, Miscellaneous Publication Mp-1584, U.S. Department of Agriculture, Washington D.C., March.
- , 1937. Range Plant Handbook. U.S. Government Printing Office, Washington, DC. 816 pp.
- U.S. Departments of Agriculture and Interior, 1997. Columbia Basin Ecosystem Management Project, Upper Columbia River Basin Draft Environmental Impact Statement. USFS and BLM. BLM-ID-PT-96-021+1610.

- U.S. Departments of Agriculture, Interior, and Energy, 2006. Scientific Inventory of Onshore Federal Lands' Oil and Gas Resources and the Extent and Nature of Restrictions or Impediments to Their Development, Phase II Cumulative Inventory, Northern Alaska; Montana and Wyoming Thrust Belts; Uinta-Piceance, Paradox/San Juan, Powder River, Greater Green River, Denver, Black Warrior, and Appalachian Basins; and The Florida Peninsula. 310 pp.
- U.S. Fish and Wildlife Service, 2009. Relisting of Grizzly Bear Notification. S. Guertin, regional director, USFWS, Mountain-Prairie Region, Denver, Colorado, to T. Dyer, state director, BLM Idaho State Office, Boise, Idaho. FWS/R6ES. September 24.
- , 1987. The Northern Rocky Mountain Wolf Recovery Plan. Department of the Interior. Denver, CO. 119 pps.
- Wellner, C., 1984. Letter to Idaho Falls BLM District Office requesting that the Bureau of Land Management consider designating Game Creek, the St. Anthony Sand Dunes, and a Snake River Island as research natural areas. Moscow, Idaho. 2 pp.
- West, N. E., 1992. Biodiversity of rangelands. *Journal of Range Management* 46(1):2-13.
- Wilmot, J., and T. W. Clark, 2005. "Wolf restoration: A battle in the war over the West," In *Coexisting with large carnivores: Lessons from Greater Yellowstone*, T. W. Clark, M. B. Rutherford, and D. Casey (eds). Island Press. Washington, D.C. pp. 138–173.
- Wilson, C. C., and J. D. Dell, 1971. The fuels buildup in American forests: a plan of action and research. *Journal of Forestry* 69: 471–475.
- Winward, A. H., 2000. Monitoring the Vegetation Resources in Riparian Areas. U.S. Department of Agriculture, Forest Service. Rocky Mountain Research Station. General Technical Report RMRS-GTR-46. 49 pp.
- Wisdom, M. J., R. S. Holthausen, B. C. Wales, C. D. Hargis, V. A. Saab, D. C. Lee, W. J. Hann, T. D. Rich, M. M. Rowland, W. J. Murphy, and M. R. Eames, 2000. Stronghold habitats for terrestrial vertebrates of focus in the Interior Columbia Basin: broad-scale trends and management implications. T. Quigley (ed.). Vols 1, 2, and 3. General Technical Report PNW-GTR-485. Portland, Oregon.
- Yellowstone Grizzly Bear Delisting Advisory Team. 2002. State of Idaho Yellowstone Grizzly Bear Management Plan, as modified by House Resource and Conservation Committee on March 13, 2002. http://species.idaho.gov/pdf/grizzly_plan.pdf. 54 pp.
- Zahniser, A., J. Cossa, and S. Stewart, 2009. Incorporating Climate Change into BLM Planning and NEPA Processes BLM National Land Use Planning Conference "Keeping Pace with Change" Portland, Oregon. March. 48 pp.

Zimmerman, G. T. and L. F. Neuenschwander, 1984. Livestock grazing influences on community structure, fire intensity, and fire frequency within the Douglas-fir/ninebark habitat type. *Journal of Range Management*, Vol. 37, No. 2, pp. 104-110.