

Chapter 3. Design Criteria

Introduction

Design criteria are used in combination with desired conditions, objectives, and suitable uses to guide the management of the IPNF. Design criteria include guidelines and other sources of design criteria.

Guidelines

Guidelines provide technical specifications and guidance for project and activity decisionmaking to help achieve desired conditions and objectives. Guidelines are not commitments or final decisions approving projects and activities.

Laws, regulations, policies and other Forest Service specific policy and directives are not repeated in these guidelines. For example, threatened and endangered species have very specific direction in law, regulation, policy, Forest Service directives, and other sources such as recovery plans; therefore, limited guidelines are found in this Plan for threatened and endangered species. If a particular resource is not addressed in these guidelines, it does not mean the resource is not managed or that the Forest Service considers a particular resource less important than those listed.

The following guidelines are applicable across the entire Forest and are organized by sustainability topic.

Other Sources of Design Criteria

This section identifies guidance from other sources that help achieve desired conditions and ensures consistency with law, regulation and policy that governs resource management of NFS lands. This direction is not included in the Plan but is listed below and is incorporated by reference or can be found in the planning record.

This direction includes but is not limited to: laws, regulations, or policies; Memorandum of Understandings; conservation strategies, assessments or plans; Forest Service directives (manuals and handbooks); or existing decisions and their biological opinions.

These sources of design criteria are listed with the guidelines by sustainability topic.

Access and Recreation

Access and Travel Management

Sources of Design Criteria: 36 CFR 212-Travel Management; 36 CFR 251-Land Uses; 36 CFR 261-Prohibitions; FSM 7700-Travel Management; FSH 7709.55-Travel Analysis Handbook; Access and Travel Management-Northern Region Guide; and R-1 Supplement #7709.59-2004-1.

Recreation

Guidelines:

1. When existing recreation residences are replaced or reconstructed, the following guidelines should be followed:
 - The maximum size limit is 1,200 square feet on the main floor as measured by the exterior dimensions. This includes enclosed/screened in porches, but excludes decks.
 - The maximum height of any recreation residence should not exceed 24 feet.
 - A minimum of a 6/12 roof pitch should be required.
 - Basements should not be permitted.
 - Shed Roofs should not be permitted.
 - Any new garage or storage building should not exceed 20 feet by 24 feet, exterior dimensions with a 9-foot wall (floor to point of contact with roof).
2. In Management Area 1a (congressionally designated wilderness), party size should not exceed 12 people and stock combined (12 total heartbeats).
3. In Management Areas 1b (recommended wilderness), and 1e (primitive lands) only hand-held motorized equipment should be used for trail maintenance, reconstruction, and construction.

Other Sources of Design Criteria: 36 CFR 212-Travel Management; 36 CFR 219-Planning; 36 CFR 251-Land Uses; 36 CFR 261-Prohibitions; 36 CFR 290-Cave Resources Management; 36 CFR 291-Occupancy and Use of Developed Sites and Areas of Concentrated Public Use; 36 CFR 293-Wilderness-Primitive Areas; 36 CFR 294-Special Areas; 36 CFR 297-Wild and Scenic Rivers; FSM 1950-Environmental Policy and Procedures; FSM 2300-Recreation, Wilderness, and Related Resource Management; FSM 2710-Special-Use Authorizations; FSM 2720-Special Uses Administration; FSM 7300-Buildings and Other Structures; FSM 7400-Public Health and Pollution Control Facilities; FSH 1909.15-Environmental Policy and Procedures Handbook FSH 2309.18-Trails Management Handbook; FSH 2709.11-Special Uses Handbook; FSH 7309.11-Buildings and Related Facilities Handbook; and FSH 7409.11-Sanitary Engineering and Public Health Handbook.

Roads

Sources of Design Criteria: 36 CFR 212-Travel Management; 36 CFR 251-Land Uses; 36 CFR 261-Prohibitions; FSM 5460-Right-of-Way Acquisition; FSM 7100-Engineering Operations; FSM 7700-Travel Management; FSH 2709.12-Road Rights-of-Way Grants Handbook; FSH 5409.17-Rights-of-Way Acquisition Handbook; FSH 7709.55-Travel Analysis Handbook; FSH 7709.56-Road Pre-construction Handbook; FSH 7709.56b-Transportation Structures Handbook; FSH 7709.57-Road Construction Handbook; FSH 7709.58-Transportation System Maintenance Handbook; FSH 7709.59-Transportation System Operations Handbook; R1 Supplement 46; R1 Supplement 59; R1 Supplement 73; R1 Supplement 7100-91-1; and Miscellaneous Report FS-643 Roads Analysis: Informing Decisions about Managing the National Forest Transportation System.

Scenery

Guideline:

1. Management activities should be designed and implemented to be consistent with the established Scenic Integrity Objectives.

Other Sources of Design Criteria: FSM 2380 – Landscape Management; Agriculture Handbook Number 701 – Landscapes Aesthetics; A Handbook for Scenery Management.

Roadless Areas

Other Sources of Design Criteria: 36 CFR 294-Special Areas (Subpart B) and FSM 1925-Management of Inventoried Roadless Areas (Interim Directive 1920-2006-1).

Vegetation

Guideline:

1. To maintain rare elements in the ecosystem, live trees over 54 inches in diameter should be retained unless human health and safety would be compromised.

Other Sources of Design Criteria: FSM 2000-National Forest Resource Management; FSM 2080-Noxious Weed Management; FSM 2470-Silvicultural Practices; FSM 2600-Wildlife, Fish, and Sensitive Plant Management; FSM 2620-Habitat Planning and Evaluation; FSM 2621-Management Indicators; FSM 2622-Biological Diversity; FSM 3400-Forest Pest Management; USDA Regulations 9500-4 and 5; USDA, Idaho Department of Lands, and Montana DNRC-Forest Insect and Disease Identification and Management; Executive Order (EO) 11990-Protection of Wetlands; Healthy Forest Restoration Act, 2003; and EO 13112 Invasive Species.

Threatened, Endangered, and Proposed Plant Species

Sources of Design Criteria: 36 CFR 219-Planning; FSM 2670-Threatened, Endangered and Sensitive Plants and Animals; Sikes Act as amended (74 Stat. 1052; 88 Stat. 1369) 16 U.S.C. 670g); Conservation Strategy for *Howellia aquatilis*, 1994; and recovery plans for management direction of listed and candidate threatened plant species.

Plant Species of Concern and Species of Interest

Guideline:

1. Activities should protect documented populations of species of concern and species of interest.

Other Sources of Design Criteria: FSM 2600-Wildlife, Fish, and Sensitive Plant Habitat Management; FSH 2609.13-Wildlife and Fisheries Program Management Handbook; Element Stewardship Abstract for *Betula Pumila*, 1985; Species Conservation Strategy and Monitoring Plan for *Blechnum spican*; Peatlands on National Forests of the Northern Rocky Mountains: Ecology and Conservation, 1996; IPNF Peatlands: Description and Effects of Forest Management, 2003; A classification of aquatic plant communities within the northern rocky mountains, 2002; A plant community classification for IPNF Peatlands, 2004; and Conservation Strategy for Clustered Lady's-Slipper Orchid (*Cypripedium Fasciculatum*) in USFS Region 1.

Old Growth

Guidelines:

1. Management activities should not reduce the amount (acres) of existing old growth.
2. Eliminate or minimize road-related impacts (considering the loss of snags and down wood) within or adjacent to lands being managed for old growth.
3. New or temporary road construction or other developments should be avoided in existing old growth.

Other Sources of Design Criteria: Green and others 1992, corrected 02/2005.

Ancient Cedar Grove

Guidelines:

1. Timber harvest should not occur in ancient cedar groves.
2. Prescribed fire in ancient cedar groves should not result in mortality of large trees (greater than 15 inch DBH).

Other Sources of Design Criteria: Ecology of Western Redcedar Groves, February 1986.

Down Wood

Guideline:

1. Vegetation management activities should retain at least the minimum amounts of coarse woody debris displayed in Table 1 of the Vegetation Desired Condition “Down Wood Forestwide Desired Condition” section on page 1-9 in Chapter 1.

Other Sources of Design Criteria: FSM 2550-Soil Management and FSM 5150-Fuel Management.

Insects and Disease

Sources of Design Criteria: FSM 3400-Forest Pest Management; and USDA, Idaho Department of Lands, and Montana DNRC-Forest Insect and Disease Identification and Management Handbook.

Noxious Weeds and Invasive Plant Species

Sources of Design Criteria: FSM 2080-Noxious Weed Management; FSM 2150 - Pesticide Use; FSH 2709.11-Special Use Permits; FSH 2200 Range Management; Individual IPNF District EIS; Federal Noxious Weed Act, 1975; State Weed Management Plans for Montana and Idaho; Policy of Noxious Weed Management 1990; and R-1 Noxious Weed BMPs; National Strategy and Implementation Plan for Invasive Species Management.

Timber

Sources of Design Criteria: 36 CFR 221-Timber Management Planning; 36 CFR 223-Sale and Disposal of National Forest System Timber; FSM 1920-Land Management Planning; FSM-2400 Timber Management; FSH-2400 Timber Management; FSH-1900 Planning; and Timber Sale Contract Provisions and procurement contracts.

Fire

Sources of Design Criteria: FSM 5100-Fire Management; FSM 5110-Wildfire Prevention, FSM 5120-Presuppression Management, FSM 5130-Fire Suppression; FSM 5140-Prescribed Fire; FSM 5150-Fuel Management; FSM 5160-Fire Management Equipment and Supplies; FSM 5170-Fire Management Cooperation; FSM 5180-Fire Reports; FSM 5190-Management; FSH 5109.14-Individual Fire Report Handbook; FSH 5109.17-Wildland Fire Qualifications Handbook; FSH 5109.18-Wildfire Prevention Handbook; FSH 5109.19-Fire Management Analysis and Planning Handbook; FSH 5109.31-Wildfire Cause Determination Handbook (NWCG Handbook 1); FSH 5109.32a-Fireline Handbook (NWCG Handbook 3); FSH 5109.34-Interagency Fire Business Management Handbook (NWCG Handbook2); 1998 Wildland and Prescribed Fire Management Policy Implementation Procedures Reference Guide; 2001 Review and Update of the 1995 Federal Wildland Fire Management Policy; 2001 A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment 10-Year Comprehensive Strategy; 2002 A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment 10-Year Comprehensive Strategy Implementation Plan; 2005 Wildland Fire Use Implementation Procedures Reference Guide; 2005 Interagency Standards for Fire and Fire Aviation Operations (Red Book) updated annually; 2005 Benewah County Community Wildfire Protection Plan; 2005 Bonner County Community Wildfire Protection Plan; 2005 Boundary County Community Wildfire Protection Plan; 2005 Kootenai County Community Wildfire Protection Plan; 2005 Shoshone County Community Wildfire Protection Plan; and IPNF Annual Fire Management Plan.

Wildlife

Guideline:

1. Special use permits and operating plans (outfitter and guide, grazing) should specify sanitation measures to reduce wildlife conflicts and minimize bear mortality.

Other Sources of Design Criteria: FSM 2600-Wildlife, Fish and Sensitive Plant Habitat Management; FSH 2609.13-Wildlife and Fisheries Program Management; FSM 2550-Soil Management; FSM 5150-Fuel Management; FSH 2509.18-Soil Management; and the Endangered Species Act (1973).

Connectivity

Sources of Design Criteria: Identifying and Managing Wildlife Linkage Approach Areas on Public Lands (2004); Identification and Management of Linkage zones for Wildlife Between the Large Blocks of Public Land in the Northern Rocky Mountains (2003); and Lynx Linkages Areas (2003).

Threatened and Endangered Wildlife Species

Grizzly Bear

Guideline:

1. Within the Selkirk and Cabinet/Yaak grizzly bear recovery zones; for those BMUs that do not currently (2003) meet standards for core, TMRD and OMRD those standards should be met in the following timeframes: by 2007 – 35 percent of those BMUs; by 2009 70 percent; and by 2011 all BMUs will meet standards (see the Forest Plan amendment and biological opinion for Motorized Access Management within the Selkirk and Cabinet/Yaak grizzly bear recovery zones for the Kootenai, Idaho Panhandle, and Lolo National Forests).

Other Sources of Design Criteria: Grizzly Bear Recovery Plan (1993); the Interagency Grizzly Bear Committee Guidelines (1986); the Forest Plan Amendment for Motorized Access Management within the Selkirk and Cabinet/Yaak grizzly bear recovery zones (2002); and the Biological Opinion (2002).

Woodland Caribou

Guidelines:

1. Management activities within lands identified as capable habitat should enhance or facilitate the development of suitable habitat.
2. Management activities should avoid impacts to travel corridors that would reduce their effectiveness for movement by caribou.
3. Avoid or minimize disturbance in known caribou calving habitat from June 1 to July 15.
4. Avoid or minimize disturbance to caribou related to snowmobile use during the winter period (December 1 to April 30).

Other Sources of Design Criteria: Selkirk Mountain Caribou Management Plan/Recovery Plan; Woodland Caribou Cumulative Effects Analysis Model; Selkirk Mountains Caribou Herd Augmentation Plan; Caribou Habitat Management Guidelines and the Selkirk Mountain Woodland Caribou Recovery Plan; IPNF Winter Recreation Strategy; and Recovery Action Plan for the South Purcell and South Selkirk Mountain Caribou Populations.

Bald Eagle

Guideline:

1. Avoid or minimize disturbance within one-half mile of active (occupied) nest sites from February 1 to June 15, unless site-specific nest management plans determine other timeframes or distances are more appropriate.

Other Sources of Design Criteria: Montana Bald Eagle Management Plan (1994); Pacific States Bald Eagle Recovery Plan (1986); and the Bald and Golden Eagle Protection Act (1940).

Gray Wolf

Guideline:

1. Avoid or minimize disturbance within one mile of active den sites between February 1 and May 30, unless site specific planning determines other distances and timeframes are more appropriate.

Other Sources of Design Criteria: Northern Rocky Mountain Wolf Recovery Plan (1987); Montana Gray Wolf Conservation and Management Plan (2003); and Idaho Wolf Conservation and Management Plan (2002).

Canada Lynx

Sources of Design Criteria: The Lynx Conservation Assessment and Strategy (LCAS) is being followed. Dialogue with US Fish and Wildlife Service continues; to discuss ways of incorporating the science for Canada lynx into Forest Service management. Ecology and Conservation of Lynx in the United States (1999) and Lynx Conservation Assessment and Strategy (LCAS) (2000).

Wildlife Species of Concern and Species of Interest

Guidelines:

1. Management activities should avoid or minimize disturbance to species of concern and species of interest and their habitats on NFS lands during critical life stages, as identified in the table below. These timeframes should be used unless project level analysis determines others may be used and still protect the species. Where nests of raptors or additional species of concern or species of interest are identified, other than those listed in Table 32 below, appropriate distances and timing of activities should be determined and implemented to minimize impacts to raptors and other resources.

Table 32. Wildlife Species of Concern and Species of Interest Activities Schedule

Species	Timing of Activities
Common loon nesting	April 15 – July 1
Northern goshawk nesting	April 1 – July 15
Wolverine dens	December 1 – April 30
Flammulated owl	May 1 – July 31
Harlequin duck nesting and rearing	April 15 – July 15
Peregrine falcon	March 1 – August 31

4. For those terrestrial mollusks identified as species of concern, protect documented locations and high probability habitat that may be impacted by project activities.
5. Management actions should consider species conservation assessments and strategies when conducting activities that may impact habitat.
6. Eliminate or minimize effects to rare or unique communities associated with management activities and recreational use (i.e., avoid winter motorized use) across fens or bogs with known bog lemming use.

Other Sources of Design Criteria: FSH 1909.12, Chapter 40-Land Management Planning Handbook, Science and Sustainability; Status Assessment and Conservation Plan for the Common Loon (*Gavia immer*) in North America; Montana Common Loon Management Plan (1998); The common loon in the northern Region: Biology and Management Recommendations (1994); The harlequin duck conservation assessment and strategy, Cassirer et al. 1996; Flammulated, boreal, and great gray owls in the United States: A technical conservation assessment (1994); Fisher Biology and Management: a literature review and adaptive management strategy (1994); Conservation Assessment for Fisher in Idaho (1995); Forest Carnivores in Idaho: habitat conservation assessments and conservation strategies (1995); Conservation Assessment for wolverine in Idaho (1995a); Wolverine, Lynx, and Fisher Habitat and Distribution Maps, Draft Hierarchical Approach and Draft Conservation Strategies (1994); Montana Comprehensive Fish and Wildlife Conservation Strategy (2005); Idaho Comprehensive Wildlife Conservation Strategy (2005); Washington Comprehensive Wildlife Conservation Strategy (2005); Status and Conservation Management of Terrestrial Mollusks of Special Concern in Montana (2003); and A Conservation Assessment of the Northern Goshawk Black-backed Woodpecker, Flammulated Owl, and Pileated Woodpecker in the Northern Region (2006).

Snag-associated Species

Guidelines:

1. In addition to the snag numbers described in Table 3 of the Wildlife Desired Condition “Snags and Down Wood Desired Condition” section on page 1-22 in Chapter 1, vegetation management activities should retain all existing (no less than four per acre) large-diameter snags (greater than 20 inches DBH), where they exist, except for specifically identified instances for safety. Snag numbers are averaged by vegetation response unit (VRU) group over the planning subunit. In areas where these numbers are not attainable provide amounts as close as possible to those listed, substitute other species where possible to meet numbers listed, and document why conditions cannot be met.
2. Vegetation management activities should retain six to eight live trees per acre for future snags. Where it is determined not feasible to retain snags within a project area, additional live trees (at least three for each snag not retained) should be left on site.
3. Retained snags and snag recruits are designated as wildlife trees and should be left on site if felled or blown over.
4. Within each planning subunit, retain minimum snag numbers on at least 40 percent of the NFS lands that make up each biophysical setting.

Bats

Guideline:

1. Avoid or minimize disturbance of occupied caves and mines from May 1 to December 15 for maternity roosts and from October to April for hibernacula. Caves or abandoned mines with known bat use should be evaluated for gate installation.

Other Sources of Design Criteria: Habitat conservation assessment and conservation strategy for the Townsend’s big-eared bat (1995); and Idaho Bat Conservation Plan (Draft 2005).

Migratory Birds

Sources of Design Criteria: Migratory Bird Treaty Act (1918); Migratory Bird Conservation Act (1929); Neotropical Migratory Bird Conservation Act; Executive Order (EO) 13186 (2001); Montana Partners in Flight Bird Conservation Plan (2000); and Idaho Partners in Flight Bird Conservation Plan (2000).

Big Game

Guidelines:

1. Management activities should maintain a minimum of 30 percent thermal cover on big game winter range within each planning subunit.
2. Snowmobile use should avoid or minimize disturbance to mountain goats in occupied winter ranges, during the winter and spring seasons (December 1 to June 30).
3. Management activities should avoid or minimize disturbance to big game on winter range between December 1 and April 30, with the exception of through routes. Management activities that occur on winter range during the winter period should concentrate activities to reduce impacts to big game.

Other Sources of Design Criteria: FSM 2600-Wildlife, Fish, and Sensitive Plant Habitat Management; FSH 2609.13-Wildlife and Fisheries Program Management Handbook; Guidelines for Evaluating and Managing Summer Elk Habitat in Northern Idaho (1984); Coordinating Elk and Timber Management/The Montana Cooperative Elk Logging Study (1985); Montana Elk Management Plan (2005); Mountain Goat Habitat Management Plan for the Cabinet Mountains, Montana (1980); Defining Elk Security; and Hillis Paradigm (1991).

Watersheds (Soil, Water, and Riparian Areas) and Aquatic Species

Watersheds

Guidelines:

1. New and renewed special use permits related to water uses should include appropriate terms and conditions to ensure that water quality and beneficial uses are fully protected.
2. Ground-disturbing activities in impaired watersheds (listed by the State under CWA section 303(d)) where an adopted TMDL is not available, should not cause a decline in water quality or further impair beneficial uses of the water. A short-term or incidental water quality departure may occur where there is no threat or impairment to the beneficial uses of the water when the State concurs.
3. Roads and trails that are removed or put into intermittent stored service from the Forest transportation network should be treated sufficiently to avoid future risks to watershed functions, water quality, or beneficial uses. Sufficient treatments may include:
 - Removal of all unstable fills;
 - Effective and permanent breeching of ditches;

- Elimination of persistent insloped treads (i.e., all remaining road tread is outsloped);
 - Complete removal of stream crossing structures and associated fills; and
 - Restoration of self-maintaining hydrologic functions on the site (i.e., no further management intervention to sustain natural process and function).
2. Ground-disturbing activities in source water areas (designated special or public water supply watersheds) should prevent or reduce risks and threats to public and domestic uses of the water.

Other Sources of Design Criteria: 36 CFR 251.9-Land Uses; FSM 2500-Watershed and Air Management; FSH 2509.22-Soil and Water Conservation Handbook; Rules pertaining to the Idaho Forest Practice Act, Title 38, Chapter 13, Idaho Code (BMPs); Rules pertaining to Stream Channel Protection, Title 42, Chapter 38, Idaho Code; Executive Order (EO) 11988 of May 24, 1977, (Management of Flood Plains); Executive Order (EO) 11990 of May 24, 1977; (Protection of Wetlands); and Executive Order (EO) 12088 of October 13, 1978, (Pollution prevention).

Soils

Guidelines:

1. When tops and limbs are left onsite for nutrient retention, they should remain for at least one winter season.
2. Long tractor skids should not occur on slopes greater than 35 to 40 percent without additional soil protection measures.
3. See recommended levels of residual coarse woody debris for soils in Table 1 of the Vegetation Desired Condition “Down Wood Forestwide Desired Condition” section on page 1-9 in Chapter 1.

Other Sources of Design Criteria: FSM 2550-Soil Management (R1 Supplement 2500-99-1); and FSH 2509.22 Soil and Water Conservation Handbook (and any future supplements).

Riparian Areas

Riparian guidelines apply to all Riparian Conservation Areas (RCAs) and to projects and activities in areas outside the RCAs that may potentially degrade RCAs.

Guidelines:

1. When RCAs are intact and functioning at desired condition, then management activities should maintain or improve that condition.
2. When RCAs are not intact and functioning at desired condition, then management activities should include restoration components that exceed full compensation for project effects to promote a trend toward desired conditions.
3. Management activities in RCAs should not result in long-term degradation to aquatic conditions. Limited short-term effects from activities in the RCAs may be acceptable when they support long-term benefits to the RCAs and aquatic resources.
4. Soil and snow should not be sidecast into surface water.

5. New, replacement, and reconstructed crossing sites (culverts, bridges and other stream crossings) should be designed to:
 - Accommodate 100-year floods including associated bedloads and debris.
 - Prevent diversion of stream flow out of the channels.
 - Provide and maintain fish passage up to bankfull discharge.
6. Crossing locations on roads being put into long-term storage should provide fish passage.
7. Grazing management should prevent trampling of native fish redds by livestock.
8. Minimum impact suppression tactics should be used within RCAs.
9. Trees felled in RCAs for safety concerns should be left on site.
10. When drafting water from streams, pumps should be screened to prevent entrainment of fish and aquatic organisms.

Other Sources of Design Criteria: FSH 2509.22-Soil and Water Conservation Handbook (to include any future supplements); Rules pertaining to the Idaho Forest Practice Act, Title 38, Chapter 13, Idaho Code (BMPs); Rules pertaining to Stream Channel Protection, Title 42, Chapter 38, Idaho Code; and Executive Order (EO) 11988 of May 24, 1977, (Management of Flood Plains).

Aquatic Species

Guidelines:

1. Activities that may harass native fish or directly deliver sediment to occupied native fish streams should be limited to the times outside of spawning and incubation seasons:
 - For streams with spring spawners, activities should not occur prior to July 15.
 - For streams with fall spawners, activities should not occur between September 1 and March 15.
 - Dates can be modified when stream-specific information on staging and spawning of native fishes supports changes.
2. Documented amphibian breeding sites should be buffered from management activities that have the potential to disturb such sites.

Other Sources of Design Criteria: FSM 2600-Wildlife, Fish and Sensitive Plant Habitat Management; and FSH 2609.13-Wildlife and Fisheries Program Management Handbook.

Other Topics

Air Quality

Guideline:

1. The Forest should cooperate with the States in meeting the requirements of the State Implementation Plans (SIPs) and the Smoke Management Plans (SMPs).

Other Sources of Design Criteria: FSM 2580-Air Resource Management; FSM 5100-Fire Management; FSH 5109.19-Fire Management Analysis and Planning Handbook; Clean Air Act, as amended (42 U.S.C. 7401 et seq.); Columbia River Basin Air Quality Assessment (11/95)-Regional Pollution Potential (4/98)- Air Quality Climate of Columbia River Basin (8/98)- Region 1 Air Resource Management Plan (4/97); Lake Chemistry data from USFS NRIS Air web site; NADP data from NREL Web Site; EPA AIRS data base web site for emission sources; Screening Procedure to Evaluate Effects of Air Pollution in Region 1 Wilderness Areas (draft, 1997); Region 1 Air Quality Guidance for Oil and Gas Leasing (5/94); AQRV lichen and lake monitoring reports, Visibility Summary for Region 1 (4/91); and Desk Reference for NEPA Air Quality Analysis (1995).

Buildings and Other Structures

Sources of Design Criteria: 36 CFR 1190-Minimum Guidelines and Requirements for Accessible Design; 36 CFR 1191-Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities; Architectural Barriers Act (ABA) Accessibility Guidelines; FSM 7300-Buildings and Other Structures; FSM 7400-Public Health and Pollution Control Facilities; FSM 7500-Water Storage and Transmission; FSM 7600-Electrical Engineering; FSH 7309.11-Buildings and Related Facilities Handbook; FSH 7409.11-Sanitary Engineering and Public Health Handbook; FSH 7509.11-Dams Management Handbook; R1 Supplement 7300-90-4; Built Environment Image Guide FS-710; International Building Code Handbook; and Americans with Disabilities Act Accessibility Guidelines and Architectural Barriers Act Guidelines.

Experimental Forests

Sources of Design Criteria: 36 CFR 219.2-Levels of Planning and Planning Authority; 36 CFR 251.23-Experimental Areas and Research Natural Areas; and FSM 4062-Experimental Forests, Ranges, Grasslands, and Watersheds.

Grazing

Guideline:

1. Permits for grazing on allotments without a current environmental analysis and decision should include the following utilization guidelines:
 - 35 percent maximum allowable utilization on palatable and available plant species on big game winter range sites.
 - 50 percent maximum allowable utilization on key forage species on all other sites.
 - Invasive plants that are not palatable should be excluded from utilization measures.

Other Sources of Design Criteria: 36 CFR 222-Range Management; FSM 2200-Range Management; FSH 2209.13-Grazing Permit Administration Handbook; FSH 2209.21-Rangeland Ecosystem Analysis and Management Handbook; and 1978 Public Rangelands Improvement Act.

Heritage Resources

Guidelines:

1. Include historic property protection provisions in applicable contracts and special use permits.
2. Metal detectors should not be used to locate archaeological or historical artifacts except for scientific research as permitted by the forest.
3. Geocaching should not occur on historic properties.
4. Leave historic human remains undisturbed unless there is an urgent reason (e.g., human health and safety, natural event, etc.) for their disinterment.

Other Sources of Design Criteria: 36 CFR 800-Protection of Historic Properties; 36 CFR 296-Protection or Archaeological Resources: Uniform Regulations; 36 CFR 60-National Register of Historic Places; FSM 2360-Special Interest Areas; Executive Order (EO) 11593-Protection and Enhancement of the Cultural Environment; EO 13287-Preserve America; Section 106 Programmatic Agreement between Region 5, California State Historic Preservation Officer, and the Advisory Council on Historic Preservation; Programmatic Agreement between the Idaho State Historic Preservation Officer, the USFS Northern Region, and The Advisory Council on Historic Preservation; and the National Heritage Strategy.

Lands and Special Uses – Utility Corridors and Communication Sites

Guideline:

1. New electrical distribution (33 kv or less) and telephone lines should be buried unless one or more of the following applies:
 - Burial is not feasible due to geologic hazard or unfavorable geologic conditions.
 - Greater long-term site disturbance would result.

Other Sources of Design Criteria: 36 CFR 212-Travel Management; 36 CFR 251-Land Uses; 36 CFR 254-Landownership Adjustments; FSM 1920-Land and Resource Management Planning; FSM 2700-Special Uses Management; FSM 5400-Landownership; FSM 5500-Landownership Title Management; FSM 7150-Surveying; FSM 7700-Travel Management; FSH 2709.11-Special Uses Handbook; FSH 2709.12-Road Rights-of-Way Grants Handbook; FSH 2709.15-Hydroelectric Handbook; FSH 5409.13-Land Acquisition Handbook; FSH 5409.17-Rights-of-Way Acquisition Handbook; FSH 5509.11-Title Claims, Sales, and Grants Handbook; R1 Supplement 114; R1 Supplement 2700-2003-1; R1 Supplement 2700-2004-1; R1 Supplement 2700-2004-2; R1 Supplement 2700-2004-3; R1 Supplement 2700-2004-4; R1 Supplement 2700-2005-1; Residential Access Policy; and 1992 Western Regional Corridor Study. Energy Policy Act of 2005.

Minerals

Sources of Design Criteria: 36 CFR 228-Minerals (Subparts A – Locatable Minerals, Subpart B – Leasable Minerals Subpart C – Disposal of Mineral Materials, Subpart D – Miscellaneous Minerals Provisions, Subpart E – Oil and Gas Resources); 36 CFR 251-Land Uses; 43 CFR 2300-Land Withdrawals; FSM 2760-Withdrawals; FSM 2800-Minerals and Geology; R1 Supplement 28; R1 Supplement 2800-94-1; R1 Supplement 2800-2003-; R1 Supplement 2004-2; and R1 Supplement 2800-2004-3.

Other Forest Products

Sources of Design Criteria: National Strategy for Special Forest Products, 2001.

Research Natural Areas (RNAs)

Sources of Design Criteria: 36 CFR 251.23-Experimental Areas and Research Natural Areas; FSM 4063-Research Natural Areas; and RNA Designation Reports and Management Plans.

Special Interest Areas (SIAs)

Sources of Design Criteria: 36 CFR 219 - Planning; 36 CFR 261-Prohibitions; 36 CFR 294-Special Areas; 36 CFR 296-Protection of Archaeological Resources: Uniform Regulations; FSM 2360-Special Interest Areas, and FSM 2370-Special Recreation Designations.

Tribal Consultation

Guidelines:

1. Consult with Tribes when management activities may impact treaty rights and/or cultural sites and cultural use, according to the Consultation Protocol.
2. Geocaching should not occur in traditional cultural use areas.

Other Sources of Design Criteria: Executive Order (EO) 13084-Consultation with Indian Tribal Governments; EO 13175-Consultation with Indian Tribal Governments; and Forest Service National Resource Book on American Indian and Alaska Native Relations.

Wild and Scenic Rivers (W&SRs)

Sources of Design Criteria: 36 CFR 297-Wild and Scenic Rivers; FSM 1924-Wild and Scenic River Evaluation; FSM 2354-River Recreation Management; and FSH 1909.12-Land and Resource Management Planning Handbook: Chapter 80-Wild and Scenic River Evaluation