United States
Department of
Agriculture

**Forest
Service**

Caribou-Targhee
National
Forest

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Revised Forest Plan

for the

Caribou National Forest

Caribou-Targhee NF

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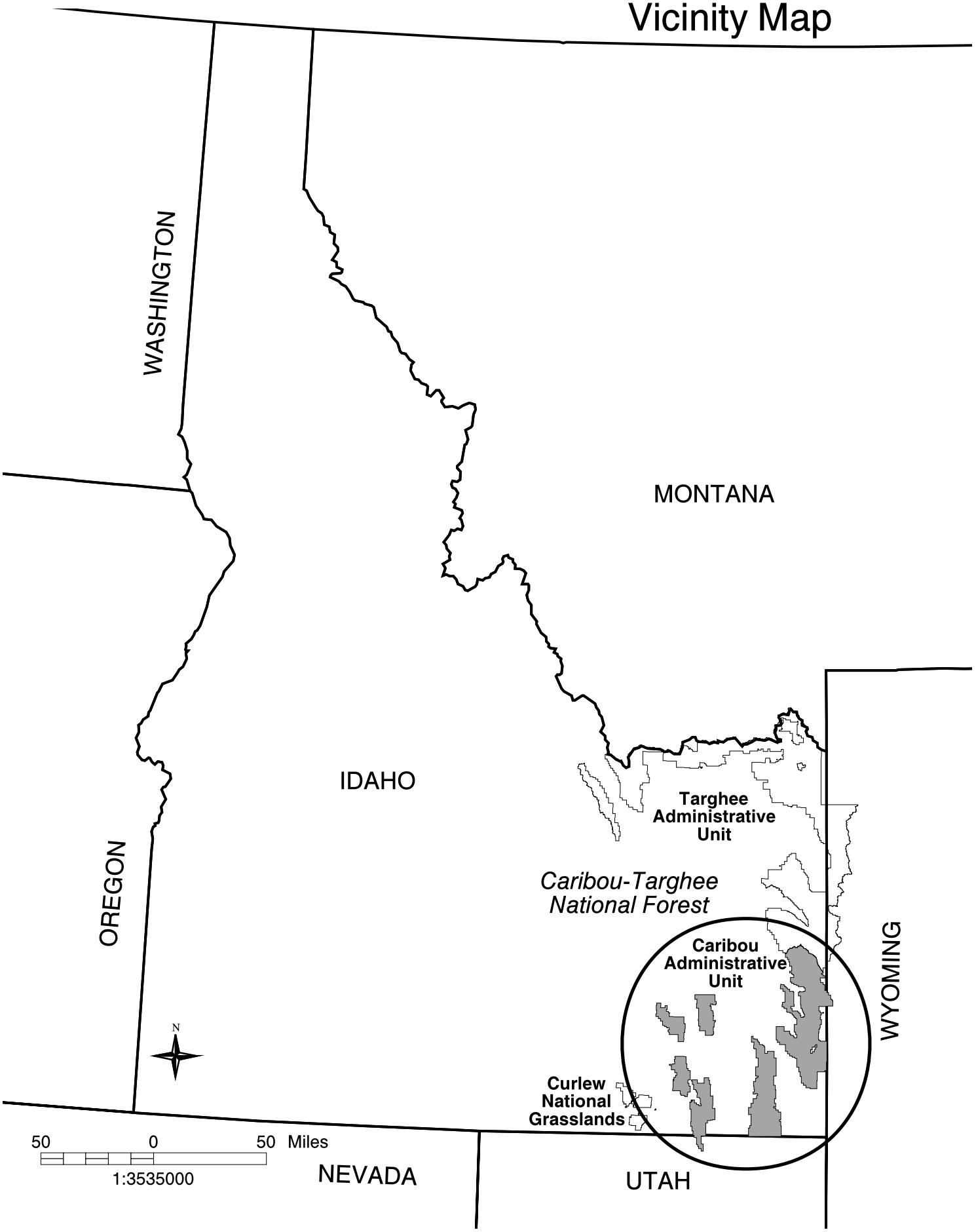
Caribou Revised Forest Plan

Caribou-Targhee National Forest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Chapter 1

Introduction

Introduction to the Revised Forest Plan

Where is the Caribou National Forest? The Caribou portion of the Caribou-Targhee National Forest (NF) is located in southeastern Idaho and overlaps into Wyoming and Utah. In the spring of 2000 the Caribou NF and Targhee NFs were officially combined. The Targhee NF revised its Forest Plan in 1997 and will continue to be managed under the guidance of that document. This Revision effort will address management of the Caribou portion of the Caribou-Targhee only. The Caribou-Targhee NF administrative unit also includes the Curlew National Grassland. The Curlew NG is managed under its own plan completed in February of 2002. Thus, the Caribou Revised Forest Plan will not address management of the Curlew National Grasslands. The Caribou is broken into three Ranger Districts: Westside, Soda Springs and Montpelier.

The Caribou lies mainly within the northern extent of the Great Basin Region. In general, it is an area of low effective precipitation and harsh climatic conditions. The Caribou is an area of high, rugged mountain ranges rising sharply from semi-arid sagebrush plains and agricultural valleys. Forestlands occupy approximately 50 percent of the Caribou, mainly above 6000 feet in elevation. The areas support stands of Douglas-fir, subalpine fir, lodgepole pine, Engelmann spruce, and aspen. Shrubs such as sagebrush, rabbitbrush, maple, or juniper dominate the non-forested areas. The Caribou provides a wide variety of diverse habitats for the 334 species of terrestrial vertebrate wildlife known or suspected to occur on the Forest. Five species listed under the Endangered Species Act (ESA) are also associated with the Caribou. The water bodies on the Caribou provide habitat for a variety of aquatic, plant, insect and fish species, including the Bonneville and Yellowstone cutthroat trout.

The Caribou portion of the Caribou-Targhee encompasses eleven counties in three states. At the center of this "zone of influence" is Bannock County, a retail and commercial hub for southeastern Idaho. There are several urban centers using the Caribou-Targhee NF for recreation and commercial uses. One of the most unique economic opportunities on the Caribou is the phosphate mining on the Soda Springs and Montpelier Ranger Districts. The phosphate area on the Forest contains approximately 17 percent of the phosphate deposits in the western United States.

What is the Purpose of the Forest Plan?

An approved land and resource management plan (Plan) is the product of a comprehensive notice and comment process established by Congress in the National Forest Management Act (NFMA). The approval of a Plan establishes direction so that all future decisions in the planning area will include an "interdisciplinary approach to achieve integrated consideration of physical, biological, economic and other sciences" [*16 USC 1604*]. The 1985 Caribou Plan is being revised under the 1982 Forest Service regulations for implementing the NFMA (36 CFR 219).

People, their needs and values, have keenly influenced natural resource conservation. In 1881 the first federal legislation addressing forest resource protection and management was

enacted when Congress funded the Division of Forestry. During America's expansion in the mid and late 1800's, people became concerned about land abuses on the western frontier. As a result, Congress enacted the Forest Reserve Act of 1891 and later the Organic Act of 1897. The first act established forest reserves from existing public domain lands for the purpose of improving and the second for protecting the "forests within the reservation, or for the purpose of securing favorable water flows, and to furnish a continuous supply of timber for the use and necessities of the citizens of the United States."

Management goals for the national forests were expanded in the Multiple-Use Sustained-Yield Act of 1960, and they remain the foundation for federally managed forests and grasslands. The Multiple Use Sustained Yield Act directs that national forest and grassland be "administered for outdoor recreation, range, timber, watershed, and wildlife and fish purposes." Resource management is to be coordinated for "multiple uses" – considering the relative values of the various resources, but not necessarily maximizing dollar returns, nor requiring that all areas be managed for all uses. The Act also calls for "sustained yield" – a level of resource outputs that can be maintained in perpetuity without impairing the productivity of the land.

The primary purpose of land and resource planning on the Caribou-Targhee National Forest is to sustain our watersheds, forests and rangelands and provide for the multiple uses of these lands. The Revised Forest Plan sets a clear course of action for a specified period of time, 10 to 15 years. The Plan answers the questions: "What are conditions and outcomes that we should seek to provide for ecological sustainability and contribute to economic and social sustainability? How will accomplishment be measured? What kinds of actions do we need to take to achieve the conditions and outcomes? And, what will it cost?" This Revision builds upon the existing Caribou Land and Resource Management Plan, updating the current guidance to better reflect changing public values and current science.

What Does the Forest Plan Do?

The Forest Plan establishes direction so that all future decisions in the planning area will use an interdisciplinary approach to achieve integrated consideration of physical, biological, economic and social sciences (36 CFR 219.5). It also provides direction to assure coordination of multiple-uses (outdoor recreation, range, timber, watershed, wildlife, fish, minerals, and wilderness) and the sustained-yield of products and services [16 USC 1604(e)]. Plan approval does not authorize, fund, or carry out any projects, unless specifically stated in the Record of Decision.

The guiding framework for the forest plan comes from issues of national, regional or local interest regarding the management of the Caribou-Targhee National Forest. The identification, analysis and resolution of these issues are a desired outcome of the planning process. Building on this foundation, forest planning provides for sustainable development that contributes to our economic and cultural systems and to our communities.

The Caribou Revised Forest Plan should be viewed as a "living document," holding in its covers the current agreements and strategies affecting the Caribou. Our Revised Forest Plan contains a hierarchical planning structure: it emphasizes the use of ecological boundaries, especially those that have social meaning and it urges a collaborative approach with other federal agencies, tribes, state and local governments, and the public. It is intentionally more adaptive than the 1985 Forest Plan, allows for a diversity of approaches, and encourages experimentation. The Forest Plan has a set of core design characteristics by which our planning process and structure should be judged.

The Plan:

- Develops and uses scientifically credible strategies for the protection of species and ecosystems.

- Offers opportunities for public engagement in planning, including development of a sense of joint inquiry into the conditions, capabilities and potential of the Forest; the encouragement of joint public/agency stewardship of these lands; and the restoration of trust in Forest Service management.

- Emphasizes a deepened agency engagement in planning by connecting planning more centrally to the issues faced by forest managers.

- Encourages organizational learning through adaptive management, information sharing, ongoing public dialogue, and independent review.

- The Revised Forest Plan focuses on desired conditions and outcomes and the pathway to achieve those desired states rather than mandating prescriptive means that are not responsive to the inherent variability and complexity of local landscapes.

In the past, national forest planning often focused on the short-term issues of land allocation and timber harvest levels. While these are still important issues, Forest managers believe that, consistent with the emphasis on ecological and social sustainability, the Revised Forest Plan emphasizes the development of desired long-term landscape conditions and outcomes that will provide this sustainability. Using information on current conditions, from bioregional assessments and elsewhere, our Revised Forest Plan builds a pathway from the current state to the desired future state and includes an estimate of actions and budgets that will be needed.

The Plan does this by establishing six categories of specific decisions identified under NFMA and the 1982 Forest Plan Implementation regulations:

- Contains a set of goals and objectives. (36 CFR 219.11(b)

- Establishes forest-wide requirements (standards and guidelines) that apply to future management activities. (36 CFR 219.13 to 219.27)

- Establishes management direction through the use of prescription area designation. Prescriptions and management direction is the framework under which future site-specific decisions are made. (36 CFR 219.11(c)

- Designates suitable timber land and establishes the allowable timber sale quantity for the planning period. (36 CFR 219.14 and 36 CFR 219.16)

- Determines non-wilderness allocations or wilderness recommendations. (36 CFR 219.17)

- Establishes monitoring and evaluation requirements. (36 CFR 219.11(d))

Projects and activities are proposed, analyzed and carried out within the framework of the Plan. The Plan is a controlling consideration, but project decisions (irretrievable commitment of resources) are only made after following legal requirements for project analyses. Ongoing activities and uses are regulated through the direction contained in regulations for management of the Forest Service (36 CFR 200-297). These site or activity-specific decisions must be consistent with applicable Plan direction, or the Plan may be amended to permit the

activity. The consistency requirement of NFMA [16 USC 1604(i) and 36 CFR 219.10(e)] acts as a control on all contracts, permits, licenses, resource plans and activities that arise in the planning area of the Plan. The Plan allows or prohibits some uses and establishes standards and guidelines that regulate future resource use. The consistency requirement of NFMA directs the Forest Service to evaluate proposed activities against the standards and guidelines and management area prescriptions of the Plan.

The Revised Forest Plan focuses small landscape planning on the mix of activities and projects needed to meet forest-wide goals and implement the Forest Plan. Coupled with the laws and regulations applicable to the project level, the Plan creates a management system for future decision making. Projects and activities are proposed, analyzed and carried out within the framework of the plan. All projects remain subject to site-specific and continuing compliance with Federal environmental laws, such as the Endangered Species Act, National Environmental Policy Act, Clean Water Act, and Clean Air Act.

Monitoring and evaluation is an essential feature of the Plan. This Plan adopts an adaptive approach to forest management. Adaptive management is based on the premise that we do not have enough knowledge to forecast outcomes with total accuracy for the life of the Plan. Project effects are monitored and evaluated against the direction in the Plan and in the context of the social environment at the time. Using this approach, the Forest can insure that trends in resource conditions and services provided are consistent with the general strategic intent of the Plan and the public.

Biological Diversity and Vertebrate Population Viability

One of the major requirements of the National Forest Management Act is for the Secretary of Agriculture to promulgate regulations "specifying guidelines for land management plans developed to achieve the goals of the Program which ... (B) provide for a diversity of plant and animal communities based on the suitability and capability of the specific land area in order to meet overall multiple use objectives" [16 USC 1604(g)(3)(B)]. The diversity provision is one of ten subsections of direction from Congress regarding the promulgation of planning regulations for Forest Plans to provide for multiple use and sustained yield. In accord with NFMA, the Secretary promulgated regulations that address the diversity provision at 36 CFR 219. This Plan is governed under the 1982 implementing regulations.

The fish and wildlife resource regulation [36 CFR 219.19] is one part of the planning regulation to provide for viability within multiple use objectives. The fish and wildlife resource regulation has seven provisions designed to meet the goal of managing National Forest habitats for viable populations of existing native and desired non-native vertebrate species in the planning area. Through 36 CFR 219.19 and other provisions of the planning regulations, Forest Plans provide for viability of vertebrate communities within multiple use objectives. The Forest Service uses the planning process and ongoing monitoring, evaluation and adjustment of fish, wildlife, and rare plant standards to prevent listing of species under the Endangered Species Act and avoid extirpation of species from its actions.

The NFMA diversity provision and the fish and wildlife resource regulation establish a goal to provide habitat for the continued existence of vertebrate species in the planning area. The goal is met by following the provisions of 36 CFR 219.19(a)(1) through (a)(7). The bottom line is that the Forest Service may not adopt a plan that it knows or believes would, through possible future Forest Service actions, extirpate a vertebrate species from the planning area. Viability assessments of all vertebrate species are not required. Compliance with 36 CFR 219.19 is not subject to precise numerical interpretation and cannot be set at a single threshold.

The fish and wildlife resource regulation does not require species-specific assessments to support a finding that a proposal is consistent with its terms. Rather the decision-maker may place reasonable reliance upon assessments of (1) species with habitat needs that are essentially the same; (2) a group of species generally thought to perform the same or similar ecosystem functions; and/or (3) the continued integrity and function of ecosystem(s) in which a species is found. Flexibility in selecting methodology is especially appropriate for species assessments, given the expertise and knowledge of local forest officials concerning the lands they manage, the variety of complex issues involved, and the often-limited resources available.

Tribal Trust Responsibility

The relationship of the United States government with American Indian Tribes is based on legal agreements between sovereign nations. The Fort Bridger Treaty of July 3, 1868 provided for the establishment of the Fort Hall Indian Reservation. It also granted hunting and fishing rights to tribal members on "all unoccupied lands of the United States." This right applies to all public domain lands that were reserved for National Forest purposes presently administered by the Caribou National Forest. These rights are still in effect, and management actions recognize these rights. Consultation with the Shoshone-Bannock Tribal Council and all federally recognized tribes is required on land management activities and land allocations that could affect these rights.

How Is the Public Involved in Forest Management?

The Revised Forest Plan provides a framework for the administration of the Caribou. It emphasizes a collaborative approach in which people, communities, tribes, businesses and governments are full partners in defining issues and developing options for addressing them. Our collaboration commitment, quite simply, strives to be inclusive, open, representative, guided by clear expectations and objectives, and flexible, but at the same time, linked to existing law and procedures, and having clear decision rules and authorities. It builds on current scientific understanding and knowledge and seeks out relevant expertise as needed.

The Revised Plan encourages citizens, as well as governments and groups, to become stewards of the land. At all stages and levels, the planning process enables citizens, as well as other agencies and organizations, to become stewards of the land, not merely its clients and customers. Our goal is to create an open forum for public and organizational inquiry in which issues of key public concern are deliberated and analyzed and questions defined so that all can actively work on developing solutions to them.

How Is Budget Integrated into Planning?

For the Revised Forest Plan to be meaningful, some relationship must exist between the Plan and the budget available to undertake the Plan. The Revised Forest Plan concentrates on setting the long-term goals and the associated desired condition, and makes a first estimate of the pathway (mix of actions) over time to achieve these conditions. The estimated rate of attainment of desired conditions is linked to expected budgets. The budget needs of maintaining the desired condition are examined and options for building partnerships to increase stewardship capacity are identified. The Revised Forest Plan provides an opportunity to compare the expected and actual budget during the plan period. Although budget shortfalls may affect the actions taken and the rate of progress toward achieving forest-wide goals, they do not automatically trigger a revision in the Forest Plan. By the same token, the Plan does not preclude accelerated attainment of certain objectives if budget increases or partnerships

allow for additional work. This flexibility was built into Alternative 7R of the Revision FEIS which was selected to create this Plan. The analysis for this Plan assumes that budgets will remain relatively steady throughout the planning period.

How is the Revised Forest Plan Used?

Several agency actions have influenced the structure of this Plan and determined how it is to be used. These include the Interior Columbia Basin Ecosystem Management Project (ICBEMP), conservation strategies), and the combination of the Caribou and Targhee National Forests. Some of the regional information for the Plan and the accompanying EIS was derived from applicable information in these documents. Assessments characterize the biophysical and social ecosystem components at various time frames and spatial extents. The Caribou National Forest Plan was amended in July of 1995 to provide interim direction to manage inland native fish. The INFISH direction has been considered and addressed as appropriate for long-term management.

The assessments described can provide comprehensive descriptions of ecosystem structures, processes, and functions that are critical to understanding the present conditions and in projecting future trends. Understanding the past, present and possible future environments, including vegetation, communities, cultures, fish, wildlife, and other ecosystem components, help identify the biophysical, economic and social limits of ecosystems. Assessing ecosystem components at various time frames and spatial extents provides the foundation for making better and more accepted decisions on the management of natural resources.

Assessments represent a synthesis of current scientific knowledge, including a description of uncertainties and assumptions. Assessments are not decision documents. They do not resolve issues or provide direct answers to specific problems. Rather, assessments provide the foundation for proposed additions or changes to existing land management direction. They provide necessary information for policy discussions and decisions. The geographic area of the assessment and the data resolution depend on the systems and the issues being addressed. Because the Caribou and Targhee NFs have merged, some of the direction was taken from the Targhee Revised Forest Plan (RFP), where appropriate. This will facilitate more coordinated management.

This Revised Forest Plan supercedes and replaces all other Forest management plans for the Caribou NF Planning Unit. Some exceptions, including range allotment plans; higher order plans such as those provided for by Regional, National, or Interagency plans; and Cooperative agreements, plans or other binding agreements made with outside agencies or organizations, will remain in effect. Once the Plan is completed and approved, all permits, contracts and other instruments for use and occupancy of Forest Service administered lands must conform to it as soon as practicable (36 CFR 219.10(e)).

How is this Revised Forest Plan Structured?

- Chapter 1 is an overview of the purpose of the Revised Plan.

- Chapter 2 is a summary of the Analysis of the Management Situation (AMS) and major issues driving the Revision process. This provides a basis for understanding where the direction in the Revised Plan originated. It shows the baseline information and public sentiment that drove the Desired Future Conditions (DFCs) and goals of the Revised Forest Plan. This explains the Need(s) for Change and DFC for the Caribou portion of the Caribou-Targhee NF.

- Chapter 3 is a detailed description of the Forest-wide Management Direction. Organized by resource area, this chapter contains specific DFCs, goal, objectives, standards and guidelines. This management direction applies across the Caribou portion of the Caribou-Targhee NF unless superceded by the direction in Chapter 4.

- Chapter 4 contains a description of the ecological subsections on the Forest. The subsection descriptions provide the intermediate ecological context between Forest-wide and prescription area scales. Part 2 of Chapter 4 describes the management prescriptions that will be applied on the ground to achieve the Forest-wide DFCs. These prescription areas have direction specifically designed to meet the goals and objectives of that prescription. Thus, the Forest has a double-tiered approach to management; there is direction applicable to all areas of the Forest (Chapter 3) and direction to meet management prescriptions for a particular site, sub-watershed, timber stand, etc (Chapter 4, Part 2).

- Chapter 5 describes the plan for implementing the Revised Forest Plan (RFP). It contains a synopsis of the objectives Forest managers will be working to meet over the next decade. A schedule is included, which provides the allowable sale quantity of timber as required by 36 CFR 219.16. Part 2 of Chapter 5 contains the Monitoring and Evaluation section. This describes the Forest Plan monitoring to do to validate the RFP assumptions, determine the effectiveness of standards and guidelines in meeting our desired future conditions, and measure the rate of implementation of those standards and guidelines. This information will be compiled to validate the effectiveness of the RFP and ensure that it is the “living document” intended.

- The Revised Forest Plan also includes an Index and Glossary.

- Appendix A is a listing of the laws and regulations governing management of the National Forest.

- Appendix B contains riparian process guidance and the Caribou riparian area characteristics.

Chapter 2

Summary of the AMS

Summary of the Analysis of the Management Situation

Current Resource Conditions and Trends

This section briefly summarizes the state of the program areas, based on the 1999 Analysis of the Management Situation (AMS), which was used to focus the analysis for this Caribou Forest Plan Revision. More information can be found in the AMS; detailed analysis is also presented in the accompanying Environmental Impact Statement (EIS) for the Caribou Revision. The current condition of the Forest was assessed at several different levels. The Columbia River Basin Assessments looked at broad scale condition. The Caribou Forest also conducted an assessment, using the Regional Properly Functioning Condition (PFC) Rapid Assessment process at subregional scale. In addition, there have been many assessments at the watershed or landscape scale. Biological, physical, and social resources have been assessed at all of these multiple scales.

General Forest Trends

Watershed protection and ecological restoration have been given a high priority in the Forest Service in decision-making processes, including budget and program planning, land management planning, project implementation, and watershed assessments for forest and interagency plans. Watersheds are the basic building blocks of sound resource stewardship. Downstream communities depend on the clean water that flows from watersheds for consumption, food production, agriculture development, employment, power generation and recreation. Without healthy watersheds, habitat deteriorates for all living things, including people. Healthy watersheds sustain flows of pure clean water, a high priority for the American people.

The Forest's watersheds appear to be in moderate and stable hydrologic condition. Riparian and wetland areas comprise a small percent (less than 6%) of the total number of acres on the Forest, but they are a critical part of the landscape. Their limited extent, high productivity, and role in essential processes and functions make them very valuable. For example, nationally 70 percent of the federally listed threatened and endangered species are dependent on riparian and aquatic ecosystem. The number of plant and animal species listed under the

Endangered Species Act, or listed as regionally sensitive species, continue to grow. The overall conditions of riparian areas on the Forest are adequate to provide for necessary processes and functions. Some riparian areas are degraded and need restoration, while others may be functioning but need improvement.

Some aquatic species are at risk on the Forest, including the Yellowstone cutthroat trout and the Bonneville cutthroat trout, which inhabit decreasing portions of their historic range. Aquatic habitat has become more fragmented and connectivity has been lost between the lower reaches of the watershed and higher elevation habitat needed for spawning and rearing. Although the U.S. Fish and Wildlife Service determined that listing of the Bonneville and Yellowstone cutthroat trout was not warranted at this time, innovative conservation strategies can be developed to insure protection and recovery of these species.

According to the Caribou National Forest's Sub-regional Properly Functioning Condition Assessment (1997), Engelmann spruce/subalpine fir, aspen, juniper riparian/wetland and tall forb communities on the Forest have been assessed as being at high risk due to overall departure from historical ranges of variation in sustainability indicators. The Engelmann spruce/subalpine fir is at risk primarily due to the dominance of mature and old age structure and changes in the historic non-lethal fire regimes. The aspen type is at risk because many stands are in a mature and old age structure, conifer is succeeding, and the historic fire regime is outside historic ranges. Juniper has increased in distribution and density from historic ranges, resulting in changes in ecological processes, such as water intake and erosion. Tall forb types are at risk due to the loss of historic structure and composition, excessive bare soil and erosion, invasion by tarweed, and alteration in disturbance regimes and patterns.

Disturbances from drought, wind, fire, disease and insects are part of functioning ecosystems. Some past timber harvest practices, livestock grazing practices and suppression of disturbances, particularly wildfire, have created landscapes that are prone to more intense disturbances than in the past due to the buildup of mature and older vegetation. These landscapes have proven difficult and costly to manage, are less able to provide the values that humans desire, and are often ecologically unsustainable. Accepting that disturbances are inevitable, as well as critical to ecosystem function, means management actions need to focus on making watersheds resilient to these disturbances over the long-term while reducing recovery time.

Some areas of the Forest have become more susceptible to droughts, insect and disease outbreaks, and other effects of overcrowding from more mature vegetation. This can result in increased amounts of dead wood, which can heighten the risk of high-intensity fire. When people build homes in such areas, the potential for property loss is high and the cost of firefighting increases dramatically. Soil, water and vegetation recovery can also be affected by these high intensity fires. Trends show increased human development is occurring in and around the Forest. These interface areas historically burned at frequent intervals. When fires start in these areas, the chance that these fires will be destructive and endanger human life is relatively high. In addition, the floods, landslides, and soil erosion that often follow severe wildland fire can kill fish, reduce soil productivity and water quality, and modify wildlife habitat for long periods of time.

About 73 percent of the Forest's landbase is included in RARE II Roadless Areas. Management activities in inventoried roadless areas have been controversial, because many people value these areas for a number of reasons. Some roadless areas act as refugia for declining, rare, and listed species. These species may not be able to maintain viable populations in other areas of the Forest where management activities are evident. Some roadless areas may offer ecological blueprints for restoring degraded forests or harbor aquatic strongholds for declining native fish species. New scientific information indicates that 60 percent of the healthiest aquatic habitats occur in roadless or very low road density areas on federal land, specifically in the Columbia River Basin (ICBEMP, 2000).

Because many of these areas remain undeveloped and unroaded, forest vegetation has continued to move into mature and old age classes in the absence of management. As these forests continue to age, the risk and potential severity of disturbances increase. Over the long-term, the condition of the vegetation and risk of severe disturbance suggest an opportunity for active restoration or treatment. For any one site, inaction remains an option, but the consequences of both inaction and action need to be weighed carefully. Where watershed stability and resiliency or rural residential development may be at risk, creative management methods may be needed to protect watershed condition while maintaining the social and environmental values these areas provide.

Sustainable uses of the land connect the health of the land to people and communities. Natural resource availability in the Forest is constantly changing under the influences of ecological processes and human activity. Ensuring the sustainability of the Forest requires the involvement of communities that benefit from, and care for, the Forest. The Forest Service will endeavor to work with communities to make sustainable forest ecosystem management real in the lives of those who use and enjoy the National Forest.

Specific Biological and Physical Resource Trends

Watersheds[1]

- About 10 percent of the Forest's watersheds have been impacted by natural and human disturbances and need restoration.
- About 80 percent are in moderate condition and continue to support physical and biological processes. Some restoration and improvement is needed.
- About 10 percent are in good or better condition. These conditions need to be maintained.

Riparian Areas

- About 30 percent of the Forest's riparian areas are in properly functioning condition[2].
- About 50 percent are functioning but at some degree of risk. Restoration may be needed.
- About 20 percent are functioning with a high degree of risk or are not properly functioning. Restoration may be needed.

Water Quality

- 21 streams on the Forest have been identified by the State of Idaho as water-quality limited (WQL) not supporting beneficial uses and have been placed on the State's 303(d) list.
- An additional 26 streams adjacent to the Forest have been identified as WQL.

[1] Watersheds include the surrounding upland areas.
[2] As defined using the BLM's assessment procedure in TR-1737-5.

Fisheries/Aquatics

- The Forest contains habitat for Yellowstone and Bonneville cutthroat trout. Both species have been petitioned for listing under the Endangered Species Act (ESA). The USFWS found that listing was not warranted at this time; however, special conservation and restoration management is needed.

Riparian Wildlife Habitat

- The majority of species found on the Forest are dependent on riparian areas, particularly avian species.

- There have been declines in the region-wide populations of leopard frogs and western toads.

Rare Plants

- The Forest contains potential habitat for Utes ladies'-tresses, a plant listed as "threatened". Surveys are on going but no populations have been found on the Caribou. If found, special conservation and restoration activities may be necessary.

Forested Vegetation

- Limber pine: 80 percent of the acres are in mature and old age classes. Considering the species' ability to survive on very harsh sites and the sparse nature of its occurrence, this is a low (small) departure from the historic range of variability (HRV) for the Caribou.

- Engelmann spruce/subalpine fir: Approximately 80 percent of acres are mature and old, with increasing stand densities and ladder fuels. This is a high (large) departure from HRV.

- Lodgepole pine: Approximately 70 percent of the acres are in mature and old categories. This is a low departure from HRV.

- Douglas fir: 70-80 percent of the acres are mature or old. For the most part, the Forest is outside of the historic fire regimes, particularly for non-lethal fires. This is a moderate departure from HRV.

- Aspen: Approximately 40-50 percent of the aspen cover type acres are mature or old. Another 142,000 acres have succeeded to conifer, largely due to fire suppression, livestock grazing, and natural succession. Over the past 100-150 years there has been an estimated 40 percent decline in the amount of aspen acres on the Forest. This is a high departure from historic ranges of variability.

- Bigtooth maple: These stands have a denser canopy and are losing understory components. Fires would be outside of the historic regime. This is also a moderate departure from HRV.

Old Growth

- Conifers: 70-80 percent of the acres of coniferous (evergreen) vegetation are in the mature and old age classes.

- Eight sensitive species on the Forest are associated with mature and old-growth conifer habitat.

Rangeland Vegetation

- Juniper: These stands are in older, denser age-classes than historically. Approximately 80 percent of the Utah juniper and 50 percent of the Rocky Mountain juniper acres are old/mature. Junipers are invading sagebrush and mountain brush sites. The juniper type is outside of its historic fire regime; most sites are losing the grass, forb, and shrub understory and the amount of bare ground present is increasing. This is a high departure from HRV.

- Mountain mahogany: 60-80 percent of these acres are in old to mid seral age classes. Bare ground exceeds 25 percent on some sites and overall, this type is outside of historic fire regimes. This is a moderate departure from HRV.

- Tall forb: These types have all but disappeared from the Forest due to past grazing practices, conifer encroachment, and invasion of some sites by tarweed *(Madia glomerata)* and mules ear (*Wyethia*). Excessive bare ground is present and soil loss has occurred on some sites. In remnant sites, where native forb species have the potential to re-establish, grazing should be limited. Some areas may require planting native species for restoration. This is one of the most imperiled vegetation types in the region; on the Caribou there is a high departure from HRV.

- Mountain brush complex: Most of these acres are in older age classes. Juniper invasion and urban residential development is affecting the extent of this type. The mountain brush stands are outside of historic fire regimes and the connectivity between patches of this type is being lost. These stands are very important for wildlife habitat and overall biodiversity. This is a moderate departure from HRV.

- Sagebrush: 40 percent of the sagebrush acres have a canopy cover greater than 15 percent. There is more bare ground and soil loss is increasing. With the denser overstory, the understory vegetation is diminishing. Juniper is encroaching into these sites. This is a moderate departure from HRV.

- Approximately 142,000 acres on the Forest have noxious weeds present and they are spreading. Cooperative agreements have been developed with local, state, and other federal agencies to address this invasion and Cooperative Weed Management Areas (CWMAs) cover the Forest. Integrated pest management, using chemical, mechanical and biological control measures, has been used on the Forest for years.

Rangeland Wildlife Habitat

- Six sensitive species are associated with rangeland habitat, among them the Columbian sharp-tailed grouse. Sage grouse, another important species is associated with the rangelands in some areas of the Forest.

- To improve brood-rearing habitat, we should maintain or increase diversity in the understory of sagebrush stands by creating a mosaic with more early and mid seral stages.

- Due to changes in and loss of historic habitat, big game animals are pioneering new winter ranges on and adjacent to the Forest. The most recent impact is urban residential development on historic winter ranges. In some years this may cause competition between domestic livestock and big game for forage.

Forested Wildlife Habitat

- There is a steady increase of motorized access into the remote areas of the Forest. This may be having an impact on wildlife security.

- Eight sensitive species associated with forested habitats may be present on the Forest.

- To improve habitat diversity the Forest needs more early and mid-seral forested stands.

Special Emphasis Areas

- 6.3 miles of St. Charles Creek meets eligibility criteria for outstandingly remarkable fisheries values under the Wild and Scenic Rivers Act (WSRA).

- The 200 acres Elk Valley Marsh meets eligibility criteria for outstandingly remarkable ecological value under the WSRA.

- The Forest needs to develop management direction to protect outstandingly remarkable values until suitability can be determined.

- Other areas such as Caribou Mountain and the Lander Historic Trail need to be managed to preserve their historic values.

- Establishment Reports for Research Natural Areas on the Forest need to be amended to allow disturbances, such as insects and disease and wildfire to play their natural role under prescriptions designed to accomplish the objectives of the specific Research Natural Area.

- Inventoried Roadless Areas need to be re-evaluated for Wilderness recommendation and to guide future management. This re-evaluation has been done in the Caribou Forest Plan Revision.

Specific Human Use Trends

Social Environment and Economics

- The population in southeast Idaho is growing more rapidly than in the nation as a whole. Bannock, Bonneville, and Cache Counties are the most urban counties; Oneida and Franklin Counties are the most rural.

- Sensitive species management, loss of forage for livestock in order to meet wildlife needs, reintroduction of fire into ecosystems, water quality protection, and changes in timberland suitability may result in reductions of commodity outputs. This would result in social and economic changes for communities that are more dependent on resource production. This would primarily affect Oneida, Caribou, Bear Lake and Franklin Counties.

- Shifts in populations to the West are increasing demands on the Forest for a broader mix of uses. The Forest is becoming more important to people for its recreational opportunities, scenery, aesthetics, wildlife habitat, etc.

Water

- Non point sources of pollution such as agriculture and forestry are receiving more attention and regulation.

- Surface water quality is of concern. The State has established Watershed and Basin Advisory Groups (WAGs and BAGs) to help manage watershed and water quality concerns. The State of Idaho is also sampling water bodies throughout the State to determine if a water body supports designated beneficial uses. This is being done through the Beneficial Use Reconnaissance Project (BURP), in response to section 303(d) of the Clean Water Act. All major water bodies in southeastern Idaho have been sampled.

- The Snake River Basin adjudication is ongoing. The outcome of this will affect water rights on the Forest and could also affect instream flow allocations. This would ultimately impact stockwater uses, channel maintenance, and fisheries management.

- The largest use of water in the area is for irrigation.

- Because of all the demands for water from recreation, agriculture and other sources, streams may not be able to support the full range of desired uses in the future.

Forest Wood Products

- The demand for commercial wood products in the local area remains at least 11 million board feet annually. This includes the demand from National Forest System lands, State of Idaho lands, Bureau of Land Management (BLM), Bureau of Indian Affairs (BIA), and private sources.

- The listing of the Canada lynx as a threatened species may affect management in areas considered linkage habitat.

Transportation Facilities

- According to the AMS, the Forest transportation network has 1,835 miles of "National Forest System Roads." Of these engineered roads, 534 miles are managed as closed, 977 miles are maintained for high clearance vehicles, and 281 miles are maintained for passenger vehicles[3].

- A review of the transportation network, maintenance needs, and effects to resources may result in some roads being closed, obliterated, or relocated. This review will follow the six-step science-based road analysis process described in "Roads Analysis: Informing Decisions about Managing the National Forest Transportation System" and be an integral part of the Caribou Forest Plan revision.

Recreation Opportunities

- Demand will continue to grow for a wider variety of recreation experiences, both developed and dispersed.

- Winter sports activities will continue to grow.

Forage Production for Livestock

- The demand for livestock forage should remain relatively constant.

- Livestock grazing will likely need to be adjusted to accommodate other uses and resource needs, particularly sensitive watershed and fish management, habitat diversity, and the reintroduction of fire into the ecosystem.

Special Forest Products

- The demand for special products such as berries, cones, medicinal herbs, edible mushrooms, floral trade items, boughs, burls, etc. has been increasing slightly.

Paleontology

- Several areas of the Forest have the potential for fossil discoveries.

[3] The Forest transportation system inventory used for the 2002 Caribou Roads Analysis shows 1668 miles of roads under Forest Service jurisdiction. The difference in total mileage is due to updates in inventory and because the AMS number included the Curlew National Grasslands. According to the Caribou Roads Analysis, the objective road maintenance level is to maintain 732 miles as closed, 610 miles for high-clearance vehicles, and 336 for passenger vehicles. This is more fully explained in the Roads Analysis Report. Road mileages will continue to fluctuate due to more refined inventory, changes in management, etc. (USDA Forest Service, INFRA database; Caribou Roads Analysis 2002; Curlew Roads Analysis 2001)

Issues, Concerns and Opportunities

Issues were identified through public comments received on the Initial AMS and from scoping on the Proposed Action. Comments were grouped into categories and the IDT further refined and clarified the issues. After public review of the issues, minor corrections were made to several of the issue statements; most people agreed the preliminary issues comprehensively addressed their concerns.

The issue statements were written in an attempt to be unbiased and to show conflicts. Issue indicators have been designed to be quantitative, where possible, measurable, predictable, responsive to the issue, and linked to cause-effect relationships. Following each issue statement, is a brief summary of how the selected alternative, and this Plan, addresses the issue.

Recreation, Access, and Scenery Management

Issue

Recreation policies, user preferences, and measurements of quality have changed since the existing Forest Plan was written in 1985 and need to be incorporated into a Revised Forest Plan. The increased recreation demand for and use of the Forest, combined with a wide range of recreation preferences, has led to some contention between recreationists (particularly motorized, i.e., snowmobilers, versus non-motorized, i.e., cross-country skiers). This public contention, coupled with agency responsibilities and directives, has lead to increasing discussion and debate over how the Forest lands should be designated for recreation in the Revised Forest Plan.

Resolution

The Revised Forest Plan prescription areas have access standards that range from allowing cross country motorized travel near Soda Springs to restricting cross-country non-motorized travel in critical elk and deer winter range. The prescriptions provide a mix of motorized and non-motorized recreational activities. While some people are not completely pleased with where the designations are located or how much (or little) of one use is allowed, the Revised Forest Plan has provided a variety of opportunities.

Social and Economic Environment

Issue

Ecosystem management is an ecological approach to land management used by the Forest Service to achieve the mandate of multiple use. It blends the needs of people and their environmental values with physical and biological elements to maintain diverse, productive, resilient, and sustainable ecosystems. As humans are a part of the ecosystem, their conditions are shaped by it, and in turn, people shape the ecosystem. It is the human aspect of economics, in relation to Forest planning, that is addressed in this issue.

The Zone of Influence for this plan includes ninecounties of citizens that have strong historical, emotional, and economic ties to the Forest. The public concerns that pertain to this issue are founded in the debate of how to best meet the economic/social needs of the public, while considering society's environmental values, and responsibly caring for the land. Decisions made in the Forest planning process may result in changes to the economic condition of local communities and may influence regional and national markets.

Resolution

The mix of commodity and non-commodity uses provided by the Revised Forest Plan (Plan) addresses this issue. The Plan allows for extraction of renewable and nonrenewable resources while ensuring the maintenance of productive, resilient, and resistant habitats. This will provide long-term social and economic benefits for the local communities dependent on the resources of the Caribou as well as the members of the public who enjoy the Caribou for reasons other than resource extraction. Tribal Trust responsibilities will be addressed forest-wide and be a particular management emphasis in the ecological subsections adjacent to the Fort Hall Indian Reservation.

Ecosystem Management

Issue

One of the main distinctions of ecosystem management is the emphasis on restoring, retaining and maintaining the functions and processes that keep the natural environment resilient to natural disturbances (i.e., fire, wind-throw, and insect/disease infestation) and human-caused disturbances implemented as vegetation management tools (i.e., prescribed fire, thinning, timber harvest, and grazing).

Public concerns, in conjunction with this issue, stem from the debate over how to viably maintain the health and productivity of the ecosystem with respect to its vegetation structure and composition. This is a difficult issue when combined with the requirement that the Forest Service achieve the mandate of multiple uses, attempting to balance human needs and values with the ecological aspects of the ecosystem. Historically, this has often involved suppression of natural wildfire in an effort to preserve the public's scenic, recreation, and economic values for the Forest.

Resolution

The Revised Forest Plan has several management prescription areas aimed at restoring the ecological processes and vegetation across the Forest. Insects, disease, fire, and other natural disturbances are allowed to play their role across most of the Forest. Forest vegetation and non-forested vegetation will be actively restored through management activities and through allowing natural processes to proceed. Given current budgets, it is unlikely that the Forest can treat enough acres to keep up with natural succession, particularly in the non-forested vegetation, however. While the treatment levels predicted in Alternative 7R and reflected in the Plan objectives will not move vegetation closer to HRV in the long term, it leaves the opportunity available if budgets and staffing allow. In addition, treatments will be focused in specific areas and vegetation types in order to "make a difference" in key areas. The Plan contains extensive direction for management and treatment of vegetative communities.

Livestock Grazing

Issue

Grazing of public lands is an issue that has increased in complexity as the lifestyles, and subsequently, the interests of society have evolved. There has been an increase in concern for the health and productivity of Forest habitats, and some may consider these concerns to be more important than historic commodity driven goals (such as grazing). However, grazing permits play a traditional and vital economic role in local agriculture. Many local operations rely on the forage produced on public lands to meet a portion of their yearly grazing needs. Forest management direction affects rangeland resources and the level of livestock grazing authorized under permit.

Resolution

The Revised Forest Plan adopts Forest-wide grazing utilization and stubble height requirements. The Forest has also developed a Caribou Riparian Grazing Implementation Guide for setting livestock management standards in riparian areas and monitoring compliance with those standards. The standards provide for improving and maintaining riparian, stream channel, and aquatic values. This will allow livestock grazing compatible with other resource values.

Minerals Operations, Reclamation, and Hazardous Substances

Issue

Phosphate is by far the largest mineral resource currently being mined on the Forest. There are five Known Phosphate Leasing Areas (KPLAs) that lie, at least partially, within the Forest boundaries. Potential also exists for productive oil/gas wells and mining of locatable (i.e., perlite, pumice, gold) minerals in localized areas of the Forest. Use of these resources is not expected to be high. Issues concerning mining have changed since the 1985 Forest Plan was originally composed. Some of the changes are: a public desire for, and emphasis on, more natural appearing reclaimed landscapes; the discovery that selenium and possibly other hazardous substances are leaching from phosphate mines; and the fact that regulations concerning the leasing of National Forest lands for oil and gas development have changed.

Resolution

The Revised Forest Plan addresses minerals operations, reclamation and hazardous substance management by requiring the mine operators to use the most current science and research as it becomes available. Scientific research investigations and monitoring activities are currently addressing these issues and will be continued. The Forest Plan direction provides a framework within which to operate while focusing on adapting improved technology and new Best Management Practices (BMPs). No leasing decisions for oil and gas are made in the Plan.

Riparian, Watershed and Aquatic Biota

Issue

Riparian areas include banks and adjacent areas of water bodies that have considerably moister soils than contiguous floodplains and uplands. Wetlands have more available water for longer periods of time than riparian areas, making them only slightly different. These areas are vital because they provide specialized wildlife habitat and their localized vegetation notably contributes to stream bank and floodplain stability as well as water temperature and quality.

Resolution

The Plan establishes general riparian guidance as well as a Prescription 2.8.3, which covers all Aquatic Influence Zones. It provides direction for maintenance and restoration of riparian and aquatic ecosystems. It establishes direction for coordination with other Federal, State, and local agencies to improve aquatic habitats and meet water quality standards. The direction in this Plan is extensive and will insure that we maintain and improve riparian conditions on the Forest while allowing management activities where appropriate. In six of the seven ecological subsections on the Forest, Yellowstone and Bonneville cutthroat trout stronghold restoration and protection will be emphasized. According to the Bonneville and Yellowstone cutthroat trout analysis (FEIS, Appendix D), the selection and implementation of Alternative 7R may impact individuals or habitat, but will not likely contribute to a trend towards federal listing or loss of viability to the population or species.

Timber Sale Program

Issue

The National Forest Management Act directs the Forest Service to program timber harvest on a non-declining yield basis, which means the timber sales offered should not exceed the quantity which the Forest is capable of naturally producing on a sustained-yield basis. Three mills currently purchase commercial wood products from the Caribou National Forest. Two other commercial buyers have been active recently in purchasing timber from the Forest.

Resolution

The timber sale program provides a non-declining even flow ASQ level, which does not exceed the quantity that the Forest is capable of naturally producing on a sustained yield basis. The program also provides other forest products to the public including firewood, posts, poles and special forest products at a level in line with Forest Plan objectives, standards, and guidelines. In addition, the Plan allows for timber harvest on unsuitable timber lands in order to meet desired conditions. The ASQ assigned to lands within Inventoried Roadless Areas has been included in the non-interchangeable component[4].

[4] Non-interchangeable component: A portion of the ASQ which cannot be substituted for from other areas or species types. Volume programmed from a NIC will not be replaced by volume from other areas of the Forest.

Roadless Area Management and Recommended Wilderness

Issue

The Forest Service can recommend areas for wilderness through the forest plan process, but only Congress, through the legislative process, can determine areas for inclusion into the Wilderness Preservation System. Congress also has the authority to change USFS recommended wilderness boundaries. Although Idaho has approximately 4,006,000 acres of designated wilderness, none of those areas lie within the Caribou National Forest. The 1985 Plan recommended a 14,600-acre section of the Mt. Naomi Roadless Area and a 16,000-acre section of the Worm Creek Roadless Area to Congress, for wilderness designations. To date, Congress has not acted on these recommendations. Public concern for wilderness and roadless areas appears to stem from a desire for additional designations versus concerns about the implications these designations may have on Forest access.

Resolution

The Revised Forest Plan recommends two areas for Wilderness designation—Caribou City and Mount Naomi. The Caribou City recommendation was not included in the previous Forest Plan recommendation. Using the Interim Directives and process outlined in the Advance Notice of Proposed Rulemaking, the Forest reviewed environmental and social characteristics of each Inventoried Roadless Area (IRA) in 2002. This information was used to determine how each IRA should be managed. Mixes of prescriptions are allowed in the inventoried Roadless areas on the Caribou. See Appendix R: Roadless Area Re-evaluation and the map, "Inventoried Roadless Areas on the Caribou NF".

Wildlife Habitat Management

Issue

A variety of diverse habitats exist for approximately 334 species of terrestrial vertebrate wildlife known or suspected to occur on the Forest. These habitats provide cover, forage, water, and reproductive sites for these species. The National Forest Management Act (NFMA) regulations require National Forests to provide habitat in order "to maintain viable populations of existing native and desired non-native vertebrate species in the planning area." Public concern regarding this issue is in relation to the various potentials for wildlife habitats to be altered by management directions made in the Forest planning process.

Resolution

The Revised Forest Plan will bring habitats closer to ecologically sustainable conditions; this will protect long-term wildlife habitat values and productivity. The Plan addresses big game issues important to the Idaho Department of Fish and Game by designating winter ranges and prescription areas which emphasize big game security. It will maintain habitat for threatened, endangered, and sensitive species, where they exist. Conservation of management indicator, sensitive and listed species is addressed with Forest-wide standards and guidelines and maintain viability of wildlife species as required by NFMA.

3 Forest-wide Guidance

DFC's, Goals, Objectives, Standards and Guidelines

The Forest-wide desired conditions and direction is organized by resource groupings. First, the desired future conditions (DFC's) for the entire Forest are described. Next, DFC's for each resource area are displayed, if there are any. These are long-term visions for what the Forest resources should look like. From the DFC's, we have formulated Forest-wide goals, which we anticipate reaching in the foreseeable future. For some resources, objectives are provided which will help measure our progress towards the goals and DFC's. Following the goals and objectives, the specific standards and guidelines for management are presented. The standards and guidelines in this section of the Plan are common to the entire Forest. Chapter 4 contains the direction for specific management prescriptions.

- Goals are expressed as long-term outcomes of management activities.
- Objectives are expressed as specific actions that include a timing component for completion, generally defined in terms of the Record of Decision for the Plan.
- Standards are used to promote the achievement of the desired future condition and objectives and to assure compliance with laws, regulations, Executive Orders or policy direction established by the Forest Service. Standards are binding limitations on management activities that are within the authority of the Forest Service to enforce. A standard can also be expressed as a constraint on management activities or practices.
- Guidelines are used in the same way as standards but tend to be operationally flexible to respond to variations, such as changing site conditions or changed management circumstances. Guidelines are a preferred or advisable course of action, and they are expected to be carried out, unless site-specific analysis identifies a better approach.

All existing national direction for managing National Forests remains in effect. The standards and guidelines presented herein provide direction more specific to the needs of the Caribou. A summary of national program and regional policy and goals can be found in Appendix A and is incorporated herein.

If an emergency event occurs on the Forest, deviation from the standards and guidelines may occur in order to protect human life, property values and structures, and forest resources. Activities in response to emergency events include such things as law enforcement, search and rescue, floods and fire.

Desired Future Conditions for the Caribou

These Desired Future Condition statements provide conceptual pictures of the desired future state of the Caribou's resources. The direction contained in this Revised Forest Plan is designed to move the resources towards this long-term vision. The DFC's listed below form the overarching vision for the Caribou in the next century. DFC's specific to resource areas are listed with the resource in the following sections.

General Forest Vision

- Habitats contain sufficient complexity, diversity and productivity that they can maintain viable populations of native and desirable nonnative species within the planning area.

- Landscapes display a balance of physical landscape components, including upland terrestrial habitats, riparian areas, wetlands, and clean water. Both aquatic and terrestrial habitats are becoming less fragmented and more connected.

- Federal resource management-related legal requirements are met.

- Economic activity is generated in rural communities, including private sector employment, forest employment, and income. Revenues are shared with local governments.

- Forest lands efficiently provide a mix of economic and cultural benefits to people that balances local, regional, national, and international interests. Benefits are provided in type, amount, distribution, and regularity generally regarded as fair, well-reasoned, and conducive to predictable use. The mix of benefits is responsive to changing public values. Benefits are produced in accordance with federal statutes and regulations, which most frequently address issues of efficiency, sustainability, supply of goods and services important to people, and consideration of local economic conditions.

- Forest managers use a mix of formal and informal mechanisms to include people in land use decisions, implementation of land use plans, and monitoring the results. They continually adapt mechanisms for including people to meet changing needs and conditions and improve effectiveness. Mechanisms provide opportunities to share knowledge, give input, coordinate and collaborate. The participation needs of tribal, local and state governments, federal agencies, special interest groups, and the general public (local, regional and national) are explicitly recognized and accommodated as much as possible.

Ecological Processes and Patterns

PROPERLY FUNCTIONING CONDITION (PFC)[6]

Goal

1. Ecological systems and their components are maintained to be dynamic and resilient to disturbance. Vegetation structures, composition and densities are appropriate for maintaining physical and biological processes at any temporal or spatial scale. Ecosystems are not at risk of being disturbed beyond the point of resiliency and sustainability.

Objectives

1. Within 10 years of signing of the Record of Decision (ROD), reassess composition and structure and other indicators used in the Caribou Sub-regional Properly Functioning Condition Assessment. This should include the Caribou and adjacent areas to determine changes achieved.

2. Within 5 years of signing the Record of Decision (ROD), re-assess distribution and extent of non-forested vegetation canopy cover classes and compare to the Caribou's Sub-regional Properly Functioning Condition assessment to determine progress towards desired conditions.

INSECTS AND DISEASE

Goal

1. Insects and disease are allowed to play their role as natural disturbance agents in ecosystem processes and patterns to the extent compatible with other resource goals.

FIRE

Desired Future Conditions

- Fuel management strategies are coordinated with adjacent landowners to reduce risk to life and loss of property from wildfire.

[6] In this section, Properly Functioning Condition (PFC) refers to an Intermountain Region Rapid Assessment process to assess Forest conditions. Using this process, current conditions of structure, composition and other indicators are compared to historical ranges of variability to determine condition or risk. See also FEIS, Chapter 3, Ecosystem Management for more explanation.

- Fire use, both prescribed fire and wildland fire use, enhances ecosystem integrity and resiliency, and maintains desired fuel levels.
- Wildland fire operates within historic fire regimes appropriate for the vegetation and site.

Goals

1. Forest resources are managed in accordance with the National Fire Plan, Ten-Year Comprehensive Strategy and Implementation Plan, and Cohesive Strategy to improve fire prevention and suppression, assist rural communities, reduce hazardous fuels, and restore fire-adapted ecosystems.

2. Fire is allowed to play its natural role where appropriate and desirable to reduce the risk of uncharacteristic wildland fires.

3. Fire and other management activities restore or maintain desirable vegetative communities and ecosystem processes. Fire management prescriptions are written to take advantage of natural lightening starts and to restore historical fire regimes.

4. Fire and other management activities are used to treat natural and activity fuels with priority on reducing risk from uncharacteristically large or intense wildland fires and protecting communities in the wildland-urban interface.

Objectives

1. Develop and implement at least one wildland fire use plan each year at the subsection scale. Priority should be given to the ecological subsections where this activity is emphasized.

2. Within 1 year of signing the ROD, develop and begin implementation of a prioritized strategy for wildland/urban interface projects in the ecological subsections where this activity is emphasized.

Standard

1. All fires shall be suppressed if they are in areas not covered by a pre-approved fire management plan.

Guidelines

1. Prescribed and wildland fire use is allowed and encouraged unless prohibited by individual prescription area direction.

2. When developing vegetation treatment projects, give priority to those reducing fuels in the wildland/urban interface. Strive to move vegetation currently in Fire Condition Class 3 to Condition Classes 1 and 2.

3. When developing wildland fire use plans, consider noxious weed infestations when determining which areas to allow wildland fire use.

Physical Elements

CAVES

Desired Future Conditions

- All Forest caves that are either currently classified or have the potential for being classified as "significant" under the provisions of the Federal Cave Resources Protection Act are protected and managed for their unique ecological and cultural features.

Goal

1. The cultural attributes, plant and animal habitat features of caves are preserved.

Standard

1. Retain vegetation in the vicinity of a cave or cave course if it is required to protect the cave's microenvironment (habitat, climate, vegetation, etc.).

Guidelines

1. Gating of cave entrances may be allowed as long as the entrance maintains natural airflow patterns.

2. Management activities may be permitted within any area draining into or away from a cave if they are not likely to adversely affect the cave ecosystem.

SOILS

Desired Future Conditions

- Soil quality, productivity, and hydrologic function are maintained and restored where needed. Long term soil productivity is sustained and meets future land needs.
- Soils have adequate protective cover, adequate levels of soil organic matter (litter), and coarse woody material. Physical, chemical and biological processes in most soils function to sustain the site.
- Microbiotic crusts and their importance to soil stability are recognized. Management practices are designed to retain these soil components.

Goals

1. Long-term soil productivity is sustained by limiting detrimental soil disturbances and by retaining ground cover, microbiotic crusts, fine organic matter and, where applicable, woody residue on activity areas.

2. Soil productivity is maintained or improved through application of land capabilities as identified in the Soil Resource Inventory and by completion of soil and water resource improvements as identified in the Soil and Water Resource Improvement Action Plan.

3. Erosion from management caused disturbances is within soil loss tolerance limits.

4. Soil resource management is consistent with maintaining or improving long-term soil productivity and hydrologic function.

ALL ECOSYSTEMS

Standards

1. Landtypes identified as being unstable or marginally unstable in the Caribou National Forest Soil Resource Inventory shall be ground verified prior to soil disturbing activities to determine the capability of the land to sustain resource development activities including road construction.

2. Suitability for resource management activities shall be disclosed in the site-specific analysis.

3. For ground-disturbing activities where detrimental soil disturbances (defined in FSH 2509.18) occur on areas of 10 acres or greater, plan and implement rehabilitation to meet desired future conditions.

4. On landtypes where landslides or landslide prone areas have been identified, a site-specific analysis shall be conducted to ensure project implementation is compatible with desired future conditions.

Guidelines

1. Resource developments and utilization should be restricted to lands identified in the Soil Resource Inventory as being capable of sustaining such impacts.

2. Maintain ground cover, microbiotic crusts, and fine organic matter that would protect the soil from erosion in excess of soil loss tolerance limits and provide nutrient cycling.

3. Detrimental soil disturbance such as compaction, erosion, puddling, displacement, and severely burned soils caused by management practices should be limited or mitigated to meet long-term soil productivity goals.

Guidelines

1. Reduce soil erosion to less than the soil loss tolerance limits on lands disturbed by management activities within one growing season after disturbance.

2. Sustain site productivity by providing the following minimum amounts of woody residue =3 inches in diameter dispersed on the site as outlined in Table 3.1, below. These do not apply within a 300-foot corridor on either side of roads designated as open on the most current version of the Travel Plan.

Table 3.1 Minimum Woody Residue by Forest Habitat Type.

Woody Residue	Forest Habitat Type	
3-5 tons/acre	Limber pine/curlleaf mountain mahogany (Pifl/Cele)	Douglas-fir /common juniper (Psme/Juco)
	Douglas-fir /mountain snowberry (Psme/Syor)	Lodgepole pine/heartleaf arnica (Pico/Arco)
5-10 tons/acre	Douglas-fir /ninebark (Psme/Phma)	Douglas-fir /Oregon grape (Psme/Bere)
	Subalpine fir/pine grass (Abla/Caru)	Lodgepole pine/grouse whortleberry (Pico/Vasc)
	Douglas-fir /mountain maple (Psme/Acgl)	Douglas-fir /white spirea (Psme/Spbe)
	Subalpine fir/heartleaf arnica (Abla/Arco)	Lodgepole pine/pine grass (Pico/Caru)
	Subalpine fir/Ross sedge (Abla/Caro)	Douglas-fir /pine grass (Psme/Caru)
	Douglas-fir /blue huckleberry (Psme/Vagl)	Lodgepole pine/elk sedge (Pico/Cage)
	Lodgepole pine/blue huckleberry (Pico/Vagl)	Subalpine fir/white spirea (Abla/Spbe)
10-15 tons/acre	Douglas-fir /mountain sweetroot (Psme/Osch)	Subalpine fir/ninebark (Abla/Phma)
	Subalpine fir/mountain arnica (Abla/Arla)	Subalpine fir/western meadow-rue (Abla/Thoc)
	Subalpine fir/mountain maple (Abla/Acgl)	Subalpine fir/blue huckleberry (Abla/Vagl)
	Subalpine fir/common snowberry (Abla/Syal)	Subalpine fir/oregon grape (Abla/Bere)
	Subalpine fir/grouse whortleberry (Abla/Vasc)	
15-20 tons/acre	Engelmann spruce/sweetscented bedstraw(Pien/Gatr)	Subalpine fir/mountain sweetroot (Abla/Osch)

1 These requirements can be achieved with the wildlife requirements for dead and down materials; they are interrelated and are not cumulative.
2 From "Recommendations for managing coarse woody debris in forests of the Rocky Mountains. USDA For. Serv. Res. Pap., Int-477. 13p. Graham, R.T., et al. 1994

AIR QUALITY

Desired Future Condition

- Air quality complies with Clean Air Act and other state requirements for Utah, Wyoming and Idaho.

Goals

1. Manage air quality to meet health and safety requirements and existing laws, rules, regulations and agreements.

2. Reduce the potential for emissions from uncontrolled wildland fire by using prescribed fire and other fuels management opportunities.

Standard

1. All management ignited fires shall comply with rules, regulations and permit procedures required by the Idaho Department of Health and Welfare, Department of Environmental Quality or appropriate agency from Wyoming and Utah. Planned activities shall be conducted in accordance with the Idaho State Implementation Plan of the Clean Air Act, the Montana/Idaho Smoke Management Plan, and other plans and policies that control smoke emissions on the National Forest.

Guideline

1. Follow visibility and clearing index guidelines when implementing management practices such as prescribed burning.

2. Ensure treatments using prescribed fire are consistent with EPA's Interim Air Quality Policy on Wildland and Prescribed Fires, or more current direction.

LANDS

Additional direction for Lands, primarily Hydroelectric development, is in Prescription 2.8.3 Aquatic Influence Zones.

Desired Future Condition

- Land ownership patterns promote efficiency and effectiveness of Forest management.

Goals

1. Consolidate National Forest System lands through transfer, exchange, acquisition, donation and disposal, as needed, to provide for the most economical and logical land management units. Refer to the current Land and Right-of-Way Acquisition Plans.

2. Access (rights-of-way) through intermingled State, other Federal agency and private lands to the Forest boundary are acquired, as needed, for administration, management, and protection of National Forest System lands and for public access. Where possible, Forest access is coordinated with county governments.

3. A well-planned system of reliable and technically feasible energy corridors is provided to serve existing and future regional and local energy needs, compatible with other resource needs and goals. These corridors may be either designated by specific land-use prescription or non-designated through other land-use prescriptions.

4. Uses and occupancy of National Forest System lands, such as hydroelectric development, communication sites, water developments, and utility corridors that meet public needs, and

cannot be accommodated off the National Forest, are consistent with direction for other National Forest resources.

5. Special use authorizations are issued only for uses that serve the public, promote public health and safety, protect the environment, and those uses that are legally mandated.

6. Hydroelectric facilities provide for stream channel integrity, channel processes, and the flow and sediment regime under which the riparian and aquatic ecosystems developed.

7. Hydroelectric facilities provide surface and ground water in streams, lakes, wetlands, and meadows with adequate quantity, quality, and timing to maintain and restore the ecosystem. Surface and groundwater supports healthy riparian and aquatic habitats, the stability and effective function of stream channels, connectivity between habitats for migratory biota and downstream uses.

Objectives

1. Identify land adjustments and rights-of-way to improve management, public access, and/or wildlife connectivity annually.

2. Within two years of signing the ROD, identify and prioritize areas for land ownership adjustment.

LANDS AND LAND EXCHANGES

Standards

1. Priority shall be given to acquiring lands having special importance or unique characteristics such as riparian areas, historic sites, habitat for federally listed species, recreation sites, etc.

2. Any planned activities on the National Forest which might disturb Geodetic control survey monuments and boundary markers shall be evaluated at the time of project planning and environmental analysis for each specific project.

Guidelines

1. Access to the Forest should be maintained or improved, as needed, for administration, protection, and public access. Small scale adjustments of landownership may be made through sale and/or exchanges to facilitate economical and logical administration of Federal lands.

2. Maintain a landline location and boundary posting program to identify existing locations and prevent future occupancy trespass.

SPECIAL USES

Standards

1. Allow special uses that are compatible with other resources.

2. Establish and maintain current appraisal data, where required, rental fees and user fees for all special use authorizations.

3. Adequate bonds or other security instruments shall be required for special use authorizations if it is determined that the use has potential for disturbance that may require rehabilitation or when needed to ensure other performance.

TRANSPORTATION AND UTILITY CORRIDORS

Standards

1. Existing and proposed rights-of-way of the following types shall be designated as corridors (Rx 8.1). This does not prevent the inclusion of lower-rated transmission lines or smaller pipelines within the corridors.

   - Communication lines and zones for interstate use.
   - Railroads.
   - Federal, state, interstate, and forest highways.
   - Electric transmission lines of 66KV and greater, including fiberoptics.
   - Oil, gas, slurry, or other pipelines 10 inches or larger in diameter.

2. Proponents of new facilities within existing corridors, and new corridor routes, shall demonstrate that the proposal is in the public interest, and that no other reasonable alternative exists to public land routing.

3. Allow for essential access for repair and maintenance of facilities within energy corridors.

Guidelines

1. Utility corridors should have irregular clearing widths and follow patterns of existing natural openings.

2. Long distance lines of 35KV or smaller and short-distance lines of 115KV or smaller should be buried.

3. Utility structures should be made to blend with the existing landscape to the extent feasible.

4. Where feasible, new facilities should be limited to existing rights-of-way having widening potential.

5. Before new corridors or widening of existing corridors are approved, consideration should be given to wheeling, uprating, or multiple circuiting of transmission lines or increasing pipeline capacity by addition of compressors or looping.

6. Avoid parallel corridors. Consolidate facilities within existing energy corridors where feasible.

7. Pipelines and other related utilities should share utility corridors except as needed to meet other resource goals.

HYDROPOWER FACILITIES

> ***See also Prescription 2.8.3: Aquatic Influence Zones for direction on hydropower facilities.***

Standard

1. Forest Service personnel shall provide terms/conditions or recommendations to FERC under authority of the Federal Power Act when a proposed hydropower project (on or off Forest land) has the potential to affect Forest resources.

MINERALS AND GEOLOGY

Desired Future Conditions

- Mineral resources are available for development, consistent with other resource uses.
- Paleontological resources are properly managed to provide for preservation and use of these resources for current and future generations.
- Drastically disturbed sites are reclaimed so that natural recovery to pre-disturbed conditions is most likely. Reclamation emphasizes: 1) suitable topsoil preservation; 2) use of native plant species; and 3) stabilizing lands to a topographic relief (landform) that conforms to natural surroundings.
- Drastically disturbed lands are reclaimed to prescribed post-disturbance land uses as soon after disturbance as is practical.

Goals

1. On mined lands and other drastically disturbed lands, maintain or reestablish hydrologic function, integrity, quality and other surface resource values within the capability of affected lands.

2. Provide for mineral resource development using state of the art practices for surface resource protection and reclamation, and with consideration of social and economic resources.

3. Mining activities are administered to prevent the release of hazardous substances in excess of established state and/or federal standards.

4. Reclamation is designed to eliminate or minimize wildlife, livestock, and/or human exposure to hazardous substances.

Objectives

1. The Forest will annually consult with the Idaho Department of Water Resources on which streams on the Forest will be open or closed to the State's one-stop permits for suction dredging activities.

2. Conduct annual reviews of Best Management Practices (BMPs) and make appropriate adjustments to ensure that hazardous substance releases do not exceed state and/or federal standards.

GENERAL MINING

Standards

1. Lessee/ operator shall conduct pre-mining, concurrent, and/or post-mining water quality and aquatic habitat monitoring (both surface and groundwater) on all phosphate-mining sites where bond release has not occurred, using most current sampling procedures and protocols.

2. Best Management Practices shall continue to be developed, refined and implemented to ensure that no release of hazardous substances into the environment exceeding established state and/or federal standards occurs.

3. Prior to closure of inactive or abandoned underground mines, surveys for cave-dependent species shall be completed and applicable mitigation measures developed/implemented.

4. When surface disturbing activities are proposed within geologic units having a moderate or high potential for the occurrence of vertebrate fossils (other than fish or sharks), a field survey of the area shall be made prior to, and if possible, during the proposed activities.

5. Recreational gold dredging shall be conducted in accordance with applicable Forest direction and Idaho Department of Water Resources' Application for a Permit to Alter a Stream Channel - Recreational Dredging Application (For Suction Dredges with Nozzle Size of 5 inches Diameter or Less and Equipment rated at 15 hp or less).

Guidelines

1. Development of locatable[8] minerals should minimize surface disturbance, sedimentation, air pollution, visual impairment, and meet applicable State Water Quality Standards.

2. Give priority to use of currently developed mineral material (sand, clay, gravel and stone) sources over undeveloped sources. New sources can be identified when existing sources are unable to economically or safely supply the quality and quantity of material needed.

[8] Locatable minerals are those defined under the 1872 Mining Law, as amended. See glossary.

DRASTICALLY DISTURBED LANDS[9]

> ***Also see prescriptions in Category 8.2 of Chapter 4 of this revised Forest Plan for direction specific to phosphate lease areas.***

Standards

1. Mines shall be administered to help assure compliance with applicable State and/or Federal surface and groundwater regulatory standards.

2. Diversions to control surface flow and infiltration on overburden piles, pit backfill, and all disturbed areas shall be designed to be self-maintaining or maintained by the lessee.

3. Soil resources shall be inventoried to National Cooperative Soil Survey standards for Order 2 or more detailed levels. Volumes and suitability of soil resources for reclamation shall be determined before disturbance.

4. Topsoil and selected subsoils suitable for reclamation, as identified in the soil inventory, shall be salvaged on all slopes where equipment can safely operate and either stockpiled and protected or directly placed.

5. Mining operations covering multiple year periods shall include plans for concurrent reclamation, which shall be reviewed and, if necessary, updated annually with the operator.

6. Interim reclamation shall be conducted according to a plan submitted at the time the Forest Service is notified of a temporary shutdown.

7. Reclamation vegetation shall be monitored for bio-accumulation of hazardous substances prior to release for multiple use management.

8. The lessee/operator shall monitor reclamation work annually and report to the Forest Service until reclamation is accepted and the bond released.

9. Loss of available surface water sources for uses such as wildlife or grazing, as a consequence of mining operations shall be replaced or mitigated by the mine operator. This includes the loss of water quality sufficient to maintain post-mining uses.

10. Within mine areas, native vegetation shall be retained undisturbed when disturbance of the site is not necessary for minerals development or safety.

11. Actual cost reclamation bond amounts shall be determined and bonds secured prior to surface disturbance or project implementation.

12. Surface water management shall be designed and maintained to control water runoff, erosion, sedimentation, and contamination.

[9] Drastically disturbed lands are extremely large areas where the surface soil layers or topography have been highly altered or rearranged through human activities such as mining, etc.

Guidelines

1. Suitable topsoil/subsoil should be spread over the selected area of application in a way that best supports biological diversity and prevents the release of hazardous substances.

2. Selection of plant species for establishment should reflect the surrounding ecosystem and post remedial land use. Plant materials used should be adapted to the climate of the site. Consideration and preference should be given to promoting natural succession, native plant species, and structural diversity.

3. Prescribe reclamation plant species known to reduce the risk of bioaccumulation of hazardous substances, if such risk is present.

4. Reclaimed areas should be graded and shaped, where possible, to a stable topographic relief that conforms and blends in with the variability of surrounding slopes. Final reclaimed slopes shall not be steeper than 3:1.

5. Implement appropriate BMP's identified in current Best Management Practices for Mining In Idaho and other appropriate sources.

6. Ground cover should be assessed prior to release of the reclamation bond to assure: 1) minimum ground cover exists to attain long-term soil productivity requirements; 2) ground cover should persist at minimum cover needs without artificial assistance (e.g. watering, fertilizers, etc.); and 3) meet or trend towards post-mining land use goals.

7. In reclaimed areas, vegetation should include species that meet wildlife habitat needs. Wildlife structures (slash piles, logs, rock piles) using native vegetation and materials are designed to provide cover for wildlife movements in created openings.

8. Roads, disturbed areas, and facilities no longer needed for mining operations should be reclaimed as prescribed in the reclamation plan within one year after the lands become available for reclamation.

9. Objectives for scenery may or may not be met on drastically disturbed lands.

Biological Elements

WATERSHED AND RIPARIAN RESOURCES

> ***Additional direction for these resources is found in the Prescription 2.8.3: Aquatic Influence Zone in Chapter 4 of the Plan. All fisheries program direction is in Prescription 2.8.3 Aquatic Influence Zone.***

Desired Future Conditions

- Watersheds provide infiltration, retention, and release of water appropriate to soil type, vegetation, climate, and landform.
- Watersheds provide a well-distributed pattern of nutrients and energy as well as diverse age-classes of vegetation that contribute to watershed health.
- Restoration strategies promote recovery of watershed, riparian, water quality and aquatic conditions characteristic of the geoclimatic setting.
- Riparian areas have a range of vegetative structural stages that are at, or moving toward, a properly functioning condition, have features necessary to promote stable stream channels, provide diverse habitat conditions for both aquatic and terrestrial wildlife species and deliver clean water in support of the Clean Water Act and Safe Drinking Water Act.

Goals

1. Cooperate with State Agencies, Tribes and other individuals, groups, communities, municipalities, etc., as appropriate, to delineate land areas to be protected, identify potential contaminant sources, and develop Management Plans for Source Water Protection Areas (SWPAs).

2. Cooperate as needed with the State, Tribes, other agencies and organizations to identify 303(d) impaired waterbodies, develop and implement Total Maximum Daily Load (TMDL) and their Implementation Plans for waterbodies influenced by National Forest System management.

3. Participate in cooperative river basin planning efforts. Coordinate management activities to be consistent with these efforts.

4. Design and implement watershed management programs and plans that protect and restore water quality and watershed function to support beneficial uses.

5. Protect waters meeting or surpassing State water quality standards by planning and designing land management activities that protect water quality.

6. Maintain or restore water quality to a degree that provides for stable and productive riparian and aquatic ecosystems within the capability of the system.

7. Focus maintenance and restoration efforts, within disturbed watersheds that have the greatest potential for restoration of hydrologic function, riparian, water quality and aquatic values.

8. Aquatic habitat provides for species viability of all native and desired nonnative vertebrate species on the Forest.

Objectives

1. Each year, complete at least one Watershed Assessment for a 5th HUC watershed. Incorporate Hydrologic Condition Inventories using *A Framework for Analyzing the Hydrologic Condition of Watersheds* or current equivalent Regional or National guidance.

2. Within two years of signing the ROD, update and prioritize projects in the Forest's Watershed Improvement Needs Inventory (WINI). Add new watershed improvement projects identified through the watershed analysis process.

Guidelines

1. Not more than 30 percent of any of the principal watershed[10] and/or their subwatersheds (6th HUC) should be in a hydrologically disturbed condition[11] at any one time.

2. Proposed actions analyzed under NEPA should adhere to the State Source Water Assessment Plan to achieve consistency with the Safe Drinking Water Act, and amendments, to emphasize the protection of surface and ground water sources used for public drinking water.

3. Projects in watersheds with 303(d) listed waterbodies and/or delineated Source Water Protection Areas should be supported by scale and level of analysis sufficient to permit an understanding of the implications of the project within the larger watershed context.

4. Proposed actions analyzed under NEPA should adhere to the State Nonpoint Source Management Plan to best achieve consistency with both Sections 313 and 319 of the Federal Water Pollution Control Act.

[10] These Project Work Inventory (PWI) watersheds have been delineated on the Caribou National Forest and are at approximately the same scale as 5th level hydrologic unit codes (HUC) which were used in the ICEBMP assessment effort.

[11] **Hydrologically Disturbed Condition.** Changes in natural canopy cover (vegetation removal) or a change in surface soil characteristics (such as compaction) that may alter natural streamflow quantities and character.
Hydrologically Recovered Condition. Vegetative life form where natural canopy coverage is achieved and subsequent streamflow quantities and character (timing and amount) reflect more natural conditions. Roads are considered hydrologically recovered if obliterated or ripped and drained and have 80% or more ground cover.

VEGETATION

Desired Future Conditions

Forested Vegetation

- Forested habitats display a diversity of structure and composition. Productive and diverse populations of plants are maintained or restored.
- In conifers, a range of structural stages exists where 30 to 40 percent of the acres are in mature and old age classes. Early successional stages are maintained through endemic insect and disease disturbance, vegetation management and fire. Patterns are within historical ranges of variability with functional corridors present.
- Conifer types are maintained and disturbance processes are restored through vegetation management, endemic insect and disease disturbances, and fire.
- Quaking aspen communities are moving towards historical ranges with fire and other practices influencing structural class distribution and patterns across the landscape. Aspen forests are managed to achieve desired vegetative conditions with 20 to 30 percent in mature and old age classes, and to reduce the decline of aspen acres due to succession of aspen to conifer.

Non-forested Vegetation

- Non-forested ecosystems: are resilient, diverse, and functioning within their site potential; display a diversity of structure and composition; and are within their historical range of variability (HRV).
- Non-forested ecosystems reflect a mosaic of multiple-aged shrubs, forbs, and native grasses with management emphasis on maintaining a diverse sustainable plant community. Fire regimes exist on an approximate twenty to forty year return cycle. Patterns are within historical ranges with 30 to 50 percent of the shrubs in greater than fifteen percent canopy cover class.
- Rehabilitation or restoration of native shrub communities is accomplished, where site potential permits.
- On areas capable of tall forb dominance, tall forb types reflect historical ranges of ground cover leading into the winter season. Composition reflects a mosaic dominance of tall forb indicator species. Disturbance regimes demonstrate stable or upward trend in tall forb indicator species. Patterns are within the historical range. Historical tall forb sites, which currently are not capable of tall forb dominance, are managed to maintain watershed stability.
- Woodland types including mountain mahogany, juniper and maple have multiple-aged shrub layers and a balanced shrub/herbaceous understory. Patterns are within historical ranges.

Goals

1. Diverse forested and non-forested ecosystems are maintained within their historic range of variability and/or restored through time with emphasis on aspen, aspen-conifer, mixed conifer, big sagebrush, mountain brush and tall forbs.

2. Aspen forests are managed to reduce or halt the decline of aspen acres due to succession of aspen to conifer.

3. Forested ecosystems are moving towards a balance of age and size classes in each forested vegetation type on a watershed or landscape scale. Early seral species are recruited and sustained while still providing a diversity of successional stages.

4. Sagebrush steppe and mountain shrub habitats are moving toward a balance of age, canopy cover, and size class on a watershed or landscape scale that is within their HRV.

5. Sites capable of tall forb dominance[12] are maintained in a stable or upward trend as measured by tall forb indicator species. Cooperate with research institutions to develop strategies to restore tall forb sites to potential.

6. Woodland types including mountain mahogany, juniper and maple are maintained within their historical ranges.

7. Biodiversity is maintained or enhanced by managing for a diverse array of habitats tied to natural process occurrence and distribution of plant communities.

Objectives

1. Within five years of signing the ROD, identify and prioritize rangeland sites dominated by monocultures, especially tarweed and mules' ears. Develop and implement restoration strategies, including monitoring criteria, for the highest priority areas within the planning period.

2. Within eight years of signing the ROD, identify and inventory existing tall forb cover types on the Forest.

3. Within two years of signing the ROD, map sagebrush canopy cover classes across the Forest to use when designing treatments.

4. Treat an average of 4,000 acres of sagebrush per year, primarily in the >25 percent canopy cover class, to move towards the historical range of variation in structure and composition.

5. Within ten years of signing the ROD, harvest mature aspen for wood products and to rejuvenate and restore young aspen on 2,500 acres.

6. Within ten years of signing the ROD, use prescribed fire and/or mechanical treatments to rejuvenate and restore young aspen on 20,000 acres.

[12] Tall Forb sites are characterized by a large array of luxuriant, tall, mesic forbs at elevations between 6,300 and 9,000 feet. They occur near springs, along streams, in small openings, and in larger open parklands within Douglas-fir and spruce-fir forest zones. Severe overgrazing at the turn of the century has caused a shift from mesic to more xeric plants and undesirables such as tarweed (*Madia glomerata*) (Shifflet 1994).

[15] Integrated Pest Management is the use of prevention, education, restoration and chemical, mechanical, or biological treatments for the management of weeds (Caribou Noxious Weed Strategy 1996).

Standards

1. Do not conduct management activities that may alter canopy vegetation within 400 feet of a Natural Resource Conservation Service (NRCS) snow measuring site without first contacting NRCS.

2. In each 5th code HUC which has the ecological capability to produce forested vegetation, the combination of mature and old age classes (including old growth) shall be at least 20 percent of the forested acres. At least 15 percent of all the forested acres in the HUC are to meet or be actively managed to attain old growth characteristics.

3. The definition of old growth characteristics by forest type found in "Characteristics of Old-Growth Forests in the Intermountain Region (USDA Forest Service 1993) shall be used unless more current direction is developed.

4. Silvicultural prescriptions shall be completed for all forested vegetation treatments.

Guidelines

1. Manage to reduce the decline of aspen and promote aspen regeneration and establishment. Provide protection from grazing where needed and consistent with management objectives.

2. Focus treatments on aspen clones which are at the greatest risk of conversion to conifer.

3. For aspen and conifer types, acres classified as mature and old growth should be in blocks over 200 acres in size unless the natural patch size is smaller. (A block can consist of a combination of mature and old growth forest types). Within these blocks:

   - Maintain the dead and down woody material guidelines for wildlife. (See Wildlife Standards and Guidelines for Dead and Down material).

   - Silvicultural techniques may be used to maintain or improve old growth and mature forest characteristics.

   - If a catastrophic event (such as fire) reduces the acres of old growth and mature forest below 20 percent of the forested acres in a principal watershed, identify replacement forested acres. When necessary, use silvicultural techniques to promote desired characteristics in the replacement acres.

4. When delineating old forests, use the definitions of late seral stages by forest type as shown in the Table 3.2 below. These are guidelines and site-specific stand structure should determine delineation of late seral stands.

■ **Table 3.2 Characteristics of Late Seral Forests by Vegetation Overstory Type.**

Forest Type	Age	Trees per Acre	DBH in inches (diameter at breast height)
Lodgepole pine	100+	40+	9+
Mixed Conifer	100+	40+	12+
Spruce/fir	110+	20+	12+
Douglas-fir	140+	25+	14+
Aspen	60+	20+	10+

5. Use methods of vegetation treatment that emulate natural disturbance and successional processes.

6. Forest vegetation manipulation is allowed on unsuitable timberlands to accomplish individual management prescription directions, other resource benefits, or for the reduction of hazardous fuels in urban interface zones. Production of wood products should not be the primary consideration.

7. Vegetation manipulation may include mechanical treatments, chemical treatments, commercial or non-commercial timber harvest of wood products, prescribed fire, wildfire for resource benefit, or other appropriate methods. Manipulations should emphasize ecological and multiple use outcomes over being "above-cost".

8. Wood fiber should be utilized consistent with ecosystem management and multiple use goals.

9. Give priority to vegetation treatments in private land interface zones or in those vegetation types identified as having high degree of departure from HRV.

10. Woodland types including mountain mahogany, juniper and maple should be prioritized for treatments based on site-specific needs.

NOXIOUS WEEDS and INVASIVE PLANT SPECIES

Desired Future Condition

■ The introduction and spread of noxious weeds and other invasive plant species is contained, and ecologically sound methods of control are applied across the forest. New infestations of noxious weeds are rare across the landscape and existing large infestations are slowly declining.

Goals

1. Minimize the establishment and spread of noxious weeds and other invasive plant species through the application of Forest direction, Integrated Pest Management (IPM), and Best Management Practices (BMP's).

2. The Forest is an active member of cooperative weed management areas established across the forest.

Standards

1. Only weed-free hay, straw, pellets, and mulch shall be used on Forest.

2. All seed used shall be certified to be free of noxious weed seeds from weeds listed on the current *All States Noxious Weeds List*.

3. Gravel or borrow material sources shall be monitored for noxious weeds and other invasive species. Sources infested with noxious weeds shall be closed until the weeds are successfully controlled.

4. Noxious weeds shall be aggressively treated throughout the Forest, unless specifically prohibited, following the Caribou Noxious Weed Strategy. Using Integrated Weed Management[15], methods of control and access shall be consistent with the goals of each prescription area.

Guidelines

1. Weed treatment projects, especially those using herbicides, should be timed to achieve desired effects on target vegetation, while having minimal effects on non-target vegetation.

2. Protect biological control insectories and allow harvest for distribution to other weed infestations, providing the original insectory can be maintained.

3. Monitor, as needed, disturbed areas, such as landings, skid trails, roads, mines, burned areas, etc, for noxious weeds or invasive species and treat where necessary.

4. Evaluate the potential for invasion by noxious weeds into proposed vegetation units and wildland fire use plan areas and modify units or mitigate where necessary.

PLANT SPECIES DIVERSITY

Desired Future Conditions

- Forest-wide vegetation communities have the necessary structure and composition, ecological processes and function to maintain native plant species.
- Management activities contribute to the recovery and/or conservation of federally listed and proposed plant species and provide for conditions which help preclude sensitive species from being proposed for federal listing.
- Native plants are generally used for revegetation projects.
- Pro-active efforts are made to educate and inform the public of the fundamental importance of native plant species to society, other resources, plant conservation, and biodiversity.

Goals

1. Provide habitat capable of: a) supporting populations of native plant species and their pollinators; b) contributing to recovery of federally listed species, and c) supporting plant biodiversity to meet social needs, biological diversity, and ecological and functional integrity.

2. Conservation Strategies and Agreements for Sensitive species and unique plant communities are emphasized. Known occurrences and habitat for plant species of concern are inventoried and mapped in coordination with the Natural Heritage and Conservation Data Center Network.

3. Rare and unique plant communities are maintained or restored.

Objectives

1. Within one year of signing the ROD, develop a "Forest Watch" list for rare plants suspected or known to occur on the Forest.[16]

2. Within two years of signing the ROD, develop Revegetation Guidelines for the Forest, with an emphasis on the use of native plant species.

Standards

1. Projects and activities shall be managed to avoid adverse impacts to sensitive plant species that would result in a trend toward federal listing or loss of viability.

2. Do not allow collection of rare plants, except for research or scientific purposes, under the direction of the Forest or Regional Botanist.

Guidelines

1. Native plant species from genetically local sources should be used to the extent practical for erosion control, fire rehabilitation, riparian restoration, road rights-of-way seedings, and other revegetation projects.

2. Where practical, disturbed sites should be allowed to revegetate naturally where the seed source and soil conditions are favorable (e.g. low erosion potential, deeper soils) and noxious weeds are not expected to be a problem.

3. Known occurrences or habitat for rare plants on the "Forest Watch" list and rare or unique plant communities on the Forest should be maintained.

4. Maintain, and where possible, increase unique or difficult-to-replace elements such as areas of high species diversity aspen, riparian areas, tall forbs, rare plant communities, etc.

[16] A Forest Watch list is appropriate for species that are common range-wide, but very rare within the planning area or for species with limited information concerning their distribution, status, taxonomy, threats, etc. "Watch" plants may not meet all criteria for being designated a sensitive species , but may need to be tracked as species at risk when sufficient population viability concerns exist.

5. The Forest Botanist or Ecologist should review seed mixes used for revegetation to insure no adverse impacts to threatened, endangered, sensitive species, other species at risk and the overall native flora within the analysis area.

SPECIAL FOREST PRODUCTS

Goals

1. Special Forest Products are available for personal and commercial use where consistent with management area direction and desired conditions.

2. Special Forest Product species and resources are managed for sustainability, and to ensure their ecosystem role and functions are maintained.

Objective

1. Within one year of signing the ROD, develop Special Forest Products (SFP) Guidelines for the Forest.

Standard

1. Provide for the historical, cultural, and recreational uses, as well as the rights and privileges afforded Native Americans under treaties and agreements, before commercial uses of special forest products are allowed.

Guidelines

1. Permits may be issued to authorize the collection of plant species (e.g., vascular and non-vascular) for personal use where collection is not likely to adversely affect species viability.

2. In cases where plant collection permits are issued, encourage collection from areas where plants would be removed as a result of other activities. Encourage collection of seeds or cuttings instead of removing whole plants.

WILDLIFE

Desired Future Conditions

- The Forest provides habitat that contributes to state wildlife management plans.
- Forest management contributes to the recovery of federally listed threatened, endangered, and proposed species and provides for conditions, which help preclude sensitive species from being proposed for federal listing.

Goals

1. Vegetation composition and structure is adequate to sustain wildlife species occurring on the Forest.

2. Wildlife biodiversity is maintained or enhanced by managing for vegetation and plant communities within their historical range of variability.

3. Maintain multiple vegetation layers in woody riparian habitats, that are stable or increasing with all age classes (seedlings, young plants, mature and decadent) represented to support native bird communities and other wildlife (Idaho Partners in Flight, 2000).

4. Migratory landbird habitat improvement efforts focus on priority habitat associations. In Idaho these have been identified as riparian, non-riverine wetland, and sagebrush shrublands (IPIF, 2000).

5. Maintain, and where necessary and feasible, provide for habitat connectivity across forested and non-forested landscapes.

Objectives

1. Wolverine Habitat Within two years of signing the ROD, complete a GIS analysis to identify potential wolverine natal den sites. Within four years of the ROD, survey potential wolverine natal den sites to document wolverine presence and assess suitability as natal denning habitat.

2. Harlequin Duck Habitat Within five years of signing the ROD, complete surveys of McCoy Creek and in other likely habitat to document Harlequin duck presence.

3. Spotted Bat and Western-Big-eared Bat Habitat Within five years of signing the ROD, develop management plans for any caves, underground mine openings, and other suitable habitats where these bat species are known to be present.

4. Canada Lynx Habitat Within three years of signing the ROD, complete surveys on the Soda Springs and Montpelier Ranger Districts.

5. Pygmy Rabbit Within ten years of signing the ROD, work with Idaho Fish and Game to resurvey known historic pygmy rabbit ranges on or adjacent to the Forest to determine whether they are still present and/or the habitat is still suitable.

6. Bald Eagle Within three years of the signing the ROD, develop nest management plans for existing known territories. Plans will be developed for new territories within three years of discovery.

7. Sage Grouse Within five years of signing the ROD, map functional and degraded sage grouse nesting and winter habitat within 5 miles of known leks. Identify opportunities to increase quality or quantity of that habitat.

8. Riparian Habitat Within ten years of signing the ROD, cooperate with State wildlife management agencies to develop a plan identifying watersheds on the Forest where beaver can be transplanted. Prioritize transplant locations in drainages where historical beaver complexes have been lost.

9. Migratory Landbirds Within five years of signing the ROD, establish breeding bird trend plots to monitor changes in breeding birds in relation to structure or shrub riparian habitats. Once established, reread plots every three years.

10. Amphibians Repeat amphibian surveys at 10 year intervals to determine habitat and population trends. Survey potential habitat.

11. Boreal toads Within 2 years of signing the ROD, assess the potential for impacts to breeding boreal toads from migratory movements across Tincup Highway and impacts from trampling by recreational activities and fishing at the site. If problems are found, identify and implement measures to mitigate impacts.

MANAGEMENT INDICATOR SPECIES

Standard

1. In project analyses affecting the habitats listed below, assess impacts to habitat and populations for the following management indicator species:

   - Grassland and open canopy sagebrush habitats--Columbian Sharp-tailed Grouse
   - Sagebrush habitats--Sage Grouse
   - Mature and old forest habitats--Northern Goshawk

SENSITIVE SPECIES

Guideline

1. Survey for the presence of sensitive species if suitable habitats are found within a project area a minimum of once prior to or during project development.

DEAD AND DOWN MATERIAL

Guideline

1. Following forested vegetation treatments, an average of 11 logs per acre should be left consisting of logs in decomposition classes 1, 2, and/or 3 (where they exist).

    - In specific areas where fuel loading and fire hazards are a concern (i.e. urban interface areas), the number of logs per acre can be reduced to meet acceptable fuel loading standards.

    - This guideline does not apply within 300 feet of an open designated route.

    - These requirements can be achieved, in part, with the down woody debris requirements for soils; they are interrelated and are not cumulative.

    - Logs do not need to be evenly distributed over the forested acres. Some acres may have no logs, while others may have many more than 11 logs per acre. The guideline is to have an average of 11 logs per acre on a least 60 percent of the forest acres of each analysis area.

ANIMAL DAMAGE MANAGEMENT

Standard

1. Activities shall be conducted in compliance with the most recent APHIS-Wildlife Services (WS) Predator Damage Management direction.

SNAG/CAVITY NESTING HABITAT

Standards

1. Public, workforce, and contractor safety shall be considered and provided for in selecting the arrangement of retained snags and trees.

2. Snags with existing cavities or nests shall be the priority for retention.

3. Snag height shall be 15 feet or greater for all forest types.

Guidelines

1. Snag dbh (diameter at breast height) $\geq$ 12 inches or largest diameter for the stand for all forest types and should be retained in clusters, where possible.

2. Hard-snag densities for various biological potentials should be approximately as follows by forest type. Biological potentials for woodpeckers were determined through analysis during the Targhee RFP (1997) and are incorporated in Table 3.3, below. The analysis area for calculating biological potential for woodpeckers should usually be the specific management prescription area polygon. Smaller analysis areas can be used when identified for site-specific projects.

■ **Table 3.3 Biological Potentials by Forested Vegetation Type.**

Percent of Biological Potential	Number of Snags per 100 Forested Acres[1]		
	Aspen	Douglas-fir Spruce/Fir	Lodgepole
100	828	978	877
80	662	782	702
60	497	587	526
40	331	391	351
20	166	196	175

[1] IN MIXED SPECIES STANDS, USE THE AVERAGE NUMBER OF SNAGS FOR DOMINANT FOREST TYPES.

3. Retain live trees for future snag recruitment using the following guidelines in Table 3.4:

■ **Table 3.4 Live Trees for Snag Recruitment.**

Percent of Biological Potential	Number of Live Trees per 100 Forested Acres				
	[3] 10 inch dbh	[3] 7-9.9 inch dbh	[3] 5-6.9 inch dbh	<5.0 inch dbh	Total Trees per Acre
100	800	500	500	700	2500
80	600	400	400	600	2000
60	500	300	300	400	1500
40	300	200	200	300	1000
20	200	100	100	100	500

4. If existing snag levels are below the biological potential for woodpeckers that is identified for a particular prescription area, no dead standing trees should be harvested. Snag creation should only occur if specified as mitigation in a project level analysis.

5. Strive not to disturb or destroy existing nests, whether active or inactive.

BALD EAGLE HABITAT-- OCCUPIED NESTING ZONES (ZONE I, 0.25 MILE RADIUS OF NEST) AND PRIMARY USE AREAS (ZONE II, 0.5 MILE RADIUS OF NEST)

Standards

1. Use silvicultural techniques which maintain or promote mature and old growth timber stand characteristics in both the short and long-term, but reduce the risks of insects and disease epidemics.

2. Vegetation management, such as timber harvest or thinning, which could disturb an active bald eagle nest can occur only between September 1 and January 31 or when documented as unoccupied.

3. Prohibit new structures, such as power lines, that have the potential to cause direct mortality to bald eagles.

Guidelines

1. "Control" should be the suppression response for wildfires to minimize loss of habitat unless a site-specific analysis demonstrates differently.

2. Prohibit wildlife management or predator management activity with the potential to cause mortality to bald eagles, such as exposed traps.

3. All human activities should be minimized from February 1 to August 1.

BALD EAGLE HABITAT-- HOME RANGES (ZONE III, 2.5 MILE RADIUS OF NEST)

Standards

1. Follow existing, site-specific management plans (when they exist) for each bald eagle territory, or ZONE III management direction in the Bald Eagle Management Plan for the Greater Yellowstone Area when site-specific management plans do not exist.

2. Within a 2.5-mile radius of nest, prohibit all use of herbicides and pesticides which cause egg shell thinning as determined by EPA labeling.

BALD EAGLE HABITAT—WINTER FORAGING AND ROOSTING

Guideline

1. Activities and developments should be designed to minimize conflicts with bald eagle wintering and migration habitat.

CANADA LYNX

> ***Management direction which will maintain linkages for Canada lynx on the Forest is located in the following places:***

- Vegetation Desired Future Conditions
- Vegetation Goals 1-4
- Vegetation Standard 2
- Wildlife Goals 2, 3, and 5
- Vegetation Goal 7
- Lands Objective 1
- Lands Standard 1

GRAY WOLF HABITAT

Standards

1. Restrict intrusive human disturbances (motorized access, vegetation management, livestock grazing, etc.) within one mile around active den sites and rendezvous sites between April 1 and June 30 when there are five or fewer breeding pairs of wolves in the Yellowstone Nonessential Experimental Population Area (applies to the portion of the Forest east of Interstate 15) or the Central Idaho Nonessential Experimental Population Area (applies to the portion of the Forest west of Interstate 15). After six or more breeding pairs become established in each experimental population area, land use restrictions will not be necessary (USDI, F&W Svc. 1994a and 1994b).

2. If and when wolves are de-listed, they will be managed in accordance with approved state management plans.

3. When six or more breeding pairs are established, the U.S. Fish and Wildlife Service will issue "Take" permits (valid for 45 days) to individuals holding Term Grazing Permits authorizing them to injure or kill gray wolves that are attacking livestock on their allotment. "Take" is permitted only after 1) USFWS is notified, 2) USDA-APHIS Wildlife Services verifies that a wolf is the cause of depredation, and 3) capture results by USDA-APHIS-WS are unsuccessful.

PEREGRINE FALCON HABITAT

Standard

1. Within 15 miles of all known nest sites, prohibit all use of herbicides and pesticides which cause egg shell thinning as determined by risk assessment (USDA, Forest Service, September 1992).

Guideline

1. For proposed projects within two miles of known peregrine falcon nests, minimize such items as: (1) human activities (rock climbing, aircraft, ground and water transportation, high noise levels, and permanent facilities) which could cause disturbance to nesting pairs and young during the nesting period between March 15 and July 31; (2) activities or habitat alterations which could adversely affect prey availability.

Standards and Guidelines

1. The management standards and guidelines in Table 3.5 below apply to all forest types within active and historic goshawk nesting territories.

Table 3.5 Management Standards and Guidelines within Active Goshawk Nesting Territories.

Attribute	Nest Area	Post-Fledging Family Area	Foraging Area
Number of Areas (S)	1	1	1
Size of each area (acres) (S)	≥ 200 acres	≥ 400 acres	≥ 5,400 acres
Management Season[5] (G)	Sept-Mar	Sept-Mar	Year-long
Open Road Density[4] (G)	No new system roads	No new system roads	Use management Rx density
SIZE CLASS DISTRIBUTION FOR FORESTED ACRES (%) (G):			
Nonstocked/seeding	0%	≤ 20%	≤ 25%
Sapling	0%	≤ 20%	≤ 25%
Pole	0%	≤ 20%	≤ 25%
Mature/old[1]	100%	≥ 40%	= 30%
Rotation Age (years) (G)	–	60 to 240 years	60 to 240 years
Maximum Created Opening (Acres) (G)	0	≤ 40 acres	≤ 40 acres
Snags and Reserve Trees[2] (G)	as specified in management prescription		
Downed Logs (average/acre) (G)	Forest-wide S&Gs	Forest-wide S&Gs	Forest-wide S&Gs
Thinning (G)	Non-uniform[3]	Non-uniform	By silvicultural prescription

1 Mature and old age canopy closure for nest sites and post-fledging family areas should range between 75% and 100%.

2 Refer to previous section on snag/cavity nesting habitat for explanation of biological potential.

3 Maximize diversity of structure.

4 Open roads in goshawk territories shall be given priority for closure to meet management prescription road density standards. First priority shall be to close roads in nest areas; second priority in post-fledging family areas; third priority in foraging areas. Where possible, open road density should be zero in the nest areas and the post-fledging family areas.

5 This applies only to active nests. There is no restriction for nest areas where current surveys have documented that the nest is unoccupied. Management activities are defined as mechanical treatments and road building.

FLAMMULATED OWL HABITAT

Guideline

1. Do not allow timber harvest activities within a 30-acre area around all known flammulated owl nest sites.

BOREAL OWL HABITAT

Guideline

1. Within a 3,600-acre area around all known boreal owl nest sites, maintain over 40% of the forested acres in mature and old age classes. (Hayward and Verner, 1994, Hayward, 1997)

GREAT GRAY OWL HABITAT

Guidelines

1. Within a 1,600-acre area around all known great gray owl nest sites, maintain over 40% of the forested acres in mature and old age classes. (Hayward and Verner, 1994)

2. Restrict the use of strychnine poison to control pocket gophers within a 1/2 mile buffer around all active great gray owl nest sites.

TRUMPETER SWAN HABITAT

Standard

1. Maintain suitable trumpeter swan nesting habitat conditions in Elk Valley Marsh and other sites.

Guideline

1. Change livestock grazing through management or fencing when grazing is adversely affecting trumpeter swan use or productivity.

HARLEQUIN DUCK HABITAT

Guideline

1. Avoid establishing new trails, roads, or facilities within 300 feet (on each side) of any stream reach with documented harlequin duck breeding activity.

BIG GAME

> ***Other guidance for big game management is contained in individual prescription area direction, especially Rx 2.7.1 and Rx 2.7.2 Big Game Winter Range. Security has been incorporated into the road density standards for specific geographic areas.***

Guidelines

1. Provide for vegetation buffers of at least one sight distance (Thomas 1979) around big game concentration/use areas, such as wallows and mineral licks. Sight distance is the distance at which 90 percent of a deer or elk is hidden from an observer. This will vary depending on site-specific stand conditions.

2. Provide for security or travel corridors near created openings.

3. Where summer or fall habitat conditions, including security areas[17], are identified as a factor in not meeting State population objectives, work with State wildlife management agencies to address the issue(s).

SAGE GROUSE AND COLUMBIAN SHARP-TAILED GROUSE

Standard

1. Cooperate with other state and federal agencies and private landowners to survey, inventory, and manage habitats for sage grouse and Columbian sharp-tailed grouse.

Guidelines

1. Current guidelines for sage and sharp-tailed grouse management, such as Connelly et al. (2000), should be used as a basis to develop site-specific recommendations for proposed sagebrush treatments.

2. Management activities should consider proximity to active lek locations during site-specific project planning. Those within 10 miles of an active sage grouse lek and 2 miles of active sharp-tailed grouse leks should be considered further for suitability as grouse habitat.

3. If management activities would impact courtship, limit physical, mechanical, and audible disturbances in the breeding complex during the breeding season (March to May) within three hours of sunrise and sunset each day.

4. Where management actions will disturb nesting grouse, avoid manipulation or alteration of vegetation during the nesting period (May to June).

AMPHIBIANS

Guidelines

1. Ensure habitats in the Tincup Creek Drainage and other known toad breeding locations are managed to maintain or improve the existing population and distribution of western toads.

2. Ensure habitats in the Toponce area and other known northern leopard frog breeding locations are managed to maintain or improve the existing population and distribution of the frogs.

3. Maintain amphibian habitats when developing and modifying springs and wetlands.

BATS

Guidelines

1. All abandoned underground mines should be evaluated as bat habitat prior to closure. As an alternative to collapsing mine entrances, gate abandoned mines to retain roosting and hibernation habitat for bats. (Idaho Conservation Effort, 1995, M-1)

2. Gating of mines should be considered where human disturbance is disturbing/displacing bats. Where gates are used, they should be designed in accordance with published literature (i.e., Tuttle and Taylor, 1994). (Idaho Conservation Effort, 1995, Appendix B)

[17] Security is an area of cover (vegetative or topographic) over ½ mile from an open motorized route and over 250 acres.

3. Discourage or restrict entry to mines and caves known to be occupied by hibernating bats or bats with young. Exceptions include surveys conducted by qualified personnel (Idaho Conservation Effort, 1995, I-3,4).

4. Prior to closure of inactive or abandoned underground mines, surveys for cave-dependent species should be completed and mitigation measures implemented

LANDBIRDS

Guidelines

1. Stands of mature trees (including snags and dead-topped trees) should be maintained next to wet meadows.

2. Where feasible, maintain 30 to 50 percent of the sagebrush habitat in a 5th code HUC in contiguous blocks greater than 320 acres to support sagebrush obligate species. (Page and Ritter, 1999)

3. Practices which stabilize or increase native grass and forbs cover in sagebrush habitats with 5% to 25% sagebrush canopy cover should be implemented. (Page and Ritter, 1999)

4. In sagebrush habitats, manage herbaceous cover to conceal nests through the first incubation period for ground and low shrub-nesting birds. It is assumed that proper use of rest-rotation or deferred-rotation grazing should meet these conditions, although not every year on every area (Idaho Partners in Flight 2000).

THREE-TOED WOODPECKER

> ***Direction for woodpeckers and other cavity nesters is located in the "Snag" section of this Chapter.***

WOLVERINE

Guideline

1. Restrict intrusive human disturbance within one mile around known active den sites, March 1 to May 15 (Idaho State Conservation Effort 1995).

Forest Use and Occupation

TRIBAL COORDINATION

Desired Future Conditions

- Lands within the Forest serve to help sustain and provide opportunities for traditional American Indian land and resource uses. The opportunities help sustain the American Indians' way of life, cultural integrity, social cohesion, and economic well-being.

Goals

1. Tribal treaty rights and other Federal trust responsibilities are met and Tribal governments are involved in planning and implementation of programs of mutual interest.

2. The Forest recognizes the tribes' right to self-determination and control of their resources and their relationship both among themselves and with non-Indian governments, organization, and persons.

3. Culturally significant items and sites are identified, protected and treated within the context of the culture that identifies and values them.

4. Relationships with American Indian populations are improved to better understand and integrate tribal needs and desires with Forest management activities.

Objectives

1. Within 2 years of the signing of the ROD, develop a protocol for consultation process with all Federally recognized tribes for undertakings that involve Native American heritage resources and traditional use areas.

2. Within 2 years of the signing of the ROD, develop an agreement that tiers to Treaty Rights and addresses Forest use, occupation, and products.

Standards

1. Forest consultation procedures and intergovernmental agreements with the tribes to guide future cooperative efforts shall comply with the protocols set forth in the National Resource Book on American Indian and Alaska Native Relations Working Draft 1995 or its successor.

2. No groomed snowmobile trails accessing the Fort Hall Reservation shall be considered, unless requested by the Tribe.

FACILITIES–Buildings, water systems, sewer systems

Desired Future Conditions

- Well-maintained and attractive structures and facilities are strategically located across the Forest to address user needs and assist in protecting and managing the Forest's natural resources.

Goals

1. Facilities meet health and safety standards.
2. Facilities complement the forest settings in which they are located.
3. Facilities determined to be Historic Properties are maintained to protect their historic integrity.
4. To the greatest extent possible, facilities on the Forest are accessible to most people.

Objectives

1. Within one year of signing the ROD, update the Facilities Master Plan. The Master Plan identifies which facilities will be retained, acquired, decommissioned, or reconstructed for new uses.
2. Within one year of completion of the Facilities Master Plan, transition plans will be completed for all facilities identified for retention that are not accessible[18].
3. Within five years of completion of the Facilities Master Plan, inventory, evaluation and protection strategies will be completed for properties identified as historic.

Standard

1. Facilities shall comply with local, State and national health and safety standards.

Guideline

1. Architectural designs should follow principles and concepts outlined in the Built Environment Image Guide (BEIG).

[18] Title III of the Americans with Disabilities Act of 1990 (42 U.S.C. 12181) prohibits discrimination on the basis of disability by public accommodations and requires places of public accommodation and commercial facilities to be designed, constructed, and altered in compliance with the accessibility standards established by the Act.

TRANSPORTATION – Roads, Trails and Access

Desired Future Conditions

- Transportation system provides access to the Forest to meet planning and management goals including recreation, special uses, timber management, range management, minerals development, and fire protection.
- The transportation system is safe, environmentally sound, and is responsive to public needs and affordable to manage and maintain.
- The Forest provides a variety of road and trail opportunities, including motorized and non-motorized experiences.

Goals

1. National Forest Service roads and trails needed for long-term objectives are maintained in a manner that provides for user safety and minimizes impacts to forest resources. Roads and trails not needed for long-term objectives are decommissioned, stabilized, and restored to a more natural state.

2. Forest roads and trails are managed to maintain or improve watershed condition.

3. The forest transportation system is developed and maintained at the minimum level necessary to effectively and efficiently manage natural resources, provide user access, protect capital investments, provide for user health and safety and protect the environment.

4. The Forest and local governments work cooperatively towards resolution of R.S. 2477 assertions.

5. Travel access information is readily available to the public.

Objectives

1. Within three years of signing the ROD, initiate site-specific travel planning to incorporate Revised Forest Plan direction on access management.

2. Within five years of signing the ROD, road management objectives (RMOs) will be developed or updated for all classified National Forest System roads.

ROADS

Standards

1. Roads analysis (currently in Part 212 of Title 36 of the Code of Federal Regulations) shall be used to inform road management decisions; including construction, reconstruction, or obliteration of roads.

2. Road construction, reconstruction and maintenance standards and criteria shall be guided by roads analysis and documented through the use of road management objectives (RMO's).

3. For roads scheduled for decommissioning, the site-specific analysis shall disclose and analyze effects of the closure methods.

Guidelines

1. Minimize construction of new transportation routes, evaluate existing routes, and reconstruct or relocate those routes not meeting management goals.

2. When highway construction or reconstruction is proposed in wildlife linkage areas, identify potential crossings and consider mitigation.

3. Design and construct roads to a standard appropriate to their intended use, considering safety, cost, and resource impacts, emphasizing protection of water quality.

4. Avoid road construction on unstable slopes and highly erosive soils.

5. Identify safety hazards on Forest System Roads and correct or mitigate the situation, or close hazardous roads to public use.

6. As needed, schedule roads to receive maintenance, repairs, or improvements to protect investment, maintain the intended serviceability, and protect other resources. Prioritize road maintenance activities using factors such as safety, resource protection needs, administrative needs, user comfort, and the identified traffic service level.

7. Surface gravel should be placed on roads where necessary to reduce rutting, surface erosion and to reduce maintenance costs.

8. Conserve surface materials when blading and shaping roads.

9. Existing cut slopes that contain suitable material may be widened and material used for surfacing.

10. Slide materials which obstruct drainage systems should be removed.

11. Roads identified as unneeded in a roads analysis should be decommissioned, stabilized and returned to production.

12. Road closures should be located and designed to effectively control motorized use and minimize safety hazards

13. All roads should be properly drained before closure.

14. When a road is closed at the forest boundary, a vehicular turnaround should be provided on the forest to avoid impacts to adjacent non-federal lands.

ACCESS

Standards

1. Open Motorized Route Density (OMRD) shall not exceed the levels identified on the Plan ORMD Map. OMRD is defined as the miles of designated motorized roads and trails per square mile within a specific prescription area polygon[19].

2. The Open Motorized Route Density (OMRD) standards prescribed for each prescription area and travel restrictions as depicted on the Travel Plan do not restrict responses to emergency events to protect human life, property values and structures, and forest resources. Responses to emergency events include, but are not limited to, law enforcement, search and rescue, and fire suppression.

3. The travel planning process shall consider additional areas for non-motorized winter recreation.

4. Any motorized vehicle access on a restricted road or trail or in a restricted area shall be for official administrative business only and shall be officially approved.

5. Unless otherwise posted motorized access is allowed for parking, wood gathering, and dispersed camping within 300 feet of an open designated road.

Guidelines

1. The construction of new or maintenance of existing, motorized and non-motorized access routes should be consistent with the ROS class in which they are located.

2. Areas open to cross-country motorized travel may be administratively restricted to designated routes or closed if unacceptable resource damage occurs.

TRAILS

Additional trail direction as it relates to ROS is found in the Recreation section.

Guidelines

1. Protection measures for forest system trails should be included in management activity plans and authorizations.

2. Operations, maintenance and rehabilitation of existing trails should be the priority over new construction.

3. Encourage management and maintenance of winter trails by cooperative agreements with agencies and user groups.

[19] Where large prescription area polygons are split by a linear feature such as a powerline or road corridor, OMRD is calculated for the entire prescription area polygon.

RECREATION

> ***Construction and reconstruction of recreation facilities and trails that occur within Aquatic Influence Zones will adhere to the standards and guidelines described under Prescription 2.8.3.***

Desired Future Conditions

- People visiting the National Forest enjoy a broad range of recreation opportunities amid natural settings. Recreation experiences and settings meet public expectations of quality and variety, while complimenting other resource objectives.

Goals

1. Developed and dispersed recreation facilities, access, and programs are consistent with the desired ROS setting and other resource goals of the area in which they are located.

2. Recreation programs and facilities meet all applicable local, state and national standards for heath and safety.

3. Recreation facilities and services are barrier-free, to the greatest extent practical[20].

4. Recreation information is available in a variety of media and locations, including other management agencies and private recreation vendors.

5. Environmental education and interpretation is provided.

6. Recreation facilities are cost-effective to operate and maintain through a variety of partnership and funding strategies.

Objectives

1. Within one year of signing the ROD, revise seasonal camping stay limits as needed to meet management goals.

2. Within three years of signing the ROD, complete the Recreation Facilities Master Plan. For sites that are not accessible, transition planning will be included in the Master Plan.

3. Within two years of signing the ROD, identify developed recreation sites with priority vegetation management needs, and develop vegetation management plans to address those needs.

Guidelines

1. Developed sites within grazing allotments should be fenced where conflicts with livestock occur.

[20] Title III of the Americans with Disabilities Act of 1990 (42 U.S.C. 12181) prohibits discrimination on the basis of disability by public accommodations and requires places of public accommodation and commercial facilities to be designed, constructed, and altered in compliance with the accessibility standards established by the Act.

2. Waste disposal containers in developed recreation sites should be bear-resistant, where necessary.

3. Rehabilitation of existing facilities should be the priority over new construction.

4. Projects should be planned and implemented to meet the Recreation Opportunity Spectrum (ROS) as depicted on the Forest ROS map.

SCENIC RESOURCES

> ***Construction and reconstruction of recreation facilities and trails that occur in Aquatic Influence Zones will adhere to the standards and guidelines described under Prescription 2.8.3.***

Desired Future Conditions

- The scenery of the Forest reflects both natural and modified appearing landscapes.

Goals

1. Provide quality settings for a wide range of recreation opportunities.

2. Restore, maintain or enhance the scenic quality of Forest landscapes to meet adopted objectives for scenery.

3. Objectives for scenery reflect user expectations and ecological goals for forest landscapes.

Objective

1. Within three years of signing the ROD, change Visual Quality Objectives (VQOs) in accordance with the Scenery Management Handbook 701 and adopt Scenic Integrity Objectives.

Standard

1. Objectives for scenery (either VQOs or SIOs) shall be met along Scenic or Historic Byways, Wild and Scenic Rivers, and other sensitive travel routes and special emphasis areas.

Guidelines

1. New and reconstructed structures and facilities should be built to blend with the surrounding landscape, using the concepts outlined in the Built Environment Image Guide or current direction.

2. Until the Scenery Management System is fully implemented, projects should be planned and implemented to meet the VQOs as displayed on the Forest VQO map.

HERITAGE RESOURCES

Desired Future Condition

- Historic and archaeological resources are properly managed to provide for preservation of these non-renewable resource for current and future generations. Significant sites are inventoried, protected, and, if warranted, nominated to the National Register of Historic Places. Visitors to the Forest find opportunities to learn about and enjoy their cultural heritage.

Goals

1. Identify archaeological and historic properties on the Caribou National Forest.

2. Manage archaeological and historic resources, including inventory, evaluation, nomination to the National Register of Historic Places, and maintenance of the archaeological and historic resources on the Forest for educational, scientific, and public benefit.

3. Protect archaeological and historic properties through stabilization and monitoring efforts. Monitor those which may be adversely affected by management activities.

4. Ethnographic, prehistoric, and historic overviews of the Forest are prepared and maintained. Artifacts and records are curated and made available for study by qualified researchers.

Objectives

1. Within five years of signing the ROD, develop a predictive model to guide the design and completion of cultural resource inventories.

2. Complete a systematic evaluation of historic buildings by 2020.

3. Within two years of signing the ROD, develop a Cultural Resources Overview[21].

4. Inventory an average of 2,000 acres per year for archaeological and historic properties.

Standards

1. Cultural resources inventories shall be conducted in consultation with the Idaho State Historic Preservation Office, Local Native American Tribes, and interested individuals or organizations likely to have knowledge or interest in the historic properties in the area.

2. Unevaluated cultural resource sites[22] shall be treated as significant until comprehensive evaluations are completed.

Guideline

1. Management plans for each historic property nominated to the National Register of Historic Places should be developed within 5 years.

[21] This Overview includes: 1) kinds of sites already known and their relative abundance; 2) major prehistoric or ethnographic uses; 3) major historic themes; and 4) gaps in knowledge about the prehistory and history of the forest.
[22] 36 CFR 800.4 requires that when proposing undertakings that might affect historic properties the Agency must 1) determine the scope of effects; 2) identify historic properties; and 3) evaluate the historic significance of the property.

Production of Commodity Resources

GRAZING MANAGEMENT

Desired Future Conditions

- Rangeland resources provide forage for domestic livestock while maintaining healthy and sustainable rangelands.
- Management actions maintain or and enhance the diversity of native and desired non-native plant and animal communities.

Goal

1. Provide opportunities for livestock grazing within the capability and suitability of the land and in coordination with other resource goals.

Objectives

1. By 2010, complete NEPA decision documents on all allotments as specified in the Recission Act schedule (Section 504 of Public Law 104-19).

2. Within one year of the signing of the ROD, incorporate the riparian grazing standards into livestock grazing permits and annual operating instructions.

RANGE RESOURCES

Standard

1. Livestock grazing shall be restricted following prescribed or natural fire and/or rangeland planting or seeding before seed set of the second growing season, or until the objectives of the treatment are achieved.

Guidelines

1. Stock driveways should be eliminated as opportunities occur.

2. Where water is developed at springs and seeps, return water to point of origin after livestock leave unit, if possible.

3. Seeding or establishment of monocultures should be avoided, and efforts should be made to establish and/or maintain a variety of desirable grass, forbs, and shrub species.

FORAGE UTILIZATION

Livestock grazing standards for riparian areas are in Prescription 2.8.3 Aquatic Influence Zones.

Guidelines

1. Apply upland forage utilization levels to all allotments as shown in the Table 3.6 below, unless determined through development of site-specific standards in the allotment management planning process. These utilization guidelines apply to native and desirable nonnative key plant species as recorded at the end of the grazing period (when the livestock leave the unit/pasture).

Table 3.6 Upland Forage Utilization Levels

Vegetation Component	Allowable Percent Utilization
Grasses and Herbaceous Species (% dry weight)	35-55%
Shrubs (% annual leader growth)	25-35%

2. Forest Service administrative site livestock pastures[23] should comply with the forest-wide standards and guidelines for forage utilization and riparian management

LIVESTOCK GRAZING PERMITS

Standard

1. The ability of individuals holding grazing permits on public land to harass adult wolves in an opportunistic, noninjurious manner shall become part of their permit conditions so it is clearly understood exactly what can occur(USDI, F&W Svc. 1994a and 1994b).

Guideline

1. Permittees may be allowed motorized access to maintain or develop range improvements assigned in their grazing permits or for other authorized administrative activities. AMPs and Annual Operating Instructions should include direction to comply; travel permits should be issued to authorize this use.

[23] This does not apply to small sized enclosures such as corrals.
[25] According to regulations promulgated under FLPMA, the Forest Service petitions the Secretary of the Interior to formally withdraw the area from mineral entry. The final decision to withdraw is made by the USDI.

TIMBER MANAGEMENT

Desired Future Conditions

- Provide wood fiber while maintaining a healthy, and sustainable forest.
- Management prescriptions preserve and enhance the diversity of plant and animal communities over time, including endemic and desirable naturalized plant and animal species.

Goals

1. A variety of silvicultural techniques and harvest systems are used to restore ecological function, structure, composition and provide products and services to the public.

2. Design commercial forest product sales to facilitate and encourage the use of wood residue for firewood and other products.

Objectives

1. Offer a Total Sale Program quantity of 9,800 CCF (5.1 MMBF) of forest products within 10 years of signing the ROD. This includes the Allowable Sale Quantity (ASQ), conifer sawlogs which are not part of the ASQ, aspen sawlogs and all other products.

2. Within 10 years of signing the ROD, achieve timber stand improvement on at least 3,600 acres

Standards

1. All commercial sales, including sawtimber, convertible products, select material, and commercial firewood, shall be advertised and sold on a bid basis, unless demand can be met and "sale on demand" sales can be justified.

2. For tree planting projects, tree seedlings used shall be native species grown from seed from the appropriate seed zone, matched to site and elevation. Use the Expert System to determine seed transfer guidelines.

Guidelines

1. Design timber management projects to simulate natural patch sizes, shapes, connectivity, and species composition and age-class diversity in accordance with silvicultural prescription.

2. The silvicultural system used on managed timberlands should allow for control of pests, animal damage, including livestock, and vegetation competition to promote regeneration and tree growth at optimum levels.

3. When feasible and appropriate, use prescribed burning to dspose of slash to reduce fire hazard and to provide seed beds for natural regeneration.

4. A full complement of harvest systems and techniques may be used across the Forest unless specifically prohibited or limited by individual prescription direction.

MINIMUM STOCKING GUIDELINES

Guideline

1. Table 3.7, below, shows the minimum stocking which should occur before a regenerated area can be certified as stocked.

■ Table 3.7 Minimum Stocking by Forested Vegetation Type.

Species	Minimum Stocking (Trees/Acre)[1]	Percent of Area Meeting Minimum Stocking
Lodgepole pine	170	70
Douglas-fir	140	70
Mixed Conifer[2]	200	70
Spruce-fir	200	70
Aspen	5000	70

1 Healthy, free-to-grow seedlings at least six (6) inches in height. Aspen may comprise a percentage of the stocking on conifer sites, dependent on the site-specific prescription (Rangelands 20(1): Decline of quaking aspen in the Interior West).
2 Douglas-fir, lodgepole pine, subalpine fir and Engelmann spruce.

CREATED OPENINGS

Standards

1. The maximum size limit for forested vegetation openings created in one harvest operation by the even-aged silvicultural system shall normally be 40 acres. Openings may exceed 40 acres in aspen and lodgepole pine types contingent on Regional Forester approval, or as a result of natural catastrophic conditions such as fire, insect and disease, or windstorm.

2. A harvested area of commercial forestland shall not be considered a created opening for silvicultural purposes when stocking surveys indicate that minimum stocking is achieved and average tree height equals or exceeds seven feet. When other resource management considerations (such as wildlife habitat, watershed needs, or visual requirements) prevail, a created opening shall no longer be considered an opening when the vegetation meets a particular management objective stated in the applicable management prescription.

LOGGING SYSTEMS

Guidelines

1. Limit tractor skidding to slopes less than 40 percent and generally prohibit logging on slopes over 60 percent.

2. Consider use of helicopter logging methods or other specialized logging methods on slopes in excess of 40 percent.

3. Yarding operations should not take place when ground conditions are wet enough that there is a risk of rutting and compaction as determined by the sale administrator.

4. Minimize skid trails and temporary roads during logging operations. Identify skid trails and temporary roads requiring construction in the sale planning process and assure appropriate rehabilitation of these trails by the purchaser or in post-sale activities.

GENERAL PRACTICES

Standard

1. Suitability shall be verified at the site-specific level.

Guideline

1. Commercial sales of forest products should be offered in a variety of sale-size packages to meet the needs of small and large operations.

FIREWOOD

Guidelines

1. Woody debris and dead standing snags are available, by permit, within 300 feet of an open motorized road for public firewood gathering unless the area is designated otherwise.

2. The Forest may designate other areas for firewood gathering if needed to meet resource goals and public demand.

Chapter 4

Subsection and Prescription Areas

Ecological Subsections

Forest ecological types have been classified and mapped using a hierarchical system that stratifies ecological units into progressively smaller units of increasingly uniform ecological potentials. The Forest boundary falls within seven ecological subsections. These are described and listed below.

BASIN AND RANGE TRANSITIONAL MOUNTAINS SUBSECTION (M331Du)

LOCATION: PORTNEUF RIVER BASIN OF SOUTHEAST IDAHO

The Basin and Range Transitional Mountains subsection consists of the Bannock and Malad Mountain Ranges of Paleozoic aged sedimentary and volcanic rock, such as limestone, dolomite, siltstone, conglomerate, sandstone, and volcanic materials that have been modified by fluvial, colluvial and residual geomorphic processes. Elevations range from 5,000 to 9,095 feet (1,524 to 1,091 meters). Slopes range from 30 to 70 percent. The major vegetation types include coniferous forest and shrublands. This map unit is separated from similar subsections based upon the transitional characteristics of the Basin and Range geomorphic features. Climate is more moist and cooler than surrounding subsections.

Mean annual precipitation ranges from 18 inches (46 cm) at the lowest elevations to 30 inches (76 cm) at the highest elevations. Most precipitation occurs in the winter and spring with most of the precipitation falling as snow. The mean annual air temperature is 29 to 38 degrees F (-1.7 to 3.3 degrees C).

Live streams typically occur in the major drainageways and canyons. The landscape is slightly to moderately dissected. The natural disturbance processes are fire, insects, disease, windthrow and some flooding in the drainageways. Some gully erosion has occurred in the lower foothill draws and drainageways. Human-caused disturbances include roads, logging, mining and grazing. Mining of perlite and pumice occurs near Wright Creek.

LANDSCAPE SETTINGS: MOUNTAINS AND NARROW VALLEYS

The mountain ranges are located on high elevation sites with slopes ranging from 30 to 70 percent. These landscapes include mountain slopes and ridges that are formed in sedimentary parent materials. Soils are shallow (less than 20 inches) to deep (40 to 60 inches) and well drained. Surface textures are loam and silt loam. Soils are classified as Pachic Cryoborolls and Argic Cryoborolls associated with sagebrush/maple potential natural vegetation, and Argic Pachic Cryoborolls associated with Douglas-fir potential natural vegetation.

The narrow valleys are located on mid-elevation sites with slopes ranging from 5 to 20 percent. These landscapes include narrow canyons and valleys that are formed in sedimentary parent materials. Soils are deep (40 to 60 inches) to very deep (greater than 60 inches) and well to somewhat poorly drained. Surface texture is loam or sandy loam. Soils are classified as Cumulic Cryoborolls and Pachic Cryoborolls associated with willow/sedge and sagebrush potential natural vegetation.

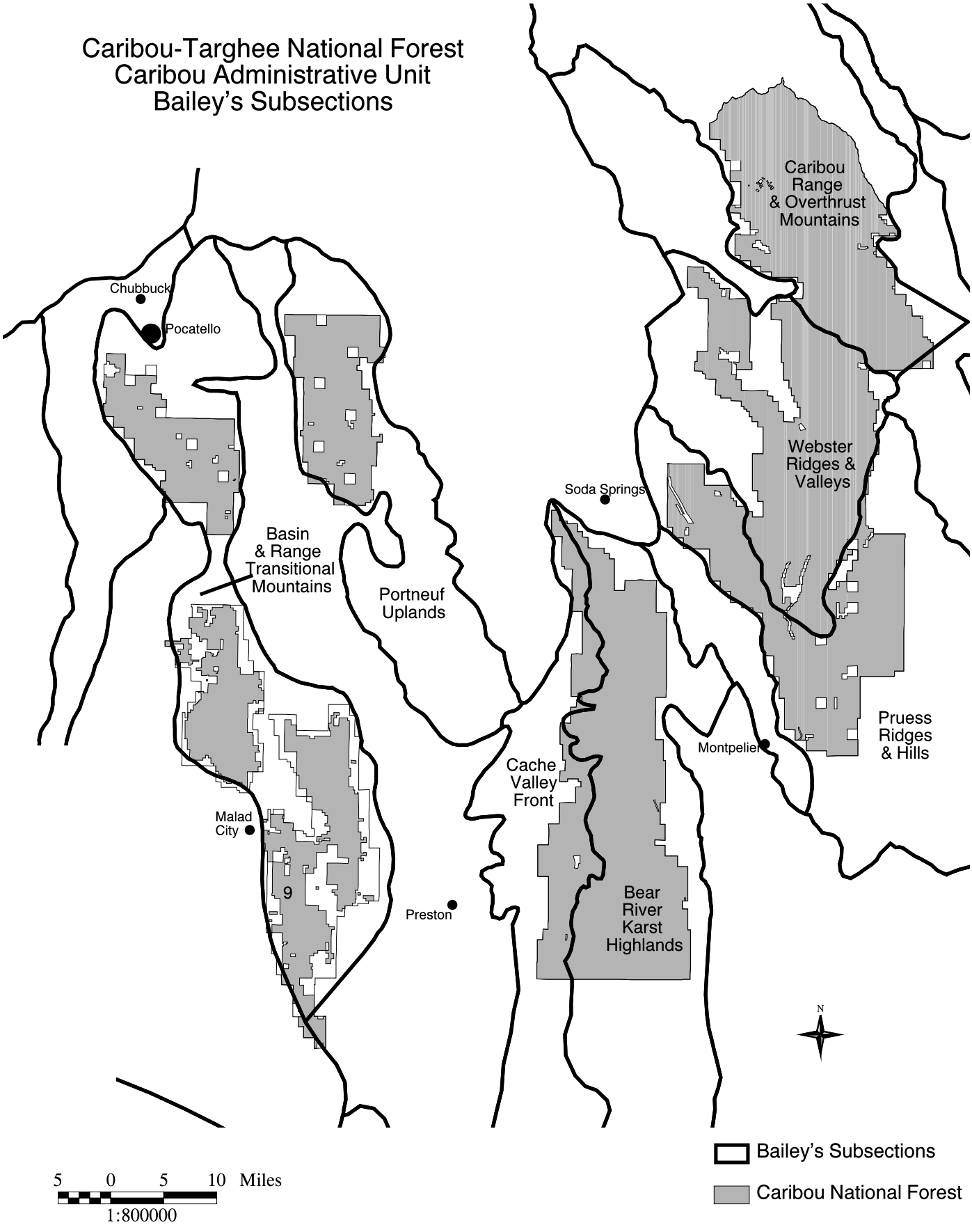
LANDTYPE ASSOCIATIONS

- Pocatello Foothills, Toeslopes and Canyons/Sagebrush Steppe
- Pocatello Ridgelands, Mountain Sideslopes and Canyons/Douglas-Fir Forest and Sagebrush Steppe
- Elk Meadows Uplands, Basins and Mountain Sideslopes/Douglas-Fir Forest and Sagebrush Steppe
- Malad Range Foothills and Toeslopes/Sagebrush-Mountain Mahogany-Juniper
- Malad Range Canyon Sideslopes and Dissected Foothills/Sagebrush-Juniper-Douglas-fir
- Malad Range Stable Uplands, Basins and Mountain Sideslopes/Sagebush-Aspen-Mountain Mahogany-Douglas-fir
- Elkhorn-Oxford Mountain Sideslopes and Ridgelands/Sagebrush-Douglas-fir-Bigtooth Maple-Juniper-Aspen

MANAGEMENT EMPHASIS

> ***Through prescription area application, the following will be emphasized within this subsection. This does not preclude other activities but with limited resources, management would be focused in these areas.***

- Wildland fire use, particularly in the Deep Creek/Clarkston, Oxford and Elkhorn areas
- Wildland/Urban Interface fuel reduction projects in the foothills near Pocatello and other high risk areas
- Maintenance and improvement of winter habitat for mule deer, particularly in the mountains east of Malad
- Management of existing recreational residences in the Mink Creek area near Pocatello
- Restoration of deteriorated rangelands, particularly in the southern half of the subsection
- Restoration and protection of Yellowstone cutthroat trout strongholds, particularly in the Mink Creek area
- Retention of roaded natural and semi-primitive recreation opportunities near the urban center of Pocatello
- Tribal Trust responsibilities and coordination adjacent to the Shoshone-Bannock Reservation


Caribou-Targhee National Forest
Caribou Administrative Unit
Bailey's Subsections
Caribou Range & Overthrust Mountains
Webster Ridges & Valleys
Pruess Ridges & Hills
Basin & Range Transitional Mountains
Portneuf Uplands
Cache Valley Front
Bear River Karst Highlands
Chubbuck
Pocatello
Soda Springs
Montpelier
Malad City
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Bailey's Subsections
Caribou National Forest

BEAR RIVER KARST HIGHLANDS SUBSECTION (M331Dd)

LOCATION: BEAR RIVER BASIN OF SOUTHEASTERN IDAHO.

The Bear River Highlands subsection consists of glaciated mountains, canyons, broad basins, meadows and foothills formed from Nounan limestone, Wasatch limestone, St. Charles limestone, Laketown dolomite, Hyrum dolomite and Brigham quartzite. Elevations range from 5,900 to 9,500 feet (1,798 to 2,895 meters). Slopes range from 10 to 60 percent. These landforms have been modified by glaciation, periglaciation, karst and fluvial processes. Major vegetation types include coniferous forest and shrublands. This map unit is separated from similar subsections based upon glaciated features and karst topography influenced by climatic/vegetative factors.

Mean annual precipitation ranges from 12 inches (30.5 cms) at the lowest elevations to 40 inches (102 cms) at the highest elevations. Most precipitation occurs in the fall and winter as snow. The mean annual air temperature is 34 to 39 degrees F (1.1 to 3.9 degrees C).

Live streams typically occur in canyons with the Logan River flowing from Franklin Basin at the top of the range. The landscape is slightly to moderately dissected. The natural disturbance processes are fire, flooding, insects, disease, and windthrow. Fire occurred historically every 20 to 30 years. Human-caused disturbances include roads, grazing and logging, mining, fire and recreation.

LANDSCAPE SETTINGS: MOUNTAINS, BROAD BASINS, AND FOOTHILLS.

The mountains are located on all elevation sites with slopes ranging from 10 to 60 percent. These landscapes include ridges and mountain slopes that are formed in sedimentary parent materials. Soils are shallow (less than 20 inches) to very deep (greater than 60 inches) and well drained. Soils on the ridges are shallow and the mountain slopes and foothills have moderately deep to very deep soils. Surface textures are generally silt or loam. Soils are classified as Argic Cryoborolls, Cryic Paleborolls and Pachic Cryoborolls, often associated with aspen, Douglas-fir and sagebrush potential natural vegetation.

The broad valleys are located on high elevation sites with slopes ranging from 5 to 35 percent. These landscapes include bottoms and plateaus on the top of the mountain crest formed from sedimentary parent materials. Soils are very deep (greater than 60 inches) and somewhat poorly drained to somewhat excessively drained. Surface textures are loam or silt loam. Soils are classified as Mollic Cryoboralfs and Argic Cryoborolls, often associated with tall forb and sagebrush potential natural vegetation.

The foothills are located on low elevation sites with slopes ranging from 10 to 50%. These landscapes include rolling hills, fans and foothills of mountains formed from sedimentary parent materials. Soils are deep (40 to 60 in.) to very deep (greater than 60 in.) and well drained. Surface textures are loam and silt loam. Soils are classified as Argic Cryoborolls, Argic Pachic Cryoborolls and Pachic Cryoborolls, often associated with sagebrush, mountainbrush and aspen cover types.

LANDTYPE ASSOCIATIONS

- Bear River Glaciated Basins and Ridges/Spruce-fir, Tall Forb and Spiked Sagebrush
- Bear River Canyons and Mountain Sideslopes/Mixed Aspen Conifer-Sagebrush-Limber Pine
- Bear Lake Foothills, Toeslopes and Mountain Sideslopes, East Slope/Sagebrush, Aspen, Douglas-fir, Maple and Mountain Mahogany

MANAGEMENT EMPHASIS

> ***Through prescription area application, the following will be emphasized within this subsection. This does not preclude other activities but with limited resources, management would be focused in these areas.***

- Restoration and regeneration of the aspen ecosystem, focusing on areas succeeding to conifers
- Wildland/Urban Interface fuel reduction projects, particularly in the Soda Point area and along the Bear River Foothills
- Linkage habitat between the Caribou and the Wasatch-Cache NF
- Winter range improvement along the Bear River Foothills
- Restoration and protection of Bonneville cutthroat trout strongholds
- Restoration of deteriorated rangelands, particularly tall forb communities
- Retention of roaded natural and semi-primitive recreation opportunities
- Management of cave resources

CACHE VALLEY FRONT SUBSECTION (M331Dc)

LOCATION: BEAR RIVER BASIN IN THE SOUTHEAST CORNER OF IDAHO

The Cache Valley Front Subsection encompasses the west face of the Bear River Mountain Range, which consists of very steep mountain faces. The mountains were formed from limestone, dolomite, sandstone, mudstone, tuffaceous sediments and quartzite that have been modified by karst solution processes, periglaciation, fluvial, colluvial and glaciation. Elevations range of 5,000 to 10,000 feet (1,525 to 3,050 meters). Slopes range from 50 to 90 percent. Major vegetation types include coniferous forest and shrublands. This map unit is separated from similar subsections based upon karst topography, block faulting and climatic differences that support forest type vegetation.

Mean annual precipitation ranges from 12 inches (30.5 cms) at the lowest elevations to 40 inches (102 cms) at the highest elevations. Elevational differences account for the large variation in precipitation. Most precipitation occurs in the spring and summer season with 60 percent of the precipitation falling as rain. The mean annual air temperature is 32 to 37 degrees F (0.0-2.8 degrees C).

Streams typically occur in narrow canyons and valleys. The landscape is slightly dissected. The natural disturbance processes are fire, insects, disease and windthrow. Human-caused disturbances include logging, fires, grazing, recreational developments, powerlines and roads.

LANDSCAPE SETTINGS: MOUNTAINSIDES AND CANYONS.

The mountainsides are located on mid- to high-elevation sites with slopes ranging from 50 to 90 percent. These landscapes include ridges, mountain slopes and block fault faces that are formed in sedimentary parent material. Soils are shallow (less than 20 inches) to deep (40 to 60 inches) and well drained. Surface textures are loamy or silty. Soils are classified as Argic Cryoborolls, Cryic Paleborolls, and Mollic Cryoboralfs, often associated with subalpine fir and Douglas-fir vegetation.

The canyons are located on all elevational ranges with slopes ranging from 50 to 90 percent. These landscapes include steep mountain faces and canyon walls generally with streams in the bottoms. They formed in sedimentary parent materials. Soils are shallow (less than 20 inches) to moderately deep and well drained. Surface textures are loamy or silty. Soils are classified as Pachic Cryoborolls, Argic Cryoborolls, and Mollic Cryoboralfs, often associated with mountain big sagebrush, curlleaf mahogany, limber pine and Douglas-fir potential natural vegetation.

LANDTYPE ASSOCIATIONS

- Cache Front Sideslopes and Canyons, West Slope/Douglas-fir, Sagebrush and Mountain Mahogany
- Cache Front Toeslopes, Fans and Unstable Basins, West Slope/Sagebrush, Aspen, Douglas-fir, Maple and Mountain Mahogany

MANAGEMENT EMPHASIS

> ***Through prescription area application, the following will be emphasized within this subsection. This does not preclude other activities but with limited resources, management would be focused in these areas.***

- Improvement of big game winter range
- Wildland/Urban Interface fuel reduction projects, particularly on the northern end near Grace
- Restoration and protection of Bonneville cutthroat trout strongholds
- Restoration of the maple ecosystem

CARIBOU RANGE OVERTHRUST MOUNTAINS SUBSECTION (M331Di)

LOCATION: SALT RIVER BASIN OF SOUTHEAST IDAHO

The Caribou, Black and Bald, and Little Elk Mountain ranges fall in this subection. The area consists of mountain ranges and valleys of Mesozoic and Cenozoic age sedimentary, intrusive and metamorphic rock, such as limestone, siltstone, conglomerate and sandstone that have been modified by geomorphic processes. The geomorphic processes involve peneplain development with secondary fluvial processes confined in drainages and gravitational slope development in soft sediments. Gravitational transfer by landslides is associated with groundwater occurrences within the Wayan Formation. Elevations range from 5,600 to 9,800 feet (1,707 to 2,987 meters). Slopes range from 5 to 60%. The major vegetation types include coniferous forest, grasslands, and shrublands. This map unit is separated from similar subsections by geology and climate.

Mean annual precipitation ranges from 28 inches (71 cms) on the lowest elevations to 40 inches (102 cms) on the highest elevations. Most precipitation occurs in the spring and winter with 60% of the precipitation falling as snow. The mean annual air temperature is 29 to 38 degrees F (-1.7° to 3.3° C).

Valley bottoms usually have live streams running through them. The landscape is slightly to moderately dissected. The natural disturbance processes are fire, flooding in drainageways, insects and disease in conifer stands, windthrow and gravitational transfer. Human-caused disturbances include mining for gold using historic hydraulic techniques, roads, dredging, logging, and grazing.

LANDSCAPE SETTINGS: MOUNTAIN RANGES AND VALLEYS

The mountain ranges make up the high elevation sites with slopes ranging from 20 to 40 percent. These landscapes include ridges, mountain slopes and canyons that are formed in sedimentary, intrusive and metamorphic parent materials. Soils are shallow (0 to 20 inches) to deep (40 to 60 inches) and well drained. Surface textures are silt loam or loam. Soils are classified as Argic Cryoborolls, Typic Cryochrepts, and Mollic Cryoboralfs, often associated with subalpine fir and sagebrush potential natural vegetation.

The valleys are located on low to mid elevation sites with slope ranging from 5 to 30 percent. These landscapes include draws and open basins that formed in sedimentary parent materials. Soils are moderately deep (20 to 40 inches) to very deep (greater than 60 inches) and well drained. Surface textures are loam or silt loam. Soils are classified as Argic Cryoborolls, Argic Pachic Cryoborolls and Pachic Cryoborolls, often associated with sagebrush, grass and riparian potential natural vegetation.

LANDTYPE ASSOCIATIONS

- Caribou Basins, Toeslopes and Fans/Mountain Big Sagebrush-Lodgepole pine-Aspen
- Smith Canyons and Stable Foothills/Alpine fir-Sagebrush-Mountain Mahogany
- Caribou Mountain Glaciated Cirques and Headwalls/Alpine fir and Sagebrush
- Tincup Unstable Foothills and Basins/Alpine fir and Sagebrush
- McCoy Unstable Mountains and Canyons/Douglas fir-alpine fir- Sagebrush
- Tincup Unstable Low Mountains and Broken Slopes/Douglas fir-Aspen-Sagebrush
- Elk Mountain Sideslopes and Ridgelands/Alpine fir-Lodgepole pine and Sagebrush

MANAGEMENT EMPHASIS

> ***Through prescription area application, the following will be emphasized within this subsection. This does not preclude other activities but with limited resources, management would be focused in these areas.***

- Restoration and regeneration of the aspen ecosystem, focusing on areas succeeding to conifers
- Wildland fire use, particularly in the higher elevations where other treatment methods would not be effective
- Retention of primitive and semi-primitive recreation opportunities
- Wildlife security areas and primitive back country hunting experiences
- Linkage habitat between the Caribou and the Targhee NF and Greater Yellowstone Ecosystem
- Historical value of past mining activities
- Restoration and protection of Yellowstone cutthroat trout strongholds

PORTNEUF UPLANDS SUBSECTION (M331Db)

LOCATION: PORTNEUF RIVER DRAINAGE OF SOUTHEAST IDAHO.

The Portneuf Upland Subsection consists of high mountains with narrow valleys and steep foothills formed from limestone, dolomite, chert, sandstone, mudstone, siltstone and quartzite that have been modified by pluvial, colluvial and fluvial geomorphic processes with some gravitational transfer. Major vegetation types include coniferous forest and shrublands. Elevations range from 4,500 to 9,271 feet (1,370 to 2,825 meters) with slopes of 30 to 70 percent. This subsection is separated from similar subsections based upon mountains and ranges that represent features similar to the Basin and Range geomorphology and forest vegetation types. Wetter and colder climate influences on the mountainous geomorphology are the differentiating criteria.

Mean annual precipitation ranges from 18 inches (46 cms) in the lowest elevations to 35 inches (89 cms) at the tops of the mountains. Differences are due to elevational differences and rain shadow effect. Most precipitation occurs in the winter months with about half of the precipitation falling as snow. The mean annual air temperature is 37 to 45 degrees F (2.8-7.2 degrees C).

Live streams typically occur in the narrow valleys. The landscape is moderately dissected. Isolated areas of wetlands occur in the valleys along streams associated with alluvial deposits. The natural disturbance processes are fire, insects, disease, flooding in drainageways, windthrow and mass failures. Human-caused disturbances include roads, timber harvest, prescribed fire, recreation and grazing.

LANDSCAPE SETTINGS: MOUNTAINS AND VALLEYS

The mountains are located on mid to high elevation sites with slopes ranging from 30 to 70 percent. These landscapes include ridges, steep mountain sideslope landforms that are formed in sedimentary materials from the Paleozoic Era. The soils are shallow (less than 20 inches) to deep (40 to 60 inches) and well drained. Surface soils have loamy or silty textures. Soils are classified as Argic Cryoborolls, Cryic Paleborolls, and Typic Cryoborolls often associated with conifer forest vegetation and Pachic Cryoborolls associated with aspen and sagebrush-grass vegetation. The potential natural vegetation is Douglas-fir forest and mountain big sagebrush.

The narrow valleys are located at the lower elevation sites with slopes ranging from 5 to 30 percent. These landscapes include bottomlands and stream terrace landforms that are formed in alluvial materials. The soils are deep (40 to 60 inches) to very deep (greater than 60 inches) and somewhat poorly drained. Surface soils have gravelly loam and gravelly sandy loam textures. Soils are classified as Fluventic Cryoborolls and Cumulic Cryoborolls. The potential natural vegetation is willow-sedge community types.

LANDTYPE ASSOCIATIONS

- Portneuf Foothills and Toeslopes/Sagebrush-Aspen-Mountain Brush
- Portneuf Unstable Basins and Mountain Sideslopes/Douglas-fir-Aspen-Sagebrush
- Portneuf Stable Mountains and Ridgelands/Mixed Aspen/Douglas-fir-Sagebrush-Mountain Brush
- Portneuf Stable Mountain Sideslopes and Canyons/Sagebrush-Aspen and Douglas-fir

MANAGEMENT EMPHASIS

Through prescription area application, the following will be emphasized within this subsection. This does not preclude other activities but with limited resources, management would be focused in these areas.

- Wildland/Urban Interface fuel reduction projects, particularly adjacent to subdivisions
- Tribal Trust responsibilities and coordination adjacent to the Shoshone-Bannock Reservation
- Retention of roaded natural and semi-primitive recreation opportunities near the urban center of Pocatello
- Non-motorized winter recreation opportunities including developed alpine skiing

PREUSS RIDGES AND HILLS SUBSECTION (M331Df)

LOCATION: THOMAS FORK AND SALT RIVER BASINS OF SOUTHEAST IDAHO

The Preuss Ridges and Hills Subsection consists of ridges, rolling hills and short narrow valleys that have been modified by fluvial, gravitational transfer and residual processes. The types of rocks are limestone, siltstone, conglomerate, sandstone, and dolomite from the Mesozoic Era. Elevations range from 6,000 to 8,400 feet (1,828 to 2,560 meters). Slopes range from 15 to 60 percent. The major vegetation types include coniferous forests and shrublands. This map unit is separated from similar subsections based upon unstable mountain slopes and geologic materials that separate the surrounding valley subsections. Climatic and vegetative patterns are also differentiating criteria.

Mean annual precipitation ranges from 22 inches (56 cms) at the lowest elevations to 30 inches (76 cms) at the highest elevations. Most precipitation occurs in the spring and winter seasons falling as snow. The mean annual air temperature is 29 to 38 degrees F (-1.6 to 3.3 degrees C).

Valley bottoms and canyons typically have live streams or rivers running through them. The landscape is slightly to moderately dissected. Wetlands occur in the Elk Valley Marsh area associated with wetland vegetation and depositional materials. This subsection has other wet areas. The natural disturbance processes are fire, insects and disease, flooding, windthrow, and gravitational transfer. Human-caused disturbances include roads, logging, grazing and recreational activities.

LANDSCAPE SETTINGS: RIDGES AND MOUNTAINS

The ridges are located on mid- to high-elevation sites with slopes ranging from 15 to 60 percent. These landscapes include mountain sideslopes and ridges that are formed in sedimentary parent materials. Soils are shallow (less than 20 inches) to deep (40 to 60 inches) and well drained. Surface textures are generally loam or silt loam. Soils are classified as Argic Cryoborolls, Typic Cryochrepts, Mollic Cryoboralfs associated with subalpine fir and sagebrush potential natural vegetation.

The rolling hills and valleys are on low to mid elevation sites with slopes ranging from 15 to 40 percent. These landscapes include valley marsh areas formed in alluvium. Soils are deep (40 to 60 inches) to very deep (greater than 60 inches) and well to poorly drained. Surface textures are generally loam or silt and peat or muck in the organic soils. Soils are classified as Argic Pachic Cryoborolls, Pachic Cryoborolls, Argic Cryoborolls and areas like Elk Valley Marsh have Histosols.

LANDTYPE ASSOCIATIONS

- Whiskey Basins and Toeslopes/Sagebrush
- Elk Valley Bottomlands, Sideslopes and Upland Basins/Riparian and Sagebrush
- Pruess Stable Mountain Sideslopes/Aspen-Douglas fir-alpine fir
- Aspen Range Canyons and Foothills/Douglas fir-alpine fir-Mountain Mahogany-Sagebrush
- Preuss Unstable Canyons, Mountain Sideslopes and Foothills/Douglas fir-Aspen-Sagebrush

MANAGEMENT EMPHASIS

Through management prescription application, the following will be emphasized within this subsection. This does not preclude other activities but with limited resources, management would be focused in these areas.

- Retention of large security areas for wildlife
- Linkage habitat between the Caribou and the Bridger-Teton NF
- Restoration and protection of Bonneville cutthroat trout habitat, particularly on the east side of the subsection
- Restoration of deteriorated rangelands
- Management of phosphate reserves and forested vegetation

WEBSTER RIDGES AND VALLEYS SUBSECTION (M331Dg)

LOCATION: SALT RIVER AND BLACKFOOT RIVER BASINS OF SOUTHEASTERN IDAHO

The Webster Ridges and Valleys Subsection consists of the ridges and valleys formed from late Paleozoic to Mesozoic age sedimentary rocks, such as limestone, siltstone, conglomerate, sandstone and chert that have been subjected to gravitational fluvial and residual geomorphic processes. This subsection divides the Salt and Blackfoot River Basins. Elevation ranges from 6,100 to 9,957 feet, slopes range from 15 to 65 percent. Vegetation types include coniferous forest and shrublands. This map unit is separated from similar subsections based upon the presence of Phosphoria deposits, mountainous areas vegetated with conifers and sagebrush, and due to climatic factors. Mean annual precipitation ranges from 24 inches at the lowest elevations to 40 inches at the highest elevations. Most precipitation occurs in the winter and spring seasons with 54 percent of the precipitation falling as snow. The mean annual air temperature is 29 to 38 degrees farenheit.

Streams and rivers flow perennially in most valleys and canyons. The landscape is slightly to moderately dissected from major storm events causing fluvial action that created the dissected landscape. The natural disturbance processes are fire, insects, disease, and windthrow. Human-caused disturbances include mining, logging, road building, recreation activities and grazing.

LANDSCAPE SETTINGS: MOUNTAIN RIDGES AND VALLEYS

The mountain ranges are located on low to high (7,000 to 9,900 feet) elevation sites with slopes ranging from 10 to 65 percent. These landscapes include mountainsides, canyons and ridges that are formed in sedimentary parent materials. Soils are shallow (less than 20 inches) on the ridges and upper canyon slopes to very deep (>60 inches) on the mountainsides and lower canyon walls. They are well drained with surface textures of loam and silt loam. Soils are classified as Argic Cryoborolls, Typic Cryochrepts and Mollic Cryoboralfs, often associated with subalpine fir, lodgepole pine and mountain big sagebrush potential natural vegetation.

The valleys have slopes ranging from 1 to 10 percent. These landscapes include valley bottoms and canyons that are formed from alluvial and residual parent materials. Soils are very deep (greater than 60 inches) and well to poorly drained. Surface textures are generally loam. Soils are classified as Cumulic Cryoborolls, Pachic Cryoborolls and Argic Pachic Cryoborolls, often associated with willow/sedge and wetland vegetation, aspen and sagebrush potential natural vegetation.

LANDTYPE ASSOCIATIONS

- Webster Ridgelands and Escarpments/Sagebrush-Alpine Rangeland
- Webster Bottomlands, Toeslopes and Foothills/Sagebrush-Douglas fir-Riparian-Subalpine fir
- Webster Mountainsides, Canyons and Basins/Alpine fir-Douglas fir-Mtn Mahogany-Sagebrush

MANAGEMENT EMPHASIS

> ***Through management prescription application, the following will be emphasized within this subsection. This does not preclude other activities but with limited resources, management would be focused in these areas.***

- Restoration of deteriorated rangelands, particularly tall forb communities
- Management of phosphate reserves and forested vegetation
- Restoration and protection of Yellowstone cutthroat trout strongholds

Management Prescriptions

INTRODUCTION

Management prescriptions, a set of management practices, are applied to a specific area of land to attain multiple-use and other goals and objectives. The purpose of management prescriptions is to provide a basis for consistently displaying management direction on Forest Service administered lands. Management prescriptions in the Forest Plan are intended to provide a general sense of the management direction or treatment of the land where each prescription is applied. They identify the emphasis and focus of multiple-use management activities in a specific area; however, ***emphasis,*** as used in this context, is defined as a focus or a highlight and does not necessarily mean exclusive use.

Management prescriptions provide a more focused view of specific land areas and how they will be managed. The specific direction stated in a management prescription determines what uses are allowed and to what extent the uses are permitted.

The prescriptions are organized in categories and presented in a sequence allowing progressively more active management. Management prescriptions are not designed to stand alone. They are one part of the management direction package for the Forest that also includes *Forest-wide* goals, objectives, standards, and guidelines. Where a management prescription allows an activity, such as recreation or livestock grazing, the standards and guidelines in the prescription or in the Forest-wide direction provide specific parameters within which the activity must be managed. In land areas where prescriptions are applied, direction in this section would override forest-wide direction. Management prescriptions follow a number sequence, where lower numbers reflect less intensive management or use, and larger numbers reflect more human use or development. The Prescription Area Categories are explained at the beginning of each Category Section.

Placing a management prescription number or title on an area does not make a decision about how any future site-specific conflict will be resolved. The responsible local Forest Service official has the discretion to determine how such conflicts may be resolved, through informal administration or more formal environmental analysis. When doing environmental analysis for future site-specific decisions, consideration must be given to the entire management direction package for a particular land area, including the goals, objectives, prescriptions, standards, guidelines, and desired conditions to be achieved in the area.

If an emergency event occurs on the Forest, deviation from these standards and guidelines may occur in order to protect human life, property values and structures, and forest resources. Activities in response to emergency events include such things as law enforcement, search and rescue, floods and fire fighting.

CATEGORY 1

Lands where Category 1 prescriptions are applied include wilderness and backcountry areas where ecological processes, such as fire, insects and disease, are allowed to operate relatively free from the influence of humans. Few, if any, man-made facilities are present. Travel is non-motorized with rare exceptions.

PRESCRIPTION 1.3(e) - RECOMMENDED WILDERNESS

This prescription applies to areas that are recommended for addition to the National Wilderness Preservation System—Mount Naomi and Caribou City. Recommended Wilderness will be managed to retain its wilderness character until Congress takes action on the recommendation. Activities which do not preclude consideration for wilderness may be present.

Recommended Wildernesses are mostly pristine areas of the Forest where visitors find minimal signs of people away from trails or camping areas. They are undeveloped lands retaining their natural condition. They generally appear to have been affected primarily by the forces of nature and therefore offer an excellent opportunity for solitude or a primitive and unconfined type of recreation. These areas provide value as reference landscapes where ecological processes are the primary forces shaping conditions.

Occasionally, a visitor may see effects of human activity such as primitive campsites, rustic bridges, trails, signs or primitive roads. A visitor may also encounter livestock or mining activity. Visitors may also find areas of the forest where recent burns, insect activity, or blowdowns dominate the landscape. Visitors may encounter mechanized equipment on designated trails during the summer or snowmachine use during the winter.

Goals

1. Protect and maintain wilderness character.

2. Natural disturbance processes are allowed to play, as nearly as possible, their natural ecological role in the environment.

Ecological Processes and Patterns

FIRE/FUELS

Guidelines

1. Minimum Impact Suppression Tactics (MIST) should be employed to the maximum extent possible.

2. Allow prescribed fire and wildland fire use when they meet the goals of the Recommended Wilderness.

Physical Elements

SOIL AND WATER

Guidelines

1. Watershed and riparian/stream channel restoration/stabilization should be done primarily where deteriorated soil or hydrologic conditions are caused by humans, or where their influences create a serious threat or loss of the Recommended Wilderness' values.

2. Promote natural reestablishment of native plant species where a definite hazard to life or property or important environmental qualities outside and within the Recommended Wilderness are not imminent, or where natural vegetation would return in a reasonable time.

3. Use native species to re-establish vegetation as the first choice. Where native species are unlikely to succeed, use appropriate non-persistent naturalized species.

MINERALS/GEOLOGY

Standards

1. The area shall not be available for development of mineral materials (sand/gravel, stone).

2. The area shall not be available for mineral leasing.

LANDS

Guideline

1. New, or expansion of existing, recreation special uses are allowed if they do not lead to a long-term adverse change in the wilderness character.

Biological Elements

WILDLIFE

Standard

1. Snag habitat for woodpeckers shall be allowed to fluctuate with natural disturbance processes (fire, insects, and disease).

VEGETATION

Standard

1. Vegetation treatments are allowed if they do not lead to long-term adverse changes in wilderness character or if needed to maintain existing facilities.

Guidelines

1. Wildland fire use and prescribed fire should be used to restore or maintain native ecosystems.

2. Noxious weed management is allowed provided the methods used for control are compatible with prescription goals.

Forest Use and Occupation

ACCESS

Standards

1. The following table defines allowable access within prescription **1.3(e)**

Table (e)

Season	Type of Access
Snow free season	Non-motorized travel only allowed
Snow Season	Cross-country motorized allowed

SOME SITE SPECIFIC EXCEPTIONS MAY APPLY, TRAVEL PLAN MAPS SUPERCEDE THIS DIRECTION.

2. No facilities or services for motorized uses shall be provided in Recommended Wilderness.

Guideline

1. Hardened campsites are generally not allowed.

ROADS

Standard

1. No new road or motorized trail construction shall be allowed.

RECREATION

Guideline

1. Improvements to existing motorized trails are allowed if they do not lead to long-term adverse changes in wilderness character.

HERITAGE RESOURCES

Standard

1. Interpretation of cultural resources located in the Recommended Wilderness shall be done outside the area.

Production of Commodity Resources

GRAZING MANAGEMENT

Guideline

1. Construction and reconstruction of livestock developments is allowed for resource protection and more effective use of the range resource.

TIMBER

Standards

1. Trees may be removed from valid mining claims when needed for mining purposes; when emergency conditions occur such as search and rescue; for protecting public safety; or when necessary for administrative use.

2. These lands are not in the suitable timber base and do not contribute to the ASQ.

CATEGORY 2

Areas of land where Category 2 prescriptions are applied provide for conservation of representative or particular rare and narrowly distributed ecological settings or components, such as riparian areas, wetlands, research natural areas or other special designated areas. These lands help insure conservation of ecosystems or ecosystem components that may provide important functions which insure the overall sustainability of larger landscapes. Human influences on ecological processes are limited to the degree possible but are sometimes evident. Human uses vary, but they are generally non-intensive.

PRESCRIPTION 2.1.1(e) – BLOOMINGTON LAKE SPECIAL EMPHASIS AREA

This emphasis area prescription applies to the Bloomington Lake area, an area with unique geologic, ecological, botanical and zoological resource values. The Bloomington Lake Parking lot is outside of the special emphasis area.

A mix of vegetation age class distributions, openings and horizontal/vertical diversity is present. In general, vegetation appears natural with little to no human-induced vegetation manipulation.

Limited facilities are present. Access to the area is by foot trail without motorized access. Human activity is apparent in the area.

This special emphasis area provides some forage for livestock. Timber harvest is not occurring. Limited livestock grazing and timber activities can be expected to provide additional protection to the special values in the area.

Because of the unique characteristics, this emphasis area may provide educational opportunities for the public, and research opportunities for resource managers and academic professionals. This area will provide recreational opportunities within the recreation opportunity spectrum of semi-primitive non-motorized.

Goals

1. Manage to protect the unique geologic, ecological, botanical and zoological resource values.

2. Natural disturbances and processes are allowed to play their role in ecological succession, except where resource values and visitor safety will be adversely affected.

3. Interpretative information is provided at Bloomington Lake.

Physical Elements

SOIL AND WATER

Guidelines

1. Watershed and riparian/stream channel restoration should be done primarily where deteriorated soil or hydrologic conditions are caused by management or human-induced activities.

2. Promote natural reestablishment of native plant species where a definite hazard to life or property or important environmental qualities outside and within the prescription area are not imminent, or where natural vegetation would return in a reasonable time.

3. Use native species to re-establish vegetation as the first choice. Where native species are unlikely to succeed, use appropriate non-persistent naturalized species.

MINERALS/GEOLOGY

Standard

1. Do not recommend this special management area for new phosphate leases.

2. The area shall not be available for development of mineral materials (sand/gravel, stone).

Biological Elements

WILDLIFE

Standards

1. Allow wildlife habitat manipulation where it will maintain or enhance the values associated with the special emphasis area.

2. Snag habitat for woodpeckers shall be allowed to fluctuate with natural disturbance processes (fire, insects, and disease).

Guideline

1. Site-specific areas may have snags removed for human safety and other resource management needs.

VEGETATION

Guideline

1. The unique plants and their habitat that are located on the headwall and in the chutes at Bloomington Lake should be protected.

Forest Use and Occupation

ACCESS

1. The following table defines allowable access under this prescription 2.1.1(e):

Table (e)

Season	Type of Access
Snow free season	Non-motorized travel only allowed
Snow Season	Cross-country motorized allowed

SOME SITE SPECIFIC EXCEPTIONS MAY APPLY, TRAVEL PLAN MAPS SUPERCEDE THIS DIRECTION.

RECREATION

Standards

1. Recreation shall be managed according to the most current version of the Bloomington Canyon Recreation Plan.

2. Rock climbing and rock or plant collecting (except for scientific purposes) shall be prohibited.

Guideline

1. Minimal dispersed recreation facilities should be provided, such as improved trails, bridges, and tethering areas for livestock, only where needed to protect resource values.

HERITAGE RESOURCES

Guideline

1. Interpretive services may be provided to interpret the unique landforms, flora, and fauna.

Production of Commodity Resources

GRAZING MANAGEMENT

Guideline

1. Livestock grazing and associated developments, such as fencing, are permissible as long as they do not adversely affect the unique resources of the Bloomington Lake area.

TIMBER

Standard

1. This area is removed from the suitable timber base. It does not contribute to the ASQ.

Guideline

1. Timber harvest can occur for such things as public safety, visual quality, long-term sustainability of ecosystem components, and/or to meet the goals of the prescription.

PRESCRIPTION 2.1.2(b) - VISUAL QUALITY MAINTENANCE

This prescription emphasizes maintaining the existing scenery within major travel corridors with high quality natural vistas, while allowing livestock production, and other compatible commodity outputs. Timber harvest is permitted but the area is not part of the suitable timber base.

Overall, visitors may notice signs of people camping by the roadside. The main road system is paved or gravel-surfaced and well maintained, with gentle grades well-suited for sedan travel. Vistas of the surrounding areas provide a variety of high quality views.

The roadside area is dominated by a wide variety of vegetation and landscape forms (e.g. mountain peaks, valleys, meadows, streams, etc.) that are easily observed from natural vistas and natural openings along the road. Occasionally, a few older cut areas show tree seedlings, saplings and poles up to 35 feet tall and have a less-disturbed appearing forest floor. Scattered dead trees are seen throughout the forest, but generally it appears healthy and vigorous.

If visitors watch for wildlife, they occasionally may see an elk, deer, or moose in a natural opening or along the road, but generally, these are hidden from view by trees. During the summer and fall, visitors may encounter cattle or sheep grazing in openings. Signs of intensive management practices, such as burning, spraying, seeding, fences, water developments and gates are normally visually compatible.

Nonmotorized activities, such as hiking, biking, or horseback riding may originate from trail or road points along the main road. Some roads and nearby areas are available for year-round snowmobile, motorcycle, and 4-wheel drive vehicle use.

Goals

1. Manage travel corridors to protect the natural visual quality.

2. Manage in an environmentally sensitive manner to promote the production of non-commodity resources at varying levels, and limited commodity production.

3. Manage to provide various dispersed recreational opportunities.

4. Interpretive opportunities are provided to enhance visitors' experience.

Biological Elements

WILDLIFE

Standard

1. Snag habitat for woodpeckers shall be allowed to fluctuate with natural disturbance processes (fire, insects, and disease).

Guideline

1. Site-specific areas may have snags removed for human safety and other resource management needs.

Forest Use and Occupation

ACCESS

Standard

1. The following table defines access allowable under this prescription **2.1.2(b)**:

Table (b)

Season	Type of Access
Snow free season	Motorized use allowed only on designated roads and trails
Snow Season	Cross-country motorized allowed

SOME SITE SPECIFIC EXCEPTIONS MAY APPLY, TRAVEL PLAN MAPS SUPERCEDE THIS DIRECTION.

RECREATION

Guideline

1. Where viewing opportunities and concentrated use areas exist, interpretive facilities or programs should be provided.

Production of Commodity Resources

TIMBER

Standard

1. Visual Quality Maintenance Areas are removed from the suitable timber base. They do not contribute to the Allowable Sale Quantity (ASQ).

2. Timber harvest can occur for such things as public safety, visual quality, long-term sustainability of ecosystem components, and/or to meet the goals of the prescription.

PRESCRIPTION 2.1.3(b) – MUNICIPAL WATERSHED

This management prescription applies to the congressionally designated municipal watershed of West Fork Mink Creek and Gibson Jack Creek located near Pocatello, Idaho. Watershed condition is very good. Water quality can be characterized as excellent.

A mix of age class distributions, openings, and horizontal/vertical diversity may be present. In general, vegetation appears natural in municipal watershed areas; however, exceptions may exist for some areas, and some human-caused vegetation manipulation may occur.

The municipal watershed is closed to grazing. Timber harvest would be rare. Restricted management activities can be expected to provide additional protection to the water quality values in the area. To protect values within municipal watershed areas, restrictions can be expected when developing locatable minerals, such as precious metals and high value industrial minerals.

Because of the relatively pristine characteristics of this municipal watershed area, this land may provide educational opportunities for the public and research opportunities for resource managers and academic professionals. This area provides recreational opportunities in a natural setting. Access to some sites may be limited and some sites may have no access at all.

Goals

1. Provide water of a quality that meets State and municipal standards.

2. Manage to protect cultural, historic, ecological, botanical, geological, and/or zoological resources.

3. Natural disturbances and processes are allowed to play their natural role in ecological succession, except where watershed or other resource values will be adversely affected.

Ecological Process and Patterns

FIRE/FUELS

Guidelines

1. Wildland fire should be aggressively suppressed.

2. Insect-killed trees may be removed if needed for long-term protection of the watershed values.

Physical Elements

SOIL AND WATER

Guidelines

1. Watershed restoration should be done primarily where deteriorated soil or hydrologic conditions are caused by management or human-induced activities.

2. Management activities in these watersheds should be designed to assure maintenance of high quality surface water.

MINERALS/GEOLOGY

Standard

1. The area shall not be available for development of mineral materials (sand/gravel, stone).

Biological Elements

WILDLIFE

Standard

1. Snag habitat for woodpeckers shall be allowed to fluctuate with natural disturbance processes (fire, insects, and disease).

Guideline

1. Site-specific areas may have snags removed for human safety and other resource management needs.

Forest Use and Occupation

ACCESS

Standards

1. The following table defines allowable access under this prescription **2.1.3**:

Table (b)

Season	Type of Access
Snow free season	Motorized use allowed only on designated roads and trails
Snow Season	Cross-country motorized allowed

SOME SITE SPECIFIC EXCEPTIONS MAY APPLY, TRAVEL PLAN MAPS SUPERCEDE THIS DIRECTION.

2. The Forest Service and municipal authorities retain the option to enter this area as appropriate for such things as emergencies due to fire, search and rescue, and maintenance of watershed protection fences.

ROADS

Standard

1. No new road construction shall occur within these watersheds.

Guideline

1. Road reconstruction may be permitted if necessary to reduce impacts to water quality.

RECREATION

Guideline

1. Recreation facilities are not encouraged, and are only provided to protect resource values from dispersed recreation use.

HERITAGE RESOURCES

Guideline

1. Interpretive services may be provided.

Production of Commodity Resources

GRAZING MANAGEMENT

Standard

1. There shall be no livestock grazing within this area.

Guideline

1. Maintain existing watershed fences for exclusion of livestock.

TIMBER

Standard

1. Municipal watershed areas are removed from the suitable timber base. They do not contribute to the Allowable Sale Quantity (ASQ).

Guideline

1. Timber harvesting is only allowed in municipal watershed areas on a site-specific basis for such things as public safety, visual quality, and/or long-term maintenance of vegetation to meet the goals of this prescription.

PRESCRIPTION 2.1.4(b)– CARIBOU MOUNTAIN SPECIAL EMPHASIS AREA

This management prescription applies to Caribou Mountain, a unique historical area. Management is focused on allowing Forest visitors to experience the mining history of the area in a roaded natural to semi-primitive motorized setting. Evidence of past and current mining activities such as ditches, tailings piles, and buildings are visible. This area provides a spectrum of recreational opportunities in a natural setting. Motorized access ranges from surfaced roads, to trails, to none. The amount of human activity will vary, depending upon your location.

Vegetation also will vary depending on where you are in this area. A mix of age class distributions, openings, and horizontal/vertical diversity may be present. The area contains a population of the sensitive plant, Payson's bladderpod (*Lesquerella paysonii*). In general, vegetation appears natural in the Caribou Mountain area; except where it has been altered by past treatments due to century old mining activities. More recent activities may be present if needed to maintain or improve ecological conditions. This area provides forage for domestic livestock and timber harvest may occur.

These lands provide economic opportunities for outfitter and guides, educational opportunities for the public, and research opportunities for resource managers and academic professionals. This area emphasizes unique opportunities such as interpretation of mining history and recreational gold panning.

Goals

1. Management protects the unique cultural, historic, ecological, botanical, geological, and zoological resources present here.

2. The historic values associated with Caribou Mountain are maintained and interpretation of those values is enhanced.

3. Natural disturbances and processes are allowed to play their natural role in ecological succession, except where resource values will be adversely affected.

Objectives

1. Within five years of signing the ROD, complete a plan for interpretation of the historic mining areas.

2. Within two years of signing the ROD, identify opportunities to restore the fisheries values in McCoy Creek.

3. Within two years of signing the ROD, withdraw appropriate areas within this prescription from mineral entry under the 1872 Mining Law, as amended[25].

Physical Elements

LANDS

Guideline

1. Private land inholdings within this prescription area will be a high priority for acquisition if offered by willing sellers.

MINERALS/GEOLOGY

Standard

1. This area shall not be recommended for new phosphate leases.

Guideline

1. These areas are generally not available for development of mineral materials (sand/gravel, stone) unless the development is compatible with the goals of this prescription.

Biological Elements

WILDLIFE

Standards

1. Allow wildlife habitat manipulation where it maintains or enhances the values associated with the special emphasis area.

2. Snag habitat for woodpeckers shall be allowed to fluctuate with natural disturbance processes (fire, insects, and disease).

Guideline

1. Site-specific areas may have snags removed for human safety and other resource management needs.

FISHERIES, WATER, AND RIPARIAN

Standard

1. Forest management activities shall maintain or improve the fisheries habitat in McCoy Creek. Negative short-term restoration/improvement effects are allowed if long-term outcomes meet Prescription Area 2.8.3 management direction.

Forest Use and Occupation

ACCESS

Standard

1. The following table defines allowable access under this prescription **2.1.4(b)**:

Table (b)

Season	Type of Access
Snow free season	Motorized use allowed only on designated roads and trails
Snow Season	Cross-country motorized allowed

SOME SITE SPECIFIC EXCEPTIONS MAY APPLY, TRAVEL PLAN MAPS SUPERCEDE THIS DIRECTION.

RECREATION

Guidelines

1. Recreation facilities should be compatible with the ROS settings of roaded natural, semi-primitive motorized, and non-motorized.

2. Allow recreational gold panning and use of small suction dredges as specified under Idaho law and the Caribou Basin Small Placer Mining EA or most current guidance from the Soda Springs Ranger District.

HERITAGE RESOURCES

Guideline

1. Provide interpretive sites to enhance visitor understanding of the area.

Production of Commodity Resources

TIMBER

Standard

1. These areas are removed from the suitable timber base. They do not contribute to the Allowable Sale Quantity (ASQ).

Guideline

1. Timber harvest can occur for such things as public safety, visual quality, long-term sustainability of ecosystem components, and/or to meet the goals of the prescription.

PRESCRIPTION 2.1.5(b) – LANDER TRAIL SPECIAL EMPHASIS AREA

This management prescription applies to a corridor one quarter of a mile on either side of the Lander Cutoff Trail, a unique historical area. Management is focused on allowing Forest visitors to experience the history of the area in a semi-primitive setting. This area will provide a spectrum of recreational opportunities from developed sites in a natural setting, to sites with limited access in a semi-primitive setting. Motorized access within the prescription area ranges from surfaced roads, to trails, to none. The amount of human activity will vary, depending upon your location.

Vegetation also will vary depending on where you are in this area. A mix of age class distributions, openings, and horizontal/vertical diversity may be present. In general, vegetation will appear natural; except where it has been altered by past treatments. More recent activities may be present if needed to maintain or improve ecological conditions.

This area provides forage for domestic livestock and timber harvest may be present. In general, indications of mining or mineral development will not be found in this area.

These lands provide economic opportunities for outfitter and guides, educational opportunities for the public, and research opportunities for resource managers and academic professionals. This area will emphasize unique opportunities to experience the history.

Goals

1. Management protects the unique cultural and historic resources present here.

2. The historic values associated with this area are maintained and interpretation of those values is enhanced.

3. Natural disturbances and processes are allowed to play their natural role in ecological succession, except where resource values will be adversely affected.

Objective

1. Within five years of signing the ROD, complete a plan for interpretation and preservation of the historic features.

Physical Elements

MINERALS/GEOLOGY

Standards

1. This area shall not be recommended for new phosphate leases.

2. The area shall not be available for development of new mineral material sources (sand/gravel, stone).

Biological Elements

WILDLIFE

Standards

1. Allow wildlife habitat manipulation where it maintains or enhances the values associated with the special emphasis area.

2. Snag habitat for woodpeckers shall be allowed to fluctuate with natural disturbance processes (fire, insects, and disease).

Guideline

1. Site-specific areas may have snags removed for human safety and other resource management needs.

Forest Use and Occupation

ACCESS

Standard

1. The following table defines allowable access under this prescription **2.1.5(b)**:

Table (b)

Season	Type of Access
Snow free season	Motorized use allowed only on designated roads and trails
Snow Season	Cross-country motorized allowed

SOME SITE SPECIFIC EXCEPTIONS MAY APPLY, TRAVEL PLAN MAPS SUPERCEDE THIS DIRECTION.

RECREATION

Guideline

1. Recreation facilities should be compatible with the ROS settings of roaded natural, semi-primitive motorized, and non-motorized.

HERITAGE RESOURCES

Guideline

1. Provide interpretive sites to enhance visitor understanding of the area.

Production of Commodity Resources

GRAZING MANAGEMENT

Guideline

1. Livestock grazing and associated developments, such as fencing, are permissible as long as they do not adversely affect the unique resources of the special management area.

TIMBER

Standard

1. These areas are removed from the suitable timber base. They do not contribute to the Allowable Sale Quantity (ASQ).

Guideline

1. Timber harvest can occur for such things as public safety, visual quality, long-term sustainability of ecosystem components, and/or to meet the goals of the prescription.

PRESCRIPTION 2.1.6(b) – GRAVEL CREEK SPECIAL EMPHASIS AREA

This management prescription applies to a 160-acre parcel of land acquired from the State of Idaho. The Gravel Creek Ranch was donated to the Forest Service by the Idaho Transportation Department as mitigation for wetland impacts from the highway reconstruction on US-89. Management will be focused on maintaining the wetland characteristics of the area.

Both upland and wetland vegetation is present on this parcel. In general, vegetation will appear natural; except where it has been altered by past ranching activities. No specific treatments or restoration efforts are currently identified but could occur in the future to improve overall riparian/wetland function or characteristics. This area is closed to domestic livestock grazing. Restricted timber activities may be conducted to protect special values in this area or adjacent lands.

Surface facilities for leasable minerals, such as oil and gas, will not be found within this special management area. To protect values in this area, restrictions can be expected for valid existing rights to develop locatable minerals, such as precious metals and high value industrial minerals. New phosphate leasing would not be recommended in this area.

Goals

1. Management protects, conserves, and retains the floodplain and wetland values of the area according to the standards of Executive Orders 11998 and 11990.

2. The area is managed according to the Memorandum of Understanding with the Idaho Dept. of Transportation, Federal Highway Administration, and the Army Corps of Engineers.

3. Natural disturbances and processes are allowed to play their natural role in ecological succession, except where resource values will be adversely affected.

Objective

1. Coordinate a review of the status of the property with Idaho Department of Transportation, Federal Highway Administration, and the Army Corps of Engineers every three years.

Physical Elements

MINERALS/GEOLOGY

Standards

1. This area shall not be recommended for new phosphate leases.

2. This area shall not be available for development of mineral materials (sand/gravel, stone).

Biological Elements

WILDLIFE

Standards

1. Allow wildlife habitat manipulation where it maintains or enhances the values associated with the special emphasis area.

2. Snag habitat for woodpeckers shall be allowed to fluctuate with natural disturbance processes (fire, insects, and disease).

Guideline

1. Site-specific areas may have snags removed for human safety and other resource management needs.

VEGETATION

Guideline

1. Manage to improve wetland/riparian conditions in the area.

Forest Use and Occupation

ACCESS

Standard

1. The following table defines allowable access under this prescription **2.1.6(e)**:

Table (e)

Season	Type of Access
Snow free season	Non motorized travel only allowed
Snow Season	Cross-country motorized allowed

SOME SITE SPECIFIC EXCEPTIONS MAY APPLY, TRAVEL PLAN MAPS SUPERCEDE THIS DIRECTION.

Production of Commodity Resources

GRAZING MANAGEMENT

Standard

1. Livestock grazing shall be prohibited in this special emphasis area.

TIMBER

Standard

1. These areas are removed from the suitable timber base. They do not contribute to the Allowable Sale Quantity (ASQ).

Guideline

1. Timber harvest can occur for such things as public safety, visual quality, fuel reduction, long-term sustainability of ecosystem components, and/or to meet the goals of the prescription.

PRESCRIPTION 2.2(a) - RESEARCH NATURAL AREAS

These prescription areas are important ecological or natural areas established for non-manipulative research, education, and to maintain natural diversity on National Forest System lands. They also may assist in carrying our provisions of special acts, such as the Endangered Species Act and the monitoring provisions of the National Forest Management Act.

These areas are good examples of physical and biological units in which current natural conditions are maintained insofar as possible. These conditions are ordinarily achieved by allowing natural, physical, and biological processes to prevail without human intervention. Non-manipulative research activities occur in these areas. Some scientific instrumentation may be present. Since these areas are also used for educational purposes, occasional groups of people may be present observing and being instructed about the area.

Generally, no developed facilities appear on these sites. Interpretation of special features will generally be done off site. A road or trail may be present to provide access primarily for research and educational purposes. Recreation use is not promoted in these areas, and may be reduced or eliminated if adverse impacts are occurring.

Seven Research Natural Areas have been established on the Caribou National Forest:

RNA Name	Year Established	Location	Size (Acres)	Primary RNA Objectives
Horse Creek	1989	Soda Springs RD	550 Acres	Preserve cold spring Preserve several subalpine fir habitat types
Burton Canyon	1988	Montpelier RD	1,005 acres	Maintain and preserve terrestrial and aquatic communities
Meade Peak	1988	Montpelier RD	300 acres	Maintain and preserve subalpine conditions.
St. Charles Creek	1988	Montpelier RD	410 acres	Maintain and preserve terrestrial and aquatic communities
Gunsight Peak	1990	Westside RD	550 acres	Maintain and preserve upper elevation subalpine vegetation
Gibson Jack	1982	Westside RD	2,200 acres	Maintain and preserve stands of Bigtooth maple, shrub types, beaver dams and ponds
West Fork Mink Creek	1973	Westside RD	640 acres	Maintain and preserve Douglas-fir/aspen and sagebrush community types

Goal

1. Maintain these areas so that ecological processes sustain the development of ecosystem composition and structure.

Ecological Processes and Patterns

FIRE/FUELS

Standard

1. The ecological role of fire to maintain specific communities for which the RNA was established must be documented in scientific research if fire is used as a tool to maintain vegetation characteristics.

Physical Elements

MINERALS/GEOLOGY

Standards

1. These areas shall not be available for development of mineral materials (sand/gravel, stone).

2. These areas shall not be recommended for phosphate leasing.

Biological Elements

WILDLIFE

Standard

1. Snag habitat for woodpeckers shall be allowed to fluctuate with natural disturbance processes (fire, insects, and disease).

Forest Use and Occupation

ACCESS

Standards

1. The following table defines access allowable under this prescription **2.2**:

Table (a)

Season	Type of Access
Snow free season	Non-motorized travel only allowed
Snow Season	See Travel Plan map for each RNA

SOME SITE SPECIFIC EXCEPTIONS MAY APPLY, TRAVEL PLAN MAPS SUPERCEDE THIS DIRECTION.

2. No new road or trail construction ishall be allowed.

Guidelines

1. Trail reconstruction or heavy maintenance is allowed only if needed for resource protection or benefit.

2. Trails should be relocated outside of RNA's where practicable.

LANDS

Guideline

1. Do not issue special use authorizations except for research compatible with the RNA.

Production and Commodity Resources

GRAZING MANAGEMENT

Standard

1. No livestock grazing is permitted.

TIMBER

Standard

1. No timber harvest is permitted.

PRESCRIPTION 2.5(b) - WILD AND SCENIC ELIGIBLE RECREATION RIVER

The purpose of this prescription is to maintain and protect the essentially free-flowing character and the outstandingly remarkable values that qualify the river to be considered eligible as a Recreational River in the National Wild and Scenic Rivers System pending a suitability determination. This prescription shall also be applied to a river determined to be suitable as a Recreation River and to a river designated as a Recreation River until such time as a Recreation River Management Plan can be adopted.

Proposed Recreational Rivers are managed to protect the outstandingly remarkable fish and wildlife, scenic, recreational, historic, cultural or other values identified for the river, within, as a minimum, .25 miles above the ordinary high water mark on each side of the river and a maximum of 320 acres per mile. The area may include significant human development, residences, road and highways, and minor existing modifications to the waterway, including diversion dams. Major water resource projects are not authorized. The area may include landscapes in a variety of visual conditions. Activities and structures may be dominant in some areas, but harmonize and blend with the generally natural-appearing environment to provide a pleasing setting for recreation activities. This management area prescription may provide recreation opportunities where the interaction between users may be moderate-to-high with evidence of current and past use prevalent. Outfitter and guide operations may be present. Roads are designed for conventional motorized vehicles. Both motorized and non-motorized trail opportunities are present.

Allowed motorized use within the area may include boats, aircraft, snowmachines, construction and maintenance of needed facilities. Motorized land travel for recreation purposes may be restricted. All scheduled resource management activities are integrated in such a way that the recreation and water quality values remain paramount.

Fish projects may be identified and implemented which create or improve fishing opportunity. Wildlife habitat emphasis is on maintaining healthy and productive habitat conditions for indigenous species and improving wildlife viewing opportunities.

Eligible Recreation River segments are as follows:

River/Site	Inventoried Tributaries	Location	Length of Segment (miles) or Area (acres)
Elk Valley Marsh	None	Wetland complex on Spring Creek	200 acres
St. Charles Creek	None	Confluence with Snowslide Creek downstream to the boundary of a patented mining claim just inside the Forest boundary	6.3 miles

These areas will meet the direction for Prescription 2.8.3 Aquatic Influence Zones.

Goals

1. The outstandingly remarkable values of the above sites which qualify them as Recreational Rivers are protected or maintained.

2. Reestablish connectivity and improve habitat for Bonneville cutthroat trout and other native aquatic species in St. Charles Creek by working cooperatively with Idaho Department of Fish and Game and private landowners.

Physical Elements

SOIL AND WATER

Guidelines

1. Watershed and riparian/stream channel restoration may be done where deteriorated soil or hydrologic conditions are caused by humans or their influences create a serious threat or loss of Recreational River resource values.

2. Bank stabilization should be accomplished by approved bioengineering methods (i.e. no rock riprap or "rootrap.")

MINERALS/GEOLOGY

Standard

1. Eligible Recreation River areas shall not be available for development of saleable material minerals (sand, gravel, stone, etc.).

Biological Elements

WILDLIFE

Standards

1. Wildlife habitat manipulation can occur if it maintains the outstandingly remarkable values.

2. Snag habitat for woodpeckers shall be allowed to fluctuate with natural disturbance processes (fire, insects, and disease).

Guideline

1. Site-specific areas may have snags removed for human safety and other resource management needs.

Forest Use and Occupation

ACCESS

Standard

1. The following table defines access allowable under this prescription **2.5(b)**:

Table (b)

Season	Type of Access
Snow free season	Motorized use allowed only on designated roads and trails
Snow Season	Cross-country motorized allowed

SOME SITE SPECIFIC EXCEPTIONS MAY APPLY, TRAVEL PLAN MAPS SUPERCE DE THIS DIRECTION.

RECREATION

Standard

1. Manage Visual Quality Objective (VQO) for partial retention in the foreground as seen from the river, roads, trails, and recreational facilities.

Guidelines

1. Both motorized and nonmotorized trail opportunities may exist.

2. All forms of recreation facilities, new trails, bridge crossings and river access points are permitted if they are designed to meet goals of the prescription.

Production and Commodity Resources

GRAZING MANAGEMENT

Standard

1. Livestock grazing shall be phased out on an opportunity basis where it is incompatible with the specific outstandingly remarkable values identified for the areas.

Guidelines

1. Existing range developments (water tanks, fences, etc.) that do not detract from the overall goals of the area are acceptable.

2. Range developments within this prescription area should be removed where the area is closed to grazing.

TIMBER

Standard

1. Lands are not included in the suitable timber base and do not contribute to the Allowable Sale Quantity (ASQ).

PRESCRIPTION 2.7.1 (d) – ELK AND DEER WINTER RANGE CRITICAL

This management prescription emphasizes management actions and resource conditions that provide quality elk and deer winter range habitat. Habitats are managed for multiple land use benefits, to the extent these land uses are compatible with maintaining or improving elk and deer winter range.

These areas are critical deer and/or elk winter ranges where available forage and winter security is emphasized. They represent the winter range areas that contribute to a population's ability to maintain itself over the long term. Their importance is due to a variety of factors, including: the number of wintering animals; proximity to threatened winter ranges; or being used by populations not meeting Department of Fish and Game objectives.

Vegetation management occurs to maintain or improve winter habitat conditions. Winter range forage is abundant, includes a good mixture of grasses, forbs and shrubs, and is well-distributed throughout the area. Cover is maintained and well-distributed.

Access is managed or restricted to provide security for wintering elk and deer. Summer and winter motorized travel is restricted to designated roads and trails.

Livestock grazing, timber management, recreation, and other resource management activities can occur as long as desired vegetation and security conditions are being maintained.

Goals

1. Provide quality elk and deer winter range.

2. Livestock grazing is managed to insure forage conditions are compatible with big game winter range goals.

3. Vegetation is managed to maintain or improve cover or forage conditions needed for wintering deer and elk.

4. Human disturbance to wintering big game animals is minimized.

Objective

1. Within two years of signing the ROD, begin vegetation condition assessments in cooperation with Idaho Fish and Game. Implement action where they are needed to improve low quality or declining winter range.

Biological Elements

WILDLIFE

Standard

1. Biological potential for woodpeckers shall be allowed to fluctuate with natural disturbance processes (fire, insects, and disease) and management actions designed to maintain productive winter ranges.

Forest Use and Occupation

ACCESS

Standards

1. The following table defines access allowable under prescription **2.7.1 (d)**

Table (d)

Season	Type of Access
Snow free season	Motorized use allowed only on designated roads and trails
Snow Season	Motorized use allowed only on designated trails, some winter range has no designated routes

SOME SITE SPECIFIC EXCEPTIONS MAY APPLY, TRAVEL PLAN MAPS SUPERCEDE THIS DIRECTION.
SOME WINTER RANGE HAS NO SNOW SEASON DESIGNATED ROUTES

RECREATION

Guideline

1. Manage dispersed recreation to maintain winter habitat conditions. Minimal recreation facilities may be provided, such as hitch rack, rudimentary toilets, etc., but are not encouraged.

Production of Commodity Resources

GRAZING MANAGEMENT

Guideline

1. Livestock grazing use in the uplands should not exceed the utilization levels below unless site specific analysis shows that higher levels are appropriate:

    - 10 percent of the current year's growth of key browse species.
    - 35 percent of the current year's growth on key herbaceous species

TIMBER

Standard

1. These areas are not part of the suitable timber base and do not contribute to the Allowable Sale Quantity (ASQ).

PRESCRIPTION 2.7.2 (d) – ELK AND DEER WINTER RANGE

This management prescription emphasizes management actions and resource conditions that provide quality elk and deer winter range habitat. Habitats are managed for multiple land use benefits, to the extent these land uses are compatible with maintaining or improving elk and deer winter range.

These areas are natural winter ranges for deer and elk. They represent the winter range areas that contribute to a population's ability to maintain itself over the long term. Moose may also be present.

Vegetation management occurs to maintain or improve winter habitat conditions. Winter range forage is adequate, includes a good mixture of grasses, forbs and shrubs, and is well-distributed throughout the area. Cover is maintained and well-distributed.

Access is managed or restricted to provide security for wintering elk and deer. Winter and summer motorized travel is restricted to designated roads and trails.

Livestock grazing, timber management, recreation, and other resource management activities can occur as long as desired vegetation range conditions are being maintained.

The direction for this prescription is the same as Prescription 2.7.1 except for the following:

Production of Commodity Resources

GRAZING MANAGEMENT

Guideline

1. Livestock grazing use in the uplands should not exceed the utilization levels below unless site specific analysis shows that higher levels are appropriate:

    - 20 percent of the current year's growth of key browse species.
    - 45 percent of the current year's growth of key herbaceous species

PRESCRIPTION 2.8.3 - AQUATIC INFLUENCE ZONE

This prescription applies to the aquatic influence zone (AIZ) associated with lakes, reservoirs, ponds, perennial and intermittent streams, and wetlands, such as wet meadows, springs, seeps, bogs and other areas identified below. These areas control the hydrologic, geomorphic, and ecological processes that shape various features mentioned above and directly affect water quality and aquatic life. They also provide unique habitat characteristics important to those plant and animal species that rely on aquatic, wetland, or riparian ecosystems for all or a portion of their life cycle. Many such habitats are locally rare or are sensitive to disturbance. Overall these areas serve as important reservoirs of biodiversity; critical linkages for the interchange of plant and animal genetic material; specialized areas of nutrient and energy cycling and freshwater filtration, storage, and transport. Aquatic Influence Zones (AIZ) are portions of watersheds where riparian-dependent resources receive primary emphasis and management activities are subject to specific standards and guidelines. AIZ management direction overrides direction from other overlapping management areas.

Management emphasis is to restore and maintain the health of these areas. These Prescription Areas are not mapped on the Management Prescription maps because of their small size and long, linear nature. Prescription direction applies where these areas occur on the Forest.

These Aquatic Influence Zones provide a high level of aquatic protection and maintain ecological functions (e.g., sediment transport, microclimate control, nutrient and energy regulation, and connectivity within the watershed) and processes (e.g., stream channel formation, plant community development, recruitment of organic material, including large wood, and hydrologic cycles) necessary for the restoration and maintenance of habitat for aquatic and riparian dependent organisms, and provide clean water that supports designated beneficial uses.

This management prescription area is identified using the boundary widths shown below. Site-specific widths may be increased where necessary to achieve riparian management goals and objectives, or decreased where default widths are not needed to attain riparian management objectives or avoid adverse effects. Establishment of AIZ widths different from default widths would require completion of watershed analysis or monitoring to provide the ecological basis for the change or may be modified by amendment in the absence of watershed analysis where stream reach or site-specific data support the change. In all cases, the rationale supporting modified AIZ widths, and their effects, would be documented.

DEFAULT AIZ WIDTHS

Fish-bearing Streams: AIZs consist of the stream and whichever of the following parameters is greatest:

- either side of the stream extending from the edges of the active stream channel to the top of the inner gorge or the outer edges of the riparian vegetation
- a distance equal to the height of two site-potential trees
- 300 feet slope distance (600 feet, including both sides of the stream channel)

All Other Permanently Flowing Streams: AIZs consist of the stream and whichever of the following parameters is greatest:

- either side of the stream extending from the edges of the active stream channel to the top of the inner gorge
- outer edges of the 100-year flood plain

- outer edges of riparian vegetation
- a distance equal to the height of one site-potential tree
- 150 feet slope distance (300 feet, including both sides of the stream channel)

Ponds, lakes, reservoirs, and wetlands greater than 1 acre: AIZs consist of the body of water or wetland and whichever of the following parameters is greatest:

- outer edges of the riparian vegetation
- extent of the seasonally saturated soil
- a distance equal to the height of one site-potential tree
- 150 feet slope distance from the maximum pool elevation of the wetland, pond, or lake

Seasonally flowing or intermittent streams, wetlands less than 1 acre: This category includes features with high variability in size and site-specific characteristics. Small wetlands can be scattered across the landscape and may not have any direct connectivity with a channel system or permanent body of water. At a minimum, the AIZs must include the intermittent stream channel and whichever of the following parameters is greatest:

- top of the inner gorge
- outer edges of the riparian vegetation
- from the edges of the stream channel, wetland, etc. to a distance equal to the height of one-half site potential tree, or 50 feet slope distance

Landslides and landslide prone areas are important landscape features influencing riparian and aquatic habitat. When they fail, they provide whole trees to influence riparian and stream habitat and deliver gravel to streams for use by aquatic biota. Because they are relatively small and dotted across the landscape and traditionally viewed independently of other areas that influence aquatic zones, they are addressed in Forestwide standards.

RIPARIAN CONDITION INDICATORS

Riparian Condition Indicators (RCIs) provide criteria against which attainment or progress toward attainment of riparian and aquatic habitat goals are measured. RCIs provide the target toward which managers aim as they manage resources across the landscape. It is not expected that the attributes would be met instantaneously, but rather would be achieved over time. However, it is not the intent of RCIs to establish a ceiling for what constitutes good riparian conditions. Actions that reduce riparian quality, whether existing conditions are better or worse than attribute values, would be inconsistent with the purpose of this direction. RCIs are described in Appendix B of this Plan and the Caribou Riparian Grazing Implementation Guide. These include the use of Properly Functioning Condition (Prichard 1998) and specific physical, chemical and biological features.

The RCIs provide a good starting point to describe the desired condition for riparian/aquatic species habitat. Although many of these RCIs are specific per Rosgen channel type, they can be modified or fine-tuned with justification documented by a professional Fisheries Biologist and/or Hydrologist in site-specific situations through the watershed and/or hydrologic condition analysis process.

Desired Future Conditions

- Riparian areas filter sediments, protect stream banks, improve water quality, reduce flooding, recharge groundwater and maintain stream flow. Riparian areas are covered by deep-rooted and other desirable, protective vegetation which provides adequate summer and winter thermal regulation. Generally, riparian areas are connected with aquatic and upland components. They provide food, water, cover, nesting areas and protected pathways for aquatic and wildlife species.
- Stream channels and floodplains are functioning properly relative to the landform (gradient, size, shape, roughness, confinement, and sinuosity) and climate. Aquatic ecosystems are within the capability of the channel types and landform.
- Riparian areas identified as being in properly functioning condition are managed to maintain at least that condition with no downward trends. Areas identified as functioning-at-risk or nonfunctioning show an upward trend toward proper functioning condition.
- Public waters are restored where water quality does not support beneficial uses and otherwise are maintained or improved.
- Roads in riparian areas are few and stable. Roads exist in riparian areas only where there are no practical alternatives. Some road corridors are apparent, but roads in sensitive landscapes are few and stable.
- Properly functioning riparian systems contain a mosaic of well-connected habitats that support diverse populations of native and desired non-native species. All life phases are fully supported.
- Native aquatic and riparian-dependent species population strongholds are increasing and well distributed within historic ranges. Improved aquatic and riparian habitat conditions contribute to the recovery of federally listed aquatic and riparian-dependent species, and keep species-at-risk from becoming listed, allowing them to expand into previously occupied habitat. Fragmentation is reduced as connectivity between streams and rivers improves.

Goals

1. Riparian and aquatic ecosystems provide water quality suitable for supporting designated beneficial uses.

2. Instream flows support healthy riparian and aquatic habitats, the stability and effective function of stream channels and the ability to route flood discharges.

3. Natural timing and variability of the water table elevation in meadows and wetlands is maintained or restored.

4. Native and desired non-native communities in riparian zones are productive and diverse.

5. Beaver play their natural role in ecological succession compatible with other resource goals and objectives.

6. Federal water rights for consumptive and non-consumptive in-stream water uses are quantified and asserted in collaboration with State and local governments and other interested parties. State law and the interests of holders of existing water rights are appropriately considered while developing strategies to achieve desired conditions for aquatic and stream-based resources.

7. Large woody debris is sufficient to maintain the function of natural aquatic and riparian ecosystems.

8. Aquatic and riparian habitat supports populations of well-distributed native and desired non-native plant, vertebrate, and invertebrate populations that contribute to the viability of riparian and aquatic-dependent communities, including unique genetic fish stocks.

9. The Forest cooperates with other agencies and organizations, including the states of Idaho, Wyoming, and Utah to secure and enhance conservation populations[26] of Yellowstone and Bonneville cutthroat trout within their historic range, including maintenance of genetic purity, prevention of hybridization, prevention of competition with non-native fish, and other management needs.

10. Native fish are reintroduced into appropriate habitats.

Objectives

1. Five years after the signing of the ROD, reevaluate riparian properly functioning condition (PFC) at the stream level, to determine rate of movement towards desired future conditions.

2. Every ten years, resurvey fish-bearing streams for fish distribution, introgression, and non-native species invasion.

3. Within five years of the ROD, evaluate all existing small hydroelectric projects not regulated by FERC for consistency with AIZ direction.

> ***Project and site-specific standards and guidelines listed below would apply to all AIZs and to projects and activities in areas outside AIZs that are identified through NEPA analysis as potentially degrading AIZs. The promotion of these standards and guidelines would provide a benchmark for management actions that reflects increased sensitivities and a commitment to productive riparian and aquatic ecosystems.***

Ecological Processes and Patterns

FIRE/FUELS

Guidelines

1. Locate incident bases, camps, helibases, staging areas, helispots, and other centers for incident activities outside of AIZs. If the only suitable location for such activities is within the AIZ, an exemption may be granted following a review and recommendation by a resource advisor.

2. When taking water from fish-bearing streams for suppression activities, intake hoses should be screened, taking into account the fish species, life stages, and streamflow present at the time.

3. Allow wildland fire use, prescribed fire, and mechanical fuel treatments to meet the desired future conditions of the AIZ.

4. Design fire suppression strategies, practices, and actions so they minimize disturbance of riparian ground cover and vegetation.

5. Avoid mixing and delivery of chemical retardant, foam, or additives to surface waters.

[26] Populations identified by the Idaho Department of Fish and Game as important to the long-term conservation of the species.

Physical Elements

LANDS

Standards

1. Special use authorizations for new projects involving instream facilities shall maintain minimum instream flows to maintain or improve desired AIZ attributes.

2. For licensing and relicensing, use conditioning authority granted under Section 4(e) of the Federal Power Act to ensure that hydroelectric facilities located within AIZs are located, operated, and maintained in a manner that protects, mitigates, or enhances Forest resources.

Guidelines

1. Avoid locating facilities and utility corridors in Aquatic Influence Zones.

2. For any diversion, fish passage and/or screening devices to prevent accidental loss of fish should be provided where needed.

3. Use land acquisition, exchange, and conservation easements to meet desired AIZ attributes.

4. When reauthorizing existing special use authorizations or existing Forest Service projects involving instream facilities, exclusive of facilities retrofitted to existing dams, where feasible, provide for minimum instream flows as specified by the Forest or State.

5. For licensing and relicensing of hydroelectric projects, consider the posting of a bond to cover decommissioning costs associated with new structures such as dams and large buildings.

MINERALS/GEOLOGY

Guidelines

1. Locate new structures, support facilities, and roads outside AIZs. Where no alternative to siting facilities in AIZs exists, locate and construct the facilities in ways that avoid or reduce impacts to desired AIZs attributes. Where no alternative to road construction exists, keep roads to the minimum necessary for the approved mineral activity.

2. New leases for energy minerals[27] should prohibit surface occupancy for exploration and development unless there are no other options for location and desired AIZ attributes can be met.

3. The operating plans of existing leases for energy minerals should be modified to minimize impacts to desired AIZ attributes.

4. Do not locate debris, mine overburden, excess material, leaching pads, and other facilities within Aquatic Influence Zones, unless no other alternatives are available. If no other alternative exists, ensure that safeguards are in place to prevent release or drainage of toxic or other hazardous materials onto these lands.

5. These areas would generally not be available for development of mineral materials[28] unless AIZ attributes would be maintained or improved.

[27] Energy minerals are oil, gas, geothermal and other resources used to produce energy.

Biological Elements

General Riparian Area Management

Standard

1. Within legal authorities, ensure that new proposed management activities within watersheds containing 303(d) listed waterbodies improve or maintain overall progress toward beneficial use attainment for pollutants which led to listing.

Guidelines

1. Felled trees should remain on site when needed to meet woody debris objectives and desired AIZ attributes.

2. Use herbicides, pesticides, and other toxicants and chemicals only as needed to maintain desired AIZ attributes.

3. Avoid storage of fuels and other toxicants or refueling within AIZs unless there are no other alternatives. Any refueling sites within an AIZ should have an approved spill containment plan.

Fisheries

Guidelines

1. Where feasible, restore connectedness of disjunct populations and enhance fish passage for native fish.

2. Design and implement fish and other aquatic biota habitat restoration and enhancement actions in a manner that contributes to attainment of desired AIZ attributes.

3. Coordinate with State Fish and Game management agencies to develop fish stocking strategies within the Forest. Discourage stocking of non-native fish species in lakes and streams managed for native fish populations.

Wildlife

Direction for riparian-associated wildlife is found in the Forest-wide wildlife section.

Standard

1. Snags shall be maintained at = 80 percent of biological potential for woodpeckers (See Tables 3.4 and 3.5).

Forest Use and Occupation

Access

Standard

1. Snowmobiles are prohibited on unfrozen watercourses.

[28] Mineral materials are common varieties of sand, gravel, stone, pumicite, cinders, clay, and other similar materials.

ROADS AND TRAILS

Standard

1. All new and replaced culverts, both permanent and temporary, shall be designed and installed to meet desired conditions for riparian and aquatic species.

Guidelines

1. Avoid constructing roads within the AIZ unless there is no practical alternative.

2. Culverts (permanent and temporary) should be sized so that the probability of flow exceedance is fifty percent or less during the time the culvert is expected to be in place. Consider bedload and debris when sizing culverts.

3. When feasible, use bridges, arches, and open-bottom culverts in fish-bearing streams.

4. Avoid placing ditch relief culverts where they may discharge onto erodible slopes or directly into streams.

5. Where feasible, install cross-drainage above stream crossings to prevent ditch sediments from entering streams.

6. New or reconstructed roads and trails should cross the AIZ riparian areas as perpendicular as possible.

7. Avoid making channel changes on streams or drainages.

8. Design and install drainage crossings to reduce the chances of turning stream flows down the road prism in case of a blocked or overflowing culvert.

9. Road drainage patterns should avoid disruption of natural hydrologic flow paths.

RECREATION

Standards

1. Grazing by recreational stock shall meet AIZ grazing standards for utilization of riparian vegetation.

2. Design, construct, and operate new recreation facilities, including trails and dispersed sites, in a manner that maintains progress toward desired AIZ attributes.

Guideline

1. Manage existing recreation facilities, including trails and dispersed sites, to minimize adverse impacts and, where feasible, move towards desired AIZ attributes.

Production of Commodity Resources

GRAZING MANAGEMENT

Standards

1. Table 4.1, below, shall be used for riparian grazing until more site-specific standards are implemented using the Caribou Riparian Grazing Implementation Guide. If current Annual Operating Instructions have more stringent requirements they shall be used, however. Generally, the factor most critical for maintaining riparian and stream channel characteristics shall be used. These utilization guidelines apply to native and desirable nonnative key plant species as recorded at the end of the grazing period (when the livestock leave the unit/pasture).

■ Table 4.1 Riparian Grazing Standards

Parameter	Location Measured	Condition of Riparian (Lotic) Area		
		Properly Functioning Condition	Functioning at Risk	Non-functioning
% Herbaceous Species Utilization[2]	Greenline	45%	35%	30%
	In AIZ	55%	45%	35%
% Woody Spp Utilization	-	45%	40%	30%
Stubble Height[2]	Greenline	4 inches	6 inches	6 inches
%Bank Disturbance	Cumulative	30%	25%	20%

1 Refer to "Riparian Area Management", TR 1737-15. 1998
2 Residual stubble heights are intended for riparian dependent species only such as Nebraska sedge (*Carex nebraskensis*). Percent utilization criteria are intended for use only on non-riparian dependent species such as Kentucky bluegrass (*Poa pratensis*) and red-top (*Agrostis stolonifera*).
3 Within the area dominated by riparian vegetation.

2. The most current version of the Caribou Riparian Grazing Implementation Guide shall be used for the primary source of direction for grazing in Forest riparian areas and shall be incorporated during allotment management planning.

Guidelines

1. Avoid locating new livestock handling and/or management facilities inside of AIZs.

2. Where feasible, relocate or close existing livestock handling facilities that will not maintain progress toward desired AIZ attributes.

TIMBER

Standard

1. Aquatic Influence Zones are not included in the suitable timber base and do not contribute to the Allowable Sale Quantity (ASQ).

Guidelines

1. Tmber harvest, including fuelwood cutting, is generally not allowed unless:

   - catastrophic events such as fire, flooding, wind, or insect damage result in degraded riparian conditions, and unscheduled timber harvest (salvage and commercial fuelwood cutting) is selected as the most desirable management practice.

   - silvicultural practices are necessary to achieve desired vegetation characteristics and desired AIZ attributes.

2. Mechanized slash piling and burning should be minimized within the AIZ.

CATEGORY 3

Lands where Category 3 prescriptions are applied provide for a balance between ecological values and human uses. Resource management activities may occur, but natural ecological processes and resulting patterns will normally predominate the landscape. Although these land areas are characterized by natural appearing landscapes, an array of management tools can be used to restore or maintain relatively natural patterns of ecological processes. Lands in this prescription category show some evidence of human activities. Restrictions on motorized travel can vary from area to area and season to season.

PRESCRIPTION 3.1 (a, e) – NONMOTORIZED RECREATION AND WILDLIFE SECURITY

This management prescription identifies areas where wildlife security and nonmotorized recreation are emphasized. Natural ecological processes and patterns predominate the landscape. Another emphasis is on security from motorized access for wildlife and fisheries. Semi-primitive, nonmotorized recreation use, such as hiking and horsebackriding, will occur during the summer months. Some of the areas are nonmotorized year-round, or only allow snowmobile use on designated routes in the winter. The experience is similar to a primitive experience, but allows some modern uses including chainsaws for summer trail maintenance, snowmachines during the winter in some areas, and helicopters.

These areas are accessible by trails or cross-country; users find no usable public roads or summer motorized trails. Encounters with other people diminish as visitors move away from nearby roads and trailheads. Generally, visitors experience a backcountry setting with a high likelihood of solitude; however, visitors may occasionally meet large groups.

These areas provide security for wildlife species in locations that are considered potential linkage habitat to adjacent Forests. Maintenance of these existing non-motorized areas will ensure continued potential to provide secure habitat for those wildlife species that are affected by human disturbance.

The forest generally presents a natural appearance. A variety of forest seral stages may be present, ranging from areas with recent disturbance to old growth habitat. Firewood is available for camping, but is not generally available for home use. Outfitter and guiding activity may be present. Domestic livestock grazing may be present.

Goals

1. Maintain the natural role of ecological processes.

2. Maintain or enhance security for a variety of wildlife species. Maintain connectivity with other large, relatively undisturbed areas.

3. Maintain or enhance semi-primitive, nonmotorized, dispersed recreation opportunities.

Ecological Processes and Patterns

FIRE/FUELS

Guideline

1. Employ Minimum Impact Suppression Tactics.

Physical Elements

SOIL AND WATER

Guideline

1. Watershed and riparian/stream channel restoration should be done primarily where deteriorated soil or hydrologic conditions were caused by humans, or their influences create a serious threat or loss of resource values.

MINERALS AND GEOLOGY

Guideline

1. These areas are generally not available for development of mineral materials (sand/gravel, stone).

Biological Elements

VEGETATION

Guideline

1. Vegetation treatments are allowed if they contribute to the goals of this prescription.

WILDLIFE

Standard

1. Snag habitat for woodpeckers shall be allowed to fluctuate with natural disturbance processes (fire, insects, and disease).

Forest Use and Occupation

ACCESS

Standards

1. The following table defines access allowable under prescription **3.1(a):**

Table (a)

Season	Type of Access
Snow free season	Non-motorized travel only allowed
Snow Season	Non-motorized travel only allowed

SOME SITE SPECIFIC EXCEPTIONS MAY APPLY, TRAVEL PLAN MAPS SUPERCEDE THIS DIRECTION.

2. The following table defines access allowable under prescription **3.1(e)**:

Table (e)

Season	Type of Access
Snow free season	Non-motorized travel only allowed
Snow Season	Cross-country motorized allowed

SOME SITE SPECIFIC EXCEPTIONS MAY APPLY, TRAVEL PLAN MAPS SUPERCEDE THIS DIRECTION.

ROADS

Standards

1. Existing system or nonsystem roads shall be closed and rehabilitated as soon as practicable.

2. No new public or general purpose road construction is permitted.

RECREATION

Guidelines

1. Minimal dispersed recreation facilities may be provided but generally, recreation facilities are not encouraged.

2. High impact campsites should be restored to meet applicable national standards.

3. Trails and bridges should be constructed and maintained to accommodate foot and horse traffic.

Production of Commodity Resources

TIMBER

Standard

1. These areas are removed from the suitable timber base and do not contribute to the Allowable Sale Quantity (ASQ).

PRESCRIPTION 3.2 (b, e, f) - SEMI-PRIMITIVE RECREATION

This management prescription identifies areas with a semi-primitive, backcountry recreation experience, associated with some motorized vehicle use. These areas are accessible by roads and trails. Roads and trails are designed and maintained to allow easy passage. Visitors will find occasional to frequent encounters with trail users. Visitors may also meet large groups occasionally.

Some of these areas have a very low target open motorized route density for wildlife security or a backcountry experience. Generally, the forest presents a natural appearance. A variety of forest successional stages may be present, ranging from areas with recent disturbance to late successional habitat. Firewood is available for camping and home use. Outfitter and guiding activity may be present. Domestic livestock grazing may be present in some areas, and visitors may see range improvements, such as fencing and stock tanks. A variety of nonforested successional stages may be present.

Goal

1. Maintain or enhance semi-primitive motorized, and dispersed recreation opportunities.

Ecological Processes and Patterns

FIRE/FUELS

Guideline

1. Employ Minimum Impact Suppression Tactics to the extent possible.

Biological Elements

WILDLIFE

Guideline

1. Maintain snags at =60 percent biological potential for woodpeckers.

Forest Use and Occupation

ACCESS

Standards

1. The following table defines access allowable under prescription **3.2 (b)**

Table (b)

Season	Type of Access
Snow free season	Motorized use allowed only on designated roads and trails
Snow Season	Cross-country motorized allowed

SOME SITE SPECIFIC EXCEPTIONS MAY APPLY, TRAVEL PLAN MAPS SUPERCEDE THIS DIRECTION.

2. The following table defines access allowable under prescription **3.2 (e)**

Table (e)

Season	Type of Access
Snow free season	Non-motorized travel only allowed
Snow Season	Cross-country motorized use allowed

3. The following table defines access allowable under prescription **3.2 (f)**

Table (f)

Season	Type of Access
Snow free season	Motorized use allowed only on designated roads and trails
Snow Season	Non-motorized travel only allowed

SOME SITE SPECIFIC EXCEPTIONS MAY APPLY, TRAVEL PLAN MAPS SUPERCEDE THIS DIRECTION.

RECREATION

Guidelines

1. Facilities may be provided to reduce resource impacts at heavily used dispersed sites.

2. High impact campsites should be restored to meet applicable national standards.

3. Trails and bridges are constructed/maintained to a level to accommodate foot, horse, and motorized vehicle traffic, where allowed.

Production of Commodity Resources

TIMBER

Standard

1. These areas are removed from the suitable timber base and do not contribute to the Allowable Sale Quantity (ASQ).

Guidelines

1. Salvage harvest and commercial post and pole sales are allowed provided any new road construction is limited to temporary roads.

2. Wood product or timber harvesting for fuels reduction or restoration projects, are allowed.

PRESCRIPTION 3.3 (b) - SEMI-PRIMITIVE RESTORATION

This management prescription emphasizes ecological restoration to improve resource conditions that are not functioning properly. Ecological restoration is the process of assisting the recovery and management of ecological integrity. This includes a range of variability in biodiversity, ecological processes and patterns and sustainable cultural practices (Society for Ecological Restoration 2001). Restoration activities are intended to address and benefit ecosystem components, including the needs of communities and American Indian tribes. Management activities can include watershed restoration, prescribed fire, wildfire for resource benefit, silvicultural practices, invasive species management, and other activities. These areas have been identified because they are outside of the historical ranges of variability for some or all ecosystem components and there are good opportunities to decrease those risks through restoration practices.

This management prescription identifies areas with a semi-primitive, backcountry recreation experience, associated with some motorized vehicle use. These areas are generally accessible by roads and trails. Cross-country motorized vehicle use is not allowed in the snow-free season. Roads and trails are designed and maintained to allow easy passage. Visitors will find occasional to frequent encounters with trail users. Visitors may also meet large groups occasionally.

Generally, the forest presents a natural appearance. A variety of forest successional stages may be present, ranging from areas with recent disturbance to late successional habitat. Firewood is available for camping and home use. Outfitter and guiding activity may be present. Domestic livestock grazing may be present in some areas, and visitors may see range improvements, such as fencing and stock tanks. A variety of nonforested successional stages may be present.

Goals

1. Provide distribution, diversity, and complexity of watershed and landscape-scale processes to restore and maintain aquatic and riparian systems and species, populations, and communities.

2. Restore vegetation patches, patterns, structure and species composition to be more consistent with the landform, climate, and biological and physical characteristics of the ecosystem, and to provide habitat for terrestrial species. Manage disturbances to make vegetation patterns more consistent with their expected location on the landscape.

3. Restore connectivity within and among watersheds and networks of high quality habitats that help sustain populations of riparian-dependent species.

4. Restore and maintain aspen community types to more closely reflect historic conditions.

5. Maintain or enhance semi-primitive motorized, dispersed recreation opportunities.

Objective

1. Within three years of the signing of the ROD, prioritize areas for restoration.

Ecological Processes and Patterns

DISTURBANCES

Guideline

1. Allow natural disturbances to play their natural role in ecological succession.

FIRE/FUELS

Guidelines

1. This prescription area should be a priority for allowing wildland fire use.

2. Employ Minimum Impact Suppression Tactics to the extent possible.

Physical Elements

SOIL AND WATER

Guideline

1. Watershed restoration should be done primarily where deteriorated soil or hydrologic conditions are caused by activities.

Biological Elements

WILDLIFE

Standard

1. Maintain snags at = 60 percent of biological potential for woodpeckers.

VEGETATION

Guideline

1. Consider management actions, including mechanical treatments and other tools that would restore vegetation patches and patterns; are compatible with disturbance processes and encourage attainment of restoration goals.

Forest Use and Occupation

ACCESS

Standard

1. The following table defines access allowable under prescription **3.3 (b)**

Table (b)

Season	Type of Access
Snow free season	Motorized use allowed only on designated roads and trails
Snow Season	Cross-country motorized allowed

SOME SITE SPECIFIC EXCEPTIONS MAY APPLY, TRAVEL PLAN MAPS SUPERCEDE THIS DIRECTION.

RECREATION

Guideline

1. Limited facilities may be provided to reduce adverse resource impacts at heavily used dispersed recreation sites.

Production and Commodity Resources

GRAZING MANAGEMENT

Guideline

1. Livestock grazing practices should be adjusted if they are preventing attainment of the restoration goals.

TIMBER

Standard

1. These areas are removed from the suitable timber base and do not contribute to the Allowable Sale Quantity (ASQ).

CATEGORY 4

Lands where Category 4 prescriptions are applied provide for the management of ecological values to provide human recreational uses, such as developed and dispersed recreation areas. Recreation uses are within levels necessary to maintain overall ecological systems. Resource uses for other values generally are not emphasized and have little impact on ecological structure, function or composition. Sights and sounds of humans, on site, can be expected and even desired. Motorized transportation is common.

PRESCRIPTION 4.1(b) - DEVELOPED RECREATION SITES

This prescription applies to existing campgrounds, picnic areas, boating sites/ramps, and other facilities such as trailheads, scenic and wildlife viewing areas, fishing access points, and inventoried National Forest recreation sites selected for potential development located throughout the Forest. Development ranges from native material roads and campsites, with nonflush toilets, to a high degree of site modification with comfort and convenience facilities, including paved roads, water systems, universal access. Picnic tables, roads, buildings, and camping spots are obvious. Visitors often hear sounds of vehicles and other human activity.

Visitors generally will not find livestock within campgrounds, but livestock may be visible nearby. Signs and sounds of logging may also be apparent from time to time.

Generally, visitors will find a variety of vegetation conditions, from sagebrush to forested land within these areas. The area around the campground will generally exhibit a variety of visual conditions, depending on past insect, disease, and fire activity and management's response to these disturbances. These 4.1 Prescription Areas are not mapped on the Management Prescription maps because of their small size. Prescription direction applies where these areas occur on the Forest.

Goals

1. Provide a variety of concentrated, public recreation uses in a roaded-natural setting based on the character of the area and visitors' needs.

2. Protect and enhance a natural-appearing environment within and adjacent to the existing sites to the extent possible while maintaining the existing array of developed recreation sites.

3. Promote wildlife viewing opportunities when compatible with developed recreation use.

4. Provide opportunities for interpretation.

5. Manage aspen for its value in providing seasonal color.

Ecological Processes and Disturbances

DISTURBANCES

Standard

1. Control disturbances, such as insects and disease, consistent with recreation goals.

FIRE/FUELS

Standard

1. All wildfires that threaten these areas shall be aggressively suppressed.

Guidelines

1. Natural fuels should be reduced or otherwise treated to provide defensible space in and around these sites and facilities.

2. Mechanical treatments would be preferred in these areas.

Physical Elements

SOIL AND WATER

Guidelines

1. Avoid new construction on unstable or highly erodible soil.

2. Use rehabilitation techniques that do not detract from the recreation opportunity setting.

LANDS

Guideline

1. Utility corridors should avoid campgrounds and other facilities.

Biological Elements

WILDLIFE

Standard

1. Site-specific areas may have snags removed for human safety and other resource management needs. Biological potential for woodpeckers is not a management consideration.

VEGETATION

Standard

1. Hazard trees shall be removed to provide for public safety.

Guideline

1. Where aspen exists, it should be maintained or enhanced as a component.

NOXIOUS WEEDS

Standard

1. Aggressively treat noxious weeds to prevent or retard their spread.

Forest Use and Occupation

ACCESS

Standard

1. The following table defines access allowable under prescription **4.1(b)**:

Table (b)

Season	Type of Access
Snow free season	Motorized use allowed only on designated roads and trails
Snow Season	Cross-country motorized allowed

SOME SITE SPECIFIC EXCEPTIONS MAY APPLY, TRAVEL PLAN MAPS SUPERCEDE THIS DIRECTION. MOTORIZED, MECHANIZED, OR HORSE USE IS ALLOWED ONLY ON EXISTING ROADS OR TRAILS AND IS LIMITED TO ENTERING, LEAVING, AND VISITING OTHER SITES WITHIN THE FACILITY.

RECREATION

Guidelines

1. Developed campgrounds and picnic areas that have a seasonal use level of 40 percent or higher should be managed to provide full services during periods of high use.

2. Those campgrounds with less than 20 percent average season-long use may require closure of sites first, and then, if needed, closure of the entire facility.

Production of Commodity Resources

GRAZING MANAGEMENT

Guidelines

1. Livestock grazing should be managed to avoid conflicts with recreation use of these sites.
2. Livestock grazing should be excluded from picnic areas and campgrounds through fencing.

TIMBER

Standard

1. These sites are removed from the suitable timber base and do not contribute to the Allowable Sale Quantity (ASQ).

PRESCRIPTION 4.2(b,d) - SPECIAL USE AUTHORIZATION RECREATION SITES

This prescription applies to ski areas, resorts, recreational residence tracts, organization camps, and other highly developed uses authorized by a special use authorization. The emphasis is on providing privately operated types of recreation on National Forest land for large concentrated groups of people. Overall, visitors find many signs of people. Visitors see little or no evidence of resource development, except for recreation. Cabins and buildings used by permittees are visible, but they blend into the surroundings. Roads are generally gravelled, but may be paved in higher use areas. OHV use is limited to entry and departure routes and for administrative purposes. In some areas, visitors may see extensive development associated with ski areas or resorts; for example, buildings, ski lifts, maintenance equipment, etc. Many pedestrians and cars may be seen in these areas.

Visitors generally will not find livestock within these areas, but they may be visible nearby. Signs and sounds of logging may also be apparent from time to time. Wildlife may be seen. Generally, visitors will find a variety of vegetation conditions from sagebrush to forested land within these areas. The area around the special use facility will generally exhibit a variety of visual conditions, depending on past insect, disease, and fire activity and management's response to these disturbances.

Not all of these 4.2 Prescription Areas are mapped on the Management Prescription maps because of their small size. Prescription direction applies where these areas occur on the Forest.

Goals

1. Provide recreation opportunities that are best managed by the private sector to meet an identified public need, ensure quality experiences, and complement Forest settings and resource objectives.
2. Provide quality interpretive facilities and programs for use by the public.
3. Strive to incorporate opportunities for watchable wildlife.

Ecological Processes and Patterns

DISTURBANCES

Standard

1. Control disturbances, such as insects and disease, consistent with visual objectives.

FIRE/FUELS

Standard

1. All wildfires that threaten these areas shall be aggressively suppressed.

Guideline

1. Mechanical treatments would be preferred in these areas.

Physical Elements

SOIL AND WATER

Guidelines

1. Use rehabilitation techniques that do not detract from the recreation opportunity.
2. Avoid new construction on unstable or highly erodible soil.

LANDS

Standards

1. New recreation residence tracts (summer homes) shall not be established.

2. No new residences shall be authorized on vacant lots that are no longer leased.

3. Continue existing recreation residence authorizations.

Guideline

1. Utility corridors should avoid these areas.

MINERALS/GEOLOGY

Guideline

1. These areas are generally not available for development of mineral materials (sand/gravel, stone).

Biological Elements

VEGETATION

Guidelines

1. All vegetation treatment options are available, but only as required to meet recreation goals.

2. Stipulate removal of unsafe trees in the special use authorization. Native species may be planted to provide cover when naturally-occurring vegetation is inadequate.

WILDLIFE

Standards

1. Site-specific areas may have snags removed for human safety and other resource management needs. Biological potential for woodpeckers is not a management consideration.

2. Ensure that activities at Minnetonka Cave are compatible with bat habitat management.

Guideline

1. Except for direct protection of federally listed and sensitive species, these areas will not emphasize wildlife habitat.

NOXIOUS WEEDS AND OTHER INVASIVE SPECIES

Standard

1. Special use authorization holders shall be required to treat noxious weeds within their authorization area.

Forest Use and Occupation

ACCESS

Standards

1. The following table defines access allowable under prescription **4.2(b):**

Table (b)

Season	Type of Access
Snow free season	Motorized use allowed only on designated roads and trails
Snow Season	Cross-country motorized allowed

SOME SITE SPECIFIC EXCEPTIONS MAY APPLY, TRAVEL PLAN MAPS SUPERCEDE THIS DIRECTION.

2. The following table defines access allowable under prescription **4.2 (d)**

Table (d)

Season	Type of Access
Snow free season	Motorized use allowed only on designated roads and trails
Snow Season	Motorized use allowed only on designated roads and trails

SOME SITE SPECIFIC EXCEPTIONS MAY APPLY, TRAVEL PLAN MAPS SUPERCEDE THIS DIRECTION.

RECREATION

Standard

1. Pebble Creek Ski Area shall be managed in accordance with the Master Plan.

Guidelines

1. Natural vegetation should be favored around developed recreational facilities. However, mowing natural vegetation around facilities may be allowed.

2. Trails may be allowed for the convenience of people using these sites.

3. Provide access to facilities and opportunities for interpretation.

Production of Commodity Resources

RANGE

Guideline

1. Unless needed to meet recreation goals, or authorized by special use or grazing permit, grazing of recreation stock and other livestock should not be allowed in these areas.

TIMBER

Standard

1. These sites are removed from the suitable timber base and do not contribute to the ASQ.

PRESCRIPTION 4.3(b) - DISPERSED CAMPING MANAGEMENT

The purpose of this prescription is to maintain a quality dispersed recreation experience for the public and still protect other resource values that occur in the same area. This prescription applies to highly attractive and desirable heavy summer use areas, such as those found around lakes or reservoirs, along roads and streams, or at trailheads where multiple campsites can be accessed by conventional vehicles (> 50 inches wide) or boats. This prescription also includes heavy use areas where dispersed camping creates potential conflicts with other resources or where site damage is occurring or likely to occur.

While dispersed recreation is the main theme, protecting the resource values of the area is also paramount. This prescription is intended to create a balance between the users and the natural resources, and is generally applied to areas where special concerns or consideration must be given to dispersed recreation in order to maintain the recreation opportunities.

These sites may have some limited developed facilities to protect resource values which may include one or two of the following: fire rings, tables, toilet facilities, signs, and/or water. These sites are generally not fee areas and have very limited capital investment. Restrictions may be placed on camping locations to allow used areas to recover or to protect natural resources.

Two high priority areas, East Fork of Mink Creek and Cub River, are shown on the Management Prescription maps but others are not because of their small size. These unmapped areas include:

Westside Ranger District

- South Fork of Mink Creek
- Pebble Creek
- Toponce Creek

Soda Springs Ranger District

- Diamond Creek
- Trail Canyon
- McCoy Creek

Montpelier Ranger District

- Eightmile Creek
- Bloomington Canyon
- Montpelier Reservoir

Goals

1. Maintain or improve the quality of the dispersed camping opportunities in the area.

2. Provide limited facilities necessary to meet resource protection needs.

3. Provide a balance between recreation use and other resource needs so the very resources that attract recreation use are maintained.

4. Manage fuels to reduce risk of accidental fire ignition.

Ecological Processes and Patterns

FIRE/FUELS

Guideline

1. Mechanical treatments would be preferred in these areas.

2. Use Minimum Impact Suppression Tactics.

Physical Elements

MINERALS/GEOLOGY

Guideline

1. These areas are generally not available for development of mineral materials (sand/gravel, stone).

Biological Elements

WILDLIFE

Guideline

1. Site-specific areas may have snags removed for human safety and other resource management needs. Biological potential for woodpeckers is not a management consideration.

Forest Use and Occupation

ACCESS

Standard

1. The following table defines access allowable under prescription **4.3(b)**:

Table (b)

Season	Type of Access
Snow free season	Motorized use allowed only on designated roads and trails
Snow Season	Cross-country motorized allowed

SOME SITE SPECIFIC EXCEPTIONS MAY APPLY, TRAVEL PLAN MAPS SUPERCEDE THIS DIRECTION.
CROSS-COUNTRY TRAVEL IS PERMITTED ONLY TO ACCESS THE DISPERSED CAMPSITE UNLESS THE SURROUNDING PRESCRIPTION AREA IS OPEN TO CROSS-COUNTRY TRAVEL.

RECREATION

Standards

1. When dispersed recreation results in alteration and/or degradation to a wetland or a stream channel, address impacts through use limits, facility modification, and/or closure.

2. Grazing by recreational stock must meet range standards for utilization of uplands and AIZs, as appropriate.

Guidelines

1. Road surfacing or hardening should be encouraged in areas of high use and evident resource damage. Both parking location and access roads should be considered.

2. Fire circles should not exceed one per campsite. Restrictions to require the use of fire pans or contained fires may be necessary and should be considered in the area management plan.

3. When portable toilet units are used, they shall be placed away from water and must be packed out when use has ended.

4. Garbage disposal should be accomplished using the Pack In-Pack Out program.

Production of Commodity Resources

GRAZING MANAGEMENT

Guidelines

1. Explore opportunities to reduce the level of grazing in the East Mink Creek area on an opportunity basis.

2. New livestock watering facilities, corrals, and holding pastures within these lands are not allowed.

TIMBER

Standard

1. These lands are not included in the suitable timber base and do not contribute to the Allowable Sale Quantity (ASQ).

CATEGORY 5

Category 5 –Lands where Category 5 prescriptions are applied are generally forested ecosystems that are managed to meet a variety of ecological and human needs.

PRESCRIPTION 5.2 (b, c, and f) – FOREST VEGETATION MANAGEMENT

The emphasis in this prescription is on scheduled wood-fiber production, timber growth, and yield while maintaining or restoring forested ecosystem processes and functions to more closely resemble historical ranges of variability with consideration for long-term forest resilience. Goods and services are provided within the productive capacity of the land. The quantity of goods and services produced may or may not fully meet demand. Amenity values are provided for. Investments made in these areas for timber production, such as road systems and silvicultural improvements and the value of the timber for wood production, receive consideration prior to the use of fire.

Livestock grazing is allowed but considers the need for forested vegetation regeneration and is compatible with achieving the desired conditions and goals of this prescription. Recreation site development may be limited to the degree it is compatible with achieving desired conditions.

Overall, visitors will notice many signs of people. A road system and timber harvest activity occurs in these areas. The main road system is gravel-surfaced and maintained with gentle grade. Visitors may see timber harvest equipment on roadsides and meet logging traffic along the roadway. Road densities and design are compatible with multiple resource values including watershed, fish, wildlife, and recreation. Motorized use is prevalent, both for timber management activities and recreation.

Both high and low-standard branch roads with native and gravel surfaces are visible. Many of these low-standard roads are closed annually or seasonally to vehicle access. Some branch roads remain open for public access, commodity production and Forest Service administrative use. Firewood is available, as designated on fuelwood maps, from live and dead trees, designated aspen areas, and from slash and logs decked for that purpose.

The forest is a mosaic of different sizes, ages, and heights. Older, taller trees tend to dominate the landscape, but openings with smaller trees are obvious. Recently cut areas show tree stumps, slash and disturbed soil. Recently cut areas have a partial canopy of older trees where feasible. Older clear-cut areas have seedlings, saplings, poles, and older trees and have a less disturbed appearing forest floor. Dead trees from insect and disease infestation are seen in older stands and scattered throughout the forest.

Visitors may see a variety of wildlife species. During the summer and fall, visitors may see cattle or sheep and notice signs of management practices such as burning, spraying, fences, cattle guards, water developments, and gates. Visitors may see livestock within streamside riparian areas and on nearby slopes. Away from the streams, visitors may see scattered groups of livestock.

Goals

1. Lands are managed to emphasize the cost-effective production of timber its land capability and capacity.

2. Timber values are protected through fire suppression and insect and disease management.

3. Where aspen exists on suitable timber land, it will be maintained at the current level on the landscape.

Objective

1. Offer an Allowable Sale Quantity of 5,200 CCF (2.7 MMBF) of sawlogs and other commercial products each year.

Ecological Processes and Patterns

DISTURBANCES

Guideline

1. Practices to prevent or control natural disturbances, such as insect and disease losses and wildfire, are emphasized.

FIRE/FUELS

Guidelines

1. Wildfires should be suppressed.

2. Prescribed fire may be used to reduce fuel loading; obtain natural regeneration; for wildlife habitat improvement; and for other purposes that meet the goals of this prescription.

Biological Elements

WILDLIFE

Guideline

1. Maintain snag habitat at =40 percent of the biological potential for woodpeckers.

VEGETATION

Guidelines

1. Where aspen exists, it should be maintained or enhanced as a component through restoration treatments.

2. All ground-disturbed areas within an activity area should be monitored for five years for noxious weeds invasions.

Forest Use and Occupation

ACCESS

Standards

1. The following table defines access allowable under prescription **5.2 (b)**

Table (b)

Season	Type of Access
Snow free season	Motorized use allowed only on designated roads and trails
Snow Season	Cross-country motorized allowed

SOME SITE SPECIFIC EXCEPTIONS MAY APPLY, TRAVEL PLAN MAPS SUPERCEDE THIS DIRECTION.

2. The following table defines access allowable under prescription **5.2 (c)**

Table (c)

Season	Type of Access
Snow free season	Cross-country motorized use allowed
Snow Season	Cross-country motorized use allowed

SOME SITE SPECIFIC EXCEPTIONS MAY APPLY, TRAVEL PLAN MAPS SUPERCEDE THIS DIRECTION.

3. The following table defines access allowable under prescription **5.2 (f)**

Table (f)

Season	Type of Access
Snow free season	Motorized use allowed only on designated roads and trails
Snow Season	Non-motorized

SOME SITE SPECIFIC EXCEPTIONS MAY APPLY, TRAVEL PLAN MAPS SUPERCEDE THIS DIRECTION.

RECREATION

Guideline

1. Avoid and mitigate impacts to recreation facilities and trails.

SCENIC RESOURCES

Guideline

1. Opportunities to improve scenic integrity should be considered in proposed vegetation treatments.

Production of Commodity Resources

RANGE

Guideline

1. Livestock grazing may be allowed on transitory forage produced following timber harvest where and when that use would not conflict with regeneration and restoration efforts.

Standards

1. Lands in this prescription are included in the suitable timber base and contribute to the Allowable Sale Quantity (ASQ).

2. The ASQ attributed to stands on slopes between 40% and 60% and areas within Inventoried Roadless Areas is a noninterchangeable component[29] (NIC).

Guidelines

1. Harvest and treatment residues should be made available for firewood and other products in a manner compatible with site preparation, productivity, and restocking requirements. Designated aspen areas should be made available for firewood.

2. All forms of timber harvest, including salvage, to achieve stated goals and objectives are permitted.

[29] A portion of the ASQ which cannot be substituted for from other areas or species types. Volume programmed from a NIC will not be replaced by volume from other areas of the Forest

CATEGORY 6

Lands where Category 6 prescriptions are applied are primarily non-forested ecosystems that are managed to meet a variety of ecological and human needs. Ecological conditions are maintained with an emphasis on selected biological structures and compositions that consider the range of natural variability. These lands often display high levels of investment, use and/or activity, density of facilities, and evidence of vegetation manipulation activities. Facilities that support various resource uses are common. Motorized transportation is common, but some seasonal restrictions may occur.

PRESCRIPTION 6.2 (b, e, f) – RANGELAND VEGETATION MANAGEMENT

The purpose of this management prescription is to achieve and maintain healthy rangelands for livestock forage production and watershed conditions. This prescription focuses on maintaining and restoring rangeland ecosystem processes and functions to achieve sustainable resource conditions. Lands included in this prescription are mostly non-forested. Management is designed to restore non-forested vegetation to be closer to the historic range of variability while contributing to social and economic needs of people. Activities include a full range of land and resource treatment activities designed to achieve restoration goals, including but not limited to watershed restoration, thinning, prescribed fire, wildfire for resource benefit, and noxious weed treatments. Restoration goals are also achieved by allowing natural processes to occur. Livestock use of forage may be limited to meet requirements of wildlife, riparian, watershed, water quality, or other goals.

Cattle, sheep, horses and perhaps other domestic livestock can often be seen. Important seasonal ranges for big game animals exist in many of these areas. Not all areas are grazed by domestic livestock: some areas may be reserved for wildlife and watershed restoration work. Range improvements, such as fencing, corrals and water developments are present. Roads, trails, and stock facilities exist. A variety of rangeland vegetation successional stages can be observed. Herders, range riders, camps, and transport vehicles may be seen at various times and places. Dispersed recreation activity occurs throughout these areas.

Goals

1. Maintain and restore ecological processes and functions of rangeland ecosystems.

2. Provide forage on a sustained-yield basis that meets rangeland values and wildlife habitat.

3. While designing management activities to meet restoration objectives, make forage and other commodity products available for purchase, to the extent possible to (1) support economic activity important to rural and tribal communities and local governments and (2) to achieve restoration objectives in an efficient and cost effective way.

4. Increase the geographic extent and connectivity of rangeland cover types and structural stages that have declined from the historic to the current period on sites where they can be sustained.

Objective

1. Continue intensive weed management in Black Canyon to reduce the frequency and density of leafy spurge.

Biological Elements

WILDLIFE

Standard

1. Maintain snags at = 40 percent of biological potential for woodpeckers.

VEGETATION

Guideline

1. Focus vegetation treatments in those communities that have departed from their historical range of variability.

Forest Use and Occupation

ACCESS

Standards

1. The following table defines access allowable under prescription **6.2 (b)**

Table (b)

Season	Type of Access
Snow free season	Motorized use allowed only on designated roads and trails
Snow Season	Cross-country motorized allowed

SOME SITE SPECIFIC EXCEPTIONS MAY APPLY, TRAVEL PLAN MAPS SUPERCEDE THIS DIRECTION.

2. The following table defines access allowable under prescription **6.2 (e)**

Table (e)

Season	Type of Access
Snow free season	Non-motorized travel only allowed
Snow Season	Cross-country motorized allowed

SOME SITE SPECIFIC EXCEPTIONS MAY APPLY, TRAVEL PLAN MAPS SUPERCEDE THIS DIRECTION.

3. The following table defines access allowable under prescription **6.2 (f)**

Table (f)

Season	Type of Access
Snow free season	Motorized use allowed only on designated roads and trails
Snow Season	Non-motorized

SOME SITE SPECIFIC EXCEPTIONS MAY APPLY, TRAVEL PLAN MAPS SUPERCEDE THIS DIRECTION.

RECREATION

Guideline

1. Recreation facilities, which are not detrimental to livestock management, may be provided.

Production of Commodity Resources

TIMBER

Standard

1. These lands are removed from the suitable timber base and do not contribute to the Allowable Sale Quantity (ASQ).

CATEGORY 8

Lands where Category 8 prescriptions are applied are likely to be permanently altered by human activities beyond the level needed to maintain natural appearing landscapes and ecological processes. These land areas are generally small. Ecological values are protected where they affect the health and welfare of human occupancy. Mines, utility corridors or other concentrated uses are included in this prescription category. Human activities are generally commercial in nature and directly or indirectly provide jobs and incomes. Motorized transportation is common.

PRESCRIPTION 8.1(b) - CONCENTRATED DEVELOPMENT AREAS

This prescription applies to all existing concentrated developments including communication sites, utility corridors, and administrative sites. Concentrated development is normally small, but may be extensive. A wide variety of vegetation and landtypes may be present. These 8.1 Prescription Areas are generally not mapped on the Management Prescription maps because of their small size.

These lands are generally highly developed areas with much evidence of people, structures, roads, and often, disturbed ground. High noise levels sometimes emanate from these sites due to the use of heavy equipment or blasting at various times. Administrative sites are collections of buildings and storage structures from which the administration of the National Forest is carried out. Some closed gates and restrictions on travel may be present in order to protect equipment and development.

Goal

1. Allow concentrated development in small areas for development and infrastructure needs.

Ecological Processes and Patterns

FIRE/FUELS

Standard

1. All wildland fire shall be aggressively suppressed.

Guideline

1. Mechanical treatments would be preferred in these areas.

Physical Elements

LANDS

Guidelines

1. Energy/utility corridors should be no more than 600 feet in width.

2. Restrict development of concentrated development sites to the smallest area possible.

Biological Elements

WILDLIFE

Standards

1. Biological potential for woodpeckers is not a management consideration.

2. Where existing powerlines or electronic/communication sites are found to be adversely affecting raptor or landbird populations, work with the appropriate company to correct the problem.

NOXIOUS WEEDS

Standard

1. When use is permitted, noxious weeds shall be controlled by the permittee.

Forest Use and Occupation

ACCESS

Standard

1. The following table defines access allowable under prescription **8.1(b)**:

Table (b)

Season	Type of Access
Snow free season	Motorized use allowed only on designated roads and trails
Snow Season	Cross-country motorized allowed

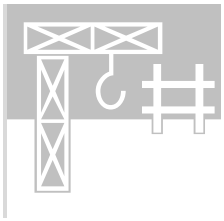
SOME SITE SPECIFIC EXCEPTIONS MAY APPLY, TRAVEL PLAN MAPS SUPERCEDE THIS DIRECTION.
CROSS-COUNTRY ACCESS NOT ALLOWED, EXCEPT AS AUTHORIZED IN SITE-SPECIFIC DIRECTION

Production of Commodity Resources

TIMBER

Standard

1. These lands are removed from the suitable timber base and do not contribute to the Allowable Sale Quantity (ASQ).



CATEGORY 8.2

Significant phosphate mineral reserves are present in areas of the Forest. The Mineral Leasing Act of 1920, as amended, and ensuing regulations at 43 CFR 3500 govern the development of these mineral resources. Under this act and ensuing regulations, the Bureau of Land Management (BLM) is the designated Federal agency having the authority to issue or modify Federal phosphate leases and/or approve exploration and development activities on those leases. Where National Forest System Lands are involved, the Forest Service provides the BLM with formal recommendations for lease issuance and development proposals. Conditions of approval and/or mitigation measures to be applied to the leases or operations are determined through the NEPA process. The Forest Service issues special use authorizations for those portions of the operations that lie outside lease boundaries. Off-lease mine related facilities could include portions of haul roads, power lines, communication sites, etc. However, the permanent disposal of mine overburden solid waste products is no longer permitted on FS special use authorizations (36 CFR 251.54).

When a Federal Phosphate lease is issued, it conveys to the lessee the rights to explore for and extract the phosphate resources contained in the lease, subject to existing laws and regulations. Currently there are 46 existing Federal Phosphate leases (or portions of leases) on NFS lands within the Caribou NF boundary, totaling over 25,000 acres. Some of these leases were issued as long ago as 1948. Several existing leases on NFS lands have been mined out and reclaimed. One has been relinquished by the lessee and is entirely under NFS management. There are three active mining operations on the Forest. One of these mines was recently expanded and another mine will expand onto the Forest in the near future. The remaining leases are awaiting development, subject to demand and favorable economic conditions.

This Forest Plan does not approve any mining operations. Approval of phosphate mining activity on the Forest is granted by the BLM after consultation with the Forest Service, and other regulatory agencies, and through a site-specific environmental analysis process.

PRESCRIPTION 8.2.1 – INACTIVE PHOSPHATE LEASES

This prescription applies to existing Federal phosphate leases that have not been developed and do not have a current proposal for development and Known Phosphate Lease Areas (KPLAs). Until developed, these lands will generally resemble adjacent areas with a variety of vegetation types and management activities. Visitors may notice new roads and disturbances associated with mining exploration. These roads would be closed to public access. There may be an increase in human activities as phosphate lease holders explore the resources. Drill pads and equipment may be present in localized areas. To allow exploration, road density limits from underlying prescriptions do not apply. Exploration activities and road construction would be allowed, subject to NEPA analysis.

Associated mine development decisions would be made considering the Forest Plan Standards and Guides and the site-specific NEPA analysis prepared for the proposed activity, both on-lease and on adjacent lands (i.e. those covered by a mining related Special Use Authorization). Following appropriate environmental analyses and mine plan approval, these lands will be managed according to management prescription 8.2.2.

Biological Elements

WILDLIFE

Standard

1. Biological potential for woodpeckers is not a management consideration.

Forest Use and Occupation

ACCESS

Standards

1. Road construction and reconstruction shall be allowed, as discussed in the Roads Analysis for the Forest Plan Revision, to provide for exploration and other activities incident to mining.

2. Road construction shall be the minimum amount necessary to allow exploration of phosphate reserves.

3. Public access shall be excluded on newly constructed roads during exploration activities. Those roads shall be physically closed when no longer needed.

Guideline

1. Open motorized route density standards may be exceeded to allow exploration of phosphate reserves.

PRESCRIPTION 8.2.2(g) - PHOSPHATE MINE AREAS

This prescription applies to Federal phosphate lease areas where mining, post mining reclamation, or exploration is taking place. Generally, public access to these areas is restricted due to safety concerns. Visitors will see increased human activities including vehicles, earth moving equipment, and buildings. Open pits and overburden dump sites may be visible during mining. Large haul roads will be present but be closed to public access. After mining, there may be evidence of reclamation efforts including erosion control structures, non-native vegetation, pit highwalls, and reclaimed roadbeds.

This prescription allows for the exploration/development of existing leases. Site-specific mining and reclamation plans developed by the mining industry are jointly reviewed and evaluated by the Forest Service, BLM, and regulatory agencies through the environmental analysis process. Conditions of approval and stipulations to conduct mining and reclamation follow an adaptive approach, i.e. current Best Management Practices (BMPs) are utilized, but changes could occur over time as monitoring and research indicate. BMPs are refined and updated based on the most current technologies, monitoring, and science. Continuing research and monitoring by industry, government agencies and academia will demonstrate BMP effectiveness to control/eliminate the release of hazardous substances from mining sites. Research activities and monitoring are designed to provide guidance in achieving long range reclamation goals. This is a dynamic process that will ensure that latest technologies, monitoring, and science are used for mining and reclamation activities. Management practices can be implemented during operations once design specifications are provided and monitoring is developed to validate their effectiveness. Lands previously mined will be investigated using a "National Contingency Plan" compliance process to determine if current site conditions lead to a release of hazardous substances. Monitoring would be established for those sites. Non-compliance issues would be addressed using Forest Service authorities granted in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

> ***The Forest-Wide Standard and Guidelines listed in Chapter 3 of this Revised Forest Plan under the "RECLAMATION OF MINED/DRASTICALLY DISTURBED LANDS" section also apply to phosphate mining activities.***

Goals

1. Provide for phosphate resource development with consideration given to biological, physical, social, and economic resources.

2. Mining and reclamation plans are designed to prevent the release of hazardous substances into the environment in excess of regulatory standards. Monitor mine sites for compliance with State and Federal regulatory standards.

3. Reclaim mined lands to maintain or re-establish hydrologic function, integrity, and other surface resource values within the capability of affected lands.

4. Emphasize topsoil management and the use of suitable, available topsoil and select subsoils for reclamation of mined lands.

5. Emphasize the use of native plant species in reclamation but allow the use of nonnatives when natives will not achieve reclamation goals.

6. Emphasize reclaiming mined lands to a stable topographic relief that conforms visually to natural surroundings.

7. Design final reclamation that promotes long-term diversity in vegetation, wildlife habitat and topography when not in conflict with mitigation measures designed to prevent the release of hazardous substances.

8. Develop, refine, and implement management practices to prevent the release of hazardous substances into the environment that exceed state and/or federal standards and ensure adequate reclamation to meet post-mining land uses.

Objectives

1. Implement new management practices when phosphate mine and reclamation plans are developed or modified.

2. Within three years of signing the ROD, negotiate Administrative Orders on Consent under CERCLA on known contaminated sites where the Forest Service is the lead agency per the Interagency MOU dated July 2000.

3. Within ten years of signing the ROD, implement cleanup strategies for known contaminated sites described above.

Physical Elements

SOILS AND WATER

Standards

1. Work cooperatively with the Idaho Division of Environmental Quality, the EPA, and BLM to develop suitable water quality monitoring criteria for mining activities.

2. Water management plans shall be required for all active mining operations.

3. Baseline, concurrent and/or post-mining water quality and aquatic habitat monitoring (both surface and groundwater) that provide a statistically valid characterization shall occur at all phosphate mine sites (where the reclamation bond has not been released) as described in an approved monitoring plan.

4. Overburden and soil materials shall be managed according to state-of-the-art protocols to help prevent the release of hazardous substances in excess of state and/or federal regulatory standards.

MINERALS

Standards

1. Review reclamation plans and bonds annually on active mining operations and update if necessary.

2. Vegetation monitoring to determine reclamation success on reclaimed sites shall be conducted annually and reported to the Forest Service by the operator until reclamation is accepted and the reclamation bond is released.

3. Where bioaccumulation of hazardous substances is a concern, design reclamation plant lists to include species that minimize uptake of hazardous substances.

4. Reclaim disturbed areas concurrent or within one year after the lands become available for reclamation. Use state-of-the-art protocols, including BMPs, in designing and implementing reclamation plans.

5. Reclamation plans shall include measures to remediate the presence of petroleum products in soils. Before reclamation, soils under and around equipment maintenance facilities shall be tested for petroleum products and appropriately treated.

Guidelines

1. New information from the Selenium Area-wide Advisory Group and other sources should be incorporated as it becomes available. Existing plans and future proposals should be consistent with the most current science and research.

2. Structures should be removed from National Forest System lands or relocated according to approved plans.

3. Selection of plant species for establishment should reflect the surrounding ecosystem and post remedial land use. Plant materials used should be adapted to the climate of the site. Consideration and preference should be given to promoting natural succession, native plant species, and structural diversity.

4. Non-native species may be used in project seedings where native species would not meet the reclamation goals for the site, such as erosion control or bioaccumulation of hazardous substances. If used, they should be short-lived species.

5. BMPs for Mining in Idaho, provided by the Idaho Department of Lands, is a resource to consult to help control sediment from mine sites. Additional BMPs, developed through ongoing research, experimentation, and monitoring to manage the release of hazardous substances, should be used in planning mining and reclamation operations.

Biological Elements

WILDLIFE

Standard

1. Snag habitat for woodpeckers shall not be a management consideration.

Guidelines

1. Mining operations should be designed to accommodate big game migration.

2. Reclamation should be designed to minimize wildlife exposure to hazardous substances.

3. Consider vegetation species that contribute to wildlife habitat needs when developing reclamation plans and create wildlife structures (slash piles, logs, rock piles) using native vegetation and materials to provide habitat diversity in created openings, where possible.

4. Encourage construction of ledges on suitable highwalls to accommodate cliff-dwelling species.

Forest Use and Occupation

ACCESS

Standard

1. The following table defines access allowable under prescription **8.2.2** (g)

Table (g)

Season	Type of Access
Snow free season	Public Access Restricted
Snow Season	Public Access Restricted

SOME SITE SPECIFIC EXCEPTIONS MAY APPLY, TRAVEL PLAN MAPS SUPERCEDE THIS DIRECTION.

2. Road construction and reconstruction shall be allowed, as discussed in the Roads Analysis for the Forest Plan Revision, to provide for mine development.

3. Road construction shall be the minimum amount necessary to allow mine development.

Guidelines

1. Open motorized route density standards may be exceeded if necessary to allow development of phosphate reserves.

2. Roads should be obliterated following mining activities unless site specific analysis determines that the road is needed for Forest management or public access.

Production of Commodity Resources

LIVESTOCK GRAZING

Guideline

1. These areas may be opened to grazing after meeting the restoration criteria identified in the mine reclamation plan.

Chapter

5 Implementation and Monitoring

Implementation, Monitoring, and Evaluation

This Chapter generally outlines the implementation schedule and monitoring requirements for the Forest Plan. We have displayed the implementation as the objectives to be met.

This Part provides programmatic direction for monitoring and evaluating management plan implementation as required by NFMA (36 CFR 219.11 *inter alia*). Monitoring provides the Forest Supervisor with the information necessary to determine whether the Revised Forest Plan is sufficient to guide management of the Caribou NF for the subsequent year or whether modification of the plan is needed.

Implementation Strategy

The implementation of this Revised Forest Plan is displayed in this table of objectives and timeline for meeting those objectives. This schedule will be used to help design the program of work for each resource group. It will also be used to assist budget allocations each year.

Our evaluation and monitoring strategy involves both an overall program of monitoring what we can and "what we cannot" afford in all aspects of our management to learn as much as we can. This effort will be shared with the public via our monitoring website. Our approach to monitoring begins also provides specific focus on the Forest Planning process to focus-in on a key aspects of decisions made and key aspects of systems that may tend toward "out-of-kilter" or other undesired outcomes related to system function, structure, and composition.

Finally, we recognize that much of the systems focus for adaptive management comes to the forest through assessment and policy efforts that happen at scales broader than the forest. Although forest specialists may participate in these broader efforts on occasion, mainly such efforts will influence forest management through the interaction of forest practitioners and interested public interest groups (government and non-government) deliberating plans and polices as they are likely to affect the forest. Monitoring systems on the forest and at scales broader than the forest by various participants will help better understand the interplay of management actions and systems dynamics in various social and ecological systems.

■ **Table 5.1 Revised Forest Plan Objectives and Schedule of Implementation.**

Objective	Annually	Year									
		1	2	3	4	5	6	7	8	9	10
PROPERLY FUNCTIONING CONDITION (PFC)											
1) Within 10 years of signing of the Record of Decision (ROD), reassess composition and structure and other indicators used in the Caribou Sub-regional Properly Functioning Condition Assessment. This should include the Caribou and adjacent areas to determine changes achieved.											●
2) Within 5 years of signing the Record of Decision (ROD), re-assess distribution and extent of non-forested vegetation canopy cover classes and compare to the Caribou's Sub-regional Properly Functioning Condition assessment to determine progress towards desired conditions.						●					
FIRE											
1) Develop and implement at least one wildland fire use plan each year at the subsection scale. Priority should be given to the ecological subsections where this activity is emphasized	●										
2) Within 1 year of signing the ROD, develop and begin implementation of a prioritized strategy for wildland/urban interface projects in the ecological subsections where this activity is emphasized.		●									
LANDS											
1) Identify land adjustments and rights-of-way to improve management, public access, and/or wildlife connectivity annually.	●										
2) Within two years of signing the ROD, identify and prioritize areas for land ownership adjustment.			●								
MINERALS AND GEOLOGY											
1) The Forest will annually consult with Idaho Department of Water Resources on which streams on the Forest will be open or closed to the State's one-stop permits for 'recreational dredging' activities.	●										
2) Conduct annual reviews of Best Management Practices (BMPs) and make appropriate adjustments to ensure that hazardous substance releases do not exceed state and/or federal standards.	●										

Objective	Annually	Year									
		1	2	3	4	5	6	7	8	9	10
WATERSHED AND RIPARIAN RESOURCES											
1) Each year, complete at least one Watershed Assessment for a 5th HUC watershed. Incorporate Hydrologic Condition Inventories using *A Framework for Analyzing the Hydrologic Condition of Watersheds* or current equivalent Regional or National guidance.	●										
2) Within two years of signing the ROD, update and prioritize projects in the Forest's Watershed Improvement Needs Inventory (WINI). Add new watershed improvement projects identified through the watershed analysis process.			●								
VEGETATION											
1) Within five years of signing the ROD, identify and prioritize rangeland sites dominated by monocultures, especially tarweed and mules' ears. Develop restoration and monitoring strategies for the highest priority areas within the planning period.						●					
2) Within eight years of signing the ROD, identify and inventory existing tall forb cover types on the Forest.									●		
3) Within two years of signing the ROD, map sagebrush canopy cover classes across the Forest to use when designing treatments.			●								
4) Treat an average of 4,000 acres of sagebrush per year, primarily in the >25% canopy cover class, to move towards the historical range of variation in structure and composition.											●
5) Within ten years of signing the ROD, harvest mature aspen for wood products and to rejuvenate and restore young aspen on 2,500 acres.											●
6) Within ten years of signing the ROD, use prescribed fire and/or mechanical treatments to rejuvenate and restore young aspen on 20,000 acres.											●
PLANT SPECIES DIVERSITY											
1) Within one year of signing the ROD, develop a "Forest Watch" list for rare plants suspected or known to occur on the Forest.		●									
3) Within two years of the signing the ROD, develop Revegetation Guidelines for the Forest, with an emphasis on the use of native plant species.			●								
SPECIAL FOREST PRODUCTS											
1) Within 1 year of signing the ROD, develop Special Forest Products (SFP) Guidelines for the Forest.		●									

Objective	Annually	Year									
		1	2	3	4	5	6	7	8	9	10
WILDLIFE											
1) Wolverine Habitat. Within two years of signing the ROD, complete a GIS analysis to identify potential wolverine natal den sites. Within four years of the ROD, survey potential wolverine natal den sites to document wolverine presence and assess suitability as natal denning habitat.			●		●						
2) Harlequin Duck Habitat. Within five years of signing the ROD, complete surveys of McCoy Creek and other likely habitat to document Harlequin duck presence.						●					
3) Spotted Bat and Western-Big-eared Bat Habitat. Within five years of signing the ROD, develop management plans for any caves, mine shafts, and other suitable habitats where these bat species are known to be present.						●					
4) Canada Lynx Habitat. Within three years of signing the ROD, complete surveys on the Soda Springs and Montpelier Ranger Districts.				●							
5) Pygmy Rabbit Within ten years of signing the ROD, work with Idaho Fish and Game to resurvey known historic pygmy rabbit ranges on the Forest to determine whether they are still present and/or the habitat is still suitable.											●
6) Bald Eagle Within three years of the signing the ROD, develop nest management plans for existing known territories. Plans will be developed for new territories within three years of discovery.				●							
7) Sage Grouse Within five years of signing the ROD, map functional and degraded sage grouse nesting and winter habitat within 5 miles of known leks. Identify opportunities to increase quality or quantity of that habitat.						●					
8) Riparian Habitat Within ten years of signing the ROD, cooperate with State wildlife management agencies to develop a plan identifying watersheds on the Forest where beaver can be transplanted. Prioritize transplant locations in drainages where historical beaver complexes have been lost.											●
9) Migratory Landbirds Within five years of signing the ROD, establish breeding bird trend plots to monitor changes in breeding birds in relation to structure or shrub riparian habitats. Once established, reread plots every three years						●					

Objective	Annually	Year									
		1	2	3	4	5	6	7	8	9	10
10) Amphibians Repeat amphibian surveys at 10 year intervals to determine habitat and population trends. Surveys potential habitat.											●
11) Boreal toads Within 2 years of signing the ROD, assess the potential for impacts to breeding boreal toads from migratory movements across Tincup Highway and impacts from trampling by recreational activities and fishing at the site. If problems are found, identify and implement measures to mitigate impacts.			●								
TRIBAL COORDINATION											
1) Within 2 years of the signing of the ROD, develop a protocol for consultation process with all Federally recognized tribes for undertakings that involve Native American heritage resources and traditional use areas.			●								
2) Within 2 years of the signing of the ROD, develop an agreement that tiers to Treaty Rights and addresses Forest use, occupation, and products.			●								
FACILITIES (Recreation buildings, water systems, sewer systems, etc.)											
1) Within one year of signing the ROD, update the Facilities Master Plan. The Master Plan identifies which facilities will be retained, acquired, decommissioned, or reconstructed for new uses.		●									
2) Within one year of completion of the Facilities Master Plan, transition plans will be completed for all facilities identified for retention that are not accessible			●								
3) Within five years of completion of the Facilities Master Plan, inventory, evaluation and protection strategies will be completed for properties identified as historic.							●				
FACILITIES – Transportation System											
1) Within three years of signing the ROD, initiate site-specific travel planning to incorporate Revised Forest Plan direction on access management.				●							
2) Within five years of signing the ROD, road management objectives (RMOs) will be developed or updated for all classified National Forest System roads.						●					
RECREATION											
1) Within one year of signing the ROD, revise seasonal camping stay limits as needed to meet management goals.			●								
2) Within three years of signing the ROD, complete the Recreation Facilities Master Plan. For sites that are not accessible, transition planning will be included in the Master Plan.				●							

Objective	Annually	Year									
		1	2	3	4	5	6	7	8	9	10
3) Within two years of signing the ROD, identify developed recreation sites with priority vegetation management needs, and develop vegetation management plans to address those needs.			●								
SCENIC RESOURCES											
1) Within three years of signing the ROD, change Visual Quality Objectives (VQOs) in accordance with the Scenery Management Handbook 701 and adopt Scenic Integrity Objectives.						●					
HERITAGE RESOURCES											
1) Inventory 2000 to 5000 Forest acres per year to locate and identify archaeological and historic properties.	●										
2) Within five years of signing the ROD, develop a predictive model to guide the design and completion of cultural resource inventories.						●					
3) Complete a systematic evaluation of historical buildings by 2020.											●
4) Within two years of signing the ROD, develop a Cultural Resources Overview.			●								
GRAZING MANAGEMENT											
1) By 2010, complete NEPA decision documents on all allotments as specified in the Recission Act schedule (Section 504 of Public Law 104-19).									●		
2) Within one year of the signing of the ROD, incorporate the riparian grazing standards into livestock grazing permits and annual operating instructions.			●								
TIMBER MANAGEMENT											
1) Offer a Total Sale Program quantity of 9,800 CCF (5.1 MMBF) of forest products within 10 years of signing the ROD. This includes the Allowable Sale Quantity (ASQ), conifer sawlogs which are not part of the ASQ, aspen sawlogs and all other products.	●										
2) Within 10 years of the signing of the ROD, achieve timber stand improvement on at least 3,600 acres.											●
Rx 2.1.4 CARIBOU MTN SPECIAL EMPHASIS AREA											
1) Within five years of signing the ROD, complete a plan for interpretation of the historic mining areas.						●					
2) Within two years of signing the ROD, identify opportunities to restore the fisheries values in McCoy Creek.			●								
3) Within two years of signing the ROD, withdraw appropriate areas within this prescription from mineral entry under the 1872 Mining Law, as amended.			●								

Objective	Annually	Year									
		1	2	3	4	5	6	7	8	9	10
Rx 2.1.5 LANDER TRAIL SPECIAL EMPHASIS AREA											
1) Within five years of signing the ROD, complete a plan for interpretation and preservation of the historic features.						●					
Rx 2.1.6 GRAVEL CREEK SPECIAL EMPHASIS AREA											
1) Coordinate a review of the status of the property with Idaho Department of Transportation, Federal Highway Administration, and the Army Corps of Engineers every three years.				●			●			●	
Rx 2.7.1 BIG GAME WINTER RANGE											
1) Within two years of signing the ROD, begin vegetation condition assessments on Prescription 2.7.1 (critical) Big Game Winter Ranges in cooperation with Idaho Fish and Game. Implement action where they are needed to improve low quality or declining winter range.			●								
Rx 2.8.3 AQUATIC INFLUENCE ZONES											
1) Five years after the signing of the ROD, reevaluate riparian properly functioning condition (PFC) at the stream level, to determine rate of movement towards desired future conditions.						●					
2) Every ten years, resurvey fish-bearing streams for fish distribution, introgression, and non-native species invasion.											●
3) Within five years of the ROD, evaluate all existing small hydroelectric projects not regulated by FERC for consistency with AIZ direction.						●					
Rx 3.3 SEMI-PRIMITIVE RESTORATION											
1) Within three years of the signing of the ROD, prioritize areas for restoration.				●							
Rx 5.2 FORESTED VEGETATION MANAGEMENT											
1) Offer an Allowable Sale Quantity of 5,200 CCF (2.7 MMBF) of sawlogs and other commercial products each year.				●							
Rx 6.2 RANGELAND VEGETATION MANAGEMENT											
1) Continue intensive weed management in Black Canyon to reduce the frequency and density of leafy spurge	●										
Rx 8.2.2 PHOSPHATE MINE AREAS											
1) Implement new mgt practices when phosphate mine and reclamation plans are developed or modified.	●										
2) Within three years of signing the ROD, negotiate Administrative Orders on Consent under CERCLA on known contaminated sites where the Forest Service is the lead agency per the Interagency MOU dated July 2000.				●							
3) Within ten years of signing the ROD, implement cleanup strategies for known contaminated sites described above.											●

FOREST 10 YEAR TIMBER ASQ OFFER SCHEDULE

Table 5.2, displays the timber sale program by watershed over the first ten years of the revised forest plan. Volumes are shown in thousand board feet (MBF) and hundred cubic feet (CCF). Miles of road construction and reconstruction are based on an estimate of approximately 1 mile per million board feet of timber offered. These figures represent an estimate of how the Forest allowable sale quantity will be achieved and will change as new information becomes available. Some of these sales may not occur while other sales not identified may occur.

- **Table 5.2 Predicted Timber Sale Program Schedule by PWI Watershed.**

Year	Sale Name	Volume (MBF/ CCF)	Area (Acres)	District	Location (PWI Watershed)	Miles of Road Construction (C) Reconstr. (R)	Harvest Methods
2003	Sale 1-03	185/351	85	55	16		Shelterwood and Commercial Thin
	Sale 2-03	1375/2626	280	55	16		Shelterwood and Commercial Thin
2004	Sale 1-04	1825/3490	300	53	3	1C, 1R	Group Seed Tree
	Sale 2-04	1825/3508	300	53	11,12,13,15	2C, 3R	Group Seed Tree
	Sale 3-04	1825/3508	300	55	3,16	1.5R	Group Seed Tree
2005	Sale 1-05	920/1745	230	55	16	1.5R	Group Seed Tree
	Sale 2-05	1370/2618	230	53	6	1C,3R	Group Seed Tree
2006	Sale 1-06	460/877	200	55	7	1C, 1R	Shelterwood and Commercial Thin
	Sale 2-06	460/877	175	55	16		Shelterwood and Commercial Thin
	Sale 3-06	2740/5235	500	53	11,12	1C, 1R	Group Seed Tree
2007	Sale 1-07	460/877	175	55	16		Shelterwood and Commercial Thin
	Sale 2-07	1370/2618	220	53	2	2C	Group Seed Tree
2008	Sale 1-08	1100/2094	250	55	14	2R	Shelterwood, Clearcut and Group Seed Tree
	Sale 2-08	1370/2618	250	53	3	1C, 1R	
2009	Sale 1-09	1100/2094	230	55	7,8	2C, .5R	Sheltewood, Comm. Thin
	Sale 2-09	1825/3490	300	53	11,12	2C	Group Seed Tree
2010	Sale 1-10	730/1396	240	55	16	1C	Shelterwood, Clearcut and Group Seed Tree
	Sale 2-10	3200/6108	520	53	11,12	4C	Selection and Commercial Thin
2011	Sale 1-11	730/1396	300	55	16	1C	Group Seed Tree and Clearcut
	Sale 2-11	900/1745	340	53	6,16	1C	Group Seed Tree
2012	Sale 1-12	1100/2094	300	55	16	1C	Group Seed Tree and Clearcut
	Sale 2-12	900/1745	340	53	13,15	1.5C	Selection and Commercial Thin
Total		27770/53110	6065			22 C, 13 R	

Monitoring Strategy

Evaluation and Monitoring Strategy

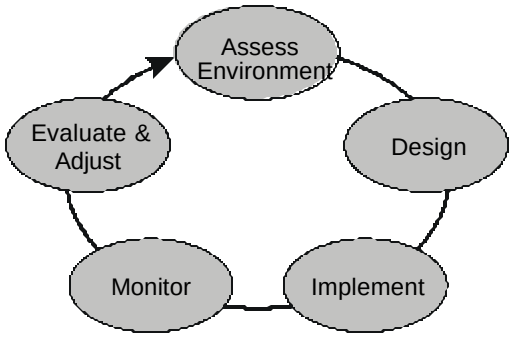
Evaluation and monitoring provide knowledge and information to keep the Forest Plan viable. Appropriate selection of indicators, and monitoring and evaluation of key results helps determine if we are meeting management direction in our Plan. Evaluation and monitoring also help determine if should changes to goals and objectives, or monitoring methods are needed.

Forest planning regulation requires that plans be revised periodically every 10-15 years after plan approval (36 CFR 219.10(g)). Plans need to be dynamic to account for changed resource conditions (e.g. large scale wildfire), new information and science (e.g. taking a systems approach), and changed regulation and policies (e.g. listing of a new species under the Endangered Species Act). Amendments may happen frequently and revision may be required before requirements dictate. Within an adaptive management framework, the need to amend or revise the Forest Plan may result from:

- Recommendations of an interdisciplinary team, based on evaluation and monitoring results
- Direction stemming from an administrative appeal or legal challenge.
- Planning errors found during forest plan implementation.
- Changes in physical, biological, social, or economic conditions.

Evaluation and monitoring are critical to adaptive management. Other component parts include inventory collection, assessment, planning, and implementation. No single component can be isolated from the whole of adaptive management. As illustrated in Figure 1, all phases are needed to learn. Most Forest Plan evaluation and monitoring, however, is focused on learning if the Plan is being implemented; how effective the Plan direction is at meeting desired future conditions on the ground; as well as on how to improve future Forest planning.

Figure 1. An adaptive management learning-loop



This evaluation and monitoring strategy focuses on decisions made in the Record of Decision (ROD) and those required by National Forest Management Act Regulation. The monitoring is broad-based, since the Forest Plan is designed around broad desired future conditions. More specific monitoring elements and guidance will be highlighted in the Forest Monitoring Guide. The Forest Monitoring Guide will be an adaptable protocol that will change if new information warrants a change.

Forest Plan Evaluation and Reports

The Forest Supervisor will maintain monitoring information for public reviews, including internet-based reports, and will evaluate such on a periodic basis to determine, among other things, need for amendment or revision of the Forest Plan. Formal evaluation and reporting will occur every five years, unless the Forest Supervisor deems it necessary that a shorter timeframe is warranted for some evaluations. The five-year review will provide a comprehensive evaluation of information in response to monitoring questions and regulatory review requirements as depicted in Table 5.3.

■ **Table 5.3 Forest Plan Evaluation Expectations**

Focus of Evaluation	Annual Posting of Results?	Five-Year Evaluation Report?
A program of monitoring and evaluation shall be conducted that includes consideration of the effects of National Forest Management on land, resources, and communities adjacent to or near the National Forest being planned and the effects upon National Forest management from activities on nearby lands managed by other Federal or other government agencies or under the jurisdiction of local governments. (36 CFR 219.7(f))		X
… The Forest Supervisor shall review the conditions on the land covered by the plan at least every 5 years to determine whether conditions or demands of the public have changed significantly. (36 CFR 219.10(g))		X
At intervals established in the plan, implementation shall be evaluated on a sample basis to determine how well objectives have been met and how closely management standards and guidelines have been applied. Based upon this evaluation, the interdisciplinary team shall recommend to the Forest Supervisor such changes in management direction, revision, or amendments to the forest plan as are deemed necessary. (36 CFR 219.12(k))		X
Monitoring requirements identified in the forest plan shall provide for—(36 CFR 219.12(k)) [1] A quantitative estimate of performance comparing outputs and services with those projected by the forest plan;	X	
[2]Documentation of the measured prescriptions and effects, including significant changes in productivity of the land; and		X
[3]Documentation of costs associated with carrying out the planned management prescriptions as compared with costs estimated in the forest plan.	X	
[5] A determination of compliance with the following standards: [i] Lands are adequately restocked as specified in the forest plan;		X
[ii] Lands identified as not suited for timber production are examined at least every 10 years to determine if the have become suited; and that, if determined suited, such lands are returned to timber production; {Note: See also 219.14(d): …Designation in the plan of lands not suited for timber production shall be reviewed at least every 10 years. ..}		X
[iii] Maximum size limits for harvest areas are evaluated to determine whether such size limits should be continued; and		X

Focus of Evaluation	Annual Posting of Results?	Five-Year Evaluation Report?
[iv] Destructive insects and disease organisms do not increase to potentially damaging levels following management activities.		X
(a)(6) Population trends of the management indicator species will be monitored and relationships to habitat changes determined. This monitoring will be done in cooperation with state fish and wildlife agencies, to the extent practicable. (36 CFR 219.19 Fish and wildlife resource)	X	X
Terms and conditions or reasonable and prudent measures which result from consultation under Section (a) of the Endangered Species Act	X	X
Effectiveness of mitigation measures and monitoring of risk factors described in the Record of Decision for the Forest Land and Resource Management Plan		X

Monitoring Elements

■ **Table 5. 4 Caribou Revised Forest Plan Monitoring.**

This table contains monitoring elements organized around significant monitoring questions. More in-depth details, such as precision and reliability or specific protocols will be addressed in the Forest Plan Monitoring Guide.

Desired Future Condition	Question to be Answered	Parameter(s) to Monitor	Monitoring Activity	Measure-ment Frequency	Indicator or threshold for mgt change	Reporting Frequency	Priority
Maintenance of Long-term Soil Productivity	Are management activities allowing soils to rebuild?	Woody Residue	Follow requirements for woody residue in Forest-wide Standards and Guidelines.	Before and after treatment on rep. sites	Consistently not meeting standards with projects	Annually	1
	Are management activity areas meeting the Regional Soil Quality Standards?	Surface Erosion	Maintain current erosion tanks to collect baseline surface loss. Correlate to soil temperature, moisture and vegetation cover.	Annually	N/a because to collect baseline	Annually	1
		Detrimental Soil Disturbance	Sample sites where land treatments have occurred for soils that have been displaced, compacted, puddled, or severely burned.	Annually	Consistently exceeding 15% detrimentally disturbed soils for a given activity	Annually	2
Watersheds are within landform capability and provide for aquatic species.	Are habitats on the Forest adequate to provide for all life stages of aquatic species?	Fish habitat conditions	Perform habitat surveys where needed to assess fish habitat condition and trend.	Annually	Habitat conditions outside of desired AIZ attributes	Annually	1
		Fish distribution changes	Repeat surveys on fish bearing streams to determine population status.	Every 10 years	Declines in fish populations due to habitat	Annually	1

Desired Future Condition	Question to be Answered	Parameter(s) to Monitor	Monitoring Activity	Measure-ment Frequency	Indicator or threshold for mgt change	Reporting Frequency	Priority
Watersheds are within landform capability and provide for aquatic species (cont.).	Are standards and guidelines protecting beneficial uses?	Water Quality on WQLS	Monitor improvement of water quality on WQLS using approved methods for the parameter of concern.	Annually	When water quality is either not improving or improved to where the stream can be delisted	5 years	1
		BMP Compliance and Effectiveness	Monitor application of best management practices designed to improve water quality in timber sales and roads.	Annually	If instream beneficial uses are impaired	5 years	3
	How long does it take for habitat types to recover from hydrologic disturbance?	Ground Cover	Evaluate the rate at which habitat types recover sufficient ground cover following hydrologic disturbance.	Annually until baseline rates are est. for each habitat type	N/a	5 years	1
Vegetation Communities are moving towards their historic range of variability in structure, composition, and distribution on the landscape.	Are management activities and wildland fire use moving the Forest towards HRV and improving ecological sustainability?	Aspen: 30-40% mature and old	Measure extent and age-class distribution at various scales.	Every 5 years	Trend towards or away from DFC	5 years	1
		Conifers: 30-40% mature and old	Measure extent and age-class distribution of forested vegetation at various scales.	Every 10 years	Trend towards or away from DFC	10 years	1
		Sagebrush: 30-50% in >15% canopy cover	Measure shrub canopy cover at various scales.	Every 5 years	Trend towards or away from DFC	5 years	1
		Tall forb	Measure tall forb composition and ground cover in areas with a potential to maintain or recover those types.	5 years or as determined by restoration plans	Vegetation composition trend	5 years	1

Desired Future Condition	Question to be Answered	Parameter(s) to Monitor	Monitoring Activity	Measure-ment Frequency	Indicator or threshold for mgt change	Reporting Frequency	Priority
Plant and animal diversity is increased by managing vegetation communities nearer to their HRV.	Are management activities providing adequate habitat to maintain populations of Management Indicator Species?	Columbian Sharp-tailed grouse	1) Monitor lek attendance (IDFG) 2) Monitor changes in habitat conditions from vegetation treatments within 2 miles of leks.	1) Annually 2) Where treated	20% downward trend for sustained period in leks within 2 miles of treatments	Annually	1
		Sage Grouse	1) Monitor lek attendance (IDFG) 2) Monitor changes in habitat conditions from vegetation treatments within 10 miles of leks.	1) Annually 2) Where treated	20% downward trend for sustained period in leks within 10 miles of treatments	Annually	1
		Northern Goshawk	Monitor 1/3 of the known goshawk nest territories yearly for occupancy and productivity	Annually	A sustained downward trend of adult occupancy for 4 years may indicate a need for action.	Annually	1
	Is the Forest providing habitat to assist recovery of listed species, preclude listing or sensitive species, and protect rare species?	Bald Eagle	1) Monitor nest occupation/productivity (State F&G) 2) Monitor trends of winter use	Annually	Failure of an adult pair to occupy a territory for 2 years in a row due to reasons other than spring weather.	Annually	1
		Peregrine Falcon	1) Monitor nest occupancy/ productivity (State F&G) 2) Monitor human use around known aeries.	Annually	Management actions may be addressed if a nest territory is unoccupied for more than 2 consecutive years.	Annually	2

Desired Future Condition	Question to be Answered	Parameter(s) to Monitor	Monitoring Activity	Measure-ment Frequency	Indicator or threshold for mgt change	Reporting Frequency	Priority
Plant and animal diversity is increased by managing vegetation communities nearer to their HRV.	Is the Forest providing habitat to assist recovery of listed species, preclude listing or sensitive species, and protect rare species?	Small Forest Carnivores (lynx, fisher, marten, wolverine	Winter track surveys to determine occupancy, trends	Annually	Sustained downward trend for at least 4 sampling years which is greater than expected for programmed management.	Annually	2
		Forest Owls	Winter (breeding season) calling surveys to determine presence, trends	Annually	Sustained downward trend for at least 4 sampling years which is can be attributed to changes in habitat conditions due to veg. mgt..	Annually	2
		Western big-eared bat	Monitor effectiveness of grate structures	5 years	Evidence of vandalism	5 years	2
		Boreal Toad	Monitor changes in occupancy and habitat in the Tincup drainage.	5 years	A consistent decline in the relative abundance of toads and a downward trend in riparian may trigger mgt action.	5 years	2
		Snag recruitment v. loss from treatment	Using methods such as aerial pest surveys, monitor changes in snag and downed woody densities.	5 years	>10% net loss of snags at the 5th code HUC scale	5 years	2
		Plant species of concern	Surveys to determine presence, abundance, and/or trend.	Annual, selected projects	Declining trend in known pop'n -- review mgt actions.	5 years	1

Desired Future Condition	Question to be Answered	Parameter(s) to Monitor	Monitoring Activity	Measure-ment Frequency	Indicator or threshold for mgt change	Reporting Frequency	Priority
Livestock grazing is compatible with other resource goals.	Is the livestock grazing permitted by the Forest maintaining or allowing recovery of riparian and upland vegetation	Compliance with riparian and upland standards	Monitor during and after grazing period in key areas on at least one third of the allotments. Follow Caribou Implementation Guide.	Annually	As described in R-4 Uniform Action Guide	Annually	1
		Actual use	Record and report actual livestock use as compared to permitted use.	Annually	As described in R-4 Uniform Action Guide	Annually	2
		Riparian and Upland Long-term Trend	Establish and maintain benchmark vegetation studies dominant ecological types influenced by livestock grazing.	Every 10 years	Downward trend due to management activities would trigger a review.	Annually	2
Mineral resources are available for development consistent with other resource uses.	Are BMPs being followed and are they adequate to prevent resource degradation?	Water Quality Soil conditions Vegetation	As required by each Mine and Reclamation Plan. Reported annually to the Forest Service.	Annually	Noncompliance	Annually	1
	Are terms of mine plans and reclamation goals met?	Condition of reclaimed areas	Conduct on-site inspections of all active mine sites to insure they are following their plans and reclamation is implemented within one year of availability.	Annually	Noncompliance	Annually	1

Desired Future Condition	Question to be Answered	Parameter(s) to Monitor	Monitoring Activity	Measure-ment Frequency	Indicator or threshold for mgt change	Reporting Frequency	Priority
Fuel management strategies are coordinated with adjacent landowners to reduce risk to life and loss of property from wildfire.	Are management activities reducing wildland fire risk?	Fuel levels in the wildland-urban interface.	Review projects to determine acres where fuels have been reduced.	Annually	Increases in fuel loads may indicate a need for more aggressive treatment.	Annually	1
		Fire condition class	Review vegetation changes to determine how management and natural activities have changed fire condition classes.	5 years	Not trending towards condition classes 1 and 2 may indicate a need for more aggressive treatment	5 years	1
Forest lands provide a mix of economic and cultural benefits.	Do recreation experiences and settings meet public expectations of quality and variety while complimenting other resources?	User satisfaction	Continue to participate in the National Recreation Use Survey.	Every 4 years	A substantial increase in dissatisfaction with the variety and/or quality of recreation opportunities on the Forest would trigger management review.	5 years	1
	Is the timber program meeting the output expectations of the Plan?	Total Sale Program Quantity	Tally of volume sold	Annually	>25% deviation from RFP objectives	Annually	1
		Allowable Sale Quantity	Tally of volume sold	Annually		Annually	1
		Acres treated on unsuitable lands.	Acres of commercial harvest on unsuitable timber lands.	Annually		Annually	1

Desired Future Condition	Question to be Answered	Parameter(s) to Monitor	Monitoring Activity	Measure-ment Frequency	Indicator or threshold for mgt change	Reporting Frequency	Priority
Scenery reflects both natural and modified landscapes.	Are project activities meeting plan scenery objectives?	Scenery Objectives	Field assessment of at least 10% of activities that have a high potential to alter scenery.	Annually	15% change in acres from adopted scenery objectives for an Rx area would trigger a management review.	5 years	2
People visiting the National Forest enjoy a broad range of recreation opportunities amid natural settings.	Are forest management activities adversely affecting recreation opportunities?	ROS Category	Map and field check up to 10% of projects that have a high potential to alter the ROS.	Annually	20% change in acres in ROS classification for an Rx area would trigger a management review.	5 years	2
	Is recreation adversely affecting other resources?	Dispersed campsite conditions	Measure soil conditions in prescription 4.3 areas to determine compliance with the 15% soil disturbance standard.	Annually	If bare ground is 90% on half of the sites in an Rx area, management action may be taken.	5 years	3
		Field condition survey of trails	Field survey trail and resource conditions of trails as in agency direction.	Annually	Adverse effects on water quality or riparian conditions	5 years	2

Appendix
A National Direction

Direction Relevant to Land and Resource Management

Forest Service Directives

Agency policy articulated in the Forest Service directives system (Forest Service Manual and Handbook) is hereby incorporated in its entirety as direction in this Revised Forest Plan for the Caribou Zone of the Caribou-Targhee National Forest. Some of the more commonly referenced objectives are found at the following locations:

FSM/FSH Reference Location	Description
1500	American Indians
1900	
1920	Land Management Planning
1909.12	Land and Resource Management Planning
1909.15	Environmental Policy and Procedures
2000	
2080	Noxious Weed Management
2100	
2130.2	Solid Waste Management
2150.2	Pesticide Management
2170.2	Energy Management
2200	
2202.1	Range Management
2230.2	Grazing and Livestock Use Permit System
2240.2	Range Improvements
2242.02	Structural Range Improvement
2244.02	Maintenance of Improvement
2246.02	Range Improvement Investment
2300	
2302	Recreation
2320.2	National Wilderness Preservation System
2323.11	Recreation in Wilderness

FSM/FSH Reference Location	Description
2323.31	Range in Wilderness
2323.34b	Stocking Methods
2323.34c	Stocking Policy
2323.41	Soil and Water in Wilderness
2323.51	Forest Cover in Wilderness
2323.61	Air Resource in Wilderness
2323.72	Minerals in Wilderness
2324.11	Insects and Disease in Wilderness
232421	Fire Management in Wilderness
2324.31	Structures and Improvements in Wilderness
2324.41	Research in Wilderness
2326.02	Motorized Equipment in Wilderness
2330.2	Publicly Managed Recreation Opportunities
2340.2	Privately Provided Recreation Opportunities
2343.02	Concession Uses Involving Privately Developed Facilities
2345.02	Group Use By Institutions or other Entities
2350.2	Trail, River, and Similar Recreation Opportunities
2353.02	Forest Development Trails
2353.41	Scenic and Historic Trails
2354.02	National Wild and Scenic Rivers System
2355.02	Off-Road Vehicle Management
2356.02	Cave Management
2360.3	Special Interest Areas
2361.02	Cultural Resources
2373.02	National Registry of National Landmarks
2380	Landscape Management
2390.2	Interpretive Services/Visitor Information
2400	
2402	Timber Management
2430.2	Commercial Timber Sales
2435.02	Salvage Sales
2470.02	Reforestation
2470.2	Silvicultural Practices
2470.02	Harvest Cutting
2476.02	Timber Stand Improvement
2500	
2502	Watershed Management

FSM/FSH Reference Location	Description
2509.18	Soil Management; specifically Intermountain Region Supplement
2520.2	Watershed Protection and Management
2522.02	Watershed Improvement
2523.02	Burned Area Emergency Rehabilitation
2526.02	Riparian Areas
2527.02	Floodplain Management Wetland Protection
2532.02	Water Quality Management
2542.02	Municipal Supply Watersheds
2553.02	Soil Resource Improvement
2580.2	Air Quality
2600	
2602	Fish and Wildlife
2650.2	Animal Damage Management
2670.21	Threatened and Endangered Species
2670.22	Sensitive Species
2700	
2702	Special Uses
2710.2	Special Use Authorization
2716	Special Use Administration
2730.2	Special Use Management
2761.02	Special Use Management
2770.2	Federal Power Act Projects
2800	
2802	Minerals and Geology
2830.2	Minerals Reservations Outstanding Mineral Rights
2840.2	Reclamation
2850.2	Mineral Materials
3600	
3602	Rural Development
3610.2	Rural Development
3620.2	Resource Conservation and Development Program
4000	
4063.02	Research Natural Areas
5100	
5102	Fire Management
5130.2	Fire Suppression
5140.2	Prescribed Fire

FSM/FSH Reference Location	Description
5150.2	Fuel Management
5400	
5402	Landownership Adjustment
5420.2	Land Purchases and Donations
5430.2	Land Exchanges
5440.2	Partial Interest Acquisition
5450.2	National Forest System Modification
5460.2	Right-of-Way Acquisition
5470.2	Reservations and Outstanding Rights
5480.2	Condemnation
7100	
7151.02	Land Surveying
7152.02	Landline Location Program
7160.2	Sign and Poster Program
7400	
7420.2	Potable Water Supply
7430.2	Wastewater Collection Systems and Treatment Works
7700	
7702	Transportation System
7710.2	Transportation Planning
7720.2	Development
7730	Operation and Maintenance
7733.02	Highway Safety Program
7740	Federal Lands Highway Program

Statutes

Alaska National Interest Land Conservation Act
American Indian Religious Freedom Act (August 11, 1978)
Americans with Disabilities Act of 1990
Anderson-Mansfield Reforestation and Revegetation Act (October 11, 1949)
Antiquities Act (June 8, 1906)
Archeological Resources Protection Act (October 31, 1979, as amended 1988)
Architectural Barriers Act of 1968

Bankhead-Jones Farm Tenant Act of 1937 (July 22, 1937)

Clarke-McNary Act of 1924 (June 7, 1924)
Clean Air Act Amendments of 1977 (August 7, 1977)
Clean Water Act of 1977
Clean Water Amendments (Federal Water Pollutions Control Act Amendments of 1972)

Color of Title Act (December 22, 1928)
Common Varieties of Mineral Materials Act (July 31, 1947)
Comprehensive Environmental Response, Compensation and Liability Act, as amended (December 11, 1980)
Cooperative Forestry Assistance Act of 1978 (July 1, 1978)

Disaster Relief Act of 1974 (May 22, 2974)

Easter Wilderness Act (January 3, 1975)
Economy Act of 1932 (June 30, 1932)
Emergency Flood Prevention (Agricultural Credit Act of 1978) (August 4, 1978)
Endangered Species Act of 1973 (December 28, 1973)
Energy Security Act (June 30, 1980)

Federal Advisory Committee Act of 1972 (October 6, 1972)
Federal Cave Resources Protection Act of 1988 (November 18, 1988)
Federal Coal Leasing Amendments Act of 1975 (August 4, 1976)
Federal Insecticide, Rodenticide, and Fungicide Act (October 21, 1972)
Federal Land Policy and Management Act of 1976 (October 21, 1976)
Federal Noxious Weed Act of 1974 (January 3, 1975)
Federal Onshore Oil and Gas Leasing Reform Act of 1987 (December 22, 1944)
Federal Power Act of 1920 (June 10, 1920)
Federal-State Cooperation for Soil Conservation Act (December 22, 1944)
Federal Water Pollution Control Act of 1956, as amended (Water Quality Act of 1965, Clean Water Restoration Act of 1966) (July 9, 1965)
Federal Water Project Recreation Act of 1965 (July 9, 1965)
Fish and Wildlife Conservation Act (September 15, 1960)
Forest Highways Act (August 27, 1958)
Forest and Rangeland Renewable Resources Planning Act of 1974 (August 17, 1974)
Forest and Rangeland Renewable Resources Research Act of 1978 (June 30, 1978)
Freedom of Information Act (November 21, 1974)

Geothermal Steam Act of 1970 (December 24, 1970)
Granger-Thye Act (April 24, 1950)

Historic Preservation Act (October 15, 1966)

Intermodal Surface Transportation Efficiency Act (December 19, 1991)

Joint Surveys of Watershed Areas Act of 1962 (September 5, 1962)

Knutson-Vandenberg Act (June 9, 1930)

Land Acquisition Act (March 30, 1925)
Land Acquisition-Declaration of Taking Act (February 26, 1931)
Land Acquisition – Title Adjustment Act (July 8, 1943)
Land and Water Conservation Fund Act of 1965 (September 3, 1964)
Law Enforcement Authority Act (March 3, 1905)
Leases Around Reservoirs Act (March 3, 1962)

Mineral Leasing Act (February 25, 1920)
Mineral Leasing Act for Acquired Lands Act (August 7, 1947)
Mineral Resources on Weeks Law Lands Act (March 4, 1917)

Mineral Springs Leasing Act (February 28, 1899)
Mining Claims Rights Restoration Act of 1955 (August 11, 1955)
Mining and Minerals Policy Act of 1970 (December 31, 1970)
Multiple-Use Sustained-Yield Act of 1960 (June 12, 1960)

National Environmental Policy Act of 1969 (January 1, 1970)
National Forest Management Act of 1976 (October 22, 1976)
National Forest Roads and Trails Act (October 13, 1964)
National Historic Preservation Act (October 15, 1966)
National Historic Preservation Act Amendments of 1980 and 1992 (December 12, 1980)
National Trails System Act (October 2, 1968)

Occupancy Permits Act (March 4, 1915)
Organic Administration Act (June 4, 1897)

Petrified Wood Act (September 28, 1962)
Pipelines Act (February 25, 1920)
Preservation of Historical and Archeological Data Act (May 25, 1974)
Public Land Surveys Act (March 3, 1899)
Public Rangelands Improvement Act of 1978 (October 25, 1978)
Rehabilitation Act of 1973, as amended
Renewable Resources Extension Act of 1978 (June 30, 1978)
Research Grants Act (September 6, 1958)
Right of Eminent Domain Act (August 1, 1888)
Rural Development Act of 1972 (August 30, 1972)

Safe Drinking Water Amendments of 1977 (November 16, 1977)
Sikes Act (October 19, 1974)
Small Tracts Act (January 22, 1983)
Smokey Bear Act (May 23, 1952)
Soil and Water Resources Conservation Act of 1977 (November 18, 1977)
Solid Waste Disposal (Resource Conservation and Recovery Act of 1976) (October 21, 1976)
Supplemental National Forest Reforestation Fund Act (September 18, 1972)
Surface Mining Control and Reclamation Act of 1977 (August 3, 1977)
Sustained Yield Forest Management Act (March 29, 1944)

Timber Export Act (March 4, 1917)
Timber Exportation Act (April 12, 1926)
Title Adjustment Act (April 28, 1930)
Toxic Substances Control Act (October 11, 1976)
Transfer Act (February 1, 1905)
Twenty-Five Percent Fund Act (May 23, 1908)

Uniform Federal Accessibility Standards (in accordance with the Architectural Act of 1968)
U.S. Criminal Code (Title 18, United States Code, Chapter 91 – Public Lands) (June 25, 1948)
U.S. Mining Laws (Public Domain Lands) May 10, 1872

Volunteers in the National Forest Act of 1972 (May 18, 1972)

Water Quality Improvement Act of 1965 (April 3, 1965)
Water Resources Planning Act (July 22, 1965)
Watershed Protection and Flood Prevention Act of 1954 (August 4, 1954)
Weeks Act Status for Certain Lands Act (September 2, 1958)

Weeks Act of 1911 (March 1, 1911)
Wild and Scenic Rivers Act (October 2, 1968)
Wilderness Act of 1964 (September 3, 1964)
Wildlife Game Refuges Act (August 11, 1916)
Wood Residue Utilization Act of 1980 (December 19, 1980)
Woodsy Owl/Smokey Bear Act (June 22, 1974)

Youth Conservation Corps Act (August 13, 1970

Regulations

36 CFR 60	National Register of Historic Places
36 CFR 212	Forest Development transportation System
36 CFR 213	Administration Under Bankhead-Jones Act
36 CFR 215	Notice, Comment and Appeal Procedures for Projects and Activities
36 CFR 219	Planning
36 CFR 221	Timber Management Planning
36 CFR 222	Range Management
36 CFR 223	Sale and Disposal of National Forest System Timber
36 CFR 228	Minerals
36 CFR 241	Fish and Wildlife
36 CFR 251	Land Uses
36 CFR 254	Landownership Adjustments
36 CFR 261	Prohibitions
36 CFR 291	Occupancy and Use of Developed Sites and Areas of Concentrated Public Use
36 CFR 292	National Recreation Areas
36 CFR 293	Wilderness-Primitive Areas
36 CFR 294	Special Areas
36 CFR 295	Use of Motor Vehicles Off Forest Development Roads
36 CFR 296	Protection of Archeological Resources
36 CFR 297	Wild and Scenic Rivers
36 CFR 800	Advisory Council on Historic Preservation
40 CFR 1500-1508	Council on Environmental Quality Regulations for Implementing the NEPA
National Electrical Code	
National Fire Code	
Uniform Building Code	
Uniform Mechanical Code	
Uniform Plumbing Code	

Executive Orders

E.O. 11593	Protection and Enhancement of Cultural Environment
E.O. 11990	Protection of Wetlands
E.O. 11644-11989	Use of Off-Road Vehicles
E.O. 11988	Floodplain Management
E.O. 12113	Independent Water Project Review
E.O. of 01/12/01	Responsibilities of Federal Agencies to Protect Migratory Birds
E.O. 13112	Invasive Species

E.O. 12898 Environmental Justice

Other

USDA Handbook #701, Scenery Management

BEST MANAGEMENT PRACTICES

Idaho

The Administrative Rules of the Idaho Department of Health and Welfare, Water Quality and Wastewater Treatment (IDAPA 16, Title 01, Chapter 02, February 20, 1996) lists documents that contain approved Best Management Practice. On page 71 (IDAPA 16.01.01335.03) these documents are listed and include:

Idaho Forest Practices rules as adopted by Board of Land Commissioners

Idaho Department of Health and Welfare (IDHW) Rules, Title 1, Chapter 6, "Rules Governing Solid Waste Management."

IDHW Rules, Title 1, Chapter 3, "Rules Governing subsurface and Individual Sewage Disposal Systems."

"Rules and Minimum Standards for Stream Channel Alternations" as adopted by the Board of Water Resources.

"Rules Governing Exploration and Surface Mining Operations in Idaho" as adopted by the Board of Land Commissioners

"Rules Governing Placer and Dredge Mining in Idaho" as adopted by the Board of Land Commissioners

Wyoming

Grazing: Draft BMPS have been developed (dated February, 1996), but the State is currently working on a responsiveness summary, so the BMP's have not been certified yet (personal communication with Beth Pratt, Wyoming DEQ, November 26, 1996)

Hydrologic Modification: These BMP's have been certified by DEQ and the governor of Wyoming.

Silviculture: These measures include BMP's for roads. They have been certified by DEQ and the governor of Wyoming.

Oil and Gas Exploration and Production, Mineral Extraction, Highway Construction, Underground Storage Tanks: These activities are covered by site regulatory programs, so BMP's will not be developed from them.

Appendix
B Riparian Management

Caribou Specific Riparian Condition Indicators

Riparian Condition Indicators (RCI) Interim Default Values

Channel Type	Pool Frequency	Pool Type	Width/ Depth Ratio	Deep-Rooted Vegetation	% Bank Stability	Large Woody Debris	Stability Rating
A1	irregular	scour step	<12	not important	>60	not important	<44
A2	irregular	scour step	<12	not important	>60	not important	<44
A3	irregular	scour step	<12	not important	>70	important for pools - irregular spacing	<91
A4	irregular	scour step	<12	not important	>60	important for pools - irregular spacing	<96
A5	irregular	scour step	<12	not important	>60	important for pools - irregular spacing	<96
A6	irregular	scour step	<12	not important	>60	important for pools - irregular spacing	<81
B1	infrequent	scour step	>12	not important	>60	not important	<46
B2	irregular	scour step	>12 <21	not important	>60	not important	<46
B3	irregular 3-5 bankfull widths	scour step	>12 <22	important	>60	important for pools	<61

Channel Type	Pool Frequency	Pool Type	Width/ Depth Ratio	Deep-Rooted Vegetation	% Bank Stability	Large Woody Debris	Stability Rating
B4	irregular 3-5 bankfull widths	scour	>12 <20	important	>65	important for complexity	<65
B5	irregular 3-5 bankfull widths	scour	>12 <20	important	>65	important for complexity	<69
B6	irregular 3-5 bankfull widths	scour	>12 <20	important	>65	important for complexity	<61
C1	irregular	backwater and scour	>12	important woody /sedge	>65	important for pools	<51
C2	irregular	backwater and scour	>12	important woody /sedge	>65	important for pools	<51
C3	irregular 5-7 bankfull widths	riffle/scour pool	>12 <37	important woody /sedge	>70	important for complexity	<86
C4	irregular 5-7 bankfull widths	riffle/scour pool	>12 <29	important woody /sedge	>70	not important	<91
C5	irregular 5-7 bankfull widths	riffle/scour pool	>12 <30	important woody /sedge	>70	not important	<91
C6	irregular 5-7 bankfull widths	riffle/scour pool	>12	important woody / sedge	>70	not important	<86
D3-6	irregular	scour/ debris dams	>40	very important woody /sedge	>65	not important	<108
E3	irregular	riffle/scour pool	>6 <10	very important sedge/ woody	>65	not important	<64
E4	irregular	riffle/ scour pool	>2 <6	very important sedge/ woody	>65	not important	<76
E5	irregular	riffle/ scour pool	>2 <7	very important sedge/ woody	>65	not important	<76

Channel Type	Pool Frequency	Pool Type	Width/ Depth Ratio	Deep-Rooted Vegetation	% Bank Stability	Large Woody Debris	Stability Rating
E6	irregular	riffle/ scour pool	<12	very important sedge/ woody	>65	not important	<64
F1-6	irregular 5-7 bankfull widths	scour/ debris dam	>12 <40	not important	>65	important for pools	<116
G1-6	irregular	scour step	<12	important woody /sedge	>70	not important	<113

DEFINITIONS

Channel Type

As defined by Rosgen, 1996.

Pool Frequency

Infrequent. Due to physical channel conditions, pools are infrequent within any given reach. There is no set pool spacing or number of pools within any given reach.

Irregular. Due to physical channel conditions, pools are irregularly spaced within any given reach. There is no set pool spacing or number of pools within any given reach.

Bankfull widths. Channel geometry is such that pools are spaced at specified intervals based on the bankfull width of the channel. E.g. 5-7 bankfull widths - if the bankfull width is 10 ft., pools would be expected to be spaced 50 to 70 feet apart within any given reach; or within a 1000 ft. reach, 14 to 20 pools would be expected to occur.

Pool Type

Scour step. Due to the steepness of the channel bed, the stream "steps" down the slope. Water plunging over these "steps" scours a pool below the obstacle. "Steps" may be formed by rock or organic debris.

Scour. Channel steepness is not enough to form plunge pools, but do support sufficient velocities for water to scour pools as it works its way over and between rocks and organic debris.

Backwater. Small dams are formed within the channel by rock and organic debris. Water pools behind these barriers rather than forming scour pools below the obstacle.

Riffle/scour pool. This stream type exhibits a sequencing of steeps (riffles) and flats (pools) that are linked to meander geometry. The spacing interval is predictable depending on channel type and width.

Scour/debris dam. Pools are formed as a result of bank and bottom scouring and small dams formed by organic debris. Rocks do not play an important role in pool formation.

Width/Depth Ratio

The ratio of the bankfull (approx. 2.5 year reoccurrence flood level) surface width to the mean depth of the bankfull channel.

Deep Rooted Vegetation

Some channel types do not contain sufficient rock, large wood, etc. content in the banks to suppress bank erosion. In this situation, vegetation having deep and dense root systems is necessary to bind the soil and suppress bank erosion.

Woody/Sedge. Though sedges are important to be maintained on-site, woody plant species (willow, alder, dogwood, etc.) are more desirable to be maintained than sedges because of potential high bank heights. Woody species' roots generally extend deeper than sedges.

Sedge/Woody. Though woody species may be desired, sedges are sufficient to protect potential bank erosion.

% Bank Stability

Minimum percent of stable banks needed to maintain channel stability. This is a total of both banks within a stream reach.

Stability Rating

As developed by Pfankuch (1975) (also known as R1/R4 Stream Reach Inventory and Channel Stability Evaluation). Ratings by channel type are those reflecting channel stability of "Good" or better as defined by Rosgen (1996).

Watershed Prioritization

The intent of designating priority watersheds is to provide a pattern of protection and restoration across the landscape where habitat for inland native fish would receive special attention and treatment. Areas in good condition would serve as anchors for the potential recovery of depressed fish stocks and would provide colonists for adjacent areas where habitat had been degraded by land management or natural events. Priority watersheds would have higher priority for restoration, monitoring, and watershed analysis and would be based, in general, on the following:

- Native fish strongholds
- Watersheds with excellent aquatic habitat.
- Watersheds that meet native fisheries metapopulation objectives.
- Potentials to restore native fish habitat, including connectivity
- Presence of 303(d) waterbodies
- Properly functioning condition assessments and watershed geomorphic integrity, vulnerability and water quality ratings as identified through the Inland West Watershed Initiative

GLOSSARY

Glossary of Terms in the Revised Forest Plan

Abiotic. Non-living. Climate is an abiotic component of ecosystems.

Access Management. Management of the ingress and egress of people on National Forest System lands. Generally used to described motorized use allowed.

Acre-foot. A measure of water or sediment volume equal to the amount which would cover an area of one acre to a depth of one foot (325,851 gallons).

Adaptive Management. A type of natural resource management that implies making decisions as part of an on-going process. Monitoring the results of actions will provide a flow of information that may indicate the need to change a course of action. Scientific findings and the needs of society may also indicate the need to adapt resource management to new information.

Administrative Use. Authorized vehicle use of otherwise closed roads and/or areas to carry out forest management activities. Including but not limited to access for prescribed burning, fish and wildlife habitat improvement, timber sales, personal use firewood. Also includes use by permittees to conduct authorized activities.

Aerial Logging. Removing logs from a timber harvest area by helicopter. Fewer roads are required, so the impact to an area is minimized.

Affected Environment. The natural environment that exists at the present time in an area being analyzed.

Age Class. An age grouping of trees according to an interval of years, usually 20 years. A single age class would have trees that are within 20 years of the same age, such as 1-20 years or 21-40 years and so on.

Air Shed. A geographical area that, because of topography, meteorology, and climate, shares the same air.

AIZ Attributes. See Desired Attributes.

Allotment (range allotment). The area designated for use by a prescribed number of livestock for a prescribed period of time. Though an entire Ranger District may be divided into allotments, all land will not be grazed, because other uses, such as recreation or tree plantings, may be more important at a given time.

Allowable Sale Quantity (ASQ). The amount of timber that may be sold from the area of suitable land covered by the Forest Plan for a time period specified by the Plan. This quantity is usually expressed on an annual basis as the "average annual allowable sale quantity.

Alluvial Fan. A body of unconsolidated clastic material and debris flow, conical in shape, forming at the point where a stream emerges from a narrow valley onto a broader, less sloping valley floor.

Alternative. One of several policies, plans or projects proposed for decision-making.

Analysis Area. See "Regional Analysis Area."

Animal Unit Month (AUM). The amount of forage required by one calf and her cow or 1 horse or 5 sheep for one month.

Aquatic Ecosystem. The stream channel, lake or estuary bed, water, biotic communities and the habitat features that occur therein.

Aquatic Habitat Types. The classification of instream habitat based on location within channel, patterns of water flow, and nature of flow controlling structures. Riffles are divided into three habitat types: low gradient riffles, rapids, and cascades. Pools are divided into seven types: secondary channel pools, backward pools, trench pools, plunge pools, lateral scour pools, dammed pools, and beaver ponds. Glides possess attributes of both riffles and pools and are characterized by moderately shallow water with an even flow that lacks pronounced turbulence.

Aquatic Influence Zone. Used in the context of a land management prescription, the area encompassing aquatic and riparian ecosystems and adjacent lands which directly affect the hydrologic, geomorphic, and ecological processes controlling aquatic and riparian ecosystem health and function.

Aquatic Influence Zone Attributes. See Desired AIZ Attributes

Aquatic Macroinvertebrates. Invertebrates living within aquatic systems that are large enough to be seen with the naked eye, i.e. most aquatic insects.

Aquifer. A body of rock that is saturated with water or transmits water. When people drill wells, they tap water contained within an aquifer.

Aspect. The direction a slope faces. A hillside facing east has an eastern aspect.

Assessment. The Renewable Resource Assessment required by the Resources Planning act (RPA).

Avoidance Areas. Areas having one or more physical, environmental, institutional or statutory impediments to corridor designation.

These are two types of avoidance areas:

Discretionary -- areas that may be crossed by corridors only if necessary and reasonable mitigation or avoidance of significant impacts can be obtained.

Nondiscretionary -- areas that may not be crossed by corridors unless authorized by the appropriate official (for example, Governor, President, etc.)

Background. The visible terrain beyond the foreground and middleground where individual trees are not visible but are blended into the total fabric of the stand. (See "Foreground" and "Middleground".)

Backslope. The component of the hill slope that forms the steepest inclined surface and is frequently the principal element. The surface is dominantly steep and linear in profile and erosional in origin.

Bark Beetle. An insect that bores through the bark of trees to eat the inner bark and lay its eggs. Bark beetles are important killers of forest trees.

Basal Area. The area of the cross section of a tree truck near its base, usually 4.5 feet above the ground. Basal area is a way to measure how much of a site is occupied by trees. The term basal area is often used to describe the collective basal area or trees per acre.

Base Sale Schedule. A timber sale schedule formulated on the basis that the quantity of timber planned for sale and harvest for any future decade is equal to or greater than the planned sale and harvest for the preceding decade, and this planned sale and harvest for any decade is not greater than the long-term sustained-yield capacity. (This definition expresses the principle of nondeclining flow.)

Beneficial Use. Includes beneficial uses officially designated by the State under the authorities of the Clean Water Act plus the native aquatic and riparian dependent resources.

Big Game. Those species of large mammals normally managed for sport hunting.

Bio-accumulation. The process whereby living plants or animals incorporate a substance into their tissues, thus introducing the substance into the food chain. Often refers to hazardous substances.

Biological Control. The use of natural means to control unwanted pests. Examples include introduced or naturally occurring predators such as wasps, or hormones that inhibit the reproduction of pests. Biological controls can sometimes be alternatives to mechanical or chemical means.

Biological Diversity. The number and abundance of species found within an a common environment. This includes the variety of genes, species, ecosystems and ecological processes that connect everything in a common environment.

Biological Growth-Potential. The average net growth attainable in a fully stocked natural forest stand.

Biological Potential. The maximum possible resource output limited only by inherent physical and biological characteristics.

Biomass. The total weight of all living organisms in a biological community.

Biome. The complex of living communities maintained by the climate of a region and characterized by a distinctive type of vegetation. Example of biomes in North American include the tundra, desert, prairie, and the western coniferous forests.

Biota. The plant and animal life of a particular region.

Biotic. Living. Green plants and soil microorganisms are biotic components of ecosystems.

BMP (Best Management Practices). Practices designed to prevent or reduce water pollution. Also referred to as Soil and Water Conservation Practices (SWCPs).

Board Foot. The amount of wood equivalent to a piece 1 foot long by 1 foot wide by 1 inch thick. Generally, five board feet log measure is approximately equivalent to 1 cubic foot of round wood.

Broadcast Burn. Allowing a prescribed fire to burn over a designated area within well-defined boundaries for reduction of fuel hazard, improve forage for wildlife and livestock, or encourage successful regeneration of trees.

Borrow Source. An area from which sand, gravel, or stone is taken for use in another area.

Browse. Twigs, leaves and young shoots of trees and shrubs that animals eat. Browse is often used to refer to the shrubs eaten by big game, such as elk and deer.

Buffer. A land area that is designated to block or absorb unwanted impacts to the area beyond the buffer. Buffer strips along a trail could block views that may be undesirable. Buffers may be set aside next to wildlife habitat to reduce abrupt change to habitat.

Cable Logging. Logging that involves the transport of logs from stump to collection points by means of suspended steel cables. Cable logging reduces the need for the construction of logging roads.

Canopy. The more or less continuous cover of branches and foliage formed collectively by the crown of adjacent trees and other woody growth. It usually refers to the uppermost layer of foliage, but it can be used to describe lower layers in a multi-storied forest. The percent of a fixed area covered by the crown of an individual plant species or delimited by the vertical projection of its outermost perimeter; small openings in the crown are included.

Canopy Cover. Used to express the relative importance of individual species within a vegetation community or to express the canopy cover of woody species. Canopy cover may be used as a measure of land cover change or trend and is often used for wildlife habitat evaluations. (See Crown Closure).

Capability. The potential of an area of land to produce resources, supply goods and services, and allow resource uses under an assumed set of management practices and at a given level of management intensity. Capability depends upon current conditions and site conditions such as climate, slope, landform, soils and geology, as well as the application of management practices, such as silviculture or protection from fire, insects and disease.

Capture (input). One of the ways functions are described; resources (organisms, materials, and energy) brought into the system (i.e., photosynthesis, migration, onto summer range, pollution brought in by wind or water.)

Cartographic Feature File. A data file containing the digital representation of all features, except contours, from a Primary Base Series map. Features are represented as line strings and points in ground coordinates with attribute information attached.

Catastrophic Condition. A significant change in forest conditions on the area that affects Forest Plan resource management objectives and their projected and scheduled outputs, uses, costs, and effects on local communities and environmental quality.

Cavity. The hollow excavated in trees by birds or other natural phenomena; used for roosting and reproduction by many birds and mammals.

Channel Depth. The average depth of channel from mean high water mark to mean high water mark used to define stream type, instream flow calculations and riparian management.

Channel Gradient. The slope of the stream channel expressed on a percent of rise per unit length. A measure of the drop in water surface elevation per unit length of channel. The difference in water surface or streambed elevation of two study sites on a stream divided by the distance between the study sites.

Channel Roughness. A measurement used to determine energy losses and velocities of natural stream channels by using water energy slope (channel slope), velocity and hydraulic radius.

Channel Stability Rating. A rating of stream channels resistance capacity to the detachment of bed and bank materials.

Chemical Control. The use of pesticides and herbicides to control pests and undesirable plant species.

Clean Air Act. (42 U.S.C. 7609) Section 309 provides authority for the Environmental Protection Agency to review other agency environmental impact statements.

Clearcutting. A harvest in which all or almost all of the trees are removed in one cutting. Regeneration then occurs from (a) natural seeding from adjacent stands, (b) seed contained in the slash or logging debris, (c) advance growth, or (d) planting or direct seeding. An even-aged forest usually results.

Climax. The culminating stage in plant succession for a given site where the vegetation has reached a highly stable condition.

Coarse Filter Management. Land management that addresses the needs of all associated species, communities, environments, and ecological processes in a land area. (See fine filter management.)

Collaborative Approach. A way of managing land by actively engaging the American public to foster understanding of the Forest Service mission and goals.

Collector Roads. These roads serve small land areas and are usually connected to a Forest System Road, a county road, or a state highway.

Commercial Forest Land (CFL). See "Timber Classification."

Commodity. A resource product for which a monetary value has been established.

Common (Class B) Landscape. Areas where features contain variety in form, line, color and texture combinations thereof, but which tend to be common throughout the character type and are not outstanding in visual quality.

Composition. What an ecosystem is composed of. Composition could include water, minerals, trees, snags, wildlife, soil, microorganisms, and certain plant species.

Concern. (Also management concern.) An issue, problem or condition which constrains the range of management practices identified by the Forest Service in the planning process.

Congressionally Classified and Designated Areas. See "Wilderness."

Conifer. A tree that produces cones, such as a pine, spruce, or fir tree.

Connected Actions. Closely related actions which automatically trigger other actions, cannot proceed unless other actions are taken previously or simultaneously, or are interdependent parts of a larger action and depend on the larger action for justification.

Connectivity (of habitats). The linkage of similar but separated vegetation stands by patches, corridors or "stepping stones" of like vegetation. This term can also refer to the degree to which similar habitats are linked.

Consistency. All resource plans and permits, contracts and other instruments for the use and occupancy of National Forest System land must be consistent with the Forest Plan.

Consumptive Use. A use of resources that reduces the supply, such as logging and mining (See also nonconsumptive use).

Contour. A line drawn on a map connecting points of the same elevation.

Corridor. Elements of the landscape that connect similar areas. Streamside vegetation may create a corridor of willows and hardwoods between meadows where wildlife feed.

Cost-efficiency. The usefulness of specified inputs (costs) to produce specified outputs (benefits). In measuring cost efficiency, some outputs, including environmental, economic, or social impacts, are not assigned monetary values but are achieved at specified levels in the least cost manner. Cost efficiency is usually measured using present net value, although use of benefit-cost ratios and rates-of-return may be appropriate.

Council of Environmental Quality (CEQ). The Council issues regulations binding on all federal agencies, to implement the procedural provisions of the National Environmental Quality Act. The regulations address the administration of the NEPA process, including preparation of Environmental Impact Statements (EIS) for major federal actions which significantly affect the quality of the human environment.

Cover. Any feature that conceals wildlife or fish. Cover may be dead or live vegetation, boulders, or undercut streambanks. Animals use cover to escape from predators, rest or feed.

Cover Class. Represents a percentage range for a fixed area covered by the crowns of plants. It is measured as a vertical projection of the outermost portion of the foliage. Cover Class A = <40% canopy cover; Cover Class B = 40-60% canopy cover; Cover Class C = >60% canopy cover.

Cover-forage Ratio. The ratio of hiding cover to foraging areas for wildlife species.

Cover type (forested cover type). Stands of a particular vegetation type that are composed of similar species. The aspen cover type contains plants distinct from the pinyon-juniper cover type.

Created Opening. An opening in the forest cover created by the application of even-aged silvicultural practices.

Critical Habitat. Areas designated for the survival and recovery of federally listed threatened or endangered species.

Cross-country Travel. Travel over terrain not on designated roads and/or trails.

Crown Closure. See Canopy Cover.

Crown Fire. A fire that advances from top to top of trees and shrubs more or less independent of a surface fire.

Crown Height. The distance from the ground to the base of the crown of a tree.

Cultural Resource. The remains of sites, structures, or objects used by humans in the past -- historical or archaeological.

Cultural Sensitivity. Refers to the likelihood of encountering significant cultural volumes (quantity and/or quality) that may affect and may be affected by ground-disturbing activities.

Cumulative Actions. Actions which when viewed with other proposed actions have cumulatively significant impacts.

Cumulative Effects or Impacts. The impact on the environment which results from the incremental impact of an action when added to other past, present and reasonably foreseeable future actions regardless of what agency or person undertakes such other action. Cumulative effects or impacts can result from individually minor but collectively significant actions taking place over a period of time.

Cutting Cycle. The planned lapse of time between successive cuttings in a stand.

Cycling. One of the ways functions are described; resources which are transported within the system (i.e., animal migration, nutrient cycling in a forest stand, snow melt becoming part of the surface or groundwater flow.)

d.b.h. Diameter at breast height. The diameter of a tree measured 4 feet 6 inches from the ground.

Dead and down material. Woody material (logs, etc.) laying on or near the ground. Necessary for soil productivity and wildlife habitat.

Decision Criteria. The rules and standards used to evaluate alternatives to a proposed action on National Forest land. Decision criteria are designed to help a decision maker identify a preferred choice from an array of alternatives.

Decking Area. A site where logs are collected after they are cut and before they are taken to the landing area where they are loaded for transport.

Decommissioning. Various levels of treatment leading to stabilization and restoration of transportation facilities that are no longer needed.

Decomposition Class. Any of the five stages of decomposition of logs left in the forest; stages range from essentially sound to almost total decomposition.

Deficit Timber Sale. A timber sale where the costs associated with producing the primary product(s) plus profit margin are greater than the selling value of the same product(s).

Defer (grazing). Delay livestock grazing until after seed set on the vegetation. In this area, usually August.

DEIS (Draft Environmental Impact Statement). The draft version of the Environmental Impact Statement that is released to the public and other agencies for review and comment.

Dependent Communities. Communities whose social, economic or political life would become discernibly different in important respects if market or non-market outputs from the National Forests were cut off.

Designated Corridor. A linear area of land with defined and recognized boundaries identified and designated by legal public notice.

Desired AIZ Attributes. Attributes or conditions within the AIZ that maintain or improve riparian and stream channel processes and function. This includes, but not limited to, AIZ desired future conditions (DFC), Goals, Riparian Condition Indicators (RCI), water quality supporting beneficial uses, and aquatic & terrestrial species habitat and population viability.

Desired Future Condition (DFC). Land or resource conditions that are expected to result if goals and objectives are fully achieved. The DFC provides the framework to select appropriate standards and guidelines.

Detrimental Soil Disturbance. The condition where established threshold values for soil properties are exceeded and result in significant change.

Developed Recreation. Recreation that requires facilities that, in turn, result in concentrated use of the area. For example, skiing requires ski lifts, parking lots, buildings and roads. Campgrounds require roads, picnic tables and toilet facilities.

d.i.b. Diameter inside bark.

Dispersed Recreation. Recreation that does not occur in a developed recreation site, such as hunting, backpacking and scenic driving.

Distinctive (Class A) landscape. Areas where features of landform, vegetative patterns, water forms, and rock formations are of unusual or outstanding visual quality.

Disturbance. Any event, such as a forest fire or insect infestation that alters the structure, composition, or function of an ecosystem.

Diversity. The distribution and abundance of different plant and animal communities and species within the area covered by a land and resource management plan. See also "Edge," "Horizontal Diversity," and "Vertical Diversity."

Drastically disturbed. Ground surface, usually on a large scale, that has been greatly disturbed or rearranged by such things as mining or digging, and appears very different from what it did before the activity.

Dredging. The process of excavating or removing material like silt, sand, or gravel, from underwater.

Early Forest Succession. The biotic (or life) community that develops immediately following the removal or destruction of vegetation in an area. For instance, grasses may be the first plants to grow in an area that was burned.

Ecological Approach. Natural resource planning and management activities that assure consideration of the relationship between all organisms (including humans) and their environment.

Ecological Classification. A multifactor approach to categorizing and delineating, at different levels of resolution, areas of land and water having similar characteristic combinations of the physical environment (such as climate, geomorphic processes, geology, soil and hydrologic function), biological communities (such as plants, animals, microorganisms, and potential natural communities), and the human dimension (such as social, economic, cultural, and infrastructure).

Ecological Land Classification and Mapping. An hierarchical, multi-factor approach to categorizing and delineating, at different levels or resolution, areas of land having similar capabilities and potentials for management. These areas of land are characterized by unique combinations of the physical environment, biological communities and human dimension.

Ecological Process. The actions or events that link organisms (including humans) and their environment, such as disturbance, successional development, nutrient cycling, carbon sequestration, productivity, and decay.

Ecological Status. The degree of similarity between the present community and the potential natural community on a site. Used to determine the ecological status of a plant community.

Ecological Subsection. A hierarchical level of inventory; lands with relatively uniform ecological potentials. Generally a mountain range.

Ecological Type (Habitat Type). A category of land having a unique combination of potential natural community; soil, landscape, features, climate and differing from other ecological types in its ability to produce vegetation and respond to management. Used to define land capability.

Ecological Unit. The map unit developed for an ecological type or types. This unit often includes a complex of small and intricately associated ecological types too small to delineate separately.

Ecology. The interrelationships of living things to one another and to their environment, or the study of these interrelationships.

Economic Efficiency Analysis. An analytical method in which incremental market and nonmarket benefits are compared with incremental economic costs.

Ecoregion. A continuous geographic area over which the macroclimate is sufficiently uniform to permit development of similar ecosystems on sites with similar properties. Ecoregions contain multiple landscapes with different spatial patterns of ecosystems.

Ecoregion Code. Ecogeographic code that identifies land surface form and hydrologic unit maps of the U. S. by Bailey and Cushwa.

Ecosystem. An arrangement of living and non-living things and the forces that move among them. Living things include plants and animals. Non-living parts of ecosystems may be rocks and minerals. Weather and wildfire are two of the forces that act within ecosystems.

Ecosystem/Cover Type. The native vegetation ecological community considered together with non-living factors of the environment as a unit; the general cover type occupying the greatest percent of the stand location.

Ecosystem Health. The state of an ecosystem in which the structure and functions are sufficiently resilient, allowing the maintenance of biological diversity over time and through a range of disturbance.

Ecosystem Management. The use of an ecological approach to achieve productive resource management by blending social, physical, economic and biological needs and values to provide healthy ecosystems.

Ecotype. A population of a species in a given ecosystem that is adapted to a particular set of environmental conditions.

Ecozone. The transition zone between two biotic communities, such as between the Ponderosa pine forest type and the mixed conifer forest, which is found at higher elevations than the pine.

Edge. The margin where tow or more vegetation patches meet, such as a meadow opening next to a mature forest stand, or a Douglas-fir stand next to an aspen stand.

Edge Contrasts. A qualitative measure of the difference in structure of two adjacent vegetated areas; for example, "low," "medium," or "high" edge contrast.

Edge Effect. The increased richness of plants and animals resulting from the mixing of two communities where they join.

Effects. Environmental consequences as a result of a proposed action. Included are direct effects, which are caused by the action and occur at the same time and place, and indirect effects, which are caused by the action and are later in time or further removed in distance, but which are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air, water and other natural systems, including ecosystems.

Effects and impacts as used in this statement are synonymous. Effects include ecological (such as the effects on natural resources and on the components, structures and functioning of affected ecosystems), aesthetic quality, historic, cultural, economic, social or health whether direct, indirect or cumulative. Effects may also include those resulting from actions that may have both beneficial and detrimental effects, even if on balance the agency believes that the effects will be beneficial (40 CFR 1508.8).

Element (of ecosystem). An identifiable component, process, or condition of an ecosystem.

Embeddedness. A rating of the degree that larger substrate particles (boulder, rubble or gravel) are surrounded or covered by fine sediment.

Endangered Species. Any species of animal or plant that is in danger of extinction throughout all or a significant portion of its range. Plant or animal species identified by the Secretary of the Interior and endangered in accordance with the 1973 Endangered Species Act.

Endangered Species Act. The Act which requires consultation with U.S. Fish and Wildlife Service if practices on National Forest System lands may impact a threatened or endangered species (plant or animal).

Endemic. 1) A plant or animal that occurs naturally in a certain region and whose distribution is relatively limited geographically. 2) Insects and disease belonging or native to a particular area or region.

Environmental Analysis. An analysis of alternative actions and their predictable long and short-term environmental effects. Environmental Analyses include physical, biological, social and economic factors.

Environmental Assessment. A brief version of an Environmental Impact Statement.

Environmental Impact Statement (EIS). A statement of the environmental effects of a proposed action and alternatives to it. It is required for major Federal actions under Section 102 of the National Environmental Policy Act (NEPA) and released to the public and other agencies for comment and review. It is a formal document that must follow the requirements of NEPA, the Council on Environmental Quality (CEQ) guidelines, and directives of the agency responsible for the project proposal.

Ephemeral Streams. Streams that flow only as the direct result of rainfall or snowmelt. They have no permanent flow.

Erosion. The wearing away of the land surface by wind or water.

Escape Cover. Vegetation of sufficient size and density to hide an animal, or an area used by animals to escape from predators.

Escaped Fire Situation Analysis. A decision-making process that evaluates alternative suppression strategies against selected environmental, social, political, and economic criteria. Provides a record of decisions.

Ethnographic. Of or pertaining to social traditions of American Indian cultures.

Evaluation Criteria. Standards developed for appraising alternatives. (See decision criteria.)

Even-aged Management. Timber management actions that result in the creation of stands of trees in which the trees are essentially the same age. Clearcut, shelterwood, or seed tree cutting methods produce even-aged stands.

Exclusion Areas. Areas having a statutory prohibition to rights-of-way for lineal facilities or corridor designation.

Exterior Fire Protection. The protection of structures from the exterior, with no interior access or activity.

Eyrie. A ledge along a cliff used for nesting peregrine falcons.

Facilities. Transportation planning, road management and operation, fleet equipment, and engineering services (for example, administrative buildings, water and sanitation systems, sanitary landfills, dams, bridges and communication systems.

Fauna. The animal life of an area.

Felling. Cutting down trees.

Final Cut. The removal of the last seed bearers or shelter trees after regeneration of new tress has been established in a stand being managed under the shelterwood system of silviculture.

Fine Filter Management. Management that focuses on the welfare of a single or only a few species rather than the broader habitat or ecosystem. (See coarse filter management.)

Fire Behavior. A manner in which fire reacts to the influences of fuel, weather, and topography.

Fire Cycle. The average time between fires in a given area.

Fire Condition Classes. A classification of vegetation conditions related to natural fire regimes.

Condition Class 1: Fire regimes are within or near their historic range. Fire frequencies have departed from historic frequencies by no more than one fire return interval.

Condition Class 2: Fire regimes have been moderately altered from their historic range. Fire frequencies have departed from historic frequencies by more than one fire return interval.

Condition Class 3: Fire regimes have been significantly altered from their historic range. Fire frequencies have departed from historic frequencies by multiple fire return intervals.

Fire Effects. The physical, biological and ecological impacts of fire on the environment.

Fire Management. All activities required for the protection of resources from fire and the use of fire to meet land management goals and objectives.

Fire Management Plan. A specific area plan covering fire policy and objectives.

Fire Regime. The characteristics of fire in a given ecosystem, such as the frequency, predictability, intensity, and seasonality. Fire regimes can be lethal or non-lethal.

Fire Risks. The chance of fire starting as determined by the presence and activity of causative agents; a causative agent; a number related to the potential number of firebrands to which a given area will be exposed during the rating day (National Fire Danger Rating System).

Fire Type:

Management Ignited. A fire deliberately started by man to achieve a desired management objective.

Prescribed Natural. A fire started by natural causes that is allowed to burn to accomplish certain, pre-set management objectives.

Wildland. A fire not under any management prescription, generally are suppressed immediately.

Fisheries Classification. Water bodies and streams classed as either having a cold water or warm water fishery. Designation is dependent upon the dominate species of fish occupying the water.

Fisheries Habitat. Streams, lakes, and reservoirs that support fish, or have the potential to support fish.

Flood Plain. A lowland adjoining a watercourse. At a minimum, the area is subject to a 1% or greater chance of flooding in a given year.

Flora. The plant life of an area.

Forage. All browse and non-woody plants that are eaten by wildlife or livestock.

Forb. A broadleaf plant that has little or no woody material in it.

Foreground. The part of a scene or landscape that is nearest to the viewer.

Forest Cover Type. (See cover type.)

Forest Health. A measure of the robustness of forest ecosystems. Aspects of forest health include biological diversity, soil, air, and water productivity, natural disturbances, and the capacity of the forest to provide a sustaining flow of goods and services for people.

Forest Land. See "Timber Classification."

Forest Land Type. A classification of an area based upon its capability of producing industrial wood (i.e., all commercial roundwood products except fuelwood), its legal status concerning timber utilization, and its proximity to urban and rural development.

Forest Roads and Trails. A legal term for Forest roads or trails that are under the jurisdiction of the Forest Service.

Forest Supervisor. The official responsible for administering National Forest lands on an administrative unit, usually one or more National Forests. The Forest Supervisor reports to the Regional Forester.

Forage Utilization. The proportion of current year's forage production that is consumed or destroyed by grazing animals. Forage is all browse and herbage that is available and acceptable to grazing animals.

Forest Vegetation Simulation. A computer model for timber growth and yield. It projects per acre growth and volume yield for commercial timber stands. Formerly known as "Prognosis."

Fragmentation. The splitting or isolating of patches of similar habitat, typically forest cover, but including other types of habitat. Habitat can be fragmented naturally or from forest management activities, such as clearcut logging.

Frost Heave. A land surface that is pushed up by the accumulation of ice in the underlying soil.

Fuels. Plants and woody vegetation, both living and dead, that are capable of burning.

Fuel Arrangement. A general term referring to the spatial distribution and orientation of fuel particles within a natural setting.

Fuel Management. The treatment of fuels that would otherwise interfere with effective fire management or control. Fore instance, prescribed fire can reduce the amount of fuels that accumulate on the forest floor before the fuels become so heavy that a natural wildfire in the area would be explosive and impossible to control.

Fuel Model. Mathematical descriptions of fuel properties (e.g. fuel load and fuel depth) that are used as inputs to calculations of fire danger indices and fire behavior potential.

Fuel Reduction. Manipulation, including combustion, or removal of fuels to reduce the likelihood of ignition and/or lessen potential damage and resistance to control.

Fuel Treatment. Manipulation or removal of fuels to reduce the likelihood of ignition and/or lessen potential damage and resistance to control (e.g. lopping, chipping, crushing, piling, and burning).

Fuelwood. Wood cut into short lengths for burning.

Function. All the processes within an ecosystem through which the elements interact, such as succession, the food chain, fire, weather, and the hydrologic cycle.

Game Species. Any species of wildlife or fish that is harvested according to prescribed limits and seasons.

Geoclimatic Setting. The geology, climate (precipitation and temperature), vegetation, and geologic processes (such as landslides or debris flows) that are characteristic of a place; places with similar characteristics are said to have the same geoclimatic setting.

Geomorphic Processes. Processes that change the form of the earth, such as volcanic activity, running water, and glacial action.

Geomorphology. The science that deals with the relief features of the earth's surfaces.

GIS (geographic information systems). GIS is both a database designed to handle geographic data as well as a set of computer operations that can be used to analyze the data. In a sense, GIS can be thought of as a higher order map.

Goal. A concise statement that articulates a desired condition to be achieved sometime in the future. It is normally expressed in broad, general terms and is timeless in that it has no specific date by which it is to be completed. Goal statement from the principal basis from which objectives are developed.

Goods and Services. The various outputs, including on-site users, produced from forest and rangeland resources.

Grazing Period. The period of time livestock use a specific pasture or unit within a grazing allotment.

Ground Cover. Material covering the land surface. It may include live vegetation, standing dead vegetation, litter, cobble, gravel, stones and bedrock. Ground cover plus bare ground would total 100 percent of the area evaluated.

Ground Fire. A fire that burns along the forest floor and does not affect trees with thick bark or high crowns.

Ground Water. The supply of fresh water under the earth's surface in an aquifer or in the soil.

Group Selection. A method of tree harvest in which trees are removed periodically in small groups. This silvicultural treatment results in small openings that form mosaics of age class groups in the forest.

Guidelines. An indication or outline (as by a government) of policy or conduct.

HRV. Historic Range of Variability, see Range of Variability.

Habitat. The area where a plant or animal lives and grows under natural conditions.

Habitat Capability. The ability of a land area or plant community to support a given species of wildlife.

Habitat Diversity. A number of different types of wildlife habitat within a given area.

Habitat Diversity Index. A measure of improvement in habitat diversity.

Habitat Type. A way to classify land area. A habitat can support certain climax vegetation, both trees and undergrowth species. Habitat typing can indicate the biological potential of a site.

Hard Snag. See Snag.

Hardened Campsite. A campsite where gravel or asphalt has been laid to protect the soil and contain use.

Harvest Cutting. The felling of the final crop of trees either in a single cutting or in a series of regeneration cuttings. Generally, the removal of financially or physically mature trees, in contrast to cuttings that remove immature trees. Also referred to as main felling and major harvest.

Hazard. A fuel complex defined by kind, arrangement, volume, condition, and location that forms a special threat of ignition and resistance to control.

Hazardous Areas. Those wildland areas where the combination of vegetation, topography, weather, and the threat of fire to life and property create difficult and dangerous problems.

Hazardous Fuels. Excessive live or dead wildland fuel accumulations that increase the potential for uncharacteristically intense wildland fire and decrease the capability to protect life, property, and natural resources.

Hazardous Substance. Usually a chemical or element that could affect the health of plants or animals if concentrations are too high. Usually regulated by laws and regulations of the Environmental Protection Agency or other regulatory agencies.

Healthy Ecosystem. An ecosystem in which structure and functions allow the maintenance of biological diversity, biotic integrity, and ecological processes over time.

Herbaceous Vegetation. Vegetation which dies back to ground level each year, generally grasses, forbs and grass-likes.

Heritage Resources. The remains of sites, structures, or objects used by humans in the past: historical or archaeological.

Hiding Cover. The vegetation that will hide ninety percent of an elk from the view of a human at a distance of 200 feet or less. The distance which the animal is essentially hidden is called a sight distance.

Hierarchical. A type of classification technique whose successively lower level units must fit entirely within the separate units delineated by the next higher level in that system.

Highwall. A mining term referring to a steep wall or cliff of undisturbed material, usually rock, that is created by mining.

Horizontal Diversity. The distribution and abundance of plant and animal communities or different stages of plant succession across an area of land. The greater the numbers of communities in a given area, the higher the degree of horizontal diversity.

Human Dimension. An integral component of Ecosystem Management that recognizes people are part of ecosystems, that people's pursuits of past, present and future desires, needs and values

(including perceptions, beliefs, attitudes and behaviors) have and will continue to influence ecosystems and that ecosystem management must include consideration of the physical, emotional, mental, spiritual, social, cultural and economic well-being of people and communities.

Hydric Greenline (HGL). A belt of perennial riparian vegetation found closest to the water's edge. It is the area where recovery of riparian and aquatic ecosystems is first expressed and, therefore, can be monitored to test the impacts of livestock grazing. It is also the area which approximates the geographic elevation of the active floodplain, a feature otherwise difficult to locate.

Hydrologic Cycle. Also called the water cycle, this is the process of water evaporating, condensing, falling to the ground as precipitation, and returning to the ocean as run-off.

Hydrologic Unit Code (HUC). A coding system developed by the U.S. Geological Service to map geographic boundaries of watersheds of various sizes.

Hydrologically Disturbed Condition. Changes in natural canopy cover (vegetation removal) or a change in surface soil characteristics (such as compaction) that may alter natural streamflow quantities and character. Acres of vegetation within a watershed that are in a non-stocked, seedling, sapling, or first entry category; acres in roads; acres from other types of mechanical treatments and burned acres are included in the calculation of hydrologically disturbed area.

Hydrologically Recovered Condition. Vegetative life form where natural canopy coverage is achieved and subsequent streamflow quantities and character (timing and amount) reflect more natural conditions. Within the forested ecosystem, this equates roughly with the sapling/early pole life form. This life form is achieved at approximately 20 – 30 years of age, depending on cover type and inherent site productivity potentials. Within the non-forested ecosystem, this equates roughly to 80% or pre-fire ground cover, which ever is less, approximately 3-5 years following treatment, depending on inherent site productivity potentials. Roads are considered hydrologically recovered if obliterated or ripped and drained and have 80% or more ground cover.

Hydrology. The science dealing with the study of water on the surface of the land, in the soil and underlying rocks and in the atmosphere.

Igneous Rock. Rocks formed when high temperature, molten mineral matter cooled and solidified.

Indicator Species. A plant or animal species related to a particular kind of environment. Its presence indicates that specific habitat conditions are also present.

Indigenous (species). Any species of wildlife native to a given land or water area by natural occurrence.

Individual (Single) Tree Selection. The removal of individual trees from certain size and age classes over an entire stand area. Regeneration is mainly natural, and an uneven-aged stand is maintained.

Induced Edge. An edge that results from the meeting of two successional stages of vegetative conditions within a plant community. These can be created by disturbance, i.e., grazing, timber harvest, fire, insect outbreaks.

Inherent Edge. An edge that results from the meeting of two plant community types. These often result from abrupt changes in soil type, topographic differences, geomorphic differences, and changes in microclimate.

Initial Attack. The wildfire control efforts taken by resources that are first to arrive at a wildfire.

Instream Flow. The quantity of water necessary to meet seasonal stream flow requirements to accomplish the purposes of the National Forests, including, but not limited to fisheries, visual quality, and recreational opportunities.

Integrated Pest Management. A process for selecting strategies to regulate forest pests in which all aspects of a pest-host system are studies and weighed. The information considered in selecting appropriate strategies includes the impact of the unregulated pest population on various resource values, alternative regulatory tactics and strategies, and benefit/cost estimates for these alternative strategies. Regulatory strategies are based on sound silvicultural practices and ecology of the pest-host system and consist of a combination of tactics such as timber stand improvement plus selective use of pesticides. A basic principle in the choice of strategy is that it be ecologically compatible or acceptable.

Interdisciplinary Team. A team of individuals with skills from different disciplines that focuses on the same task or project.

Intermediate Cut. The removal of trees from a stand sometime between the beginning or formation of the stand and the regeneration cut. Types of intermediate cuts include thinning, release, and improvement cuttings.

Intermittent Stream. A stream that flows only at certain times of the year when it receives water from streams or from some surface source, such as melting snow.

Intermountain Region. The portion of the USDA Forest Service, also referred to as Region Four, that includes National Forests in Utah, Nevada, southern Idaho and southwestern Wyoming.

Inventoried Roadless Area. (West of the 100th meridian) An area which meets the statutory definition of wilderness, does not contain improved roads maintained for travel by standard passenger-type vehicles, and meets one or more of the following criteria:

- Contains 5,000 acres or more.
- Contains less than 5,000 acres, but:
- Due to physiography or vegetation, is manageable in a natural condition.
- Is a self-contained ecosystem such as an island.
- Is contiguous to existing wilderness, primitive area, Administration-endorsed wilderness, or roadless area in other Federal ownership, regardless of size.

Inventoried Roadless Area. (East of the 100th meridian) An area which contains no more than a half mile of improved road for each 1,000 acres, and the road is under Forest Service jurisdiction and:

- The land is regaining a natural, untrammeled appearance.
- Improvements existing in the area are being affected by the forces of nature rather than humans and are disappearing or muted.
- The area has existing or attainable National Forest System ownership patterns, both surface and subsurface, that could ensure perpetuation of identified wilderness values.
- The location of the area is conducive to the perpetuation of wilderness values, considering the relationship of the area to sources of noise, air and water pollution and other unsightly conditions that would have an effect on the wilderness experience.

Invasive Species. A plant species moving into areas outside of its former range.

Invertebrate. Small animals that lack a backbone or spinal column. Spiders, insects, and worms are examples of invertebrates.

Irretrievable. Applies to losses of production, harvest or commitment of renewable natural resources. For example, some or all of the timber production from an area is irretrievably lost during the time an area is used as a winter sports site. If the use is changed, timber production can be resumed. The production lost is irretrievable, but the action is not irreversible.

Irreversible. Applies primarily to the use of nonrenewable resources, such as minerals or cultural resources, or to those factors that are renewable only over long time spans, such as soil productivity. Irreversible also includes loss of future options.

Issue. A point, matter or question of public discussion or interest to be addressed or decided through the planning process.

Preliminary issue is an issue identified early in the scoping phase and is sometimes referred to as a tentative issue.

Significant issue is an issue within the scope of the proposed action which is used to formulate alternatives in an Environmental Analysis (EA) or Environmental Impact Statement (EIS).

Key Summer Range. The portion of a wildlife species' summer range that is essential for the animal's pre, post, and reproduction cycles. Deer require "fawning areas" where does give birth and hide their fawns for an essential period of time in the spring.

Key Winter Range. That portion of big game's range where the animals find food and cover during severe winter weather.

Kuchler Vegetation Types. Potential natural vegetation of the conterminous United States, classified by Kuchler.

Ladder Fuels. Vegetation located below the crown level of forest trees which can carry fire from the forest floor to tree crowns. Ladder fuels may be low-growing tree branches, shrubs, or smaller trees.

Land-Aquatic Type Associations. Code numbers given to a mapped unit of land in which land forms, soils, vegetation and water have the dominating influence.

Land Class. The topographic relief of a unit of land. Land classes are separated by slope. This coincides with the timber inventory process. The three land classes used in the Forest Plan are defined by the following slope ranges: 0 to 35%, 36-55%, and greater than 55%.

Land Use Class. The predominant purpose for which an area is used, i.e., agricultural land, forest land, rangeland, wetland, urban and suburban, roads, railroads or utility corridor.

Landform. Any physical feature of the earth's surface having a characteristic, recognizable shape and produced by natural causes. Landform is one criteria used in determining the capability and suitability of lands to produce resources and accommodate management activities.

Landing. Any place where cut timber is assembled for further transport from the timber sale area.

Landline. The boundary lines for National Forest land.

Landscape. A large land area composed of interacting ecosystems that are repeated due to factors such as geology, soils, climate, and human impacts. Landscapes are often used for coarse grain analysis.

Landscape Ecology. A study of the principles concerning structure, function and change of landscapes, and the use of these principles in the formulation and solving of problems; the body of knowledge pertaining to the structure, function and change of spatial patterns in ecosystems.

Land Use Planning. The process of organizing the use of lands and their resources to best meet people's needs over time, according to the land's capabilities.

Late Forest Succession. The stage of forest succession in which most of the trees are mature or overmature.

Legal Notice. A notice of a decision which can be appealed that is published in the Federal Register or in the legal notice section of a newspaper of general circulation.

Lek. An area used habitually by grouse species where the males display for the females each spring. Number of males are counted on the lek each spring to establish general population trends.

Lethal Fire. In forests, fires in which less than 20 percent of the basal area or less than 10 percent of the canopy cover remains; in rangelands, fires in which most of the shrub overstory or encroaching trees are killed.

Lichen. Any of the various flowerless plants composed of fungi and algae, commonly growing in flat patches on rocks, trees, etc.

Life Zone. Areas of "belts" of land that have distinct plant and animal characteristics determined by elevation, latitude, and climate. When ascending a high mountain, you will pass through these life zones.

Litter (forest litter). The freshly fallen or only slightly decomposed plant material on the forest floor. This layer includes foliage, bark fragments, twigs, flowers and fruit.

Leasable Minerals. Minerals, including phosphate, coal, oil and gas that are administered under the 1920 Mineral Leasing Act. The Bureau of Land Management is the leasing agency; the Forest Service can provide input for leasing actions.

Locatable Minerals. These are generally precious metals, such as gold, silver, and copper that are administered under the 1872 Mining laws.

Logging Residues. The residue left on the ground after timber cutting. It includes unused logs, uprooted stumps, broken branches, bark, and leaves. Certain amounts of "slash" provide important ecosystem roles, such as soil protection, nutrient cycling, and wildlife habitat.

Long-Term Sustained Yield Capacity. The highest uniform wood yield from lands being managed for timber production that may be sustained under a specified intensity of management consistent with multiple-use objectives.

M. Thousand. Five thousand board feet of timber can be expressed as 5M board feet.

MM. Million

Macro Climate. The general, large scale climate of a large area, as distinguished from the smaller scale micro climates within it.

Macroinvertebrate Biotic Condition Index. An index that compares the tolerance or sensitivity to pollution of an existing community of macroinvertebrates to the predicted potential tolerance of a community of undisturbed conditions for a given stream. Generally reflects the condition of the aquatic ecosystem.

Management Action. Any activity undertaken as part of the administration of the National Forest.

Management Concern. An issue, problem or a condition which constrains the range of management practices identified by the Forest Service in the planning process.

Management Direction. A statement of multiple-use and other goals and objectives, the associated management prescriptions, and standards and guidelines for attaining them.

Management Intensity. A management practice or combination of management practices and associated costs designed to obtain different levels of goods and services.

Management Practice. A specific action, measure, course of action or treatment.

Management Prescription. Management practices and intensity selected and scheduled for application on a specific area to attain multiple-use and other goals and objectives.

Market-Value Outputs. Goods and services valued in terms of what people are willing to pay for them rather than go without, as evidenced by market transactions.

Mass Movement/Wasting. The down-slope movement of large masses of earth material by the force of gravity. Also called a landslide.

Mass Stability. The existing condition of the soil mantel related to the potential for land mass failure such as landslides, mud flows and debris slides.

Matrix. The least fragmented, most continuous pattern element of a landscape; the vegetation type that is most continuous over a landscape.

Mature Timber. Trees that have attained full development, especially height, and are in full seed production. Refers to ages and sizes of dominant trees that are at least at culmination of mean annual increment of tree stand volume growth.

MBF. Thousand board feet (See board feet.)

Maximum Modification. See "Visual Quality Objectives."

Mean Annual Increment of Growth. The total increase in size or volume of individual trees. Or, it can refer to the increase in size and volume of a stand of trees at a particular age, divided by that age in years.

Micro climate. The climate of a small site. It may differ from the climate at large of the area due to aspect, tree cover (or the absence of tree cover), or exposure to winds. Can create a micro-environment.

Microbiotic Crust. Thin crust of living organisms on or just below the soil, composed of lichens, mosses, algae, fungi, cyanobacteria, and bacteria.

Middleground. A term used in the management of visual resources, or scenery. It refers to the visible terrain beyond the foreground where individual trees are still visible but do not stand out distinctly from the stand.

Mineral Soil. Soil that consists mainly of inorganic material, such as weathered rock, rather than organic matter.

Minimum Impact Suppression Techniques (MIST). In wildland firefighting, a concept of employing the minimum amount of forces needed to effectively achieve fire management protection objectives

consistent with land and resource management objectives. Can feature a range of suppression and support actions to minimize impacts to these values, and special rehabilitation measures.

MIS (management indicator species). A wildlife species whose population indicate the health of the ecosystem in which it lives and, consequently, the effects of forest management activities to that ecosystem. MIS are selected by land management agencies. (See indicator species.)

Mission (of the USDA Forest Service). "To care for the land and serve people. As set forth in law, the mission is to achieve quality land management under the sustainable multiple-use management concept to meet the diverse needs of people.

Mitigate/mitigation. To lessen the severity. Actions taken to avoid, minimize or rectify the impact of a land management practice.

Mixed Stand. A stand consisting of two or more tree species.

MMBF. Million board feet (See board feet.)

Modification. A visual quality objective; management activities may visually dominate the original characteristic landscape, but they must borrow from naturally established form, line, color or texture so that the activity blends with the surrounding area.

Monitoring. The determination of how well project or plan objectives have been met and how closely management practices should be adjusted. (See adaptive management.)

Mortality. Trees that were merchantable and have died within a specified period of time. The term mortality can also refer to the rate of death of a species in a given population or community.

Mosaic of Forest and Openings. Areas with a variety of plant communities over a landscape, such as areas with trees and areas without trees occurring over a landscape.

Mountain Brush. Vegetation characterized by woody species usually found between sagebrush/grasslands and coniferous forests at upper elevations. Prominent species include mountain mahogany, mountain maple, chokecherry, serviceberry, etc.

Mountain Pine Beetle. A tiny black insect, ranging from 1/8 to 3/4 inch in size, that bores through a pine tree's bark. It stops the tree's intake and transport of the food and nutrients it must have to stay alive, thus killing the tree.

Multiple-Use. The management of all the various renewable surface resources of the National Forest System lands for a variety of purposes such as recreation, range, timber, wildlife and fish habitat, and watershed.

Municipal Watershed. A watershed that serves a public water system as defined in Public Law 93-523 (Safe Drinking Water Act); or as defined in State safe drinking water regulations. The definition does not include communities served by a well or confined ground water unaffected by Forest Service activities.

National Environmental Policy Act (NEPA). This is the basic national charter for protection of the environment. It establishes policy, sets goals and provides means for carrying out the policy.

National Forest Management Act (NFMA). These are rules that require an integration of planning for National Forests and Grasslands, including the planning for timber, range, fish and wildlife, water, wilderness, recreation resources, together with resource protection activities, such as fire management, and the use of other resources, such as minerals.

National Forest System (NFS) Land. Federal lands that have been designated by Executive Order or statute as National Forests, National Grasslands, Purchase Units, and other lands under the administration of the Forest Service, including Experimental Areas and Bankhead-Jones Title III lands.

Native Species. A species of flora or fauna occurring naturally in the United States and that not introduced by humans.

Natural Barrier. A natural feature, such as a dense stand of trees or downfall, that will restrict animal travel.

Natural Catastrophic Condition. A significant change in forest conditions on the area that affects Forest Plan resource management objectives and their projected and scheduled outputs, uses, costs, and impacts on local communities and environmental quality.

Natural Disturbance. See Disturbance.

Natural Range of Variability. See Range of variability.

Natural Resource. A feature of the natural environment that is of value in serving human needs.

Nest Survey. A way to estimate the size of a bird population by counting the number of nests in a given area.

Net Public Benefits. An expression used to signify the overall long-term value to the Nation of all outputs and positive effects (benefits) less all associated inputs and negative effects (costs) whether they can be quantitatively valued or not. Net public benefits are measured by both quantitative and qualitative criteria rather than a single measure or index. The maximization of net public benefits to be derived from management of units of the National Forest System is consistent with the principle of multiple-use and sustained-yield.

NFRS. National Forest recreation sites that have been inventoried.

No Action Alternative. The most likely condition expected to exist in the future if management practices continue unchanged.

Noncommercial Vegetative Treatment. The removal of trees for reasons other than timber production.

Nonconsumptive Use. The use of a resource that does not reduce its supply; for example, nonconsumptive uses of water include hydroelectric power generation, boating, swimming and fishing.

Nondeclining Flow. The principle expressed by the definition of the base sale schedule.

Nonforest Land. See "Timber Classification."

Nongame. Species of animals not managed for sport hunting.

Noninterchangeable Component (NIC). A portion of the allowable sale quantity (ASQ) which cannot be substituted for from other areas or species types. Volume programmed from a NIC will not be replaced by volume from other NICs. The volume in the NICs is mutually exclusive.

Nonmarket-Valued Outputs. Goods and services not generally traded in the marketplace, but valued in terms of what reasonable people would be willing to pay for them rather than go without. Those obtaining the actual outputs do not necessarily pay what they would be willing to pay for them.

Nonnative Species. A species introduced into an ecosystem through human activities.

Nonpoint Source Pollution. Pollution whose source is not specific in location. The sources of discharge are dispersed, not well-defined, or constant. Rain storms and snow melt often make this type of pollution worse. Examples include sediments from logging activities, and runoff from agricultural chemicals.

Non-renewable Resource. A resource whose total quantity does not increase measurably over time, so that each use of the resource diminishes the supply.

Notice of Intent. A notice printed in the Federal Register announcing that an Environmental Impact Statement (EIS) will be prepared.

Noxious Weeds. A plant recognized by law as being especially undesirable, troublesome, and difficult to control.

Nutrient Cycle. The circulation of chemical elements and compounds, such as carbon and nitrogen, in specific pathways from the non-living parts of ecosystems into the organic substances of the living parts of ecosystems, and then back again to the non-living parts of the ecosystem. For example, nitrogen in wood is returned to the soil as the dead tree decays; the nitrogen again becomes available to living organisms in the soil, and upon their death, the nitrogen is available to plants growing in that soil.

Objective. A clear and quantifiable statement of planned results to be achieved within a stated time period. Something aimed at or striven for within a predetermined time period. An objective must be achievable, be measurable, have a stated time period for completion, be quantifiable, be clear and its results must be described.

Off-Road Vehicles (ORV's). Vehicles such as motorcycles, all-terrain vehicles, four-wheel drive vehicles and snowmobiles.

Old Growth. Old forests often contain several canopy layers, variety in tree sizes and species, decadent old trees, and standing dead woody material.

Open Motorized Route Density (OMRD). Includes all open roads and open motorized trails. Density may be displayed in miles per square mile for a specified analysis area.

Opportunities. Ways to address or resolve public issues or management concerns in the land and resource management planning process.

Optimum. A level of production that is consistent with other resource requirements as constrained by environmental, social, and economically sound conditions.

Organic Soil. Soil at least partly derived from living matter, such as decayed plant material.

Output. One of the ways functions are described; resources which leave a system, i.e., animals migrating out of an area, mass erosion, removal of commercial timber from an area.

Overburden. The rock and/or soil that covers an ore body, or material that is extracted during mining that does not have high enough values to be considered ore.

Overmature Timber. Tress that have attained full development, particularly in height, and are declining in vigor, health, and soundness.

Overstory. The upper canopy layer; the plants below comprise the understory.

Paleontological Resource. Any remains, trace or imprint of a plant or animal that has been preserved in the Earth's crust since some past geologic time.

Parent Material. The mineral or organic matter from which the upper layers of soil are formed.

Park-like Structure. Stands with large scattered trees and open growing conditions, usually maintained by ground fires.

Partial Retention. A visual quality objective which, in general, means human activities may be evident, but must remain subordinate to the characteristic landscape.

Particulates. Small particles suspended in the air and generally considered pollutants.

Patch. An area of homogenous vegetation, in structure and composition.

Patch Cut. A clearcut that creates small openings in a stand of trees, usually between 15 and 40 acres in size. Patch cuts are used to provide the disturbance needed to regenerate aspen.

Percolation. Downward flow or infiltration of water through the pores or spaces of rock or soil.

Perennial Stream. A stream that flows throughout the year and from source to mouth.

Perlite. A volcanic glass containing water that expands or "pops" when heated to form a lightweight aggregate.

Permitted Grazing. Grazing on a National Forest range allotment under the terms of a grazing permit.

Permittee. A person or persons who utilize the National Forest System lands under a permit.

Personal Use. Normally used to describe the type of permit issued for removal of wood products (firewood, posts, poles, and Christmas trees) from National Forest land when the product is for home use and not to be resold for profit.

Persons-At-One-Time (PAOT). A recreation capacity measurement term indicating the number of people who can use a facility or area at one time.

Placer. A mineral deposit formed by mechanical concentration of mineral particles from weathered debris (as used in this document, gold particles concentrated in stream or glacier sediments).

Planning Area. The area covered by a Regional Guide or Forest Plan.

Planning Corridor. A general broad linear area of land used to evaluate where a specific right-of-way could be placed.

Planning Period. The 50-year time frame for which goods, services, and effects were projected in the development of the Forest Plan.

Planning Regulations. The rules which guide land and resource management planning (Forest Plans) on the National Forests.

Plant Association. A potential natural plant community of definite floristic composition and uniform appearance.

Plant Community. A group of one or more populations of plants in a common spatial arrangement.

Plant Species. The major subdivision of a genus or subgenus of a plant being described or measured.

PNV. See present net value.

Pole/sapling. The stage of forest succession in which trees are between 3 and 7 inches in diameter and are the dominant vegetation.

Pole timber. Live trees at least five inches in diameter at breast height but smaller than the minimum size for sawtimber.

Policy. A guiding principle which is based on a specific decision or set of decisions.

Pool. A potion of the stream with reduced current velocity, often with water deeper than the surrounding areas, which is frequently used by fish for resting and cover.

Pool-Riffle Ratio. The ratio of the length or percent of pool habitat divided by the length or percent of riffle habitat.

Potential Natural Community. The biotic community that would be established if all successional sequences of its ecosystem were completed without additional human-made disturbance under present environmental conditions. Grazing by native fauna, natural disturbances, such as drought, floods, wildfire, insects and disease are inherent in the development of potential natural communities which may include naturalized non native species. The potential natural community and its environmental characteristics provide a reference standard to which existing seral communities can be related.

Potential Natural Vegetation. The vegetation that would exist today if man were removed from the scene and if the plant succession after his removal were telescoped into a single moment. The time compression eliminates the effects of future climatic fluctuations, while the effects of man's earlier activities are permitted to stand.

Practice (Also Management Practice). A specific activity, measure, course of action, or treatment.

Precommercial Thinning. The practice of removing some of the trees less than merchantable size from a stand so that the remaining trees will grow faster.

Predator. An animal at or near the top of food chains that lives by preying on other animals.

Pre-existing Use. Land use that may not conform to a zoning ordinance but existed prior to the enactment of the ordinance.

Preparatory Cut. The removal of trees near the end of a rotation, which permanently opens the canopy and enables the crowns of seed bearers to enlarge, to improve conditions for seed production and natural regeneration typically done in the shelterwood system.

Prescribed Fire. Fire set intentionally in wildland fuels under prescribed conditions and circumstances. Prescribed fire can rejuvenate forage for livestock and wildlife or prepare sites for natural regeneration of trees.

Prescribed Natural Fire. Naturally ignited fire that burns under specified conditions that allow the fire to be confined to a predetermined area and produce fire behavior and fire characteristics to attain planned fire treatment and resource management objectives.

Prescription. Management practices selected to accomplish specific land and resource management objectives.

Present Net Value. Also called present net worth. The measure of the economic value of a project when costs and revenues occur in different time periods. Future revenues and costs are "discounted" to the present by an interest rate that reflects the changing value of a dollar over time. The assumption is that dollars today are more valuable dollars in the future. PNV is used to compare project alternatives that have different cost and revenue flows.

Preservation. See "Visual Quality Objectives."

Presuppression. Activities in advance of fire occurrence to assure effective suppression action.

Primary Base Series. A topographic map series that includes culture, drainage, land net ownership, and contours and is prepared on a stable base film. The map series is used to produce Forest Service cartographic products used in managing National Forest System lands. Similar maps are available for other lands.

Primitive ROS (Recreation Opportunity Spectrum). A classification of wilderness and recreation opportunity. It is characterized by an essentially unmodified environment, where trails mail be present but structures are rare, and where it is highly probable to be isolated from the sights and sounds of people. (See ROS.)

Production. One of the ways functions are described; resource which are "manufactured" within the system (i.e., plant growth, animal reproduction, snags falling and becoming down woody material).

Production, Forage. Annual production of herbage, shrubs, woody vines, and trees which may provide food for grazing animals or harvested for feeding. Forage production is expressed in pounds per acre per year and is used to determine available food supply for grazing animals.

Productivity. The ability of an area to provide goods and services and to sustain ecological values; the growth rate of biomass per unit area, usually expressed in terms of weight or energy.

Production Potential. The capability of land or water to produce a given resource.

Program. When capitalized, the Renewable Resource Program required by the RPA. Generally, sets of activities or projects with specific objectives, defined in terms of specific results and responsibility for accomplishment.

Programmatic Direction. Sideboards for management which are usually general in nature and designed to be applied over a large area. In the Forest Service, generally referring to Forest Plan direction.

Properly Functioning Condition (PFC). The condition of a resource or ecosystem at any temporal or spatial scale when they are dynamic and resilient to disturbances to structure, composition and processes of their biological or physical components. Riparian PFC is based on the BLM/FS TR-1737-5; upland PFC is based on the Intermountain Region's Rapid Assessment Process.

Proposal. Exists at the stage in the development of an action when an agency is actively preparing to make a decision on one or more alternative means of accomplishing a goal and the effects can be meaningfully evaluated.

Proposed Action. A proposal by the Forest Service to authorize, recommend or implement an action.

Protocol. A specific way of conducting monitoring or analysis.

Public Access. An indication if the property is posted or restricted from public use.

Public Domain. The territory ceded to the Federal government by the original thirteen states, plus additions by treaty, cession, and purchase.

Public Issue. A subject or questions of widespread public interest relating to management of the National Forest System.

Public Land. Land for which title and control rests with a government - federal, state, regional, county or municipal.

Public Participation. Meeting, conferences, seminars, workshops, tours, written comments, responses to survey questionnaires, and similar activities designed and held to obtain comments from the public about Forest Service planning and decision making.

Pumice. A light-colored, lightweight volcanic rock consisting mostly of volcanic glass.

Purpose and Need. A statement which briefly specifies the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action.

PWI Watershed. Project Work Inventory (PWI) Watersheds have been delineated on the Caribou NF and are at approximately the same scale as 5th level hydrologic unit codes (HUC) which were used in the ICBEMP

Quadratic Mean Diameter (QMD). Indicates the diameter of the cross-section of average area. This number is used for determining basal area and volume.

Range (Rangeland). Land on which the principle natural plant cover is composed of native grasses, forbs, and shrubs that area available as forage for big game and livestock.

Range Allotment. An area designated for the use of a prescribed number and kind of livestock under one management plan.

Range Development. An activity or structure used to improve livestock distribution, rangeland conditions, or otherwise improve range management. Can be structural (fence, water development, etc.) or nonstructural (seeding, vegetation manipulation, etc.).

Range Management. The art and science of planning and directing range use intended to yield the sustained maximum animal production and perpetuation of the natural resources.

Range of Variability. (Natural Variability, Historical Variability.) The components of healthy ecosystems fluctuate over time. The range of sustainable conditions in an ecosystem is determined by time, processes such as fire, native species, and the land itself. For instance, ecosystems that have a 10-year fire cycle have a narrower range of variation than ecosystems with 200-300 year fire cycles. Past management has placed some ecosystems outside their range of variability. Future management should move such ecosystems back toward their natural, sustainable range of variation.

Ranger District. The administrative sub-unit of a National Forest that is supervised by a District Ranger who reports directly to the Forest Supervisor.

Raptor. A bird of prey, such as an eagle or hawk.

RARE II. *Roadless Area Review and Evaluation*. The national inventory of roadless and undeveloped areas within the National Forests and Grasslands.

Real Dollar Value. A monetary value that compensates for the effects of inflation.

Recharge. The addition of water to ground water by natural or artificial processes.

Reclamation. The process of restoring disturbed areas, usually consisting of reshaping, replacing topsoil, and seeding the area.

Recreation Capacity. The number of people that can take advantage of any supply of recreation opportunity at any one time without substantially diminishing the quality of the experience.

Recreation Opportunity Class. An assessment of the general potential of the site for outdoor recreation. The following minimum number of classes are recognized:

Primitive - Area is characterized by essentially unmodified natural environment with a high probability of experiencing isolation from the sights and sounds of man.

Semi-primitive - Area is characterized by a predominantly natural or natural-appearing environment with a moderate probability of experiencing isolation from the sights and sounds of man. Semi-primitive can be motorized or non-motorized.

Roaded Natural - Area is characterized by a predominantly natural or natural-appearing environment with a low probability of experiencing isolation from the sights and sounds of man.

Rural - Area is characterized by a substantially modified natural environment with a low probability of experiencing isolation from the sights and sounds of man.

Urban - Area is characterized by a substantially urbanized environment, although the background may have natural-appearing elements, i.e. ski resorts.

Recreation Type.

Developed Recreation. The type of recreation that occurs where modifications (improvements) enhance recreation opportunities and accommodate intensive recreation activities in a defined area.

Dispersed Recreation. That type of recreation use that requires few, if any, improvements and may occur over a wide area. This type of recreation involves activities related to roads and trails. The activities do not necessarily take place on or adjacent to a road or trail, only in conjunction with it. Activities tend to be day-use oriented and include hunting, fishing, berry picking, off-road vehicle use, hiking, horseback riding, picnicking, camping, viewing scenery, snowmobiling, and many others.

Recreation Visitor Day (RVD). Twelve visitor hours, which may be aggregated continuously, intermittently, or simultaneously by one or more persons.

Reforestation. The natural or artificial restocking of an area with forest trees.

Regeneration. The renewal of a tree crop, whether by natural or artificial means. Also, the young crop itself, which commonly is referred to as reproduction.

Regionalization. A mapping procedure in which a set of criteria are used to subdivide the earth's surface into smaller, more homogeneous units that display spatial patterns related to ecosystem structure, composition, and function.

Regional Analysis Areas. Geographic areas within the Region that encompass several Forest or Grasslands.

Regional Forester. The official of the USDA Forest Service responsible for administering an entire region of the Forest Service.

Regulations. Generally refers to the Code of Federal Regulations, Title 36, Chapter II, which covers management of the Forest Service.

Release Cutting. Removal of competing vegetation to allow desired tree species to grow.

Removal Cut. The removal of the last seed bearers or shelter trees after regeneration is established.

Rendezvous Site. In wolf management, an area where wolves gather.

Research Natural Area (RNA). Designated areas of land, usually more than 300 acres in size having characteristics concerning ecological processes that are of scientific or educational interest. These areas are valuable for conducting observation and research activities on plant and animal succession, habitat requirements of species, insect and fungus depredations, soil microbiology, phenology, and other related subjects.

Residual Stand. The trees remaining standing after some event such as selection cutting.

Residue Utilization. Removal and use of forest residue (such as slash, litter, brush, dead trees, and snags) for energy production, home heating or wood products.

Resilience. The ability of an ecosystem to return to or maintain diversity, integrity and ecological processes following disturbance.

Responsible Official. The Forest Service employee who has been delegated the authority to carry out a specific planning action.

Restoration. Actions taken to modify an ecosystem in whole or in part to achieve a desired condition.

Retention. A visual quality objective; management activities that are not visually evident; activities repeat form, line, color, and texture characteristics found in the landscape.

Revegetation. The re-establishment and development of a plant cover by either natural or artificial means, such as re-seeding.

Riffle. A shallow rapids where the water flows swiftly over completely or partially submerged obstructions to produce surface agitation, but standing waves are absent.

Right-of-Way. An accurately located strip of land with defined width, point of beginning, and point of ending. It is the area within which the user has authority to conduct operations approved or granted by the landowner in an authorizing document, such as a permit, easement, lease, license, or Memorandum of Understanding (MOU).

Riparian Area. They are along a watercourse or around a lake or pond.

Riparian Attributes. See AIZ attributes.

Riparian Ecosystem. The ecosystems around or next to water areas that support unique vegetation and animal communities as a result of the influence of water.

Road Density. The miles of road per square mile.

Road System. An alpha code indicating primary systems designation where primary indicates the system under which principle funding and management criteria for operation and maintenance of a road is derived.

ROD. Record of Decision. An official document in which a deciding official states the alternative that will be implemented from a prepared EIS.

ROS. Recreation Opportunity Spectrum. The land classification system that categorizes land by its setting and the probable recreation experiences and activities it affords. (See Recreation Opportunity Class.)

Rotation. The number of years required to establish and grow timber to a specified condition of maturity.

Roundwood. Timber and fuelwood prepared in the round state, such as house logs and telephone poles.

RPA. The Forest and Rangeland Renewable Resources Planning Act of 1974. Also refers to the National Assessment and Recommended Program developed to fulfill the requirements of this Act.

R.S. 2477. Revised Statute 2477; legislation that allows counties to assert that they have access rights on roads and/or trails that existed prior to the establishment of the Forest.

Run-off. The portion of precipitation that flows over the land surface or in open channels.

Sacrifice Area/Site. In range management, a site allowed to be overgrazed to obtain efficient overall use of the management area. In cultural resource management, it may refer to a site intentionally sacrificed to extensive public use in order to preserve the larger cultural area.

Sale Schedule. The quantity of timber planned for sale by time period from an area of suitable land covered by a Forest Plan. The first period, usually a decade, of the selected sale schedule provides the allowable sale quantity. Future periods are shown to establish that long-term sustained yield will be achieved and maintained.

Saleable Minerals. These minerals, including sand, gravel and stone, are administered under the 1947 Mineral Materials Act. The Forest Service has the discretion to dispose (sell) of these materials.

Salvage Harvest. Harvest of trees that are dead, dying, or deteriorating because they are overmature or have been materially damaged by fire, wind, insects, fungi, or other injurious agents before the wood becomes unmerchantable.

Sanitation Harvest. The harvest of dead, damaged or susceptible trees done primarily to prevent the spread of pests or disease and to promote forest health.

Sapling. A loose term for a young tree more than a few feet tall and an inch or so in diameter that is typically growing vigorously.

Sawtimber. Trees that are 9 inches in diameter at breast height or larger and can be made into lumber.

Scale. In ecosystem management, scale refers to the degree of resolution at which ecosystems are observed and measured.

Scenery Management System. Provides an overall framework for the orderly inventory, analysis, and management of scenery. Applies to every acre of national forest and national grasslands administered by the Forest Service and to all Forest Service activities, including timber harvesting, road building, stream improvements, special use developments, utility line construction, recreation developments, and fuel breaks.

Scenic Integrity. From SMS, it is a measure of the degree to which the valued landscape character is perceived as complete, whole, or intact.

Scenic Integrity Objectives. Scenic integrity objectives are ratings are long term goals, or long term sustainable integrity goals.

Scoping. The on-going process to determine public opinion, receive comments and suggestions, and determine issues during the environmental analysis process. It may involve public meetings, telephone conversations or letters.

Second Growth. Forest growth that was established after some kind of interference with the previous forest crop, such as cutting, fire, or insect attack.

Security Area. Security areas are non-linear blocks over ½ mile from an open route and at least 250 acres in size. Cover may be provided by vegetation or topography.

Sediment. Solid material, both mineral and organic, transported from its site of origin by air, water, gravity, or ice.

Seedlings and Saplings. Live trees less than 5 inches in diameter at breast height.

Seed Tree Harvest. Removal of the mature timber crop from an area in one cut, except for a small number of seed bearers.

Selection. See "Group Selection" and "Individual (Single) Tree Selection."

Sensitive Species. Plant or animal species which are susceptible to habitat changes or impacts from activities. The official designation is made by the USDA Forest Service at the Region level and is not part of the designation of Threatened or Endangered Species made by the U.S. Fish & Wildlife Service.

Sensitivity Level. A particular degree of measure of viewer interest in scenic qualities of the landscape. Three sensitivity levels are employed, each identifying a different level of user concern for the visual environment:

Level 1 - Highest Sensitivity
Level 2 - Average Sensitivity
Level 3 - Lowest Sensitivity

Seral. The stage of succession of a plant or animal community that is transitional. If left alone, the seral stage will give way to another plant or animal community that represents a further stage of succession. Generally expressed as late, mid, or early.

Shade-Intolerant Plants. Plant species that do not germinate or grow well in shade.

Shade-Tolerant Plants. Plants that grow well in shade.

Shelterwood. A cutting method used in a more or less mature stand, designed to establish a new crop under the protection of the old.

Sight Distance. The distance at which 90 percent or more of a deer or elk is hidden from an observer. Hiding cover exists when 90 percent or more of a standing deer or elk is hidden at a distance of 200 feet or less.

Significance. As used in NEPA, requires consideration of both context and intensity.

Silvicultural System. The cultivation of forests; the result is a forest of a distinct form. Silvicultural systems are classified according to harvest and regeneration methods and the type of forest that results.

Silviculture. The art and science that promotes the growth of single trees and the forest as a biological unit.

Similar Actions. Actions, which when viewed with other reasonable foreseeable or proposed agency actions, have similarities that provide a basis for evaluating their environmental consequences together, such as timing or geography.

Single-Tree Selection. See "Individual (Single) Tree Selection."

Sinuosity. The ratio of a stream's channel length to valley length.

Site Preparation. The general term for removing unwanted vegetation, slash, roots, and stones from a site before reforestation. Naturally occurring wildfire, as well as prescribed fire can prepare a site for natural regeneration.

Size Class. One of the three intervals of tree stem diameters used to classify timber in the Forest Plan data base. The size classes are: Seedling/Sapling (less than 5 inches in diameter); Pole Timber (5 to 7 inches in diameter); Sawtimber (greater than 7 inches in diameter).

Skidding. Hauling logs by sliding, not on wheels, from stump to a collection point.

Skid Trail. Narrow path on which logging equipment travels when moving logs from the forest to a designated landing location.

Skier days. Twelve skier hours, which may be aggregated continuously, intermittently, or simultaneously by one or more persons.

Skyline logging. A logging system used to remove timber from steep slopes. Logs are brought up-slope on a suspended cable, or skyline. Since the weight of the log is completely or partially supported by the cable, there is little disturbance to soil or other vegetation.

Slash. The residue left on the ground after timber cutting and/or accumulating there as a result of storm, fire, or other damage. It includes unused logs, uprooted stumps, broken or uprooted stems, branches, twigs, leaves, bark and chips.

Slump. A landslide where the underlying rock masses tilt back as they slide from a cliff or escarpment.

Small Game. Birds and small mammals typically hunted or trapped.

Smoke Management. Application of fire intensities and meteorological processes to minimize degradation of air quality during prescribed fires.

Snag. A standing dead tree important as habitat for a variety of wildlife species and their prey.

Soil Compaction. A physical change in soil properties that results in a decrease in porosity and increase in soil bulk density and soil strength.

Soil Cover. The type of cover on the soil surface, i.e. live vegetation, litter, rock, pavement, exposed.

Soil Displacement. The movement of the forest floor (litter, duff, and humus layers) and surface soil from one place to another by mechanical forests such as a blade used in piling or windrowing. Mining of surface soil layers by discing, chopping, or bedding operation are not considered displacement.

Soil Drainage Class. Natural soil drainage refers to the rapidity and extent of the removal of water from the soil, in relation to incoming water. This is especially true of water by surface runoff and by flow through the soil to underground spaces. Soil drainage, as a condition of the soil, refers to the frequency and duration of periods when soil is free of saturation or partial saturation.

Soil Erosion Type. A classification system that further defines erosion by running water, wind or gravitational creep that is used to determine watershed condition.

Soil Quality. Long term soil productivity and soil hydrologic function.

Soil Map Unit. A named portion of a landscape shown by a closed delineation and symbol on a soil map. Generally used to assess or monitor watershed condition, site productivity, and site capability.

Soil Puddling. A physical change in soil properties due to shearing forces that alters soil structure and porosity. Puddling occurs when the soil is at or near liquid limit.

Soil, Severely Burned. A condition where most woody debris and the entire Forest floor is consumed down to bare mineral soil. Soil may have turned red due to extreme heat. Also, fine roots and organic matter are charred in the upper one-half inch of mineral soil.

Soil Structure. Structure is described by grade, class and type. Terms are used to describe the natural aggregates in the soil called peds in contrast to clods caused by disturbance, fragments by rupture of peds, and concentrations by local concentrations of compounds that irreversibly cement the soil grains together. The six structures, each with its own distinctive shape and arrangement, are: granular, platy, prismatic, columnar, angular blocky, subangular blocky, and structureless.

Soil Texture. Texture refers to the relative proportions of clay, silt and sand (less than 2mm in diameter). Clay particles are the smallest, silt particles are intermediate and sand particles are the largest. Loams contain various mixtures of the three basic particle sizes.

Soil and Water Conservation Practices (SWCPs). See BMP.

Soil Compaction. The reduction of soil volume. For instance, the weight of heavy equipment on soils can compact the soil and thereby change it in some ways, such as its ability to absorb water.

Soil Productivity. The capacity of a soil to produce a specific crop. Productivity depends on adequate moisture and soil nutrients, as well as favorable climate.

Sound Wood. Timber that is in solid, whole, good condition. Sound wood is free from damage, decay, or defects.

Special Forest Products. Nontimber renewable plant products such as mushrooms, berries, flowers, etc.

Special Use Authorization. A special use permit, lease, or easement issued by the Forest Service to a person or entity to use National Forest System lands for a specific purpose and term.

Special Use Authorization Holder. A person or entity having permission to use National Forest System lands under the authority of a special use authorization issued by the Forest Service.

Species at Risk. Species which demonstrate a potential for loss of resilience or sustainability if disturbed.

Stand (Tree Stand). A group of trees that occupies a specific area and is similar in species, age, and condition.

Stand Density Index (SDI). The index number is the number of trees per acre at an average stand diameter of 10 inches. This index changes for different species, since some trees are more shade tolerant than others. For example, the maximum trees per acre for an Engelmann spruce-subalpine fir stand is 670, while the maximum trees per acre in a Douglas-fir stand is 200-250.

Standards and Guidelines. Requirements found in a Forest Plan which impose limits on natural resource management activities, generally for environmental protection.

State Air Quality Regulations. The legal base for control of air pollution sources in that State. Prescribed burning is generally covered under these regulations.

State Implementation Plan. A State plan that covers implementation, maintenance, and enforcement of primary and secondary standards in each air quality control Region, pursuant to section 110 of the Clean Air Act.

Stewardship. Caring for land and associated resources and passing healthy ecosystems to future generations.

Stocking level. The number of trees in an area as compared to the desirable number of trees for best results, such as maximum wood production.

Storage. One of the ways functions are described; resources which are conserved within the system (i.e., sediments and water retained in wetlands, carbon and other nutrient storage in down woody material).

Stream Channel. The defined bed and bank of a watercourse down which water travels.

Stream Order. A numbering scheme used to characterize the relative position of stream channels within a drainage. First-order streams are those which have no tributaries. Second-order streams are those which have as tributaries only first-order channels. Third-order streams are formed when two second-order channels come together. Stream order is used to analyze hydrologic response and fisheries.

Stream Type. Alpha-numeric identification given to reoccurring stream channel types based on measurable morphological features such as channel gradient, width/depth ratio, dominant particle size of bed and bank materials, entrenchment of channel and confinement of channel in valley, and landform features, soil erodibility, and stability.

Stream Width. The width of streams or rivers. Generally used to determine stream type, flood hazard, instream flows, and riparian management.

Streamflow. A measure of the volume of water passing a given point in a stream channel at a given point in time.

Stringer. A strip of vegetation different from surrounding vegetation, such as a stringer of aspen in an area of spruce.

Structure. How the parts of ecosystems are arranged, both horizontally and vertically. These parts include vegetation patches, edge, fragmentation, canopy layers, snags, down wood, steep canyons, rocks in streams, and roads. For example, structure might reveal a pattern, mosaic or total randomness of vegetation.

Subnival. A mountainous environment below the snow zone in which frost action is an important ecological process.

Subwatershed. A drainage delineated for one of the streams within a National Forest System (NFS) watershed, often to analyze the effects of a proposed action. The subwatershed chosen for analysis may depend on the size and anticipated effects of a proposal.

Succession. The natural replacement, in time, of one plant community with another. Conditions of the prior plant community (or successional stage) create conditions that are favorable for the establishment of the next stage.

Successional Stage. A stage of development of a plant community as it moves from bare ground to climax. The grass-forb stage of succession precedes the woody shrub stage and so on.

Suitability. The appropriateness of certain resource management practices to an area of land. Suitability can be determined by environmental and economic analysis of management practices.

Suitability for Timber Production. Timber harvest, other than salvage sales or sales to protect other multiple-use values, cannot occur on lands not suited for timber production.

Suppression. The action of extinguishing or confining a fire.

Surface Fire. Fire that burns loose debris of the surface, which includes dead branches, leaves and low vegetation.

Surface Resources. Renewable resources that are on the surface of the earth, such as timber and forage, in contrast to ground water and minerals which are located beneath the surface.

Suspended Sediment. Sediment which remains in suspension in the water for a considerable period of time without contact with the bottom of the water source and is generally recorded in parts per million or milligrams per liter.

Sustainability. The ability of an ecosystem to maintain ecological processes and functions, biological diversity, and productivity over time.

Sustainable. The yield that a renewable resource can produce continuously at a given intensity of management is said to be sustainable.

Sustained-Yield. The yield that a renewable resource can produce continuously at a given intensity of management.

Tall Forb Community. A vegetation community made up of tall broad-leaved plants, rated as "at risk" in the Intermountain Region due to conifer encroachment and historic overgrazing. Common plants include anise, mountain bluebell, and coneflower.

Target. A National Forest's annual goal for accomplishment for natural resource programs. Targets represent the commitment of the Forest Service has with Congress to accomplish the work Congress has funded, and are often used as a measure of the agency's performance.

Terrestrial. Pertaining to the land.

Thermal Cover. Cover used by animals to ameliorate effects of weather; for elk, a stand of coniferous trees 40 feet or more tall with an average crown closure of 70 percent or more.

Thinning. A cutting method used in an immature stand of trees to accelerate growth or improve the form of the remaining trees without permanently breaking the canopy.

Threatened and Endangered Species Habitat. Those areas currently or potentially occupied or utilized by threatened and endangered species. T&E Species habitat generally falls into one of several categories: critical habitat, proposed critical habitat, occupied habitat, or potential habitat.

Threatened Species. Those plant or animal species likely to become endangered species throughout all or a significant portion of their range within the foreseeable future as designated by the U.S. Fish & Wildlife Service under the Endangered Species Act of 1973.

Timber Classification. The classification of forested lands into land management alternatives according to how the land relates to management of the timber resource there.

Nonforest Land -- Lands never having or incapable of having greater than 10 percent of the area occupied by forest trees and lands formerly forested and currently developed for nonforest use.

Forest Land -- Land at least 10 percent occupied by forest trees of any size or formerly having had such tree cover and not currently developed for nonforest use. Lands developed for nonforest use include areas for crops, improved pasture, residential, or administrative areas, improved roads of any width and adjoining road clearing and power line clearing of any width. The term

occupancy when used to define forestland will be measured by canopy cover of live forest trees at maturity. The minimum area for classification of forestland is 1 acre. Unimproved roads, trails, streams and clearings in forest areas are classified as forest if they are less than 120 feet in width.

Suitable Forest Land -- Land that is managed for timber production on a regulated basis.

Unsuitable Forest Land (Not Suited) -- Forest land that is not managed for timber production because: (1) the land has been withdrawn by Congress, the Secretary or the Chief; (2) technology is not available to prevent irreversible damage to soils, productivity or watershed conditions; (3) there is not reasonable assurance that lands can adequately be restocked within 5 years after final harvest based on existing technology and knowledge; (4) there is at present, a lack of adequate information to responses to timber management activities; or (5) timber management is inconsistent with or not cost-effective in meeting management requirements and multiple-use objectives specified in the Forest Plan.

Tentatively Suitable (Commercial Forest Land) -- Forest Land which is producing or is capable of producing crops of industrial wood and (1) has not been withdrawn by Congress, the Secretary or the Chief; (2) existing technology and knowledge is available to ensure timber production without irreversible damage to soils, productivity, or watershed conditions; and (3) existing technology and knowledge provides reasonable assurance that adequate restocking can be attained within 5 years after final harvesting.

Timber Harvest Schedule. See "Sale Schedule."

Timber Treatment Opportunity Class. A class to identify the physical opportunity for increasing timber production. Classes are:

No treatment required - Stand is characterized by an adequate stock of growing stock trees in reasonably good condition.

Regeneration without site preparation - Area is characterized by the absence of a manageable stand because of inadequate stocking of growing stock. Growth will be consistently below potential for the site if the area is left alone. Prospects are not good for natural regeneration. Artificial regeneration will require little or no site preparation.

Regeneration with site preparation - Area is characterized by the absence of a manageable stand because of inadequate stocking of growing stock. Growth will be considerably below potential for the site if the area is left alone. Either natural or artificial regeneration will require site preparation. Such preparation may include clear felling existing stand.

Stand conversion - The area is characterized by stands of undesirable, chronically diseased, or off-site species. Growth and quality will be considerably below potential for the site if the area is left alone. The best prospect is for conversion to a different forest type or species.

Thinning seedlings and saplings - The stand is characterized by a dense stocking of growing stock. Stagnation appears likely if left alone. Stocking must be reduced to help crop trees attain dominance.

Thinning poletimber - The stand is characterized by a dense stocking of growing stock. Stocking must be reduced to prevent stagnation or to confine growth to fewer, high quality crop trees.

Other Stocking Control (Clean and Release, Cull Tree Removal) - Stand is characterized by an adequate stocking of seedlings, sapling, and/or poletimber growing stock mixed with competing vegetation either overtopping or otherwise inhibiting the development of crop trees.

The undesirable material must be removed to release overtopped trees, prevent stagnation, or improve the composition, form or growth of the residual stand.

Other Intermediate Treatments - The stand would benefit from other special treatments such as pruning to improve the quality of individual crop trees.

Clearcut Harvest - The area is characterized by a mature to overmature stand of sufficient volume to justify a commercial harvest. The best prospect is to harvest the stand and regenerate.

Partial Cut Harvest - The stand is characterized by poletimber or sawtimber sized trees with sufficient merchantable volume for a commercial harvest which will achieve intermediate stand treatment needs to prepare stand for natural regeneration. The stand is of a favored species composition and may be even or uneven aged. Included in such treatments as seed tree or shelterwood regeneration and selection harvest to maintain an uneven age stand.

Salvage Harvest - The stand is characterized by excessive damage to merchantable timber due to fire, insects, disease, wind, ice or other destructive agents. The best prospect is for removal of damaged or threatened material followed by regeneration.

Time Since Disturbance. The number of years between when the most recent disturbance took place (stand history) and the current time that is used to determine successional trends. Elements include age of sprouts on stumps or damaged trees, color and condition of resin on the stump, stage of decay, bark tightness and tree age.

Total/Timber Sale Program Quantity (TSPQ). The volume of timber planned for sale during the first decade of the planning horizon. It includes the allowable sale quantity (chargeable volume) and any additional material (nonchargeable volume) planned for sale. The timber sale program quantity usually is expressed as an annual average for the first decade.

Total Maximum Daily Load (TMDL). From the Clean Water Act, an amount of a given pollutant the is allowed in a Water Quality Limited Stream.

Tractor Logging. A logging method that uses tractors to carry or drag logs from the stump to a collection point.

Transitory Range. Rangelands not normally suitable for livestock grazing which have been made suitable for a period of time by a management action. In the Forest Service, mostly pertains to areas that have been logged and provide forage for one or two decades until the trees return at high densities.

Transportation System. All existing and proposed roads, trails, airfields, and other transportation facilities wholly or partly within or adjacent to and serving the National Forests and other areas administered by the Forest Service or intermingled private lands.

Treatment Area. The site-specific location of a resource improvement activity.

Tree Opening. An opening in the forest cover created by even-aged silvicultural practices.

Trend. The direction of change in ecological status of a plant community usually expressed as moving "toward", "away from", or "not apparent".

TSI (Timber Stand Improvement). Actions to improve growing conditions for trees in a stand, such as thinning, pruning, prescribed fire, or release cutting.

Turbidity. A measure of the optical property that causes light to be scattered and absorbed rather than transmitted in straight lines.

Type Conversion. The conversion of the dominant vegetation in an area from forested to non-forested or from one species to another.

Underburn. A burn by a surface fire that can consume ground vegetation and "ladder" fuels.

Understory. The trees and woody shrubs growing beneath the overstory in a stand of trees.

Uneven-Aged Management. Actions that maintain a forest or stand of trees composed of intermingling trees that differ markedly in age. Cutting methods that develop and maintain uneven-aged stands are single-tree selection and group selection.

Unregulated Harvest. Tree harvest that is not part of the allowable sale quantity (ASQ). It can include the removal of cull or dead material or non-commercial species. It also includes volume removed from non-suitable areas for research, to meet objectives other than timber production (such as wildlife habitat improvement), or to improve administrative sites such as campgrounds.

Unsuitable Lands. Forest land that is not managed for timber production. Reasons may be matters of policy, ecology, technology, silviculture or economics. Also applied to lands not suitable for livestock grazing.

Upland Habitat. Habitat located outside of riparian areas or wetlands. Soils are not saturated throughout the growing season.

Use, allowable. An estimate of proper range use. Forty to fifty percent of the annual growth is often used as a rule of thumb on ranges in good to excellent condition. It can also mean the amount of forage planned to be used to accelerate range rehabilitation.

Utility and Transportation Corridors. A strip of land, up to approximately 600 feet in width, designated for the transportation of energy, commodities, and communications by railroad, State highway, electrical power transmission (66 KV and above), oil and gas and coal slurry pipelines 10 inches in diameter or larger, and telecommunication cable and electronic sites for interstate use. Transportation of minor amounts of power for short distances, such as short feeder lines from small power projects including geothermal or wind, or to serve customer service substations along the line, are not to be treated within the Forest Plan effort.

Utilization (of forage).Variability. (Natural variability, historic variability, range of variability) The observed limits of change in composition, structure, and function of an ecosystem over time as influenced by frequency, magnitude and pattern of disturbance.

Variety Class. A way to classify landscapes according to their visual features. This system is based on the premise that landscapes with the greatest variety of diversity have the greatest potential for scenic value.

Vegetation Management or Manipulation. Activities designed primarily to promote the health of forest vegetation for multiple-use purposes.

Vegetation Type. A plant community with distinguishable characteristics.

Vegetative Structural Stage. A method of describing the growth stages of a stand of living trees. It is based on tree size (DBH = diameter at breast height) and total canopy cover. The stages are: Grass/forb/shrub (VSS 1) = 0-1 inch DBH; Seedling/sapling (VSS 2) = 1-5 inches DBH; Young Forest (VSS 3) = 5-12 inches DBH; Mid-aged Forest (VSS 4) = 12-18 inches DBH; Mature Forest (VSS 5) = 18-24 inches DBH; Old Forest (VSS 6) = 24+ inches DBH.

Vertebrate. Species having a backbone or spinal column.

Vertical Diversity. The diversity in a stand that results from the complexity of the above-ground structure of the vegetation; the more tiers of vegetation or the more diverse the species makeup, or both, the higher the degree of vertical diversity.

Vertical Fuel Arrangement. Fuels above the ground and their vertical continuity, which influences fire reaching various vegetation strata.

Viable Population. A number of individuals of a species sufficient to ensure the long-term existence of the species in natural, self-sustaining populations adequately distributed throughout their region.

Viability. The ability of a population or species to exist over the long-term in natural, self-sustaining populations distributed throughout their region.

Virgin Forest. A natural forest virtually uninfluenced by human activity.

Visual Quality. Degree of obstruction or contrast degradation of viewing a scene due to air contaminants or weather.

Visual Quality Objectives (VQO's). A set of measurable goals for the management of forest visual resources used to measure the amount of visual contrast with the natural landscape caused by human activities. The following are VQOs:

Preservation -- Ecological change only here.

Retention -- Human activities should not be evident to the casual Forest visitor.

Partial Retention -- Human activity may be evident but must remain subordinate to the characteristic landscape.

Modification -- Human activity may dominate the characteristic landscape but must, at the same time, follow naturally established form, line, color, and texture. It should appear as a natural occurrence when viewed in foreground or middleground.

Maximum Modification -- Human activity may dominate the characteristic landscape but should appear as a natural occurrence when viewed as background.

Visual Resource. A part of the landscape important for its scenic quality. It may include a composite of terrain, geologic features, or vegetation.

Visual Resource Management Class. As assessment if the relative visual resource quality on National Forest system lands as it relates to potential resource use and/or development. (See Visual Quality Objectives).

Waste Embankment. A man-made pile or heap of rock or earth material, usually left over from mining or construction.

Watershed. The entire region drained by a waterway (or into a lake or reservoir). More specifically, a watershed is an area of land above a given point on a stream that contributes water to the stream flow at that point.

Water Quality Limited Segment (WQLS). A stream or segment of a stream which has been listed by the State as water quality limited for one or more parameters such as temperature, sediment, contaminants, etc. Required by section 303(d) of the Clean Water Act.

Water Table. The upper surface of groundwater. Below it, the soil is saturated with water.

Water Uses. The status of water uses subject to State water laws that is used to determine the water uses and legal status of waters on the National Forests.

Water Yield. The run-off from a watershed, including groundwater outflow.

Wet Areas. Often referred to as "moist sites," they are very important components of elk summer range. These sites, often occurring at the heads of drainages, may be wet sedge meadows, bogs, or seeps.

Wetlands. Areas that are permanently wet or are intermittently covered with water.

Wilderness (Wilderness Area). Undeveloped federal land retaining its primeval character, without permanent human habitation or improvements; It is protected and managed to preserve its natural condition. Wilderness Areas are designated by Congress.

Wildfire. Any wildland fire that is not a prescribed fire.

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

Wildlife and Fish User Days (WFUD). A 12-hour day in which a person participates in a wildlife- or fish-related recreation activity that used to determine the annual use of wildlife and fish resources by recreationists on the National Forests.

Wildlife Habitat Diversity. The distribution and abundance of different plant and animal communities and species within a specific area.

Windthrow. Trees that have been uprooted by the wind.

Wood Fiber Production. The growing, tending, harvesting and regeneration of harvestable trees.

Woodland Products. Harvestable items from forested woodlands. These include fuelwood, nuts, berries, and Christmas trees.

Water Quality Limited Stream (WQLS). Water bodies (or segments of water bodies) listed by EPA as not meeting State water quality standards. The are to be monitored to determine if water quality standards are, or are not, being met. On those not meeting standards, TMDLs may be assigned.

Yarding. Moving cut trees to a centralized place (landing) for hauling away from the stand.

ZOI (Zone of Influence). The areas influenced by Forest Service management activities.

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Equal Employment Opportunity Statement

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