

United States Department of the Interior  
Bureau of Land Management

Record of Decision and Approved  
Coeur d'Alene Resource Management Plan



June 2007



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Bureau of Land Management**

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Coeur d'Alene Resource  
Management Plan**

**Coeur d'Alene Field Office  
Coeur d'Alene, Idaho**

**June 2007**

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## LIST OF ACRONYMS

Acronym or Abbreviation	Full Phrase
ACEC	area of critical environmental concern
AML	abandoned mine lands
AMR	appropriate management response
BLM	United States Department of the Interior, Bureau of Land Management
BMP	best management practices
BMU	bear management unit
CdA	Coeur d'Alene
CdA RMP	Coeur d'Alene Resource Management Plan
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CNFISH	Coeur d'Alene Native Fish Strategy
DBH	diameter at breast height
EIS	environmental impact statement
ES&R	Emergency Stabilization and Rehabilitation
FLPMA	Federal Land Policy and Management Act
FO	field office
FORVIS	Forest Vegetation Information System
FRCC	fire regime condition class
FVS	forest vegetation simulator
GIS	geographic information system
HFRA	Healthy Forests Restoration Act
HMP	habitat management plan
HUC	hydrologic unit code
ICBEMP	Interior Columbia Basin Ecosystem Management Project
IDEQ	Idaho Department of Environmental Quality
IDFG	Idaho Department of Fish and Game
IDL	Idaho Department of Lands
IGBC	Interagency Grizzly Bear Committee
IMP	Interim Management Policy (for wilderness study areas)
ISDA	Idaho State Department of Agriculture
IPNF	USDA Forest Service, Idaho Panhandle National Forest
LAU	lynx analysis unit
MBF	thousand board feet
MFP	management framework plan
MIST	minimum impact suppression tactics
MMBF	million board feet

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## LIST OF ACRONYMS *(continued)*

Acronym or Abbreviation

Full Phrase

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NEPA	National Environmental Policy Act of 1969
NOA	notice of availability
NOI	notice of intent
NRHP	National Register of Historic Places
NRT	National Recreation Trail
OHV	off-highway vehicle
OMRD	Open Motorized Road Densities
Planning Area	Coeur d'Alene Field Office RMP Planning Area
RAC	Resource Advisory Council
RCA	riparian conservation area
RHCA	riparian habitat conservation area
RMO	riparian management objective
RMP	resource management plan
RNA	Research Natural Area
ROD	record of decision
ROW	right-of-way
S&G	Idaho Standards for Rangeland Health and Guidelines for Livestock Grazing Management
SRMA	Special Recreation Management Area
TCP	traditional cultural property
TMRD	Total Motorized Road Densities
US	United States
USFS	United States Department of Agriculture, Forest Service
VRM	visual resource management
WFIP	wildland fire implementation plan
WFSA	wildland fire situation analysis
WSA	Wilderness Study Area
WSR	Wild and Scenic River
WUI	wildland-urban interface

# RECORD OF DECISION

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## DECISION

The attached resource management plan (RMP) is hereby adopted for the public lands and resources managed by the Coeur d'Alene Field Office, within Benewah, Bonner, Boundary, Kootenai, and Shoshone Counties of Idaho. This plan supersedes the Emerald Empire Management Framework Plan (BLM 1981), its amendments, and other management decisions, which previously guided management of these lands and resources.

This plan was prepared under the regulations (43 Code of Federal Regulations [CFR] Part 1600) implementing the Federal Land Policy and Management Act of 1976. An environmental impact statement (EIS) was prepared for this RMP, in compliance with the National Environmental Policy Act (NEPA) of 1969.

## OVERVIEW OF THE ALTERNATIVES

The BLM developed four resource management plan alternatives, including a No Action Alternative, and analyzed them in detail in an EIS (BLM 2006a, 2006b). Each alternative emphasizes a different combination of resource uses, allocations, and restoration measures to address issues and resolve conflicts among uses, so program goals are met in varying degrees across the alternatives. The four alternatives considered are summarized below.

### ***Alternative A (No Action—Continue Current Management)***

Referred to as the No Action Alternative, this alternative would continue present management practices based on the existing land use plan and amendments.

### ***Alternative B (Commodity—Utility Emphasis)***

Alternative B emphasized active management for commodities, amenities, and services. Under this alternative protection of resources was generally considered secondary to commodity production and resource uses. This alternative also emphasized opportunities for developed recreation.

***Alternative C (Minimal Active Management—Preservation Emphasis)***

Alternative C included management strategies to preserve and protect noncommodity resources, such as wildlife habitat and water quality, and deemphasized commodity production and other uses. Under this alternative there would have been much less active management of resources than under the other alternatives. This alternative emphasized dispersed recreation.

***Alternative D (Proposed Action)***

Alternative D is the Approved RMP with minor modifications and clarifications (see Notice of Modifications below). This alternative and the Approved RMP emphasize a balanced, conservation management of commodity and noncommodity resources. It incorporates many management objectives and actions from the first three alternatives, and includes different management direction, when deemed necessary.

**NOTICE OF MODIFICATIONS**

The Approved RMP is identical to Alternative D of the Proposed RMP/Final EIS (PRMP/FEIS), with minor modifications and clarifications identified as a result of a recent congressionally mandated land exchange, internal review of the PRMP/FEIS, and consultation with the US Fish and Wildlife Service regarding federally listed threatened and endangered species. These minor modifications and clarifications did not result in substantial changes to the proposed action that are relevant to environmental concerns, therefore a supplemental FEIS is not necessary. The modifications and clarifications are:

- Total acres of public land managed by the BLM changed from 96,898 to 97,935; the maps in Appendix G reflect current land status, and
- Minor clarifications in conservation measures regarding Canada lynx, gray wolf, bald eagle, and white sturgeon.

**ENVIRONMENTALLY PREFERRED ALTERNATIVE**

The BLM determined Alternative D, the Approved RMP, to be the environmentally preferable alternative when considering both the human (social and economic) environment and the natural environment. The Council on Environmental Quality has defined the environmentally preferable alternative as the one that will promote the national environmental policy, as expressed in Section 101 of NEPA. This section lists six broad policy goals for all federal plans, programs, and policies, as follows:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
- Ensure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings;
- Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;



- Preserve important historical, cultural, and natural aspects of our national heritage and maintain, wherever possible, an environment that supports diversity and variety of individual choice;
- Achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities; and
- Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

Based on these criteria, identifying the environmentally preferable alternative involves balancing current and potential resource uses, resource impacts and mitigation to maintain a healthy environment while meeting human needs. Alternative D provides this balance. Alternatives A and B could be viewed as the least environmentally preferable alternatives because they offer the most intensive active management for uses of the area but provide the fewest restrictions for protecting resources. Alternative C would be more protective of many natural and biological values than the other alternatives but would provide for fewer or restricted uses, resulting in the greatest economic and social impacts. Also, the emphasis on minimal active management under this alternative could result in undesired conditions, especially in regard to wildland fire potential.

#### **MANAGEMENT CONSIDERATIONS/DECISION RATIONALE**

Approval of the attached RMP considers of a number of factors, including input from Native American tribes, state and county governments, other federal agencies, the Coeur d'Alene Resource Advisory Council (RAC), interested organizations, and the public. Approval of the RMP is the best approach to addressing the planning issues identified through scoping, meeting the purpose and need of the planning process, and providing an optimal balance in managing resource uses while considering potential impacts to public lands.

#### **MITIGATION MEASURES**

The Approved Plan contains appropriate mitigation and management actions to avoid or minimize environmental impacts where practicable. BMPs, use restrictions, and stipulations will be used, as identified in the plan, for activities such as road construction, recreational development and mineral activities. Additional mitigation may also be developed during site specific activity and project level analysis.

#### **PLAN MONITORING**

BLM planning regulations (43 CFR 1610.4-9) require continuous monitoring of RMPs and periodic formal evaluations. The BLM will monitor the Approved Plan to determine whether the objectives set forth in this document are being met and if the land use plan direction is effective. Monitoring for each program area is outlined in the management decisions section of the Approved Plan. If monitoring shows land use plan actions or BMPs are not effective, the BLM may modify or adjust management without amending or revising the plan, as long as assumptions and impacts disclosed in the analysis remain valid and broad-scale goals and objectives are not changed. Where the BLM considers taking or

approving actions that alter or do not conform to overall direction of the plan, the BLM will prepare a plan amendment or revision and appropriate environmental analysis.

## **PUBLIC INVOLVEMENT**

BLM conducted an extensive public outreach program to encourage broad public participation during the development of this RMP. Participation by the public and state and federal agencies enhanced BLM's understanding of the various viewpoints for consideration in developing: the alternatives for analysis; the preferred alternative for public comment on the Draft EIS/RMP; the proposed alternative for the Final EIS and Proposed RMP; and the final decision implementing the RMP.

### ***Scoping***

The BLM conducted formal public scoping from September 3 to November 15, 2004. During the scoping period, the BLM held five public meetings, distributed a newsletter to interested parties, established a project Internet Web site, and published notices in the *Federal Register* and local newspapers. BLM received 41 comment letters and e-mails, containing over 200 comments. The BLM analyzed these comments and used the results to identify the planning issues (see attached RMP), to develop alternatives, and to conduct environmental analysis of the alternatives.

### ***Draft RMP/EIS***

On January 13, 2005, the BLM published the Draft RMP/EIS and provided for a 90-day public review and comment period. Copies of the document were distributed upon request and it was available for viewing on the Internet Web site and at the Coeur d'Alene Field Office. During the comment period, the BLM conducted three publicly noticed meetings and distributed a newsletter to interested parties. BLM received 68 comment letters and e-mails, containing almost 700 individual comments.

### ***Proposed RMP/Final EIS***

Public comments on the Draft RMP/EIS, internal review, consultation with the Coeur d'Alene Tribe and consultation with US Fish and Wildlife Service, were considered and incorporated in Proposed RMP/FEIS. The Proposed RMP/FEIS was published on October 27, 2006, and contained responses to all substantive comments received on the Draft. BLM distributed copies upon request, made the document available on the Internet Web site and at the Coeur d'Alene Field Office. The BLM also distributed newsletters to all interested parties and published notices in the *Federal Register* and local newspapers. Publication of the Federal Register Notice of Availability initiated a 30-day protest period.

### ***Record of Decision/Approved RMP***

Copies of this Record of Decision (ROD) and Approved RMP are available upon request or, are available for viewing on the project Internet Web site, at the Coeur d'Alene Field Office, and at the BLM Idaho State Office in Boise.

**PROTESTS AND APPEALS**

BLM policy on land use planning specifies the types of decisions that are considered land use planning decisions, and those that are consider implementation level decisions. This policy is outlined in the BLM Land Use Planning Handbook (BLM 2005). Land use planning decisions are subject to protest, in accordance with land use planning regulations (43 CFR 1610.5-2). Implementation level decisions are not subject to protest, but may be appealed as described by 43 CFR 4.4.

All decisions covered by this ROD, with the exception of the route designations for motorized travel, are land use planning decisions that were protestable upon publication of the Proposed RMP. In accordance with 43 CFR 1610.5-2, the decision of the Director of BLM regarding protests is the final decision for the Department of the Interior and is not subject to further administrative appeal.

**Results of Protest Review**

BLM received two protest letters on the proposed land use plan decisions contained in the Proposed Coeur d'Alene RMP/Final EIS. One letter was from Dr. Fred Rabe. The other was jointly submitted by Friends of the Clearwater, Alliance for the Wild Rockies, The Lands Council, and WildWest Institute. The main protest points in these letters pertained to:

- The range of alternatives in regard to wilderness values, mineral development, forest vegetation management, ACECs, and travel management
- The plan's effects on wilderness values
- ACEC designations
- Travel management in the Grandmother Mountain Wilderness Study Area
- Protection of fish and wildlife habitats
- Identification of old growth stands
- Mineral leasing stipulations

The Director of BLM addressed all protests without requiring significant changes to the proposed land use plan decisions.

**Appealable Decisions and Procedures**

Route designations for motorized travel in this ROD are subject to appeal. Opportunity for administrative appeal for all other decisions ended with the close of the protest period which followed publication of the Proposed RMP. Any party adversely affected by the motorized route designations may appeal within 30 days of receipt of this decision, in accordance with the provisions of 43 CFR Part 4.4. The publication of the Notice of Availability of this ROD/Approved RMP in the *Federal Register* will be considered the date the decision is received. An appeal should state the specific route(s) location by township, range, and section on which the decision is being appealed. The appeal must be filed with the Field Manager, at the following address:

Bureau of Land Management  
Coeur d'Alene Field Office  
3815 Schreiber Way  
Coeur d'Alene, ID 83815

You may include a statement of reasons when you file the notice of appeal with the BLM Field Manager, or you may file the statement of reasons within 30 days after you file the appeal. If you file the statement of reasons separately, you must send it to:

Interior Board of Land Appeals  
Office of Hearings and Appeals  
801 N. Quincy Street, Suite 300  
Arlington, VA 22203

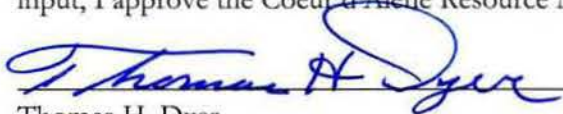
Any appeal should be sent certified mail, return receipt requested.

A copy of the appeal, statement of reasons, and all other supporting documents must also be sent to:

Office of the Field Solicitor  
US Department of the Interior  
University Plaza  
960 Broadway Avenue, Suite 400  
Boise, ID 83706

#### **APPROVAL**

Having considered a full range of reasonable alternatives, associated effects, and public input, I approve the Coeur d'Alene Resource Management Plan.



Thomas H. Dyer  
Idaho State Director  
Bureau of Land Management

6/29/07  
Date

# APPROVED RESOURCE MANAGEMENT PLAN

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## INTRODUCTION

This Approved Resource Management Plan (RMP) provides for managing public lands and resources administered by the Bureau of Land Management's (BLM) Coeur d'Alene Field Office (CDA FO).

### **Purpose and Need**

This RMP responds to changing ecological, socioeconomic, institutional, and regulatory conditions since the approval of the previous land use plan. New laws, regulations, and policies created additional public land management considerations. User demands and impacts have also evolved, requiring changes in management direction.

The purpose of this RMP is to provide a single, comprehensive land use plan that will guide management of the public lands and resources administered by the CDA FO, in accordance with the Federal Land Policy and Management Act of 1976, in order to meet the continuing needs of the local communities and the broader public.

### **Planning Area**

Decisions apply to public lands administered by the CDA FO in Benewah, Bonner, Boundary, Kootenai, and Shoshone Counties of Idaho (see Figure 1). A detailed land status map of the planning area can be found in Appendix G (Map 1).



**Figure 1. Coeur d'Alene Field Office Planning Area**

### Planning Criteria

Planning criteria were identified in the Notice of Intent (NOI) published in the *Federal Register* at the beginning of the scoping period (September 3, 2004). The BLM received no comments on these criteria, which were carried forward to use in forming judgments about decision making, analysis, and data collection during the planning process. These criteria are as follows:

- The plan will comply with all applicable laws, regulations, and current policies. This includes local, state, tribal, and federal air quality standards, as well as water quality standards from the Idaho Non-Point Source Management Program Plans.
- The RMP planning effort will be collaborative and multijurisdictional. The BLM will strive to ensure that its management decisions complement other planning jurisdictions and adjoining properties, within the boundaries described by law and federal regulations.
- All previously established Wilderness Study Areas will continue to be managed for wilderness values and character until Congress designates them as wilderness areas or releases them for multiple use management.
- In the RMP, the BLM will recognize all valid existing rights.
- As part of this RMP process, the BLM will analyze areas for potential designation as Areas of Critical Environmental Concern (ACEC) in accordance with 43 CFR 1610.7-2 and river corridors for suitability for designation under the Wild and Scenic Rivers Act.

### Planning Issues

After the formal scoping period, the BLM analyzed public comments received, input from collaborative partners, and preliminary internal planning, to identify the primary issues that should be addressed in the RMP. Through analysis the BLM identified the following planning issues:

- Opportunities for motorized and nonmotorized recreation, while protecting natural and cultural resources.
- Managing vegetation treatments and providing forest products, while mitigating impacts to fish and wildlife habitat and protecting water quality, native plant communities, old growth forest, and cultural resources.
- Adjusting land ownership to provide public benefits and improved access.
- Managing invasive plant species.
- Managing lands and resources to reduce the risk of harm or damage from fire to the public and their property.
- Strategies and priorities to protect healthy watersheds and/or restore damaged watersheds and riparian areas.

### **Collaboration**

The BLM invited Native American tribes, the Idaho Governor's office, state agencies, county governments, the USDA Forest Service (Idaho Panhandle National Forests), the US Fish and Wildlife Service (USFWS), the US Environmental Protection Agency, and the Coeur d'Alene Resource Advisory Council (RAC) to participate in the planning process.

All four tribes with interests in the planning area were consulted, however, only the Coeur d'Alene Tribe expressed a desire for more direct involvement. The CDA FO staff met with tribal staff to address concerns and to ensure that the RMP did not conflict with the tribe's Integrated Resource Management Plan, which was under development.

The CDA FO staff also met with Idaho Departments of Lands, Parks and Recreation, Environmental Quality, and Fish and Game to discuss their concerns and involvement in the planning process. The Departments of Parks and Recreation, Environmental Quality, and Fish and Game provided data and suggestions at several stages in the process. The Governor's office reviewed the Proposed RMP for consistency with state and local plans, regulations, and policies and identified no concerns.

The BLM maintained continuous dialog with the commissioners from all five counties in the planning area and conducted an economic workshop with the commissioners from Bonner County.

The CDA FO also met regularly with the Idaho Panhandle National Forests staff to discuss relationships and consistency of RMP decisions with those in the National Forest Land and Resources Management Plan (Forest Plan), which was being revised.

The USFWS provided key suggestions during alternative development. The BLM also conducted formal consultation on the RMP with USFWS, in accordance with Section 7 of the Endangered Species Act.

The RAC also actively participated in the development of the RMP, providing advice and suggestions throughout the planning process.

### **Related Plans**

Planning regulations require that BLM 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. The following plans were reviewed and considered during development of the RMP/EIS:

- Interior Columbia Basin Ecosystem Management Project: Project Data (Forest Service and BLM 2001);
- Interior Columbia Basin Final EIS (Forest Service and BLM 2000);
- Canada Lynx Conservation Assessment and Strategy (Forest Service and USFWS 2000);
- Summary of the Draft EIS, Northern Rockies Lynx Amendment (BLM and Forest Service 2004);
- Idaho Department of Environmental Quality's Final Area Wide Risk Management Plan (IDEQ 2004b);
- A View to the Future: A Comprehensive Historic Preservation Plan for Idaho (SHPO 2002);
- Idaho's 2003-2007 Statewide Comprehensive Outdoor Recreation and Tourism Plan (Idaho State Parks and Recreation 2003);
- Proposed Land Management Plan, Idaho Panhandle National Forests (Forest Service 2006); and
- The Coeur d'Alene Tribe, Draft Programmatic Environmental Impact Statement for the Integrated Resource Management Plan (Coeur d'Alene Tribe 2005).

### **Vision**

The vision identified for the planning area is to sustain the health, diversity, and productivity of the public lands and resources within the planning area for the use and enjoyment of present and future generations.

### **MANAGEMENT DECISIONS**

Management decisions in this RMP include the following:

- *Goals*—Broad statements of desired outcomes that are usually not quantifiable;
- *Objectives*—Specific desired outcomes that are usually, but not always, quantifiable and measurable and may have established timeframes for achievement; objectives are identified as means to achieve goals;
- *Actions* (Management Actions)—Anticipated actions to achieve desired outcomes, including actions to maintain, restore, or improve land health;



- *Allocations* (Allowable Uses)—Uses and allocations that are allowable, restricted, or prohibited on the public lands and mineral estate; allocations identify surface lands and subsurface mineral interests where uses are allowed, including any restrictions that may be needed to meet goals and objectives; and
- *Monitoring*—The process of tracking the implementation of land use plan decisions and collecting and assessing data necessary to evaluate the effectiveness of those decisions.

### **Public Involvement**

During implementation of this RMP, the BLM, subject to funding, will identify and implement specific projects to comply with identified decisions. During planning and analysis of these specific projects, the BLM will provide opportunities for public, collaborative partner, and interested party involvement. The BLM may also develop implementation level plans to provide more specific guidance for managing certain areas or resources. The public, collaborative partners, and interested parties will also be invited to participate in these planning processes.

### **Management Plan Implementation**

To achieve the goals and objectives set forth in this plan, the CDA FO will develop an implementation strategy. This strategy will tie management decisions in the RMP to specific proposed projects on the ground and will identify budget and work load planning requirements. This strategy will be updated as needed and made available to the public. Implementation of all proposed actions and decisions identified will be contingent upon actual funding and priorities.

### **Plan Evaluation/Adaptive Management**

Evaluation is a process in which the plan and monitoring data are reviewed to see if management goals and objectives are being met and if management actions are appropriate and remain effective. Land use plan evaluations determine if decisions are being implemented, if mitigation measures are satisfactory, if there are significant changes in the related plans of other entities, if there are new data of significance to the plan, and if decisions should be changed through amendment or revision. Monitoring data gathered over time is examined and used to draw conclusions on whether or not management actions are meeting stated objectives, and if not, why. Conclusions are then used to make recommendations to continue current management or to adopt management by identifying necessary changes in management practices to meet objectives.

The BLM will use periodic land use plan evaluations to determine if the decisions in the RMP, supported by the accompanying NEPA analysis, are still valid in light of new information and monitoring data. Unexpected actions, new information, or significant changes in other plans, legislation, or litigation may also trigger evaluations.

The Office of Environmental Policy and Compliance defines adaptive management as a system of management practices based on clearly identified outcomes, monitoring to determine if management actions are meeting outcomes, and, if not, facilitating management

changes that will best ensure that outcomes are met or reevaluated. This RMP fosters adaptiveness by presenting goals and objectives that focus on reaching outcomes rather than identifying inflexible standards and prescriptions that may not be applicable in certain situations.

When actions or management practices are found to be ineffective, the plan may be modified without amending or revising it, as long as assumptions and impacts disclosed in the analysis remain valid and broad-scale goals and objectives are not changed. This approach uses on-the-ground monitoring, scientific information review, and practical experience consideration and common sense to adjust management and modify implementation of the plan to reach the desired outcomes.

### **Management Decisions**

The following plan decisions are identified by type (goal, objective, action, allocation, or monitoring) and are organized by program. The following decisions use the words restoration and rehabilitation interchangeably, it should be noted that while management actions taken by the BLM can promote or facilitate natural processes, areas and functions are restored through the work of natural processes. Decisions regarding wildlife resources also use the words habitat and species synonymously, please note that BLM has been delegated management authority over habitats and that other agencies are charged with managing species and populations. Therefore, in discussions regarding actions to species the text should be read as actions to habitat that effect species. The following programs have been addressed in this planning effort:

- Resources:
  - Air quality (AQ)
  - Geology (GE),
  - Soil resources (SO),
  - Water resources (WA),
  - Vegetation—forests and woodlands (VF),
  - Vegetation—riparian and wetlands (VR),
  - Vegetation—nonforested (VN),
  - Vegetation—invasive species and noxious weeds (VW),
  - Fish and wildlife (FW),
  - Special status species (SS),
  - Wildland fire management (WF),
  - Cultural resources (CR),
  - Paleontological resources (PR),
  - Visual resources (VR),
- Resource uses:
  - Forestry and woodland products (FP),
  - Livestock grazing (LG),

- Minerals (MN),
- Recreation (RC),
- Renewable energy (RE),
- Transportation and travel management (TM),
- Lands and realty (LR),
- Special designations (SD); and
- Social and economics (SE).

**Resources*****Air Quality (AQ)******Goal AQ-1 – Comply with existing air quality laws and regulations to meet health and safety requirements.***

**Objective AQ-1.1** – Manage prescribed fire and wildland fire use in a manner to minimize degradation of the airshed.

**Action AQ-1.1.1** – Include minimization of impacts on air quality as a criterion in Wildland Fire Situation Analysis (WFSA), Wildland Fire Implementation Plans (WFIPs), and Prescribed Fire Burn Plans.

**Objective AQ-1.2** – Cooperate with other members of the Montana/Idaho Airshed Group on smoke management.

**Action AQ-1.2.1** – Follow procedures outlined in the Montana/Idaho Airshed Group Smoke Management Plan.

**Action AQ-1.2.2** – Conduct planned activities in accordance with the Idaho State Implementation Plan of the Clean Air Act (upon completion) and other plans and policies that control smoke emission on public lands.

**Action AQ-1.2.3** – Ensure treatments using prescribed fire are consistent with US Environmental Protection Agency's (EPA's) Interim Air Quality Policy on Wildland and Prescribed Fires or with more current direction.

**Objective AQ-1.3** – Ensure that all authorized activities on public lands meet federal and IDEQ air quality standards and regulatory requirements.

**Action AQ-1.3.1** – Prescribe and implement BMPs to reasonably prevent degradation of air quality when authorizing actions (Appendix C).

**Action AQ-1.3.2** – Specify that compliance with federal and IDEQ standards is required when authorizing actions.

**Objective AQ-1.4** – Cooperate with Native American tribes for air quality management within reservations.

**Action AQ-1.4.1** – Coordinate directly with affected tribes regarding prescribed fire and wildland fire use within a reservation boundary. Notify tribes of activities on lands adjacent to the reservation that may impact air quality within the reservation.

***Geology (GE)******Goal GE-1 – Provide for nonmineral uses of geologic values consistent with other resource goals.***

**Objective GE-1.1** – Promote the scientific, educational, and recreational use and access to unique features.

**Action GE-1.1.1** – Develop plans for interpretive, recreational trails and informative sites near unique features.

**Action GE-1.1.2** – Identify where unique features exist.

***Goal GE-2 – Protect the public from geologic hazards on public lands.***

**Objective GE-2.1** – Consider geologic hazards when authorizing activities.

**Action GE-2.1.1** – Identify where geologic hazards exist.

***Soil Resources (SO)******Goal SO-1 – Manage soils on public land to maintain, restore, or improve soil erosion class and watershed health.***

**Objective SO-1.1** – Ensure that management actions for other resource programs incorporate adequate soil protection.

**Action SO-1.1.1** – Implement BMPs for surface-disturbing activities (Appendix C).

**Action SO-1.1.2** – Subwatersheds identified for restoration (See Appendix D and Map 2 in Appendix G) should be considered and reviewed by BLM for restoration opportunities to reduce adverse erosion and sediment.

**Action SO-1.1.3** – Apply appropriate reclamation measures to mitigate adverse erosion and sediment delivery.

**Action SO-1.1.4** – Implement Riparian Conservation Area Management Guidelines in Appendix A as management guidance.

### Soil Resources (SO)

**Objective SO-1.2** – Manage soil-disturbing activities to protect landslide-prone areas and minimize potential for mass wasting.

**Action SO-1.2.1** – Before authorizing any soil-disturbing activity on slopes exceeding 55% and/or in areas exhibiting potential slope instability (including jack-strawed trees, convergent slopes, and perched water table), evaluate to determine potential landslide risk. Landslide-prone delineation and evaluation shall include field assessment by an interdisciplinary team that includes a soil or watershed specialist. When landslide-prone areas are identified, implement Category 4 RCA buffers as outlined in the CNFISH (see Appendix A).

**Action SO-1.2.2** – Avoid locating road or timber harvesting on, or adjacent to, active landslides, slump blocks, or other mass wasting processes.

**Action SO-1.2.3** – Existing roads occurring on landslide-prone areas will receive a priority for restoration (decommissioning, obliteration, or partial recontouring).

### Water Resources (WA)

**Goal WA-1** – *Maintain, improve, or restore water quality to sustain designated beneficial uses on public lands.*

**Objective WA-1.1** – Comply with state and federal requirements to protect public waters.

**Action WA-1.1.1** – Prescribe and implement BMPs to reasonably prevent degradation of water quality (Appendix C).

**Objective WA-1.2** – Protect and maintain watersheds so that they appropriately capture, retain, and release water of quality that meets or exceeds state and federal standards.

**Action WA-1.2.1** – Implement CNFISH management direction in Appendix A.

**Objective WA-1.3** – Manage streams to maintain or restore designated beneficial use support status and, where feasible, achieve delisting of Clean Water Act 303(d) stream segments.

**Action WA-1.3.1** – Cooperate with adjacent landowners, agencies, tribes, individuals, communities, and municipalities to meet beneficial use criteria.

**Objective WA-1.4** – Protect all designated beneficial uses by preventing or limiting nonpoint source pollution; maintain or improve existing water quality and quantity through implementation of BMPs.

**Action WA-1.4.1** – Prescribe and implement BMPs (Appendix C) to facilitate maintenance or improvement of attributes (i.e., vegetation, channel geometry) identified through PFC assessment and/or other qualitative or quantitative survey methods.

**Action WA-1.4.2** – Prescribe and implement BMPs to facilitate maintenance or improvement of desired attributes, including:

- channel width/depth ratio;
- streambank conditions;
- substrate conditions; and
- large woody material characteristics.

**Action WA-1.4.3** – Identify existing and desired future conditions through PFC assessment, channel classification, and/or other qualitative or quantitative survey methods.

**Action WA-1.4.4** – Implement CNFISH management direction in Appendix A.

### Vegetation – Forests and Woodlands (VF)

**Goal VF-1** – *Restore forest vegetations towards historic species composition, structure, and function across the landscape. Composition is the tree, shrub, grass, and forb class components in a stand or community and can be measured by numbers and abundances of the same classes. Structure is the horizontal and vertical physical elements of forests and the spatial interrelationships of ecosystems. Function includes energy flows of materials across and within the landscape and how one ecosystem influences another (Forest Service 2003).*

**Objective VF-1.1** – Determine present species composition, structure, and function.

**Action VF-1.1.1** – Utilize Forest Vegetation Inventory System (FORVIS) Inventory for 55,000 acres of public lands managed by the Coeur d'Alene Field Office.

**Action VF-1.1.2** – Conduct forest vegetation inventory on remaining acres (approximately 27,500 acres) of public lands managed by the Coeur d'Alene Field Office.

### Vegetation – Forests and Woodlands (VF)

**Objective VF-1.2** – Restore forest stands to historic species composition, structure, and function by conducting vegetative treatments on approximately 8,200 acres.

**Action VF-1.2.1** – Emphasize the use of natural disturbances, prescribed fire, and appropriate silvicultural methods to restore historic composition within wet/warm vegetation cover type (See Map 3 in Appendix G for the general location of this forest vegetation type within the planning area).

**Action VF-1.2.2** – Emphasize the use of natural disturbances, prescribed fire, and appropriate silvicultural methods to restore historic composition within dry conifer vegetation cover type (See Map 3 in Appendix G for the general location of this forest vegetation type within the planning area).

**Action VF-1.2.3** – Emphasize the use of regeneration harvest and natural and artificial regeneration to restore historic composition within the wet/cold vegetation cover type (See Map 3 in Appendix G for the general location of this forest vegetation type within the planning area).

**Action VF-1.2.4** – Conserve and restore aspen, birch, and cottonwood stands.

**Monitoring VF-1.2.5** – Conduct field surveys to verify and/or update the FRCC and historic fire regime data prior to initiating structure and function restoration treatments.

**Action VF-1.2.6** – Restore forest structure and function by reducing tree density and brush/shrub competition using appropriate silvicultural treatments including, but not limited to, intermediate treatments, release treatments, use of pesticides, and prescribed burning. Aerial spraying to control brush/shrub competition will not occur. Prioritize these treatments within FRCC 2 and FRCC 3 areas.

**Action VF-1.2.7** – When applying treatments in the vicinity of old growth stands, ensure that these treatments will fully maintain or contribute toward the restoration of the structure and composition of old growth stands according to the pre-fire suppression old growth conditions characteristic of the forest type, taking into account:

- Contribution of the stand to landscape fire adaptation and watershed health; and
- Retaining the large trees contributing to old growth structure in accordance with the Healthy Forests Restoration Act.

Old growth stands are those that meet the definition specified in Appendix E.

**Objective VF-1.3** – Maintain or enhance wildlife habitat function through the above objectives and actions, and in accordance with the goals, objectives, and actions listed in the Fish and Wildlife and Special Status Species sections.

**Objective VF-1.4** – Return the function of wildland fire to its natural role in the ecosystem through the above objectives and actions and in accordance with the goals, objectives, and actions listed in the Wildland Fire Management Section.

### Vegetation – Riparian and Wetlands (VR)

**Goal VR-1** – Provide for the Proper Functioning Condition of riparian and wetland areas.

**Objective VR-1.1** – Strive to achieve Proper Functioning Condition (PFC) for at least 75% of the riparian and wetland areas across the field office.

**Action VR-1.1.1** – Complete riparian and wetland inventory and assessment.

**Monitoring VR-1.1.2** – Monitor nonfunctional and functional at-risk areas to detect upward or downward trend.

**Action VR-1.1.3** – Improve degraded riparian and wetland vegetation by implementing CNFISH guidance in Appendix A.

**Action VR 1.1.4** – Maintain riparian and wetland areas in PFC so their condition rating is not degraded.

### ***Vegetation – Nonforested (VN)***

#### ***Goal VN-1 – Maintain native and desirable nonnative plant communities.***

**Objective VN-1.1** – Ensure that grass, forb, and shrub plant communities occur within site potential and are stable in health and vigor, and protect soil from erosion.

**Action VN-1.1.1** – Where appropriate, treat sites to prevent tree species invasion/dominance.

**Action VN-1.1.2** – Actively prevent non-authorized off-road motorized and mechanical vehicle access/use.

**Action VN-1.1.3 – Improve** native communities through methods such as seeding where site potential allows and where a diversity of native vegetation is not being recruited.

### ***Vegetation – Invasive Species and Noxious Weeds (VW)***

#### ***Goal VW-1 – Prevent and control invasive and noxious weed infestations using integrated weed management techniques.***

**Objective VW-1.1** – Comply with state and federal requirements to manage noxious weeds.

**Action VW-1.1.1** – Prescribe and implement activities to manage noxious weeds.

**Objective VW-1.2** – Coordinate efforts with other members of Cooperative Weed Management Areas.

**Action VW-1.2.1** – Follow procedures in Cooperative Weed Management Area Annual Operating Plans.

**Objective VW-1.3** – Identify and prioritize invasive/noxious weeds and areas for treatment.

**Action VW-1.3.1** – Prioritize weed species based on treatment goals as identified in the Idaho State Department of Agriculture (ISDA) Cooperative Weed Management Area guidance:

- Priority I–Eradication (new invaders)
- Priority II–Containment (localized populations)
- Priority III–Management (widespread species)

**Action VW-1.3.2** – Prioritize treatment areas on BLM-administered public lands:

- Areas with collected weeds fees
- High use areas
- Disturbed areas
- Sensitive areas

Other areas

**Objective VW-1.4** – Apply an integrated weed management program for BLM-administered public lands.

**Action VW-1.4.1** – Integrate effective weed control methods, including biological, manual, cultural, and herbicidal techniques. Applications of herbicides will not include aerial spraying.

**Action VW-1.4.2** – When necessary, revegetate treated areas and areas vulnerable to weed invasion. Establish vegetation using methods appropriate for the site, such as seed mixtures and fertilizer.

**Monitoring VW-1.4.3** – Inventory, map, and monitor weed populations.

**Action VW-1.4.4** – Develop weed prevention measures. The focus will be on ground-disturbing projects and permitted activities. Measures may include preproject treatments, washing equipment, minimizing soil disturbance, and establishing desirable vegetation. Incorporate measures into contracts and permits.

**Action VW-1.4.5** – Educate the public regarding weed identification, control, and prevention.

### ***Fish and Wildlife (FW)***

#### ***Goal FW-1 – Manage aquatic, riparian, and wetland habitats to provide for a natural abundance and diversity of fish and wildlife with self-sustaining populations in northern Idaho.***

**Objective FW-1.1** – Promote recovery of aquatic, riparian, and wetland habitats, including maintaining/improving watersheds.

**Action FW-1.1.1** – Establish Riparian Conservation Areas (RCAs) consistent with RMOs and S&G in the CNFISH (see Appendix A and Appendix D).

**Objective FW-1.2** – Protect high

**Action FW-1.2.1** – Follow priorities in Appendix D when implementing conservation

### ***Fish and Wildlife (FW)***

quality aquatic, riparian, and wetland.

and restoration activities.

**Action FW-1.2.2** – Within prioritized subwatersheds, identify Desired Future Condition for riparian and aquatic resources.

**Action FW-1.2.3** – Do not undertake management activities that will degrade existing habitat in conservation subwatersheds. Do not undertake management activities that will retard attainment of trends towards improvement of aquatic habitats in restoration subwatersheds.

**Objective FW-1.3** – Enhance aquatic habitat for sport fish where it does not conflict with native fish or other native aquatic species. Emphasis will be placed on native sport fish species.

**Action FW-1.3.1** – Remove fish migration barriers where appropriate and feasible.

**Action FW-1.3.2** – Return altered streams to natural channels when practical and beneficial for sport fish.

**Action FW-1.3.3** – Install large woody debris in streams where it is lacking.

**Action FW-1.3.4** – Enhance streamside shade through active management, such as planting.

**Action FW-1.3.5** – Enhance spawning and rearing reaches of streams (e.g., instream structures).

**Goal FW-2 – Provide terrestrial habitats for a natural abundance and diversity of native and desirable nonnative wildlife species with self-sustaining populations in northern Idaho.**

**Objective FW-2.1** – Protect or enhance habitats for big game species.

**Action FW-2.1.1** – All roads on crucial and important winter range for deer and elk will be closed to public vehicular access from December 1 to March 31 each year. This includes vehicles that can travel off established roadways (e.g., 4X4s, snowmobiles, etc.) (See Maps 4-7 in Appendix G).

**Action FW-2.1.2** – Consider incorporation of ID F&G recommendations in Appendix F (or most recent recommendations) during implementation or approval of actions affecting elk habitat.

**Action FW-2.1.3** – When practical, include big game forage and cover requirements in design of vegetation treatments:

- Rejuvenate and enhance the shrub and herb components of big game winter ranges by simulating or promoting natural disturbance regimes in white-tailed deer habitats.
- To provide suitable forage areas, promote the use of 10-acre or smaller clear-cuts and design forest openings such that cover is within 150 feet of all parts of the opening. Dispose of slash by fall broadcast burning or cutting to less than 1 foot high.
- Provide closed canopy forests (old growth) in low elevation forests where white-tailed deer winter (70% overall cover with 70% crown closure on winter ranges). Half of the winter range should be key winter range, which consists of 85% crown closure, 250 mature stems/acre, and canopy heights at least 90 feet high.
- Protect riparian areas as habitat and population linkage areas. Where practical, fence riparian habitat and maintain adjacent cover strips of at least 250 feet and at least 20 acres.

**Action FW-2.1.4** – Close and partially obliterate all newly constructed roads upon completion of the need and purpose for the road.

**Action FW-2.1.5** – Reduce (through decommissioning) or maintain open motorized route densities to one mile of motorized route per square mile or less, outside of urban or rural areas.

**Action FW-2.1.6** – Restore fire as an ecological process in early-seral, shrub-dominated forests.

**Action FW-2.1.7** – Evaluate and maintain existing deer and elk habitat management plans and identify need to develop new ones.



### ***Fish and Wildlife (FW)***

**Objective FW-2.2** – Maintain adequate habitat for snag- and cavity-dependent animals, with emphasis on migratory birds, waterfowl, and bats.

**Action FW-2.2.1** – Retain an appropriate supply of living trees  $\geq 14$  inches dbh (or largest available) to supply future snags at the frequency identified in the table below, and, consistent with objectives for forest vegetation:

<u>Cover Type</u>	<u>Snags/acre</u>
Wet Cold Conifer	8.1
Dry Conifer	3.3
Wet Warm Conifer	5.4

**Action FW-2.2.2** – In areas where firewood cutting may reduce snag density below the desired levels:

- Allow selected trees to mature past rotation age to provide future large snags.
- “Leave” trees will be marked to prevent commercial firewood cutting.
- Snags should be located away from roads where they will likely go unnoticed or are beyond the desirable distance to collect firewood.
- If snags are left close to roads, a “Wildlife Tree: Do Not Cut” sign will be placed on the snag.

**Action FW-2.2.3** – Retain 21-inch or greater dbh live trees, snags, and logs, preferably in clumps when consistent with the vegetation treatment objective.

**Action FW-2.2.4** – Retain snags  $\geq 14$  inches dbh (or largest available) according to the following table:

<u>Cover Type</u>	<u>Snags/acre</u>
Wet Cold Conifer	8.1
Dry Conifer	3.3
Wet Warm Conifer	5.4

**Action FW-2.2.5** – Apply the State of Washington’s *Guidelines for Selecting Reserve Trees (2005)*.

**Action FW-2.2.6** – Avoid or minimize, to the extent practicable, adverse impacts on migratory birds when conducting vegetation treatments.

**Action FW-2.2.7** – When applying treatments in the vicinity of old growth stands, follow guidance outlined in the forest vegetation section, Action VF-1.2.7.

**Action FW-2.2.8** – When consistent with goals and objectives in the forest vegetation section, identify mid-seral forest stands that could be brought into late-seral conditions in the near future, and use appropriate vegetation treatments to encourage this development.

**Action FW-2.2.9** – Emphasize uneven-aged silvicultural management techniques where appropriate and where consistent with goals and objectives in the forest vegetation and wildland fire management section.

**Action FW-2.2.10** – Protect and enhance waterfowl habitat through CNFISH guidance in Appendix A, and through development of habitat management plans (HMPs).

**Action FW-2.2.11** – Provide for the ingress and egress of bats when closing AML.

**Objective FW-2.3** – Protect raptors and their habitats.

**Action FW-2.3.1** – Maintain forest stand structure in a 100-yard buffer around active raptor nests outside of urban and rural areas, or within 50 yards inside urban or rural areas.

**Action FW-2.3.2** – Restrict authorized activities within a 100-yard buffer around occupied nests outside of urban and rural areas, or within 50 yards inside urban or rural areas to protect occupied nests.

**Action FW-2.3.3** – Implement “Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 2006” (or most recent guidance) when issuing ROWs for power lines.

**Action FW-2.3.4** – For new mineral leases in the vicinity of active raptor nests, specify a no surface occupancy stipulation (see NSO-4 in Appendix B).

### ***Fish and Wildlife (FW)***

**Objective FW-2.4** – Provide or improve grouse habitat.

**Action FW-2.4.1** – In small clear-cuts (<10 acre), supplement natural succession by planting with native grasses and forbs where appropriate.

**Action FW-2.4.2** – Retain ridge top cover for grouse habitat when consistent with forest vegetation treatment objectives.

**Action FW-2.4.3** – Retain logs  $\geq$  14 inches (or largest available) according to the following:

<u>Cover type</u>	<u>Logs/acre</u>
Wet cold conifer	10.1
Dry conifer	3.9
Wet warm conifer	7.8

**Objective FW-2.5** – Protect furbearer habitat.

**Action FW-2.5.1** – Implement CNFISH (see Appendix A) to protect habitat.

**Action FW-2.5.2** – Maintain and enhance old growth forest stands.

**Objective FW-2.6** – To provide the appropriate balance of diverse habitats, restore forest vegetation toward historic species composition, structure, and function in accordance with **Objective VF-1.2** as discussed above.

**Action FW-2.6.1** – Implement actions **VF-1.2.1** through **VF-1.2.7** as discussed above.

### ***Special Status Species (SS)***

**Goal SS-1** – *Conserve listed species and the ecosystems upon which they depend.*

**Objective SS- 1.1** Comply with recovery activities for all Threatened and Endangered (T& E) species.

**Action SS-1.1.1** – In cooperation with the IDFG, USFWS, USFS, and other partners, implement conservation measures for all Threatened and Endangered Species.

- 1) Determine the distribution of known populations and suitable habitats.
  - a) Participate in systematic surveys and share information with partners, including the Idaho Conservation Data Center.
  - b) A spatial database of species habitat information will be maintained for BLM public lands.
- 2) Ensure that ongoing federal actions either support or do not preclude conservation and recovery of the species.
  - a) If direct or indirect negative impacts on the species or its habitat are occurring, then BLM will modify the ongoing activity to avoid or minimize negative impacts and to promote conservation and recovery of species.
  - b) Section 7 consultation will be completed for ongoing activities that may affect the species and its habitats.
- 3) Ensure that new federal actions either support or do not preclude conservation and recovery of the species.
  - a) Complete project-level inventories in suitable habitats during project planning if inventory information is unavailable or inadequate. The SO will issue instruction memorandum concerning special status species project-level inventories and assessment.
  - b) If direct or indirect negative impacts on the species or their habitat are anticipated, then modify the proposed action to avoid or minimize anticipated negative impacts and to promote conservation and recovery of species.
  - c) Section 7 consultation will be completed for new activities that may affect the species and their habitat.
- 4) Compile a general list of BMPs that will apply to all programs, to the extent that such a list will assist with consultation and species recovery. The intent of implementing BMPs is to avoid or minimize negative impacts. The SO will coordinate development of BMPs with FO, District Office (DO), USFWS, and IDFG, and issue Instruction memorandum. The FO will implement BMPs.
- 5) Adaptive management will be implemented as needed to achieve conservation objectives. As species such as bald eagle become delisted, then continue application of these conservation measures to reduce the need for relisting at some future date.
- 6) Support conservation easements, cooperative management efforts, and other programs on adjacent nonfederal lands to support suitable habitat or restoration areas.

### ***Special Status Species (SS)***

- 7) Analyze, at the project level, projects involving the application of pesticides that may affect the species. Design these projects such that pesticide applications will support conservation and recovery of species and minimize risks of exposure.
  - a) The benefits and risks of vegetation treatment will be evaluated, including the following: application methods; chemicals, carriers, and surfactants used; needed treatment buffers; and use of nonchemical weed control (for example, bio-controls, hand pulling). If management objectives can effectively be accomplished using nonchemical methods, such is the proposed action.
  - b) Apply appropriate spatial and temporal buffers to avoid species' exposure to harmful chemicals.
  - c) Implement appropriate revegetation and weed control measures to reduce the risks of nonnative species infestations following any ground/soil disturbing actions in or near suitable habitat.
- 8) Where needed and feasible, coordinate with adjacent land owners and local governments regarding control of invasive plants in riparian areas through cooperative weed management programs.
- 9) Design application of pesticides in accordance with the Vegetation – Invasive Species and Noxious Weeds program.
- 10) Conduct fire suppression efforts, as possible, to protect suitable habitat. Human life and firefighter safety and property take priority over species protection.
  - a) Review Fire Management Plans for adequacy in addressing conservation measures and modify the plan if needed.
- 11) Emergency Stabilization and Rehabilitation (ES&R) activities will be implemented to promote habitat rehabilitation for all species.
  - a) If needed and if natural recovery does not achieve habitat objectives, then implement ES&R activities to promote rehabilitation of suitable habitat.
  - b) As needed, protect disturbed areas using temporary closures or other measures until the desired vegetation is reestablished and self-sustaining.
- 12) Incorporate conservation measures into Community Assistance agreements throughout the fire management program.
- 13) Approve mining plans of operation or allow notice level operations so as not to preclude conservation and recovery of species. This includes management of physical facilities, as well as disturbances to the species resulting from human uses.
  - a) To the extent allowed by law, modify existing plans of operation or notice-level operations that conflict with species management objectives in or adjacent to suitable habitat. For notice level operations, inform the operator that modifications to proposed activities will be required to avoid negative impacts.
  - b) To the extent allowed by law, avoid approving new plans of operation or notice-level operations that conflict with species management objectives in or adjacent to suitable habitat. Consider the seasonal nature of the proposed activities, and whether this conflicts with conservation and recovery of the species. For notice level operations, inform the operator that modifications to proposed activities will be required to avoid negative impacts. If a plan of operations will be approved in suitable habitat, then apply stipulations to support or to not preclude species recovery. A notice will require modification by the operator until BLM determines that it will not result in undue or unnecessary degradation.
- 14) When offering leases within special status species habitat, specify a controlled surface use stipulation on 40,239 acres to prevent degradation of habitat (see CSU-2 in Appendix B).
- 15) Manage existing and new recreation facilities (such as boat access, paved campgrounds, vault toilets, interpretive kiosks, etc.) so as to not preclude conservation and recovery of species. This includes management of the physical facilities, as well as disturbances to species resulting from human uses. Modify existing facilities to avoid or minimize negative impacts.
- 16) Manage dispersed use sites (such as informal areas, including camping areas and tie-up areas for pack animals and boats) so as not to preclude conservation and recovery of species. This includes limiting disturbances to species resulting from human uses.
- 17) Approve development of renewable energy resources so as not to preclude conservation and recovery of species. This includes management of physical facilities, as well as disturbances to the species resulting from human uses.
- 18) Manage existing roads, OHV routes and areas, and nonmotorized trails so as not to preclude conservation and recovery of species. This includes management of

### ***Special Status Species (SS)***

physical facilities, as well as disturbances to the species resulting from human uses.

- 19) Manage new roads, OHV routes and areas, and nonmotorized trails so as not to preclude conservation and recovery of species. This includes management of physical facilities, as well as disturbances to the species resulting from human uses.
- 20) Where feasible and funding is available, acquire private lands within suitable habitats through land exchange or purchase.
  - a) Take advantage of opportunities as they arise. Priority should be given to private lands that are adjacent to public lands and/or a population occurring on BLM and private lands.
- 21) Issue new and review existing land use permits and leases so as not to preclude conservation and recovery of species. This includes management of physical facilities as well as disturbances to the species resulting from human uses.
- 22) Issue new and review existing rights-of-way at renewal so as not to preclude species habitat conservation and recovery. This includes management of physical facilities, as well as disturbances to the species resulting from human uses.

**Action SS-1.1.2** – In cooperation with the IDFG, USFWS, USFS, and other partners, implement conservation measures for bull trout, to include determination of the distribution of known populations and suitable habitats.

- 1) Implement CNFISH to protect bull trout habitat (Appendix A).
- 2) Follow Appendix D when implementing conservation and restoration activities for bull trout.
- 3) Implement project-specific in-water work windows, as appropriate, to minimize potential adverse impacts to bull trout individuals and their habitat.

**Action SS-1.1.3** – In cooperation with the IDFG, USFWS, USFS, and other partners, implement conservation measures for white sturgeon to include determination of the distribution of known populations and suitable habitats.

- 1) Implement CNFISH to protect white sturgeon habitat (Appendix A).
- 2) Chemicals potentially toxic to white sturgeon will not be applied on BLM-administered lands within RCAs adjacent to the Kootenai River between May 1 and July 15.

**Action SS-1.1.4** – In cooperation with the IDFG, USFWS, USFS, and other partners, implement conservation measures for woodland caribou.

- 1) Conduct fire suppression efforts, as possible, to protect suitable habitat. Human life and firefighter safety and property take priority over species protection.
  - a) Apply minimum impact suppression tactics (MIST) within woodland caribou habitat. Consult with resource advisors to determine where MIST should be applied to avoid or minimize negative impacts.
  - b) Do not locate fire base camps, staging areas, and fueling areas within woodland caribou habitat. Avoid conducting other related suppression activities in these habitats.
- 2) Wildland fire use projects will be designed to conserve suitable habitat for woodland caribou by developing fire management prescriptions that restrict fires to small areas while not restricting caribou movement or habitat use.
- 3) Prescribed fire projects will be designed to develop management prescriptions within woodland caribou habitat that restrict fires to small areas while not restricting animal movement or habitat use.
- 4) Nonfire fuels projects will be designed to develop management prescriptions within woodland caribou habitat that restrict projects to small areas while not restricting animal movement or habitat use.
- 5) Forest management will be conducted in a manner that is compatible with woodland caribou recovery goals.
  - a) Implement silvicultural prescriptions to control insects and disease that do not adversely affect caribou habitat.
  - b) Implement standards and guidelines for timber management to maintain and enhance caribou habitat. Techniques such as uneven-aged management and extended rotations may be necessary to enhance or restore caribou habitat.

**Action SS-1.1.5** – In cooperation with the IDFG, USFWS, USFS, and other partners, implement conservation measures for bald eagle.

- 1) Conserve mature riparian forests (i.e., cottonwood galleries) in suitable habitat to maintain their integrity for use by bald eagles.

***Special Status Species (SS)***

- a) Eradication of nonnative invasive species will be emphasized in riparian areas that compete with cottonwood regeneration. Continue to identify problem areas and implement appropriate weed control measures.
- b) Allow commercial timber management projects or firewood cutting when negative impacts on suitable bald eagle habitat can be avoided or minimized. Ensure that such activities maintain or improve old growth stand characteristics within ½-mile of nest and communal roost sites.
- c) As needed, suitable habitat in riparian forests will be closed to non-commercial firewood cutting and post the closure.
- 2) Identify nest sites, communal roost sites, and key foraging areas for bald eagles.
- 3) Ensure that ongoing federal actions either support or do not preclude conservation and recovery of species.
  - a) Ongoing activities will be reviewed where local consultation has not yet been completed within 2½-miles of bald eagle nests or within the area designated in the local bald eagle nest management plan, and within one mile of communal roost sites.
  - b) Avoid implementing activities within ½-mile of bald eagle nest sites during the breeding season (February 1 through July 31) and communal roost sites and key foraging areas during the wintering season (November 15 to February 15).
- 4) Update or develop management plans for nest sites, communal roost sites, or key foraging areas.
- 5) Fire suppression efforts will be conducted, as possible, to protect suitable habitat. Human life and firefighter safety and property take priority over species protection.
  - a. Apply minimum impact suppression tactics (MIST) within ½-mile of nests and traditional communal roosting areas for bald eagle. Resource advisors will be consulted to determine where MIST should be applied to avoid or minimize negative impacts.
  - b. Fire base camps, staging areas, and fueling areas will not be located within ½-mile of nests and traditional communal roosting areas for bald eagle. Avoid conducting other related suppression activities in these habitats.
- 6) Emergency Stabilization and Rehabilitation (ES&R) activities will be implemented by planting locally appropriate nesting and roosting trees for bald eagle.
- 7) Wildland fire use projects will be designed to avoid burning adjacent to suitable habitat for bald eagle.
- 8) Nonfire fuels projects will be designed to include seed mixes that will enhance or promote the growth of willows, cottonwoods, or other target species for bald eagle.
- 9) Conserve mature upland forests in suitable habitat to maintain their integrity for use as bald eagle nesting, roosting, or perching substrate.
  - a) Commercial timber management projects or firewood cutting will be allowed when negative impacts on suitable bald eagle habitat can be avoided or minimized. Ensure that such activities maintain or improve old growth stand characteristics within ½-mile of nest and communal roost sites.
  - b) Close suitable habitat areas to noncommercial firewood cutting if management problems arise.
- 10) Maintain and promote suitable habitat and restore areas for bald eagles while implementing rangeland health standards and guidelines (S&Gs).
- 11) Manage livestock grazing and trailing to promote nesting and roosting tree growth and recruitment, healthy riparian communities, or a combination of these objectives.
- 12) As needed, disturbed areas will be protected using temporary closures or other measures until the cottonwood saplings (or other target tree species) are reestablished and self-sustaining.
- 13) Maintain regular compliance checks on grazing allotments with nest sites and communal roost sites to identify problems as soon as possible and take immediate corrective measures.
- 14) Manage livestock facilities to promote nesting and roosting tree growth and recruitment, healthy riparian communities, or a combination of these objectives.
- 15) When offering leases within special status species habitat, specify a timing limitation (see TL-2 in Appendix B) for leasing within bald eagle winter feeding areas.
- 16) Existing facilities will be modified to avoid or minimize negative impacts and avoid development of new recreation facilities or expansion of existing facilities within ½-mile of nests and traditional communal roosting areas of bald eagle if negative impacts are expected.

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- 17) Minimize human activity within ½-mile of nests and traditional communal roosting areas of bald eagle. Close areas, either seasonally or year-round, as needed and post the closure.
- 18) Commercial and noncommercial recreation permits, including outfitter camps, will be issued so as not to preclude conservation and recovery of species. This includes management of physical facilities (such as camps), as well as disturbances to the species resulting from human uses.
  - a) Modify existing permits that conflict with providing bald eagle suitable habitat conditions.
  - b) Avoid issuing new recreation permits if negative impacts are expected. The seasonal nature of the proposed activities will be considered, and whether this conflicts with bald eagle recovery needs. In particular, avoid permitting new recreation activities within ½-mile of nests and traditional communal roosting areas of bald eagle. If a recreation permit is issued, stipulations will be applied to the permit to support or to not preclude species conservation and recovery. Avoid issuing recreation permits if negative impacts are expected.
- 19) Eagle viewing and interpretive areas can provide a unique experience for the public. Opportunities should be sought for viewing areas where access can be controlled and disturbance risks can be minimized.
- 20) Educate recreation users at boat ramps and at designated camp areas about the need to conserve habitat for bald eagles.
- 21) To the extent allowed by law, modify existing geothermal leases within ½-mile of nests and traditional communal roosting areas of bald eagle if negative impacts are expected.
- 22) To the extent allowed by law, do not permit new geothermal development within ½-mile of nests and traditional communal roosting areas of bald eagle if negative impacts are expected.
- 23) Modify roads, routes, and trails if negative impacts are occurring within ½ -mile of nest sites or communal roosts of bald eagles. The need for seasonal OHV use restrictions within or adjacent to these habitat areas will be evaluated to reduce disturbances to the species. Seek opportunities to close and reclaim OHV routes or nonmotorized trails and use areas if negative impacts are occurring.
- 24) Avoid constructing new roads, routes, trails, and areas if negative impacts are expected within ½-mile of nest sites or communal roosts of bald eagles. The need for seasonal OHV use restrictions within or adjacent to these habitat areas will be considered to reduce disturbances to the species. Avoid opening new roads, routes, trails, and areas in suitable habitat.
- 25) Retain active nest sites in public ownership unless compelling circumstances necessitate the land tenure adjustment. Avoid the loss of suitable habitat from Federal ownership. Should public land with suitable habitat be proposed for conveyance out of federal ownership, at a minimum, the BLM will encourage the proponent to consider a conservation easement which protects this habitat.
- 26) Avoid renewing existing permits or leases and issuing new permits or leases if negative impacts are expected within ½-mile of nest sites or communal roosts of bald eagles. The seasonal nature of the proposed activities will be considered, and whether this conflicts with conservation and recovery of the species. If a permit or lease will be issued or reissued in suitable habitat, apply stipulations to the permit that support or do not preclude species conservation and recovery and that avoid or minimize negative impacts.
- 27) Avoid renewing existing rights-of-way or issuing new rights-of-way if negative impacts are expected within ½-mile of nest sites or communal roosts of bald eagles. The seasonal nature of the proposed activities will be considered, and whether this conflicts with conservation and recovery of the species. If a right-of-way will be issued or reissued in suitable habitat, apply stipulations to the right-of-way that support or do not preclude species conservation recovery and that avoid or minimize negative impacts.
- 28) Explore the potential for new designations that will enhance species recovery, such as relict, good-condition, cottonwood galleries.
- 29) Prescribed fires will not be ignited when forecasted weather conditions would push smoke toward known, occupied eagle nests.
- 30) To the extent practicable, BLM will avoid flying within 1/2 mile of known active bald eagle nests when using aircraft for fire suppression activities.

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**Action SS-1.1.6** – In cooperation with the IDFG, USFWS, USFS, and other partners, implement conservation measures for Canada lynx.

#### Vegetation - Forests and Woodlands

- 1) Manage vegetation to mimic or approximate natural succession and disturbance processes while maintaining habitat components necessary for the conservation of Canada lynx (See Map 8 in Appendix G). Unless a broad-scale assessment has been completed that substantiates different historic levels of stand initiation structural stages (early seral), disturbance in each LAU will be limited as follows:
  - a. If more than 30 percent of the lynx habitat in an LAU is currently in a stand initiation structural stage that does not yet provide winter snowshoe hare habitat, then no additional habitat may be regenerated by vegetation management projects.
  - b. Fuel treatment projects that create stand initiation structural stage will be included in the 30 percent calculation – meaning that if a fuel treatment project within the WUI creates more than 30 percent, then other projects that want to regenerate more will have to be modified or deferred until the standard could be met.
  - c. Cumulative total of fuel treatment projects that do not meet the vegetation standards shall not exceed 6% of mapped lynx habitat managed by BLM within the planning area. This standard applies to all vegetation management projects and fuel treatment projects outside the WUI.
  - d. Fuel treatment projects in the WUI should be designed to promote lynx conservation.
  - e. The BLM will ensure that no more than three adjacent LAUs administered by the BLM within the action area exceed the 30 and 15 percent lynx habitat thresholds.
- 2) Provide a mosaic of habitat conditions through time that support dense horizontal cover and high densities of snowshoe hare. Winter snowshoe hare habitat will be provided in both the stand initiation structural stage and in mature, multistory conifer vegetation.
- 3) Denning habitat should be distributed in each LAU in the form of pockets of large amounts of large woody debris, either downed logs or root wads, or large piles of small wind-thrown trees ("jack-strawed piles"). If denning habitat appears to be lacking in the LAU, then projects should be designed to retain some coarse woody debris, piles, or residual trees to provide denning habitat in the future.

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- 1) Map the location and intensity of snow-compacting activities and designated and groomed routes that occurred inside LAUs from 1998 to 2000. The mapping is to be completed within one year of the decision on this RMP.
  - a. **Monitoring** - Changes in activities and routes are to be monitored every five years.
- 2) Ensure that ongoing federal actions either support or do not preclude conservation and recovery of the species.
  - a. Ongoing activities will be reviewed where local consultation has not yet been completed within LAUs.
  - b. A project proposal that deviates from one or more Canada lynx standards may proceed, subject to ESA requirements, either if a written determination is made that the project is not likely to adversely affect lynx or if it may result in short-term adverse effects on lynx but if long-term benefits to lynx and its habitat will result.
  - c. Document and evaluate the conditions under this action.
- 3) Maintain or restore lynx habitat connectivity within and between LAUs, and in linkage areas.
  - a. Ensure that new or expanded permanent developments and vegetation management projects are maintained for habitat connectivity in an LAU or linkage area.
  - b. Identify potential highway crossings and fencing when highway or forest highway construction or reconstruction is proposed.
  - c. Changes in LAU boundaries will be based on site-specific habitat information

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and after review by the BLM State Office.

#### Wildland Fire Management

- 1) Wildland fire use activities will be conducted to restore ecological processes and maintain or improve lynx habitat.
  - a. Avoid construction of permanent firebreaks on ridges or saddles.
- 2) Prescribed fire projects will be designed to conserve suitable habitats by avoiding or minimizing negative impacts on suitable habitat and use prescribed fire for enhancing habitats.
  - a) Do not create permanent travel routes that facilitate snow compaction in lynx habitat. Avoid construction of permanent firebreaks on ridges or saddles.
  - b) Vegetation management projects will be planned to recruit a high density of conifers, hardwoods, and shrubs where such habitat is scarce or not available. Give priority to stem-exclusion, closed-canopy structural stage stands for lynx or their prey (e.g., mesic, monotypic lodgepole stands). Winter snowshoe hare habitat should be near denning habitat.
- 3) Non-fire fuels projects will be designed to conserve and enhance habitat within LAUs:
  - a) Do not create permanent travel routes that facilitate snow compaction in lynx habitat. Avoid construction of permanent firebreaks on ridges or saddles.
  - b) Vegetation management projects should be planned to recruit a high density of conifers, hardwoods, and shrubs where such habitat is scarce or not available. Give priority to stem-exclusion, closed-canopy structural stage stands for lynx or their prey (e.g., mesic, monotypic lodgepole stands). Winter snowshoe hare habitat should be near denning habitat.
- 4) Annually report the acres of vegetation management projects that occurred in winter snowshoe hare habitat during the previous fiscal year.
  - a) The type of activity, acres, and location (unit, LAU) will be reported.
- 5) Report the acres of fuel treatment projects that occurred in lynx habitat within the wildland urban interface, when the project decision is approved. Report whether or not the fuel treatment met the vegetation standards. If not, report which standard(s), how many acres were affected, and why they were not met. The Field Office will report to the BLM Idaho State Office.

#### Forestry and Woodland Products

- 1) Within LAUs, vegetation management will be focused in areas that have the potential to improve winter snowshoe hare habitat but presently have poorly developed understories that lack dense horizontal cover.
  - a. Timber management projects shall not regenerate more than 15 percent of lynx habitat on NFS or BLM lands in an LAU in a ten-year period.
  - b. The BLM will not conduct precommercial thinning operations within any BLM-administered LAUs that exceed the 30 and 15 percent lynx habitat thresholds. Precommercial thinning projects that reduce snowshoe hare habitat may occur from the stand initiation structural stage (early seral) until the stands no longer provide winter snowshoe hare habitat only:
    - i. Within 200 feet of administrative sites, dwellings, or outbuildings; or
    - ii. For research studies or genetic tree tests evaluating genetically improved reforestation stock; or
    - iii. Based on new information that is peer reviewed and accepted by the BLM State Office and FWS, where a written determination states that a project is not likely to adversely affect lynx or that a project is likely to have short-term adverse effects but will result in long-term benefits to lynx and its habitat.
    - iv. For conifer removal in aspen, or daylight thinning around individual aspen trees, where aspen is in decline.
    - v. For daylight thinning of planted rust-resistant white pine where 80% of the winter snowshoe hare habitat is retained.
    - vi. To restore whitebark pine.
  - c. Vegetation management projects that reduce snowshoe hare habitat in multi-story mature or late successional forests may occur only:
    - i) Within 200 feet of administrative sites, dwellings, outbuildings, recreation sites, and special use permit improvements, including infrastructure within permitted ski area boundaries; or



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- ii) For research studies or genetic tree tests evaluating genetically improved reforestation stock; or
  - iii) For incidental removal during salvage harvest (e.g. removal due to location of skid trails).
  - iv) Timber harvest is allowed in areas that have potential to improve winter snowshoe hare habitat but presently have poorly developed understories that lack dense horizontal cover (e.g., uneven age management systems could be used to create openings where there is little understory so that new forage can grow).
- 2) Vegetation management projects should be planned to recruit a high density of conifers, hardwoods, and shrubs where such habitat is scarce or not available. Priority should be given to stem-exclusion, closed-canopy structural stage stands for lynx or their prey (e.g., mesic, monotypic lodgepole stands). Winter snowshoe hare habitat should be near denning habitat.
  - a. Habitat for alternate prey species, primarily red squirrel, should be provided in each LAU.
  - b. Fire and fuels management projects conducted under the exceptions to standards will not occur in greater than six percent of the mapped lynx habitat administered by the BLM within the planning area, during the estimated 15-year life of the plan, or until previously treated areas again provide suitable habitat.
  - c. Fuel treatment projects in the WUI should be designed to promote lynx conservation.
- 3) Annually report the acres of vegetation management projects that occurred in winter snowshoe hare habitat during the previous fiscal year.
  - a. The type of activity, acres, and location (unit, LAU) will be reported.
- 4) Report the acres of fuel treatment projects that occurred in lynx habitat within the wildland urban interface, when the project decision is approved. Report whether or not the fuel treatment met the vegetation standards. If standard(s) are not met, report which standard(s), how many acres were affected, and why they were not met. The Field Office will report to the Idaho State Office.

### Livestock Grazing

- 1) Manage livestock grazing to be compatible with improving or maintaining lynx habitat.
  - a. In fire- and harvest-created openings, livestock grazing should be managed so that impacts do not prevent shrubs and trees from regenerating.
  - b. In aspen stands, livestock grazing should be managed to contribute to their long-term health and sustainability.
  - c. In riparian areas and willow fens, livestock grazing should be managed to contribute to maintaining or achieving a preponderance of mid- or late-seral stages, similar to conditions that would have occurred under historic disturbance regimes.
  - d. In shrub-steppe habitats, livestock grazing should be managed in the elevation ranges of forested lynx habitat in LAUs, to contribute to maintaining or achieving a preponderance of mid- or late-seral stages, similar to conditions that would have occurred under historic disturbance regimes.

### Minerals

- 1) Manage human activities, such as exploring and developing minerals, to reduce impacts on lynx and its habitat.
  - a) **Monitoring** - For mineral development sites and facilities, remote monitoring should be encouraged to reduce snow compaction.
  - b) For mineral development sites and facilities that are closed, a reclamation plan that restores lynx habitat should be developed.
  - c) Winter access for mineral exploration and development should be limited to designated routes or designated over-the-snow routes.

### Recreation

- 1) Manage recreational activities to maintain lynx habitat and connectivity.
  - a) Activities will be concentrated in existing developed areas, rather than developing new areas in lynx habitat.
  - b) Recreation developments and operations should be planned in ways that both provide for lynx movement and maintain the effectiveness of lynx habitat.

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### Renewable Energy

- 1) Manage human activities, such as exploring and developing energy resources, to reduce impacts on lynx and its habitat.
  - a) **Monitoring** - For energy development sites and facilities, remote monitoring should be encouraged to reduce snow compaction.
  - b) For energy development sites and facilities that are closed, a reclamation plan that restores lynx habitat should be developed.
  - c) Winter access for energy exploration and development should be limited to designated routes or designated over-the-snow routes.

### Transportation and Travel Management

- 1) Maintain the lynx's natural competitive advantage over other predators in deep snow by discouraging the expansion of snow compacting activities in lynx habitat.
  - a) New permanent roads should not be built on ridge tops and saddles or in areas identified as important for lynx habitat connectivity. New permanent roads and trails should be situated away from forested stringers.
  - b) Cutting brush along low-speed, low- traffic roads should be done to the minimum level necessary to provide for public safety.
  - c) On new roads built for projects, public motorized use should be restricted. Effective closures should be provided in road designs. When the project is over, these roads should be reclaimed or decommissioned, if not needed for other management objectives.
  - d) Designated over-the-snow routes or play areas should not expand outside baseline areas of consistent snow compaction by LAU or in a combination of immediately adjacent LAUs, unless designation serves to consolidate use and improve lynx habitat.
  - e) This does not apply inside permitted ski area boundaries, to winter logging, to rerouting trails for public safety, to accessing private inholdings.
  - f) Use the same analysis boundaries for all actions subject to this guideline.
- 2) Reduce adverse highway effects on lynx by cooperating with other agencies to provide for lynx movement and habitat connectivity and to reduce the potential of lynx mortality.
  - a) Methods to avoid or reduce effects on lynx should be used in lynx habitat when upgrading unpaved roads to maintenance levels 4 or 5, if the result would be increased traffic speeds and volumes, or a foreseeable contribution to increases in human activity or development.
  - b) Methods to avoid or reduce effects on lynx should be used when constructing or reconstructing highways across federal land. Methods could include fencing, underpasses, or overpasses.

### Lands and Realty

- 1) Retain lynx habitat in federal ownership to the extent possible, while balancing other needs.
- 2) Lynx habitat needs and connectivity will be provided for when developing new or expanding existing ski areas.
- 3) When developing or expanding ski areas, provisions should be made for adequately sized inter-trail islands that include coarse woody debris, so winter snowshoe hare habitat is maintained.
- 4) When developing or expanding ski areas, nocturnal foraging should be provided consistent with the ski area's operational needs, especially where lynx habitat occurs as narrow bands of coniferous forest across mountain slopes.
- 5) When developing or expanding ski areas and trails, access roads and lift termini should be located to maintain and provide lynx diurnal security habitat.
- 6) Manage human activities within lynx habitat, such as non-recreational special uses and placement of utility transmission corridors to reduce impacts on lynx and lynx habitat. Winter access for non-recreational special uses should be limited to designated routes or designated over-the-snow routes.

**Action SS-1.1.7** – In cooperation with the IDFG, USFWS, USFS, and other partners, implement conservation measures for gray wolf, endangered population.

- 1) The quality and quantity of forage on big game winter range will be improved.
- 2) Active den and rendezvous sites within pack territories for gray wolves will be

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- identified.
- 3) Ensure that ongoing federal actions either support or do not preclude conservation and recovery of the species.
    - a) Ongoing activities will be reviewed where local consultation has not yet been completed within known pack territories of gray wolves.
    - b) Avoid implementing activities within one mile of active den and rendezvous sites of gray wolves from April 1 to June 30.
  - 4) Fire suppression will be conducted to protect suitable habitat. Human life and firefighter safety and property take priority over species protection.
    - a) Apply minimum impact suppression tactics (MIST) within one mile of active den and rendezvous sites for gray wolf. Resource advisors will be consulted to determine where MIST should be applied to avoid or minimize negative impacts.
    - b) Do not locate fire base camps, staging areas, and fueling areas within one mile of active den and rendezvous sites for gray wolf. Avoid conducting other related suppression activities in these habitats.
  - 5) Emergency Stabilization and Rehabilitation (ES&R) activities will be implemented by planting locally appropriate vegetation preferred by big game species for gray wolf.
  - 6) Designate wildland fire use projects to include appropriate burn prescriptions that maximize the conservation of big game habitat for gray wolf.
  - 7) Nonfire fuels projects will be designed to emphasize improving big game winter ranges for gray wolf.
  - 8) Forest management actions that maintain the integrity of wolf habitat will be implemented.
    - a) Avoid new road construction or reconstruction within one mile of active den sites and rendezvous sites.
    - b) Apply appropriate spatial (one mile) and temporal (April 1 to June 30) buffers to avoid human disturbance around den and rendezvous sites.
  - 9) Modify existing facilities to avoid or minimize negative impacts and avoid development of new recreation facilities or expansion of existing facilities within one mile of active den and rendezvous sites of gray wolf if negative impacts are expected.
  - 10) As possible and where there is the potential to reduce conflicts between people and wolves, move dispersed camps to locations or modify them to mitigate negative impacts on gray wolves.
  - 11) Commercial and noncommercial recreation permits, including outfitter camps, will be issued so as not to preclude conservation and recovery of species. This includes management of facilities (such as camps), as well as disturbances to the species resulting from human uses.
    - a) Where there is the potential to reduce conflicts between people and wolves, modify outfitter camps or the permit stipulations to minimize negative impacts on wolves or their habitat.
    - b) Avoid issuing new recreation permits if negative impacts are expected. If a recreation permit is issued, apply stipulations to the permit to support or to not preclude species conservation and recovery. Avoid issuing recreation permits if negative impacts are expected. Avoid placing new outfitter camps and issuing permits that will have negative impacts on gray wolf habitat or will increase conflicts between people and gray wolf.
  - 12) To the extent allowed by law, modify existing geothermal leases within one mile of active den and rendezvous sites of gray wolf if negative impacts are expected.
  - 13) To the extent allowed by law, do not permit new geothermal development within one mile of active den and rendezvous sites of gray wolf if negative impacts are expected.
  - 14) If a geothermal lease or sale will be issued in suitable habitat, stipulations will be applied to address habitat management requirements, including measures to avoid increasing conflicts between wolves and people.
  - 15) Modify roads, routes, and trails if negative impacts are occurring within one mile of active den and rendezvous sites of gray wolves. The need for seasonal OHV use restrictions within or adjacent to these habitat areas will be evaluated to reduce disturbances to the species. BLM will seek opportunities to close and reclaim OHV routes or nonmotorized trails and use areas if negative impacts are occurring.
  - 16) Avoid constructing new roads, routes, trails, and areas if negative impacts are expected within one mile of active den and rendezvous sites of gray wolves. The need for seasonal OHV use restrictions within or adjacent to these habitat areas will

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be considered to reduce disturbances to the species. Avoid opening new roads, routes, trails, and areas in suitable habitat.

- 17) Manage recreational travel to reduce human/wolf interactions to promote wolf recovery.
  - a) Eliminate, as appropriate, mechanized cross-country travel (designate areas as limited or closed) within one mile of active den or rendezvous sites.
  - b) The need for seasonal restrictions or permanent closings within one mile of active den or rendezvous sites will be evaluated.
  - c) Development of OHV routes or nonmotorized trails will be avoided within one mile of active den or rendezvous sites.
- 18) Maintain regular compliance checks on road and OHV closures to protect key wolf habitat areas and to identify problems as soon as possible and take immediate corrective measures.
- 19) Retain active den and rendezvous sites in public ownership unless compelling circumstances necessitate the land tenure adjustment. The loss of suitable habitat from federal ownership will be avoided. If property with suitable habitat will be transferred out of federal ownership, then permanent conservation easements may be attached to the transfer that will offer equal or greater protection than under federal management. Such measures must be approved by the State Director.
- 20) Avoid renewing existing permits or leases and issuing new permits or leases if negative impacts are expected within one mile of active den and rendezvous sites of gray wolves. The seasonal nature of the proposed activities will be considered and whether this conflicts with conservation and recovery of the species. If a permit or lease will be issued or reissued in suitable habitat, apply stipulations to the permit that support or do not preclude species conservation and recovery and that avoid or minimize negative impacts.
- 21) Avoid renewing existing rights-of-way or issuing new rights-of-way if negative impacts are expected within one mile of active den and rendezvous sites of gray wolves. The seasonal nature of the proposed activities will be considered and whether this conflicts with conservation and recovery of the species. If a right-of-way will be issued or reissued in suitable habitat, apply stipulations to the right-of-way that support or do not preclude species conservation recovery and that avoid or minimize negative impacts.
- 22) Poisoning of rodents will be conducted underground when within one-half mile of active den sites.

**Action SS-1.1.8 – For gray wolf experimental nonessential population:**

- When USFWS, ID F&G, or the Nez Perce Tribe determines that five or fewer breeding pairs are established within an experimental population area, restrict human access between April 1 and June 30 within one mile of active wolf den or rendezvous sites.
- Same as management actions as for gray wolf, endangered population for BLM-authorized actions within one mile of active den and rendezvous sites identified by USFWS, ID F&G, or the Nez Perce Tribe.
- When six or more breeding pairs are established within an experimental population area, no land use restrictions may be employed (50 CFR 17.84(i)(4)). Always exercise due care to avoid taking a gray wolf when conducting normal operations.

**Action SS-1.1.9 – In cooperation with the IDFG, USFWS, USFS, and other partners, implement conservation measures for grizzly bear.**

- 1) All BLM public lands within grizzly bear management units (BMU) will be identified, including core areas. BLM public lands will be identified by Management Situation 1-5. Identify all BLM public lands outside of recovery zones that are occupied by grizzly bears.
- 2) Ensure that ongoing federal actions either support or do not preclude conservation and recovery of the species.
  - a) Ongoing activities will be reviewed where local consultation has not yet been completed within known BMUs.
- 3) Cooperate in the management of habitat inside grizzly bear recovery zones.
  - a) Participate in the Selkirk and Cabinet-Yaak Ecosystem grizzly bear subcommittee.
  - b) Implement habitat allocations that the FWS has approved (See Map 8 in Appendix G).

The **Ball-Trout BMU** currently has 1,393 acres of BLM public lands.

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- The current 1,163 acres of core habitat will become baseline for the BLM.
- The linear density of 0.66 Total Motorized Road Densities (TMRD) and 0.30 Open Motorized Road Densities (OMRD) after the access road to Farnham Forest will become baseline for the BLM.
- Vegetation treatment could temporarily impact core habitat for three consecutive years of any ten year period. This allocation will not be affected by Forest Service treatments.
- Loss of core habitat resulting from actions on private land is acceptable with no compensation.
- Construction of temporary roads will be only for life of the project and closed to the general public.
- For the Farnham Forest RNA/ACEC:
  - BLM may seek an easement to develop an access road from the Westside County Road to public land, with a potential reduction to core habitat by 0.05% for the entire BMU. The resulting core habitat will remain 1.65% above the target of 69%.

The **Boulder Creek BMU** currently has 1,537 acres of BLM public lands.

- The 453 acres of core habitat will become baseline for the BLM after road closures occur as proposed in the Two Tail Project.
- The linear density of 2.12 road miles per square mile will become baseline for the BLM after road closures occur as proposed in the Two Tail Project.
- Vegetation treatment could temporarily impact core habitat for three consecutive years of any ten year period. This allocation will not be affected by Forest Service treatments.
- Loss of core habitat resulting from actions on private land is acceptable with no compensation.
- Construction of temporary roads will be only for life of the project and closed to the general public.
- Explore opportunities to install a locked gate across the powerline road. This action will increase core habitat to 553 acres of BLM public land and reduce linear density to 1.13 road miles per square mile across BLM public land.

The **Long Smith BMU** currently has 150 acres of BLM public lands.

- The current 44 acres of core habitat will become baseline for the BLM.
- The current linear density of 2.68 road miles per square mile will become baseline for the BLM.
- Vegetation treatment could temporarily impact core habitat for three consecutive years of any ten year period. This allocation will not be affected by Forest Service treatments activities.
- Loss of core habitat resulting from actions on private land is acceptable with no compensation.
- Construction of temporary roads will be only for life of the project and closed to the general public.
- Work to close an apparent dead-end spur road of about 0.25 miles in length that straddles a property line. This action will not increase core habitat within the BMU, but it will reduce linear road density across BLM public lands from 9.34 to 8.52.

The **Myrtle BMU** currently has 320 acres of BLM public lands.

- The current 40 acres of core habitat will become baseline for the BLM.
- The current linear density of 1.25 road miles per square mile will become baseline for the BLM.
- Vegetation treatment could temporarily impact core habitat for three consecutive years of any ten year period. This allocation will not be affected by Forest Service treatments.
- Loss of core habitat resulting from actions on private land is acceptable with no expected compensation.
- Construction of temporary roads will be only for life of the project and closed to the general public.

The **North Lightning BMU** currently has 562 acres of BLM public lands.

- The current 278 acres of core habitat will become baseline for the BLM.

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- The current linear density of 0.34 road miles per square mile will become baseline for the BLM.
- Vegetation treatment could temporarily impact core habitat for three consecutive years within each parcel of BLM public land and waiting ten years between each parcel of land. This allocation will not be affected by Forest Service treatments.
- Loss of core habitat resulting from actions on private land is acceptable with no compensation.
- Construction of temporary roads will be only for life of the project and closed to the general public.

The **Scotchman BMU** currently has 362 acres of BLM public lands.

- The current 11 acres of core habitat will not restrict actions on BLM public lands.
  - The current linear density of 2.74 and 2.48 road miles per square mile (TMRD and OMRD respectively) will become baseline for the BLM.
- Maintain or improve habitat conditions consistent with objectives for the BMU and MS.
  - Coordinate with the IGBC to develop and implement guidelines for sanitation and food storage on BLM public lands, as needed.
- Manage habitat outside of recovery zones identified as occupied by grizzly bears.
    - Establish a baseline for open and total motorized route densities on BLM public lands occupied by grizzly bears that are outside of recovery zones.
    - Increases of open motorized route densities on BLM public lands above the baseline conditions will not be allowed.
    - Increases in total motorized route densities as a result of temporary roads (roads gated to the public) above baseline conditions are acceptable.
    - Existing habitat value will be maintained or enhanced in areas outside of recovery zones that are occupied by grizzly bears.
    - Coordinate with the IGBC to develop and implement guidelines for sanitation and food storage on BLM public lands, as needed.
  - Cooperate to protect and restore habitat connectivity between grizzly bear recovery zones.
    - BLM public lands within linkage areas that are important to provide landscape connectivity between recovery zones will be identified.
    - Within linkage areas, provide for grizzly bear landscape connectivity by participating in the development and management of grizzly bear habitat on BLM public lands.
  - Fire suppression efforts will be conducted, as much as possible, to protect suitable habitat. Human life and firefighter safety and property take priority over species protection.
    - MIST will be applied within BMUs. Resource advisors will be consulted to determine where MIST should be applied to avoid or minimize negative impacts.
    - Fire base camps, staging areas, and fueling areas will not be located within grizzly bear core areas. Avoid conducting other related suppression activities in these habitats.
    - Coordinate with the USFS and IDL personnel regarding fire suppression activities in grizzly bear habitat.
  - When ES&R activities are warranted, include requirements that promote grizzly bear habitat rehabilitation, minimize disturbance in project planning and implementation activities, and do not increase human /bear interactions (e.g., planting clover near roads). Activities will be consistent with the management guidelines for the MS. Seed mixes will be designed that emphasize native vegetation and meet bear management habitat needs.
  - Wildland fire use projects will be designed to be consistent with grizzly BMU direction.
  - Prescribed fire projects will not create permanent motorized access routes or trails within grizzly bear core areas. Avoid creating other motorized access routes or trails within BMUs if negative impacts are anticipated. Emphasize rehabilitating roads and trails developed for project implementation.
    - Prescribed fire projects will be implemented that avoid other conflicts with grizzly bears, as needed.

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- 10) Nonfire fuels projects will not create permanent motorized access routes or trails within grizzly bear core areas. Avoid creating other motorized access routes or trails within BMUs if negative impacts are anticipated. Emphasize rehabilitating roads and trails developed for project implementation.
  - a) Nonfire projects will be implemented that avoid other conflicts with grizzly bears, as needed.
- 11) Forest management will be conducted in a manner that is compatible with grizzly bear recovery goals. Timber harvest and associated road building will be compatible with grizzly bear habitat requirements for the BMU and identified areas of bear occupancy outside of recovery zones.
- 12) Existing facilities will be modified to avoid or minimize negative impacts and avoid development of new recreation facilities or expansion of existing facilities within BMUs if negative impacts are expected.
- 13) As possible and where there is the potential to reduce conflicts between people and grizzly bear, move dispersed camps to locations or modify them to mitigate negative impacts on grizzly bears.
- 14) Commercial and noncommercial recreation permits, including outfitter camps, will be issued so as not to preclude conservation and recovery of species. This includes management of physical facilities (such as camps), as well as disturbances to the species resulting from human uses.
  - a) Where there is the potential to reduce conflicts between people and grizzly bear, modify outfitter camps or the permit stipulations to minimize negative impacts on grizzly bears or their habitat.
  - b) Avoid issuing new recreation permits if negative impacts are expected. If a recreation permit is issued, apply stipulations to the permit to support or to not preclude species conservation and recovery. Avoid issuing recreation permits if negative impacts are expected. Avoid placing new outfitter camps and issuing permits that will have negative impacts on grizzly bear habitat or will increase conflicts between people and grizzly bears. When permits are issued, educational programs will be required for outfitters and their clients regarding grizzly bear identification and conservation.
- 15) To the extent allowed by law, existing geothermal leases within BMUs will be modified if negative impacts are expected.
- 16) To the extent allowed by law, do not permit new geothermal development within BMUs if negative impacts are expected.
- 17) If a geothermal lease or sale will be issued in suitable habitat, apply stipulations to address habitat management requirements, including measures to avoid increasing conflicts between bears and people.
- 18) Effective closure devices for motorized vehicles will be installed on nonmotorized trails within core grizzly bear areas on BLM public lands.
- 19) Minimize construction of nonmotorized trails in grizzly bear habitat if negative impacts are anticipated.
- 20) Avoid the loss of grizzly bear habitat in recovery zone and linkage areas from federal ownership. Should public land in the Grizzly Bear recovery zone be proposed for conveyance out of federal ownership, at a minimum, the BLM will encourage the proponent to consider a conservation easement which protects Grizzly Bear habitat.
- 21) Avoid renewing existing permits or leases and issuing new permits or leases if negative impacts are expected within BMUs. The seasonal nature of the proposed activities will be considered and whether this conflicts with conservation and recovery of the species. If a permit or lease will be issued or reissued in suitable habitat, apply stipulations to the permit that support or do not preclude species conservation and recovery and that avoid or minimize negative impacts.
- 22) Avoid renewing existing rights-of-way or issuing new rights-of-way if negative impacts are expected within BMUs. The seasonal nature of the proposed activities will be considered and whether this conflicts with conservation and recovery of the species. If a right-of-way will be issued or reissued in suitable habitat, apply stipulations to the right-of-way that support or do not preclude species conservation recovery and that avoid or minimize negative impacts.

**Action SS-1.1.10** – In cooperation with the IDFG, USFWS, USFS, and other partners, implement conservation measures for yellow-billed cuckoo.

- 1) Mature riparian forests (i.e., cottonwood galleries) will be conserved in suitable habitat to maintain their integrity for use by yellow-billed cuckoo.

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- a) Eradication of nonnative invasive species will be emphasized in riparian areas that compete with cottonwood regeneration. Continue to identify problem areas and implement appropriate weed control measures.
- b) As needed, suitable habitat in riparian forests will be closed to noncommercial firewood cutting and post the closure.
- 2) Identify known populations and suitable habitat for yellow-billed cuckoos.
- 3) Ensure that ongoing federal actions either support or do not preclude conservation and recovery of the species.
  - a) Ongoing activities will be reviewed where local consultation has not yet been completed within areas with known populations of yellow-billed cuckoo.
  - b) Avoid implementing activities that have the potential to disturb or displace known populations of yellow-billed cuckoos during the breeding season (May through September).
- 4) Management plans for nest sites, communal roost sites, or key foraging areas will be updated or developed.
- 5) In restoration areas, consider planting or other habitat enhancement measures to improve cuckoo habitat value.
- 6) Fire suppression efforts will be conducted, as possible, to protect suitable habitat. Human life and firefighter safety and property take priority over species protection.
  - a) MIST will be applied within suitable habitat for yellow-billed cuckoo. Consult with resource advisors to determine where MIST should be applied to avoid or minimize negative impacts.
  - b) Fire base camps, staging areas, and fueling areas will not be located within suitable habitat for yellow-billed cuckoo. Avoid conducting other related suppression activities in these habitats.
- 7) ES&R activities will be implemented to promote habitat rehabilitation by planting locally appropriate nesting and roosting trees for yellow-billed cuckoo.
- 8) Wildland fire use projects will be designed to avoid burning adjacent to suitable habitat for yellow-billed cuckoo.
- 9) Nonfire fuels projects will be designed to include seed mixes that will enhance or promote the growth of willows, cottonwoods, or other target species for yellow-billed cuckoo.
- 10) Maintain and promote suitable habitat and restore areas for yellow-billed cuckoos while implementing rangeland health standards and guidelines (S&Gs).
  - a) Livestock grazing and trailing will be managed to promote nesting and roosting tree growth and recruitment, healthy riparian communities, or a combination of these objectives.
  - b) As needed, disturbed areas will be protected using temporary closures or other measures until the cottonwood saplings (or other target tree species) are reestablished and self-sustaining.
  - c) Maintain regular compliance checks on grazing allotments with nest sites and communal roost sites to identify problems as soon as possible and take immediate corrective measures.
  - d) Livestock facilities will be managed to promote nesting and roosting tree growth and recruitment, healthy riparian communities, or a combination of these objectives.
- 11) Existing facilities will be modified to avoid or minimize negative impacts and avoid development of new recreation facilities or expansion of existing facilities within suitable habitat for yellow-billed cuckoo if negative impacts are expected.
- 12) Educate recreation users at boat ramps and at designated camp areas about the need to conserve habitat for yellow-billed cuckoos.
- 13) To the extent allowed by law, existing geothermal leases within suitable habitat for yellow-billed cuckoo will be modified if negative impacts are expected.
- 14) To the extent allowed by law, do not permit new geothermal development within suitable habitat for yellow-billed cuckoo if negative impacts are expected.
- 15) Modify roads, routes, and trails if negative impacts are occurring within suitable habitat for yellow-billed cuckoos. The need for seasonal OHV use restrictions within or adjacent to these habitat areas will be evaluated to reduce disturbances to the species. BLM will seek opportunities to close and reclaim OHV routes or nonmotorized trails and use areas if negative impacts are occurring.
- 16) Avoid constructing new roads, routes, trails, and areas if negative impacts are expected within suitable habitat for yellow-billed cuckoos. The need for seasonal OHV use restrictions within or adjacent to these habitat areas will be considered to



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reduce disturbances to the species. Avoid opening new roads, routes, trails, and areas in suitable habitat.

- 17) Avoid renewing existing permits or leases and issuing new permits or leases if negative impacts are expected within suitable habitat for yellow-billed cuckoos. Consider the seasonal nature of the proposed activities, and whether this conflicts with conservation and recovery of the species. If a permit or lease will be issued or reissued in suitable habitat, stipulations will be applied to the permit that support or do not preclude species conservation and recovery and that avoid or minimize negative impacts.
- 18) Avoid renewing existing rights-of-way or issuing new rights-of-way if negative impacts are expected within suitable habitat for yellow-billed cuckoos. Consider the seasonal nature of the proposed activities and whether this conflicts with conservation and recovery of the species. If a right-of-way will be issued or reissued in suitable habitat, stipulations will be applied to the right-of-way that support or do not preclude species conservation recovery and that avoid or minimize negative impacts.
- 19) Explore the potential for new designations that would enhance species recovery, such as relict, good condition, cottonwood galleries.

**Objective SS-1.2** – Manage habitat for special status species consistent with USFWS recovery plans.

**Action SS-1.2.1** – As USFWS updates recovery plans, identify appropriate management actions to incorporate into the RMP.

**Objective SS-1.3** – Comply with conservation and recovery direction for all Threatened and Endangered (T&E) plant species.

**Action SS-1.3.1** In cooperation with the IDFG Conservation Data Center (CDC), USFWS, and other partners, implement conservation measures for T&E plant species.

- 1) Projects involving the application of pesticides that may affect the species will be analyzed at the project level and designed such that pesticide applications will support conservation and recovery of species and minimize risks of exposure.
  - a) The benefits and risks of vegetation treatment will be evaluated, including the following: application methods; chemicals, carriers, and surfactants used; needed treatment buffers; and use of non-chemical weed control (for example, bio-controls, hand pulling). If management objectives can effectively be accomplished using non-chemical methods, then non-chemical methods are preferred.
  - b) Appropriate spatial and temporal buffers will be applied to avoid species' exposure to harmful chemicals.
  - c) Implement appropriate revegetation and weed control measures to reduce the risks of nonnative species infestations following any ground/soil disturbing actions in or near suitable habitat.
- 2) Where needed and feasible, coordinate with adjacent land owners and local governments regarding control of invasive plants in riparian areas through cooperative weed management programs.
- 3) Cooperate in the development and implementation of interagency inventory methods and data standards for mapping or database management.
  - a) In cooperation with CDC and USFWS, all known populations, high priority habitat areas, and suitable habitat for BLM lands will be recorded and mapped.
  - b) Commit to an annual inventory effort to a level permitted by funding. Surveys and inventories will be prioritized to address areas of suitable habitat with a high likelihood of species occurrences. Inventories will be designed to complement other program needs.
  - c) In cooperation with CDC, a spatial database of species information will be maintained.
- 4) **Monitoring** - Following current monitoring protocols, regular monitoring of any populations found on BLM lands will be conducted.
- 5) To promote species recovery, habitat management plans or other implementation-level plans will be updated or developed as needed.
- 6) As funding allows, participate in research essential to recovery of the species; cooperate in determining specific limiting factors in terms of habitat needs and characteristics; and cooperate in population viability analyses to ensure that recovery criteria objectives are being met.
- 7) Seed banks will be supported in a suitable long-term seed storage facility, as needed, and as funding allows.
- 8) Working with other agencies, compile a general list of BMPs that will apply to all programs, to the extent that such a list will assist with consultation and species recovery. The intent of implementing BMPs is to avoid or minimize negative

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- impacts. The BLM's Idaho State Office will coordinate development of BMPs with CdA FO, CdA District Office, USFWS, and CDC and will issue an instruction memorandum. The CdA FO will implement the BMPs.
- 9) As funding allows, the establishment and maintenance of new populations in suitable habitat will be supported. The goal of these activities is to maintain or enhance viable populations.
  - 10) Ensure that ongoing federal actions support or do not preclude species recovery.
    - a) As needed, ongoing activities in high priority habitat areas will be reviewed where local consultation has not yet been completed.
    - b) Determine if direct or indirect negative impacts on the species or their habitat are occurring as a result of discretionary ongoing BLM actions. If so, the activity will be modified to avoid or minimize anticipated negative impacts and promote species recovery.
    - c) Where needed, Section 7 consultation will be completed for ongoing activities that may affect listed species and their habitat.
  - 11) Ensure that new federal actions support or do not preclude species recovery.
    - a) Project-level inventories will be completed in suitable habitat during project planning, if inventory information is not available or adequate. The SO will issue an instruction memorandum concerning special status species project-level clearance inventories.
    - b) If direct or indirect negative impacts on the species or their habitat are anticipated as a result of new BLM actions, the activity will be modified to avoid or minimize the impacts and promote species recovery.
    - c) Where needed, Section 7 consultation will be completed for new activities that may affect listed species and their habitat.
  - 12) **Monitoring** - Site-specific implementation and effectiveness monitoring will be completed. Management will be adjusted as needed to ensure that management objectives are met.
  - 13) Fire suppression efforts will be conducted, as possible, to protect high priority habitat.
    - a) Review the Fire Management Plan for adequacy in addressing conservation measure. The plan will be modified if needed.
    - b) MIST will be applied in suitable habitat, as appropriate. Resource advisor(s) will be consulted to determine where MIST tactics should be applied to avoid or minimize negative impacts.
    - c) Do not locate fire base camps, staging areas, and fueling areas within known populations. These and other related suppression activities in and adjacent to high priority habitat areas will be avoided if negative impacts may occur.
    - d) As needed, coordinate with US Forest Service and Idaho Department of Lands personnel regarding fire suppression activities in or near suitable habitat.
  - 14) ES&R activities will be implemented to promote species habitat rehabilitation.
    - a) As needed, disturbed areas will be protected using temporary closures or other measures until site-specific stabilization and rehabilitation plan goals specific to the species and habitat are met.
    - b) If needed for vegetation restoration, native seed mixes will be designed that emphasize local stock and promote species recovery.
    - c) Burned area rehabilitation projects involving the application of pesticides in suitable habitat will be analyzed and implemented in accordance with item 1.
  - 15) Wildland fire use projects (where allowed) will be designed to conserve suitable habitat. When developing wildland fire use plans, avoid burning suitable habitat if negative impacts are expected, and develop appropriate burn prescriptions that maximize the conservation of suitable habitat.
  - 16) Prescribed fire projects will be designed to conserve suitable habitat. When developing prescribed fire plans, avoid or minimize negative impacts on suitable habitat and use prescribed fire as a tool for assisting with species conservation.
  - 17) Nonfire fuels management projects will be implemented involving the use of chemicals in accordance with item 1.
  - 18) Promote restoration of suitable habitat following fire, burned area rehabilitation, restoration treatments, or other major disturbances. As needed, disturbed areas will be protected using temporary closures or other measures until the risk of erosion or other impacts has passed and habitat components are reestablished and self-sustaining.

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- 19) Promote establishment and maintenance of habitats that support populations.
  - a) Non-fire fuels management projects in or near known populations will be avoided, unless such projects will enhance species recovery or are necessary for hazardous fuels reduction near the wildland-urban interface.
  - b) Protection measures will be implemented to avoid or minimize negative impacts on known populations.
  - c) In suitable habitat, native seed mixes will be designed that emphasize local stock and promote species recovery.
- 20) Incorporate conservation measures into Community Assistance Agreements throughout the fire management program.
- 21) Projects involving the application of pesticides that may affect the species or suitable habitat will be analyzed at the project level and designed such that pesticide applications will support conservation and recovery and minimize risks of exposure. Site-specific stipulations will be developed locally using the following criteria:
  - a) Evaluate the benefits and risks of vegetation treatment, including application methods; pesticides, carriers, and surfactants used; needed treatment buffers; and use of nonchemical weed control (for example, bio-controls, hand pulling). If management objectives can effectively be accomplished using nonchemical methods, then non-chemical methods are preferred.
  - b) Appropriate spatial and temporal buffers will be applied to avoid species exposure to harmful chemicals.
  - c) Eradication of competing nonnatives in high priority habitat areas will be emphasized as a top priority.
  - d) Appropriate revegetation and weed control measures will be implemented to reduce the risks of nonnative species infestations following any ground/soil disturbing actions in or near known populations.
- 22) Manage livestock grazing and trailing so as not to preclude conservation and recovery of species. This includes maintaining or enhancing suitable habitat while implementing current rangeland health standards and guidelines (S&G).
  - a) In suitable habitat that has not been surveyed, surveys will be scheduled so occurrence information is available for S&G assessments associated with permit and lease renewals. The survey prioritization process will be used as described under item 3 a).
  - b) As appropriate to avoid or minimize negative impacts, livestock grazing permits and leases will be modified.
  - c) Maintain regular compliance checks on grazing allotments with known populations to identify problems as soon as possible and take immediate corrective measures.
- 23) Manage livestock facilities to promote maintenance of suitable habitat while implementing rangeland health S&Gs. As appropriate to avoid or minimize negative impacts, modify existing and avoid placement of new livestock facilities in or adjacent to high priority habitat areas.
- 24) Approve plans of operations or allow notice level operations so as not to preclude conservation and recovery of species. This includes management of physical facilities, as well as disturbances to the species resulting from human uses.
  - a) To the extent allowed by law, modify existing plans of operation or notice-level operations that conflict with species management objectives in or adjacent to suitable habitat. For notice level operations, the operator will be informed that modifications to proposed activities will be required to avoid negative impacts.
  - b) To the extent allowed by law, avoid approving new plans of operation or notice-level operations that conflict with species management objectives in or adjacent to suitable habitat. Consider the seasonal nature of the proposed activities, and whether this conflicts with conservation and recovery of the species. For notice level operations, the operator will be informed that modifications to proposed activities will be required to avoid negative impacts. If a plan of operations will be approved in suitable habitat, then apply stipulations to support or to not preclude species recovery. A notice will require modification by the operator until the BLM determines that it will not result in undue or unnecessary degradation.
- 25) When offering mineral leases within special status plant species habitat, specify a no surface occupancy stipulation on 17,967 acres to prevent degradation of habitat

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(see NSO-5 in Appendix B).

- 26) Existing and new developed recreation facilities (paved campgrounds, vault toilets, interpretive kiosks, etc.) will be managed so as not to preclude species conservation and recovery.
  - a) As appropriate to avoid or minimize negative impacts, existing facilities will be modified.
  - b) Avoid development of new recreation facilities or expansion of existing facilities in or adjacent to high-priority habitat areas, if negative impacts are anticipated.
- 27) Dispersed use sites (informal areas, including camping areas and tie-up areas for pack animals) will be managed so as not to preclude species habitat conservation and recovery.
  - a) Disturbances will be limited to the species resulting from human uses. In addition, human activity in and adjacent to high priority habitat areas will be minimized, if negative impacts are occurring.
  - b) **Monitoring** - Close areas, either seasonally or year-round, as needed to protect the species and its habitat, and post and monitor the closure.
- 28) Commercial and noncommercial recreation permits will be issued so as not to preclude species habitat conservation and recovery. This includes management of physical facilities (such as camps), as well as disturbances to the species resulting from human uses.
  - a) If needed, existing permits that negatively impact high priority habitat areas for the species will be modified.
  - b) Avoid issuing recreation permits if negative impacts are expected. In particular, avoid permitting new recreation activities in high priority habitat areas. If a recreation permit is to be issued, stipulations will be applied to the permit to support or to not preclude species conservation and recovery.
- 29) Development of renewable energy resources will be approved so as not to preclude conservation and recovery of species. This includes management of physical facilities, as well as disturbances to the species resulting from human uses.
- 30) Roads, OHV routes and areas, as well as nonmotorized trails, will be managed in accordance with goals for promoting species habitat conservation and recovery. This includes management of physical facilities, as well as disturbances to the species resulting from human uses.
  - a) Routes in high priority habitat areas will be modified, if negative impacts are occurring. Restrictions will be implemented to reduce disturbance. Seek opportunities to close and revegetate OHV routes or nonmotorized trails and use areas in and adjacent to high priority habitat areas, if negative impacts are occurring.
  - b) Construction of new trails, roads, routes, and areas will be avoided if negative impacts are expected. In particular, avoid opening new trails, routes, and areas in and adjacent to high priority habitat areas.
  - c) Regular compliance checks on OHV closures will be maintained to protect known populations and to identify problems as soon as possible and take immediate corrective measures.
- 31) Take advantage of opportunities as they arise to support conservation easements, cooperative management efforts, and other programs on adjacent nonfederal lands to support known populations or potential habitat.
- 32) Take advantage of opportunities as they arise to coordinate with adjacent land owners and local governments regarding control of invasive plants through cooperative weed management programs. One of BLM's priorities within the cooperative weed program will be protection of listed and candidate plants on BLM lands.
- 33) Take advantage of opportunities as they arise to establish special designation areas (e.g., ACECs) that will enhance species recovery.
- 34) Private lands that support known populations will be acquired through land exchange or purchase, as opportunities arise, and where feasible and funding is available. Priority should be given to lands that are adjacent to or near public lands and/or a population occurring on BLM and private lands.
- 35) Retain known populations in federal ownership unless such a transfer will result in a net benefit to the species.
  - a) Each land tenure decision will be reviewed in terms of species habitat.

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- b) Avoid the loss of known populations from federal ownership. If property with known populations is to be transferred out of federal ownership, permanent conservation easements will be attached to the transfer or other measures will be taken that will result in equal or greater protection than under federal management. Such measures must be approved by the BLM State Director.
- 36) New land use permits and leases will be issued, and existing permits and leases will be reviewed at renewal, so as not to preclude species habitat conservation and recovery. This includes management of physical facilities, as well as disturbances to the species resulting from human uses.
  - a) Avoid issuing new permits or leases, or renewing existing permits or leases, within or adjacent to high-priority habitat areas if negative impacts are expected.
  - b) If a permit or lease is to be issued or reissued in such areas, stipulations will be applied to the permit that support or do not preclude species recovery and that avoid or minimize negative impacts.
- 37) Issue new rights-of-way, and review existing rights-of-way at renewal, so as not to preclude species habitat conservation and recovery. This includes management of physical facilities, as well as disturbances to the species resulting from human uses.
  - a) Avoid issuing rights-of-way, or renewing existing rights-of-way, in or adjacent to high-priority habitat areas if negative impacts are expected.
  - b) If a right-of-way is to be issued or reissued in such areas, stipulations will be applied to the right-of-way that support or do not preclude species recovery and that avoid or minimize negative impacts.
- 38) Approve plans of operations or allow notice level operations so as not to preclude species habitat conservation and recovery. This includes management of physical facilities, as well as disturbances to the species resulting from human uses.
  - a) To the extent allowed by law, modify plans of operation or notice-level operations that may have negative impacts on the species or their habitat. For notice level operations, the operator will be informed that modifications to proposed activities will be required to avoid negative impacts.
- 39) To the extent allowed by law, avoid approving plans of operation or notice-level operations that may have negative impacts on the species or their habitat. For notice level operations, the operator will be informed that modifications to proposed activities will be required to avoid negative impacts. If a plan of operations is to be approved in or adjacent to high priority habitat areas, stipulations will be applied to support or to not preclude species recovery. A notice will require modification by the operator until BLM determines that it will not result in undue or unnecessary degradation. Development of saleable or leasable minerals will be approved so as not to preclude species habitat conservation and recovery. This includes management of physical facilities, as well as disturbances to the species resulting from human uses. Existing mineral leases will be modified if negative impacts are expected.
- 40) Avoid development of saleable or leasable minerals in or adjacent to high priority habitat areas, if negative impacts are expected. If a minerals lease or sale is to be issued in or adjacent to high priority habitat areas, a no surface occupancy stipulation will be applied (see NSO-5 in Appendix B) to support or to not preclude species recovery.

**Action SS-1.3.2** In cooperation with the IDFG Conservation Data Center (CDC), USFWS, and other partners, implement conservation measures specific to the management of water howellia.

- 1) Mature riparian forests will be conserved in suitable habitat to protect habitat needed by pollinators of this species.
    - a) Do not authorize commercial firewood cutting within riparian forests.
  - 2) Retain forest structure on the edge of riparian areas with known populations or in suitable habitat for shading these wetland areas.
    - a) Commercial timber management projects or firewood cutting will be allowed when negative impacts on suitable habitat can be avoided or minimized.
    - b) Suitable habitat areas will be closed to noncommercial firewood cutting if management problems arise.
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***Goal SS-2 – Ensure that BLM-authorized actions are consistent with the conservation needs of special status species and do not contribute to the need to list any special status species under provisions of the Endangered Species Act.***

#### **SENSITIVE ANIMALS**

**Objective SS-2.1** – Implement recovery activities for fish and wildlife species that inhabit aquatic, riparian, and wetland areas.

**Action SS-2.1.1** – Implement the strategies outlined in CNFISH (Appendix A).

**Action SS-2.1.2** – Adverse impacts on listed and sensitive species will be avoided and/or minimized.

**Action SS-2.1.3** – Continue to inventory for populations of sensitive fish species. Where populations do exist, ensure that management of permitted activities maintains and/or improves the quality of habitat.

**Monitoring SS-2.1.4** – Maintain an updated 6<sup>th</sup> field HUC map in GIS with current fish distribution.

**Objective SS-2.2** – Maintain adequate habitat for snag- and cavity-dependent animals, with emphasis on migratory birds and bats.

**Action SS-2.2.1** – Implement actions under FW-2.2.

**Objective SS-2.3** – Implement recovery activities for fisher.

**Action SS-2.3.1** – Implement actions under FW-2.2.

**Objective SS-2.4** – Implement recovery activities for wolverine.

**Action SS-2.4.1** – Cooperate with ID F&G to inventory for wolverine.

**Action SS-2.4.2** – Authorized actions will be prohibited on or near potential denning habitat.

**Action SS-2.4.3** – Outside the Crystal Lake WSA, BLM-authorized actions and snowmobile use will be restricted within one mile of known denning sites from December 1 to March 31; if the Crystal Lake WSA is released from further study, then BLM-authorized actions and snowmobile use will continue to be restricted within the WSA from December 1 to March 31.

**Action SS-2.4.4** – Close and partially obliterate all newly constructed roads upon completion of the need and purpose for the road.

**Action SS-2.4.5** – Reduce (through decommissioning) or maintain open motorized route densities to one mile of motorized route per square mile or less, outside of urban or rural areas.

#### **SENSITIVE PLANTS**

**Objective SS-2.5** – Ensure that rare plant populations/associated habitats and rare plant communities are stable or continue to improve in vigor and distribution.

**Action SS-2.5.1** – Inventory, **monitor**, and cooperate with other agencies, organizations, and individuals to continue gathering information on special status plants and rare plant communities.

**Action SS-2.5.2** – Project areas will be inventoried to determine if special status plants or rare plant communities are present prior to authorizing activities that could potentially impact these plants/communities.

**Action SS-2.5.3** – Appropriate mitigation/guidelines (e.g., avoidance of occupied areas, distances from occupied habitat) will be designed when a project occurs near special status plant population(s).

**Action SS-2.5.4** – Continue cooperative participation in recovery plans, management plans, and conservation strategies for special status plant species.

**Action SS-2.5.5** – Conservation actions, inventory, and **monitoring** for special status species will be prioritized based on habitats risk/threats, rarity, and endemism.

Priorities are:

- Federally Threatened, Endangered, Candidate, and Proposed Species.
- Rangewide/Globally Imperiled Species – High Endangerment possibility.
- Rangewide/Globally Imperiled Species – Moderate Endangerment: Species of Concern.

**Action SS-2.5.6** – Prioritize weed control at special status plant populations threatened by weed infestation. Methods of weed spraying within or near habitat will be formulated on site-specific and species-specific basis.

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**Action SS-2.5.7** – Seeding within occupied habitat will be avoided unless clearly beneficial for special status plants.

**Action SS-2.5.8** – Where special status species can be conserved and habitat connectivity improved through interagency cooperation, acquisition of lands through land tenure adjustments, easements, and interagency cooperation will be considered.

**Action SS-2.5.9** – Awareness, appreciation, and understanding of rare plants and their habitats will be promoted through education of CdA FO personnel and public outreach.

**Action SS-2.5.10** – For new mineral leases within or adjacent to special status plant species, specify a no surface occupancy stipulation (see NSO-5 in Appendix B).

### ***Wildland Fire Management (WF)***

#### ***Goal WF-1 – Protect life and property while returning fire to its natural role in the ecosystem.***

**Objective WF-1.1** – Provide an Appropriate Management Response (AMR) to all wildland fires emphasizing firefighter and public safety while protecting resources and assets and minimizing suppression costs.

**Action WF-1.1.1** – Suppress all wildland fires within the WUI using AMR “full suppression” options, striving to reach control status within one operational period. All fires outside of the WUI will have the full range of AMR options available.

**Action WF-1.1.2** – Use the WFSA process to:

- Identify suppression tactics appropriate for threatened resources.
- Employ suppression tactics to protect valuable resources and assets while adhering to minimum impact suppression tactics (MIST) in special management areas (e.g., WSA, ACEC, Recreation Sites, etc.).

**Action WF-1.1.3** – A more involved presence in the local wildland fire suppression community will be developed so as to ensure that this objective is met.

**Action WF-1.1.4** – Consider the following criteria in establishing fire management priorities:

- Firefighter and public safety is the first priority.
- Other priorities include:
  - Protect cultural and natural resources.
  - Protect areas with highly erodible soils.
  - Protect Riparian Habitat Conservation Areas (RHCAs) consistent with the Riparian Management Objectives (RMOs).
  - Protect areas at risk of invasion by nonnative plant species.
  - Protect commercial forest resources and plantations.
  - Protect active grazing allotments and improvements.
  - Protect and/or maintain municipal watersheds and special status species and habitats.
  - Protect developed recreation sites and structures on public lands.
  - Minimize the cost of fire protection

**Action WF-1.1.5** – Access and use restrictions, such as closures, may be imposed during times of severe fire danger to mitigate the risk of wildland fire, in accordance with the Idaho Fire Restriction Agreement, which is administered by the Northern Rockies Coordinating Group.

**Objective WF-1.2** – Allow wildland fire use in areas outside of the WUI (See Map 9 in Appendix G).

**Action WF-1.2.1** – Approximately 50,605 acres have potential for wildland fire use to provide resource benefits and not damage economically valuable resources or assets.

**Action WF-1.2.2** – Plans for implementing wildland fire use in identified areas will be developed.

**Action WF-1.2.3** – Develop a more involved presence in the local wildland fire suppression community so as to ensure that this objective is met.

### **Wildland Fire Management (WF)**

<b>Objective WF-1.3</b> – Stabilize and prevent degradation to natural and cultural resources; minimize threats to life or property resulting from the effect of a fire, and repair/replace/construct physical improvements necessary to prevent degradation of land or resources.	<b>Action WF-1.3.1</b> – When needed, emergency stabilization activities will be implemented as soon as possible, and completed within one year after containment of a wildland fire.
<b>Objective WF-1.4</b> – Repair or improve fire-damaged lands unlikely to recover naturally, and repair or replace minor facilities damaged by fire.	<b>Action WF-1.4.1</b> – When needed, rehabilitation activities will be implemented as soon as possible, and completed within three years after a wildland fire.
<b>Objective WF-1.5</b> – Improve or protect valuable resources and improve the FRCC through the use of fuels treatment activities within the 8,200 acres where vegetation treatments will occur.	<p><b>Allocation WF-1.5.1</b> – Identify areas where fuels treatments will improve or protect economically valuable resources and emphasize use of small diameter trees. Areas where fuels treatments will improve or protect noncommodity natural resources will be identified (See Map 10 in Appendix G).</p> <ul style="list-style-type: none"> <li>• Approximately 4,166 acres will be available for forest fuels treatments using a full complement of treatment options.</li> <li>• Approximately 54,523 acres will be available for forest fuels treatments with restrictions to achieve special management objectives (e.g., some ACEC, SRMA, deer/elk winter range, VRM II, etc.).</li> <li>• Forest fuels treatments will not be allowed on approximately 24,861 acres (e.g., WSA, some ACEC, CNFISH buffers, etc.), except under special circumstances identified in management decisions for the protected resources. This does not apply to wildland fire use.</li> </ul> <p><b>Action WF-1.5.2</b> – A treatment plan for identified areas will be developed. Treatments to areas identified for improvement and/or protection will emphasize the resource at greatest risk (e.g., WUI, timber, recreation, mining, watershed, vegetation, and wildlife habitat), when site conditions are suitable.</p> <p><b>Action WF-1.5.3</b> – Fuels treatments (prescribed fire, mechanical, chemical, or biological) will be conducted on identified areas.</p> <p><b>Action WF-1.5.4</b> – Coordinate fuels treatment activities with adjacent land owners and other management agencies.</p>
<b>Objective WF-1.6</b> – Reduce impact from wildland fire to WUI areas, municipal watersheds, and infrastructure.	<p><b>Action WF-1.6.1</b> – Identify areas where fuels treatments will reduce hazards and emphasize the use of small diameter trees.</p> <p><b>Action WF-1.6.2</b> – A Management Ignited Fire Plan (MIFP) will be developed for identified areas.</p> <p><b>Action WF-1.6.3</b> – Conduct mechanical fuels treatments on identified areas.</p> <p><b>Action WF-1.6.4</b> – Conduct outreach to educate the public on prevention of wildland fire (county mitigation plans and North Idaho Fire Prevention CO-OP).</p> <p><b>Action WF-1.6.5</b> – Coordinate fuels treatment activities with adjacent land owners and other management agencies.</p> <p><b>Action WF-1.6.6</b> – Collaborate with local partners to assess WUI areas and update existing county wildland fire protection plans.</p>

### **Cultural Resources (CR)**

#### **Goal CR-1 – Preserve and protect significant cultural resources and ensure that they are available for appropriate uses.**

<b>Objective CR-1.1</b> – Conduct proactive cultural resource inventories in priority areas.	<p><b>Action CR-1.1.1</b> – Priority areas will be identified based on cultural resource data gaps to focus priority inventory efforts.</p> <p><b>Action CR-1.1.2</b> – Consult with Native American tribes to identify Traditional Cultural Properties (TCPs).</p> <p><b>Action CR-1.1.3</b> – Background research will be conducted to identify potential trail routes and implement on-the-ground inventories to record segments of the Mullan Trail.</p>
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		<b>Action CR-1.1.4</b> – Coordinate with the Coeur d'Alene Tribe to establish a formal agreement regarding consultation.
<b>Objective CR-1.2</b> – Identify cultural properties requiring physical or administrative protection measures to protect site integrity and implement necessary measures.	<p><b>Monitoring CR-1.2.1</b> – Cultural resources will be monitored and assessed, including TCPs, to determine if cultural resource objectives are being met.</p> <p><b>Monitoring CR-1.2.2</b> – A long-term monitoring schedule will be developed that identifies a representative sample of cultural sites and TCPs that will be examined in order to recommend site protection measures to protect at-risk sites.</p> <p><b>Action CR-1.2.3</b> – Motorized vehicle use, including snowmobiles, will be confined to designated roads in the Rochat Divide Area.</p> <p><b>Action CR-1.2.4</b> – Designate no surface occupancy (NSO-3) for leasable minerals along the Rochat Divide ridge system.</p> <p><b>Action CR-1.2.5</b> – Identify opportunities for cultural heritage education to emphasize important cultural resource values and to assist in protecting sites or areas.</p>	
<b>Objective CR-1.3</b> – Standardize cultural site record information and evaluation documentation to allocate sites to cultural use categories.	<p><b>Action CR-1.3.1</b> – Within five years of the signing of the ROD for this RMP, a schedule will be established to update existing cultural records on an annual basis. Information needed to better allocate resource use categories includes site characteristics, chronological placement, geomorphic relationships, and overall data potential. Methodology to collect such information may include, but will not be limited to, detailed photography, intensive mapping, excavations, geomorphic analysis, and other forms of analyses.</p> <p><b>Action CR-1.3.2</b> – Sites or areas will be evaluated and nominated to the National Register of Historic Places.</p>	
<b>Objective CR-1.4</b> – Develop cultural resource management plans for significant cultural resources, including TCPs.	<p><b>Action CR-1.4.1</b> – Cultural resource management plans will be prepared for the Rochat Divide area and Liberal King Mill.</p> <p><b>Action CR-1.4.2</b> – Additional sites and/or areas requiring the development of cultural resource management plans will be identified.</p>	
<b>Goal CR-2 – Reduce imminent threats and resolve potential conflicts from natural or human-caused deterioration, or potential conflict with other resources uses, by ensuring that all authorizations for land use and resource use will comply with National Historic Preservation Act, Section 106.</b>		
<b>Objective CR-2.1</b> – Minimize potential effects from proposed land use authorizations.	<p><b>Action CR-2.1.1</b> – Identify and evaluate sites and/or TCPs to determine potential effects.</p> <p><b>Action CR-2.1.2</b> – Develop new and/or implement existing protocol agreements with State Historic Preservation Office and/or Tribal Historic Preservation Office to streamline the consultation process.</p> <p><b>Action CR-2.1.3</b> – Government-to-government consultation with Native American tribes will be completed.</p> <p><b>Action CR-2.1.4</b> – Effects to site integrity will be minimized by ensuring consideration of cultural resources early in the project planning process and by project redesign, cancellation, or mitigation when significant cultural resources are identified from inventories or consultation.</p> <p><b>Monitoring CR-2.1.5</b> – Monitor a sample of previously completed land use authorizations on an annual basis to determine if site objectives were met.</p> <p><b>Action CR-2.1.6</b> – Coordinate with fire management activities through the use of resource advisors to avoid possible impact on cultural resources.</p>	

### ***Paleontological Resources (PR)***

**Goal PR-1 – Preserve and protect significant paleontological resources and ensure that they are available for appropriate uses.**

**Objective PR-1.1** – Identify priority geographic areas for field inventory and protect recorded sites.

**Action PR-1.1.1** – Areas that may contain significant paleontological resources will be identified and inventoried.

**Action PR-1.1.2** – Areas that may contain paleontological resources will be inventoried prior to land use authorizations.

### ***Paleontological Resources (PR)***

**Action PR-1.1.3** – Appropriate measures will be developed to protect identified paleontological resources on a case-by-case basis.

### ***Visual Resources (VR)***

**Goal VR-1** – *Manage landscapes across the public lands in a manner that will protect scenic quality values and promote aesthetically pleasing surroundings.*

**Objective VR-1.1** – Use the visual resource management system to manage visual resources in a manner that is consistent with management direction of the other resource programs.

**Allocation VR-1.1.1** – As mapped (See Map 11 in Appendix G), visual resources on BLM lands will be managed under the following class designations:

- Class I: 20,120 acres
- Class II: 24,698 acres
- Class III: 51,768 acres
- Class IV: 1,349 acres

**Action VR-1.1.2** – If or when the Grandmother Mountain or Crystal Lake Wilderness Study Areas are released by Congress from further study, the released area will be managed under a VRM Class II designation, except for Lund Creek RNA within the Grandmother Mountain WSA, which will continue to be managed under VRM Class I.

**Action VR-1.1.3** – If or when the Selkirk Crest Wilderness Study Area is released by Congress from further study, it will be managed under a VRM Class II designation.

**Action VR-1.1.4** – Lands acquired by the BLM subsequent to adoption of this resource management plan will be managed in accordance with the mapped management class delineations of this alternative.

**Action VR-1.1.5** – For new mineral leases within VRM Class II areas, specify controlled surface use stipulation (see CSU-1 in Appendix B).

## Resource Uses

### Forestry and Woodland Products (FP)

**Goal FP-1 – Provide forest products (saw logs, biomass, firewood, hog fuel, etc.) to help meet local and national demands while protecting the natural component of the environment.**

**Objective FP-1.1** – Provide a PSQ of 4.4 MMBF/year over 15 years of commercial forest products (e.g., saw timber, hew wood, pulp, fuel wood, biomass, etc.) from vegetation treatments designed to improve forest health on at least 8,200 acres.

**Note:** The PSQ is the allowable harvest level that can be maintained without decline over the long term if the schedule of harvests and regeneration are followed. PSQ recognizes a level of uncertainty in meeting the determined level; this uncertainty is typically based on other environmental factors that preclude harvesting at a particular time (for example, because of watershed or habitat concerns). A PSQ is not a commitment to offer for sale a specific level of timber volume every year.

**Action FP-1.1.1** – Identify and treat areas to promote forest health and restore forest stands to historic species composition, structure, and function by:

- Retaining large diameter trees when consistent with treatment objectives.
- Treating areas with excessive forest fuel loading and ingrowth.
- Treating areas with insect or disease infestation.
- Treating areas where other disturbances have occurred (e.g., fire, ice storm, etc.).

**Allocation FP-1.1.2** – Approximately 4,166 acres will be available for forest vegetation treatments using a full complement of harvest systems and other treatment methods.

**Allocation FP-1.1.3** – Approximately 54,523 acres will be available for forest vegetation treatments with restrictions to achieve special management objectives (e.g., some ACEC areas, SRMA, deer/elk winter range, VRM II, etc.).

**Allocation FP-1.1.4** – Vegetation harvest treatments will not be allowed on approximately 24,861 acres (e.g., WSA, some ACEC areas, CNFISH Buffers, etc.), except under special circumstances identified in management decisions for the protected resources.

**Action FP-1.1.5** – Forest products will be salvaged from areas where disturbances have occurred (e.g., fire, ice storm, wind storm, etc.) within constraints as defined in other resource management sections.

**Action FP-1.1.6** – Commercial forest products resulting from other authorized uses (e.g., R/W Grants, Mining Activities, Special Use Permits, Road Maintenance, fire wood permits, etc) will be recovered.

### Livestock Grazing (LG)

**Goal LG-1 – Provide opportunities for grazing while meeting Rangeland Health Standards.**

**Allocation LG-1.1** – Maintain up to approximately 1,218 acres available for livestock grazing, while assuring rangeland health standards and guidelines are being met.

**Allocation LG-1.1.1** – Four allotments will be available for livestock grazing, with allocations identified in Table 1, unless there is no demand for this use (Also see Map 12 in Appendix G).

**Table 1 Existing Livestock Allotments in the Planning Area**

Allotment	Acres	Type of Livestock	Season of Use	AUMs
Twin Peaks 36002	199	Cattle	6/1-10/31	148
Long Mountain 36009	779	Cattle	6/15-9/15	101
Trout Creek 36012	231	Cattle	5/1-10/15	30
Ninemile Creek 36020	9	Horse	6/1-10/30	5

**Objective LG-1.2** – Determine level management for each allotment.

**Action LG-1.2.1** – Within one year of Record of Decision, complete a review for each allotment and assign level of management (high/low).

**Objective LG-1.3** – Authorize livestock grazing while assuring that watersheds; riparian/wetlands; stream channel/floodplain; native plant

**Monitoring LG-1.3.1** – Monitoring will be conducted to assure that resource objectives are being met.

### ***Livestock Grazing (LG)***

communities;  
seedlings; exotic plant  
communities; water  
quality; and  
threatened and  
endangered  
plant/animal  
objectives are being  
met.

### ***Minerals (MN)***

#### **Fluid – Oil and Gas, Tar Sands, Geothermal Resources, and Coal Bed Natural Gas**

***Goal MN- 1. – Make fluid minerals available for exploration, acquisition, and production consistent with other resource goals.***

**Objective MN-1.1** – Identify areas open to leasing subject to minor and major constraints to protect resources.

**Allocation MN-1.1.1** – Approximately 76,048 acres are open to leasing subject to the terms and conditions of the standard lease form. Some of these acres have further constraints, as defined in the following actions (See Map 13 in Appendix G).

**Allocation MN-1.1.2** – Approximately 30,080 acres are open to leasing subject to the terms and conditions of the standard lease form and no surface occupancy (NSO) constraint to protect resources (See Appendix B and Map 13 in Appendix G).

**Allocation MN-1.1.3** – Approximately 67,971 acres are open to leasing subject to the terms and conditions of the standard lease form and Conditional Surface Use constraints to protect resources (See Appendix C and Map 13 in Appendix G).

**Allocation MN-1.1.4** – Approximately 28,749 acres are open to leasing subject to the terms and conditions of the standard lease form and timing limitations to protect resources (See Appendix C and Map 13 in Appendix G).

**Allocation MN-1.1.5** – Approximately 21,887 acres are closed to leasing (WSAs and existing withdrawals) (See Map 13 in Appendix G).

**Action MN 1.1.6** – All of the above actions apply to leasing of geothermal resources.

#### **Solid Minerals – Locatable, Mineral Materials, and Leasable**

***Goal MN-2 – Make locatable minerals, mineral materials, and non-energy leasable minerals available for exploration, acquisition, and production consistent with other resource goals.***

**Objective MN-2.1** – Identify area(s) open to the operation of the mining laws, mineral material disposal, and solid mineral leasing.

**Allocation MN-2.1.1** – Approximately 92,382 acres will be open to the operation of the mining laws; 5,403 acres will be closed to the operation of the mining laws, pending approval of recommended withdrawals (See Map 14 in Appendix G).

**Allocation MN-2.1.2** – Approximately 76,048 acres are open to solid mineral leasing and mineral material disposal. Approximately 21,887 acres are withdrawn from solid mineral leasing and mineral material disposal (See Map 13 in Appendix G).

**Allocation MN-2.1.3** – Surface use stipulations outlined in Appendix B will apply to solid mineral leasing and mineral material disposal (See Map 13 in Appendix G).

### Recreation (RC)

**Goal RC-1 – Provide opportunities for quality outdoor recreation experiences ensuring enjoyment of natural and cultural resources on BLM-managed or partnered lands and waters.**

**Objective RC-1.1** – Identify and classify units of public land on which to provide prescribed outdoor recreation opportunities with a mixed emphasis towards both community recreation-tourism markets and undeveloped/dispersed recreation tourism markets.

**Allocation RC-1.1.1** – The following recreation management areas will be established, identifying a corresponding market for each special recreation management area (SRMA) (See Map 15 in Appendix G):

	Rural	Roaded Natural	Semi- primitive	Total
Coeur d'Alene Lake Community (community based market)	216	1,978	0	2,194
Gamlin Lake (community based market)	187	1,695	0	1,882
Rochat Divide/Pine Creek (undeveloped/dispersed market)	0	14,826	31,619	46,445
Killarney Lake (community based market)	0	247	0	247
Widow Mountain (undeveloped/dispersed market)	0	612	12,948	13,560
Silver Valley (community based market)	3,054	12,845	434	16,333
Huckleberry Campground	77	83	0	160
Extensive Recreation Management Area (custodial management - no target market)	2,017	12,073	3,024	17,114
<b>Total</b>	<b>5,551</b>	<b>44,359</b>	<b>48,025</b>	

**Objective RC-1.2** – Manage the Coeur d'Alene Lake SRMA for land- and water-based leisure activities for outdoor sport, relaxation, social group or family affiliation, and personal enrichment or learning through environmental study within accessible natural forested lakeshore settings.

**Action RC-1.2.1** – Maintain the existing rural and roaded-natural settings (which are characterized by a culturally modified pastoral environment or by a generally natural appearing environment with moderate evidence of the sights and sounds of man) by:

- Providing paved and improved road access and motorized boat access to developed recreation facilities.
- Providing accessible recreation facilities for user convenience, resource protection, and visitor health and safety.
- Accommodating visitor use in developed sites at moderate to high levels, where contact between visitors is frequent or common and opportunities for solitude are either not provided or are minimal.
- Accommodating visitor use outside of developed sites at moderate levels, where contact between visitors may be less frequent and opportunities to interact with the natural environment may either be present or prevalent.
- Providing a regular periodic onsite management presence to **monitor** use, address user and resource conflicts, and enhance visitor safety.

**Recreation (RC)**

**Action RC-1.2.2** – The following recreation facilities will be maintained in good condition (defined as safe, clean appearing, and functional for the intended use level and purpose) at the indicated Maintenance Level (ML) where:

ML 1	low maintenance intensity
ML 2	moderate maintenance intensity
ML 3	high maintenance intensity

<b>Facility (See Map 15 in Appendix G)</b>	<b>ML</b>
Beauty Bay Recreation Site	2
Blackwell Island Recreation Site	3
Blue Creek Bay (undeveloped)	2
Cougar Bay Wildlife Viewing Area (undeveloped)	2
Mica Bay Boater Park	3
Mineral Ridge Boat Launch	2
Mineral Ridge Scenic Area	3
Ross Point (undeveloped)	2
Windy Bay Boater Park	2

**Action RC-1.2.3** – Operate developed sites as fee areas where federal fee collection criteria are met. This will include the following (See Map 15 in Appendix G):

- Blackwell Island Recreation Site
- Mica Bay Boater Park
- Windy Bay Boater Park
- Mineral Ridge Boat Launch Site
- As new facilities are constructed, evaluate the need for assessing use fees in accordance with current guidance at the time.

**Action RC-1.2.4** – Additional special uses will be authorized when there is a demonstrated public need or benefit and the uses are consistent and compatible with the area's management objective and managed condition.

**Action RC-1.2.5** – Continue to authorize by special recreation permit, existing commercial recreation uses of developed recreation sites by:

- Having vendors provide delivery of rental water craft to boat launching sites.
- Having youth summer camps provide overnight canoeing/sailing/boating adventures to Mica Bay and Windy Bay Boater Parks.
- Additionally including any new permits on a case-by-case basis.

**Action RC-1.2.6** – Provide controls and limit management actions to protect visitors and developed recreation sites or to protect and enhance water, riparian, and wildlife resource values that contribute to the area's unique setting by:

- Applying VRM Class II management constraints.

**Recreation (RC)**

- Limiting motorized vehicles to designated developed roads.
- Closing the Blackwell Canals to motorized boats (except that portion developed for boat launching).
- Closing developed day-use sites to camping (overnight occupancy).
- Continuing other special restrictions at Blackwell Island Recreation Site, Mica Bay Boater Park, or Blue Creek Bay (undeveloped) regarding firewood collection, firearms possession, or alcohol use or possession.
- Establishing additional rules as needed in response to changing situations.
- Enforcing the established 14-day campground stay limit and other established rules of use for developed recreation sites.
- Using volunteer campground hosts to provide visitor services.
- Specifying no surface occupancy stipulation (see NSO-7 in Appendix B) on new mineral leases to protect developed recreation sites.
- Specifying controlled surface use stipulation (see CSU-3 in Appendix B) on new mineral leases to prevent adverse impacts on use of this SRMA.

**Action RC-1.2.7** – Acquire additional lands suitable for the development of needed boating and camping facilities and for preservation of recreation resource values in accordance with the following priorities:

- Existing recreation use areas and facilities at risk of being lost to continued public use.
- Lands in proximity to Coeur d'Alene suited for boat launching and parking developments.
- Lake-view lands suited for camping developments in proximity to major highway corridors.
- Bald Eagle perching or nesting habitat.
- Other lands with important recreation, wildlife, wetland or riparian values.

**Action RC-1.2.8** – Continue to follow the multi-agency Memorandum of Understandings concerning joint recreation facility operations. Expand working relationships where possible for joint resource management activities.

**Action RC-1.2.9** – Strive to involve user groups, volunteers, Native American tribes, and other interested public to help maintain resources through partnerships, volunteer agreements, adoption programs, or other similar cooperative efforts.

**Action RC-1.2.10** – Enhance environmental education opportunities at the Mineral Ridge National Recreation Trail through maintenance of the interpretive trail, guide booklet, and bald eagle viewing booklet. Additionally, plan and construct or implement additional interpretive or environmental education sites or projects at:

- Blackwell Island Recreation Site
- Cougar Bay Wildlife Viewing Area
- Blue Creek Bay (undeveloped)
- Loff's Bay (undeveloped)

**Action RC-1.2.11** – Recreation site development projects will be planned and implemented at the Wallace L Forest Conservation Area (Blue Creek Bay) that consider the following:

- Public camping
- Docks for day use and overnight moorage
- A community use boat launching ramp
- An upland trail system for nonmotorized uses
- Wildlife viewing and interpretive facilities

**Action RC-1.2.12** – Plan and implement site development at Loff's Bay that consider the following:

- Additional launch site parking
- Public camping
- Day-use picnicking, trail, wildlife viewing, and interpretive facilities

### Recreation (RC)

**Action RC-1.2.13** – Enter into a cooperative management agreement with the city of Post Falls and Kootenai County for their joint development and operation of a community park at Ross Point.

**Action RC-1.2.14** – Site development plans for Cougar Bay Wildlife Viewing Area will be implemented to provide the following:

- Paved access road and a six stall parking area
- Toilet facilities
- Trail and viewing deck
- Lake access trail for canoe launching

**Action RC-1.2.15** – Initiate project planning for the John C. Pointner Memorial Wildlife Sanctuary. Manage the area in conjunction with the Cougar Bay Wildlife Viewing Area and adjoining property owners, and consider development of trails and wildlife viewing facilities.

**Action RC-1.2.16** – At existing developed facilities, improvements will be made when needed for:

- Life, safety, and health
- Accessibility compliance
- Component renewal
- Deferred maintenance
- Modernization
- Resource protection

**Objective RC-1. 3** – Manage Killarney Lake SRMA for water-based leisure for outdoor sport, relaxation, and social group or family affiliation within a unique, natural wetland setting.

**Action RC-1.3.1** – Maintain the existing roaded-natural setting (which is characterized by a culturally modified pastoral environment or by a natural appearing environment with moderate evidence of the sights and sound of man) by:

- Providing improved road access and motorized boat access to developed recreation facilities.
- Providing accessible recreation facilities for user convenience, resource protection, and visitor health and safety.
- Accommodating visitor use in developed areas at moderate levels where contact between visitors is common and opportunities for solitude are minimal, but outside of developed sites where contacts are less frequent and opportunities to interact with the natural environment are prevalent.
- Providing indirect management controls coupled with a regular and periodic onsite management presence to **monitor** use, address user and resource conflicts, and enhance visitor safety.

**Action RC-1.3.2** – Maintain Killarney Lake Boat launch, Killarney Lake Picnic Site, and Popcorn Island facilities in good condition (defined as safe, clean appearing, and functional for the intended use level and purpose) at a moderate maintenance intensity level. Improvements will be made when needed for:

- Life, safety, and health
- Accessibility compliance
- Component renewal
- Deferred maintenance
- Modernization
- Resource protection

**Action RC-1.3.3** – Developed sites will be operated as fee areas where they meet federal fee collection criteria. This includes the Killarney Lake Boat Launch site (fee for overnight camping).

**Action RC-1.3.4** – Consider Special recreation permit authorizations for commercial, competitive, and organized group activities on a case-by-case basis. Authorize special



## **Recreation (RC)**

uses when there is a demonstrated public need or benefit and the uses are consistent and compatible with the area's management objective and managed condition.

**Action RC-1.3.5** – Limit resource management actions to protect developed recreation sites and to protect and enhance water, riparian, and wildlife resource values that contribute to the area's unique setting by:

- Applying VRM Class II management constraints.
- Limiting motorized vehicles to designated developed roads.
- Enforcing the established 14-day campground stay limit and other established rules of use for developed recreation sites.
- Using volunteer campground hosts to provide visitor services.
- Specifying no surface occupancy stipulation (see NSO-7 in Appendix B) on new mineral leases to protect developed recreation sites.
- Specifying controlled surface use stipulation (see CSU-3 in Appendix B) on new mineral leases to prevent adverse impacts on use of this SRMA.

**Action RC-1.3.6** – Conduct activity-level planning to resolve facility development and visitor health and safety issues. Proceed cooperatively with other involved agencies to produce an integrated plan.

**Action RC-1.3.7** – Provide signs, brochures, and take other outreach actions advising visitors of potential health risks related to metals contamination.

**Objective RC-1.4** – Manage Gamlin Lake (Expanded) SRMA for day-use nonmotorized trail or water-related activities, for personal relaxation or reflection, exercise or fitness, and personal enrichment or learning through environmental study.

**Action RC-1.4.1** – Maintain rural and roaded-natural settings (which are characterized a culturally modified pastoral environment or by a generally natural appearing environment with moderate evidence of the sights and sounds of man) by:

- Providing improved road access to developed recreation facilities.
- Providing accessible recreation facilities for user convenience, resource protection, and visitor health and safety.
- Accommodating visitor use in developed areas at moderate to high levels where contact between visitors is frequent or common and opportunities for solitude are minimal, but outside of developed sites where contacts are less frequent and opportunities to interact with the natural environment are prevalent.
- Providing indirect management controls coupled with a regular and periodic onsite management presence to **monitor** use, address user and resource conflicts, and to enhance visitor safety.

**Action RC-1.4.2** – The Gamlin Lake Recreation Site will be maintained in good condition (defined as safe, clean appearing, and functional for its intended use) at a moderate maintenance intensity level. Additional facilities added later will be maintained at the same level.

**Action RC-1.4.3** – Consider special recreation permit authorizations for commercial, competitive, and organized group activities on a case-by-case basis. Special uses will be authorized when there is a demonstrated public need or benefit and the uses are consistent and compatible with the area's management objective and managed condition.

**Action RC-1.4.4** – Resource management and human actions will be limited to protect developed recreation sites and to protect and enhance water, riparian, timber, and wildlife resource values that contribute to the area's unique setting by:

- Applying VRM Class III management constraints.
- Limiting motorized vehicles to designated developed roads.
- Closing the day-use area to camping (overnight occupancy).
- Closing the area to grazing but leaving specified trails open to equestrian uses.
- Managing the timber resource under custodial guidelines.
- Designing roads and trails to minimize soil erosion and impacts on special status plants and rare plant communities.
- Specifying no surface occupancy stipulation (see NSO-7 in Appendix B) on new mineral leases to protect developed recreation sites.
- Specifying controlled surface use stipulation (see CSU-3 in Appendix B) on new mineral leases to prevent adverse impacts on use of this SRMA.

## Recreation (RC)

**Action RC-1.4.5** – Revise the Gamlin Lake activity plan to include the added lands around Gold Hill, but continue to implement actions already approved by the Management Plan for the Gamlin Lake Special Management Area BLM (1995). These include:

- Selective tree removal along trails to open the canopy to allow additional snow accumulations and to improve the trails for cross-country skiing.
- Acquisition of additional lands on the north end of the lake and construction of parking and a small boat launching facility.
- Construction of wildlife viewing platforms and boardwalk adjacent to the wetlands.

Implement these actions as modified by the above actions.

**Objective RC-1.5** – Manage the Rochat Divide/Pine Creek SRMA (backcountry motorized zone) to provide opportunities for visitors to engage in motorized primitive road and trail- related activities for adventure, exploration, challenge or risk, outdoor sport, and social group or family affiliation in mid-country and backcountry settings.

**Action RC-1.5.1** – Maintain the roaded-natural setting (which is characterized by a generally natural appearing environment with moderate evidence of the sights and sounds of man) and semiprimitive motorized setting (which is characterized by a predominantly unmodified natural environment altered with primitive roads and trails) by:

- Providing improved road access to trailheads and primitive road and trail recreation routes through the area.
- Providing recreation facilities for resource protection, and visitor health and safety.
- Accommodating visitor use at access points at low to moderate levels where contact between visitors is anticipated and opportunities for solitude are minimal, but away from the access points contacts are less frequent and opportunities to interact with the natural environment are predominant.
- Providing primarily indirect management controls apparent mostly at trailhead access points. Conduct patrols to *monitor* use and resource conditions.

**Action RC-1.5.2** – Maintain the recreation sites at Sheep Springs and Tingley Springs in good condition (defined as safe, clean appearing, and functional for the intended use level and purpose) at a moderate maintenance intensity level. Facility improvements will be made as needed for:

- Life, safety, and health
- Accessibility compliance
- Component renewal
- Deferred maintenance
- Resource protection

**Action RC-1.5.3** – Authorize additional special uses when there is a demonstrated public need or benefit and the uses are consistent and compatible with the area's management objective and managed condition.

**Action RC-1.5.4** – Authorize the one current special recreation permit for commercial outfitting and guiding activities. Additional proposed commercial uses that will duplicate services or overlap with the existing permit will not be considered.

**Action RC-1.5.5** – Provide controls (including motorized vehicle restrictions when necessary) and limit management actions to protect developed recreation facilities and primitive roads and trails or to protect the scenic values that contribute to the area's aesthetic setting by:

- Applying VRM Class II and III management constraints.
- Limiting motorized vehicles to designated travel routes.
- Limiting motorized vehicle use of single-track trails to two-wheeled vehicles.
- Specifying no surface occupancy stipulation (see NSO-7 in Appendix B) on new mineral leases to protect developed recreation sites.
- Specifying controlled surface use stipulation (see CSU-3 in Appendix B) on new mineral leases to prevent adverse impacts on use of this SRMA.

## Recreation (RC)

**Action RC-1.5.6** – Conduct activity-level planning to design an interconnected recreation road and trail network. Specific easement acquisition needs will be identified and acquired on a willing-seller basis. Strive to involve user groups, volunteers, and other interested public to help plan and maintain the travel system through partnerships, volunteer agreements, adoption programs, or other similar cooperative efforts.

**Action RC-1.5.7** – Manage the Middle Fork Pine Creek Road as a motorized trail for “rock crawling” (extreme 4WD) activities. Only limited maintenance actions will be performed, and restrictions will be established when necessary for minimizing unacceptable resource damages.

**Action RC-1.5.8** – Acquire easements needed to provide a continuous trail route along the Coeur d’Alene St. Joe Divide from the Rochat Divide Road to the National Forest boundary. It will be managed as a motorized route except for the portion within the Crystal Lake WSA. Washouts will be repaired on the Calusa Creek road, and it will be maintained as a connecting ATV trail to the Coeur d’Alene St. Joe Divide Trail.

Allow motorized use of the trail within the WSA portion, if the WSA is released for multiple uses by Congress.

**Objective RC-1.6** – Manage Rochat Divide/Pine Creek SRMA (backcountry nonmotorized zone) to provide opportunities for visitors to engage in nonmotorized trail-related activities for adventure, challenge or risk, solitude, outdoor sport, and social group or family affiliation within a backcountry setting.

**Action RC-1.6.1** – Maintain the existing semiprimitive recreation setting (which is characterized by a predominantly unmodified natural environment altered with primitive roads and trails) by:

- Providing primitive road access to trailhead facilities and trail access through the area.
- Providing recreation facilities primarily for resource protection.
- Accommodating visitor use at access points at low to moderate levels where contact between visitors is anticipated and opportunities for solitude are minimal, but away from the access points where contacts are less frequent and opportunities to interact with the natural environment are predominant.
- Providing primarily indirect management controls apparent mostly at trailhead access points. Conduct patrols to *monitor* use and resource conditions.

**Action RC-1.6.2** – Authorize additional special uses when there is a demonstrated public need or benefit and the uses are consistent and compatible with the area’s management objective and managed condition.

**Action RC-1.6.3** – Authorize the one current special recreation permit for commercial outfitting and guiding activities. Do not consider any additional proposed commercial uses for hunting or that will overlap with the existing permit duplicating services.

**Action RC-1.6.4** – Provide controls and limit management actions to protect developed recreation facilities and primitive roads and trails or to protect the scenic values that contribute to the area’s aesthetic setting by:

- Applying VRM Class I or II management constraints.
- Limiting motorized vehicles to designated travel routes.
- Closing the Crystal Lake Trail from Sheep Springs to equestrian and mechanized uses.
- Specifying no surface occupancy stipulation (see NSO-7 in Appendix B) on new mineral leases to protect developed recreation sites.
- Specifying controlled surface use stipulation (see CSU-3 in Appendix B) on new mineral leases to prevent adverse impacts on use of this SRMA.

**Objective RC-1.7** – Manage the Silver Valley SRMA for motorized road and trail-related activities for adventure, exploration, and social group or family affiliation within front and mid-country forested mountain settings.

**Action RC-1.7.1** – Maintain the rural and roaded-natural settings (which are characterized by a culturally modified environment or by a generally natural appearing environment with moderate evidence of the sights and sounds of man) by:

- Providing paved and improved road access to developed sites and areas.
- Providing accessible recreation facilities, including trails for user convenience, resource protection, and visitor health and safety.
- Accommodating visitor use in developed areas at moderate to high levels where contact between visitors is frequent or common and opportunities for solitude are either not provided or are minimal.
- Accommodating visitor use outside of developed areas at moderate levels where contact between visitors may be less frequent and opportunities to

## Recreation (RC)

interact with the natural environment may either be present or prevalent.

- Providing indirect management controls coupled with a regular and periodic onsite management presence to **monitor** use, address user and resource conflicts, and enhance visitor safety.

**Action RC-1.7.2** – Resource management actions will be limited to protect the recreation setting by:

- Applying VRM Class II, III, and IV management constraints (as mapped).
- Limiting motorized vehicles to designated roads and trails.
- Limiting motorized vehicle use of single-track trails to two-wheeled vehicles.
- Specifying no surface occupancy stipulation (see NSO-7 in Appendix B) on new mineral leases to protect developed recreation sites.
- Specifying controlled surface use stipulation (see CSU-3 in Appendix B) on new mineral leases to prevent adverse impacts on use of this SRMA.

**Action RC-1.7.3** – Conduct activity-level travel management planning to design an interconnected recreation road and trail network. Work in conjunction with the Forest Service and other partners to make logical connections and to:

- Make consistent travel designations.
- Identify easement and acquisition needs.
- Produce consistent brochures, maps, and other information.
- Provide consistent signing.

**Action RC-1.7.4** – Cooperate with the Forest Service on the Pulaski Tunnel trail project.

**Action RC-1.7.5** – Involve user groups, volunteers, and other interested public to help plan and maintain the travel system through partnerships, volunteer agreements, adoption programs, or other similar cooperative efforts.

**Action RC-1.7.6** – Consider special recreation permit authorizations for commercial, competitive, and organized group activities on a case-by-case basis. Special uses will be authorized when there is a demonstrated public need or benefit and the uses are consistent and compatible with the area's management objective and managed condition.

**Objective RC-1.8** – Manage the Widow (Grandmother) Mountain SRMA for motorized and nonmotorized outdoor activities in a backcountry setting for adventure, solitude, scenic and cultural appreciation, and using and practicing outdoor skills.

**Action RC-1.8.1** – Maintain the existing semiprimitive motorized setting (which is characterized by a predominantly unmodified natural environment altered with primitive roads and trails) by:

- Providing primitive road access to trailhead facilities and trail access through the area.
- Providing recreation facilities for resource protection and visitor health and safety.
- Accommodating visitor use at access points at low to moderate levels where contact between visitors is anticipated and opportunities for solitude are minimal, but away from the access points where contacts are less frequent and opportunities to interact with the natural environment are predominant.
- Providing primarily indirect management controls apparent mostly at trailhead access points. Conduct patrols to **monitor** use and resource conditions.

**Action RC-1.8.2** – Provide controls and limit management actions to protect developed recreation facilities and primitive roads and trails or to protect the scenic values that contribute to the area's aesthetic setting by:

- Applying VRM Class I or II management constraints.
- Limiting motorized vehicles to designated travel routes.
- Limiting motorized vehicle use of single-track trails to two-wheeled vehicles.
- Specifying no surface occupancy stipulation (see NSO-7 in Appendix B) on new mineral leases to protect developed recreation sites.
- Specifying controlled surface use stipulation (see CSU-3 in Appendix B) on new mineral leases to prevent adverse impacts on use of this SRMA.
- BLM lands will be designated right-of-way avoidance areas if they are

## Recreation (RC)

adjacent to Forest Service Inventoried Roadless Areas and

- 1) The recreational setting for the BLM parcels is semiprimitive.
- 2) The IPNF manages the Inventoried Roadless Area as backcountry or recommended wilderness.
- 3) There are no roads within the parcel that will be the most practical way to or through the area in the future.

**Action RC-1.8.3** – Coordinate management activities with the Forest Service.

**Action RC-1.8.4** –Crater Lake Saddle, Orphan Point Saddle, and Crater Peak recreation sites will be maintained in good condition (defined as safe, clean appearing, and functional for the intended use level and purpose) at moderate maintenance intensity level. Facility improvements will be made as needed for:

- Accessibility compliance needs
- Component renewal
- Deferred maintenance
- Resource Protection

**Action RC-1.8.5** – Continue to authorize one special recreation permit for commercial outfitting and guiding activities. Additional proposed commercial uses that will overlap with the existing permit, duplicating services, will not be considered. Additional special uses will be authorized when there is a demonstrated public need or benefit and the uses are consistent and compatible with the area's management objective and managed condition.

**Objective RC-1.9** – Manage Huckleberry Campground SRMA, a developed riverside tract, for overnight RV camping, providing visitors the opportunity for rest, relaxation, and social group or family affiliation. Also, manage this site to serve as a staging area from which visitors can pursue offsite day-use adventures.

**Action RC-1.9.1** – Maintain the existing rural and roaded-natural settings (which are characterized by a culturally modified pastoral environment or by a generally naturally appearing environment with moderate evidence of the sights and sounds of humans) by:

- Providing improved road access including a developed campground road system.
- Providing accessible recreation facilities for user convenience, resource protection, and visitor health and safety.
- Accommodating visitor use at moderate to high levels where contact between visitors is frequent and opportunities for solitude are not provided.
- Providing a regular periodic onsite management presence to **monitor** use, address user and resource conflicts, and enhance visitor safety.

**Action RC-1.9.2** – Maintain Huckleberry Campground in good condition (defined as safe, clean appearing, and functional for its intended use) at a high maintenance intensity level.

**Action RC-1.9.3** – Operate Huckleberry Campground as a federal fee collection area providing reservation services in the future when onsite communications become more reliable.

**Action RC-1.9.4** – Consider commercial special use permit applications for vending services, such as the sale of firewood, on a case-by-case basis.

**Action RC-1.9.5** – Provide controls and limit management actions to protect visitors and developed recreation facilities by:

- Applying VRM Class II management constraints.
- Limiting motorized vehicles to designated developed roads.
- Enforcing the established 14-day campground stay limit and other established rules of use for developed recreation sites.
- Using volunteer campground hosts to provide visitor services.
- Specifying no surface occupancy stipulation (see NSO-7 in Appendix B) on new mineral leases to protect developed recreation sites.
- Specifying controlled surface use stipulation (see CSU-3 in Appendix B) on new mineral leases to prevent adverse impacts on use of this SRMA.

**Action RC-1.9.6** – Facility improvements will be made for:

- Accessibility compliance needs
- Component renewal

### Recreation (RC)

- Deferred maintenance
- Modernization
- Increased camping capacity

**Objective RC-1.10** – Where outdoor recreation activities occur within the Extensive Recreation Management Area, provide needed custodial management to fulfill basic land stewardship responsibilities of the agency.

**Action RC-1.10.1** – Recreation activities will be regulated in accordance with standard rules of use and adopted travel restrictions. **Monitoring** - Take administrative and monitoring actions where needed.

**Action RC-1.10.2** – Special recreation permit authorizations for commercial, competitive, and organized group activities will be considered on a case-by-case basis. Authorize special uses when there is a demonstrated public need or benefit and the uses are consistent and compatible with the area's management objective and managed condition.

**Action RC-1.10.3** – Continue the R&PP lease to Idaho Department of Parks and Recreation at Old Mission State Park.

### Renewable Energy (RE)

**Goal RE-1. – Provide opportunities for the development of renewable energy resources compatible with other resource goals.**

**Objective RE-1.1** – Provide opportunities for production of energy through use of biomass as part of the commercial forest products program (see Allocation FP-1.1).

**Action RE-1.1.1** – Same as Actions FP-1.1.1 through FP-1.1.6.

**Objective RE-1.2** – Provide opportunities for development of geothermal energy resources.

**Allocation RE-1.2.1** – This action is the same as Fluid Minerals, Allocations MN-1.1.1 through MN-1.1.5.

**Objective RE-1.3** – Provide opportunities for development of wind energy resources.

**Action RE-1.3.1** – Right-of-way grants will be issued for wind energy development projects consistent with Lands and Realty Program; specifically, Objective LR-1.1 and Allocations and Actions LR-1.1.1 through LR-1.1.5.

**Action RE-1.3.2** - Programmatic policies and BMPs in the Wind Energy Development Program will be adopted.

**Action RE-1.3.3** - Wind energy development will be considered on case-by-case basis.

### Transportation and Travel Management (TM)

**Goal TM-1 – Provide adequate administrative access for resource management needs and appropriate public access to recreation opportunities on BLM-managed or partnered lands and waters.**

**Objective TM-1.1** – Consistent with the management direction of other resource programs, make area travel management designations to classify BLM lands as open, limited, or closed to motorized vehicle use, define spatial, temporal, or functional travel restrictions within limited areas, and then identify needed implementation actions.

**Allocation TM-1.1.1** – Allow motorized vehicle use as mapped (See Maps 4-7 in Appendix G) and quantified as follows:

- Open Designation: 0 acres
- Limited Designation: 97,304 acres
- Closed Designation: 631 acres

**Allocation TM-1.1.2** – Except for snowmobile use, motorized vehicle travel will be restricted within limited areas to designated routes as mapped and quantified as follows:

- 108 miles of motorized routes available to all classes of vehicles year-round
- 68 miles of motorized routes available to with restrictions by vehicle class or season of use

**Allocation TM-1.1.3** – Cross-country travel by snowmobile will be allowed on frozen and snow-covered ground except closed areas, Wilderness Study Areas, Rochat Divide roadless area, Wolverine den sites, Coeur d'Alene Lake Special Recreation Management Area, Gamlin Lake Special Recreation Management Area, and developed recreation or administrative sites.

- 63,512 acres available for use by snowmobiles during the winter season (not all acres are physically accessible).

### ***Transportation and Travel Management (TM)***

- 34,423 acres closed to cross-country snowmobile use.

**Action TM-1.1.4** – In closed or limited areas, the following vehicle uses will be allowed without prior explicit written permission:

- Any military, fire, emergency, or law enforcement vehicle being used for emergency purposes.
- Any combat or combat support vehicle when used in times of national defense emergencies.
- Official use as defined in the OHV regulations.

**Action TM-1.1.5** – Additional exempt uses as defined in the OHV regulations may be allowed on a case-by-case basis with prior written permission from the authorized officer.

**Action TM-1.1.6** – Apply cross-country travel restrictions to mechanized nonmotorized forms of travel the same as snowmobiles.

**Action TM-1.1.7** – For public safety and to avoid user conflicts, the following restrictions will apply to nonmotorized use in the specified developed recreation sites:

Closed to equestrian:

- Mineral Ridge Trail (3.3 miles)
- Beauty Bay Trail (0.4 miles)
- Blackwell Island Boardwalk (0.5 miles)
- Gamlin Lake Trail (Certain specific trails and trail segments determined through activity-level planning)

Closed to mountain bikes:

- Mineral Ridge Trail (3.3 miles)
- Beauty Bay Trail (0.4 miles)
- Blackwell Island Boardwalk (0.25 miles)

**Action TM-1.1.8** – Within areas designated limited, adjustments to the transportation network restrictions may be considered annually provided adopted changes are consistent with the management direction of other resources programs. Changes may add or eliminate available routes, change allowed seasons of use, or modify allowed types of use.

**Action TM-1.1.9** – Work collaboratively with the Forest Service and other land owners to jointly and uniformly communicate travel and transportation closure and restriction requirements to public land visitors through publication of common maps, the use of consistent signs, and other coordinated means.

**Action TM-1.1.10** – If or when Wilderness Study Areas are released by Congress from further study, the existing limited travel designations will continue to apply. However, implementation-level decisions on route restrictions may be considered annually provided adopted changes are consistent with the management direction of other resources programs. Changes may add or eliminate available routes, change allowed seasons of use, or modify allowed types of use.

**Action TM-1.1.11** – Areas, roads, or trails may be temporarily closed during times of severely high fire danger, as described in the Wildland Fire Management Section.

**Objective TM-1.2** – Consistent with the management direction of other resources programs, identify and assign management and maintenance classifications to transportation facilities needed by or administered by the BLM.

**Action TM-1.2.1** – Recognize the critical importance of certain local transportation routes to BLM land and resource management activities by recommending (with concurrence of the local jurisdiction) the following select routes be designated as Federal Land Management Highways:

- Latour Creek Road (Eastside Highway District, Kootenai County)
- Killarney Lake Road (Eastside Highway District, Kootenai County)
- Pine Creek Road (Shoshone County)
- East Fork Pine Creek Road (Shoshone County)
- Yellowstone Trail Road including Landing Road (Eastside Highway District, Kootenai County)

**Action TM-1.2.2** – System roads and trails will be maintained in good condition (defined as safe and functional for their intended levels and types of use).

**Action TM-1.2.3** – Recognize the critical importance of the Rochat Road by

### ***Transportation and Travel Management (TM)***

nominating it for designation as a "public road," making it part of the Public Road Transportation System and eligible for Public Land Highway funds.

**Action TM-1.2.4** – BLM roads will be explicitly designated as administrative routes except roads subsequently designated public in accordance with Action TM-1.2.3, above. Public use of both public and administrative routes will be allowed in accordance with established restrictions.

### ***Lands and Realty (LR)***

**Goal LR-1 – Meet public needs for use authorizations such as rights-of-way, leases, and permits when such needs are consistent with other resource values.**

**Objective LR-1.1** – Issue use authorizations consistent with other resource values.

**Allocation LR-1.1.1** – Right-of-way corridors will be designated across the planning area as delineated in the 1992 Western Regional Corridor Study (updated in 2003) (see Map 16 in Appendix G), except as noted below. Nominal corridor width will be 1,320 feet on each side of the centerline of existing facilities. If a designated or existing corridor passes through a SRMA or ACEC, additional uses within the corridor will be allowed only to the extent that the additional use does not conflict with the purpose for SRMA or ACEC designation. Section 368 of the Energy Policy Act of 2005 (designation of West-wide energy corridors) is being implemented through the current development of an interagency Programmatic Environmental Impact Statement (PEIS). The final PEIS will identify plan amendment decisions that will address numerous energy corridor related issues, including the use of existing corridors (potentially including enhancements and upgrades), identification of new corridors, supply and demand considerations, and compatibility with other corridor and project planning efforts. The identification of corridors in the PEIS may affect the Coeur d'Alene planning area, and the approved PEIS will amend the Coeur d'Alene RMP.

**Action LR-1.1.2** – Require rights-of-way authorization holders to follow BMPs (see Appendix C) when appropriate to protect vegetation and wildlife habitat and to minimize soil disturbance.

**Action LR-1.1.3** – To the extent possible, locate such authorized uses and applications for such uses where impacts on other resources will be the least disturbing.

**Allocation LR-1.1.4** – Designate 20,445 acres as exclusion areas for ROWs, leases, permits, etc. In these areas, issuance of use authorizations will not be allowed:

- WSAs
- WSR Corridors (wild designations)
- Windy Bay RNA/ACEC
- Lund Creek RNA/ACEC
- Farnham Forest RNA/ACEC
- Hideaway Islands RNA/ACEC

**Allocation LR-1.1.5** – Designate 13,735 acres as avoidance areas for the issuance of use authorizations. In these areas, efforts will be made to reroute a proposal. They may be allowed if no reasonable alternative is found; however, special mitigations may be required to protect resource values. They may also be allowed if they support or promote other management objectives for the area. The areas are:

- RCAs.
- Developed recreation sites.
- WSR Corridors (scenic or recreation designations).
- BLM lands with a semiprimitive recreational setting, adjacent to inventoried roadless areas that the Forest Service manages as backcountry or recommended wilderness and that contain no roads that will be the most practical way to or through the area in the future. Lands meeting this criterion total approximately 2,390 acres adjacent to Pinchot Butte, Grandmother Mountain, and Selkirk Inventoried Roadless Areas.

**Goal LR-2 – Provide for public ownership of lands (or interest in lands) with high resource and/or public use values.**

**Objective LR-2.1** – Adjust and

**Action LR-2.1.1** – Lands including, but not limited to, those that generally meet one



### ***Lands and Realty (LR)***

consolidate public land ownership (or interest in lands such as easements) to protect resources and promote uses.

or more of the criteria below will be retained or acquired. Those lands that do not meet these criteria will be available for adjustment. Utilize specific criteria contained in other sections to identify acquisitions where so delineated.

- High-value timberlands and growing sites
- Special Recreation Management Areas (SRMAs)
- Riparian and wetland habitat
- Public or administrative access
- Traditional Cultural Uses and/or significant archaeological and historic sites
- Consolidation for management efficiency
- Hazardous material sites (do not acquire and exchange or otherwise dispose of only with potentially responsible parties)
- Municipal watersheds
- Specified in objectives SS-1.1, SS-1.2, and SS-1.3 and subordinate actions.
- Special designation areas

**Allocation LR-2.1.2** – A land tenure adjustment program will be implemented with approximately 87,240 acres considered for retention and 9,530 acres considered for adjustment, based on the criteria under Action LR-2.1.1, above. Exchange or disposal of lands with hazardous materials can be done only with potentially responsible parties (See Map 17 in Appendix G).

**Action LR-2.1.3** – Manage lands or interests in lands acquired in a manner consistent with adjacent or nearby public lands, or managed for the goals and objectives for which they were acquired.

**Action LR-2.1.4** – Work with willing partners to acquire land that is in the public interest.

**Action LR-2.1.5** – Consult with appropriate Native American tribes regarding land tenure adjustments.

**Action LR-2.1.6** – Necessary public access will be retained when lands are transferred out of federal ownership.

**Action LR-2.1.7** – Those public lands withdrawn from the public land laws, the mining laws, or the mineral leasing laws will be retained. At the termination of the withdrawal, BLM will use the criteria contained in Action LR-2.1.1 to determine whether the lands formerly withdrawn should be retained or be available for adjustment.

**Action LR-2.1.8** – Isolated parcels that meet the criteria contained in Action LR-2.1.1, but are not in a management area, may be retained.

**Action LR-2.1.9** – Recognizing the scattered nature and odd configuration of some public lands in retention areas, allow the adjustment of such lands when it is determined that they meet at least one of the following criteria:

- Generally fragmented and/or isolated.
- Difficult and uneconomic to manage.
- Relatively inaccessible to the public.
- Does not contain high resource values.

**Action LR-2.1.10**– Land sales (Sec 203, FLPMA) will not be a mechanism for disposing of public lands except for very unique situations, specifically Historical Occupancy Trespass and Hazmat.

**Action LR-2.1.11**– Public or administrative access to BLM-administered lands will continue to be pursued with adjacent land owners.

**Objective LR-2.2** – Recommend new withdrawals, or retain existing ones, to protect cultural and natural resources from impacts that will otherwise result from authorized uses.

**Action LR-2.2.1** – Recommend the continuation of all withdrawals, initiated by other agencies that are currently in effect, unless the initiating agency requests that the withdrawal be terminated.

**Action LR-2.2.2** – Recommend modification or revocation of withdrawals that are no longer needed, in whole or part, for the purpose for which they were withdrawn.

**Action LR-2.2.3** – Recommend new withdrawals on a case-by-case basis when such

### ***Lands and Realty (LR)***

action is necessary to protect resource values.

### ***Special Designations (SD)***

#### ***Goal SD-1 – Protect relevant and important values and protect the public from natural hazards.***

**Allocation SD-1.1** – Designate the Hideaway Islands as an RNA/ACEC in order to preserve the existing plant communities in an unmodified condition as a typical representation of a black cottonwood/red-osier dogwood habitat type for the primary purpose of research and education (See Maps 18 and 19 in Appendix G).

**Action SD-1.1.1** – BLM will manage the area in a nondestructive and nonmanipulative manner.

- Apply surface use stipulations (e.g., NSO-1 in Appendix B) to allow mineral leasing and sales without impacting relevant and important values.
- Manage as a ROW exclusion area. No ROWs (e.g., for a road) will be granted within or through the RNA.
- The RNA/ACEC will be closed to motorized and mechanized vehicles.
- No vegetation manipulation (including timber harvest) will be conducted, except for treatments to prevent spread of invasive species. The vegetation must remain in a natural, untreated state for scientific study and education.

**Allocation SD-1.2** – Designate Lund Creek as an RNA/ACEC in order to protect the unique natural features and ecological diversity for research and education (See Maps 18 and 20 in Appendix G).

**Action SD-1.2.1** – Scientists and educators are encouraged to use the area for study purposes.

**Action SD-1.2.2** – All uses of Lund Creek must be nondestructive:

- No vegetation manipulation (including timber harvest) will be conducted, except for treatments to prevent spread of invasive species. The vegetation must remain in a natural, untreated state for scientific study and education.
- Apply surface use stipulations (e.g., NSO-1 in Appendix B) to allow mineral leasing and sales without impacting relevant and important values.
- Manage as a ROW exclusion area. No ROWs (e.g., for a road) will be granted within or through the RNA; excluding Forest Road 301.

**Objective SD-1.3** – Designate Farnham Forest as an RNA/ACEC in order to protect the unique natural features and ecological diversity for research and education (See Maps 18 and 21 in Appendix G).

**Action SD-1.3.1** – Scientists and educators are encouraged to use the area for study purposes.

**Action SD-1.3.2** – All uses of Farnham Forest must be nondestructive.

- No vegetation manipulation (including timber harvest) will be conducted, except for treatments to prevent spread of invasive species. The vegetation must remain in a natural, untreated state for scientific study and education.
- Apply surface use stipulations (e.g., NSO-1 in Appendix B) to allow mineral leasing and sales without impacting relevant and important values.
- Manage as a ROW exclusion area. No ROWs (e.g., for a road) will be granted within or through the RNA.
- The RNA/ACEC will be closed to motorized and mechanized vehicles.

**Action SD-1.3.3** – Acquire trail/road easement across private land from the county road for administrative access

**Objective SD-1.4** – Designate Windy Bay as an RNA/ACEC in order to preserve the remnant grassland community for scientific research and education (See Maps 18 and 22 in Appendix G).

**Action SD-1.4.1** – Management actions and authorized uses will be limited to those that maintain or enhance the remnant grassland community:

- Apply surface use stipulations (e.g., NSO-1 in Appendix B) to allow mineral leasing and sales without impacting relevant and important values.
- Manage as a ROW exclusion area. No ROWs (e.g., for a road) will be granted within or through the RNA.
- Fire will be used as needed to prevent woody species invasion/dominance and to reduce litter accumulation.

**Monitoring SD-1.4.2** – Monitor for weed invasion/encroachment and treat, if necessary.

**Action SD-1.4.3** – Conduct public outreach with adjacent landowners for awareness of site rarity.

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### ***Special Designations (SD)***

**Objective SD-1.5** – Designate Pulaski Tunnel as an ACEC in order to encourage public use through interpretation (See Maps 18 and 23 in Appendix G).

**Action SD-1.5.1** – Management actions and authorized uses must protect or enhance these resource values:

- Apply surface use stipulations (e.g., NSO-1 in Appendix B) to allow mineral leasing and sales without impacting relevant and important values.
- Recommend withdrawal from mining laws.

**Action SD-1.5.2** – Encourage public and other agency involvement in developing interpretive plans for this area.

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***Goal SD-2 – Identify river segments suitable for inclusion in the National Wild and Scenic River System, protecting outstandingly remarkable resource values in accordance with the Wild and Scenic Rivers Act and BLM manual guidance.***

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**Objective SD-2.1** – Select river segments suitable for inclusion in the National Wild and Scenic River System (See Maps 24 and 25 in Appendix G).

**Allocation SD-2.1.1** – Make suitability recommendations for the following river segments:

- Little North Fork Clearwater River (3.61 miles) – wild classification (2.51 miles) from its source at Fish Lake downstream to Forest Road # 1925 and the remaining downstream segment classified as recreational (1.10 miles).
- Lost Lake Creek (3.43 miles) – wild classification from its source downstream to Forest Road #1925 and the remaining downstream segment classified as scenic (0.34 miles).
- Little Lost Lake Creek (3.09 miles) – wild classification for its entire length.
- Lund Creek (3.88 miles) – wild classification for its entire length.

**Action SD-2.1.2** – Until designated or released to multiple-use by Congress, adopt the following protective management guidelines:

- Approve no actions altering the free-flowing nature of the eligible stream segments through impoundments, diversions, channeling, or riprapping.
- Approve no actions that will measurably diminish a stream segment's identified outstandingly remarkable value(s), affecting its potential future suitability.
- Approve no actions that will modify the setting or level of development of an eligible river segment to a degree that will change its identified potential classification.
- Wild eligible segments – apply surface use stipulation NSO-1 (Appendix B) and manage as a ROW exclusion area.
- Scenic and recreation eligible – apply controlled surface use stipulation CSU-3 (Appendix B) and manage as a ROW avoidance area.

**Action SD-2.1.3** – Protective management is subject to valid existing rights.

**Action SD-2.1.4** – Defer implementation action on the suitability recommendations contained at Allocation SD-2.1.1 until the Forest Service makes suitability determinations affecting National Forest Lands on the same streams. Coordinated implementation actions will be taken if suitability recommendations between the agencies are in concurrence. Proceed unilaterally with implementation actions affecting only the BLM lands if agency recommendations diverge.

**Action SD-2.1.5** – Defer making a suitability recommendation on the Kootenai River until the Forest Service completes evaluation of suitability affecting the National Forest Lands along the River in Idaho and Montana. In the interim, protective management will be provided in accordance with the following guidelines:

- Approve no actions altering the free-flowing nature of the eligible stream segments through impoundments, diversions, channeling, or riprapping.
- Approve no actions that will measurably diminish a stream segment's identified outstandingly remarkable value(s), affecting its potential future suitability.
- Approve no actions that will modify the setting or level of development of an eligible river segment to a degree that will change its identified potential classification.

Reevaluate suitability when National Forest Lands are recommended as either suitable or unsuitable. A suitable recommendation will be made contingent on Forest Service concurrence and implementation will be favored in accordance with

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### ***Special Designations (SD)***

Section 2 (a) (ii) of the Wild and Scenic Rivers Act by encouraging the Governor of the State of Idaho to petition the Secretary of the Interior for designation.

***Goal SD-3 – Manage Wilderness Study areas (WSAs) so as not to impair their suitability for preservation as wilderness until such time as Congress either designates them as wilderness or releases them from further study.***

**Objective SD-3.1** – Manage wilderness characteristics of WSAs so as not to impair the suitability of such areas for preservation as wilderness until Congress determines otherwise (See Map 24 in Appendix G).

**Action SD-3.1.1** – Manage WSAs in accordance with BLM Manual H-8550-1, Interim Policy for Lands Under Wilderness Review.

**Objective SD-3.2** – If released by Congress from further study, manage the WSAs for multiple uses consistent with management direction of the other resource programs.

**Action SD-3.2.1** – Adopt the following management prescription for the Selkirk Crest area:

- Designate the area as an Extensive Recreation Management Area.
- Designate the area as VRM Class II.
- Limit wheeled vehicles to designated routes.
- No restrictions on snowmobiles.
- Vegetation treatments will be allowed as outlined in the forest vegetation section.
- Designate as open to leasable minerals development.
- Designate as open for locatable minerals development.
- Manage as a ROW Avoidance Area.

**Action SD-3.2.2** – Adopt the following management prescription for the Crystal Lake area:

- Include the area in the Rochat Divide/Pine Creek SRMA and manage for semiprimitive motorized recreation.
- Limit vehicle use to designated routes.
- Designate the area as VRM Class II.
- Leasable minerals are subject to leasing stipulation NSO-1 (Appendix B).
- Manage as a ROW Avoidance Area.

**Action SD-3.2.3** – Adopt the following management prescription for the Grandmother Mountain area:

- Include the area in the Widow Mountain SRMA and manage for semiprimitive motorized recreation.
- Limit vehicle use to designated routes.
- Designate the area as VRM Class II, except for Lund Creek RNA, which will continue as Class I.
- Leasable minerals are subject to leasing stipulation NSO-1 (Appendix B).
- Maintain Lund Creek as a RNA/ACEC.
- Manage as a ROW Avoidance Area.

***Goal SD-4 – Administratively designate and manage select areas to provide special or unique quality outdoor recreation opportunities.***

**Objective SD-4.1** – Manage select routes as National Recreation Trails to provide opportunities for visitors to pursue trail-related outdoor recreation activities for enjoyment and appreciation of open-air outdoor areas.

**Allocation SD-4.1.1** – Continue the National Recreation Trail (NRT) designations for the Mineral Ridge and the Marble Creek trail system and nominate the following additional routes for designation (See Map 24 in Appendix G):

- Beauty Bay Trail: 0.4 miles
- Blackwell Island Boardwalk: 0.25 miles
- Gamlin Lake Trails: 4.3 miles
- Crystal Lake Trails: 3.2 miles

**Action SD-4.1.2** – Maintain the trails and related facilities in good condition (defined as safe, clean appearing, and functional for their intended use).

**Action SD-4.1.3** – Maintain recreation settings and provide appropriate visitor controls for the areas, as described in the Recreation and the Travel and Transportation Management sections.

### ***Special Designations (SD)***

**Objective SD-D4.2** – Manage select sites as Watchable Wildlife Viewing Areas to highlight and provide opportunities for visitors to observe wildlife in natural settings for personal enrichment or learning through environmental education.

**Action SD-D4.2.1** – Recognize the following sites as Watchable Wildlife Viewing Areas (See Map 24 in Appendix G):

- Blackwell Island
- Blue Creek Bay
- Lower Coeur d'Alene River
- Cougar Bay
- Gamlin Lake
- Wolf Lodge Bay

**Action SD-D4.2.2** – Maintain the recreation and transportation facilities related to the viewing areas in good condition (defined as safe, clean appearing, and functional for their intended use).

**Action SD-D4.2.3** – Maintain wildlife habitats, maintain recreation settings, and provide appropriate visitor controls for the areas as described in the Wildlife, Recreation, and Transportation and Travel Management sections.

### ***Social and Economic (SE)***

#### **Native American Tribal Uses**

**Goal SE -1** – *Manage natural and cultural resources consistent with treaty and trust responsibilities for Native American tribes.*

**Objective SE-1.1** – Maintain and, where possible, improve natural and cultural resource conditions to enhance opportunities to exercise Native American traditional uses.

**Action SE-1.1.1** – Consult with Native American tribes to identify culturally significant plants, animals, fish, and important habitats.

**Action SE-1.1.2** – Consult with Native American tribes and allow collection of vegetal resources consistent with management direction of other resource programs.

**Monitoring SE-1.1.3** – Incorporate important habitat information into monitoring protocols to assess habitat conditions.

**Action SE-1.1.4** – Coordinate with the Coeur d'Alene Tribe to establish a formal agreement regarding consultation.

#### **Health and Safety**

**Goal SE-2** – *Reduce threats to public health, safety, and property from exposure to hazards associated with AMLs and hazardous materials.*

**Objective SE-2.1** – Identify potential hazard sites and prioritize those that pose a risk.

**Action SE-2.1.1** – Identify Abandoned Mine Lands (AML), hazardous materials, solid waste, and other hazard sites.

**Action SE-2.1.2** – Assess the level of risk at hazard sites and prioritize high-risk sites.

**Action SE-2.1.3** – Rank physical hazard sites for corrective actions.

**Action SE-2.1.4** – Maintain an inventory of AML and hazardous material sites with site files and databases.

**Action SE-2.1.5** – Regularly assess recreation facilities and use areas for safety hazards and, when deemed necessary, develop and take corrective actions to correct these hazards.

**Objective SE-2.2** – Whenever practicable or possible, mitigate newly discovered or reported physical and chemical hazards within 120 days to ensure visitor or public safety.

**Action SE-2.2.1** – Newly discovered or reported hazards will be investigated and corrected or mitigated in a timely manner using standard procedures.

**Action SE-2.2.2** – All incidences of hazardous materials on public land will be handled as outlined in the District's contingency plan.

**Objective SE-2.3** – Correct physical safety hazards and cleanup hazardous materials sites on public lands.

**Action SE-2.3.1** – Pursue the reduction of hazards, particularly at abandoned mines and facilities on public lands, to ensure they are safe for employees and the public.

**Action SE-2.3.2** – Cleanup and reclamation of sites will be conducted in accordance with the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

**Objective SE-2.4** – Ensure that the

**Monitoring SE-2.4.1** – Monitor the effectiveness of corrective actions at hazardous

### Social and Economic (SE)

remedy at closed/remediated sites remains protective of human health, welfare, and/or the environment where potentially hazardous substances remain.

substance sites.

**Monitoring SE-2.4.2** – Review the performance no less than every five years of the remedy for sites where hazardous substances remain to ensure the remedy remains protective.

**Action SE-2.4.3** – All actions authorizing the use of or potential for closed and remediated sites where potentially hazardous substances remain at the site on public lands will comply with federal and state regulations, and where appropriate, special stipulations will be developed as part of the permit, lease, or other action to assure human and natural resource safety.

**Action SE-2.4.4** – Closed and remediated sites with potentially hazardous substances remaining at the site should be restricted.

- These sites will be restricted according to mineral leasing stipulation NSO-6 (Appendix B).
- The sites will be closed to motorized vehicles when appropriate (See Maps 4-7 in Appendix G).
- Ensure mineral developments are appropriately handled and bonded.

**Objective SE-2.5** – Continue to manage and clean up contaminated public lands in the Coeur d'Alene basin and in parts of the expanded Bunker Hill/Coeur d'Alene Basin Superfund Site listing to protect the public, BLM employees, and the environment.

**Action SE-2.5.1** – Take actions to clean up hazards and protect the public while maintaining consistency and coordination with the Environmental Protection Agency's Records of Decision for Bunker Hill / Coeur d'Alene Basin.

**Action SE-2.5.2** – Continue coordination and cooperative efforts with the Natural Resource Damage federal trustees to restore the public lands and values in the Basin.

**Action SE-2.5.3** – Coordinate and work with the Environmental Protection Agency to clean up mixed ownership sites involving public land and to aid in implementing the Records of Decision for Bunker Hill / Coeur d'Alene Basin.

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**Action SE-2.5.8** – Recreation planning and use authorizations within the Silver Valley must consider mining and floodplain contamination and incorporate special conditions to ensure protection of people and the environment.

**Objective SE-2.6** – Safeguard human health, prevent environmental damage, and limit BLM liability from hazards by appropriate use authorization actions on public lands.

**Action SE-2.6.1** – All actions authorizing the use of or potential for hazardous materials on public lands will comply with federal and state regulations, and where appropriate, special stipulations will be developed as part of the permit, lease, or other action to assure human and natural resource safety.

**Action SE-2.6.2** – Lands, realty, and minerals actions involving hazardous materials will be reviewed periodically for compliance with federal and state regulations, and special stipulations will be developed as part of the permit, lease, or other action.

**Action SE-2.6.3** – Exchange or disposal of lands with hazardous materials can be done only with potentially responsible parties.

**Action SE-2.6.4** – Unauthorized storage, treatment, or disposal of hazardous materials on public lands cannot be permitted.

**Action SE-2.6.5** – Sites with hazardous materials should stipulate no surface occupancy for mineral leases (see NSO-6 in Appendix B). Ensure mineral developments are appropriately handled and bonded.

Sites with significant known hazardous materials will be closed to motorized vehicles when appropriate (See Maps 4-7 in Appendix G).

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***Social and Economic (SE)***

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***Goal SE-3 – Provide opportunities for economic benefits while protecting cultural and natural resources.***

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**Objective SE-3.1** – Balance resource protection with opportunities for commercial activities and other noncommercial human uses.

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## REFERENCES CITED

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- BLM (US Department of the Interior, Bureau of Land Management). 1981. Emerald Empire Management Framework Plan. Coeur d'Alene Resource Area, Coeur d'Alene District. Coeur d'Alene, Idaho.
- \_\_\_\_\_. 1982a. North Idaho Timber Management Draft Environmental Impact Statement. Coeur d'Alene, Idaho: USDI Bureau of Land Management, Coeur d'Alene District.
- \_\_\_\_\_. 1982b. North Idaho Range Management Program Summary Report. Coeur d'Alene, Idaho: USDI Bureau of Land Management, Coeur d'Alene District.
- \_\_\_\_\_. 1985. Designation Order ID060-04, designating Hideaway Islands as An RNA. Coeur d'Alene BLM District, Coeur d'Alene, Idaho.
- \_\_\_\_\_. 1989a. Land Tenure Adjustment Plan Amendment for the Emerald Empire and Chief Joseph Management Framework Plans. Coeur d'Alene District. August 1989.
- \_\_\_\_\_. 1991. Record of Decision, Vegetation Treatment on BLM Lands in Thirteen Western States, BLM Idaho. Boise, Idaho.
- \_\_\_\_\_. 1993. Update to MFPs to Include Land Acquisition Management Guidelines. Coeur d'Alene District office, Coeur d'Alene, Idaho.
- \_\_\_\_\_. 1994. Environmental Assessment for Noxious Weed Control on the Coeur d'Alene District, USDI Bureau of Land Management, Coeur d'Alene District.
- \_\_\_\_\_. 1997. Idaho standards for rangeland health and guidelines for livestock grazing management. USDI Bureau of Land Management. Boise, Idaho.
- \_\_\_\_\_. 2003. The Interior Columbia Basin Strategy. Interior Columbia Basin Ecosystem Management Project. USDA Forest Service and USDI BLM. Boise, Idaho.

- \_\_\_\_\_. 2004a. Northern Rockies Lynx Amendment Draft Environmental Impact Statement. Prepared by USDI BLM management units in Idaho and parts of Utah.
- \_\_\_\_\_. 2004b. Final Coeur d'Alene Fire Management Plan. USDI Bureau of Land Management Coeur d'Alene Field Office, Coeur d'Alene, Idaho.
- \_\_\_\_\_. 2005. Land Use Planning Hand Book. H-1601-1. Internet Web site: <http://www.blm.gov/nhp/efoia/wo/handbook/h1601-1.pdf>.
- \_\_\_\_\_. 2006a. Proposed Coeur d'Alene RMP/Final EIS. USDI Bureau of Land Management. Coeur d'Alene Field Office, Coeur d'Alene, Idaho.
- \_\_\_\_\_. 2006b. Draft Coeur d'Alene RMP/EIS. USDI Bureau of Land Management. Coeur d'Alene Field Office, Coeur d'Alene, Idaho.
- BLM and USDA Forest Service. 2004. Northern Rockies Lynx Amendment Draft Environmental Impact Statement Summary. Prepared by USDI BLM management units in Idaho and parts of Utah.
- Coeur d'Alene Tribe. 2005. The Coeur d'Alene Tribe, Draft Programmatic Environmental Impact Statement for the Integrated Resource Management Plan. Coeur d'Alene Tribe Natural Resources Department. Plummer, Idaho.
- Forest Service. 1995a. Inland native fish strategy environmental assessment decision notice and finding of no significant impact. Coeur d'Alene, Idaho: USDA Forest Service, Idaho Panhandle National Forests.
- \_\_\_\_\_. 2003. Technical Report: Analysis of the management situation for revision of the Kootenai and Idaho Panhandle Forest Plans. USDA Forest Service, Kootenai National Forest. Libby, Montana. Idaho Panhandle National Forests. Coeur d'Alene, Idaho.
- \_\_\_\_\_. 2006. Proposed Land Management Plan, Idaho Panhandle National Forests. USDA Forest Service Idaho Panhandle National Forests. Coeur d'Alene, Idaho.
- Forest Service and BLM. 2000. Interior Columbia Basin Ecosystem Restoration Project Final EIS. Prepared by USDA Forest Service, Boise, Idaho.
- Ruediger, Bill, Jim Claar, Steve Gniadek, Bryon Holt, Lyle Lewis, Steve Mighton, Bob Nancy, Gary Patton, Tony Rinaldi, Joel Trick, Anne Vandehey, Fred Wahl, Nancy Warren, Dick Wenger, and Al Williamson. 2000. Canada lynx conservation assessment and strategy. USDA Forest Service, USDI Fish and Wildlife Service, USDI Bureau of Land Management, and USDI National Park Service. Missoula, Montana.
- State of Washington. 2005. Guidelines for Selecting Reserve Trees. Prepared by Washington State Department of Natural Resources.

US Environmental Protection Agency (US EPA). 1990. Coeur d'Alene BLM District, Coeur d'Alene, Idaho. Emerald Empire Resource Area Off-Road Vehicle Designations. *Federal Register* Notice, October 29, 1990.

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## GLOSSARY

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**ACQUIRED LANDS.** As distinguished from public lands, those lands in federal ownership that have been obtained by the government by purchase, condemnation, or gift or by exchange for such purchased, condemned, or donated lands or for timber on such lands.

**ACTIVITY PLAN.** A document that describes management objectives, actions, and projects to implement decisions of the RMP or other planning documents. Usually prepared for one or more resources in a specific area.

**ADAPTIVE MANAGEMENT.** A type of natural resource management in which decisions are made as part of an ongoing science-based process. Adaptive management involves testing, monitoring, and evaluating applied strategies, and incorporating new knowledge into management approaches that are based on scientific findings and the needs of society. Results are used to modify management policy, strategies, and practices.

**ADJACENT.** The area outside of a mapped habitat area, but within a zone of influence to the habitat area for which a BLM activity may affect a species. Some activities, such as those that can affect watershed conditions and erosion, can have wide zones of influence for aquatic species. Other activities, such as those that do not affect the suitable habitat but can affect use of that habitat, can have a narrower zone of influence. Thus, this adjacent zone of influence will vary among species and land use activities. The species-specific and land use-specific application of this term is determined at the local level.

**ALLOTMENT.** An area of land where one or more operators graze their livestock. It 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.

**APPROPRIATE MANAGEMENT RESPONSE (AMR).** As per policy in the Interagency Standards for Fire and Fire Aviation Operations, 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). It is developed by using fire management unit strategies and objectives identified in the fire management plan.

**AQUATIC.** Living or growing in or on the water.

**AREA OF CRITICAL ENVIRONMENTAL CONCERN.** An area established through the planning process, as provided in FLPMA, 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; to fish and wildlife resources or other natural systems or processes; or to protect life and afford safety from natural hazards.



**AVOID.** To the extent possible, refraining from implementing the action indicated. If the action needs to take place, then stipulations are added or additional steps are taken to minimize impacts. Avoidance is the preferred management approach in the identified habitats for species conservation.

**BEAR MANAGEMENT UNITS (BMU).** Recovery zones are divided into bear management units that are used for habitat evaluation and population monitoring. A BMU represents the home range of a one female grizzly bear.

**BEST MANAGEMENT PRACTICES (BMP).** Generally accepted state-of-the-art techniques and procedures used in project-level operations to avoid or minimize impacts on species and their habitats.

**BIG GAME.** Larger species of wildlife that are hunted, such as elk, deer, and bighorn sheep.

**BIOLOGICAL OPINION.** A document prepared by US Fish and Wildlife Service stating their opinion 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.

**BOARD FOOT.** The nominal quantity of lumber derived from a piece of rough green lumber 1 inch thick and 1 foot wide by 1 foot long.

**BURNED AREA REHABILITATION.** Efforts undertaken within three years of containment of a wildland fire 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.

**CANDIDATE SPECIES.** Any species for which the U.S. Fish and Wildlife Service has sufficient information on biological status and threats to propose as endangered or threatened under the Endangered Species Act, but for which development of a listing regulation is precluded by other higher priority listing activities (does not include proposed species).

**CHEMICAL VEGETATION TREATMENT.** Application of herbicides to control invasive species/noxious weeds and/or unwanted vegetation.

**COMMUNAL ROOSTS.** A forested area where 6 or more eagles traditionally spend the night within 100 meters of each other.

**CORE HABITAT (GRIZZLY BEAR).** Areas more than .31 miles away from open or gated roads or high intensity human use areas. Generally core habitat is continuous secure blocks of land that have minimal fragmentation by roads, residential, agricultural and commercial areas.

Effective grizzly habitat contains an abundance of many kinds of natural foods, vegetal and animal, so the stochastic changes in the abundance of some food items are offset by the presence and availability of other items. Diversity also provides required resting, denning, and social areas and space.

**CULTURAL RESOURCES.** Locations of human activity, occupation, or use. Cultural resources include 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.

**DEN SITES (GRAY WOLF).** In the Northern Rockies, wolf pups are born any time from late March to late April or possibly early May. Some particular dens or denning areas may receive traditional use by a wolf pack over time. Wolves are particularly sensitive to human activity near den sites and may abandon them if disturbed. Section 7 guidance from FWS indicates that activities or projects that occur within 1.6 km (1 mi) of an active wolf den site may negatively affect gray wolves.

**DESIRED FUTURE CONDITION (DFC).** The condition of BLM 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).

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

**EASEMENT.** Right afforded 'a person or agency to make limited use of another's real property for access or other purposes.

**ELIGIBLE RIVER SEGMENT.** A section of a river that qualifies for inclusion into the National Wild and Scenic River System 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.

**ENDANGERED SPECIES.** A designation under the Endangered Species Act in which an individual species is in danger of extinction throughout all or a significant portion of its range.

**EMERGENCY STABILIZATION.** Emergency stabilization action 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 one year following containment of a wildland fire.

**ENVIRONMENTAL ASSESSMENT (EA).** A concise 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. It 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, CEQ guidelines, and directives of the agency responsible for the proposed project or action.

**FEDERAL LAND POLICY AND MANAGEMENT ACT OF 1976 (FLPMA).** Public Law 94-579 signed by the President on October 21, 1976. Establishes public land policy for management of lands administered by the BLM. FLPMA specifies several key directions for the Bureau, notably (1) management be on the basis of multiple-use and sustained yield, (2) land use plans be prepared to guide management actions, (3) public lands be managed for the protection, development, and enhancement of resources, (4) public lands be retained in federal ownership, and (5) public participation be utilized in reaching management decisions.

**FIELD OFFICE.** A geographic portion of a BLM District that is the smallest administrative subdivision in the BLM.

**FIRE REGIME.** Periodicity and pattern of naturally occurring fires in a particular area or vegetative type, described in terms of frequency, biological severity, and area of extent.

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

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

**FOREST HEALTH.** The condition in which forest ecosystems sustain sufficient complexity, diversity, resiliency, and productivity to provide for specified human needs and values (ICBEMP 2000).

**FUNCTIONAL-AT-RISK.** Riparian/wetland areas are classified as functional at-risk when they are in functional condition but an existing soil, water, or vegetation attribute makes them susceptible to degradation.

**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 (HMP).** 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.

**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.

**HEW WOOD.** Hew wood is generally small diameter logs whose diameters at the small end are between 4” and 9” and diameters at the large end are less than 12.

**HOG FUEL.** An unprocessed mix of bark and wood fiber.

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

**IMPAIRMENT.** The degree to which a distance of clear visibility is degraded by man-made pollutants.

**LEASABLE MINERALS.** Those minerals or materials designated as leasable under the Mineral Leasing Act of 1920 (as amended). They include coal, phosphate, asphalt, sulphur, potassium and sodium minerals, and oil and gas. Geothermal resources are also, leasable under the Geothermal Steam Act of 1970 (as amended).

**LOCATABLE MINERALS.** Minerals or materials 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 not subject to lease or sale (some bentonites, limestone, talc, some zeolites, etc.). Whether or not a particular mineral deposit is locatable depends on such factors as quality, quantity, mineability, demand, and marketability.

**LYNX ANALYSIS UNIT (LAU).** The LAU is a project analysis unit upon which direct, indirect, and cumulative effects analyses are performed. LAU boundaries should remain constant to facilitate planning and allow effective monitoring of habitat changes over time. It covers an area of at least the size used by an individual lynx, about 25-50 square miles.

**MANAGEMENT SITUATIONS 1-5 (GRIZZLY BEAR).** Management situations further describe BMUs by defining specific grizzly bear population and habitat conditions and management direction. Management Situation 1 areas are grizzly bear population centers with very high conservation emphasis. Management Situation 5 is the least restrictive. Management situations 1-5 are described in detail in the Interagency Grizzly Bear Guidelines.

**MECHANICAL VEGETATION TREATMENT.** Includes mowing, chaining, chopping, drill seeding, and cutting vegetation to meet resource objective. 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.
  - Aspen/Conifer cover types in which the harvest or thinning of trees may be desirable.

**MECHANIZED USES.** Equipment that is mechanized, including but not limited to mountain bikes, wheelbarrows, and game carts.

**MINERAL ENTRY.** Claiming public lands (administered by the BLM) under the Mining Law of 1872 for the purpose of exploiting minerals. May also refer to mineral exploration and development under the mineral leasing laws and the Material Sale Act of 1947.

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

**MINIMIZE.** To reduce to the smallest possible amount, extent, size, or degree as is feasible from a technical or management standpoint.

**MINING LAW OF 1872.** Provides for claiming and gaining title to locatable minerals on public lands. Also referred to as the “General Mining Laws” or “Mining Laws.”

**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.

**MODIFY.** To “modify” a management activity could have a wide range of site-specific actions, ranging from eliminating the activity, to changing seasonal use, to minor operational changes, to meet the intent of a specific conservation measure or its implementing action.

**MOTORIZED VEHICLES OR USES.** Vehicles that are motorized, including but not limited to jeeps, all-terrain vehicles (all-terrain vehicles, such as four-wheelers and three-wheelers), and trail motorcycles or dirt bikes.

**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 ENVIRONMENTAL POLICY ACT OF 1969 (NEPA).** Public Law 91-190. Establishes environmental policy for the nation. Among other items, NEPA requires federal agencies to consider environmental values in decision-making processes.

**NATIONAL REGISTER OF HISTORIC PLACES (NRHP).** 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.

**NEED FOR CHANGE TOPICS.** Resources and land uses initially identified by the BLM that require new management direction to address current laws, regulations and policies, or to respond to changes in conditions, such as increased recreational demand.

**NOXIOUS WEED.** Any plant species which when established is or may become destructive and difficult to control by ordinary means. The main differences between a common weed and a noxious weed are: the noxious weed’s high capacity for destruction and the extreme difficulty in controlling or eradicating the invading species.

**OFF-HIGHWAY VEHICLE (OHV).** A general term referring to any motorized vehicle capable of operating on roads, trails, or designed areas that are not maintained. These include motorcycles, all-terrain vehicles, dune buggies, and four-wheel-drive vehicles.

**OFF-ROAD VEHICLE DESIGNATIONS.** Public lands designated for off-highway vehicle use. Lands in the planning area are designated as open, limited, or closed for OHV use.

- **Open:** Designated areas and trails where off-road vehicles may be operated (subject to operating regulations and vehicle standards set forth in BLM Manuals 8341 and 8343). For the purposes of the RMP/EIS, an “open area” is defined as an area where all types of motorized vehicles (jeeps, all-terrain vehicles, motorized dirt bikes, etc.) and mechanized uses (mountain bikes, wheelbarrows, game carts) are allowed to travel freely at all times, anywhere in the area, on roads or cross country, subject to the operating regulations and vehicle standards set forth in 43 CFR, subparts 8341 and 8342.
- **Limited:** Designated areas and trails where the use of off-road vehicles is subject to restrictions such as limiting the number or types of vehicles allowed, dates and times of use (seasonal restrictions), limiting use to existing roads and trails, or limiting use to designated roads and trails. Under the designated roads and trails designation, use would be allowed only on roads and trails that are signed for use. Combinations of restrictions, such as limiting use to certain types of vehicles during certain times of the year, are possible. For the purposes of this RMP/EIS, a “limited area” is an area where motorized and mechanized travel is restricted to designated routes, unless otherwise noted. Off-road, cross-country travel is prohibited in limited areas. Some existing routes may be closed in limited areas.
- **Closed:** Designated areas and trails where the use of off-road vehicles is permanently or temporarily prohibited. Emergency use of vehicles is allowed. Use may be allowed for other reasons; however such use shall be made only with the approval of the authorized officer. For the purposes of this RMP/EIS, a “closed area” is where motorized and mechanized use is prohibited in all locations at all times.

**PALEONTOLOGICAL RESOURCES.** 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.

**PLANNING AREA.** The geographical area for which land use and resource management plans are developed and maintained. The planning area includes all lands within its boundaries, regardless of ownership. The boundary of the planning area for this RMP encompasses Benwah, Bonner, Boundary, Kootenai, and Shoshone Counties of Idaho.

**PLANNING ISSUES.** Concerns, conflicts, and problems 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.

**POPULATION (WATER HOWELLIA).** Refers to all water howellia plants that occur within a specific geographic area. A population can be made up scattered plants generally within one mile of each other.

**PRESCRIBED FIRE TREATMENTS (PRESCRIBED BURN).** 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 areas, to reduce conifer encroachment into decadent aspen stands and rejuvenate mid-elevation shrub.

**PRIMITIVE AND UNCONFINED RECREATION.** Non-motorized and undeveloped types of outdoor recreation.

**PROBABLE SALE QUANTITY (PSQ).** The PSQ is the allowable harvest level that can be maintained without decline over the long term if the schedule of harvests and regeneration are followed. PSQ recognizes a level of uncertainty in meeting the determined level; this uncertainty is typically based on other environmental factors that preclude harvesting at a particular time (for example, because of watershed or habitat concerns). A PSQ is not a commitment to offer for sale a specific level of timber volume every year.

**PROPER FUNCTIONING CONDITION.** 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.

**PROPOSED SPECIES.** A species proposed for listing as endangered or threatened under the Endangered Species Act.

**PUBLIC LAND.** 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.

**RECOVERY ZONES (GRIZZLY BEAR).** The recovery plan defines recovery zones as the area in each grizzly bear ecosystem (i.e. Selkirk and Cabinet-Yaak) within which the population and habitat criteria for achievement of recovery will be measured.

**RECREATION SETTING CHARACTER CONDITIONS.** The distinguishing recreational qualities of any landscape, objectively defined along a continuum ranging from primitive to urban landscapes, expressed in terms of the nature of the component parts of its physical, social and administrative attributes. These recreational qualities can be both classified and mapped. This classification and mapping process should be based on variation that either exists (i.e., setting descriptions) or is desired (i.e., setting prescriptions) among component parts of the various physical, social, and administrative attributes of any landscape. The recreation opportunity spectrum is one of the existing tools for doing this.

**RECREATION SETTINGS.** The collective, distinguishing attributes of landscapes that influence, and sometimes actually determine, what kinds of recreation opportunities are produced.

**RECREATION-TOURISM MARKET.** Recreation-tourism visitors, affected community residents, affecting local governments and private sector businesses, or other constituents and the communities or other places where these customers originate (local, regional, national, or international). Based on analysis of supply and demand, land use plans strategically identify primary recreation-tourism markets for each SRMA—destination, community, or undeveloped.

**RENDEZVOUS SITES (GRAY WOLF).** Rendezvous sites-- especially the first one--may receive traditional use by wolf packs. It is also the initial rendezvous site at which wolves appear most sensitive to prolonged or substantial human disturbances. Section 7 guidance from FWS indicates that activities or projects that occur within 1.6 km (1 mi) of an active wolf rendezvous site may negatively affect gray wolves.

**RESEARCH NATURAL AREA (RNA).** A land management status which reserves the area for uses that are compatible with the resource of interest and research for which the area was designated. All RNAs are also ACECs and are designated using the ACEC process.

**RESOURCE MANAGEMENT PLAN (RMP).** A land use plan that establishes multiple-use guidelines, and management objectives for a given planning area.

**RESTORATION AREAS (FOR NESTING YELLOW-BILLED CUCKOOS).** Areas identified by BLM where the riparian vegetative component is currently not meeting the needs of the species. These areas have the site potential for a multi-tiered, mature riparian forest—at the size described in the definition for suitable habitat—through passive or active management. For example, in some cases a restoration area may be an area where the understory shrub component is missing. In other cases, mature cottonwoods are absent in an area but young cottonwoods and willows are present with the potential to provide suitable habitat in the near 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 ZONE.** An area encompassing riparian and adjacent vegetation.

**ROADS.** Vehicle routes that have 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.

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

**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.

**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 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.

**SERAL.** The developmental phase of a forest stand with characteristic structure and plant species composition; typically, young-seral forest refers to seedling or sapling growth stages; mid-seral forest refers to pole or medium sawtimber growth stages; and mature or old-seral forests refer to mature and old-growth stages.

**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).** BLM administrative units established to direct recreation program priorities, including the allocation of funding and personnel, to those public lands where a commitment has been made to provide specific recreation activity and experience opportunities on a sustained yield basis. These areas usually require a high level of recreation investment and/or management.

**SPECIAL RECREATION PERMITS.** Authorizations that allow for recreational uses of public lands and related waters. Issued as a means to control visitor use, protect recreational and natural resources, and provide for the health and safety of visitors. Commercial Special Recreation Permits also are issued as a mechanism to provide a fair return for the commercial use of public lands.

**SPECIAL STATUS SPECIES.** Proposed, listed, and candidate species under the ESA, State-listed species, and BLM designated sensitive species (see BLM Manual 6840 - Special Status Species Policy).

**TERRESTRIAL.** Living or growing in or on the land.

**THREATENED SPECIES.** Any species or significant population of that species likely to become endangered within the foreseeable future throughout all or a significant portion of its range. Usually includes only those species that have been recognized and listed as threatened by federal and state governments, but may include species categorized as rare, very rare, or depleted

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

**TRADITIONAL CULTURAL PROPERTIES.** 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: (a) are rooted in that community's history; and (b) are important in maintaining the community's continuing cultural identity.

**TRADITIONAL USE.** 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.

**TRESPASS.** Any unauthorized use of public land.

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

**VALID EXISTING RIGHTS.** Legal interests that attach to a land or mineral estate that cannot be divested from the estate until that interest expires or is relinquished.

**VEGETATION MANIPULATION.** Planned alteration of vegetation communities through use of mechanical, chemical, seeding and or prescribed fire or Wildland Fire Use to achieve desired resource objectives.

**VEGETATION TREATMENT.** Modification to the vegetative community designed to improve or enhance forest health (stand density reduction, stand conversions from undesired species compositions to desired species compositions, prescribed fire to enhance survival of mature and older trees, etc.). Depending on the purpose of the vegetation treatment, removal of forest products may or may not occur.

**VEGETATION TREATMENT METHODS.** There are five types of vegetation treatments that may be used; Wildland Fire Use, Prescribed Fire Treatments, Chemical, Mechanical, and Seeding.

**VISUAL RESOURCES.** The visible physical features on a landscape, (topography, water, vegetation, animals, structure-s, and other features) that comprise die scenery of the area.

**VISUAL RESOURCE MANAGEMENT (VRM).** 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 CLASSES.** VRM classes identify 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.



- **VRM Class I:** This classification preserves the existing characteristic landscape and allows for natural ecological changes only. Includes congressionally authorized areas (wilderness) and areas approved through the RMP where landscape modification activities should be restricted.
- **VRM Class II:** This classification retains the existing characteristic landscape. The level of change in any of the basic landscape elements due to management activities should be low and not evident.
- **VRM Class III:** This classification partially retains the existing characteristic landscape. The level of change in any of the basic landscape elements due to management activities may be moderate and - evident.
- **VRM Class IV:** This classification provides for major modifications of the characteristic landscape. The level of change in the basic landscape elements due to management activities can be high. Such activities may dominate the landscape and be the major focus of viewer attention.
- **VRM Class V:** This classification applies to areas where the characteristic landscape has been so disturbed that rehabilitation is needed. Generally considered an interim short-term classification until rehabilitation or enhancement is completed.

**WATERSHED.** Topographical region or area delineated by water draining to a particular watercourse or body of water.

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

**WILDERNESS CHARACTERISTICS.** 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.

**WILDERNESS STUDY AREA.** Public lands that have been inventoried by the BLM, under the authority of Section 603 or Section 202 of the FLPMA, and found to possess the required wilderness characteristics as defined in the Wilderness Act of 1964.

**WILDLAND FIRE.** Any fire on the landscape, including a prescribed burn or wildfire.

**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 AMR.

**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 RANGE.** An Idaho Department of Fish and Game definition that applies to elk and mule deer. That part of the overall range where 90 percent 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 of public land and segregates the land from the operation of some or all of the public land and mineral laws. Withdrawals are also used to transfer jurisdiction of management of public lands to other federal agencies.

**WOLF HABITAT (GRAY WOLF).** Wolf habitat includes key habitat features and lands that are seasonally occupied by prey species in sufficient densities to support wolves. Characteristics of high quality wolf habitat include low road densities, low human occurrence, and few sources of disturbance.

**WOODLANDS.** Plant communities in which trees, often small and characteristically short-boled 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.

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## Appendix A: Coeur d'Alene Native Fish Strategy (CNFISH)

In 2002, the BLM Idaho State Director signed a memorandum of understanding with several other federal agencies, agreeing to implement the Interior Columbia Basin Ecosystem Management Project Strategy. This strategy specifies that “until administrative unit plans [RMPs] are amended or revised utilizing the ICBEMP Science in this Strategy, management will continue under current plans. This will include interim PACFISH, INFISH [Inland Native Fish Strategy] direction...” INFISH provides interim direction for protecting resident fish populations and habitat in Idaho, western Montana, eastern Washington, and eastern Oregon.

The development of the Coeur d'Alene RMP meets the specific criteria for modifying or adapting INFISH direction. The BLM Coeur d'Alene Field Office conducted a thorough analysis of INFISH and developed direction that would be applicable to management of BLM-administered public lands within the planning area. The table below outlines the Coeur d'Alene Native Fish Strategy (CNFISH), which provides direction for protecting native fish populations within the planning area.

In 2004, a memorandum was issued by the BLM, FS, FWS, EPA and NOAA Fisheries to transmit a document titled “A Framework for Incorporating the Aquatic and Riparian Component of the Interior Columbia Basin Strategy into BLM and Forest Service Plan Revisions (Framework)”. This document provides direction for six components addressing aquatic and riparian management to be incorporated into revised plans. The components and how they are addressed in the Coeur d'Alene RMP are as follows:

1. **Riparian Conservation Areas (RCAs)** are areas of particular value for aquatic conservation and where riparian-dependent resources receive management emphasis. RCAs are delineated in the CNFISH table below. Standards and guidelines for actions within RCAs are also found in the table below.
2. **Protection of Population Strongholds for Listed or Proposed Species and Narrow Endemics** is addressed in Appendix D: Conservation and Restoration Watersheds.
3. **Multiscale Analysis** is addressed in the CNFISH Strategy table below under Watershed Analysis. The potential analysis scales are basin, subbasin, watershed and project; analysis at the appropriate scale provides the context needed for decision making.
4. **Restoration Priorities and Guidance** can be found in Appendix D: Conservation and Restoration Watersheds.
5. **Management Direction (such as desired conditions or objectives)** is found in the CNFISH Strategy table below under Riparian Management Objectives (RMOs). An adaptive management approach will be used as a means to identify and achieve desired aquatic and riparian conditions. Many of the INFISH objectives have been modified for the CNFISH strategy, and additional objectives have been added. All modifications, except water temperature, are based on criteria in the Matrix of Diagnostics/Pathways and Indicators found in *A Framework to Assist in Making Endangered Species Act Determinations of Effect for Individual or Grouped Actions at the Bull Trout Subpopulation Watershed Scale*. Temperature criteria were incorporated from the *EPA Region 10 Guidance for Pacific Northwest State and Tribal Temperature Water Quality Standards*. These objectives should be considered interim, and local adjustment may and should occur based on site-specific or watershed scale analysis. Some of the interim objectives may not be attainable in all systems and local reference data will be required as a basis for modifications.

- 6. Monitoring/Adaptive Management:** The monitoring strategy is currently being developed and will address protocols for both implementation and effectiveness monitoring needed to implement adaptive management.

**CNFish Strategy**

<b>Goals</b> Maintain or Restore...	The goals are to maintain or restore:																				
	(1) Water quality, to a degree that provides for stable and productive riparian and aquatic ecosystems																				
	(2) Stream channel integrity, channel processes, and the sediment regime (including the elements of timing, volume, and character of sediment input and transport) under which the riparian and aquatic ecosystems developed.																				
	(3) Instream flows to support healthy riparian and aquatic habitats, the stability and effective function of stream channels, and the ability to route flood discharges.																				
	(4) Natural timing and variability of the water table elevation in meadows and wetlands.																				
	(5) Diversity and productivity of native and desired non-native plant communities in riparian zones.																				
	(6) Riparian vegetation to: <ul style="list-style-type: none"> <li>(a) Provide an amount and distribution of large woody debris characteristic of natural aquatic and riparian ecosystems;</li> <li>(b) Provide adequate summer and winter thermal regulation within the riparian and aquatic zones; and</li> <li>(c) Help achieve rates of surface erosion, bank erosion, and channel migration characteristic of those under which the communities developed.</li> </ul>																				
	(7) Riparian and aquatic habitats necessary to foster the unique genetic fish stocks that evolved within the specific geo-climatic region.																				
	(8) Habitat to support populations of well-distributed native and non-native plant, vertebrate, and invertebrate populations that contribute to the viability of riparian-dependent communities.																				
<b>Riparian Management Objectives</b> Forested and non-forested ecosystems	These objectives may be adjusted and additional objectives adopted as future site-specific analysis is completed and/or new scientific information becomes available.																				
	<p><b>(1) Pool Frequency (all systems)</b></p> <table> <tr> <td><u>Wetted width (ft)</u></td><td><u>#pools/Mile</u></td></tr> <tr> <td>0-5</td><td>39</td></tr> <tr> <td>5-10</td><td>60</td></tr> <tr> <td>10-15</td><td>48</td></tr> <tr> <td>15-20</td><td>39</td></tr> <tr> <td>20-30</td><td>23</td></tr> <tr> <td>30-35</td><td>18</td></tr> <tr> <td>35-40</td><td>10</td></tr> <tr> <td>40-65</td><td>9</td></tr> <tr> <td>65-100</td><td>4</td></tr> </table> <p>Also, pools have good cover and cool water, and only minor reduction of pool volume by fine sediment.</p>	<u>Wetted width (ft)</u>	<u>#pools/Mile</u>	0-5	39	5-10	60	10-15	48	15-20	39	20-30	23	30-35	18	35-40	10	40-65	9	65-100	4
<u>Wetted width (ft)</u>	<u>#pools/Mile</u>																				
0-5	39																				
5-10	60																				
10-15	48																				
15-20	39																				
20-30	23																				
30-35	18																				
35-40	10																				
40-65	9																				
65-100	4																				

	<p><b>(1)a. Large Pools</b> (in adult holding, juvenile rearing and overwintering reaches where streams are &gt; 3m in wetted width at baseflow).</p> <p>Each reach has many large pools &gt; 1 meter deep.</p>
	<p><b>(1)b. Off-Channel Habitat</b></p> <p>Watershed has many ponds, oxbows, backwaters, and other off-channel areas with cover; and side channels are low energy areas.</p>
	<p><b>(2) Water temperature (all systems)</b> No measurable increase in maximum water temperature (7-day moving average of daily maximum temperature measured as the average of the maximum daily temperature of the warmest consecutive 7-day period).</p> <p><b>(2)a. Water temperature in bull trout habitat*</b></p> <ul style="list-style-type: none"> <li>i) Juvenile rearing: 12°C (55 °F)</li> <li>ii) Spawning: 9 °C (48 °F)</li> </ul> <p><b>(2)b. Water temperature in salmonid habitat other than bull trout (mainly westslope cutthroat trout)*</b></p> <ul style="list-style-type: none"> <li>i) core juvenile rearing: 16 °C (61 °F)</li> <li>ii) migration/non-core juvenile rearing: 18 °C (64 °F)</li> <li>iii) migration: 20 °C (68 °F)</li> <li>iv) spawning, egg incubation, fry emergence: 13 °C (55 °F)</li> </ul> <p>*all temperatures are 7-day moving average of daily maximum temperature</p>
	<p><b>(3) Large woody debris (forested systems)</b> Current values are being maintained at &gt;20 pieces per mile, &gt;12 inch diameter, &gt;35 foot length. Also, adequate sources of woody debris available for short and long term recruitment.</p>
	<p><b>(4) Bank stability :</b> &gt;80% of any stream reach has ≥90% stability.</p>
	<p><b>(5) Lower bank angle (non-forested systems):</b> &gt;75% of banks with &lt;90 degree angle (i.e., undercut)</p>
	<p><b>(6) Average Wetted Width/Maximum Depth Ratio in scour pools in a reach:</b> ≤10</p>
	<p><b>(7) Floodplain Connectivity:</b> Off-channel areas are frequently hydrologically linked to the main channel; overbank flows occur and maintain wetland functions, riparian vegetation and succession.</p>
	<p><b>(8) Sediment in Spawning and Incubation Areas:</b> &lt;12% fines (&lt;0.85mm) in gravel; ≤20% surface fines of ≤6mm.</p>
	<p><b>(9) Substrate Embeddedness in Rearing Areas:</b> Reach embeddedness &lt;20%</p>

<b>RHCAs/ RCAs</b>	<p>RCAs are lands that are likely to affect the condition and/or function of aquatic habitat, and may include areas adjacent to streams, ponds, lakes, wetlands, and unstable landscapes. In RCAs riparian-dependent resources receive primary emphasis, and management activities are subject to specific standards and guidelines.</p> <p>The dimensions of RCAs are best defined by local or watershed analysis. In the absence of such analysis, the following default RCA widths apply.</p>
	<b>Category 1 – Fish bearing streams:</b> RCAs consist of the stream and the area on either side of the stream extending from the edges of the active channel to the top of the inner gorge, or to the outer edges of the 100 year floodplain, or to the outer edges of the riparian vegetation, or 300 feet slope distance (600 feet, including both sides of the stream channel), whichever is greatest.
	<b>Category 2 – Permanently flowing non-fish bearing streams:</b> RCAs consist of the stream and the area on either side of the stream extending from the edges of the active channel to the top of the inner gorge, or to the outer edges of the 100 year floodplain, or to the outer edges of the riparian vegetation, or 150 feet slope distance (300 feet, including both sides of the stream channel), whichever is greatest.
	<b>Category 3 - Ponds, lakes, reservoirs and wetlands greater than 1 acre:</b> RCAs consist of the body of water or wetland and the area to the outer edges of the riparian vegetation, or to the extent of the seasonally saturated soil, or to the extent of moderately and highly unstable areas, or 150 feet slope distance from the edge of the maximum pool elevation of constructed ponds and reservoirs or from the edge of the wetland, pond or lake, whichever is greatest.
	<p><b>Category 4 – Seasonally flowing or intermittent streams and wetlands less than 1 acre with riparian characteristics as defined by properly functioning condition inventory, and landslides and landslide-prone areas:</b> This category includes features with high variability in size and site-specific characteristics. At a minimum the RCAs must include:</p> <ol style="list-style-type: none"> <li>the extent of landslide and landslide-prone areas and the area from the edges of the landslide/landslide-prone area to a distance of 100 feet slope distance.</li> <li>the intermittent stream channel and the area to the top of the inner gorge, or to the outer edges of the riparian vegetation, or to the area from the edges of the stream channel to a distance of 100 feet slope distance, whichever is greatest.</li> <li>the wetland area and the area to the outer edges of the riparian vegetation, or to a distance of 100 feet slope distance, whichever is greatest.</li> </ol>
	Non-forested rangeland ecosystems Category 1 & 2 streams extent of 100 year flood plain.
<b>Standards and Guidelines</b>	Standards & Guides apply to all RCAs and to projects and activities in areas outside of RCAs that are identified through NEPA analysis as potentially degrading RCAs.
<b>Riparian Conservation Area Management</b>	
RCA-1	Activities in RCAs will be designed to enhance, restore or maintain the physical and biological characteristics of the RCA by implementing the following:

	<p>a. Activities in RCAs that are intact and functioning in a desired condition as indicated by RMOs or other measures must be designed to at least maintain that desired condition.</p> <p>b. Activities in RCAs that are not at or moving towards desired condition as indicated by RMOs or other measures must include a restoration component as part of the project if determined to be necessary/beneficial by a fisheries biologist, hydrologist or other aquatic specialist.</p> <p>c. Activities in RCAs must not result in long-term degradation to aquatic conditions. Limited short-term adverse/negative effects from activities in the RCA may be acceptable when outweighed by the long-term benefits to the RCA and aquatic resources.</p>
<b>Timber Management</b>	
TM-1	Vegetation management practices may be used in RCAs only to restore or enhance physical and biological characteristics of the RCA including Riparian Management Objectives.
TM1-a	No fuelwood cutting will be authorized within an RCA.
<b>Roads Management</b>	
RF-1	Cooperate with federal, tribal, State, and county agencies, and cost-share partners to achieve consistency in road design, operation, and maintenance necessary to attain Riparian Management Objectives.
RF-2	For each existing or planned road (authorized across BLM-managed land or BLM easement across other lands), strive to meet the Riparian Management Objectives and avoid adverse effects to native fish.
RF-2 a.	<p>Complete watershed or site specific analysis, prior to construction of new roads or landings in RCAs. The analysis will be done at the scale appropriate to the road and/or landing.</p> <p>Analysis will include the site-scale, in the context of the reach scale, and the watershed scale.</p>
RF-2b.	When practical close existing roads, and avoid constructing new roads or landings within RCAs.
RF2-c.	Ensure that the Transportation/Travel Management Plan is consistent with RMOs.
RF2-d.	<p>Avoid sediment delivery to streams from the road surface.</p> <ol style="list-style-type: none"> <li>1. Outsloping of the roadway surface is preferred, except in cases where outsloping would increase sediment delivery to streams or where outsloping is infeasible or unsafe.</li> <li>2. Route road drainage away from potentially unstable stream channels, fills, and hillslopes.</li> </ol>
RF2-e.	When practical avoid disruption of natural hydrologic flow paths.
RF2-f.	Sidecasting of road materials is prohibited on road segments within or abutting RCAs.
RF-3	<p>Avoid adverse effects to native fish by:</p> <ol style="list-style-type: none"> <li>a. relocating or reconstructing road and drainage features that do not meet design criteria or operation and maintenance standards, or that have been shown to be less effective than designed for controlling sediment delivery, or that delays or</li> </ol>



	<p>prevents attainment of Riparian Management Objectives within the expected, near natural period of restoration as determined by an aquatic, soils, and/or riparian specialist, or do not protect native fish from increased sedimentation.</p> <p>b. prioritizing reconstruction based on the current and potential habitat, the ecological value of the riparian resources affected, and the feasibility of options such as helicopter logging and road relocation out of RCAs.</p> <p>c. closing and stabilizing or obliterating, and stabilizing roads not needed for future management activities. Prioritize these actions based on the current and potential damage to native fish, and the ecological value of riparian resources affected.</p>
RF-4	<p>When constructing new, replacement and reconstructed culverts, bridges, and other stream crossings accommodate a 100-year flood, including associated bedload and debris. Substantial risk improvements include those that do not meet design and operation maintenance criteria, or that have been shown to be less effective than designed for controlling erosion, or that delay attainment of Riparian Management Objectives, or that do not protect native fish habitat from increased sedimentation. Base priority for upgrading on risks to native fish and the ecological value of the riparian resources affected. Construct and maintain crossings to prevent diversion of streamflow out of the channel and down the road in the event of crossing failure.</p>
RF-5	<p>Provide and maintain passage for fish and other aquatic organisms at new, replacement, and reconstructed road crossings of existing and potential fish-bearing streams, unless barriers are determined beneficial for native fish.</p> <p>The preferred approach is to implement streambed simulation strategies or have no crossing structure.</p>
<b>Grazing Management</b>	
GM-1	<p>Range project plans, allotment management plans, and annual plans of operation shall be developed, revised, and maintained where needed to achieve the RMOs. These plans establish objectives for managing vegetation resources (including activities needed to achieve the objectives) to achieve desirable riparian conditions. This may include grazing schedule, grazing system, season of use, class of livestock, stocking levels, forage products and utilization rates, and improvements needed to achieve objectives. The results of monitoring riparian and streamside condition will be used to determine the need for change.</p>
GM-2	<p>Locate new livestock handling and/or management facilities outside of RCAs. For existing livestock handling facilities inside RCAs, assure that facilities do not prevent attainment of Riparian Management Objectives or adversely affect native fish. Relocate or close facilities where these objectives cannot be met.</p>
GM-3	<p>Limit livestock trailing, bedding, watering, salting, loading, and other handling efforts to those areas and times that would not prevent or delay attainment of Riparian Management Objectives or adversely affect native fish</p>
<b>Recreation Management</b>	
RM-1	<p>Design, construct, and operate recreation facilities, including trails and dispersed sites, in a manner that does not delay or prevent</p>

	attainment of the Riparian Management Objectives and avoids adverse effects on native fish. Complete site specific watershed analysis prior to construction of new recreation facilities in RCAs. The level of watershed or site specific analysis should be commensurate with the scope and issues of the project and related aquatic resources. For existing recreation facilities inside RCAs, assure that the facilities or use of the facilities will not prevent attainment of Riparian Management Objectives or adversely affect native fish. Relocate or close recreation facilities where Riparian Management Objectives cannot be met or adverse effects on native fish cannot be avoided.
RM-2	Adjust dispersed and developed recreation practices that delays or prevents attainment of Riparian Management Objectives within the expected, near natural period of restoration as determined by an aquatic, soils, and/or riparian specialist, or adversely affect native fish. Where adjustment measures such as education, use limitations, traffic control devices, increased maintenance, relocation of facilities, and/or specific site closures are not effective in meeting Riparian Management Objectives and avoiding adverse effects on native fish, eliminate the practice or occupancy.
RM-3	Address attainment of Riparian Management Objectives and potential effect on native fish in Wild and Scenic Rivers, Wilderness, and other Recreation Management plans.
<b>Minerals Management</b>	
MM-1	Minimize adverse affects to native fish from mineral operations. If a Notice Of Intent indicates that a mineral operation would be located in an RCA, consider the effects of the activity on native fish in the determination of significant surface disturbance pursuant 43 CFR Part 3000s. For operations in RCAs ensure operators take all practicable measures to maintain, protect, and rehabilitate fish and wildlife habitat which may be affected by the operations. When bonding is required, consider (in the estimation of the bond amount) the cost of stabilizing, rehabilitating, and reclaiming the area of operations.
MM-2	Locate structures, support facilities, and roads outside RCAs. Where no alternative to siting facilities in RCAs exists, locate and construct the facilities in ways that avoid impacts to RCAs and streams and adverse effects on native fish. Where no alternative to road construction exists, keep roads to the minimum necessary for the approved mineral activity. Close, obliterate, and revegetate roads no longer required for mineral or land management activities.
MM-3	Prohibit solid and sanitary waste facilities in RCAs. If no alternative to locating mine waste (waste rock, spent ore, tailings) facilities in RCAs exists, and releases can be prevented and stability can be ensured, then:
a.	analyze the waste material using the best conventional sampling methods and analytic techniques to determine its chemical and physical stability characteristics.
b.	locate and design the waste facilities using the best conventional techniques to ensure mass stability and prevent the release of acid or toxic materials. If the best conventional technology is not sufficient to prevent such releases and ensure stability over the long term, prohibit such facilities in RCAs
c.	monitor waste and waste facilities to assure chemical and physical stability, and make adjustments to operations as needed to avoid adverse effects to native fish and Riparian Management Objectives.
d.	reclaim and monitor waste facilities to assure chemical and physical

	stability and re-vegetation to avoid adverse effects to native fish, and to attain the Riparian Management Objectives.
e.	require reclamation bonds adequate to ensure long-term chemical and physical stability and successful re-vegetation of mine waste facilities.
MM-4	For leasable minerals, prohibit surface occupancy within RCAs (NSO-2 see Appendix B) where contracts and leases do not already exist, unless there are no other options for location and Riparian Management Objectives can be attained and adverse effects to native fish can be avoided. Adjust the operating plans of existing contracts to (1) eliminate impacts that prevent attainment of Riparian Management Objectives and (2) avoid adverse effects to native fish.
MM-5	Permit sand and gravel mining and extraction within RCAs only if no alternatives exist, if the action(s) would not delay or prevent attainment of Riparian Management Objectives within the expected, near natural period of restoration as determined by an aquatic, soils, and/or riparian specialist, and adverse effects to native fish can be avoided.
MM-6	Develop inspection, monitoring, and reporting requirements for mineral activities. Evaluate and apply the results of inspection and monitoring to modify mineral plans, leases, or permits as needed to eliminate impacts that prevent attainment of Riparian Management Objectives and avoid adverse effects on native fish.
<b>Fire Management</b>	
FM-1	Design and implement fire suppression strategies, practices, and actions so as not to delay or prevent attainment of Riparian Management Objectives within the expected, near natural period of restoration as determined by an aquatic, soils, and/or riparian specialist. Strategies should recognize the role of fire in ecosystem function and identify those instances where fire suppression actions could perpetuate or be damaging to long-term ecosystem function or native fish.
FM-2	Locate incident bases, camps, helibases, staging areas, helispots and other centers for incident activities outside of RCAs. If the only suitable location for such activities is within the RCA, an exemption may be granted following a review and recommendation by a resource advisor. The advisor will prescribe the location, use conditions, and rehabilitation requirements, with avoidance of adverse effects to native fish as a primary goal. Use an interdisciplinary team, including a fishery biologist, during pre-suppression planning to predetermine incident base and helibase locations.
FM-3	Avoid delivery of chemical retardant, foam, or additives to surface waters. An exception may be warranted where overriding immediate safety imperatives exist. An exception may be warranted when the action agency, with concurrence from a resource advisor and a fisheries biologist, determines an escape fire would cause more long-term damage to fish habitats than chemical delivery to surface waters.
FM-4	Design prescribed burn projects and prescriptions to contribute to the attainment of the Riparian Management Objectives.
<b>Lands Management</b>	
LH-1	Require instream flows and habitat conditions for hydroelectric and other surface water development proposals that maintain or restore riparian resources, favorable channel conditions, and fish passage, reproduction and growth. Coordinate this process with the appropriate State agencies. During re-licensing of hydroelectric

	projects, provide written and timely license conditions to the Federal Energy Regulatory Commission (FERC) that require fish passage and flows and habitat conditions that maintain/restore riparian resources and channel integrity. Coordinate re-licensing projects with the appropriate State agencies.
LH-2	Locate new hydroelectric ancillary facilities outside RCAs. For existing ancillary facilities inside the RCA that are essential to proper management, provide recommendations to FERC to assure that the facilities would not prevent attainment of the Riparian Management Objectives and that adverse effects on native fish are avoided. Where these objectives cannot be met, provide recommendations to FERC that such ancillary facilities should be relocated. Locate, operate and maintain hydroelectric facilities that must be located in RCAs to avoid effects that would delay or prevent attainment of the Riparian Management Objectives and avoid adverse effects on native fish.
LH-3	Issue leases, permits, rights-of-way, and easements to avoid effects that would delay or prevent attainment of the Riparian Management Objectives and native fish. Where the authority to do so was retained, adjust existing leases, permits, right-of-way, and easements to eliminate effects that would delay or prevent attainment of the Riparian Management Objectives or adversely affect native aquatic species and/or water quality. Priority for modifying existing leases, permits, right-of-way and easements would be based on the current and potential adverse effects on native fish, and the ecological value of the riparian resources affected.
LH-4	Use land acquisition, exchange and conservation easements to meet Riparian Management Objectives and facilitate restoration of fish stocks and other species at risk of extinction.
<b>General Riparian Area Management</b>	
RA-1	Identify and coordinate with Federal, Tribal, State and local governments to secure instream flows needed to maintain riparian resources, channel conditions and aquatic habitat.
RA-2	Trees may be felled in RCAs when they pose a safety risk. Keep felled trees on site when needed to meet woody debris objectives.
RA-3	Apply herbicides, pesticides, and other toxicants, and other chemicals in a manner that does not delay or prevent attainment of Riparian Management Objectives within the expected, near natural period of restoration as determined by an aquatic, soils, and/or riparian specialist, and avoids adverse effects on native fish.
RA-4	Prohibit storage of fuels and other toxicants and refueling within RCAs unless there are no other practicable alternatives. Refueling sites and storage areas within an RCA must be approved and have an approved spill containment plan.
RA-5	Locate water drafting sites to avoid adverse effects to native fish and instream flows, and in a manner that does not delay or prevent attainment of Riparian Management Objectives within the expected, near natural period of restoration as determined by an aquatic, soils, and/or riparian specialist.
<b>Watershed and Habitat Restoration</b>	
WR-1	Design and implement watershed restoration projects in a manner that promotes the long-term ecological integrity of ecosystems, conserves the genetic integrity of native species, and contributes to attainment of Riparian Management Objectives.
WR-2	Cooperate with Federal, State, local and Tribal agencies and private landowners to develop watershed-based Coordinated Resource

	Management Plans (CRMPs) or other cooperative agreements to meet Riparian Management Objectives.
<b>Fisheries and Wildlife Restoration</b>	
FW-1	Design and implement fish and wildlife habitat restoration and enhancement actions in a manner that contributes to attainment of Riparian Management Objectives.
FW-2	Design, construct, and operate fish and wildlife interpretive and other user-enhancement facilities in a manner that does not delay or prevent attainment of the Riparian Management Objectives or adversely affect native fish. For existing fish and wildlife interpretive and other user-enhancement facilities inside RCAs, assure the Riparian Management Objectives are met and adverse effects on native fish are avoided. Where Riparian Management Objectives cannot be met or adverse effects on native fish avoided, relocate or close such facilities.
FW-3	Cooperate with Federal, and State wildlife management agencies to identify and eliminate wild ungulate impacts that prevent attainment of the Riparian Management Objectives or adversely affect native fish.
FW-4	Cooperate with Federal, and State fish management agencies to identify and eliminate adverse effects on native anadromous fish associated with habitat manipulation, fish stocking, fish harvest, and poaching.
<b>Conservation and Restoration Watersheds</b>	See Appendix D
<b>Watershed Analysis</b>	When feasible the BLM will coordinate with the FS with their watershed analysis schedule but BLM will not be a lead on watershed analysis due to our scattered land patterns. For small tracts of federal land associated with high value salmonid habitats, the BLM will use focused analysis at the reach, watershed, or subbasin scales. <sup>1</sup>  Roads analysis is part of the plan revision and will continue to be a part of larger watershed assessments.
<b>Road Inventories</b>	Current road inventories are being used as part of the base for plan revision.
<b>Watershed Restoration</b>	The Cd'A RMP will include conservation and restoration strategies/themes for watersheds. See Appendix D.
Monitoring	Cd'A BLM monitoring will address effectiveness of implementing standards and guidelines.

<sup>1</sup> As described in the FS/BLM memorandum dated July 29, 2004: Clarification of NMFS and USFWS 1998 Biological Opinion Requirements for completing Watershed Analysis (PACFISH, INFISH) and Subbasin Assessments (PACFISH only)

## References

- U.S. Environmental Protection Agency. 2003. EPA Region 10 Guidance for Pacific Northwest State and Tribal Temperature Water Quality Standards. EPA 910-B-03-002. Region 10 Office of Water, Seattle, WA.
- U.S. Fish and Wildlife Service. 1998. A Framework to Assist in Making Endangered Species Act Determinations of Effect for Individual and Grouped Actions at the Bull Trout Subpopulation Watershed Scale.

## Appendix B: Mineral Leasing Surface Use Stipulations

Apply only to mineral leasing.

### Definitions:

**No Surface Occupancy (NSO)** = Closed to placement of surface facilities or any surface disturbing activity

**Controlled Surface Use (CSU)** = Activity is only subject to restraints specified in the stipulation description

**Timing Limitation (TL)** = Activity is subject to restraints during the time period specified in the stipulation description (i.e. seasonal).

**Exception** = One-time exemption

**Modification** = Change to the language or provisions

**Waiver** = Permanent exemption

Stip	Protected Resource	Acres	Description
NSO-1	ACEC WSR (Wild)	458	<p><i>Stipulation:</i> Surface occupancy is prohibited within all ACECs to protect natural processes and historic, cultural, scenic, fisheries, and wildlife resources; or to protect the public from natural hazards; and within river corridors suitable for wild designation under the WSR Act to protect special values.</p> <p><i>Exception:</i> The authorized officer may grant an exception if an environmental analysis of a proposed action reveals that these values would not be impacted, or that impacts could be adequately mitigated.</p> <p><i>Modification:</i> The boundaries of the stipulated area may be modified if the ACEC or suitable river corridor boundaries are modified.</p> <p><i>Waiver:</i> The stipulation may be waived if the ACEC designation is lifted.</p>

Stip	Protected Resource	Acres	Description
NSO-2	Fisheries, Special Status Fish, Aquatic Species, Riparian and Wetland Vegetation	9,468	<p><i>Stipulation:</i> Surface occupancy is prohibited within:</p> <ul style="list-style-type: none"> <li>• 91 meters (300 feet) of fish-bearing streams</li> <li>• 46 meters (150 feet) of permanently flowing non-fish bearing streams,</li> <li>• 46 meters (150 feet) of ponds, lakes, reservoirs, and wetlands greater than 1 acre</li> </ul> <p><i>Exception:</i> The authorized officer may grant an exception if an environmental assessment reveals that a proposed action may affect but is not likely to adversely affect a special status species, or concurrence is obtained from the USFWS (through applicable provisions of the Endangered Species Act), to allow an adverse effect to a listed species.</p> <p><i>Modification:</i> Buffer distances may change based on monitoring and scientific research.</p> <p><i>Waiver:</i> None.</p>
NSO-3	Cultural Resources	9,498	<p><i>Stipulation:</i> Surface occupancy is prohibited within areas of cultural or spiritual value to Native American Tribes.</p> <p><i>Exception:</i> The authorized officer may grant an exception if environmental analysis and Tribal consultation on a proposed action reveals that these values would not be impacted, or that impacts could be adequately mitigated.</p> <p><i>Modification:</i> Through Tribal consultation, the boundaries of these areas may be changed.</p> <p><i>Waiver:</i> This stipulation may be waived with written approval from the concerned Native American Tribal Councils.</p>



Stip	Protected Resource	Acres	Description
NSO-4	Raptor Nests	1,567	<p><i>Stipulation:</i> Surface occupancy is prohibited within 1/2 mile of identified nests.</p> <p><i>Exception:</i> The authorized officer may grant an exception if concurrence is obtained from the USFWS (through applicable provisions of the Endangered Species Act, Eagle Protection Act, or Migratory Bird Treaty Act), to interrupt active nesting attempts and/or cause short or long term adverse modification of suitable nest site characteristics. An exception may also be granted by the authorized officer if environmental analysis of a proposed action reveals that it would not impair the function or utility of the nest site for current or subsequent nest activities or occupancy.</p> <p><i>Modification:</i> The area of application of the NSO may be modified pending determination that a portion of the NSO area is not essential to nest site functions or utility; or that the nature or conduct of the activity, as proposed or conditioned, would not impair the function or utility of the nest site for current or subsequent nest activities or occupancy. The stipulation may also be modified if the proponent, BLM, and where necessary, other affected interests, negotiate compensation that satisfactorily offsets anticipated impacts to raptor breeding activities and/or habitats. Modifications could also occur if sufficient information is provided that supports the contention that the action would not contribute to the suppression of breeding population densities or the population's production or recruitment regime from a Geographic Reference Area perspective. If a species status is downgraded, or delisted, the NSO buffer area may be modified to an appropriate level.</p> <p><i>Waiver:</i> A waiver may be granted if the species becomes extinct or if site conditions change such that there is no reasonable likelihood of occupation for a subsequent minimum period of 10 years.</p>
NSO-5	Special Status Plant Species and rare plant communities.	17,967	<p><i>Stipulation:</i> No surface occupancy will be allowed on known habitat of special status plant species and rare plant communities.</p> <p><i>Exception:</i> The authorized officer may grant an exception if an environmental assessment reveals that a proposed action may affect but is not likely to adversely affect a special status species, or concurrence is obtained from the USFWS (through applicable provisions of the Endangered Species Act), to allow an adverse effect to a listed species.</p> <p><i>Modification:</i> The area of application may be modified based on inventory and scientific research.</p> <p><i>Waiver:</i> None.</p>

Stip	Protected Resource	Acres	Description
NSO-6	Public – from Hazardous Materials	786	<p>Stipulation: No surface occupancy will be allowed in areas where hazardous materials are known to exist.</p> <p>Exception: The authorized officer may grant an exception if environmental analysis of a proposed action reveals that it would not further expose the public or the environment to hazardous materials.</p> <p>Modification: The area of application for this stipulation may change based on discovery or removal of hazardous materials.</p> <p>Waiver: This stipulation will be waived if all hazardous materials are removed from the area.</p>
NSO-7	Developed Recreation Sites, Administrative Sites	2,025	<p>Stipulation: No surface occupancy will be allowed within the vicinity of developed recreation sites or sites used for agency administrative purposes.</p> <p>Exception: The authorized officer may grant an exception if environmental analysis of a proposed action reveals that it would not adversely impact the use of the site.</p> <p>Modification: The area of application for this stipulation may change based on future site development.</p> <p>Waiver: This stipulation will be waived if the site is no longer used for recreational or administrative purposes.</p>
CSU-1	VRM Class II	23,389	<p>Stipulation: All surface-disturbing activities, semi-permanent and permanent facilities in VRM class II areas may require special design including location, painting, and camouflage to blend with the natural surroundings and meet the visual quality objectives of the area.</p> <p>Exception: None.</p> <p>Modification: None.</p> <p>Waiver: This stipulation may be waived if the authorized officer determines that there is no longer VRM Class II within the area of application.</p>

Stip	Protected Resource	Acres	Description
CSU-2	Special Status Terrestrial Wildlife	40,239	<p>Stipulation: No surface-disturbing activities, semi-permanent and permanent facilities will be authorized which may impact special status terrestrial wildlife.</p> <p>Exception: The authorized officer may grant an exception if an environmental assessment reveals that a proposed action may affect but is not likely to adversely affect a special status species, or concurrence is obtained from the USFWS (through applicable provisions of the Endangered Species Act), to allow an adverse effect to a listed species.</p> <p>Modification: The area of application for this stipulation may change based on listing of new species by USFWS, or when the status of a species changes.</p> <p>Waiver: This stipulation will be waived if the species of concern becomes extinct or is no longer identified as a special status species.</p>
CSU-3	Special Recreation Management Areas, WSR (Scenic & Recreation)	61,999	<p>Stipulation: No surface-disturbing activities semi-permanent and permanent facilities will be authorized which may adversely impact the use of these areas for recreation purposes.</p> <p>Exception: The authorized officer may grant an exception if environmental analysis indicates that a proposed action would not adversely impact recreational use.</p> <p>Modification: None.</p> <p>Waiver: None.</p>
TL-1	Deer and Elk Winter Range	28,749	<p>Stipulation: No construction or development activities will be allowed within deer or elk winter range between December 15 and March 31.</p> <p>Exception: The authorized officer may grant an exception if environmental analysis indicates that a proposed action would not adversely impact use of this habitat.</p> <p>Modification: Area of application for this stipulation may change based on monitoring and scientific research.</p> <p>Waiver: None</p>

Stip	Protected Resource	Acres	Description
TL-2	Bald Eagle Winter Feeding Area	285	<p>Stipulation: No ground disturbing activity is allowed within winter feeding areas November 15 to February 15.</p> <p><i>Exception:</i> An exception may be granted by the authorized officer if concurrence is obtained from the USFWS (through applicable provisions of the Endangered Species Act, Eagle Protection Act, or Migratory Bird Treaty Act), to interrupt feeding activities and/or cause short or long term adverse modification of suitable roost site characteristics. The Area Manager may also grant an exception if an environmental analysis indicates that the nature or conduct of the action, as proposed or conditioned, would not impair the function or utility of the site for current or subsequent feeding activities.</p> <p><i>Modification:</i> The stipulation may be modified if an environmental analysis indicates that a portion of the area is nonessential to winter feeding, or that the proposed action could be conditioned to not impair the function or utility of the site for current or subsequent feeding activities. The stipulation may also be modified commensurate with changes in species status.</p> <p><i>Waiver:</i> The stipulation may be waived if the species becomes extinct or if the site has failed to support feeding activities over a minimum three year period. A waiver may also apply if the area has changed such that there is no reasonable likelihood of use for a subsequent minimum period of 10 years.</p>

## **APPENDIX C: BEST MANAGEMENT PRACTICES (BMPs)**

In addition to the guidelines in Appendix A (CNFISH), these Best Management Practices (BMPs) expand and supplement the basic guidelines and minimum requirements of the BLM manual; the Idaho Department of Lands (Forest Practices Regulations); Idaho Department of Water Resources (IDWR) Stream Channel Alteration Regulations; and the Corps of Engineers 404 Regulations. Also included are the EPA Source Water Guidelines and BLM's Wind Energy BMPs.

### **SECTION A-1: GENERAL BEST MANAGEMENT PRACTICES**

#### **1. Road Planning, Design, and Location**

- Plan road standards and specifications that maintain forest productivity, water quality, and fish and wildlife habitat.
- Road specifications and plans should be consistent with good safety practices. Plan each road to the minimum standards for the intended use. Adapt the plans to the soil materials and terrain, to minimize disturbance and damages to forest productivity, water quality, and wildlife habitat.
- Plan transportation networks to minimize road construction within riparian conservation areas. Leave or re-establish areas of vegetation between roads and streams.
- Plan roads no wider than necessary for safety and anticipated use. Minimize and balance cuts and fills, especially near streams. Fit the road to the natural terrain as closely as possible.
- Dispose of excavated waste material on geologically stable sites.
- While cut-and-fill road construction is common for gentle terrain, full-bench roads should be designed on slopes over 60 percent. End-haul excess material to a geologically stable site for disposal.
- Plan natural road cross-drainage by insloping or outsloping and by grade changes. Plan for effective, well-placed dips or water bars.
- Design relief culverts or roadside ditches where natural drainage will not protect the road surface, excavation, or embankment. Plan relief culvert locations to prevent fill erosion or direct discharge of sediment into streams.
- Plan minimum number of stream crossings. Make sure they comply with Stream Channel Alteration Law, Title 42; Chapter 38, Idaho Code. Be sure all Class I stream culvert installations allow fish passage.
- Consider reusing existing roads if new construction would result in more long-term impact to fish and wildlife.

#### **Road Construction**

- Construct roads in a manner that prevents debris, overburden, and excess materials from entering streams. Deposit excess materials outside of stream protection zones.
- Construct roads to comply with Idaho Forest Practices Act (FPA) plan and design guidelines.
- Provide for quarry drainage, to prevent sediment from entering streams.

- Clear drainage ways of all debris, generated during construction or maintenance that may interfere with drainage or impact water quality.
- When constructing road fills near streams, compact the material to settle it, reduce erosion, and reduce water entry into fill. Minimize snow, ice, frozen soil, and woody debris buried in embankments.
- Construct road stream crossings or roads constricting upon a stream channel in compliance with the Stream Channel Alteration Law, Title 42, Chapter 38, Idaho Code.
- Stabilize slopes: Where exposed material (excavation, embankment, waste piles, etc.) is erodible and may enter streams, stabilize it before fall or spring runoff by seeding, compacting, riprapping benching, mulching, or other suitable means.
- Construct cross drains and relief culverts to prevent erosion. Use rip rap, woody debris, down spouts, or similar devices to prevent erosion of fills. Install drainage structures on uncompleted roads before fall or spring runoff.
- Install relief culverts with a minimum drain grade of 2 percent.
- Design roads to balance cuts and fills or use full bench construction where stable fill construction is not possible.
- Minimize sediment production from borrow pits and gravel sources through proper location, development and reclamation.
- Place debris, overburden, and other waste materials associated with construction and maintenance activities in a location to avoid entry into streams. Include these waste areas in soil stabilization planning for the road.

### Road Drainage

- Provide adequate drainage from the surface of all permanent and temporary roads by using outsloped or crowned roads, drain dips, or insloped roads with ditches and crossdrains.
- Vary road grades to reduce concentrated flow in road drainage, ditches, culverts, and on fill slopes and road surfaces.
- Space road drainage features so peak drainage flow on the road surface or in ditches will not exceed the capacity of the individual drainage facilities.
- Outsloped Roads: Outsloped roads provide means of dispersing water in a low-energy flow from the road surface. Outsloped roads are appropriate when fill slopes are stable, drainage will not flow directly into stream channels, and transportation safety considerations can be met.
- Insloped Roads: For insloped roads, plan ditch gradients steep enough, generally greater than 2 percent, but less than 8 percent to prevent sediment deposition and ditch erosion. The higher gradients may be suitable for more stable soils; use the lower gradients for less stable soils.
- Drain Dips: Properly constructed drain dips can be an economical method of channeling surface flow off the road. Construct drain dips deep enough into the subgrade so that traffic will not obliterate them.

- Prevent downslope movement of sediment by using sediment catch basins, drop inlets, changes in road grade, or recessed cut slopes.
- Where possible, install ditch relief culverts at the gradient of the original ground slope; otherwise armor outlets with rock or anchor downspouts to carry water safely across the fill slope.
- Skew ditch relief culverts 20 to 30 degrees toward the inflow from the ditch to improve inlet efficiency. Protect the upstream end of cross-drain culverts from plugging.
- Provide energy dissipators (rock piles, logs, etc.) where necessary at the downstream end of ditch relief culverts to reduce the erosion energy of the emerging water.
- Cross drains, culverts, water bars, dips, and other drainage structures should not be discharged onto erodible soils or fill slopes without outfall protection.
- Design roads for minimal disruption of drainage patterns
- Route road drainage through vegetation, slash windrows, or other sediment settling structures. Install road drainage features above stream crossings to route discharge into filtration zones before entering a stream.

#### **Road Maintenance**

- Maintain erosion control features through periodic inspection and maintenance, including cleaning dips and cross-drains, repairing ditches, marking culvert inlets to aid in location, and clearing debris from culverts.
- Avoid using roads during wet periods if such use would damage the road drainage features.
- Grade road surfaces only as often as necessary to maintain a stable running surface and to retain the original surface drainage.
- Avoid cutting the toe of cut slopes when grading roads or pulling ditches.
- Place all excess material removed by maintenance operations in safe disposal sites and stabilize these sites to prevent erosion. Avoid locations where erosion will carry materials into a stream.

#### **Timber Harvesting Activities**

- Stabilize or reclaim landings and temporary roads on completion of use.
- For each landing, skid trail, or fire trail, provide and maintain a drainage system to control the dispersal of water and to prevent sediment from entering streams.
- Install necessary cross-ditches on tractor skid trails. Appropriate spacing between cross-ditches is determined by the soil type and slope of the skid trails. Timely implementation is important.
- When natural re-vegetation is inadequate to prevent accelerated erosion before the next growing season, apply seed or construct cross-ditches on skid trails, landings, and fire trails. A light ground cover of slash or mulch will retard erosion.

### Recommended Cross-ditch Spacing Distance for Roads and Skid Trails

Grade of Road or Trail	Unstable Soils (High Erosion Hazard)	Stable Soils (Low Erosion Hazard)
2	135'	170'
5	100'	140'
10	80'	115'
15	60'	90'
20	45'	60'
25+	30'	40'

#### *Slash Treatment and Site Preparation*

- Use excavators equipped with rakes or crawler-tractors/rubber-tire skidders equipped with brush blades when piling slash. Avoid use of dozers with angle blades.
- Scarify the soil only to the extent necessary to meet the reforestation objective of the site. Site preparation equipment producing irregular surfaces is preferred. Care should be taken to preserve the surface soil horizon.
- Large woody debris may be left to slow surface runoff, return soil nutrients, provide shade for seedlings, and provide habitat for wildlife.
- Carry out brush piling and scarification when soils are frozen or dry enough to minimize compaction and displacement.
- Minimize or eliminate elongated exposure of soils up and down the slope during mechanical scarification. On steep slopes, carry out scarification in a manner that minimizes erosion.

#### **Vegetation Treatments**

If herbicides are proposed for use, buffer strips will be provided adjacent to dwellings, domestic water sources, agricultural land, streams, lakes, and ponds. A minimum 100-foot wide buffer strip will be a provided for aerial application, 25 feet for vehicle application and 10 feet for hand application. Any deviations must be in accordance with the label for the herbicide. Herbicides will be wiped on individual plants within 10 feet of water where application is critical.

### **SECTION A-2: EPA REGION 10 SOURCE WATER PROTECTION BEST MANAGEMENT PRACTICES FOR USFS AND BLM**

The following pages include a listing of BMPs. Some are required by USDA Forest Service and Bureau of Land Management (BLM) management plans or by State administrative code. Others are recommendations or are informed by a legal decision. This list represents an initial effort to pull together BMPs from a host of sources to assist in protection of drinking water sources. The first two sections define “Conservative Riparian Reserve Widths” and “Riparian Habitat Conservation Areas.” The third, “Watershed Management Planning,” pertains generally to all actions undertaken by the USFS or BLM. The remaining sections pertain to more specific types of activities, facilities, or structures on USFS or BLM lands, such as roads, recreational facilities, and fire suppression activities.



### ***Context and Background***

The USDA Forest Service and BLM have a long history of using BMPs related to timber harvest, grazing, mining, and other land management activities to reduce adverse impacts to water quality. Forest and range land management activities generate diffuse sources of pollution known as nonpoint sources. Assessments of water quality completed at the national level and at the watershed scale have consistently demonstrated that nonpoint sources of pollution (agriculture, mining, construction, forestry, etc.) are the primary cause of water quality impairment. Point sources of pollution, like wastewater treatment facilities and factories, are required to treat effluent to meet water quality standards consistent with State or Federally issued discharge permits. Nonpoint sources require a different approach. BMPs are the primary management mechanism for preventing or reducing impacts to water quality from nonpoint sources. Many States have designated the Forest Service and BLM as the management agencies for implementing BMPs on lands they manage to ensure that water quality standards are met.

Forest Service and BLM lands, usually located in the upper portion of a watershed, capture a significant portion of the precipitation that ends up as drinking water for millions of people in the Pacific Northwest. The Safe Drinking Water Act required states to delineate source water areas for every public drinking water system and assess risks of potential contamination within those areas. Infrastructure and activities of the Forest Service and BLM are included among many identified potential sources of contamination to drinking water supplies. Careful planning and implementation can mitigate the risks of contamination from Forest Service and BLM operations and activities.

The effectiveness of BMPs applied on federal lands affects the quality of water entering drinking water wells and intakes on both federal lands and downstream non-federal lands. Providing the highest quality water possible to the drinking water intakes should be an overriding goal of BMPs. BMPs cover a full spectrum of active and passive measures and can be applied during assessment, planning, project implementation, and monitoring activities. The following BMPs are an initial “draft” starting point for helping to ensure that public health is protected and that water treatment and facility operation and management costs are minimized. This list is intended to serve as a “menu” from which appropriate BMPs can be selected for a specific plan or project. It’s not a comprehensive list. Additional BMPs may be appropriate, depending on the project.

These BMPs come from a variety of sources, some of which pertain to specific geographic regions. As “best” management practices, they can be applied in other geographic regions as well. Some of them are clearly designed to protect water quality for fish and other aquatic life. They are appropriately included in this list because good water quality also benefits drinking water supplies.

## **Best Management Practices**

### **Watershed Management Planning**

- Employ watershed restoration projects where appropriate to repair degraded watershed conditions and improve water quality and soil stability.
- Avoid, where possible, the long- and short-term adverse impacts to water quality associated with the occupancy and modification of floodplains.
- Avoid destruction of wetlands.
- Prevent contamination from accidental spills.
- An Oil and Hazardous Substance Spill Contingency Plan is a predetermined organization and action plan to be implemented in the event of a hazardous substance spill.
- A Spill Prevention Control and Countermeasures (SPCC) Plan is required if the total amount of oil products on site in above-ground storage exceeds 1320 gallons, or if a single container exceeds a capacity of 660 gallons.
- Ensure activities conducted under Special Use Permits are protective of source waters.
- Conduct water quality monitoring to determine the effects of land management activities on the beneficial uses of water, and to ensure the health and safety of water users.
- Minimize the amount of erosion and sedimentation at developed sites.
- Source: General Water Quality Best Management Practices, Pacific Northwest Region, November 1988
- Take active measures, if necessary, to avoid any activity within 300 yards of a spring used as a source of drinking water.

### **Hardrock Mining**

*Concern for:* Surface Water, Ground Water

*Contaminants:* Metals (e.g., lead, selenium, cadmium, copper, zinc, arsenic, mercury), acidity (low pH), cyanide, sulfate, turbidity

Both the US Forest Service and Bureau of Land Management have extensive internal guidance on mine permitting and reclamation requirements.

Two documents available on the EPA Region 10 website provide detailed information that should be reviewed when addressing mining issues:

*EPA and Hardrock Mining: A Source Book for Industry in the Northwest and Alaska*,  
U.S. EPA Region 10, January 2003  
<http://yosemite.epa.gov/r10/water.nsf/59f3b8c4fc8c923988256b580060f5d9/e4ba15715e97ef2188256d2c00783a8e!OpenDocument>

*Inactive Mine Site Characterization and Cleanup Handbook*, EPA 910-8-00-001, U.S. EPA, August 2000  
<http://yosemite.epa.gov/R10/CLEANUP.NSF/9f3c21896330b4898825687b007a0f33/f4724f10ccdc2f4d8825699a007861dd?OpenDocument>

BLM Districts in Idaho should consult:

*Best Management Practices for Mining in Idaho*, prepared by The Idaho Department of Lands in conjunction with other State and Federal Agencies through the Idaho Mining Advisory Committee, 1992.

### **Grazing**

*Concern for:* Surface Water

*Contaminants:* Pathogens (E. Coli, cryptosporidium, viruses, giardia lamblia), sediment, turbidity, phosphate, nitrates, coliform, sulfate.

(Sources: Drinking Water from Forests and Grasslands: A Synthesis of Scientific Literature, United States Department of Agriculture Forest Service, General Technical Report SRS-39, September 2000, pp. 153-156. Potential Sources of Drinking Water Contamination Index, EPA. [www.epa.gov/safewater/swp/sources1.html](http://www.epa.gov/safewater/swp/sources1.html))

*Best Management Practices:*

- Manage the timing and intensity of grazing to:
  - enhance, or at a minimum, prevent the degradation of, riparian vegetation,
  - enhance infiltration of surface water into the ground, and
  - ensure stream banks are protected.
- Within source water protection areas, sheep grazing is preferable over cattle because sheep tend to graze in upland areas while cattle tend to spend time in the streams.
- The exclusion of cattle from areas where cryptosporidium may be a concern (such as Source Water Areas) should be considered. If this is not feasible, livestock younger than 4 months should be kept out of the watershed, because calves have not yet developed resistance, and shed greater numbers of oocysts than older animals.

(Source: Drinking Water from Forests and Grasslands: A Synthesis of Scientific Literature, United States Department of Agriculture Forest Service, General Technical Report SRS-39, September 2000, pp. 153-156)

- Locate new livestock handling and/or management facilities outside riparian reserves. For existing livestock handling facilities inside the riparian reserve, ensure that Aquatic

Conservation Strategy objectives are met. Where these objectives cannot be met, require relocation or removal of such facilities.

(Source: Aquatic Conservation Strategy, Attachment A to the Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within Range of the Northern Spotted Owl, pp. C-33)

- Manage livestock numbers and season of use to maintain and protect soil and water resources.
- Construct fences or other barriers to keep livestock out of sensitive areas where loss of vegetative cover, soil compaction, or riparian impairment could adversely impact water quality.

(Source: General Water Quality Best Management Practices, Pacific Northwest Region, U.S. Forest Service, November 1988)

### **Landfills**

*Concern for:* Ground Water, Surface Water

*Contaminants:* Volatile organic compounds (VOC's), heavy metals, pesticides, nitrates and nitrites, semi-volatile organic compounds.

(Source: Potential Sources of Drinking Water Contamination Index, EPA. [www.epa.gov/safewater/swp/sources1.html](http://www.epa.gov/safewater/swp/sources1.html))

#### *Best Management Practices*

- Site new landfills outside of source water protection areas if possible. If not possible, site them where they are unlikely to pose a threat to ground water or surface waters.
- For historic landfills located in source water protection areas, examine existing data to determine whether they may pose a threat to the drinking water source. If a landfill may pose a threat, collect additional data to determine whether it does. If it does, plan and implement appropriate mitigative action.

(Source: EPA Region 10 recommendations)

### **Recreation Sites**

*Concern for:* Ground Water, Surface Water *Contaminants:* Turbidity, sedimentation, fecal material, household cleansers and detergents, garbage and other floatables, cooking grease and oil, antifreeze, motor oil, illegal dumping of hazardous materials

#### *Best Management Practices*

- Wastewater from sanitation facilities can contaminate surface and ground water with bacteria, nutrients, and chemicals. Sanitation facilities (ranging from pit toilets to treatment plants) will be planned, located, designed, constructed, operated, inspected, and maintained to minimize possibilities of water contamination. All activities related to location, design, inspection, operation, and maintenance will be performed by trained, qualified personnel.
- Refuse disposal will be managed to protect surface and subsurface soil and water resources from contamination by nutrients, bacteria, and chemicals.

- Prohibit discharges and disposal of human and animal waste, petroleum products, and other hazardous substances in or near streams in recreation areas. Educate the public to conduct their activities in ways that will not degrade water quality.
- Avoid degradation of water quality by locating pack and riding stock facilities at safe locations away from springs, streams, lakes, wet meadows, and other surface waters.

(Source: General Water Quality Best Management Practices, Pacific Northwest Region, U.S. Forest Service, November 1988)

- RV sewage waste should not be disposed of in septic system drainfields given the potential for chemicals in the sewage waste to kill the microorganisms that drainfields need to function.  
(Source: EPA Region 10 Recommendation)

### **Timber Management**

*Concern for:* Surface Water *Contaminants:* Turbidity, decreased dissolved oxygen, pathogens, nitrogen

#### *Best Management Practices*

- Plan, supervise, and implement forest projects that will minimize soil compaction and soil disturbance.
- Maintain as much ground cover as possible to reduce surface runoff and erosion.
- Minimize site disturbance.
- Re-establish vegetation as soon as practicable.
- Keep pesticides and fertilizers out of surface waters

(Source: Drinking Water from Forests and Grasslands: A Synthesis of Scientific Literature, United States Department of Agriculture Forest Service, General Technical Report SRS-39, September 2000, pp. 108-113)

- Prevent downstream water quality degradation by the timely identification of areas
- Use mitigative measures to reduce the impacts of erosion, and subsequent sedimentation, on log landings.
- Ensure that constructed erosion control structures are stabilized and working.
- Prevent pollutants such as fuels, lubricants, bitumens, raw sewage, wash water and other harmful materials from being discharged into or near rivers, streams, and impoundments or into natural or man-made channels leading thereto.

(Source: General Water Quality Best Management Practices, Pacific Northwest Region, U.S. Forest Service, November 1988.)

## Fire Management

*Concern for:* Surface Water *Contaminants:* Sediment and turbidity, nitrates, nitrites, sulfate, pH, TDS, chloride, iron, phosphate, taste/color/smell *USGS Emerging Contaminant:* fire retardant

### *Best Management Practices*

- Avoid spraying fire retardant in or near drinking water streams, if practicable.
- Utilize Burn Area Emergency Rehabilitation (BAER) in appropriate circumstances.
- During fire suppression efforts, avoid watershed damage in excess of that which would be caused by the fire itself. Avoid heavy equipment operation on fragile soils and steep slopes when possible. Project fires should use a Resource Advisor and watershed specialists to advise the Incident Commander on resource values during the suppression effort.
- Stabilize all areas that have had their erosion potential significantly increased, or their drainage pattern altered by wildfires or by suppression related activities. Treatments include, but are not limited to:
  - installing water bars and other drainage diversions in fire roads, firelines, and other cleared areas;
  - seeding, planting and fertilizing to provide vegetative cover;
  - spreading slash or mulch to protect bare soil;
  - repairing damaged road drainage facilities;
  - clearing stream channels of structures or debris that is deposited by suppression activities;
  - log erosion barriers (contour-felled and anchored trees)
  - channel stabilization structures
  - trash racks above road drainage structures
  - debris retention structures
- Provide for water quality protection in formulating prescribed fire prescriptions. Prescription elements include fire weather, slope, aspect, soil moisture, and fuel moisture. These elements influence the fire intensity and thus have a direct effect of whether or not a desired ground cover remains after burning, and whether or not a water repellent layer is formed. The amount of remaining ground cover and extensiveness of water repellent soil can significantly affect erosion rates.
- Maintain soil productivity, minimize erosion, and prevent ash, sediment, nutrients, and debris from entering water bodies during prescribed fires. Some of the techniques used to prevent water quality degradation include:
  - maintaining the integrity of the Stream Management Unit or streamcourse
  - planning prescribed fires with intensities that will not result in soils becoming hydrophobic

(Source: General Water Quality Best Management Practices, Pacific Northwest Region, U.S. Forest Service, November 1988.)

## **Pesticides**

*Concern for:* Ground Water, Surface Water

*Contaminants:* Organic and inorganic chemicals

### *Best Management Practices*

- Only use U.S. EPA registered pesticides and comply with all label directions for use.
- Ensure proper transportation, handling and application according to the label.
- Do not apply during or right before significant weather events, such as heavy rainfall, which will cause runoff of pesticides.
- Store pesticides according to label directions so that spills and loss are prevented.
- Mix and load pesticides on impermeable surfaces where any accidental spills would not enter surface waters or potentially impact drinking water supplies.
- Contain and clean up spills immediately; report spills to appropriate regulatory agency.
- Dispose of containers properly; recycle if possible.

(Sources: Drinking Water Academy, Managing Large-Scale Application of Pesticides to Prevent Contamination of Drinking Water, EPA-916-F-01-030, July 2001, and WAC Chapter 222-38)

- Notify downstream water systems so the appropriate operational changes can be made prior to spraying to utilize appropriate filtration or switch to ground water sources.
- Consider alternatives to pesticide and herbicide use including biological controls, prescribed fire, mechanical treatments, and silvicultural management systems which minimize or eliminate the need for chemical use (un-even aged management, single and group tree selection, etc.).

(Source: EPA Region 10 recommendations)

## **Fertilizers**

*Concern for:* Ground Water, Surface Water *contaminants:* Nitrogen and phosphorous, and other nutrients

### *Best Management Practices*

- Apply fertilizers at appropriate agronomic rates so that no ground water pollution will occur below the root zone.
- Do not apply fertilizer during or right before significant weather events, such as heavy rainfall, which will cause runoff of pesticides
- Storage and loading areas should be located where accidental spills will not enter surface waters and should not be located near wellheads.
- Follow label directions for storage, mixing, and disposal
- Prevent fertilizers from entering streams with drinking water intakes.

- Contain and clean up all spills immediately; report to appropriate regulatory agency

(Source: Drinking Water from Forests and Grasslands: A Synthesis of Scientific Literature, United States Department of Agriculture Forest Service, General Technical Report SRS-39, September 2000, pp. 113-115, WAC Chapter 222-38)

### **Underground Injection Control (UIC) Class V (Shallow) Wells**

**\*\* UIC Class V wells are shallow subsurface fluid distribution systems that are designed to place fluids directly below the ground surface. Examples of Class V wells include septic system drainfields, storm water wells, drywells, industrial or commercial disposal wells, aquifer remediation wells, abandoned drinking water wells. Ditches and trenches may be classified as UIC wells. Hazardous waste injection through shallow wells is prohibited.**

*Concern for:* GW Contaminants: Various – may include storm water, solvents, hydrocarbons, motor vehicle fluids, nitrate, bacteria, viruses, septage, and others

#### *Best Management Practices*

- EPA and State Regulations apply to the registration, operation, maintenance, and closure of UIC wells. Information is available on the EPA UIC website: <http://www.epa.gov/safewater/uic/index.html>. Please contact the appropriate regulatory agency for information about the rules that apply to your well:

### **Septic systems**

*Concern for:* GW Contaminants: Nitrates, bacteria, viruses, septage

#### *Best Management Practices*

- Septic systems designed for more than 20 people per day, fall under State or EPA UIC Class V regulations. If septic systems are designed for fewer than 20 people per day, then other state or local regulations may apply.
- Siting: locate septic systems far enough from drinking water sources to avoid potential contamination (minimum setback distances are typically defined by state or local governments that have oversight of UIC or septic programs)
- Septic tanks and drainfields must be of adequate size to properly treat the volume of wastewater
- Design should be completed by a licensed engineer
- Proper operation and maintenance are imperative
- Pump septic tanks every 2 to 5 years
- Hazardous chemicals should be taken to a hazardous waste collection site rather than disposed into a septic system

(Source: Drinking Water Academy Bulletin, Managing Septic Systems to Prevent Contamination of Drinking Water, July 2001, EPA-816-F-01)

### **Abandoned Wells**

*Concern for:* Ground Water Contaminants: Various – they serve as conduits for any pollutants; typical contaminants are storm water, solvents, nitrates, bacteria, viruses, phosphates, hydrocarbons, pesticides, and



others. Source: Potential Sources of Drinking Water Contamination Index, EPA. [www.epa.gov/safewater/swp/sources1.html](http://www.epa.gov/safewater/swp/sources1.html)

*Best Management Practices*

- Survey property to locate wells.
- Properly remove or seal and abandon identified wells following state rules or procedures.

(Source: Drinking Water from Forests and Grasslands: A Synthesis of Scientific Literature, United States Department of Agriculture Forest Service, General Technical Report SRS-39, September 2000, pp. 68-69)

**Parking Lots**

*Concern for:* Ground Water, Surface Water

*Contaminants:* Oil, gasoline, automotive fluids.

(Source: Drinking Water Academy Bulletin, Managing Storm Water Runoff to Prevent Contamination of Drinking Water, EPA 816-F-01-020, July 2001)

Drywells are UIC Class V wells. If drywells are used to manage parking lot runoff, then state and EPA UIC Class V rules apply to proper registration, operation, maintenance, and closure of these wells.

*Best Management Practices*

- Design to manage runoff appropriately – grassy swales, vegetated filter strips are options.
- Design to allow infiltration – permeable pavement such as concrete grid pavement is a good option.
- Sweep up litter and debris, especially around storm drains or other direct connections to surface water.

(Sources: Drinking Water Academy Bulletin, Managing Storm Water Runoff to Prevent Contamination of Drinking Water, EPA 816-F-01-020, July 2001. After the Storm: A Citizen's Guide to Understanding Storm Water, EPA 833-B-03-002, January 2003)

**Aboveground Storage Tanks (ASTs)**

*Concern for:* Surface Water *Contaminants:* Petroleum hydrocarbons, heating oil, other chemicals

Refer to State and Local Rules and Regulations to determine whether the state in which the AST is located has an Aboveground Storage Tank regulatory program. If a regulatory program exists, follow appropriate rules and guidance.

A Spill Prevention Control and Countermeasures (SPCC) Plan is required if the total amount of oil products on site in aboveground storage exceeds 1320 gallons, or if a single container exceeds a capacity of 660 gallons.

*Best Management Practices*

- ASTs should have spill and overfill prevention and leak detection.

- Secondary containment should be designed to contain the entire volume of the materials that can be stored in the AST.
- Tanks should be protected from corrosion.
- ASTs should be protected from physical damage and vandalism through use of guard posts and fencing, as necessary.
- Tanks should be operated, maintained, and closed appropriately.

(Source: New Mexico Environment Department Above Ground Storage Tank Program)

### **Underground Storage Tanks**

*Concern for:* Ground Water, downgradient Surface Water

*Contaminants:* diesel, gasoline, heating oil, other chemicals

- EPA and State Regulations apply to the registration, operation, maintenance, and closure of USTs. Please contact the appropriate regulatory agency for information about the rules that apply to your tank:

## **3. SECTION A-3: BLM WIND ENERGY DEVELOPMENT PROGRAM POLICIES AND BEST MANAGEMENT PRACTICES (BMPs)**

The BLM's Wind Energy Development Program will establish a number of policies and BMPs, provided below, regarding the development of wind energy resources on BLM-administered public lands. The policies and BMPs will be applicable to all wind energy development projects on BLM-administered public lands. The policies address the administration of wind energy development activities, and the BMPs identify required mitigation measures that would need to be incorporated into project-specific Plans of Development (PODs) and right-of-way (ROW) authorization stipulations. Additional mitigation measures will be applied to individual projects, in the form of stipulations in the ROW authorization as appropriate, to address site-specific and species-specific issues.

These policies and BMPs were formulated through preparation of the Final Wind Energy PEIS (BLM 2005). The PEIS included detailed, comprehensive analysis of the potential impacts of wind energy development and relevant mitigation measures; reviews of existing, relevant mitigation guidance; and reviews of comments received during scoping and public review of the Draft PEIS.

### **Policies**

- The BLM will not issue ROW authorizations for wind energy development on lands on which wind energy development is incompatible with specific resource values. Lands that will be excluded from wind energy site monitoring and testing and development include designated areas that are part of the National Landscape Conservation System (NLCS) (e.g., Wilderness Areas, Wilderness Study Areas, National Monuments, NCAs,<sup>1</sup>

<sup>1</sup> Wind energy development is permitted in one NCA, the California Desert Conservation Area (CDCA), in accordance with the provisions of the *California Desert Conservation Area Plan 1980, as Amended* (BLM 1999).

Wild and Scenic Rivers, and National Historic and Scenic Trails) and Areas of Critical Environmental Concern (ACECs).<sup>2</sup> Additional areas of land may be excluded from wind energy development on the basis of findings of resource impacts that cannot be mitigated and/or conflict with existing and planned multiple-use activities or land use plans.

- To the extent possible, wind energy projects shall be developed in a manner that will not prevent other land uses, including minerals extraction, livestock grazing, recreational use, and other ROW uses.
- Entities seeking to develop a wind energy project on BLM-administered lands shall consult with appropriate federal, state, and local agencies regarding specific projects as early in the planning process as appropriate to ensure that all potential construction, operation, and decommissioning issues and concerns are identified and adequately addressed.
- The BLM will initiate government-to-government consultation with Indian Tribal governments whose interests might be directly and substantially affected by activities on BLM-administered lands as early in the planning process as appropriate to ensure that construction, operation, and decommissioning issues and concerns are identified and adequately addressed.
- Entities seeking to develop a wind energy project on BLM-administered lands, in conjunction with BLM Washington Office (WO) and Field Office (FO) staff, shall consult with the U.S. Department of Defense (DoD) regarding the location of wind power projects and turbine siting as early in the planning process as appropriate. This consultation shall occur concurrently at both the installation/field level and the Pentagon/BLM WO level. An interagency protocol agreement is being developed to establish a consultation process and to identify the scope of issues for consultation. Lands withdrawn for military purposes are under the administrative jurisdiction of the DoD or a military service and are not available for issuance of wind energy authorizations by the BLM.
- The BLM will consult with the U.S. Fish and Wildlife Service (USFWS) as required by Section 7 of the Endangered Species Act of 1973 (ESA). The specific consultation requirements will be determined on a project-by-project basis.
- The BLM will consult with the State Historic Preservation Office (SHPO) as required by Section 106 of the National Historic Preservation Act of 1966 (NHPA). The specific consultation requirements will be determined on a project-by-project basis. If programmatic Section 106 consultations have been conducted and are adequate to cover a proposed project, additional consultation may not be needed.

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<sup>2</sup> Although the MPDS developed for this PEIS (Section 2.2.1 and Appendix A) did not exclude all of these lands at the screening level, they will be excluded from wind energy development.

- Existing land use plans will be amended, as appropriate, to (1) adopt provisions of the BLM's Wind Energy Development Program, (2) identify land considered to be available for wind energy development, and (3) identify land that will not be available for wind energy development.
- The level of environmental analysis to be required under NEPA for individual wind power projects will be determined at the FO level. For many projects, it may be determined that a tiered environmental assessment (EA) is appropriate in lieu of an EIS. To the extent that the PEIS addresses anticipated issues and concerns associated with an individual project, including potential cumulative impacts, the BLM will tier off of the decisions embedded in the PEIS and limit the scope of additional project-specific NEPA analyses. The site-specific NEPA analyses will include analyses of project site configuration and micro-siting considerations, monitoring program requirements, and appropriate mitigation measures. In particular, the mitigation measures discussed in Chapter 5 of the PEIS may be consulted in determining site-specific requirements. Public involvement will be incorporated into all wind energy development projects to ensure that all concerns and issues are identified and adequately addressed. In general, the scope of the NEPA analyses will be limited to the proposed action on BLM-administered public lands; however, if access to proposed development on adjacent non-BLM-administered lands is entirely dependent on obtaining ROW access across BLM-administered public lands and there are no alternatives to that access, the NEPA analysis for the proposed ROW may need to assess the environmental effects from that proposed development. The BLM's analyses of ROW access projects may tier off of the PEIS to the extent that the proposed project falls within the scope of the PEIS analyses.
- Site-specific environmental analyses will tier from the PEIS and identify and assess any cumulative impacts that are beyond the scope of the cumulative impacts addressed in the PEIS.
- The Categorical Exclusion (CX) applicable to the issuance of short-term ROWs or land use authorizations may be applicable to some site monitoring and testing activities. The relevant CX, established for the BLM in the DOI Departmental Manual 516, Chapter 11, Sec. 11.5, E(19) (DOI 2004), encompasses "issuance of short-term (3 years or less) rights-of-way or land use authorizations for such uses as storage sites, apiary sites, and construction sites where the proposal includes rehabilitation to restore the land to its natural or original condition."
- The BLM will require financial bonds for all wind energy development projects on BLM-administered public lands to ensure compliance with the terms and conditions of the rights-of-way authorization and the requirements of applicable regulatory requirements, including reclamation costs. The amount of the required bond will be determined during the rights-of-way authorization process on the basis of site-specific and project-specific factors. The BLM may also require financial bonds for site monitoring and testing authorizations.

- Entities seeking to develop a wind energy project on BLM-administered public lands shall develop a project-specific Plan of Development (POD) that incorporates all BMPs and, as appropriate, the requirements of other existing and relevant BLM mitigation guidance, including the BLM's interim off-site mitigation guidance (BLM 2005a). Additional mitigation measures will be incorporated into the POD and into the ROW authorization as project stipulations, as needed, to address site-specific and species-specific issues. The POD will include a site plan showing the locations of turbines, roads, power lines, other infrastructure, and other areas of short- and long-term disturbance.
- The BLM will incorporate management goals and objectives specific to habitat conservation for species of concern (e.g., sage-grouse), as appropriate, into the POD for proposed wind energy projects.
- The BLM will consider the visual resource values of the public lands involved in proposed wind energy development projects, consistent with BLM Visual Resource Management (VRM) policies and guidance. The BLM will work with the ROW applicant to incorporate visual design considerations into the planning and design of the project to minimize potential visual impacts of the proposal and to meet the VRM objectives of the area.
- Operators of wind power facilities on BLM-administered public lands shall consult with the BLM and other appropriate federal, state, and local agencies regarding any planned upgrades or changes to the wind facility design or operation. Proposed changes of this nature may require additional environmental analysis and/or revision of the POD.
- The BLM's Wind Energy Development Program will incorporate adaptive management strategies to ensure that potential adverse impacts of wind energy development are avoided (if possible), minimized, or mitigated to acceptable levels. The programmatic policies and BMPs will be updated and revised as new data regarding the impacts of wind power projects become available. At the project-level, operators will be required to develop monitoring programs to evaluate the environmental conditions at the site through all phases of development, to establish metrics against which monitoring observations can be measured, to identify potential mitigation measures, and to establish protocols for incorporating monitoring observations and additional mitigation measures into standard operating procedures and project-specific stipulations.

### **Best Management Practices (BMPs)**

The BMPs will be adopted as required elements of project-specific PODs and/or as ROW authorization stipulations. They are categorized by development activity: site monitoring and testing, development of the POD, construction, operation, and decommissioning. The BMPs for development of the POD identify required elements of the POD needed to address potential impacts associated with subsequent phases of development.

### **Site Monitoring and Testing**

- The area disturbed by installation of meteorological towers (i.e., footprint) shall be kept to a minimum.
- Existing roads shall be used to the maximum extent feasible. If new roads are necessary, they shall be designed and constructed to the appropriate standard.
- Meteorological towers shall not be located in sensitive habitats or in areas where ecological resources known to be sensitive to human activities (e.g., prairie grouse) are present. Installation of towers shall be scheduled to avoid disruption of wildlife reproductive activities or other important behaviors.
- Meteorological towers installed for site monitoring and testing shall be inspected periodically for structural integrity.

### **Plan of Development Preparation**

#### *General*

- The BLM and operators shall contact appropriate agencies, property owners, and other stakeholders early in the planning process to identify potentially sensitive land uses and issues, rules that govern wind energy development locally, and land use concerns specific to the region.
- Available information describing the environmental and sociocultural conditions in the vicinity of the proposed project shall be collected and reviewed as needed to predict potential impacts of the project.
- The Federal Aviation Administration (FAA)-required notice of proposed construction shall be made as early as possible to identify any air safety measures that would be required.
- To plan for efficient use of the land, necessary infrastructure requirements shall be consolidated wherever possible, and current transmission and market access shall be evaluated carefully.
- The project shall be planned to utilize existing roads and utility corridors to the maximum extent feasible, and to minimize the number and length/size of new roads, lay-down areas, and borrow areas.
- A monitoring program shall be developed to ensure that environmental conditions are monitored during the construction, operation, and decommissioning phases. The monitoring program requirements, including adaptive management strategies, shall be

established at the project level to ensure that potential adverse impacts of wind energy development are mitigated. The monitoring program shall identify the monitoring requirements for each environmental resource present at the site, establish metrics against which monitoring observations can be measured, identify potential mitigation measures, and establish protocols for incorporating monitoring observations and additional mitigation measures into standard operating procedures and BMPs.

- “Good housekeeping” procedures shall be developed to ensure that during operation the site will be kept clean of debris, garbage, fugitive trash or waste, and graffiti; to prohibit scrap heaps and dumps; and to minimize storage yards.

### *Wildlife and Other Ecological Resources*

- Operators shall review existing information on species and habitats in the vicinity of the project area to identify potential concerns.
- Operators shall conduct surveys for federal and/or state-protected species and other species of concern (including special status plant and animal species) within the project area and design the project to avoid (if possible), minimize, or mitigate impacts to these resources.
- Operators shall identify important, sensitive, or unique habitats in the vicinity of the project and design the project to avoid (if possible), minimize, or mitigate impacts to these habitats (e.g., locate the turbines, roads, and ancillary facilities in the least environmentally sensitive areas; i.e., away from riparian habitats, streams, wetlands, drainages, or critical wildlife habitats).
- The BLM will prohibit the disturbance of any population of federal listed plant species.
- Operators shall evaluate avian and bat use of the project area and design the project to minimize or mitigate the potential for bird and bat strikes (e.g., development shall not occur in riparian habitats and wetlands). Scientifically rigorous avian and bat use surveys shall be conducted; the amount and extent of ecological baseline data required shall be determined on a project basis.
- Turbines shall be configured to avoid landscape features known to attract raptors, if site studies show that placing turbines there would pose a significant risk to raptors.
- Operators shall determine the presence of bat colonies and avoid placing turbines near known bat hibernation, breeding, and maternity/nursery colonies; in known migration corridors; or in known flight paths between colonies and feeding areas.
- Operators shall determine the presence of active raptor nests (i.e., raptor nests used during the breeding season). Measures to reduce raptor use at a project site (e.g.,

minimize road cuts, maintain either no vegetation or nonattractive plant species around the turbines) shall be considered.

- A habitat restoration plan shall be developed to avoid (if possible), minimize, or mitigate negative impacts on vulnerable wildlife while maintaining or enhancing habitat values for other species. The plan shall identify revegetation, soil stabilization, and erosion reduction measures that shall be implemented to ensure that all temporary use areas are restored. The plan shall require that restoration occur as soon as possible after completion of activities to reduce the amount of habitat converted at any one time and to speed up the recovery to natural habitats.
- Procedures shall be developed to mitigate potential impacts to special status species. Such measures could include avoidance, relocation of project facilities or lay-down areas, and/or relocation of biota.
- Facilities shall be designed to discourage their use as perching or nesting substrates by birds. For example, power lines and poles shall be configured to minimize raptor electrocutions and discourage raptor and raven nesting and perching.

### ***Visual Resources***

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

### ***Roads***

- An access road siting and management plan shall be prepared incorporating existing BLM standards regarding road design, construction, and maintenance such as those described in the BLM 9113 Manual (BLM 1985) and the *Surface Operating Standards for Oil and Gas Exploration and Development* (RMRCC 1989) (i.e., the Gold Book).

### ***Ground Transportation***



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

### ***Noise***

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

### ***Noxious Weeds and Pesticides***

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

### ***Cultural/Historic Resources***

- The BLM will consult with Indian Tribal governments early in the planning process to identify issues regarding the proposed wind energy development, including issues related to the presence of cultural properties, access rights, disruption to traditional cultural practices, and impacts to visual resources important to the Tribe(s).

- The presence of archaeological sites and historic properties in the area of potential effect shall be determined on the basis of a records search of recorded sites and properties in the area and/or, depending on the extent and reliability of existing information, an archaeological survey. Archaeological sites and historic properties present in the area of potential effect shall be reviewed to determine whether they meet the criteria of eligibility for listing on the *National Register of Historic Places* (NRHP).
- When any rights-of-way application includes remnants of a National Historic Trail, is located within the viewshed of a National Historic Trail's designated centerline, or includes or is within the viewshed of a trail eligible for listing on the NRHP, the operator shall evaluate the potential visual impacts to the trail associated with the proposed project and identify appropriate mitigation measures for inclusion as stipulations in the POD.
- If cultural resources are present at the site, or if areas with a high potential to contain cultural material have been identified, a cultural resources management plan (CRMP) shall be developed. This plan shall address mitigation activities to be taken for cultural resources found at the site. Avoidance of the area is always the preferred mitigation option. Other mitigation options include archaeological survey and excavation (as warranted) and monitoring. If an area exhibits a high potential, but no artifacts were observed during an archaeological survey, monitoring by a qualified archaeologist could be required during all excavation and earthmoving in the high-potential area. A report shall be prepared documenting these activities. The CRMP also shall (1) establish a monitoring program, (2) identify measures to prevent potential looting/vandalism or erosion impacts, and (3) address the education of workers and the public to make them aware of the consequences of unauthorized collection of artifacts and destruction of property on public land.

### ***Paleontological Resources***

- Operators shall determine whether paleontological resources exist in a project area on the basis of the sedimentary context of the area, a records search for past paleontological finds in the area, and/or, depending on the extent of existing information, a paleontological survey.
- If paleontological resources are present at the site, or if areas with a high potential to contain paleontological material have been identified, a paleontological resources management plan shall be developed. This plan shall include a mitigation plan for collection of the fossils; mitigation could include avoidance, removal of fossils, or monitoring. If an area exhibits a high potential but no fossils were observed during survey, monitoring by a qualified paleontologist could be required during all excavation and earthmoving in the sensitive area. A report shall be prepared documenting these activities. The paleontological resources management plan also shall (1) establish a monitoring program, (2) identify measures to prevent potential looting/vandalism or erosion impacts, and (3) address the education of workers and the public to make them aware of the consequences of unauthorized collection of fossils on public land.

### *Hazardous Materials and Waste Management*

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

### *Storm Water*

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

### *Human Health and Safety*

- A safety assessment shall be conducted to describe potential safety issues and the means that would be taken to mitigate them, including issues such as site access, construction, safe work practices, security, heavy equipment transportation, traffic management, emergency procedures, and fire control.
- A health and safety program shall be developed to protect both workers and the general public during construction, operation, and decommissioning of a wind energy project. Regarding occupational health and safety, the program shall identify all applicable federal and state occupational safety standards; establish safe work practices for each task (e.g., requirements for personal protective equipment and safety harnesses; Occupational Safety and Health Administration [OSHA] standard practices for safe use of explosives and blasting agents; and measures for reducing occupational electric and magnetic fields [EMF] exposures); establish fire safety evacuation procedures; and define safety

performance standards (e.g., electrical system standards and lightning protection standards). The program shall include a training program to identify hazard training requirements for workers for each task and establish procedures for providing required training to all workers. Documentation of training and a mechanism for reporting serious accidents to appropriate agencies shall be established.

- Regarding public health and safety, the health and safety program shall establish a safety zone or setback for wind turbine generators from residences and occupied buildings, roads, rights-of-ways, and other public access areas that is sufficient to prevent accidents resulting from the operation of wind turbine generators. It shall identify requirements for temporary fencing around staging areas, storage yards, and excavations during construction or decommissioning activities. It shall also identify measures to be taken during the operation phase to limit public access to hazardous facilities (e.g., permanent fencing would be installed only around electrical substations, and turbine tower access doors would be locked).
- Operators shall consult with local planning authorities regarding increased traffic during the construction phase, including an assessment of the number of vehicles per day, their size, and type. Specific issues of concern (e.g., location of school bus routes and stops) shall be identified and addressed in the traffic management plan.
- If operation of the wind turbines is expected to cause significant adverse impacts to nearby residences and occupied buildings from shadow flicker, low-frequency sound, or EMF, site-specific recommendations for addressing these concerns shall be incorporated into the project design (e.g., establishing a sufficient setback from turbines).
- The project shall be planned to minimize electromagnetic interference (EMI) (e.g., impacts to radar, microwave, television, and radio transmissions) and comply with Federal Communications Commission [FCC] regulations. Signal strength studies shall be conducted when proposed locations have the potential to impact transmissions. Potential interference with public safety communication systems (e.g., radio traffic related to emergency activities) shall be avoided.
- The project shall be planned to comply with FAA regulations, including lighting regulations, and to avoid potential safety issues associated with proximity to airports, military bases or training areas, or landing strips.
- Operators shall develop a fire management strategy to implement measures to minimize the potential for a human-caused fire.

## Construction

### *General*

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

### *Wildlife*

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

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

### *Visual Resources*

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

### *Roads*

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

### *Ground Transportation*

- Project personnel and contractors shall be instructed and required to adhere to speed limits commensurate with road types, traffic volumes, vehicle types, and site-specific

conditions, to ensure safe and efficient traffic flow and to reduce wildlife collisions and disturbance and airborne dust.

- Traffic shall be restricted to the roads developed for the project. Use of other unimproved roads shall be restricted to emergency situations.
- Signs shall be placed along construction roads to identify speed limits, travel restrictions, and other standard traffic control information. To minimize impacts on local commuters, consideration shall be given to limiting construction vehicles traveling on public roadways during the morning and late afternoon commute time.

### *Air Emissions*

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

### *Excavation and Blasting Activities*

- Operators shall gain a clear understanding of the local hydrogeology. Areas of groundwater discharge and recharge and their potential relationships with surface water bodies shall be identified.
- Operators shall avoid creating hydrologic conduits between two aquifers during foundation excavation and other activities.
- Foundations and trenches shall be backfilled with originally excavated material as much as possible. Excess excavation materials shall be disposed of only in approved areas or, if suitable, stockpiled for use in reclamation activities.
- Borrow material shall be obtained only from authorized and permitted sites. Existing sites shall be used in preference to new sites.
- Explosives shall be used only within specified times and at specified distances from sensitive wildlife or streams and lakes, as established by the BLM or other federal and state agencies.

### *Noise*

- Noisy construction activities (including blasting) shall be limited to the least noise-sensitive times of day (i.e., daytime only between 7 a.m. and 10 p.m.) and weekdays.
- All equipment shall have sound-control devices no less effective than those provided on the original equipment. All construction equipment used shall be adequately muffled and maintained.
- All stationary construction equipment (i.e., compressors and generators) shall be located as far as practicable from nearby residences.
- If blasting or other noisy activities are required during the construction period, nearby residents shall be notified in advance.

### *Cultural and Paleontological Resources*

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

### *Hazardous Materials and Waste Management*

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



construction crews shall be adequate to support expected on-site personnel and shall be removed at completion of construction activities.

### *Public Health and Safety*

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

## **Operation**

### *General*

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

### *Wildlife*

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

### *Ground Transportation*

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

### *Monitoring Program*

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

### *Public Health and Safety*

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

## **Decommissioning**

### *General*

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

## **Appendix D: Conservation and Restoration Watersheds**

### **Conservation Area Designation**

Conservation areas are the subwatersheds in which current watershed processes and conditions have resulted in natural landscape patterns. Hydrologic function, such as sediment amounts and stream flow regimes resulting from disturbances are within a natural range of frequency, duration, and intensity. Waters are meeting designated or existing beneficial uses. High quality water is common to provide both current and future public drinking water supplies. Land uses and human activities do not strongly influence landscape pattern or hydrologic function, as indicated by low road density and few stream crossings. Examples of conservation areas include wilderness and many of the roadless subwatersheds.

As a general rule minimal investment over time is needed to maintain function and critical instream and upland habitat elements in these conservation-designated watersheds.

### **Restoration Area Designation**

Restoration areas are the subwatersheds where biological and physical processes and conditions do not reflect natural patterns because of past and long-term land disturbances. These disturbances are a result of past activities such as extensive roads network, timber harvest near stream channels, stream channel changes caused by mining, and riparian damage due to unmanaged livestock grazing. The common effect of these disturbances are long-term (decades) increase of sediment deposition in streams, loss of large woody debris recruitment to stream channels, abnormal hydrologic patterns (water flows), and elevated water temperatures. Cumulative impacts from human caused disturbances and periodic natural events such as large fires, landslides, and floods exacerbate abnormal watershed and biological conditions.

Active management is required to restore the physical and biological function to their natural range of frequency, duration, and intensity. Identification and assessment of the significant adverse impacts to habitat will allow managers to focus restoration efforts in the most cost effective manner to achieve hydrologic and biological recovery. This implies that 1) there is a range of treatment intensities and desired landscape responses, and 2) not all impacts need be treated to achieve goals.

### **Priority Designations**

Primary issues considered in ranking status and risks are water quality, riparian habitat, existing aquatic species diversity, and potential fisheries habitats productivity. Opportunities considered the expected cost and response time to effect measurable changes toward achieving goals.

### **Population Strongholds**

Watersheds of value for protection of populations of federally listed and proposed aquatic species and narrow endemics (i.e. population strongholds) were ranked high priority. The intent is that strongholds will provide high quality habitat for species and support expansion and recolonization of species to adjacent watersheds. Population strongholds may be added, deleted, or modified, based on new information.

### **High Priority Criteria – Conserve Area Designation**

1. Population strongholds for federally listed and proposed aquatic species and narrow endemics, based on high genetic integrity, connectivity of subpopulations, and restoration/expansion potential into adjacent watersheds OR;
2. Fish species assemblages contribute to high biological diversity. Habitats support productive or unique populations and key salmonid species exhibit full range of life history diversity. The assumption is that the aquatic community is largely intact, and is a potential source of individuals to nearby recovering populations AND;
3. Water quality supports designated and existing beneficial uses; OR
4. Municipal (public) water supplies.

**Moderate Priority Criteria – Conserve Area Designation**

1. Fish species assemblages represent moderate biological diversity AND;
2. Water quality supports designated and existing beneficial uses.

**High Priority Criteria – Restore Area Designation**

1. Population strongholds for federally listed and proposed aquatic species and narrow endemics, based on high genetic integrity, connectivity of subpopulations, and restoration/expansion potential into adjacent watersheds OR;
2. Habitat potential for highly productive or unique fish communities with restoration efforts. Loss of connected populations, competition or genetic introgression with non-native species has caused the loss of diversity of some unique populations such as key salmonids species. The assumption is that the aquatic community is largely intact, but not resilient to landscape disturbance events, nor provides a source of individuals to nearby recovering populations AND;
3. Water quality may not support all designated and existing beneficial uses OR;
4. Municipal (public) water supply.

**Moderate Priority Criteria – Restore Area Designation**

1. Potential for moderately productive fish habitat with restoration efforts. Long-term loss of connected populations, competition or genetic introgression with non-native species has caused the loss of diversity of some unique populations such as key salmonids species. The assumption is that the aquatic community is largely intact, but not resilient to landscape disturbance events, nor provides a source of individuals to nearby recovering populations AND;
2. Water quality may not support all designated and existing beneficial uses OR;
3. Municipal (public) water use is a future possibility.

**Low Priority Criteria – Restore Area Designation**

1. There is a minor amount of fish habitat. Long-term loss of connected populations, competition or genetic introgression with non-native species has caused the loss of diversity of key salmonids species. The assumption is that the aquatic community is not intact, and not highly resilient to natural events, nor provides a source of individuals to nearby recovering populations AND;
2. Water quality may not support all designated and existing beneficial uses AND;
3. Municipal (public) water is not considered as a future use.

**Coeur d'Alene Field Office Conservation and Restoration Watersheds**

6 <sup>th</sup> Field HUC Number	Subwatershed Name	Management Objective	Priority
Little North Fork Clearwater			
170603080904	Lund Creek	Conservation	High*
	Little Lost Creek	Conservation	High*
South Fork Coeur d'Alene			
170103020501	Mainstem Pine Creek, below confluence	Restoration	Moderate
	East Fork Pine Creek	Restoration	High
	West Fork Pine Creek	Restoration	Moderate
	Highland Creek	Restoration	Moderate
	Hunter Creek	Restoration	Moderate
170103020301	West Fork Ninemile Creek	Restoration	Moderate
170103020202	Placer Creek	Restoration	High
170103020401	Rock Creek	Restoration	Moderate
Coeur d'Alene Lake			
17010303	Upper Latour Creek	Conservation	Moderate

6 <sup>th</sup> Field HUC Number	Subwatershed Name	Management Objective	Priority
St. Joe River			
170103040801	Rochat Creek	Conservation	Moderate

\*Population Strongholds for bull trout, as delineated in the draft Bull Trout Recovery Plan.

It is possible that the BLM may pick a watershed not listed in the table for restoration work, especially if there are partnership opportunities. Priorities may change as we receive new information such as new listing or delisting of species under the Endangered Species Act. Watersheds not currently prioritized and listed on the table are those where BLM ownership is relatively minor, isolated, or otherwise limits opportunities for effective restoration projects.

## INTRODUCTION

In 1989, The Chief of the Forest Service established a National Old Growth Task Force and an action plan to deal with management of old growth forests. The action plan called for each Region to develop local definitions based upon a national generic definition of old growth. Regional definitions were not to be tied to resource values derived from old forests, but would be based on ecological attributes. In 1989, Region 1 named an old growth committee and set forth an action plan for meeting national requirements.

Many people do not see the National Forests as “working” forests, but rather believe old growth is the ultimate and desirable forest condition. Others believe old growth has value only as habitat for dependent or associated wildlife species. Old growth has an important role to play in forests managed for multiple resources. Region 1 views old growth as one element of the total diversity that should be found in a healthy forest landscape.

Region 1 old growth types were developed by three committees representing the major geographic areas of northern Idaho, western and eastern Montana. Each National Forest involved concerned publics as these definitions evolved. The Intermountain Research Station participated in this effort as well as interest groups from outside of the agency. The definitions have been coordinated with similar efforts in adjoining Forest Service Regions 4 and 6.

These definitions will be used in the implementation of Forest Plans. Where there are conflicts with existing plan requirements, differences will be worked out on a case-by-case basis. These definitions will be used as Forest Plans are revised. They will constitute an important criteria for the current Regional effort of Sustaining Ecological Systems.

Both NFMA and WO direction prescribe an ecological approach to old growth that considers old growth as a key element in providing for biological diversity. Old growth dependent and associated species are provided for by supplying the full range of the diversity of late seral and climax forest community types that make up habitat for these species.

Past efforts at developing old growth definitions were generally applicable only to the area where they were developed, because they were not stratified based on site potential. Because of differing capabilities of the land, adequate and defensible old growth definitions should be based on a site potential stratification, such as habitat type, series, or habitat type groups. Otherwise, type descriptions will fail to adequately describe old growth across a variety of site conditions. As examples, stands with lots of 21” diameter trees could easily be produced on sites with hemlock and cedar potential in 90 years. On the other hand, many higher elevation subalpine fir sites could never grow a 21” tree. Multi-storied stands may be elements of old growth on many hemlock and cedar habitat types, but they probably are not natural on drier Douglas-fir or ponderosa pine habitat types.

Habitat types are based on the biological capability of the land to produce a given type of plant community at the endpoint of secondary succession (climax). Normal timber management rotations do not extend long enough to produce climax plant communities, or subclimax late seral community types that would be part of a natural landscape. A biodiversity-based approach to old growth management seeks to maintain a relatively natural range of both climax plant communities and late seral subclimax communities. Both climax and late seral subclimax community types will be composed of stands with mixes and structural characteristics that are not commonly seen in current timber management regimes.

Ecological definitions of all successional stages, stratification by habitat types, and other site conditions will help us do a better job of managing for a landscape with a full range of natural biological diversity.

As we inventory the landscape, we must gather enough hard data to provide for management needs and to improve our understanding of communities and their dynamics. The old growth types of this report are a first step in describing the successional stages for forest types of the Northern Region.

## **ECOLOGICAL CONCEPTS RELATED TO OLD GROWTH FORESTS**

The term old growth has not been a well defined or common term in much of the forest ecology literature. The older stages of forest succession have typically been referred to as late seral, climax, mature, or overmature (Dansereau 1957; Daubenmire 1968; Kimmons 1987; Spurr 1964; Weaver and Clements 1938). The old growth stage is thoroughly discussed by Oliver and Larson (1990), with references to old growth dating back to the 1940s. Environmentalists have typically used ancient, primeval, and virgin forest as terms for the older stages of forest succession (Hunter 1990).

With the emergence of old growth as a management issue in the 1980s, that developed first in western Washington and Oregon, the literature has become prolific with discussions of old growth definitions and characteristics. Various definitions have been developed and used for the forests of Washington and Oregon (Franklin and others 1986; Franklin and Spies 1991; Marcot and others 1991).

Unfortunately the definitions and ecological relationships for forests of Washington and Oregon have often been extrapolated to the northern Rocky Mountains of Idaho and Montana. The ecological systems of the northern Rocky Mountains are significantly different than the Cascades, due to a variety of factors. Primary factors that differ include: a climate that is transitioning from marine to continental influences; an older land surface with complex geologic history and soil development; generally drier conditions with relatively frequent droughts and extensive fire; stand and fuel conditions that often result in running or creeping ground fire that does not kill the overstory trees; stressed sites that have significant insect and pathogen influences; and a different complex of biogeographic fauna and flora that have evolved in a very different system.

Based on Oliver and Larson (1990) true old growth would only include trees that have grown up without outside stand initiating disturbances. Transition old growth can contain large, old trees that are relics from stand initiating disturbances. This definition is promoted by Hayward (1991) in emphasizing that old growth should be restricted to stands that are influenced by within-stand processes. This narrow definition generally does not fit with stand development processes common to the northern Rocky Mountains. This is well documented by Achuff (1989) and Habeck (1988; 1990) in reviews of old growth forests. Old growth stands in the northern Rockies that proceed from a stand-consuming fire, through dominance by seral tree species, and then to climax are typically short lived, due to the high probability of crown fire. Many of the oldest stands of old growth are dominated by seral tree species that are maintained as dominants and protected from crown fire, by repeated underburns that reduce ladder fuels and competition from more tolerant tree species. These relationships are well documented by Arno and others (1985), Arno (1980), Fisher and Clayton (1983), and Fisher and Bradley (1987). In reviewing historic data it has recently been determined that the bulk of the presettlement upland old growth in the northern Rockies was in the lower elevation, ground-fire maintained ponderosa pine/western larch/Douglas-fir types (Losensky 1992). This does not mean that other types of old growth were not common or not important, but it emphasizes that the older stages of succession in the northern Rockies do not follow traditional old growth climax succession theory. In essence it provides solid support for more region-specific old growth definitions and understanding of ecological relationships.

As the old growth issue began to receive national attention, it became apparent that the definitions that had been developed for Washington and Oregon would not work for other geographic areas. This is reflected by Hunter (1987) who emphasized that there was no generally accepted definition, that the climax forest idea was too restrictive, and that old growth forests should be relatively old and relatively undisturbed by humans. Thomas and others (1988) emphasize that there is no single all-inclusive definition and that old growth characteristics vary by region, forest type, and local conditions. Hunter (1990) promotes that a universal old

growth definition is not desirable and that forest ecologists should develop unique definitions for each forest type, taking into account forest structure, development, function, and patterns of human disturbance.

This general emphasis in the scientific literature for region and type specific definitions evolved into national Forest Service direction in 1989. This included a generic definition of old growth forests as "ecosystems distinguished by old trees and related structural attributes." Within the description old growth could encompass both seral fire-dependent species and tolerant, climax species. The national direction provided a list of general characteristics that "typically" distinguished old growth from younger growth.

Within the Northern Rockies various attempts at old growth definition were made during the Forest planning process. Unfortunately, these efforts continued to follow the definitions being developed in Oregon and Washington or emphasized structural characteristics related to old growth-associated wildlife species. Pfister (1987) conducted the first quantitative analysis based on ecological data for the Northern Rockies. This effort concentrated on the Kootenai and Nez Perce National Forests and provided a structure for the analysis presented in this paper. The analysis provided a basic review of concepts and provided an ecologically based classification of old growth based on numbers of large trees, snags, and down logs and described associated attributes of layers, canopy cover, age, and basal area. Pfister (1987) provided eight recommendations for further analysis, some of which have been crucial in conducting the regional level analysis.

## **ECOLOGICAL STRATIFICATION FOR THE NORTHERN REGION**

In order to classify old growth forests it was decided that the most applicable system for stratification of site potential would be groups of habitat types. The habitat type classification systems used for this grouping are the "Forest Habitat Types of Northern Idaho: A Second Approximation" (Cooper and others 1991) and "Forest Habitat Types of Montana" (Pfister and others 1977).

Habitat types were grouped using the interdisciplinary process. For each zone a group of ecologists, soil scientists, and silviculturists met and selected criteria for grouping similar habitat types. Criteria used for grouping included: similarity of disturbance response, potential productivity, potential stocking density, potential down wood accumulation, fire frequency, and tree species. These groups relate closely in the environment with temperature and moisture regimes.

Appendix A, table 1 (Tab A) provides a listing of habitat type alpha and numeric codes for groups in Idaho, north of the Salmon River. Due to differences in precipitation distribution, length of growing season, and floristic composition, the habitat types that occur in a given group will differ between geographic areas.

The old growth types for the Northern Region have been developed for three different geographic areas within the Region. The Region was geographically stratified into northern Idaho, western Montana, and eastern Montana. The Northern Idaho Zone is the western side of the northern Rocky Mountains in Idaho that is heavily influenced by pacific storms and weather patterns and generally received higher precipitation, especially in the winter, than areas to the east. The area generally north of Lake Coeur d'Alene has landforms designed by past continental glaciation, while the areas to the south have been primarily influenced by steep river downcutting and mountain glaciation. Northern Idaho is also heavily influenced by past volcanic events that deposited ash, which gives the soils relatively higher moisture holding capabilities.

The Western Montana Zone generally extends from the Bitterroot Mountain Divide to the Continental Divide of the Rocky Mountains in Montana. This area is influenced by pacific storms, with relatively high precipitation in the winter, but is also in the rain shadow of the Bitterroot Mountains. Some continental climatic influence also occurs and this area typically receives a higher percentage of precipitation in the summer than northern Idaho. Some areas in western Montana have soils developed on volcanic ash, but much less than in northern Idaho. The area north of Missoula has landforms designed by past continental



glaciation while the areas to the south have been primarily influenced by glacial lake deposition, moderate river downcutting, and mountain glaciation.

The Eastern Montana Zone generally extends from the Continental Divide east to the eastern portions of the Rocky Mountains that occur near Billings and north to Lewistown and Great Falls. This area is strongly influenced by both a continental climatic influence and storms from the west. It lies in the rain shadow of the Rocky Mountains and receives much less precipitation than northern Idaho or western Montana. A relatively high percentage of the precipitation occurs in the summer. A minor percentage of the soils are influenced by volcanic ash deposition. A large percentage of the soils are developed on limestone parent material. Landforms north of Great Falls were generally developed through continental glaciation, while landforms to the south were generally developed as a result of mountain glaciation and gradual to moderate river downcutting.

## **ANALYSIS PROCESS FOR CLASSIFYING OLD GROWTH TYPES**

For each geographic zone of the Region a committee was selected that included members from National Forest Systems, Forest Service Research, Universities, and the public. Each committee was chaired by a Forest Supervisor and had members from each National Forest that represented various disciplines. The committees also coordinated with adjacent Forests in other Regions. The R1-RO Ecology group provided coordination and leadership throughout the process and developed the computer analysis tools with the assistance of the Regional Timber inventory group. The committees conducted a preliminary analysis to develop the draft definitions presented in this report. Further refinement and development of descriptions will be conducted as more data is collected.

The concept of old growth was based on the National definition. In this definition old growth forests are considered ecosystems that are distinguished by old trees and related structural attributes. They encompass the later stages of stand development that typically differ from earlier stages in characteristics such as tree age, tree size, number of large trees per acre and basal area. In addition, attributes such as decadence, dead trees, the number of canopy layers and canopy gaps are important but more difficult to describe because of high variability.

The October 1989 Forest Service position statement on old growth recognized that "old growth forests encompass the late stages of stand development and are distinguished by old trees and related structural attributes . . ." and that " . . . specific attributes vary by forest type." Forest Service Regions were charged with developing forest type old growth definitions, and conducting old growth inventories.

Both biological processes and human values were considered to determine criteria for old growth. As stands develop and age, there are changes in ecological composition, structure, and function as well as changes in aesthetic and economic values. The point in that process of forest aging where a stand is classified as old growth is largely a function of human values and concerns. It's similar to the process of human aging. People change in real physical ways as they age. But, how old is considered old, depends upon whether you ask a 15 year old, a 40 year old, or a 70 year old person.

Forest Plans generally set timber rotations at approximately 100 years, plus or minus 2 decades. Old growth has become an issue because some people think that it might be in short supply. Therefore, our concern with old growth focuses on forests with tree ages and sizes, or stand structures significantly different than what could be obtained in 100 years.

Plot data from the Northern Region stand exam inventory (USDA Forest Service R-1; 1989) were used as the basis for the old growth definition analysis. All plots that met a given set of criteria were used in the analysis.

The criteria for inclusion of a plot in the analysis were:

1. Plots were survey type 45 and 46, which meet full standard exam procedures.
2. Plots were selected from stands with no evidence of logging.
3. Plots had an identified habitat type.
4. The largest tree on the plot was equal to or greater than 100 years old and  $\geq 9$  inches diameter at breast height (dbh).
5. The plot basal area for trees equal to or greater than 5" dbh was  $\geq 40$  sf/acre.

A total of 680,000 plots were screened for the Idaho Panhandle, Clearwater, and Nez Perce National Forests in northern Idaho. A total of 1,068,000 plots were screened for the Kootenai, Flathead, Lolo, and Bitterroot National Forests in western Montana. A total of 388,000 plots were screened for the Lewis & Clark, Helena, Deerlodge, Beaverhead, Gallatin, and west side of the Custer National Forests in eastern Montana.

Habitat types are a land classification system based on the potential plant associations that will dominate a site at the end point of plant succession (climax). Habitat types are ideal for stratifying site conditions in order to predict the type of old growth forest they will produce. The plot data was sorted into groups of similar habitat types. Before a site reaches climax condition, it may be dominated by several different conifer tree species (with some associated structural differences), so plots in each habitat type group were subdivided by forest cover type (based on plurality of tree species basal area).

Within each habitat type group and forest cover type group, plots containing large trees over 100 years of age were selected for further analysis. The guiding principle was to select plots containing large, old trees that would represent the latter stages of stand development. These plots with large old trees were then further analyzed to determine the characteristics typical of old growth. These plots with old trees were analyzed for significant differences in tree ages, sizes, and forest stand structures and composition. Based on groupings of the data, and on professional judgment of the foresters, ecologists, and wildlife biologists, the following ages were selected as minimums:

#### North Idaho

All types except lodgepole pine	150
Lodgepole pine	120

#### Western Montana

Ponderosa pine, Douglas-fir, western larch	170
Lodgepole pine	140
Other types	180

#### Eastern Montana

Douglas-fir types 1 and 2	200
Limber pine	120
Lodgepole pine	150
Subalpine fir type 10	135
Subalpine fir other types	160
Whitebark pine type 11	150
Whitebark pine type 12	135
Ponderosa pine	180
Douglas-fir type 3	180

The other minimum criteria -- tree size, and number of large trees per acre -- were selected to distinguish those stands where the old trees were dominating the stand structure. The number of trees equal to or greater than a given age and size (diameter at breast height) were used as minimum screening criteria for old growth. Associated characteristics (such as number of snags, down woody material, dead tops and decay, and diameter variation) represent the means, values, and ranges for structural characteristics found in the data for plots that met the old growth minimum criteria.

Three broad old growth stand structures were recognized in the analysis:

1. *Late Seral, Single-Story* -- these stands are still dominated by the tree species and tree canopy layer that first captured the site after a stand replacing disturbance. The upper canopy is relatively closed. If understory trees were present, they are generally small, exhibit little growth, and do not form an apparent canopy layer. Other understory vegetation may be sparse. Ages and sizes of dominant trees are significantly beyond what may be found at culmination of mean annual increment of tree stand volume growth, growth rates are slowing, and tree crowns are showing signs of maturity or old age (flat, wide tops with slow main leader growth). This stage may have moderate amounts of tree decay, but little mortality, and few snags or pieces of down woody material.
2. *Late Seral, Multi-Story* -- the initial seral trees and canopy layer have lost control of the site. Disturbance or the natural mortality of age has produced holes in the upper canopy; shade tolerant understory vegetation and trees are increasing in crown volume; and shade tolerant understory tree species are growing towards the main canopy, and may have occupied part of it. Two or more canopy layers are obvious, the canopy may be irregular, and broken tops, bole rot, snags, and large down woody debris may be common. The stand may have small openings dominated by shrubs or understory forbs. Although there may be some very large or old individual trees, stand average diameter and age may be either greater or less than in the previous Late Seral, Single-Story stage. There is often great variation in average tree diameter.
3. *Near Climax* -- this stage is dominated by shade tolerant (possibly climax) tree species that captured the site after the initial seral stand has been largely replaced. A few remnant shade intolerant, early seral trees may persist, but they represent a small part of total live canopy. Depending upon overstory structure, there may be great variation in understory characteristics and tree diameter distributions. If the shade tolerant tree species are relatively short lived (such as subalpine fir), or only moderately long lived (such as grand fir), the canopy will be multi-storied, and contain significant numbers of snags and down woody debris. If the shade tolerant tree species is very long lived (such as cedar), there may be 1 dominant canopy layer, with relatively few snags or pieces of down woody debris.

The above 3 stages are generalities useful for explaining why an individual old growth stand may be expected to have, or not have, various structural characteristics sometimes identified with old growth in forest ecology literature. Individual old growth stands may combine various elements of the above 3 stages, or may have some other unique characteristics as the result of particular site and stand history.

The plot data base was stratified by habitat type groups and forest cover types. The forest cover type was assigned to the tree species with plurality of basal area for trees equal to or greater than 9" dbh. Data from these plots on numbers of trees by 4" diameter size class, basal area, layers, snags, decay, broken tops, age, and crown ratio were graphed in various combinations, analyzed in frequency diagrams, and displayed in tables. Interdisciplinary team members from the zone committees and Forests then reviewed the output and identified minimum screening criteria for old growth for each habitat type group and forest cover type by Forest. Zone committees then met and grouped this data into minimum criteria for screening stands for old growth.

The minimum screening criteria can be used to identify stands that may meet the old growth type descriptions. Type descriptions are presented in a later section of this report. The screening criteria are presented in Table 1. In the table the column headings are defined as follows:

Old Growth Type - the type is a group of forest cover types that have similar characteristics relative to size, number and age of dominant overstory trees. The forest cover types are identified with the following codes: PP - ponderosa pine; DF - Douglas-fir; L - western larch; LP - lodgepole pine; Y - western yew; GF - grand fir; SAF - Engelmann spruce and subalpine fir; WH - western hemlock; WP - western white pine; MAF - mountain hemlock, alpine larch, and subalpine fir; WBP - whitebark pine; C - western redcedar; PF - limber pine, WSL-combinations of alpine larch, whitebark pine, and limber pine

Habitat Type Group - Habitat types are grouped differently according to geographic zone. The letters identify the zone habitat type groups displayed in Appendix A (Tab A). Habitat type groups are grouped into larger groups based on similarity of temperature and moisture regimes within each zone.

**Minimum Criteria:**

Minimum Age of Large Trees - This is the minimum average age for the largest size class for the old growth type.

Number TPA/DBH - Number of live trees per acre equal to or greater than a given dbh level and age. This would be the minimum number of live trees per acre equal to or greater than a set dbh level and age.

Minimum Basal Area - the minimum basal area in square feet for trees equal to or greater than 5" dbh.

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**Associated Characteristics:**

DBH Variation - variation in diameter of trees equal to or greater than 9" dbh. The variation is classed in L = low (+ 0-20%), M = moderate (+ 21-40%), and H = high (+ 41-100%).

Percent Dead/Broken Top - the percent of trees equal to or greater than 9" dbh. with dead or broken tops.

Probability of Down Wood - the probability that abundant down wood  $\geq 9"$  diameter will be present. Probabilities are classed into L = low (+ 0-20%), M = moderate (+ 21-40%), and H = high (+ 41-100%).

Percent Decay - the percent of trees equal to or greater than 9" dbh with significant decay.

Tree Canopy Layers - an indication of the number or variation in numbers of tree layers that can be expected. SNGL = single layer; MLT = multiple layers.

Snags  $\geq 9"$  - range in number of snags (dead standing trees)  $\geq 9"$  diameter.

No. of Samples - this is the number of plots from the plot data base that met the screening criteria and are used in the old growth type descriptions.

**TABLE 1 NORTHERN IDAHO ZONE OLD GROWTH TYPE CHARACTERISTICS** (2/05 errata edit)

DESCRIPTION		MINIMUM CRITERIA			ASSOCIATED CHARACTERISTICS						
OLD GROWTH TYPE	HABITAT TYPE GROUP	MINIMUM AGE OF LARGE TREES	MINIMUM NUMBER TPA/DBH	MINIMUM BASAL AREA (FT <sup>2</sup> /AC)	DBH VARIATION <sup>2/</sup>	PERCENT DEAD/BROKEN TOP <sup>1/</sup>	PROBABILITY OF DOWN WOODY <sup>2/</sup>	PERCENT DECAY <sup>1/</sup>	NUMBER CANOPY LAYERS <sup>3/</sup>	SNAGS ≥9" DBH <sup>1/</sup>	NUMBER OF SAMPLES
1 - PP, DF, L	A,B	150	8 ≥ 21"	40	M	0 - 30	L - M	0-8	SNGL/MLT	0 - 13	815
2 – LP	B,C,D,E,G,H,I,J,K	120	10 ≥ 13"	60	M	0-19	M	2-13	SNGL/MLT	1 - 37	875
3 - Y	C,C1, G1	150	3 ≥ 21"	80	M	7 - 10	H	9-34	SNGL/MLT	5	26
4A - DF, GF, L, SAF, WP, PP	C, C1,D,E	150	10 ≥ 21"	80	M	3 - 28	M	2 –33	SNGL/MLT	7 - 35	2,938
4B - DF,GF, L, WH, WP, PP	F,G,G1,H,I	150	10 ≥ 21"	120 / 80 <sup>(4)</sup>	M - H	0 - 22	M - H	1- 41	SNGL/MLT	0 - 33	8,069
5 – SAF,MAF	F,G, G1,H,I	150	10 ≥ 17"	80	H	5 - 36	H	5-28	MULTIPLE	6 - 36	4,275
6 – WBP	I, J, K	150	5 ≥ 13"	60 / 40 <sup>(5)</sup>	M	0 - 17	M	6-17	SNGL/MLT	11 - 42	43
7 – C	F,G,G1	150	10 ≥ 25" <sup>(6)</sup>	120	M	5 - 36	L - H	6-55	SNGL/MLT	6 - 47	5,865
8 – DF,L, SAF,MAF,WP	J	150	10 ≥ 17"	60	M	1 - 14	M - H	1-15	SNGL/MLT	3 - 40	890
9 – SAF,MAF	K	150	5 ≥ 13"	40	H	21 - 23	M	13-35	MULTI	11 - 13	26

1/ These values are not minimum criteria. They are the range of means for trees ≥9" DBH across plots within forests, forest types, or habitat type groups.

2/ These are not minimum criteria. They are Low, Moderate, and High probabilities of abundant large down woody material or variation in diameters based on stand condition expected to occur most frequently.

3/ Not a minimum criteria. Number of canopy layers can vary within an old growth type with age, relative abundance of different species and successional stage.

4/ In Old Growth Type 4B, 120 ft<sup>2</sup> applies to habitat type groups F, G, and G1, and 80 ft<sup>2</sup> of basal area applies to habitat type groups H & I.

5/ In whitebark pine forest type, 60 ft<sup>2</sup> of basal area applies to habitat type groups I and J, and 40 ft<sup>2</sup> applies to habitat type group K.

6/ In Old Growth Type 7, the 25" minimum DBH only applies to cedar trees; old trees of other species are evaluated with a minimum DBH appropriate for that species on these habitat types (21" for DF, GF, L, WH, WP, PP; and 17" for SAF, MAF)

## CORRELATION WITH ADJACENT REGIONS

Old growth types were correlated across regional boundaries with Region 6 (Washington and Oregon) and Region 4 (southern Idaho and Wyoming). Meetings were held with regional representatives on June 11, 1991 in Spokane, Washington and on October 4, 1991 in Missoula, Montana. Most definitions correlated fairly well. Region 6 will use R-1's definitions for seral cover types in eastern Washington and Oregon.

## USE OF OLD GROWTH TYPE DESCRIPTIONS

Forest stand composition and structure is a function of site physical characteristics (soil, climate, topography), the particular history of that site, the characteristics of the species that occupy the site and their interactions, and the physical and biological forces that affect the site during successional development. The rugged, mountainous topography of the Northern Region is overlain with a complex climate produced by the west to east intersection of the Pacific Marine climate with the Great Plains Continental climate. There is great annual variation in both temperature and moisture, and there is a large amount of variation from year to year around the long term averages for any given date or month. There is also great variation in type and severity of disturbance mechanisms, both natural and man caused. The result of this variety of forces that shapes individual stands, is a wide variation in the resulting stand structures. No set of generated numbers can capture all the variation that may occur at any given age or stage in forest development.

**Because of the great variation in old growth stand structures, no set of numbers can be relied upon to correctly classify every stand.** In addition, the uncertainties of sampling and statistics introduce another need for caution in using stand data. The minimum criteria in the "tables of old growth type characteristics" are meant to be used as a screening device to select stands that may be suitable for management as old growth, and the associated characteristics are meant to be used as a guideline to evaluate initially selected stands. They are also meant to serve as a common set of terms for old growth inventories. Most stands that meet minimum criteria will be suitable old growth, but there will also be some stands that meet minimum criteria that will not be suitable old growth, and some old growth may be overlooked. **Do not accept or reject a stand as old growth based on the numbers alone; use the numbers as a guide.**

A stand dominated by trees of the age and size listed under minimum criteria is generally good potential old growth. The number of trees is meant as a guideline for how many trees it takes to produce older stand characteristics, and should not be used as an absolute. The large tree age listed under minimum criteria is meant to define the minimum age which we will consider old growth, but that age is difficult to measure because some of the oldest trees may be too rotten or too large to accurately age. For this and other reasons, although age is the single most valuable guide for determining when a stand is old growth, age is often the least reliable data in an inventory. Tree size generally increases as a tree ages, but stand density and mortality affect tree size. The associated characteristics listed in Table 1 are meant to be guidelines in evaluating stands. A stand should not be accepted or rejected as old growth simply on the basis of associated characteristics. The predominance of minimum criteria and associated characteristics, rather than a single number, generally will be an excellent guide. Be aware that the associated characteristics of "DBH variation" and "tree canopy layers" were only provided as a descriptor of what was most common in existing inventory data, and should not be used to decide whether a stand is really old growth. Use these numbers and descriptions as guides in applying the basic principle that old growth is a "late stage of stand development" . . . "dominated by old trees and related structural attributes."

Where stand examination data is available, this data may be compared to the old growth minimum criteria in Table 1, by habitat type group and forest cover type. Run Code 22 on the Forest Service Region 1 "R1EDIT Menu" (available in all Forest Service Region 1 Data General computers in the R1EDIT Program Package) is designed to extract potential old growth stands from the R1EDIT stand exam data base. Run Code 22 is an interactive program that allows a user to specify a group of habitat types and forest cover types, and specify the minimum criteria of number of trees, minimum age, and minimum diameter. The program will then

return a list of stands from the R1EDIT data base that meets the specified characteristics, and will give some summary data for each stand. A separate Run Code 22 extract will be needed for every combination of habitat types and forest cover types that has unique characteristics.

The minimum criteria are used to determine if a stand is potentially old growth. Where these values are clearly exceeded, a stand will usually be old growth. The associated structural characteristics may be useful in decision making in marginal cases, or in comparing relative resource values when making old growth evaluations.

In a few cases of multi-species stands, the forest cover type automatically assigned by the stand exam system (and stored in the TSMRS database), and the forest type calculated by Run Code 22 may both be misleading when trying to make an old growth determination. Sometimes, a dense understory of smaller and/or younger trees of one species may make up the plurality of basal area, while the big old trees may be composed of different species / species combination. For example, in a multi-species stand, cedar could be 25% of the stand basal area, and still be assigned the forest type, because it has more basal area than any other single species, but another species (or species combination) may make up most of the big old trees. In Northern Idaho, old cedar trees usually have a larger diameter than other species of the same age. For this reason, the minimum diameter for cedar old growth was set larger than for other species on the same habitat type. But, if a minimum DBH for cedar was applied to old trees of a different species, it might lead to inappropriate conclusions about whether or not the stand was old growth.

For this reason, when screening potential old growth stands, forest type needs to be calculated in a way that's relevant to old growth determination. Use the following methodology:

- For all forest types, assign old growth forest type based on the plurality of basal area in trees  $\geq$  9" only (this was plot data analyzed by the Northern Region Old Growth committees).
- In northern Idaho, if the Forest Type is cedar, use the 25" minimum DBH for the old cedar; but (consistent with rest of Table 1) use a 21" minimum DBH for DF, GF, L, WH, WP, PP; and a 17" minimum DBH for SAF & MAF old trees.

Other forest types may also very occasionally have situations like cedar, with the big old trees being a different species than the forest type. Because this is relatively uncommon with other forest types, it's best dealt with through individual stand assessment when doing project level analysis. When doing fine-scale project level assessments, detailed analysis of stand characteristics, and consideration of the site and landscape considerations discussed below all contribute to the best selection of potential old growth.

In addition to using old growth minimum criteria with the stand exam data base R1EDIT Menu, Run Code 22 for extracting potential old growth stands, additional Run Code 22 extracts with stepped down standards are recommended. These step down runs are useful to extract stands that are either close to being old growth, or are actually old growth, with an inclusion of younger or smaller trees that skews the data. This step down procedure may also identify old growth blocks within larger stands. Step down runs can be done with the minimum criteria backed off slightly (use 1" smaller minimum diameter, or 10 year lower age, or 1-2 fewer trees per acre; possibly do several iterations, each backing down 1 more step).

Because old trees are often rotten and difficult to age, it is recommended that 1 step down version of Run Code 11 be done with a zero age criteria to extract stands where this may be a factor. Careful further evaluation will be needed for any stands extracted with a zero age criteria, since many of these stands will not be old growth.

Where no in-place stand exam data exists, but a site was visited by a professional interdisciplinary team in previous environmental analysis, the notes and determinations of that interdisciplinary team may be used in deciding whether to consider the stand old growth. Be aware that some interdisciplinary teams may have

allocated young stands of old growth to meet predetermined acreage targets, and some of their stands may not meet the type descriptions.

These old growth minimum criteria, associated characteristics, and descriptions were developed to apply to individual stands. When applying these standards, 3 things need to be remembered. First, these numbers represent averages and ranges that either existed in the inventories, or were assigned by professional judgment. While they are good guides, they are not absolute. Because of the innumerable combinations of site characteristics and historical factors that can occur, no set of numbers will correctly define every possible situation. The basic concept is that old growth should represent "the late stages of stand development . . . distinguished by old trees and related structural attributes."

The second point is that old growth is valuable for a whole host of resource reasons such as habitat for certain animal and plants, for aesthetics, for spiritual reasons, for environmental protection, for research purposes, for production of unique resources such as very large trees. Unusual natural communities, etc., the resource values associated with potential old growth stands need to be considered in making allocations.

The third point to bear in mind when evaluating old growth is that a stand's landscape position may be as important, or more important than any stand old growth attribute. The landscape is dynamic. We need to do more than draw lines to manage this dynamic system. Consider the size of old growth blocks (large blocks have special importance), their juxtaposition and connectivity with other old growth stands, their topographic position, their shapes, their edge, and their stand structure compared to neighboring stands. Stands are elements in dynamic landscape. We need to have representatives of the full range of natural variation, and manage the landscape mosaic as a whole in order to maintain a healthy and diverse systems.

At the same time, there may be some stands with trees so large or so old that they are unique. We should always maintain a good representation of these very old unique and outstanding stands, because they are irreplaceable within human life spans. Remember to value the truly unique and outstanding, wherever it may be.



## OLD GROWTH FOREST TYPE DESCRIPTIONS

### NORTH IDAHO ZONE:

#### Old Growth Type 1

#### Ponderosa pine, Douglas-fir, Western Larch Forest Types on warm, dry environments

#### Habitat Type Groups

Ponderosa pine and Douglas-fir habitat types

North Idaho Zone Groups A and B

This type is moderately well represented across all of the 3 National Forests, but is most abundant in the southern part of the North Idaho Zone. This zone includes the Clearwater, Idaho Panhandle and the Nez Perce National Forests.

#### Forest Types

Douglas-fir and ponderosa pine are major forest types. Western larch is a minor forest type.

#### Minimum Characteristics

8 trees per acre 21 inches DBH or more

Large trees 150 years old or more

Basal area 40 ft<sup>2</sup> per acre or more

Sample size: 815 Plots

#### Site Description

This old growth type occupies warm, dry environments on predominantly steep southerly aspects at elevations from 1000 to 6000 feet. It is on north aspects at lowest elevations. Ponderosa pine is the climax dominant on the driest sites and Douglas-fir on moister sites in these groups. Bunchgrass dominated understories are the least productive, typically with relatively low stocking. Habitat types where shrubs dominate the understory can support greater tree stocking. Prior to 1900, cool underburns at intervals of 5 to 25 years promoted open stands, while hotter stand replacing fires occurred at intervals of 150 to more than 300 years.

#### Vegetation Characteristics

This type may be single or multistoried. A single canopy layer is most common during seral stages, or in climax ponderosa pine. Large ponderosa pine dominate ponderosa pine habitat types under seral and climax conditions, and pine is a seral dominant on Douglas-fir habitat types. Douglas-fir may be a seral or climax dominant on Douglas-fir habitat types. Larch is a seral dominant on the more moist Douglas-fir habitat types. This old growth type can maintain old growth characteristics for moderate periods in seral stands and for long periods where ponderosa pine or Douglas-fir are climax on the site.

The average age of the largest trees in this type is 225 years, with a range from 208 to 256. Individual trees may reach an estimated age of 475 years. There is an average of 24 trees per acre 21 inches DBH or more. The range of means across forests and forest types is from 18 to 20 on habitat types with dry bunchgrass understories and 19 to 27 on habitat types with shrub understories. The average basal area is 122 ft<sup>2</sup> per acre on sites with bunchgrass understories. The range is 89 to 124 ft<sup>2</sup>. On moister sites with shrub understories, the average basal area is 164 ft<sup>2</sup> per acre and ranges from 147 to 193 ft<sup>2</sup>.

The average number of dead standing trees 9 inches or more DBH is 5 with a range of 0 to 13. The average percent of trees 9 inches or more DBH with dead or broken tops is 9 with a range of 0 to 30 in means across forests and forest types. The average percent of trees showing decay is 6, with a range of 0 to 8. The probability of rotten, down log pieces 9 inches or more in diameter is low to moderate. Average litter and duff depth is 1 inch or less.

**NORTH IDAHO ZONE:****Old Growth Type Code 2****Lodgepole pine forest type, on cool and cold environments****Habitat Types, Groups, and Geographic Distribution**

Douglas-fir, grand fir, western red cedar, mountain hemlock, and subalpine fir habitat types. Subalpine fir and mountain hemlock habitat types with clintonia or menziensia in the understory are best represented.

North Idaho Zone Groups B, C, D, E, G, H, I, J, K

This type is well represented across all of the 3 National Forests in this zone. These Forests include the Clearwater, Idaho Panhandle and the Nez Perce.

**Forest Types**

Lodgepole pine

**Minimum Characteristics**

10 trees per acre 13 inches DBH or more

Large trees 120 years old or more

Basal area 60 ft<sup>2</sup> per acre or more

Sample size: 875 plots

**Site Description**

This old growth type occupies cool and cold environments on all aspects at elevations from 2000 to 7000 feet or more. It is in areas of cold air impoundment at lowest elevations. Douglas-fir is the climax dominant on the driest sites, grand fir on cool, moist sites, and subalpine fir on cold moist sites in these groups. Western hemlock and western red cedar are climax on cool sites that are more moist than those that support grand fir. Bluejoint, grouse whortleberry and pinegrass dominated understories are the least productive, typically with relatively low stocking. Habitat types where clintonia, wild ginger, or menziesia dominate the understory are more productive and can support greater tree stocking. Prior to 1900, repeated fires at less than 100 to 150 years favored the occurrence of large stands of nearly pure lodgepole pine. These pure stands are frequently overstocked and potential centers for disease and insect epidemics.

**Vegetation Characteristics**

This type may be single or multistoried. A single canopy layer is most common in stands of pure lodgepole pine. Multiple canopy layers are more common in stands of lodgepole pine and large trees of other seral species, such as Douglas-fir. Large lodgepole pine dominate these several habitat types where cold and frequent fire favor its occurrence as a seral species. This old growth type can maintain old growth characteristics for short periods until it is replaced by late seral or climax species.

The average age of the largest trees in this type is 173 years, with a range from 151 to 194. Individual trees of more long lived species may reach an estimated age of 347 years. There are an average of 81 trees per acre 13 inches DBH or more. The range of means across forests and forest types is from 15 to 64 on Douglas-fir, grand fir, and subalpine fir habitat types with beargrass or grouse whortleberry understories to 192 on moist subalpine fir habitat types with clintonia or menziesia understories. The average basal area is 171 ft<sup>2</sup> per acre. The range is 148 to 215 ft<sup>2</sup>. Low basal areas are associated with the drier and colder environments in this old growth type.

The average number of dead standing trees 9 inches or more DBH is 24 with a range of 1 to 37. The average percent of trees 9 inches or more DBH with dead or broken tops is 9 with a range of 0 to 19 in means across forests and forest types. The average percent of trees showing decay is 7, with a range of 2 to 13. The probability of rotten down log pieces 9 inches or more in diameter is moderate. Average litter and duff depth is 1 to 2 inches.

**Undescribed Types**

Lodgepole pine forest type on very cold or droughty environments have been described in a few plots. Habitat Type Group K is the most harsh of the subalpine fir series. The minimum basal area requirement should be strongly considered here in determining whether there is really a lodgepole old growth stand.

**NORTH IDAHO ZONE:****Old Growth Type Code 3****Pacific yew forest type on cool, moderately moist environments****Habitat Types, Groups, and Geographic Distribution**

Grand fir habitat type phases with Pacific yew in the understory and grand fir/arrowleaf groundsel  
North Idaho Zone Groups C, C1, and G1.

This type is generally limited in occurrence to the Nez Perce National Forest in the North Idaho Zone. These Forests also include the Clearwater and Idaho Panhandle, and infrequently it may appear here, usually on a G1 habitat type.

**Forest Types**

Pacific yew

**Minimum Characteristics**

3 trees per acre greater than 21 inches DBH

Large trees 150 years old or more

Basal area 80 ft<sup>2</sup> per acre or more

Sample size: 26 plots

**Site Description**

This old growth type occupies cool, moderately moist bottomlands and toe slopes as low as 2000 feet elevation, and is on moderate to steep uplands in warm protected exposures and ridge-top benches from 4000 to 5800 feet elevation. It seldom occurs in extensive stands. Grand fir is considered to be the climax tree species, but in this old growth type, Pacific yew is dominant. It is more shade tolerant and, in the absence of fire for many years, could dominate larger areas. Protection from frequent fire by topographic or climatic factors is required for the occurrence of this type.

**Vegetation Characteristics**

This type may be single or multistoried. A single canopy layer occurs in climax stands, when Pacific yew forms the only tree layer. Multistoried canopies occur when Pacific yew occurs with taller grand fir, or, less frequently, late seral Engelmann spruce. This old growth type can maintain old growth characteristics for long periods in the absence of fire.

The average age of the largest trees of species other than yew in this type is 205 years, with a range from 195 to 209. Individual trees may reach an estimated age of 326 years. There are an average of 13 trees per acre 21 inches DBH or more. These are usually grand fir. The range of means across forests and forest types is 12 to 14. The average basal area is 205 ft<sup>2</sup> per acre.

The average number of dead standing trees 9 inches or more DBH is 5 per acre. The average percent of trees 9 inches or more DBH with dead or broken tops is 8 with a range of 7 to 10. The average percent of trees showing decay is 26, with a range of 9 to 34. The probability of rotten, down log pieces 9 inches or more in diameter is high. Average litter and duff depth is 2 to 4 inches.

**Undescribed Types**

Pacific yew forest type on western red cedar habitat types with Pacific yew understories (Habitat Type group G1), may occur, but very infrequently. No data are available for these sites. They are currently expected to meet the minimum characteristics described above.

**NORTH IDAHO ZONE:****Old Growth Type Codes 4A and 4B**

**Douglas-fir, grand fir, western larch, Engelmann spruce/subalpine fir, western hemlock, western white pine, and ponderosa pine forest types on cool, moist environments.**

**Habitat Types, Groups, and Geographic Distribution**

All grand fir, western hemlock habitat types, western red cedar habitat types and the warmer and moister subalpine fir and mountain hemlock habitat types. Western red cedar and western hemlock habitat types with oak fern understories and grand fir with beargrass or twinflower understories are best represented.

**Old Growth Type 4A** is composed of ponderosa pine, Douglas-fir, grand fir, western larch, subalpine fir/Engelmann spruce, and western white pine forest types on North Idaho Zone Habitat Type Groups C, C1, D, E (grand fir series).

**Old Growth Type 4B** is composed of ponderosa pine, Douglas-fir, grand fir, western white pine, and western hemlock forest types on North Idaho Habitat Type Groups F, G, G1, H, I (cedar, hemlock, and moist subalpine fir and mountain hemlock habitat type series).

These types are well represented across all of the 3 National Forests in this zone, but grand fir habitat types are more abundant on the Nez Perce, and cedar and hemlock habitat types are more abundant on the Clearwater and Idaho Panhandle National Forest.

**Forest Types**

Douglas-fir and grand fir are major forest types. Western larch, ponderosa pine, Engelmann spruce/subalpine fir, western hemlock and western white pine are less well represented.

**Minimum Characteristics**

10 trees per acre 21 inches DBH or more

Large trees 150 years old or more

Basal area: 80 ft<sup>2</sup> per acre or more for all OG Type 4A, and for Habitat Type Groups H and I on OG Type 4B;

120 ft<sup>2</sup> per acre or more for Habitat Types F, G, and G1 on OG Type 4B

Sample size: OG Type 4A: 2,938 plots;

OG Type 4B: 8,069 plots

**Site Description**

This old growth type occupies moist and cool environments on all aspects and elevations from 1400 feet along stream bottoms to 7300 feet on sheltered aspects. Grand fir is the climax dominant on the driest sites, and subalpine fir and mountain hemlock on the coldest. Western hemlock and western red cedar are climax on cool sites that are more moist than grand fir climaxes, and warmer than subalpine fir climaxes. Cedar and western hemlock habitat types are the most productive and can support greater tree stocking. Prior to 1900, infrequent stand replacing wildfires favored development of long lived seral and climax stands on cedar and western hemlock sites. Moist mountain hemlock and subalpine fir habitat types also have fire intervals of 200 years or more, and a harsher environment favorable to fewer seral species. More frequent fires in grand fir habitat types favor a greater number of seral species.

**Vegetation Characteristics**

The following descriptions are for all of Old Growth Types 4A and 4B combined. The range of data values of various associated characteristics for Type 4A or 4B separately are shown in Table 1. Even in their associated characteristics these two subtypes are extremely similar, and they have identical minimum characteristics (except for basal area). They are separated primarily because the forest types and minimum basal areas differ slightly by habitat type group.

These types may be single or multistoried. A single canopy layer is most common in stands of pure Douglas-fir, larch or ponderosa pine. Multiple canopy layers are more common in late seral stands as

climax tree species grow up beneath a seral overstory, or in climax stands with shade tolerant species in both overstory and understory. On cedar and western hemlock habitat types, Douglas-fir, grand fir, and white pine are common seral forest types. Old growth white pine has become increasingly rare due to timber harvest and mortality from blister rust. On grand fir habitat types, Douglas-fir is the most common seral forest type, but grand fir may become established immediately after disturbance on all but the driest sites. Ponderosa pine is a seral species on cedar and grand fir habitat types. Douglas-fir and western larch can occur as seral species on almost all of the habitat type groups in this old growth type. This old growth type can maintain old growth characteristics for moderate periods in forest types of seral species, and for long periods of forest types of climax species in the absence of fire.

The average age of the largest trees in this type is 210 years, with a range from 160 to 264. Individual trees of long lived species like ponderosa pine, western larch, or western red cedar may reach an age of 400 to 700 years. Larch, ponderosa pine or western hemlock forest types have an average age of more than 200 years. There are an average of 27 trees per acre 21 inches DBH or more. The range of means across forests and forest types is from 12 to 53. Ponderosa pine and larch forest types usually support the fewest large trees per acre, averaging 12 to 33. The average basal area is 210 ft<sup>2</sup> per acre. The range is 160 to 270 ft<sup>2</sup>. Basal areas in the low part of the range are most often associated with larch and ponderosa pine forest types, and subalpine fir and mountain hemlock habitat type groups (Habitat Type Groups H and I).

The average number of dead standing trees 9 inches or more DBH is 14 with a range of 0 to 35. Variability is highest in the grand fir forest type. White pine forest type average 24 snags per acre because of blister rust mortality. Ponderosa pine forest types average only 7. The average percent of trees 9 inches or more DBH with dead or broken tops is 7 with a range of 0 to 28 in means across forests and forest types. Ponderosa pine and larch forest types are the most variable. The white pine forest type averages only 4 percent dead and broken tops. The average percent of trees showing decay is 12, with a range of 1 to 41. Grand fir, subalpine fir and western hemlock forest types show the greatest decay, and white pine the least. Cedar and western hemlock habitat type groups (F, G, and G1) show the most decay across all forest types. The probability of rotten down log pieces 9 inches or more in diameter is moderate in early seral stands and high in late seral or climax stands. Average litter and duff depth is 1 to 2 inches.

**NORTH IDAHO ZONE:****Old Growth Type Code 5****Engelmann spruce/subalpine fir, mountain hemlock/subalpine fir forest types on cold, moist environments****Habitat Types, Groups, and Geographic Distribution**

Moist subalpine fir and mountain hemlock habitat types, and the colder western hemlock and western red cedar habitat types. Subalpine fir or mountain hemlock habitat types with clintonia or menziesia in the understory are best represented.

North Idaho Zone Groups F, G, H, I

This type is well represented across all of the 3 National Forests in this zone, but is most extensive on cold subalpine fir habitat types (Group I) on the Idaho Panhandle and Clearwater National Forests. This zone includes the Clearwater, Idaho Panhandle and Nez Perce National Forests.

**Forest Types**

Engelmann spruce/subalpine fir, mountain hemlock/subalpine fir

**Minimum Characteristics**

10 trees per acre 17 inches DBH or more

Large trees 150 years old or more

Basal area 80 ft<sup>2</sup> per acre or more

Sample size: 4275 plots

**Site Description**

This old growth type occupies moist and cold environments from 4000 feet in frost pocket situations to 7300 feet on sheltered northerly aspects. Subalpine fir and mountain hemlock are the climax dominants on the coldest sites. Mountain hemlock is limited to moist cold sites from the Middle Fork of the Clearwater River and northward. Western hemlock and western red cedar are climax dominants on warmer, lower elevation sites in the northern part of the zone. Cedar and western hemlock habitat types are the most productive and can support greater tree stocking. Prior to 1900, infrequent stand replacing wildfires in moist subalpine fir habitat types at intervals of 100 years or more favored growth of the shade tolerant climax species. Frost tolerant subalpine fir, western hemlock and Engelmann spruce are also important seral species when disturbance creates openings in low lying areas that impound cold air.

**Vegetation Characteristics**

This type is most often multistoried. A single canopy layer can occur in stands of pure Engelmann spruce in early seral stages. Multiple canopy layers are common in late seral stands as climax tree species grow up beneath a seral overstory, or in climax stands with shade tolerant subalpine fir or mountain hemlock in both overstory and understory. Engelmann spruce is less shade tolerant, but is a common seral associate. This old growth type can maintain old growth characteristics for long periods in the absence of fire.

The average age of the largest trees in this type is 202 years, with a range from 188 to 220. Subalpine fir and spruce on wet cedar habitat types (Group F) develop rot early and seldom reach ages of more than 190 years. Individual trees of other more long lived species may reach an age of 400 to 500 years. There are an average of 39 trees per acre 17 inches DBH or more. The range of means across forests and forest types is from 34 to 51. The wettest subalpine fir habitat types (Group H) support the most large trees per acre, averaging 42 to 51. The average basal area is 184 ft<sup>2</sup> per acre. The range is 165 to 229 ft<sup>2</sup>.

The average number of dead standing trees 9 inches or more DBH is 18 with a range of 6 to 36. Wet subalpine fir habitat types (Group H) average 22 snags per acre. The average percent of trees 9 inches or more DBH with dead or broken tops is 8 with a range of 5 to 36 in means across forests and forest types. Wet subalpine fir habitat types average 22 percent. The average percent of trees showing decay is 12, with a range of 5 to 28. Wet subalpine fir or western red cedar habitat types (Groups H, F) show

the greatest decay, averaging 24 and 27 percent. The probability of rotten down log pieces 9 inches or more in diameter is high. Average litter and duff depth is about 2 inches.



**NORTH IDAHO ZONE:**  
**Old Growth Type Code 6**  
**Whitebark pine forest type**  
**on cold environments**

**Habitat Types, Groups, and Geographic Distribution**

Subalpine fir and mountain hemlock habitat types

North Idaho Zone Groups I, J, K

This type is of limited extent on all of the 3 National Forests in this zone, but has been sampled only on the Idaho Panhandle and Nez Perce. These Forests include the Clearwater, Idaho Panhandle and the Nez Perce.

**Forest Types**

Whitebark pine

**Minimum Characteristics**

5 trees per acre 13 inches DBH or more

Large trees 150 years old or more

Basal area: 60 ft<sup>2</sup> per acre or more for Habitat Type Groups I and J;

40 ft<sup>2</sup> per acre or more for Habitat Type Group K

Sample size: 43 plots

**Site Description**

This old growth type occupies moist and dry cold upper elevation environments on all aspects at elevations from 5500 to 7600 feet or more. Subalpine fir is the climax dominant on sites too dry to support mountain hemlock. Mountain hemlock is the climax dominant on cold moist sites from the Middle Fork Clearwater River drainage and northward. Habitat types with menziesia and clintonia dominated understories (Habitat Type group I) are the most productive and can support greater tree stocking. Prior to 1900, repeated fires at intervals of less than 100 to 150 years favored the occurrence of whitebark pine stands. Fire suppression has resulted in conversion of many stands to subalpine fir and mountain pine beetle epidemics have increased fuel loadings to whitebark pine stands with increased potential for higher intensity fires.

**Vegetation Characteristics**

This type may be single or multistoried. A single canopy layer is most common in stands of pure whitebark pine. Multiple canopy layers are more common in stands of whitebark pine and understory trees of more shade tolerant species, like Engelmann spruce or subalpine fir. Large whitebark pine dominate these habitat types where cold and frequent fire favor its occurrence as a seral species. This old growth type can maintain old growth characteristics for short periods until it is replaced by late seral Engelmann spruce or climax subalpine fir or mountain hemlock.

The average age of the largest trees in this type is 276 years, with a range from 183 to 295. Individual trees may reach an estimated age of 500 years. There are an average of 54 trees per acre 13 inches DBH or more. The range of means across forests and forest types is from 32 to 66. Lower values in the range are associated with drier environments (Habitat Type group J). The average basal area is 138 ft<sup>2</sup> per acre. The range is 103 to 170 ft<sup>2</sup>. Lower basal areas are associated with drier environments in this old growth type.

The average number of dead standing trees 9 inches or more DBH is 35 with a range of 11 to 42. The average percent of trees 9 inches or more DBH with dead or broken tops is 7 with a range of 0 to 17 in means across forests and forest types. The average percent of trees showing decay is 9, with a range of 6 to 17. The probability of rotten down log pieces 9 inches or more in diameter is moderate. Average litter and duff depth is 1 to 2 inches.

**Types Currently Lacking Data**

The whitebark pine forest type on harsh, high elevation habitat types (Habitat Type group K) is known to occur, but has not been sampled. This old growth type is expected to be similar to the type described above, but the minimum basal area has been described as 40 ft<sup>2</sup> per acre instead of 60.

**NORTH IDAHO ZONE:****Old Growth Type Code 7****Western red cedar forest type on moist environments****Habitat Types, Groups and Geographic Distribution**

Western red cedar and western hemlock habitat types. Western red cedar and western hemlock habitat types with oak fern in the understory are best represented, but a variety of cedar and hemlock habitat types are present.

North Idaho Zone Groups F, G, G1

This type is well represented on the Idaho Panhandle and Clearwater National Forests and occurs on the Nez Perce National Forest primarily in the Selway River drainage. Forests in the North Idaho zone include the Clearwater, Idaho Panhandle and the Nez Perce.

**Forest Types**

Western red cedar

**Minimum Characteristics**

10 trees per acre: 25 inches DBH or more for cedar;  
21 inches DBH or more for old DF, GF, L, WH, WP, or PP;  
17" inches DBH or more for old SAF or MAF.

Large trees 150 years old or more

Basal area 120 ft<sup>2</sup> per acre or more

Sample size: 5865 plots

**Site Description**

This old growth type occupies moist environments from 1500 to 5500 feet elevation on all aspects and slope positions that are protected from summer drought. Western hemlock is the climax dominant on sites above about 2500 feet, in areas of adequate summer moisture from the North Fork of the Clearwater River northward. Western red cedar is the climax dominant on sites slightly more prone to summer drought or winter cold. These sites are highly productive and can grow larger trees and support higher basal areas than other habitat types in the North Idaho Zone. Infrequent stand replacing wildfires at more than 200 year intervals favor development of long lived seral and climax stands on these sites.

**Vegetation Characteristics**

This type may be single or multistoried. A single canopy layer is most common in stands of pure western hemlock or cedar that can develop rapidly after disturbance on favorable sites. Multiple canopy layers are more common in climax conditions where tree mortality has created openings that have filled with young trees. Large western red cedar may be a seral dominant on western hemlock sites. This old growth type can maintain old growth characteristics for long periods in the absence of fire.

The minimum diameter for this type is meant to apply when both the forest type and the actual large old trees are cedar. Because of the way forest type is computed (usually plurality of basal area), the forest type may show as cedar, but in some cases the large old trees may be a different species. In that case, use the minimum criteria appropriate on these habitat types for the species of the large old trees being considered.

The average age of the largest trees in this type is 222 years, with a range from 184 to 261. Individual trees may reach an estimated age of 800 years. There are an average of 24 trees per acre 25 inches DBH or more. The range of means across forests and forest types is from 23 to 37. The average basal area is 285 ft<sup>2</sup> per acre. The range is 268 to 330 ft<sup>2</sup>.

The average number of dead standing trees 9 inches or more DBH is 12 with a range of 6 to 47. The greatest variability is in cedar habitat types with Pacific yew in the understory (Habitat Type group G1). The average percent of trees 9 inches or more DBH with dead or broken tops is 6 with a range of 5 to 36 in means across forests and forest types. Percent dead and broken tops is also most variable in cedar habitat types with Pacific yew in the understory, ranging from 10 to 36 percent. The average percent of

trees showing decay is 13, with a range of 6 to 55. Highest incidence of decay is in the cedar habitat types with fern understories or with Pacific yew understories, ranging from 27 to 55 percent. The probability of rotten down log pieces 9 inches or more in diameter ranges from low to high depending upon successional pathways, watershed-scale disturbance history, and topographic position. Average litter and duff depth is about 2 to 3 inches.

**NORTH IDAHO ZONE:****Old Growth Type Code 8**

**Douglas-fir, western larch, Engelmann spruce/subalpine fir, mountain hemlock/subalpine fir, and white pine forest types on cold, moderately dry environments.**

**Habitat Types, Groups, and Geographic Distribution**

Subalpine fir and mountain hemlock habitat types with beargrass, dwarf huckleberry, blue huckleberry, beargrass, grouse whortleberry, or pinegrass understories.

North Idaho Zone Groups J

This type is moderately well represented across all of the 3 National Forests in the North Idaho Zone. These Forests include the Clearwater, Idaho Panhandle and the Nez Perce.

**Forest Types**

Engelmann spruce/subalpine fir, mountain hemlock/subalpine fir, and Douglas-fir are major cover types. Western larch and western white pine are minor cover types.

**Minimum Characteristics**

10 trees per acre 17 inches DBH or more

Large trees 150 years old or more

Basal Area 60 ft<sup>2</sup> per acre or more

Sample size: 890 plots

**Site Description**

This old growth type occupies cold and moderately dry environments from 5100 feet in depressions where cold air is impounded to 7300 feet on warm exposures with well drained, coarse textured soils. Mountain hemlock is the climax dominant on cold, slightly moister sites from the Middle Fork Clearwater River drainage and northward. Mountain hemlock sites are slightly more productive. Subalpine fir is the climax dominant sites too dry to support mountain hemlock. Prior to 1900, repeated fires at intervals of 100 to 200 years favored the occurrence of stands of nearly pure Douglas-fir, western larch, or white pine. Subalpine fir or mountain hemlock may rapidly reestablish on mountain hemlock sites if seed is available.

**Vegetation Characteristics**

This type may be single or multistoried. A single canopy layer is most common in seral stands of Douglas-fir, larch or white pine. Multiple canopy layers are more common in late seral stands as climax tree species grow up beneath a seral overstory, or in climax stands with shade tolerant species in both overstory and understory. Douglas-fir, larch, and Engelmann spruce are seral on subalpine fir habitat types. Subalpine fir is the most common seral species on mountain hemlock sites, but Engelmann spruce, Douglas-fir, larch, and white pine may also occur. Douglas-fir, larch, and white pine forest types can maintain old growth characteristics for moderate periods until they are replaced by late seral Engelmann spruce or climax subalpine fir or mountain hemlock. Subalpine fir and Engelmann spruce forest types can maintain old growth characteristics for long periods in the absence of fire.

The average age of the largest trees in this type is 201 years, with a range from 164 to 275. Individual trees of more long lived species may reach an age of 400 to 500 years. Larch forest type has an average age of 226 to 237 years. There are an average of 34 trees per acre 17 inches DBH or more. The range of means across forests and forest types is from 13 to 54. The white pine forest type is most variable because of stand openings created by blister rust mortality. The average basal area is 186 ft<sup>2</sup> per acre. The range is 128 to 216 ft<sup>2</sup>. The white pine forest type is highly variable.

The average number of dead standing trees 9 inches or more DBH is 23 with a range of 3 to 40. The larch forest type usually has the fewest snags (3 to 10 per acre) and the white pine forest type the most (34 to 40). The average percent of trees 9 inches or more DBH with dead or broken tops is 8 with a range of 1 to 14 in means across forests and forest types. The average percent of trees showing decay is 12, with a range of 1 to 15. The Engelmann spruce/subalpine fir and mountain hemlock/subalpine fir forest types have the highest incidence of decay, but all are highly variable. The probability of rotten,

down log pieces 9 inches or more in diameter is moderate in Douglas-fir, larch and white pine forest types and high in Engelmann spruce/subalpine fir and mountain hemlock/subalpine fir forest types.

**NORTH IDAHO ZONE:****Old Growth Type Code 9**

**Engelmann spruce/subalpine fir and mountain hemlock/subalpine fir forest types on very cold, harsh environments.**

**Habitat Types, Groups, and Geographic Distribution**

Subalpine fir and mountain hemlock habitat types with woodrush understories, alpine larch/subalpine fir and whitebark pine/subalpine fir habitat types

North Idaho Zone Group K

This type is limited to the highest elevation areas of the 3 National Forests in the North Idaho Zone, but has been sampled only on the Clearwater and Idaho Panhandle National Forests. This zone includes the Clearwater, Idaho Panhandle, and Nez Perce National Forests.

**Forest Types**

Engelmann spruce/subalpine fir, mountain hemlock/subalpine fir

**Minimum Characteristics**

5 trees per acre 13 inches DBH or more

Large trees 150 years old or more

Basal Area 40 ft<sup>2</sup> per acre or more

Sample size: 26 plots

**Site Description**

This old growth type occupies very cold and severe climates at elevations of 6000 feet in the north part of the zone to 8000 feet in the south. Snowpacks remain long into summer and trees grow deformed by snow and wind. Subalpine fir is the climax dominant on sites too dry to support mountain hemlock and at lower elevations than alpine larch and whitebark pine. Mountain hemlock is limited to moist cold sites from the Middle Fork of the Clearwater River and northward. Alpine larch/subalpine fir are incidental habitat types on the highest peaks of the Bitterroot Mountains. Whitebark pine/subalpine fir habitat types are a mosaic of timberline sites with more wind and higher snowpacks than subalpine fir habitat types. Fire suppression since 1900 has resulted in the conversion of many stands once dominated by seral whitebark pine to Engelmann spruce/subalpine fir and mountain hemlock/subalpine fir.

**Vegetation Characteristics**

This type is most often multistoried and trees tend to grow in clusters. A single canopy layer can occur in stands of pure Engelmann spruce, mountain hemlock or subalpine fir in early seral stages. Multiple canopy layers are common in late seral stands as climax tree species grow up beneath a seral overstory, or in climax stands with shade tolerant subalpine fir or mountain hemlock in both overstory and understory. Subalpine fir is a climax dominant on subalpine fir habitat types and seral on mountain hemlock. It usually grows in close association with whitebark pine and alpine larch on those habitat types. Mountain hemlock is climax on mountain hemlock habitat types and may rapidly reestablish on these sites after disturbance. Engelmann spruce is less shade tolerant, but is a common seral associate. This old growth type can maintain old growth characteristics for long periods in the absence of fire.

The average age of the largest trees in this type is 193 years, with a range from 190 to 195. In the limited sample, individual trees seldom reached an age of 300 years. There are an average of 79 trees per acre 13 inches DBH or more. The range of means across forests and forest types is from 77 to 81. The average basal area is 209 ft<sup>2</sup> per acre. The range is 176 to 223 ft<sup>2</sup>. The number of large trees per acre and the basal area from the limited sample are higher than expected, and may not reflect the many openings in stands of this old growth type.

The average number of dead standing trees 9 inches or more DBH is 11 with a range of 11 to 13. The average percent of trees 9 inches or more DBH with dead or broken tops is 22 with a range of 21 to 23 in means across forests. This high amount of dead and broken tops is associated with snow and wind damage. The average percent of trees showing decay is 28, with a range of 13 to 35. The probability of

rotten, down log pieces 9 inches or more in diameter is moderate. Average litter and duff depth is 1 to 2 inches.



**LITERATURE CITED**

- Achuff, P.L. 1989. Old-growth forests of the Canadian Rocky Mountain National Parks. *Natural Areas Journal*. 9(i):12-26.
- Arno, S.F. 1980. Forest fire history in the northern Rockies. *J. of Forestry*. 460-465.
- Arno, S.F.; Simmerman, D.G.; Keane, R.E. 1985. Forest succession on four habitat types in western Montana. Gen. Tech. Rep. INT-177. Ogden, UT: U.S. Department of Agriculture, Forest Service, Intermountain Research Station. 74 P.
- Cooper, S.V.; Neiman, K.E.; Roberts, D.W. 1991. Forest habitat types of northern Idaho: a second approximation. Gen. Tech. Rep. INT-236. Ogden, UT: U.S. Department of Agriculture, Forest Service, Intermountain Research Station. 143 P.
- Daubenmire, R. 1986. Plant communities. A textbook of plant synecology. Harper and Row Publishers, NY. 300 P.
- Dansereau, P. 1957. Biogeography, an ecological perspective. The Ronald Press Co. N.Y. 394 P.
- Fischer, W.C.; Bradley, A.F. 1987. Fire ecology of western Montana forest habitat types. Gen. Tech. Rep. INT-223. Ogden, UT: U.S. Department of Agriculture, Forest Service, Intermountain Research Station. 95 P.
- Fisher, W.C.; Clayton, B.D. 1983. Fire ecology of Montana forest habitat types east of the continental divide. Gen. Tech. Rep. INT-141. Ogden, UT: U.S. Department of Agriculture, Forest Service, Intermountain Research Station. 83 P.
- Franklin, J.F.; Hall, F.; Laudenslayer, W.; Maser, C.; Nunan, J.; Poppino, J., Ralph, C.J.; Spies, T. 1986. Interim definitions for old-growth Douglas-fir and mixed-conifer forest in the Pacific northwest and California. Research Note PNW-447. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 7 p.
- Franklin, J.F.; Spies, T.A. 1991. Ecological definitions of old-growth Douglas-fir forests. In *Wildlife and Vegetation of Unmanaged Douglas-fir Forests*. Gen. Tech. Rep. PNW-GTR-285. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 61-69.
- Habeck, J.R. 1988. Old-growth forests in the northern Rocky Mountains. *Natural Areas Journal*. 8(3):202-211.
- Habeck, J.R. 1990. Old-growth ponderosa pine-western larch forests in western Montana: ecology and management. *Northwest Environmental J.* 6(2):271-292.
- Hayward, G.D. 1991. Using population biology to define old-growth forests. *Wildl. Soc. Bull.* 19:111-116.
- Hunter, M.L. 1987. What constitutes an old-growth stand? Toward a conceptual definition of old-growth forests. *J. of Forestry*. 87(8):33-35.
- Hunter, M.L. 1990. *Wildlife, forests, and forestry: principles of managing forests for biological diversity*. Prentice Hall Neglewood Cliffs, NJ. 370 p.
- Losensky, J.L. 1992. Personal communication. Jack Losensky, Ecologist, Lolo National Forest, Missoula, MT.

- Kimmons, J.P. 1987. Forest ecology. Macmillan Publ. Co., NY. 531 P.
- Marcot, B.G.; Hothausen, R.S.; Teply, J., Carrier, W.D. 1991. Old-growth inventories: status, definitions, and visions for the future. In Wildlife and Vegetation of Unmanaged Douglas-fir Forests. Gen. Tech. Rep. PNW-GTR-285. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 47-60.
- Oliver, C.D.; Larson, B.C. 1990. Forest stand dynamics. McGraw-Hill, Inc., NY. 467 p.
- Pfister, R.D. 1987. Old growth definition, classification and application. Contract report Nez Perce and Kootenai National Forests. Northern Region USDA Forest Service, Missoula, MT. 56 p.
- Pfister, R.D., Kovalchik, B.L.; Arno, S.F., Presby, R.C. 1977. Forest habitat types of Montana. Gen. Tech. Rep. INT-34. Ogden, UT: U.S. Department of Agriculture, Forest Service, Intermountain Research Station. 174 p.
- Spurr, S.H. 1964. Forest ecology. The Ronald Press Co. N.Y. 352 p.
- Thomas, J.W.; Ruggiero, L.F.; Mannan, R.W., Schoen, J.W.; Lancia R.A. 1988. Management and conservation of old-growth forests in the United States. Wildl. Soc. Bull. 16:252-262.
- USDA Forest Service R1. 1989. Timber data management handbook: stand examination procedures. Forest Service Handbook 2409.21h R-1. Missoula, MT: U.S. Department of Agriculture, Forest Service, Northern Region. 250 p.
- Weaver, J.E., Clements, F.E. 1938. Plant ecology. McGraw-Hill, Inc. N.Y. 601 p.

**Tab A: Habitat Type Groups for Northern Idaho**

Habitat Type Group	Group Code	Alpha Code	Numeric Code
	A	PIPO/AGSP	130
		PIPO/FEID	140
		PIPO/SYAL	170
		PSME/AGSP	210
		PSME/FEID	220
	B	PIPO/PHMA	190
		PSME/PHMA	260
		PSME/PHMA-SMST	263
		PSME/PHMA-PHMA	261
		PSME/SYAL	310
		PSME/VAGL	280
		PSME/VACA	250
		PSME/CARU	320
		PSME/CARU-ARUV	322
		PSME/CARU-CARU	323
		PSME/CAGE	330
		PSME/SPBE	340
	C	ABGR/SETR	529
		ABGR/ASCA	516
		ABGR/ASCA-MEFE	518
		ABGR/ASCA-ASCA	517
		ABGR/CLUN	520
		ABGR/CLUN-MEFE	525
		ABGR/CLUN-PHMA	524
		ABGR/CLUN-CLUN	521
	C1	ABGR/ASCA-TABR	519
		ABGR/CLUN-TABR	526
	D	ABGR/LIBO	590
		ABGR/LIBO-XETE	592
		ABGR/LIBO-LIBO	591
		ABGR/VAGL	515
		ABGR/XETE	510
		ABGR/XETE-COOC	511
		ABGR/XETE-VAGL	512
		ABGR/CLUN-XETE	523
	E	ABGR/PHMA	506
		ABGR/PHMA-COOC	507

Habitat Type Group	Group Code	Alpha Code	Numeric Code
		ABGR/PHMA-PHMA	508
		ABGR/SPBE	505
	F	THPL/OPHO	550
		THPL/ATFI	540
		THPL/ATFI-ADPE	541
		THPL/ATFI-ATFI	542
		THPL/ADPE	560
	G	THPL/GYDR	555
		THPL/ASCA	545
		THPL/ASCA-MEFE	547
		THPL/ASCA-ASCA	546
		THPL/CLUN	530
		THPL/CLUN-MEFE	533
		THPL/CLUN-CLUN	531
		THPL/CLUN-XETE	534
		TSHE/GYDR	565
		TSHE/ASCA	575
		TSHE/ASCA-ARNU	576
		TSHE/ASCA-MEFE	577
		TSHE/ASCA-ASCA	578
		TSHE/CLUN	570
		TSHE/CLUN-ARNU	572
		TSHE/CLUN-MEFE	574
		TSHE/CLUN-CLUN	571
		TSHE/CLUN-XETE	573
	G1	THPL/CLUN-TABR	535
		THPL/ASCA-TABR	548
	H	ABLA/STAM	635
		ABLA/STAM-MEFE	636
		ABLA/STAM-LICA	637
		ABLA/CACA	650
		ABLA/CACA-LEGL	655
		ABLA/CACA-VACA	654
		ABLA/CACA-LICA	652
		ABLA/CACA-CACA	651
		TSME/STAM	675
		TSME/STAM-LUHI	676
		TSME/STAM-MEFE	677
	I	ABLA/CLUN	620

Habitat Type Group	Group Code	Alpha Code	Numeric Code
		ABLA/CLUN-CLUN	621
		ABLA/CLUN-XETE	624
		ABLA/CLUN-MEFE	625
		ABLA/MEFE	670
		ABLA/MEFE-LUHI	672
		ABLA/MEFE-VASC	674
		ABLA/MEFE-COOC	671
		ABLA/MEFE-XETE	673
		TSME/CLUN	685
		TSME/CLUN-MEFE	686
		TSME/CLUN-XETE	687
		TSME/MEFE	680
		TSME/MEFE-LUHI	681
		TSME/MEFE-XETE	682
		TSHE/MEFE	579
	J	ABLA/XETE	690
		ABLA/XETE-LUHI	694
		ABLA/XETE-VASC	692
		ABLA/XETE-COOC	693
		ABLA/XETE-VAGL	691
		ABLA/VAGL	720
		ABLA/CARU	750
		ABLA/VASC	730
		ABLA/VACA	640
		TSME/XETE	710
		TSME/XETE-LUHI	711
		TSME/XETE-VASC	713
		TSME/XETE-XETE	712
	K	ABLA-LUHI	830
		TSME/LUHI	840
		PICO/VACA	920
		PICO/XETE	925
		PICO/VASC	940
		LALY-ABLA	860
		PIAL-ABLA	850

## **Appendix F: Recommendations for Coordinating Land Management Activities with Elk Habitat Preferences**

The following information is based on recommendations from Idaho Department of Fish and Game.

### ***Timber Harvest Recommendations***

1. Any silvicultural method that changes the vegetation so that it no longer meets the definition of cover should be confined to an area with a maximum width of 305 meters (1,000 feet) and should be bordered on all sides by cover not less than 243 meters (800 feet) width.
2. Regeneration harvest is usually preferred over other types of timber harvest techniques because it provides better forage and reduces the amount of future harvest activity in the area.
3. Maintain slash depth at less than 0.5 meters (1.5 feet) in order to minimize impact on elk movements, distribution and habitat use.
4. In appropriate habitat types, broadcast burn logging slash in the fall to get maximum elk forage protection.
5. Plan timber sales so maximum duration of disturbance in any one area is two years in succession. This can be accomplished with smaller sales, or scheduling larger sales by compartment in a certain sequence through contract stipulations. This would eliminate random logging over the entire sale area.
6. Refrain from logging areas when elk would normally be using them, if feasible. For example, do not log important summer habitat during that season especially if a viable option is to log during the winter.
7. If summer logging is planned on elk summer range, provide adjacent security areas at least as large as the area being disturbed for the animals to move to during periods of timber harvest and/or road building activity. Try to provide a ridge line between the disturbed area and security area. It is preferable to have several adjacent security areas available.

### ***Road Recommendations***

8. When major elk trails are bisected by roads, crossings should be provided across cut and fill slopes so they do not exceed natural gradients. This is especially necessary when cut slopes are over 2.5 meters (8 feet) high and/or have a greater than  $\frac{3}{4}$  to 1 slope.
9. Vegetation removal along road sides should not extend any further from road edge than necessary for logging activities.
10. Slash depths adjacent to roads in cleared rights-of-ways should not exceed 0.5 meters (1.5 feet) in depth. In areas where this level of slash disposal is impractical, openings 16 feet wide thru the slash at 61 meter (200 foot) intervals are recommended, especially on ridges and trail crossings.
11. Maintain a minimum 91 meter (300 foot) buffer strip between open forest roads and openings which serve as feeding areas.

12. Roads that are to remain open should have two sight distance buffers adjacent to saddles, meadows, riparian areas, and ridge tops as these are usually major elk use areas. One sight distance hides 90% of an elk at 61 meters (200 feet).
13. New road construction should be temporary in nature and permanently closed/re-contoured when work is completed unless the new road is part of an extensive access management plan.
14. Install gates at onset of road building activity when the objective is to prevent human use patterns from becoming established. These gates should be closed and locked during any period of logging inactivity exceeding 24 hours.
15. Inform the public by all types of news media, including signs on gates, about reasons for and dates of road closures.
16. Replace gates with re-contoured slopes after logging activity where maximum elk security and habitat use is desired.
17. Revegetate the driving surface as well as cut and fill slopes on permanently closed roads.
18. Maintain buffer strips (that will qualify as hiding cover if possible) along roads left open during the normal elk use period. These buffers should be at least two sight distances wide when separating the road from an opening. One sight distance hides 90% of an elk at 61 meters (200 feet).

***Protecting Special Habitat Components***

19. Consult a wildlife biologist about the occurrence and/or importance of special habitat components on a case by case basis.
20. Maintain the value of licks and wallows by buffering from disturbance for at least two site distances. One sight distance hides 90% of an elk at 61 meters (200) feet.
21. Do not permit activities such as timber harvest, livestock grazing, or road building on established calving and rearing areas during the period of May 1 through July 15.
22. Protect known major elk travel routes with buffer strips on either side for at least two site distances. One sight distance hides 90% of an elk at 61 meters (200 feet).