

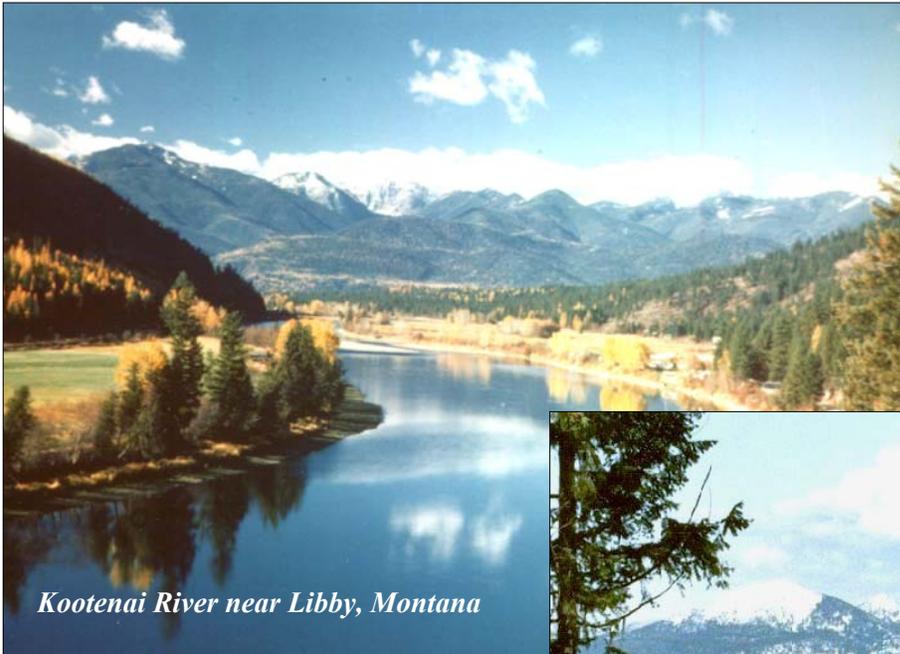
**USDA** United States  
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Agriculture

Forest Service

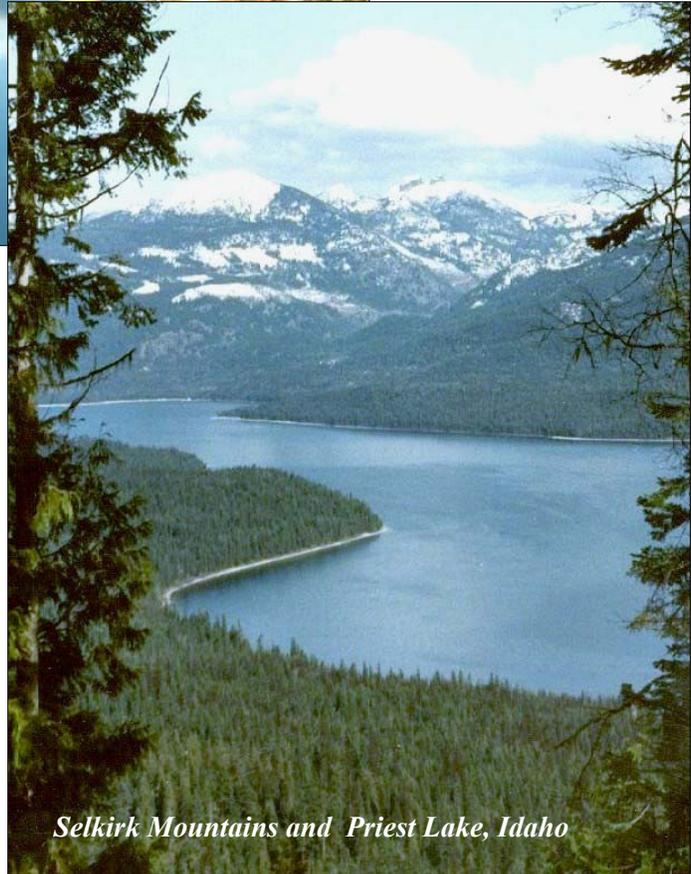


Kootenai and  
Idaho Panhandle  
National Forests

# **Analysis of the Management Situation for Revision of the Kootenai and Idaho Panhandle Forest Plans March 2003**



*Kootenai River near Libby, Montana*



*Selkirk Mountains and Priest Lake, Idaho*



## Analysis of the Management Situation for Revision of the Kootenai and Idaho Panhandle Forest Plans

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## **CHAPTER 1 – INTRODUCTION**

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### **Introduction**

This chapter describes why the Kootenai and Idaho Panhandle National Forests are revising their Forest Plans, summarizes the direction that will guide the revision process, and identifies the primary topics that are driving the need to revise our 1987 Forest Plans.

### **“KIPZ” - Kootenai and Idaho Panhandle Plan Revision Zone**

The Kootenai and Idaho Panhandle National Forests are working together to revise the Land and Resource Management Plans (Forest Plans) for both of these National Forests. There are several reasons for this collaboration:

- The timing for revising the two Forest Plans is similar.
- The Forests share key issues, resources, customers, and interested publics.
- The Forests need to consider management of ecosystems across administrative boundaries.

The Kootenai and Idaho Panhandle Plan Revision Zone (hereafter referred to as KIPZ) is located in northern Idaho and northwestern Montana (See Figure 1). The KIPZ Plan Revision Team is comprised of planners and resource specialists from both forests. This combination provides opportunities to share personnel, services, budget, knowledge, and experience, thereby increasing the overall efficiency and quality of the revision effort.

The Kootenai National Forest (KNF) is responsible for the resource management of over 2.2 million acres in the northwestern corner of Montana. The KNF is divided into five Ranger Districts. Two major rivers, the Kootenai and the Clark Fork, along with several smaller rivers and their tributaries, dominate the Forest. The Whitefish Range, Purcell Mountains, Bitterroot Range, Salish Mountains, and Cabinet Mountains are all part of the rugged terrain radiating from the river valleys. In the north central part of the Forest, the land is more open with gently rolling timbered hills lying in the shadows of the Whitefish Range.

The Idaho Panhandle National Forests (IPNFs) consists of three individual national forests - the Kaniksu, the Coeur d’Alene, and the St. Joe - that were combined in 1973 to be administratively managed as one national forest. These forests are further divided into five Ranger Districts and comprise approximately 2.5 million acres of public lands in northern Idaho with small areas extending into eastern Washington and western Montana. Spectacular mountain ranges such as the Selkirk, Cabinet, Coeur d’Alene, and Bitterroot ranges; five major rivers - Kootenai, Pend Oreille, Coeur d’Alene, St. Joe, and Priest; and three large lakes - Priest, Pend Oreille and Coeur d’Alene are all part of the diverse terrain on the IPNFs.

Visitors come to fish the miles of rivers and numerous lakes. Boating and sailing are also popular water based activities. Hiking, biking, snowmobiling and cross-country skiing are also popular ways to enjoy the forests. The area is well known for huckleberry picking in the fall season.

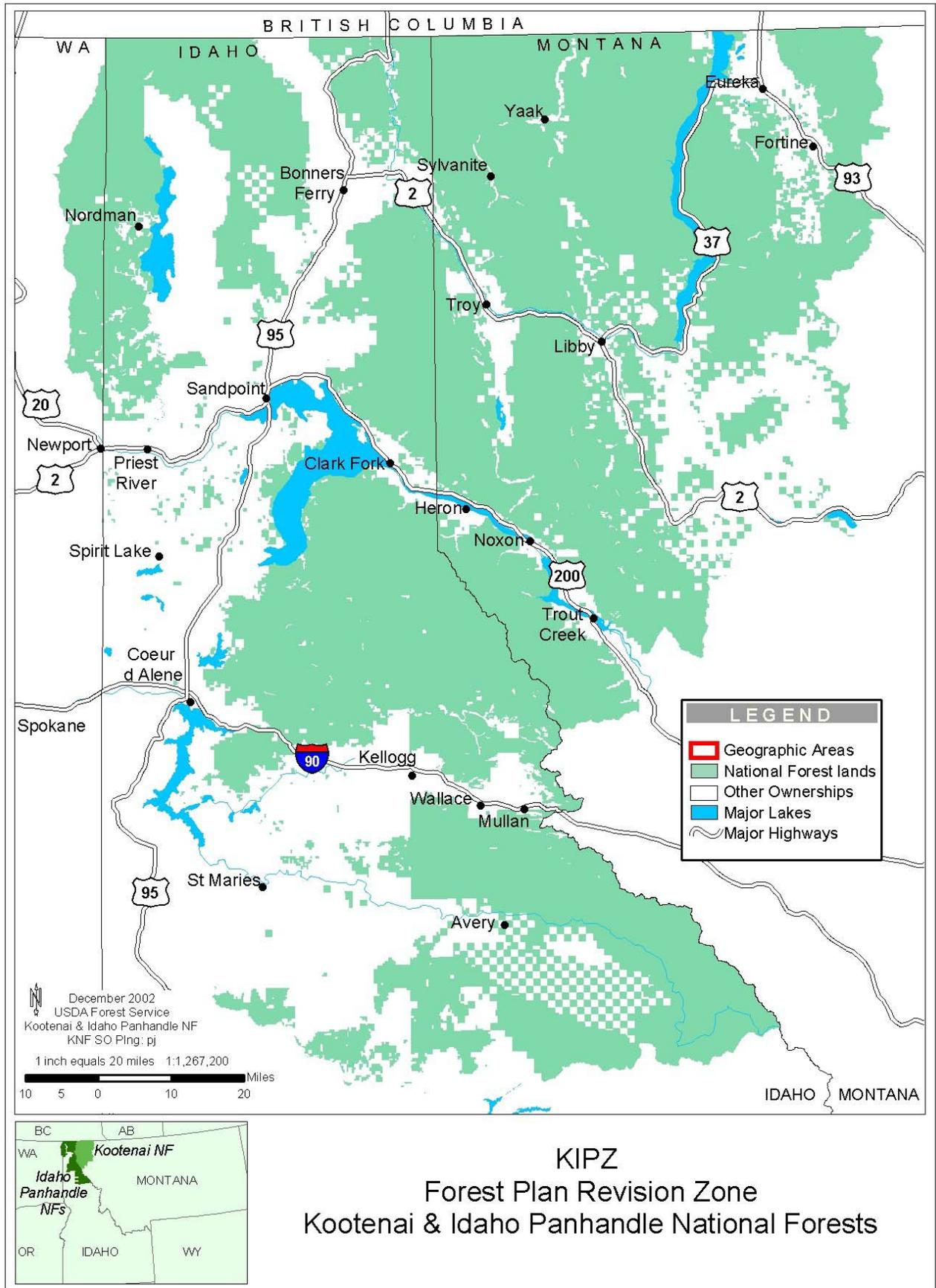


Figure 1. The physical location of the Kootenai Idaho Panhandle Planning Zone (KIPZ)

In addition, there are several production aspects to these forests. Logging, mining, and ranching have all played important community roles throughout the history of the area and continue to do so, in various degrees, in certain areas today.

There are many land management issues that both forests have in common. A few examples include:

- Ecological conditions and risks
- Presence of wide ranging carnivores
- Presence within the Interior Columbia River Basin Ecosystem Management Project (ICBEMP) – for consideration of assessment findings and recommendations
- Threatened and Endangered Species (TES) – Grizzly bear, lynx, bull trout
- Recreation and access issues and opportunities

There are also some issues that only one forest has to address such as endangered Caribou found only on the IPNFs. However, most issues apply to the entire KIPZ.

### **Background and Purpose of Forest Plan Revision and Analysis of the Management Situation (AMS)**

The National Forest Management Act (NFMA) of 1976 requires National Forests to develop a Forest Plan and to update or revise it every 15 years or when conditions significantly change. The KNF and IPNFs Forest Plans were approved in 1987 and must be revised according to the regulations (see Code of Federal Regulation (CFR) at 36 CFR 219). Forest Plans describe the intended management of National Forests. Key decisions made in the Forest Plan for long-term management of National Forests are:

- Establishment of forest-wide multiple use goals and objectives, 36 CFR 219.11(b);
- Establishment of forest-wide management requirements (forest-wide standards and guidelines), 36 CFR 219.13 – 219.17;
- Establishment of management area direction, 36 CFR 219.11;
- Designation of suitable timber land and establishment of allowable sale quantity. Designation of land suitable for grazing and browsing. Identification of lands suitable and available for oil and gas leasing. Provision for a broad spectrum of forest and outdoor recreation opportunities. 36 CFR 219.14 – 219.16, 219.20 – 219.21;
- Establishment of requirements for monitoring and evaluating the implementation of the revised plan to meet the requirements of 36 CFR 219.11(d);
- Documentation that will/will not recommend any further additions to the wilderness preservation system.

### **Analysis of the Management Situation**

Experience, monitoring, and new science are indicating a need to revise certain aspects of how our 1987 Forest Plans addressed the above-required decisions. One of the first steps in *Forest Plan Revision* is the completion of an Analysis of the Management Situation (AMS). The AMS is a collection and analysis of data describing monitoring and evaluation findings; historic and current condition and trends for revision topics; and applicable information from current science and assessments. This information will be used to establish the need for revising the Forest Plans and assist in the development of a range of alternatives for the associated National Environmental Policy Act (NEPA) process.

An AMS is also required to include:

**1. Current level of goods and services and the amount that would be provided if current direction continues.**

Chapter 3 of this document, as well as Chapter 1 of the AMS Technical Report, addresses the current level of goods and services and briefly describes the implications of current management direction for each revision topic.

**2. Benchmark analysis to define the range within which alternatives can be developed.**

The Kootenai and the Idaho Panhandle National Forests each completed an AMS in the 1980s as part of the forest planning process. The 1982 planning regulations require benchmark analysis to help define the range of alternatives to analyze in Forest Plans. These benchmarks were not to be constrained by budget but needed to be consistent with the minimum management requirements of section 219.27. Examples of these benchmarks from the first round of planning included an analysis of maximum timber production. In the 1987 Forest Plans, the KNF established 255 million board feet (KNF Forest Plan FEIS Vol. I, Chapter 2, page 6) and the IPNFs 573 million board feet (IPNFs Forest Plan FEIS, Chapter 2, page 10) as benchmarks for maximum timber production. These benchmarks may no longer be appropriate, as new inventories, models, and minimum management direction have changed the assumptions by which the benchmarks were established. Further analysis will be conducted as part of the Draft Environmental Impact Statement (DEIS) to redefine appropriate benchmarks.

**3. Determination of the potential to resolve public issues and management concerns.**

The two forests have determined that a “need for change” exists for seven broad categories described in Chapter 3 of this document. Revising goals, objectives, and management area prescriptions for the revision topics that reflect an understanding of natural disturbance patterns while also striving to balance local, regional and national concerns is a tremendously difficult task. Working collaboratively with the public and other government agencies to understand the issues and develop alternatives that best represent management concerns is a fundamental aspect of this revision effort.

**Revision Issues:**

This document, along with the accompanying AMS Technical Report, describes the historic and current conditions for the KIPZ and establishes the need for revising current management direction for seven revision topics. These seven Revision Topics have been identified through monitoring and evaluation, current science and assessments, and our daily contacts with the people who work in and recreate on our national forests. Revision topics are broad categorizations of the issues that have been identified where resource conditions, technical knowledge, or public perception of resource management has created a potential “need for change.” Revision topics may cover one or more significant issues identified on the forest.

If the 1987 Forest Plans were not being revised, resolution of any one of these topics would generally result in a significant amendment for the following reasons:

- Changes in resource management could result in significant changes in the mix of goods and services the forest is producing.
- Changes in resource management could indicate that the 1987 Forest Plan direction needs change over large areas of the forest.
- There appears to be no clear public consensus on how to resolve the topics.

The Revision Topics are listed below:

- 1) **Vegetation**
- 2) **Fire Risk**
- 3) **Timber Production**
- 4) **Wildlife**
- 5) **Watersheds and Aquatic Species**
- 6) **Inventoried Roadless Areas and Proposed Wilderness Areas**
- 7) **Access and Recreation**

**Other Revision Items:** A number of items were identified that need to be addressed in the Forest Plan, but do not meet the above criteria for revision topics. In general, these items represent inadequate or out-of-date Forest Plan direction and addressing them would not require a significant amendment to the Forest Plan. Additionally, there appears to be general consensus on how to resolve the issue by rewriting and updating the Forest Plan Standards during Forest Plan Revision.

- Minerals: Management direction for minerals (locatable, leaseable, saleable) and initial evaluation of the Forest Plan direction suggests only minor changes in direction may be needed.
- Designated Wilderness Management and Wilderness Study Areas: Management direction for designated wilderness areas will be reviewed and revised as needed.
- Facilities: Management direction for facilities will be reviewed and revised as needed.
- Research Natural Areas (RNAs): Several areas have been established and several more have been proposed for establishment since the 1987 Forest Plans were completed. The revision process provides an opportunity to review proposed RNAs and update the Forest Plans to refine management direction for these areas.
- Heritage Resources: Heritage Resource information and direction in the 1987 Forest Plans was brief and provided minimal direction. Management direction for heritage resources will be reviewed and revised as needed.
- Scenery Management: The Visual Quality Objective (VQO) system used in the 1987 Forest Plans has been revised and updated to the Scenery Management System (SMS). The revision process will provide an opportunity to verify and, if necessary, modify the scenic objectives.
- Lands: Management direction for lands (land exchanges and adjustments, rights-of-way, special uses, communication sites, utility corridors) will be reviewed and revised as needed.
- Special Interest Areas (SIAs): Several areas have been established and several more have been proposed for establishment since the 1987 Forest Plans were completed. The revision process provides an opportunity to review proposed SIAs and update the Forest Plans to refine our management direction for these areas.
- Wild and Scenic Rivers: The revision process will allow a verification of the status of rivers nominated for Wild, Scenic, or Recreation designation. Management direction will be reviewed and revised as needed.
- Range: Direction contained in the 1987 Forest Plans is minimal. Management direction for Range resources and management will be reviewed and revised as needed.

## **Direction Guiding Forest Plan Revision**

**Planning regulations:** Direction for Forest Plan content and for certain analysis procedures and requirements is found in the CFR at 36 CFR 219. This direction is commonly referred to as the “planning rule” or the “planning regulations (regs)”. The planning rule currently in place was completed in 1982 and these are the regulations in which the 1987 Forest Plans were developed. On December 6<sup>th</sup>, 2002, a proposed planning rule was issued in the Federal Register for public comment.

If the proposed planning rule is finalized during the KIPZ revision process, an analysis will be completed to determine if the planning process should be altered to follow new regulations. This analysis may examine the potential impact of following new regulations on the time schedule for Forest Plan Revision, the financial cost of changing regulations and additional work that would need to be done to comply with the new proposed planning rule.

**Resources Planning Act Assessment:** The Resources Planning Act Assessment (RPA) provides programmatic context and a general strategic course the Forest Service strives to follow. The 2000 RPA Assessment presents a long-term strategy for a period of time from 1995 to 2045. The RPA describes all Forest Service activities under its jurisdiction and identifies broad resource and program needs that respond to anticipated demands. It provides general guidance for forest, state assistance, and research planning. Among priority management actions, the following items illustrate the strategic direction of Forest Service programs and activities over the next 50-year planning horizon as set forth in the RPA:

- Conservation of biological diversity.
- Maintenance of productive capacity of forest and range ecosystems.
- Maintenance of forest ecosystem health and vitality.
- Maintenance of forest contribution to global carbon cycles.
- Maintenance and enhancement of long-term multiple socioeconomic benefits to meet the needs of societies.

**USDA Forest Service Strategic Plan:** The USDA Forest Service Strategic Plan (2000a) was prepared to address how the Forest Service will achieve the goals of RPA. This Strategic Plan establishes goals, outcomes, performance measures, and strategies, which apply to management of the National Forest System (NFS) lands as well as other Forest Service mission areas. The Forest Service Mission is “To Sustain the Health, Diversity, and Productivity of the Nation’s Forests and Grasslands to Meet the Needs of Present and Future Generations”. This Mission is supported by four goals:

1. Ecosystem Health: Promote ecosystem health and conservation using a collaborative approach to sustain the Nation’s forests, grasslands, and watersheds.
2. Multiple Benefits to People: Provide a variety of uses, values, products, and services for present and future generations by managing within the capability of sustainable ecosystems.
3. Scientific and Technical Assistance: Develop and use the best scientific information available to deliver technical and community assistance and to support ecological, economic, and social sustainability.
4. Effective Public Service: Ensure the acquisition and use of an appropriate corporate infrastructure to enable the efficient delivery of a variety of uses.

**Regional Guidance:** The KNF and IPNFs are an integral part of larger ecosystems. A number of regional and large geographic scale assessments and strategies help identify or maintain future public land management options and set the context for KIPZ planning efforts. The Forest Plan Revision process will consider the findings and management strategies contained in these larger assessments and/or strategies such as ICBEMP, Northern Region Overview, and the Inland Native Fish Strategy (INFISH).

## **Evolving Agency Direction since Forest Plans were Adopted**

Since the 1987 Forest Plans were adopted the Forest Service's resource management direction has continued to evolve. Several Chiefs of the Forest Service have provided new direction for the following areas: New Perspectives, Ecosystem Management, and Sustainability and are summarized below.

**New Perspectives:** From about 1990-1992, the agency explored a new program called New Perspectives. It was a "project to bring about new thinking, new technologies and new alliances to improve ecological management of the National Forest System. Managing ecosystems to sustain their diversity and productivity for resource uses, values, products, and services people need and want for the future is the major focus of New Perspectives" (Overbay 1992).

**Ecosystem Management:** Leavell (2000) provided the following summary of the evolution of Forest Service ecosystem management direction:

Dale Robertson, Chief of the Forest Service sent a memo to all employees on June 4, 1992. The memo officially directed the Forest Service to take the Agency's first step toward achieving ecosystem management objectives. It stated:

"We have made good progress over the past 3 years in experimenting with more environmentally sensitive ways to manage the National Forests and Grasslands under our New Perspectives program. ...Mostly what we learned is that ecosystem management works and it is where we need to be headed...by ecosystem management, we mean that an ecological approach will be used to achieve the multiple-use management of the National Forest and Grasslands. It means that we must blend the needs of people and environmental values in such a way that the National Forests and Grasslands represent diverse, healthy, productive, and sustainable ecosystems."

Jack Ward Thomas replaced Dale Robertson as Chief of the Forest Service in 1993. He reinforced the direction to implement ecosystem management objectives and to, ..."display honesty in all things, be adaptable, and have a firm foot in scientific principles". Chief Thomas also defined the management context and focus of priorities within the Agency as the following: 1) Protect ecosystems; 2) Restore deteriorated ecosystems; and 3) Provide multiple benefits for people within the capabilities of ecosystems. He said this could be accomplished within existing laws (Thomas 1996).

Michael P. Dombeck succeeded Jack Ward Thomas as Chief in 1997 and reiterated the objectives of his predecessors by proposing "A Natural Resource Agenda for the 21st Century". This Agenda focused on four key areas: Watershed Health and Restoration; Sustainable Forest Ecosystem Management; Forest Roads; and Recreation (Dombeck 1998).

**Sustainability:** For the past 100 years, the nation has been attempting to define what is meant by sustainability" (USDA 1999a). Many laws have been passed that call for Federal Agencies to pursue sustainability. Some of the major ones are the: Organic Act, Lacey Act, Multiple-Use Sustained-Yield Act, National Environmental Policy Act, Endangered Species Act, National Forest Management Act, Clean Water Act, and Clean Air Act (USDA 1999a). Sustainability is discussed in greater detail in the following chapter.

In 1997, Secretary of Agriculture Dan Glickman convened a Committee of Scientists to "review and evaluate the Forest Service's planning process for land and resource management and to identify changes that might be needed to the planning regulations" (USDA 1999a). Citing ecological sustainability as a necessary foundation for stewardship, a synopsis of the Committee's findings states:

"... ecological sustainability provides a foundation upon which the management for national forests and grasslands can contribute to economic and social sustainability".

## **Need for Change**

Forest Plan Revisions are based on the concept of “need for change”. This means that the 1987 Forest Plans will be examined and portions that are working may be carried forward essentially in tact, and portions that are not working (that “need change”) will be reviewed and changed or updated.

There are several reasons that a section of a Forest Plan may need to be changed. Each individual revision topic discussion in Chapter 3 identifies conditions and/or reasons for the need for change. These reasons for change can be characterized as follows:

**Changing Social Values:** There have been many changes to our society since the Forest Plans were approved in 1987. Changes are evident in population growth, recreation activities, land uses, and urban development. Changes are also evident in people’s values, attitudes and beliefs regarding public lands. These human issues are one reason the 1987 Forest Plans need to be reviewed. A description of many of the changes to the local communities and residents is found in Chapter 2 of the AMS.

An example of a changing social value is an increasing awareness and concern with wildfire and access to national forest are indicators of the social change that is occurring within and beyond the Planning Analysis Area. Another example of social change that has occurred and continues to occur is the reduction in mills operating and providing employment.

**Laws/Regulations/Policy:** Since the 1987 Forest Plans were finalized, there have been many changes to the directions that guide such documents. This direction is found in laws; regulations that implement laws; Forest Service directives (Manuals and Handbooks); and internal policy. Internal policy comes to forests through letters from the Chief of the Forest Service and from Regional Foresters. Each revision topic in Chapter 1 of the AMS Technical Report identifies some legal requirements and new sources of management direction. Also refer to previous section, “Evolving Agency Direction since Forest Plans were Adopted” for previous policy information.

An example of a new policy since 1987 Forest Plans were adopted is the new direction in the Roadless Conservation. Other examples of a new policy since then are the 1995 Federal Wildland Fire Management Policy and Program Review; and Forest Roads Rule and Policy issued in 2001.

**Science Developments:** In the past decade, there have been many scientific studies and assessments that have become available that address land management issues applicable to the KIPZ. Such developments include, but are not limited to the ICBEMP science assessment, Forest Plan monitoring reports, scientific publications, and other studies. In addition, analytical models and data used in models have changed and improved in recent years. New modeling techniques and new data sources will be used in the KIPZ revision. Improved analysis and data should also result in revised estimates of outputs and outcomes that are realistic and attainable. Each revision topic, in the AMS the DEIS, and the Final Environmental Impact Statement (FEIS), will cite specific sources of scientific information that was used in the planning analysis.

Grizzly Bear management or old growth dependent species needs are examples of the changes that occur in Forest Plan direction as a result of scientific study or assessments.

## **CHAPTER 2 –SUSTAINABILITY CONTEXT IN FOREST PLAN REVISION**

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The information contained in this document and the AMS Technical Report will contribute to the management direction needed for the proposed revised Forest Plans. Much of this analysis will be based upon our understanding of multiple use and sustainability. Multiple use is a guiding principle in the Forest Service and is consistent with sustainability. **Sustainability** is defined as satisfying present needs without compromising the ability of future generations to meet their needs and is widely recognized as the overarching objective of land and resource management (USDA 2002a, USDA 1999a). Sustainability is composed of three interdependent elements: ecological, social, and economic. NFS lands are capable of contributing essential elements in managing for all three components of sustainability.

Sustainability is a human value and not a fixed, independent state of ecological, social, and economic affairs. It requires human judgment about the condition or state of a set of tangible items (resources, goods, uses, etc.). Inherent in sustainability is our valuation of items that we wish to see persist in time and space (USDA 2002a).

### **Relationship of Sustainability to Forest Plan Revision**

To evaluate the KIPZ's contribution towards sustainability, assessments of the historic and current ecological and socio-economic conditions at a variety of geographic scales will be gathered and reviewed. For example, current and historic condition of vegetation and disturbance processes will be assessed. Another example would be assessing the current and historic levels for jobs and income as well as the lifestyles, attitudes, and beliefs of the local communities.

Also needed to evaluate the KIPZ's contribution towards sustainability is knowledge of how management activities impact ecological, social and economic conditions. Together, this information will be used to identify a range of desired future conditions for the KIPZ. Management direction would then be developed to achieve the desired future conditions.

The seven revision topics are the areas identified as needing assessment and analysis. An assessment of the historic and current conditions for the revision topics has been provided in Chapter 1 of the AMS Technical Report. From this, a range of desired future conditions and management direction can be identified. Chapters 4 and 5 of this document outline the process in which alternative development and public participation plays a role in further defining these desired future conditions and management direction.

Many of the decisions to be made in the Forest Plans will affect the forests' contribution to sustainability. Desired future conditions, goals, objectives, standards, management area allocation, and monitoring will all have effects to the components of sustainability.

### **Ecological Component of Sustainability**

Over the last half-century, scientists and natural resource managers have learned much about how ecosystems contribute to the fulfillment of human life (Costanza et al. 1997). An ecosystem is an interacting system of living organisms and their environment. Most obviously, ecosystems provide many of the goods that are harvested and traded in the human economy -- food, timber, forage, biomass fuels, and many pharmaceuticals (Daily 1997a). Ecosystems also provide indirect benefits to humans through their impacts on nutrient flux and cycling, mitigation of flood and drought, and maintenance of biodiversity, all of which feedback in important ways on the production of ecosystem goods that humans directly derive from ecosystems (Chapin et al. 1996). Finally, ecosystems also provide less tangible, but equally important, benefits in the form of recreational, spiritual, and intellectual stimulation (Postel and Carpenter 1997). Because of these important and necessary goods and benefits provided to humans, the long-term sustainability of ecosystems is central to natural resource management.

**Ecological sustainability** is defined as: “The ability to maintain diversity, productivity, resilience to stress, health, and yields of desired values, resource uses, products, or services over time in an ecosystem while maintaining its integrity” (USDA 1995a). **Integrity**, in turn, is defined as: “...the capacity to support and maintain a balanced, integrated, and adaptive biological system having the full range of elements and processes expected in a region’s natural habitat” (Karr 1991). Critical elements of integrity include vegetation measures of structure, composition, and process and they are defined as:

- Structure: the horizontal and vertical physical elements of forests and grasslands and the spatial interrelationships of ecosystems.
- Composition: the component tree, shrub, grass, and forb classes in a stand or community.
- Function: includes energy flows of materials across and within the landscape and how one ecosystem influences another. Function also relates to energy processes such as fire, hydrological processes (including floods), and matter and energy exchange throughout the food chain.

A system subject to external disturbance will retain its integrity if it preserves all its components as well as the functional relationships among the components (De Leo and Levin 1997).

Based on Haynes, et al., a working definition of aquatic sustainability can be described as the inherent capability or existing potential for a watershed system to provide water quality, water bodies (streams, lakes, wetlands, ponds, etc.), riparian environs (wetlands, flood plains, stream banks, lake shores, and other lands including terrestrial lands proximal to water bodies that can directly influence the water), and the biologic organisms that live in or are dependent on the water that are necessary to support the beneficial uses of the water (based on: USDA 1996).

**Ecosystem diversity** is the variety of ecological structures, communities, and processes across spatial scales such as regions, subregions, landscapes, and localities. Ecosystem diversity arises from variation in abiotic and biotic components and ecological processes over space and time (Huston 1994). History plays a strong role in the ecosystems we see today through the long-term effects of geological and climate change and biological evolution, and the shorter-term effects of weather, disturbance, and succession, and migration of organisms. Ecosystems are open, linked, and adaptive systems. Linkages among ecosystem components can be weak or strong and the system’s responses to change in one component can be spatially and temporally lagged (Wu and Loucks 1997).

### **Historic Range of Variability (HRV)**

The complexity and variability of natural disturbance regimes requires thinking in terms of variability rather than averages (Baker 1994, Samson 1994). Consequently, the concept of "range of variability" or "historic range of variability" (Engstrom et al. 1999) has been used to define disturbance regimes and the consequences of them in terms of landscape structure, developmental stages and hydrological flow regimes. To respond to this, a series of questions must be answered. These questions will be asked and addressed under the revision topics associated with ecological sustainability.

One method for measuring ecological sustainability is to use the historic range of variability (HRV) as a reference condition. HRV is defined as the variation in spatial, structural, compositional, and temporal characteristics of ecosystem elements, as affected by minor climatic fluctuations and disturbances. This range is measured during a reference period prior to intensive resource use and management. For the Planning Analysis Area, this period is considered to be prior to 1880 to approximately 2500 years ago (Chatters and Leavell 1994). The HRV is a baseline for comparison with current conditions to assess the degree of past change (USFS Great Lakes Assessment 1997).

Nature has functional, historical, and evolutionary limits (limits relating to physiological characteristics evolved through time). Species, ecosystem integrity and/or sustainability may be lost if these limits are exceeded. Disturbance is a necessary function of these ecological systems. Not allowing disturbance to occur within ecological systems can have negative results. Disturbance at a higher frequency, or with a

greater severity, can also have negative results leading to reductions in diversity or productivity. Disturbance with the frequency and intensity of a reasonable, manageable historic range of variability can maintain species and habitats.

There is room to produce a sustainable level of commodities from a forested ecological system in the KIPZ while maintaining biological diversity and ecological sustainability. Vegetation evolved and adapted within the shifting landscape influenced by fire and other disturbance events for the past 2500 years on the forests, which animals adapted to and evolved to occupy. The HRV fluctuated, but over the past 2500 years became predictable enough to allow adaptations to occur (Chatters and Leavell 1994). Management informed by an understanding of HRV, will likely reduce ecologic uncertainty and surprise, because ecosystem management goals would be set within the ecological constraints (or limitations) of an area (Leavell 2000).

In addressing the components of ecological sustainability, current conditions for vegetation, soils, wildlife, watersheds, and aquatic species will be compared against historic ranges.

### **Ecological Context**

The following section provides the broad ecological context for resources within the KIPZ. An understanding of this context is important to understand the distinctive ecological attributes of KIPZ when compared to the overall ecoregion. This understanding is needed to develop appropriate management direction for these distinctive ecological attributes.

In order to provide a better understanding of the ecological setting and importance of KIPZ, one must first look at where the KIPZ is in relation to a larger landscape.

The KIPZ is within the Northern Rocky Mountain Forest Steppe – Coniferous Forest – Alpine Meadow Province (Bailey 1994), viewed as M333 in Figure 2-1. This is a 38,000 sq. mile (98,700 km<sub>2</sub>) area extending from east of the Cascade Mountains in Washington State to the Continental Divide in Montana, into Canada to the north, and throughout northern Idaho.

- **Climate:** Severe winters are usual, average temperatures can range from below 0 degrees F in the winter to above 100 degrees in the summer. Precipitation averages 20 to 40 inches annually, but can attain over 80 inches within some geographic areas. Most of the region has been glaciated with landforms typical of this process.
- **Vegetation, Geology, and Landform:** Mixed evergreen-deciduous forest predominates with Douglas-fir, larch, and cedar-hemlock as common forest types. Soils are mostly cool, moist Inceptisols with a variety of igneous, sedimentary, and metamorphic rocks forming the mountain masses.
- **Wildlife and Fish:** Large mammals in this province include grizzly and black bear, caribou, deer, moose, elk, mountain goat, mountain lion, and bobcat. Smaller mammals include red squirrel, flying squirrel, marten, fisher, redtailed chipmunk, picas, hoary marmots, and bushytail woodrat. Birds found most often are eagles, hawks, grouse, turkeys, chickadees, nuthatches, thrushes, and bluebirds. Fish include bull trout, landlocked salmon, sturgeon, rainbow trout, brook trout, and cutthroat trout.

This province is further divided into ecological sections. The dominant ecological features of the KIPZ are characterized primarily in three sections located in the Northern Rocky Mountain Steppe province, indicated as M333A, M333B, and M333C (see Figure 2-1). Following is a brief description of the attributes that are distinctive to KIPZ within each of the sections (USDA 1994a):

**Section M333A – Okanogan Highlands**

- Climate: Maritime-influenced; rain on snow is common.
- Vegetation, Geology, and Landform: Common species include Douglas-fir, grand fir, western hemlock, western red cedar, and subalpine fir. Whitebark pine occurs at high elevations. Geology consists of Precambrian metasedimentary rocks of the Belt Supergroup and Cenozoic granitics. There are numerous glacial lakes, rivers and streams.
- Wildlife and Fish: The abundant water provides for a high population of waterfowl, osprey, and bald eagle. Other threatened, endangered, or rare bird species include harlequin duck and upland sandpiper (in the lowlands). Woodland caribou reach the southern portion of their range within this Section. Other rare mammals in this Section include grizzly bear, gray wolf, lynx, fisher, wolverine, and northern bog lemming.

**Section M333B – Flathead Valley**

- Climate: Cool temperate with maritime influence; outbreaks of arctic air occur frequently in winter; rain on snow is common.
- Vegetation, Geology, and Landform: Predominantly Douglas-fir lodgepole pine with western larch, ponderosa pine, grand fir, hemlock, and cedar. Whitebark pine occurs at high elevations. Geology is mostly precambrian metasedimentary rocks of the Belt Supergroup. There are glaciated mountains, glacial moraines, large glacial troughs, and glacial and lacustrine basins.
- Wildlife and Fish: The endangered bald eagle is a relatively common breeder in this Section. Other bird species of note are harlequin duck, osprey, boreal owl, and barred owl. The woodland caribou were historically present within this Section but are now absent. Rare mammals include the grizzly bear, gray wolf, lynx, fisher, wolverine, northern bog lemming, and Coeur d’alene salamander.

**Section M333D – Bitterroot Mountains**

- Climate: Maritime-influenced, cool, moist temperate with relatively mild winters and dry summers.
- Vegetation, Geology, and Landform: Common species include western red cedar, western hemlock, western white pine, Douglas-fir and ponderosa pine. Geology is mostly Precambrian metasedimentary rocks of the Belt Supergroup. There are steep, dissected mountains, some with sharp crests and narrow valleys.
- Wildlife and Fish: Bird species of note include flammulated owl and boreal owl (in the higher elevations). Dabbling ducks, common goldeneye, and harlequin ducks also occur. The woodland caribou historically reached the southern extent of its range within this Section, but is now absent. Rare mammals include the gray wolf, fisher, wolverine, northern bog lemming, and Coeur d’Alene salamander.

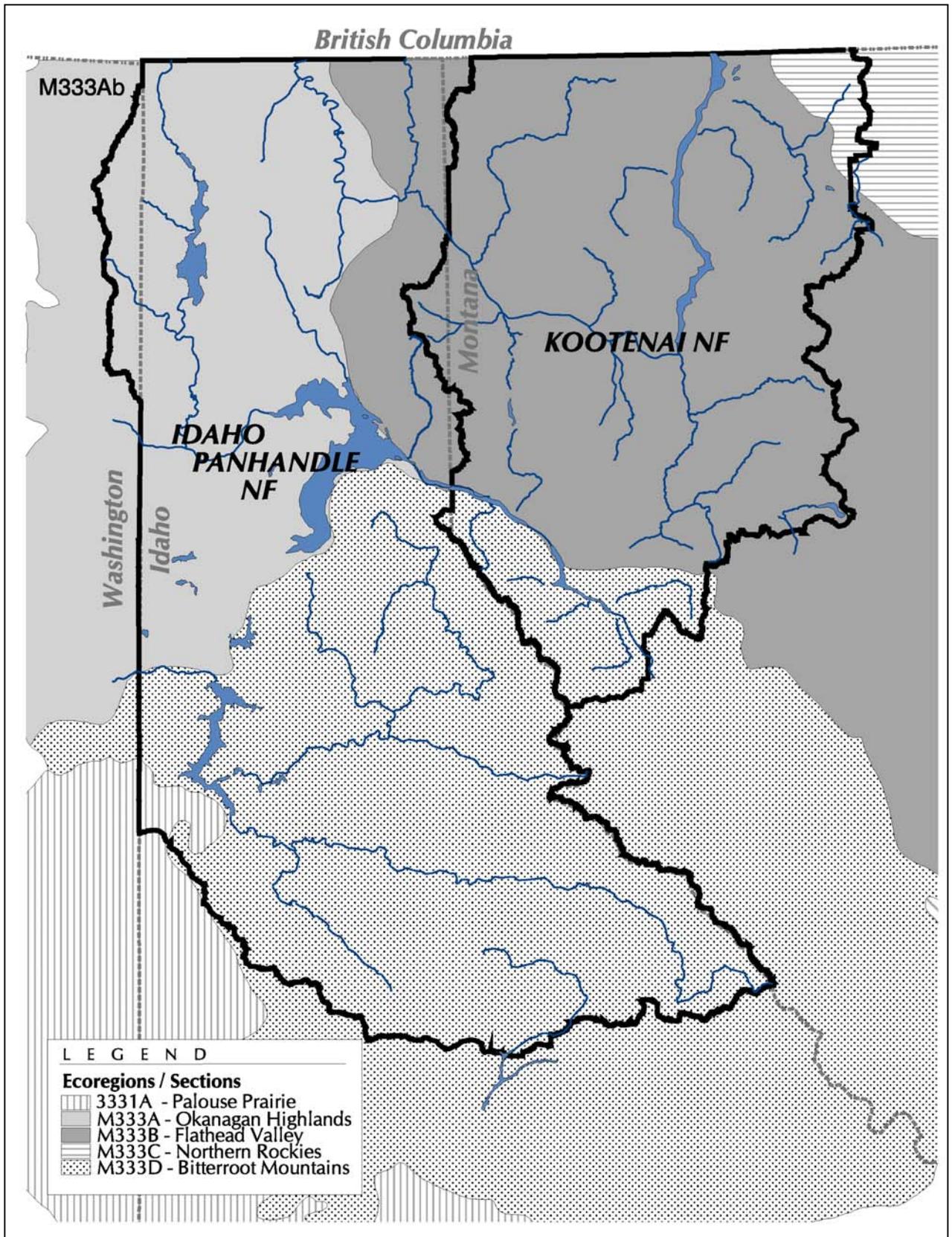


Figure 2-1 Northern Rocky Mountain Steppe province from Bailey's Ecoregions

## **Social and Economic Components of Sustainability**

Management of national forests can contribute towards social and economic components of sustainability by providing for a wide variety of uses, values, products, and services (USDA 1999a). To evaluate the forests’ ability to contribute towards the social and economic components of sustainability, an estimation must be made on the quantities of goods and services that will be produced from the KIPZ within a given time period, without impairment of the natural resources that provide or produce this flow of goods and services. State and local economic development agencies have worked with many of the local communities in developing economic development strategy reports. These reports are helpful in identifying the goods, services, and uses the local public would like to see sustained from the national forests in the KIPZ. The reports also describe the vision and future expectations of local communities regarding management of the national forests.

## **Social and Economic Context**

The following section provides the social and economic context for management of the KIPZ. An understanding of this context is important in order to adequately evaluate the effects of management decisions on the social and economic components of sustainability. The social and economic information also provides identification of issues that have developed since the 1987 Forest Plans were written.

### **Planning Analysis Area - KIPZ**

The majority of the KIPZ is located in seven counties: Boundary, Bonner, Kootenai, Benewah, and Shoshone counties in Idaho; and Lincoln and Sanders counties in Montana (see table 2-1 and figure 2-2). These seven counties will be the focus of the social and economic analysis in the Forest Plan Revision and will be referred to as the Planning Analysis Area. The analysis in the 1987 Forest Plans focuses on the same seven counties. These counties were selected as the Planning Analysis Area in order to address the influence or impact of forest management on their social and economic composition.

KIPZ manages land that is also located in the following counties: Latah and Clearwater counties in Idaho; Pend Oreille County in Washington (administered by the IPNFs); and Flathead County in Montana (administered by the KNF). These counties either contain small portions of land administered by the KIPZ and/or are primarily influenced by other economic factors. Counties outside the Planning Analysis Area are not discussed in detail in the social and economic analysis.

<b>County</b>	<b>Total County Acres</b>	<b>Acres Admin. by IPNFs</b>	<b>% Admin. by IPNFs</b>	<b>Acres Admin. by KNF</b>	<b>% Admin. by KNF</b>
Boundary, ID	816,900	478,300	59%	10,600	1%
Bonner, ID	1,227,700	431,100	35%	39,900	3%
Kootenai, ID	842,400	245,800	29%	0	0%
Shoshone, ID	1,682,900	1,149,500	69%	100	<1%
Benewah, ID	502,400	26,100	5%	0	0%
Clearwater, ID *	1,590,800	3,000	<1%	0	0%
Latah, ID *	689,900	12,900	2%	0	0%
Lincoln, MT	2,350,400	21,800	1%	1,691,300	72%
Sanders, MT	1,785,800	6,200	<1%	429,000	24%
Flathead, MT *	3,364,200	0	0%	48,400	1%
Pend Oreille, WA*	911,700	119,900	13%	0	0%

Not included in the Planning Analysis Area. Data Source: GIS coverages from Cartographic Feature Files (1:24,000 scale) for some county and all national forest boundaries; state coverages (1:100,000) for other county lines.

The principle population centers within the Planning Analysis Area are the communities of Bonners Ferry, Priest River, Sandpoint, Coeur d’Alene, Hayden, Post Falls, Kellogg, and St. Maries in Idaho and Eureka, Libby, Troy, and Thompson Falls in Montana.

Just outside the Planning Analysis Area is the large, urban population of Spokane, Washington (population 418,000). This immediately adjacent urban area has a large social and economic influence on the Planning Analysis Area. Much of the recreation that occurs on the KIPZ is from the Spokane area. The influence of this urban area on the KIPZ must be acknowledged and understood when considering management of the resources on the forests.

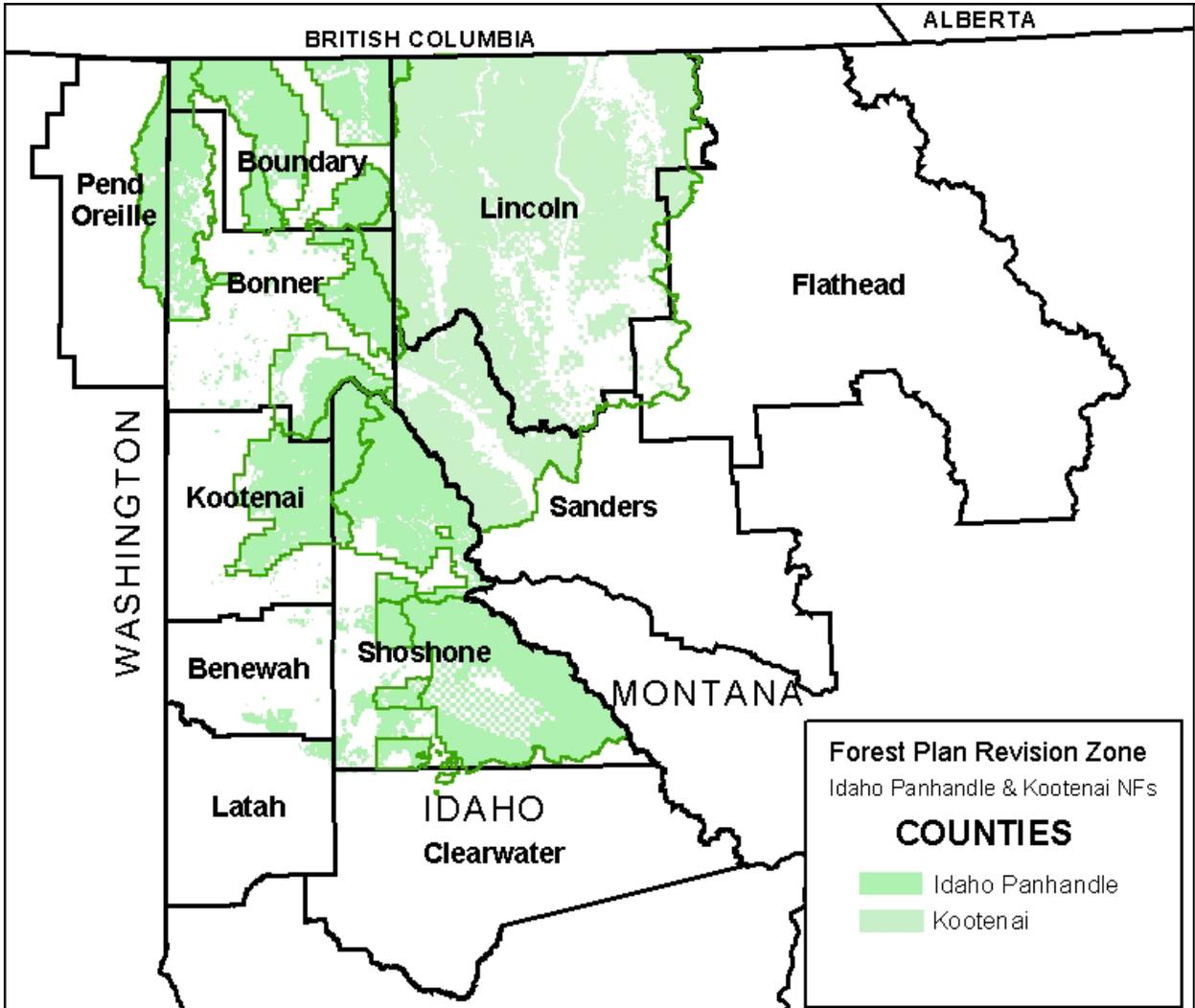


Figure 2-2. Social and Economic Planning Analysis Area

## **Social Environment**

### **Communities in Transition**

Change in social and economic composition is occurring in almost every community within the Planning Analysis Area. Sometimes this change is rapid; other times it can be very gradual (Parker et al 2002, p. 13; Impact Assessment, Inc. 1995, pg. 106).

Historically, timber and mining have dominated the area's economy. With one type of industry dominating local economies, communities often develop identities associated with that work to express "this is who we are" and "this is what we do" (Parker et al 2002, pg. 13). To establish a context for change, it is important to recognize the past identity of logging and mining. With change and transition, things look different today on the KIPZ than when the Forest Plans were first developed in the 1980s.

In some cases, natural resource extraction still dominates the identity and activities of communities. St. Maries, Priest River, Troy, Libby, and Eureka show strong on-going identification with timber harvest. In other cases, amenity-based development now dominates the local economy, including tourism, recreation, and retiree benefits. Coeur d'Alene and Sandpoint are two communities reflecting this type of change. Other communities, such as Bonners Ferry, Priest Lake, those in the Silver Valley, and Thompson Falls are somewhere in the middle, reflecting multiple identities and influences compared to others in the region (Parker et al 2002, pg. 13, Impact Assessment, Inc. 1995, pg. 106).

An increase in recreation and growth from amenity-based development has a mixture of costs and benefits. Some local public expressed the need for a balance between recreational use and conservation in relation to community impacts from an amenity-based economy. In addition, some public have expressed frustration over a perceived change in values of community members. A significant immigration of newcomers to an area, whether seasonal or permanent, may affect local values and understanding for norms and customs (Parker et al 2002, pg. xiii).

The influence and growth of Spokane, Washington is adding to the transition of communities in Idaho, especially Coeur d'Alene, Sandpoint, and Priest Lake. Most residents in the Planning Analysis Area consider where they work, play, and live as rural. They would like to preserve those qualities associated with a rural lifestyle – quiet, safe, friendly, traditional, easy-going, and limited restrictions. Coeur d'Alene could be considered the exception to a rural lifestyle. However, in a relative sense, because Coeur d'Alene's neighbor - Spokane, Washington, just across the border - is significantly larger and considered the regional hub for transportation and business, the Idaho "playground" still maintains somewhat of a small-town atmosphere. Along these lines, a number of those interviewed as part of the IPNFs Social Assessment emphatically described the desire to control residential and commercial growth in the region (Parker et al. 2002, p. xiv).

### **Population**

Population in the Planning Analysis Area has increased more than 42% between 1980 and 2000. All counties experienced an increase in population with the exception of Shoshone, which decreased over the same time period. Table 2-2 displays the population and percent change by decade from 1980 to 2000. A large increase or decrease in population indicates communities and counties that are undergoing change. With change in population, there is change to social and economic components, such as lifestyles, attitudes, values, land use, and employment.

<b>County or State</b>	<b>1980</b>	<b>1990</b>	<b>% Change (1980-90)</b>	<b>2000</b>	<b>% Change (1990-2000)</b>
<b>Idaho</b>	947,983	1,006,749	6.2%	1,293,953	28.5%
Benewah, ID	8,292	7,937	-4.3%	9,171	15.5%
Bonner, ID	24,163	26,622	10.2%	36,835	38.4%
Boundary, ID	7,289	8,332	14.3%	9,871	18.5%
Kootenai, ID	59,770	69,795	16.8%	108,685	55.7%
Shoshone, ID	19,226	13,931	-27.5%	13,771	-1.1%
<b>Montana</b>	786,690	799,065	1.6%	902,195	12.9%
Lincoln, MT	17,752	17,481	-1.5%	18,837	7.8%
Sanders, MT	8,675	8,669	-0.1%	10,227	18.0%
<b>Total Planning Area</b>	<b>145,167</b>	<b>152,767</b>	<b>5.2%</b>	<b>207,397</b>	<b>35.8%</b>

Source: U.S. Bureau of the Census

In Idaho, Bonner and Kootenai counties experienced growth at a greater rate than the State from 1980 to 2000. Boundary County also experienced growth over the same timeframe, but at a rate that was generally lower than the State. Benewah County experienced a slight decline from 1980 to 1990, but grew over the last decade. Shoshone County has decreased in population by more than 28% from 1980 to 2000.

In Montana, Lincoln and Sanders counties experienced slight declines in population from 1980 to 1990 but increased over the last decade. The growth rate in Sanders County for 1990 to 2000 exceeds those of the State, while Lincoln County is growing at a slower rate.

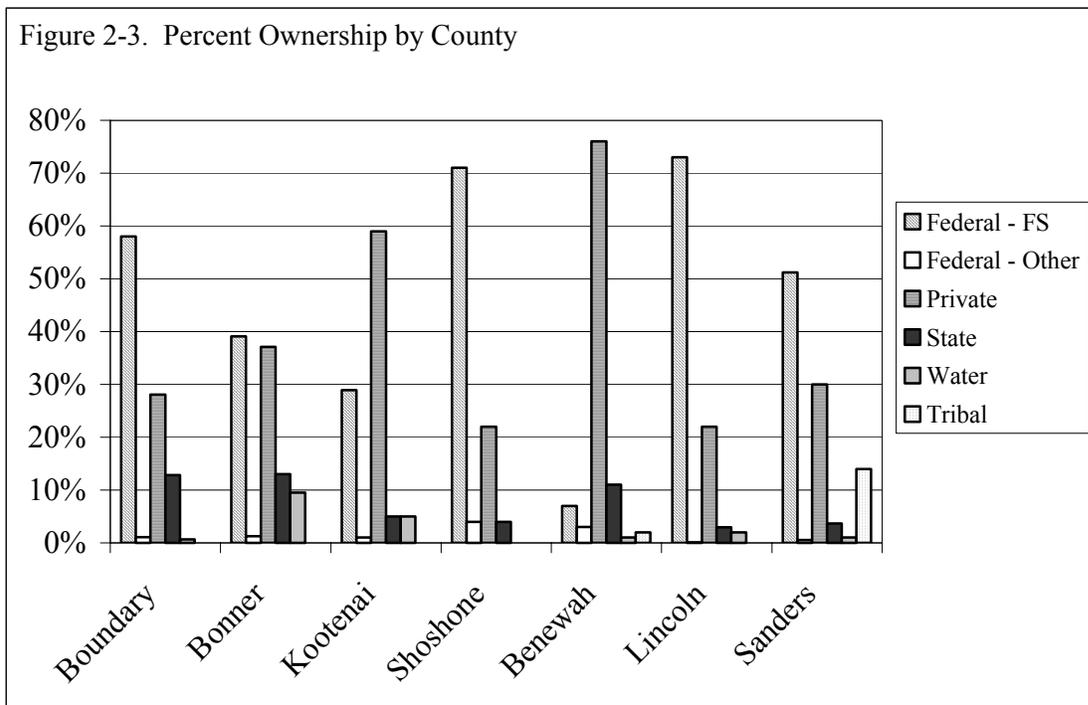
The growth in Bonner and Kootenai counties is reflective of the increasing development and economic diversification in Sandpoint and Coeur d'Alene, Idaho, and their close proximity to the major trade center of Spokane, Washington. Growth in the remaining counties has been much slower, reflective of the dependency of these counties on timber harvest and mining, and the lack of growth in these industries. In Boundary, Benewah, Lincoln, and Sanders counties, more new residents are migrating in, while the adult children of families living in the region are increasingly moving out of the area to find employment (Harp, 1996 and Impact Assessment, Inc., 1995). The decrease in population in Shoshone County is reflective of a sharp decline in metals manufacturing and mining that occurred in the 1980s.

Within the Planning Analysis Area, population composition is changing. More new residents are migrating in, while the adult children of families living in the region are moving out of the area to find employment. This change in population composition has added to the diversity of attitudes, lifestyles, and values of the population within KIPZ. The social assessment for the KNF found there is a concern among some stakeholders that new residents are changing the nature of their communities. The new residents have different values about the use of natural resources in general and the harvesting of timber in particular (Impact Assessment, Inc. 1995, pg. 311). The social assessment for the IPNFs had similar findings, noting an influx of retired and seasonal-home residents. The assessment identified some implications of this in-migration, including: 1) a declining tax base in relation to new residents; 2) increased overall recreational use of resources; 3) shifts in the proportion of multiple uses; and 4) probably related shifts in the expectations about forest management (Parker et al. 2000, pg 29-32).

Along with the change in population comes a shift and increase of people living outside the cities and within or adjacent to the national forests. As a result, new development is occurring in fire-prone areas, creating a "wildland-urban interface" -- an area where structures and other human development meet or intermingle with undeveloped wildland. This relatively new phenomenon means that more communities and structures are at risk to wildfire. (USDA and USDI, 2000b). See the Fire Risk revision topic in Chapter 3 of this document for further discussion on this issue. Increased development in the wildland-urban interface may also lead to increased pressure on other resources, such as wildlife habitat as suitable habitat is reduced.

### Land Ownership

Many counties in the western United States contain a large amount of federal land and are influenced by management actions on these public lands. Figure 2-3 displays the percent of land by ownership for each county. Within the Planning Analysis Area, Shoshone and Lincoln counties have the largest percentage of land under federal ownership, at 75% and 73%, respectively. Boundary County has the next largest, at 59%. Sanders County is 51% federally owned with an additional 14% under Tribal ownership. Bonner County has 40% and Kootenai 30% under federal ownership. Benewah has the least amount of federally owned land, at 10%. For all counties, the majority of the federal ownership is National Forest System lands.



Source: Ownership GIS layers from Idaho and Montana states, generated at 1:100,000 scale.

### Land and Resource Use

Natural resources in the Planning Analysis Area are utilized in a number of commercial, recreational, and subsistence activities. Most notable commercial uses include timber production, mining, agriculture, and cattle ranching. Recreational use of natural resources include sightseeing, camping, hiking, backpacking, cross-country skiing, snowmobiling, off-road vehicle driving, bird watching, photography, canoeing, and water sports. Hunting, fishing, and berry picking combine elements of recreation with subsistence activities. Firewood collection is more distinctly a subsistence activity.

### Lifestyle, Attitude, Values and Beliefs

Several studies have been completed to determine the social composition of the counties within the Planning Analysis Area (Lyle 1990, Harp 1996, Impact Assessment, Inc. 1995, and Parker et al. 2002). Studies included information on lifestyles, values and issues regarding forest management. In comparing the studies, it is apparent there are many similarities across the Planning Analysis Area. In particular, the counties of Boundary, Benewah, Shoshone, Lincoln and Sanders have many similarities, with social and economic bases founded on the production of natural resources. Bonner and Kootenai counties have somewhat different economic and social compositions, and aren't facing the same economic issues as the

other five counties. These two counties are growing at a quicker rate and have a more diverse social and economic base. The increased social and economic diversity allows these counties to more readily adapt to change.

In general, the social studies within the Planning Analysis Area have found that the value of the landscape and its resources is highly important to the residents and constitute a major reason why they live in northern Idaho and northwest Montana. The communities within these counties embrace the following ideals (Impact Assessment, Inc. 1995, pg. 292; Lyle 1990):

- Individuals can pursue self-reliance and independence.
- Neighbors support one another in times of need.
- There is a high degree of personal safety.
- Fear of crime is minimal.
- High moral values exist and support an environment that is good for raising children.
- Government, in general, and government regulation, in particular, should be minimized.

An outdoor lifestyle is a major integrating force because people share sentiments about the value and meaning of outdoor activities for recreation, work or other purposes. Working out-of-doors is preferred and constitutes a reason for residing in the region. In addition, hunting is of major importance as a recreational activity, a social means to reinforce bonds with others, and an expression of the values of the outdoor lifestyle. Hunting is also an important contributor to the food supply of many residents (Impact Assessment, Inc. 1995, pp. 292-293; Harp, pp. 21, 35, 36). To support this outdoor lifestyle, access to the forests is an increasingly significant issue (see the Access and Recreation revision topic).

For Boundary, Benewah, Shoshone, Lincoln and Sanders counties, the residents' historic reliance on logging has produced a social attachment to forestry and various occupations it has created. A number of local residents identified strongly with the timber industry, though many had never worked in timber, wood products, or related sectors. Residents often expressed a sentiment of ownership about natural resources and public lands in general (Impact Assessment, Inc. 1995; Parker et al. 2002, pp. 13-25).

In these five counties, there is increasing concern over the area's dependency on natural resource production. Declining employment in resource harvest and extraction is resulting in concern about the economic future of communities in the region. Diversifying the economic base is necessary for the long-term sustainability of the economy. Local residents want this diversification to be a priority for upcoming development efforts (Northwest RC&D 2002, pp. 113,120,121).

The situation is somewhat different in Bonner and Kootenai counties. These counties also had historically strong ties to the timber and mining industries. However, over the past two or three decades their local economies have shifted away from logging and mining and more towards amenity-based economies of recreation and tourism. These counties are experiencing growth in retirement populations, telecommuting populations, and business location due to quality of life in an area. In most cases, the motivation to relocate is related – directly or indirectly – to aesthetic appeal or accessibility of the surrounding natural resources. Compared to other communities in the Planning Analysis Area, Coeur d'Alene is now considered to have a relatively diverse economy, much of which is natural resource-based (Parker et al. 2002, p. 22)

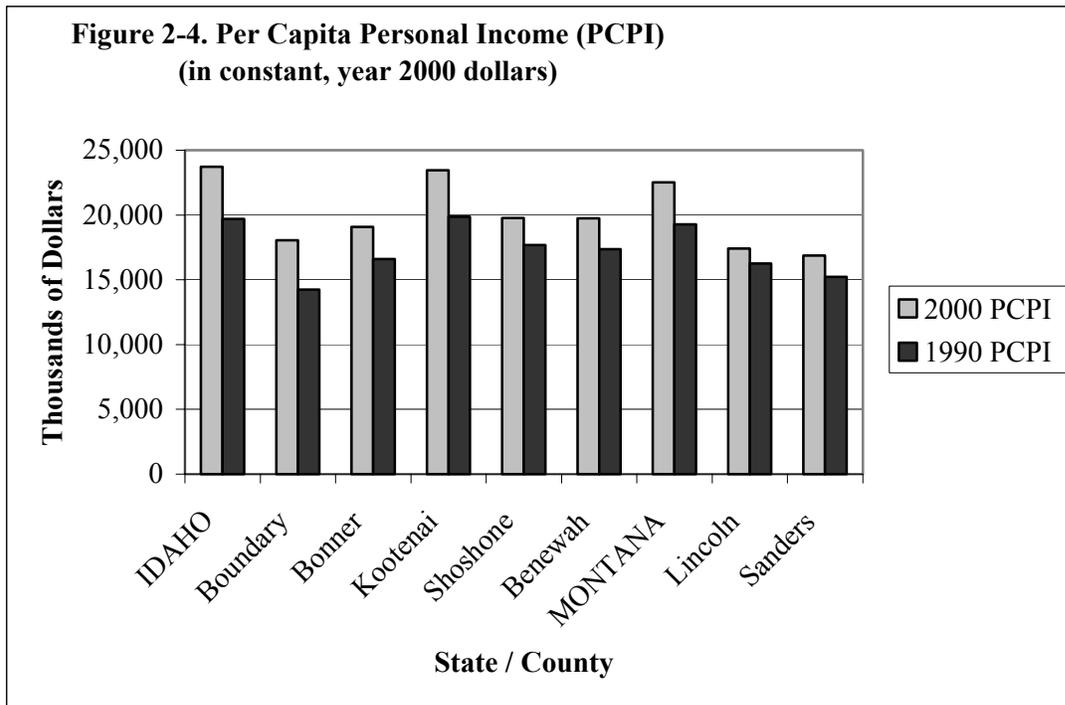
With the shift towards recreation and tourism come some perceived costs (Parker et al. 2002, pp 22-25). Most of the jobs generated by recreation or tourism are service-oriented. These jobs tend to be lower paying and seasonal in nature. Housing for these low-paying jobs can be an issue. Many community members perceive the local economy as unstable and reliant on tourism and seasonal activities. There is also an increase of visitors and an in-migration of newcomers. This influx, whether seasonal or permanent, may affect local values and understanding of norms and customs.

**Area Economy**

**Employment and Income**

Figure 2-4 displays the Per Capita Personal Income (PCPI) for the years 1990 (deflated to year 2000 dollars) and 2000. All counties were below state averages for PCPI, with the exception of Kootenai County. The PCPI in Kootenai County was nearly equal to that of the State in 2000 and slightly above the State in 1990.

In 2000, Sanders County had the lowest PCPI, with \$16,868 in 2000. The average annual growth rate, adjusted to constant (year 2000) dollars, was 1.1 percent. Lincoln County had the second lowest PCPI and the lowest average annual growth rate. Its PCPI was \$17,411 in 2000 and \$16,264 (deflated to year 2000 dollars) in 1990, with an average annual growth rate of 0.7 percent.



Source: Bureau of Economic Analysis, Regional Accounts Data, BEARFACTS 1990-2000

Boundary County had the lowest PCPI in 1990, but experienced the highest growth rate. The PCPI in Boundary County in 1990 was \$13,370 (deflated to year 2000 dollars) and grew to \$19,082 in 2000. The average annual growth was 2.7 percent, which was higher than the growth rate for Idaho, at 2.0 percent.

Table 2-3 displays the percentage of income generated by major industries in 1990 and 2000. The industries listed in the table are composed of many sectors. The timber processing sectors are found within the durable goods manufacturing industry. Recreation activities are generally found in the services industry.

County	Industry	1990	2000
Boundary	Services	*	22.3%
	Durable goods manufacturing 1/	25.7%+	20.7%
	State and local government	15.6%	15.7%
	Retail trade	11.6%	*
Bonner	Services	16.9%	20.3%
	Retail trade	13.8%	17.3%
	State and local government	*	14.1%
	Durable goods manufacturing	24.9%	*
Kootenai	Services	22.9%	25.7%
	State and local government	15.4%	15.3%
	Retail trade	14.7%	13.6%
Shoshone	Mining	41.7%	23.8%
	State and local government	16.0%	19.4%
	Retail trade	*	15.3%
	Services	11.8%	*
Benewah	Durable goods manufacturing 1/	35.9%+	25.4%+
	Services	9.2%	17.6%
	State and local government	12.6%	14.4%
Lincoln	Durable goods manufacturing	29.8%	21.5%
	Services	11.2%	18.4%
	Federal civilian government	*	15.3%
	Mining	12.0%	*
Sanders	Services	14.8%	25.5%
	State and local government	15.9%	17.4%
	Durable goods manufacturing 1/	18.7%+	11.5%

\* Not present in the top 3 industries for that date.

1/ Plus sign (+) indicates approximation of percentage due to non-disclosure of some industries.

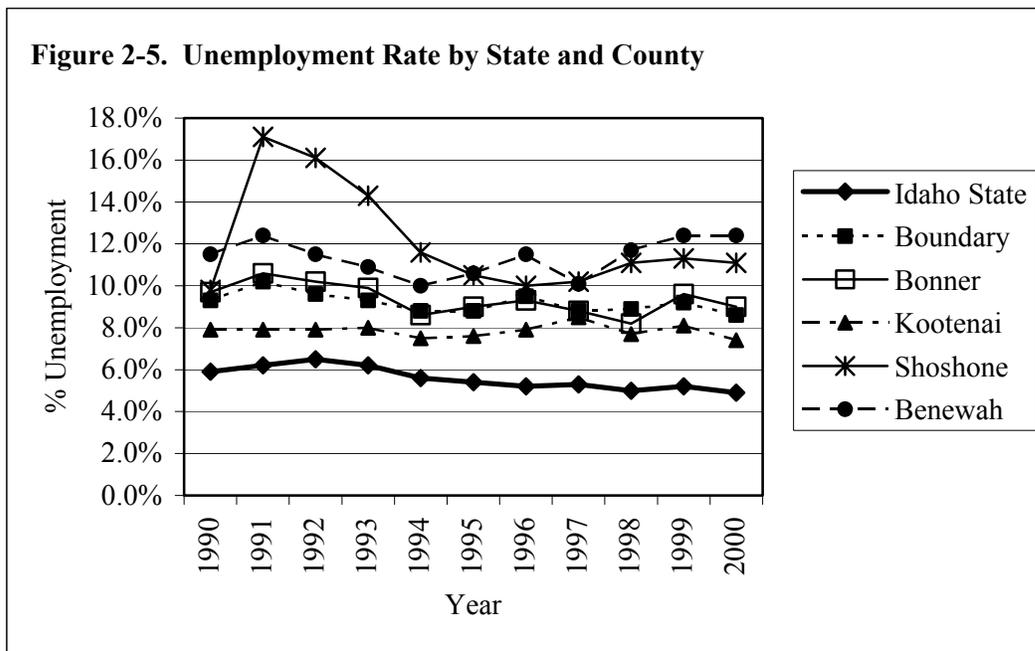
Source: Bureau of Economic Analysis, BEARFACTS and Regional Accounts Data

Major employment and income industries vary by county but there are some similarities. Durable goods manufacturing (primarily the timber industry) has been a major industry in Boundary, Bonner, Benewah, Lincoln, and Sanders counties. This industry generated the largest amount of income in Benewah and Lincoln counties in both 1990 and 2000. Manufacturing also generated the largest amount of income in Boundary, Bonner, and Sanders counties in 1990, but fell in ranking by 2000. For all counties, the percentage of personal income generated by manufacturing has decreased substantially during this time period. This is due to the reduction in timber processing that has occurred from 1990 to 2000.

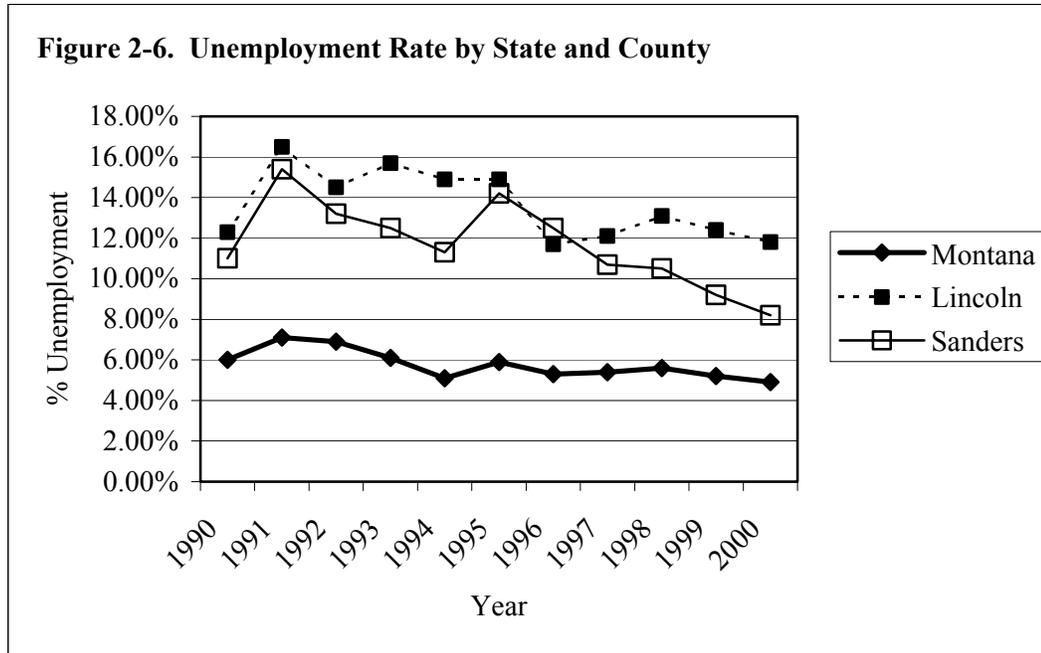
Mining generated the largest income in Shoshone County in both 1990 and 2000. Mining was a major employer in Lincoln County in 1990, but fell out of the ranking of largest industries by 2000. The percentage of personal income generated by mining has decreased substantially during this time period.

With the exception of Shoshone County, the services industry (includes recreation activities) has increased in the percent of income generated from 1990 to 2000 in all counties. The service industry provided the largest amount of income to Bonner, Boundary, Kootenai and Sanders counties in 2000.

Figures 2-5 and 2-6 display the unemployment rate from the years 1990 to 2000 for each county and state. Unemployment rates in all seven counties are substantially higher than their respective state averages. Unemployment rates have been especially high in Shoshone, Benewah, Lincoln, and Sanders counties, peaking in 1991 or 1992. Unemployment rates are decreasing in most of the counties, with the exception of Shoshone and Benewah.



Source: Idaho Department of Labor (<http://www.labor.state.id.us/lmi/lf9000countyrates.htm>)



Source: Montana Department of Labor (<http://rad.dli.state.mt.us/employ/aalf.htm>)

**National Forest Contribution to Local Employment and Income**

Table 2-4 displays the employment and income from industries associated with natural resource extraction for each of the counties within the KIPZ of influence. This Table shows that timber industries produce the highest level of jobs and income for these industries for all counties except Shoshone. In Shoshone, mineral industries provide the highest level of jobs and income for the wildland related industries.

**Table 2-4. Employment and Income for Natural Resource Extraction Sectors**

County	Timber Industries		Grazing Industries		Mineral Industries	
	Employ. (Jobs)	Income (MMS)	Employ. (Jobs)	Income (MMS)	Employ. (Jobs)	Income (MMS)
Boundary	753	30.1	5	0.0	2	0.1
Bonner	1,214	53.1	13	0.2	44	2.0
Kootenai	1,599	66.6	9	0.1	365	27.1
Shoshone	126	3.9	3	0.0	686	28.0
Benewah	786	30.4	1	0.0	44	4.4
Lincoln	1,085	32	5	0.1	25	1.6
Sanders	379	8.5	19	0.3	18	0.4

Source: Report from EASY - Based on 1996 IMPLAN Model Year Data.

Recreation and amenity-based resources are also important contributors to local employment and income. Nationally, non-local recreation visitation in non-metropolitan counties generates an estimated 767,000 jobs (Cordell, 1999). As stated in the 2000 RPA, some 39% of these jobs are associated with food and beverage purchases. The remainder is more evenly distributed among accommodations, retail trade, and recreation services. Income and jobs associated with recreation and tourism are relatively more important in many counties of the West. Jobs tend to be seasonal and relatively low paying (USDA 2000c, pg 66). Information on jobs and income from recreation specific to the KIPZ are not currently available. This analysis will be completed and presented in the DEIS.

**Economic Diversity**

Economic diversity is a measure of how much variety there is in a particular economy. It is believed that diverse economies are more resilient to external impacts than less diverse economies. The Shannon-Weaver entropy function (Shannon and Weaver, 1949) has been used to calculate indices of economic diversity (Attaran, 1986).

The entropy method measures diversity of a region against a uniform distribution of employment. The index ranges between 0 (no diversity) and 1.0 (perfect diversity).

Table 2-5 displays the Shannon-Weaver index for each county and state for several years and the States are listed for comparison. A state economy usually is more economically diverse than any single county. All counties show an increase in economic diversity from 1977 to 1993. The most economically diverse county is Kootenai for all years. The least diverse county in 1977 was Sanders. Shoshone, Benewah, and Lincoln counties were the least diverse in 1985 and 1993.

<b>Table 2-5. Economic Diversity Index by Year</b>			
<b>Region</b>	<b>1977</b>	<b>1985</b>	<b>1993</b>
<b>Idaho</b>	0.58302	0.65692	0.70119
Boundary, ID	0.42191	0.52459	0.59380
Bonner, ID	0.49097	0.54665	0.63652
Kootenai, ID	0.55456	0.60426	0.66255
Shoshone, ID	0.45807	0.44768	0.57753
Benewah, ID	0.45838	0.47820	0.57654
<b>Montana</b>	0.55208	0.63523	0.68074
Sanders, MT	0.41726	0.54098	0.61046
Lincoln, MT	0.43461	0.48085	0.57972

Source: Inventory and Monitoring Institute, Forest Service at [http://fsweb.ftcol.wo.fs.fed.us/imi/economic\\_center/SpatialData3.html](http://fsweb.ftcol.wo.fs.fed.us/imi/economic_center/SpatialData3.html)

**Payments to Counties**

Counties containing NFS lands receive payments from the federal government to compensate for critical services they provide to both county residents and visitors to these federal lands. In 1980, Congress enacted, and subsequently amended a law that requires that 25% of the revenues derived from NFS lands be paid to States for use by the counties in which the lands are situated for the benefit of public schools and roads. Receipts from timber sales are the primary source of monies. The percent of forest land area in each county is the basis for the distribution of the 25% funds returned to each county. Since 1908, the affected counties have received these payments. Table 2-6 shows the payments received by each county for the last 11 years.

As Table 2-6 indicates, the payments have fluctuated from year to year. This fluctuation is primarily due to the fluctuation in volume and revenues generated by timber sales.

The Secure Rural Schools and Community Self-Determination Act was enacted in October 2000. The purpose of this act was to stabilize payments to counties. Under this law, for fiscal years 2001 through 2006, counties have the choice of receiving either (#1) the 25-percent payment as under the Act of 1908 or (#2) an amount equal to their proportion of the average of the State’s three highest 25-percent payments from fiscal year 1986 through fiscal year 1999. All the counties in the study area have chosen

the stabilized payment (#2 above) available through the Secure Rural School and Community Self-Determination Act.

**Table 2-6. Twenty-Five Percent Payments by County (in Thousands of Dollars)**

County	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Boundary	923	1,363	926	1,041	1,088	979	550	846	831	962	1,285
Bonner	931	1,352	969	1,064	1068	971	566	844	787	911	1,251
Kootenai	645	906	690	826	619	801	492	696	363	360	981
Shoshone <sup>1/</sup>	2,844	3,478	3,231	3,313	2,819	3,026	2,188	2,210	960	1,220	4,080
Benewah	89	97	106	84	83	77	62	42	13	31	107
Lincoln <sup>2/</sup>	4,518	5,413	6,721	6,128	4,521	4,010	3,388	3,651	2,319	2,856	5,659
Sanders <sup>3/</sup>	1,054	1,594	1,452	1,868	1,290	1,175	946	1,251	960	1,06	1,628

Source: P.L. 106-393, Secure Rural Schools and Community Self-Determination Act for 1991-1999 and the “Payments to States from National Forest Receipts” report for 2000 and 2001.

<sup>1/</sup> Includes payments from the Clearwater National Forest, which is outside KIPZ

<sup>2/</sup> Includes payments from the Flathead National Forest, which is outside KIPZ

<sup>3/</sup> Includes payments from the Lolo National Forest, which is outside KIPZ

Counties also receive Payments in Lieu of Taxes (PILT). Under the PILT Act of 1976, Congress provided payments to local units of government, typically counties, containing federally owned lands. These payments are designed to supplement other federal land receipt sharing payments local governments may be receiving.

The Act authorizes payments under one of two alternatives, with formulas that take into account such factors as other forms of revenue sharing, acreage, and population. These payments are made directly to counties and may be used for any purpose. PILT payments can be and recently have been limited by Congress through the appropriations process. Congress has not appropriated sufficient funds to fully pay counties since 1994, with the payments in 2000 being 42% of the formula-determined payment.

Table 2-7 displays the PILT paid to each county for the last 11 years.

**Table 2-7. PILT by County (in Thousands of Dollars)**

County	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Boundary	47	47	47	47	44	52	46	50	188	119	187
Bonner	45	45	45	45	42	50	44	65	168	124	208
Kootenai	179	179	179	178	171	189	173	185	166	188	270
Shoshone	122	123	123	121	114	134	117	126	118	129	272
Benewah	5	5	5	5	12	5	9	16	18	26	47
Lincoln	178	178	178	178	165	195	171	179	175	184	267
Sanders	91	91	91	91	84	99	87	91	91	96	140

To assess the impact of the payments to counties, the total county budget for those counties within the Planning Analysis Area were compared to the total payments to counties (25% Payments and PILT). Table 2-8 shows the county budget and the percentage that is contributed by the payments to counties for 1996-97. Shoshone and Lincoln counties are most affected by the payments to counties, with payments comprising more than 30% of their budget in 1996-97. Kootenai and Benewah counties are least affected, with less than 5% of their budget coming from the payments.

**Table 2-8. County Payments as a Percent of County Budget for 1996-97 (in Thousands of Dollars)**

County	25% Payments in 1996	PILT in 1996	Total 1996 Payments	1996-97 County Budget	Payments % of Budget
Boundary	979	52	1,031	11,107	9%
Bonner	971	50	1,021	(NA)	(NA)
Kootenai	801	189	990	39,472	3%
Shoshone	3,026	134	3,160	10,036	31%
Benewah	77	5	82	10,765	1%
Lincoln	4,010	165	4,175	12,255	34%
Sanders	1,175	84	1,259	7,341	17%

Source: US Census Bureau, Census of the Government 1997.

## CHAPTER 3 –REVISION TOPICS

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Revision topics are broad categorizations of the significant issues that have been identified where resource conditions, technical knowledge, or public perceptions of resource management have created a potential “need for change.” They have been identified through monitoring and evaluation, current science and assessments, and our daily contacts with the people who work in and recreate on our national forests.

This Chapter describes the seven Revision Topics, which are listed below:

- 1) **Vegetation**
- 2) **Fire Risk**
- 3) **Timber Production**
- 4) **Wildlife**
- 5) **Watersheds and Aquatic Species**
- 6) **Inventoried Roadless Areas and Proposed Wilderness Areas**
- 7) **Access and Recreation**

Each Revision Topic is described using the following outline and a more detailed description of the Historic and Current Conditions can be found in the AMS Technical Report:

- **Need for Change**
  - Describes how resource conditions have changed.
  - Describes the need to change Forest Plan direction.
- **Implications of Continuing under Current Management Direction**
  - Describes what would happen if we continue to manage under the 1987 Forest Plans.
  - Substantiates the need for change.
- **Possible Strategies in Revising Management Direction**

Complete literature citations and more technical information on each Revision Topic can be found in the AMS Technical Report.

## **Revision Topic – Vegetation**

### **Need for Change:**

Principles of biological diversity and landscape, fire, wildlife, and human ecology have advanced and are better understood since development of the 1987 Forest Plans. There is now an increased focus and scientific understanding of sustainability, disturbance processes, and vegetation management. The 1987 Forest Plans were generally focused on single resources, narrow in scope, and output-driven. Standards and guidelines were at times conflicting, with little recognition of the interrelationship of resources and the need to manage ecosystems at various scales. Management Areas (MA) tended to be small and fragmented. Most MAs fell under a timber-management emphasis, with silvicultural prescriptions that maximized growth and yield of timber. Resources other than timber were a constraint to the production of timber outputs. Although most MAs were defined generally along topographic features, they were not based on ecological systems.

Forest Plan monitoring, Geographic Area (GA) assessments, the Northern Region Overview, and the Interior Columbia River Basin Ecosystem Management Project (ICBEMP) have identified problems and demonstrate a need for change in maintaining terrestrial sustainability on NFS lands. Examples of findings from these documents include:

- A lack of early seral tree species (examples include ponderosa pine and western larch in the uplands, cottonwood in riparian areas, and blue wildrye in grasslands)
- An increased amount of shade-tolerant, fire intolerant, and insect and disease prone tree and shrub species dominating the landscape.
- Higher fuel loading resulting from decades of fire suppression
- A reduction in large snags on portions of the landscape.
- A decrease in interior habitat in late successional stands as a result of past timber harvest.

Fifteen years of implementation and monitoring of management activities also demonstrate a need to revise vegetation management direction. There have been extensive changes in vegetation type and size classes (e.g. western white pine, whitebark pine, ponderosa pine, western larch, aspen, cottonwood, some native forbs and grasses, snags, down wood) from historic ranges, which may increase the risk and uncertainty in managing for contributions towards ecological sustainability. Current management direction does not address these changes or provide tools for restoring these ecosystems. For further information on changes to vegetation, see the vegetation section of the AMS Technical Report (USDA 2003).

Disturbance processes, such as wildfire and insects and disease, have also changed from historic ranges. Increased tree density and fuel loading as a result of fire suppression has created stress on forests, resulting in increased insect and disease activity. This, in turn, has resulted in more intense wildfires over a greater land area than existed historically. In addition, there is an increase in the number of people living adjacent to and within the forests. This increase of population in the wildland-urban interface limits fire activity and creates a need to deal with acceptable fuel treatment options. Current management direction does not address these changes and the need for increased fuel treatments.

State Weed Management Plans (Idaho and Montana), forest plan monitoring, and assessments, indicate noxious weeds are increasing their infestation areas (USDA 1998a pg. 59, 1998b). Several new invaders have been found, indicating an increase in noxious weed diversity. The 1987 Forest Plans do not adequately cover weed management.

The listing of additional species under the Endangered Species Act (ESA) since the 1987 Forest Plans were approved (e.g. water howellia, Ute ladies tresses, and Spalding's catchfly) also demonstrates the

need for updating Forest Plan direction for vegetation. The number of sensitive plants, as designated by the Regional Forester, has also increased dramatically since the 1987 Forest Plans (USDA, 1995b).

Management of late successional forests is an issue on many forest projects. Monitoring indicates both forests are meeting current direction for maintaining and providing for old growth conditions. There may be a need for change to develop revised goals, objectives, or standards for late successional forests to better reflect landscape scale issues related specifically to old growth conditions.

**Implications of Continuing under Current Management Direction:**

Effective fire suppression since the 1930s, the introduction of white pine blister rust, timber harvest, and the building of roads are the major causes of deviation from historic disturbance and vegetation patterns. These changes from historic conditions lead to further changes in disturbance and successional processes, making it difficult to provide for a sustainable ecosystem.

Some major changes as a result of past management, fire suppression, and implementation of the 1987 Forest Plans include:

1. In warm and dry habitats, there has been a shift from ponderosa pine and larch to Douglas-fir.
2. In moist habitats, there has been a shift from white pine and larch to Douglas-fir, grand fir, and hemlock.
3. There has been a decrease in the late-successional stage forests.
4. In general, patch sizes (uninterrupted blocks of forest) and interior habitat have decreased and fragmentation of the landscape has increased.
5. There has been an increase in shade-tolerant, drought-intolerant tree species.

Under current management direction, these changes would continue to occur, adding to a cycle of changed conditions from historic and resulting in a reduced ability to contribute towards the ecological component of sustainability. For further information on changes from historic ranges and implications of current management direction, see the vegetation section of the AMS Technical Report (USDA, 2003).

**Possible Strategies in Revising Management Direction for Vegetation:**

- Define the desired conditions for contribution of National Forest System (NFS) lands to terrestrial ecosystem sustainability at appropriate temporal and spatial scales.
- Develop management direction based on an understanding and consideration of natural disturbance processes, including the intensity, frequency, and magnitude of those disturbance regimes.
- Develop restoration strategies that will move structure, composition, and function of landscapes, communities, and individuals toward sustainability objectives.
- Develop a strategy for aggressively treating noxious weed populations through various means, including mechanical, biological, and chemical control.
- Develop a monitoring strategy that will measure appropriate indicators of ecological sustainability at multiple scales and will serve to facilitate adaptive management.

## **Revision Topic – Fire Risk**

### **Need for Change:**

Since the Forest Plans were approved in 1987, more homes and other structures have been built near and around national forests. Should fires occur, these structures within the wildland-urban interface are very vulnerable. As people, homes, and structures continue to occupy the wildland-urban interface and as hazard fuels continue to accumulate, a high risk and volatile situation needs to be addressed. There is a need for change in the 1987 Forest Plans to better address the restoration of fire-adapted ecosystems (refer to the Vegetation section of this document) and the reduction of risk to communities and the environment. The 1987 Forest Plans do not adequately address this issue.

Since the 1987 Forest Plans were written, much has been learned about the role fire plays as a disturbance process in western forest ecosystems. Fire suppression has changed the vegetation patterns, structure, and composition of forests. Therefore, the role that fire plays in these ecosystems has also been altered. The altered forest composition, when coupled with the additional structures and communities in the urban interface results in changed conditions that need to be addressed in the revision of the Forest Plans.

National and Regional strategies describe fire risk conditions in terms of condition class and fire regime. The 1987 Forest Plans did not address fire management from this perspective. Therefore, there is a need to update the 1987 Forest Plans so they reflect national fire management strategies and policies completed in recent years. These strategies include:

- The 1995 Federal Wildland Fire Management Policy and Program Review: This review directs the integration of fire into land management planning, working with landowners and stakeholders, and directs landscape level analysis (USDA/USDI, 1995c).
- National Fire Plan (2000): The documents that make up the National Fire Plan (NFP) direct that Fire Management Plans are more closely linked to Forest Plan direction.
- Region 1 and Region 4 Fire Planning Framework (2000): This provides fire management direction for Forest Plan Revisions that will help meet NEPA compliance in implementing wildland fire use, provides planning consistency across geographic areas, and other plan revision efficiencies (USDA 2000d).
- 10-Year Comprehensive Strategy (2001): This strategy reflects views of a broad cross-section of governmental and non-governmental stakeholders. The strategy addresses a comprehensive approach to the management of wildland fire, hazardous fuels, and ecosystem restoration on Federal and adjacent State, tribal, and private forest and range in the United States (USDA 2001a).

### **Implications of Continuing under Current Management Direction:**

Under the 1987 Forest Plans, each Management Area (MA) lists standards for fire, which includes both prescribed fire and wildfire. These standards are still relevant even with the new, standard terminology now in use. Existing MA's developed during the 1980's produced small, impractical areas for wildland fire use and for fire management prescription writing. Strategic decisions developed during the Forest Plan Revision should provide general fire management direction. The MA's in the 1987 Forest Plans have made integrated fire management difficult to implement. The 1987 Forest Plans have not provided sufficient analysis and, therefore, have not adequately authorized wildland fire use. Because of this, the only management choice available with an unwanted fire is to respond with suppression tactics.

**Possible Strategies in Revising Management Direction for Fire Risk:**

- Develop Fire Management Units (FMU's) consistent with Land and Resource Management Plans (LRMP) that identify appropriate management response strategies for each unit.
  - List strategic measurable management objectives specific to each FMU.
  - List management constraints or decision criteria that will impact fire management activities within each FMU.
  - Establish monitoring and evaluation programs and measures in Forest Plan Revisions for restoration activities in fire-adapted ecosystems.
-

## **Revision Topic - Timber Production**

### **Need for Change:**

The 1987 Forest Plans established allowable sale quantities (ASQ) as the maximum level of timber that could be harvested. The timber production levels have been well below the ASQ for both the KNF and IPNFs. The Monitoring and Evaluation (M&E) of the 1987 Forest Plans has found that levels of timber volume sold have declined substantially over the past 14 years of implementation.

IPNFs: The Idaho Panhandle 1987 Forest Plan projected a total maximum timber sell volume of 280 mmbf annually in the first decade. Timber sell volumes have decreased from 246.4 mmbf in 1988 to 40.7 mmbf in 2001.

KNF: The Kootenai 1987 Forest Plan projected a total maximum timber sell volume of 227 mmbf annually in the first decade. In addition, timber sell volume from unsuitable management areas was estimated at 60 mmbf, averaging 6 mmbf per year. M&E Reports indicate that sell volumes have declined from a high of 200 mmbf per year in 1992 to 52.2 mmbf per year in 2001.

Many factors have influenced the timber production levels. On the KNF, the U.S. Fish and Wildlife Service (USFWS) amended the biological opinions for grizzly bear recovery in July 1995 and changed how recovery processes would take place on the forest. The INFISH Decision of July 1995 resulted in additional streamside protection measures on both the KNF and IPNFs. In general, it has become more difficult to plan and execute sales due to public controversy, protection of threatened and endangered species habitat, inability to enter inventoried roadless areas, water quality concerns, and reduction in forest budgets (USDA 2002b, 2002c).

While timber harvest levels have not exceeded the maximums established in the ASQ, they have also not met expectations for management and output levels. Even though ASQ is the maximum harvest level, there was an expectation by the public that this level was achievable and predicted. The analysis conducted for the 1987 Forest Plan used this level of harvest in estimating effects from timber management on other resources and on local jobs and income. With the reduced timber harvest level, there is a need to update the predicted timber harvest level and estimate the effects on other resources and local communities.

The management direction in the 1987 Forest Plans emphasized the production of timber, with the majority of management areas allowing or promoting timber management. In the 1990s, the Forest Service began to shift its focus and mission towards ecosystem management and ecological sustainability. This change in policy and direction resulted in a decreased emphasis on commercial timber production and an increased emphasis on timber production as a tool for restoration or as a means to address other resource requirements or needs. However, budget allocation and targets remain largely tied to commercial timber production. There is a need to reanalyze timber harvest levels and revise direction to address this change in management.

In addition, evaluation of timber suitability is required to be reviewed every 10-15 years (36 CFR 219.14). Since the adoption of the 1987 Forest Plans, many changes to timber suitability have occurred, including changed Forest Service handbook direction (FSH 2409.13). See the AMS Technical Report for additional information (USDA 2003).

Many conditions affecting timber demand have also changed since the 1987 Forest Plans were developed. Timber harvest from private, state, and NFS lands have declined; imports of wood products have increased; and technology for manufacture of wood products and mill capacity has changed. In addition, with an increased concern on managing for forest health, there is the potential to increase the supply of small-diameter stumpage from NFS lands. Because of these changed conditions and the need to understand market conditions for small-diameter wood products, the demand for wood fiber production

will be determined as part of the analysis for the DEIS. See the AMS Technical Report for additional information (USDA 2003).

**Implications of Continuing under Current Management Direction:**

Based on historic and current condition and trends, timber harvest levels will continue to be well below the ASQ and fall short of expectations. Direction to maximize growth and yield through short rotations, a high use of regeneration harvest, and intensive timber management is unattainable because of other resource management constraints and public values. The 1987 Forest Plans emphasize timber production, overlooking ecosystem management and principles of ecological sustainability. Suitable timberlands will continue to be adjusted to make corrections to the 1987 Forest Plans. Little will be known regarding the market for small-diameter logs, limiting the forests' ability to manage for improved forest health through commercial timber sales.

**Possible Strategies in Revising Management Direction for Timber Production:**

- Further define the role of timber harvest as a tool to achieve desired future condition.
  - Identify acres suitable for timber production.
  - Estimate expected timber sale volume. Estimate the jobs and income generated by these levels of production and use and their contribution to local communities.
  - Incorporate the social and cultural values into the alternative development and desired future conditions.
  - Develop a monitoring strategy.
-

## **Revision Topic – Wildlife**

### **Need for Change:**

Since the 1987 Forest Plans, several changes have occurred that resulted in subsequent modifications in how we manage both species and habitats. The proposed revised Forest Plans need to address these changes.

Species listed as threatened and endangered have changed. Changes to the terrestrial wildlife species list include removing the peregrine falcon and adding Canada lynx. Additionally, the sensitive species list was amended in 1999 with the addition of eight species and the removal of one (USDA 1999b). Standards for habitat management for grizzly bear continued to evolve (USDI FWS 1998) and Forest Plans were amended in 1999 to include incidental take. Additional amendments associated with motorized access management were developed in 2002 and will be incorporated into revised Forest Plans (USDA 2002d). Habitat and access management for lynx and caribou continue to evolve.

New and/or updated laws, regulations, and management strategies contain additional measures for managing habitats at a much broader scale. Items such as fragmentation, patch size, biodiversity and ecosystem management strategies evolved and need to be incorporated into Forest Plans. The Interior Columbia Basin Ecosystem Management Project (USDA/USDI 1999c) identified that current plan direction for special habitats such as snags and down woody material may not be adequate for species dependent on those habitats. In 2001 it was determined that the Migratory Bird Treaty Act applied to all federal agencies. That decision makes it unlawful “by any means or manner, to pursue, hunt, take, capture or kill” any migratory bird. The State of Montana completed an elk management plan in 1992 with specific habitat and population goals and objectives that did not always match those found in the Forest Plan (MFWP 1992). The USFWS is identifying critical habitat for caribou with specific management strategies.

Vegetation and roads analyses done in preparation for the Forest Plan revisions show that physical and biological components of terrestrial wildlife habitats have changed, and these changes must be recognized. These changes have resulted in increased or decreased suitable habitat, depending on the wildlife species and are listed below. The 1987 Forest Plans need to be revised to provide restoration strategies for these habitats.

- Reductions in early and late succession habitats (USDA 1998b)
- Loss of fire-killed trees, large snags and down wood.
- Significant reductions of western white pine, white-bark pine, western larch, sub-alpine larch, and ponderosa pine forest cover types (USDA 1998b).
- Increases in the extent of Douglas-fir and grand fir, and cedar/hemlock on the IPNFs.
- Increases in the density of trees and a shift to a largely mid-seral structural stage.
- Reduction in riparian, wetland and lakeshore habitat (due to road construction and development) and vegetation composition changes in riparian areas (due to noxious weeds).
- Changes in vegetative composition on big game winter ranges due to noxious weed encroachment (USDA 2000a).

For additional information see the wildlife portion of the AMS Technical Report (USDA 2003).

### **Implications of Continuing under Current Management Direction:**

The KNF and IPNFs Forest Plans were signed in 1987 and since that time research has shown that certain forest cover types are not as well represented as they were historically. Additionally, there has been a shift from late and early successional forest to a more uniform mid-successional forest. The size of

uninterrupted blocks of forest (patch size) is smaller than it was historically. Each of these forests' characteristics contributes to an area's ability to serve as wildlife habitat. The documented changes increase suitable habitat for some species (for example: white-tailed deer, American robin, black bear) and decrease suitable habitat for others (for example: Canada lynx, white-headed woodpecker, flammulated owl). Many of the species listed as sensitive or management indicators under the current Forest Plans require special habitats. Current plan direction and/or loss of those habitats may be inadequate to protect species dependent on those habitats.

Since 1987, our understanding of the impacts of roads and noxious weeds has increased. The transportation system on NFS lands impacts suitable habitat in many ways. Roads remove fertile land from production, provide access for the public, and facilitate the extraction of natural resources. Each of these characteristics of roads has costs and benefits to different wildlife species. One of the areas where new direction is required is access management. Demands on access to public lands have increased dramatically over the past two decades, well above those anticipated in 1987 Forest Plans. The 1987 Forest Plans do not contain adequate management strategies for snowmobiling in lynx, wolverine, or bog lemming habitat, off road vehicle use, or providing adequate security levels for big game. The impacts of noxious weeds to wildlife habitat have only recently begun to be appreciated. Weed infestations have reduced the ability of many winter ranges on the KIPZ to support big game. Dry upland sites appear to be especially susceptible to weeds. Noxious weeds do not provide the forage value to wildlife that native plants provide.

The revised Forest Plans need to be in compliance with new laws, regulations, and management direction. Forest Plans also need to incorporate new research and science that has been developed. The new strategies have been developed to aid in the sustainability of all native and desired non-native species.

The 1987 Forest Plan direction appears to be adequate for species like the gray wolf, bald eagle, and peregrine falcon. Recovery goals are being met for each of these species. Not enough information is available for species such as lynx (which were only recently listed) or for species currently listed as sensitive, such as harlequin duck and wolverine.

Management direction for several sensitive species will need to be addressed in Forest Plan revision. Species have been added and deleted from this list over the past two decades as new information is gathered. Current information is not adequate to determine trends of any kind for these species. This is often a case of inadequate funding to conduct a proper monitoring program, however fifteen years of plan implementation has often resulted in an "inconclusive" determination for several of the items in monitoring plans.

Over the past two decades there have been many changes in management strategies including biodiversity, ecosystem management, fragmentation, sustainability, viability, and linkage zones to name a few. Management strategies for grizzly bear have continued to evolve, and have only recently been developed for lynx. They may continue to evolve with the development of a recovery plan for lynx and for additional species that may be listed in the future. State agencies have developed elk management plans and habitat components such as security and vulnerability have evolved. The 1987 Forest Plans may not fully reflect all of these new strategies.

Hunting, fishing, wildlife viewing, and recreational pursuits (hiking, biking etc) are important components that make up the quality of life for residents of the KIPZ. Socially, it is the availability of these and many other activities associated with the area, that has and continues to attract people to the area. They are also important economically to all of the local communities. The area attracts residents of adjacent large cities such as Spokane and Kalispell but also non-residents that don't have these opportunities elsewhere. Providing adequate populations of all wildlife species has become very important as the demand for these activities has increased. NFS lands must provide habitat to meet the needs of all of these wildlife species.

**Possible Strategies in Revising Management Direction for Wildlife:**

- Develop strategies that maintain conditions necessary to support population viability for all native and desired non-native species. This includes restoration of those habitats that are outside the historic range of variability such as old growth ponderosa pine. Review and update the MIS list or develop new management indicators.
  - Develop a monitoring strategy, for multiple scales, that tracks the effects of management activities on management indicators and that will serve to facilitate adaptive management.
  - Define the desired conditions for contribution of NFS lands to terrestrial ecosystem sustainability for appropriate temporal and spatial scales.
  - Develop appropriate geographic scales of analysis (management areas, geographic areas etc.) with attainable standards and goals.
-

## **Revision Topic – Watersheds and Aquatic Species**

### **Need for Change:**

There are two primary reasons that the 1987 Forest Plans need to be revised for watershed and aquatic resources. The first is to establish a set of management directions that recognizes and emphasizes watershed restoration activities. Current scientific findings, Forest Service policies and direction, and priorities from other agencies that manage water resources need to be brought together to construct strategies for watershed activities. This is supported by the following findings:

- The 1987 Forest Plans have a watershed management strategy that can be described as “maintenance rather than restoration”. In some situations, thresholds, or “minimum impact” standards define the criteria for maintenance. Taken as a system of strategies and programs, current direction is not designed to restore damaged water resources or watershed systems, or to protect those that were not impaired.
- In 1995, the Forest Plans were amended to include the Inland Native Fish Strategy (INFISH; USDA 1995d). Implementation of INFISH gave greater protection to aquatic resources, especially riparian-dependent systems. INFISH was intended to be an interim measure to maintain and protect aquatic resources until a long-term strategy could be developed. This longer-term strategy will be developed in the proposed revised Forest Plans.
- There are conflicting priorities for very limited restoration funds. Forest Service, USFWS, and State Departments of Environmental Quality have different restoration priorities.

The second need to revise the 1987 Forest Plans is to address physical and biological components of watershed systems that have changed. Such changes include:

- Approximately 168 stream segments or water bodies have been listed by the states of Idaho and Montana as impaired under section 303d of the Clean Water Act.
- Approximately 25% of the watersheds on each forest appear to be in a “Not-Properly-Functioning” condition, and additionally, nearly half are “Functioning-at-Risk”.
- There are six fish species and three amphibian species on the forests that are listed as threatened or endangered under ESA, or as sensitive by the Regional Forester (USDI 2002, USDA 1999b).

### **Implications of Continuing under Current Management Direction:**

Legacy effects from past timber harvest, mining, and other human-caused disturbances continue to effect watershed condition and health. The 1987 Forest Plan direction, as amended by INFISH (USDA 1995d), reduces the risk to watersheds and aquatic biota from new and ongoing activities. For some resources, INFISH standards and guidelines contain general direction for repairing past damage (roads, grazing, recreation), although it is lacking for other resources (timber harvest, mining). Generally, under the direction of the 1987 Forest Plans, the intensity and the risks associated with new and ongoing developments and man-induced disturbances has been and will be greatly reduced as compared to the last several decades. However, they are likely to continue to accumulate, and the press-nature of those disturbances still exists.

The extent and distribution of legacy disturbances is not likely to be effectively reduced on a watershed scale. Certainly, there will continue to be local improvements; but watershed-scale improvements will progress slowly and perhaps haphazardly. Without specific direction and emphasis in the Forest Plan, watershed restoration may tend to be prioritized and directed by more visible developmental and commodity-based resource decisions.

Current condition and trends show that native aquatic species are in decline. Land management practices, particularly historic practices, while not the only cause (introduction of non-native species, influence of hatchery fish, and harvest are other contributing causes), have had major influences. Under the current direction, some areas will likely see a slow improving trend, others will continue to chronically degrade, and the viability of native species will continue to be at risk.

**Possible Strategies in Revising Management Direction for Watersheds and Aquatic Species:**

- Develop strategies that maintain conditions necessary to support population viability of aquatic species.
  - Provide strategies that maintain the conditions and water quality of watersheds that are “properly functioning” and are fully supporting beneficial uses, including aquatic biota and salmonid spawning.
  - Provide strategies that will restore watershed conditions and water quality in “not-properly-functioning,” and “functioning-at-risk” watersheds adequately to fully support beneficial uses. Develop strategies that will protect, and where feasible, recover native aquatic and riparian dependent species and prevent the introduction and spread of undesirable non-native aquatic species.
  - Work collaboratively with EPA, state water quality bureaus, USFWS, the public, and other interested parties to prioritize watersheds for restoration.
  - Evaluate INFISH interim strategy for possible modifications.
  - Facilitate TMDL implementation plans and schedules with the States.
  - Develop monitoring strategies that will measure appropriate trends and indicators related to aquatic sustainability.
-

## **Revision Topic – Inventoried Roadless Areas and Proposed Wilderness Areas**

### **Need for Change:**

This subject is a Revision Topic because of the continuing controversy associated with the management of Inventoried Roadless Areas (IRAs) and proposed Wilderness Areas, and because roadless areas cover a large part of the two forests. Within KIPZ, there are 91 IRAs totaling almost 1.5 million acres – 1/3 of the KIPZ.

The 1987 Forest Plans contain differences in the detail of direction provided for proposed Wilderness Areas. Management Area designations are quite different between the two forests. The IPNFs Forest Plan combines the proposed and established Wilderness Areas, while the KNF Forest Plan separates the existing Wilderness areas from those Proposed for Wilderness designation. In general, the KNF Forest Plan provides more management direction for those areas proposed for Wilderness designation than the IPNFs Forest Plan provides. The guidance provided in both 1987 Forest Plans needs to be updated to reflect current direction for these proposed areas. This guidance needs to be specific for proposed Wilderness Areas.

There is a need to revise the 1987 Forest Plans so that they reflect current Forest Service direction on roadless area management. At this time, that direction is found in what is commonly referred to as “the Roadless Area Conservation Rule” (USDA 2000e), a national effort by the Forest Service to examine and set management direction for roadless areas. Key points (in chronological order) include:

- On January 12, 2001, the Roadless Area Conservation Rule was published in the Federal Register (FR Doc. 01-17249). This rule prohibits road construction, road re-construction, and timber harvest in IRAs on NFS Lands. The intent of this rule is to provide lasting protection for IRAs within the NFS in the context of multiple use management (Federal Register, 2001).
- On May 10, 2001, the U. S. District Court for the District of Idaho enjoined the USDA from implementing the Roadless Area Conservation Rule. This decision by the District Court was appealed to the United States Court of Appeals for the Ninth Circuit.
- On June 7, 2001, the Chief of the Forest Service and Secretary of Agriculture issued a letter concerning interim protection of IRAs, stating “the Forest Service is committed to protecting and managing roadless areas as an important component of the NFS. The best way to achieve this objective is to ensure that we protect and sustain roadless values until they can be appropriately considered through forest planning”. (Bosworth 2001)
- On December 12, 2002 the Ninth Circuit Court of Appeals reversed the May 10, 2001 ruling by the U. S. District Court that had enjoined USDA from implementing the Roadless Area Conservation Rule. At this time, the Court is still considering a rehearing request. They have not yet issued a mandate to lift the injunction, therefore the Forest Service remains enjoined from implementing the Roadless Area Conservation Rule. As long as the Roadless Area Conservation Rule is not in effect, the agency policy for the protection and management of Inventoried Roadless Areas is contained in Interim Direction at Forest Service Manual (FSM) 1925.

IRAs are defined as “Undeveloped areas typically exceeding 5,000 acres that met the minimum criteria for wilderness consideration under the Wilderness Act and that were inventoried during the Forest Service’s Roadless Area Review and Evaluation (RARE II) process, subsequent assessments, or forest planning. These areas are identified in a set of inventoried roadless area maps, contained in Forest Service Roadless Area Conservation, Final Environmental Impact Statement, Volume 2, dated November, 2000, which are held at the National Headquarters of the Forest Service, or any update, correction, or revision of those maps.” (USDA 2000e)

**Implications of Continuing under Current Management Direction:**

Direction in the 1987 Forest Plans included guidance to manage some of the IRAs for resources that would preclude roadless management. Direction included proposed development in some of the IRAs for timber management. The projected amounts of timber harvest and road construction from these areas has not occurred. Continuing under 1987 Forest Plan direction would perpetuate this situation, and the desired goals and objectives as stated in the 1987 Forest Plans would not be met for those areas. This direction does not reflect the current national policy for the management of IRAs and needs to be revised.

The revised Forest Plans will evaluate each of the 91 IRAs on the KIPZ and recommend management options depending upon current national direction that continues to evolve and change. Currently, we are unable to implement the Roadless Area Conservation Rule because of remaining legal issues. The Forest Service has established interim guidance for the management of IRAs to ensure that these areas are protected until the current legal issues are resolved and national guidance is finalized. Until that time, we will continue to evaluate these roadless areas through our Forest Plan Revision Process.

**Possible Strategies in Revising Management Direction for Inventoried Roadless Areas and Proposed Wilderness Areas:**

- Analyze IRAs for wilderness potential and recommend appropriate IRAs for wilderness designation. Define desired conditions for all IRAs recommended for wilderness designation.
  - Recommend management area prescriptions for IRAs not recommended for wilderness designation. Provide desired condition descriptions for management areas that include IRAs.
  - Develop monitoring strategies for IRAs.
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## **Revision Topic – Access and Recreation**

### **Need for Change:**

Access to NFS lands is one of the most controversial topics, both internally and externally, in forest management today. Because of the level of this controversy, it is appropriate to address Access and Travel Management as part of Forest Plan Revision. Public dissatisfaction with current direction and policies is apparent in both the media coverage that is devoted to it, and in the public meetings that are held on a regular basis across both forests. This dissatisfaction is evident on both sides of the controversy. That is, there are some groups that advocate that access to NFS lands is much too limited, both in where people can go and how they get there, and there are groups that advocate that there are not enough restrictions on where people can go and how they get there.

The 1987 Forest Plans do not provide adequate direction to address the changes in recreation demands and technology and shifts in management practices that have occurred over the last fifteen years. Forest Plan Revision provides the opportunity to address these changes and some of the changes that have occurred are as follows:

- Increased user demand over the last fifteen years. Since the 1987 Forest Plans were developed, motorized and non-motorized modes of travel have increased and diversified. In the case of the IPNFs, communities like Spokane, Coeur d’Alene and Sandpoint have experienced significant population growth. For the KNF, areas like the Flathead Valley and Missoula areas have grown. This growth in population has resulted in an increase in the numbers and types of users of NFS lands. Roads that were originally constructed and used for timber harvest are now predominantly used for recreation purposes, and resource protection and restoration.
- Technological advancements in recreational equipment has resulted in forest users accessing areas that were not accessible fifteen years ago and pursuing recreational activities in ways that were not possible historically. Motorized vehicles, such as snowmobiles and ATVs, can access areas much further into the forest than they could historically.
- Changes in logging system technology and feasibility have advanced and the need for high-density road systems is no longer a critical factor for harvest activities. Changes in financial resources have limited our ability to adequately maintain the existing road systems on the forest’s. The National Fire Plan and a shift in fire management have changed how access is considered. Weed control and eradication has emerged in the last decade as a prominent factor to consider in terms of access on NFS lands.
- One of the more controversial changes has been the miles of roads that have been put into restricted status. In order to meet wildlife habitat needs, NFS roads have been put into restricted status at a faster rate and over a shorter period of time, than was estimated in the 1987 Forest Plans.
- The need for watershed restoration work and the means to meet those needs was not addressed in the 1987 Forest Plans. This has led to the method of re-contouring roads as a means of decommissioning.
- In January of 2001, a new Forest Roads Rule and Policy was issued which revised regulations concerning the management, use, and maintenance of the National Forest Transportation System. Forest Plan Revision provides the opportunity to incorporate this direction into the Forest Plans (USDA 2001b).

Based on these changed conditions there is a need to better integrate social needs and resource management directions with access management.

**Implications of Continuing under Current Management Direction:**

Roads will continue to be managed to meet legal requirements. Watershed restoration projects will result in continuing decommissioning of roads. Wildlife security will be attained through the use of road restrictions. Under-maintained roads will continue to deteriorate and long-term economic and resource risks will increase. Many site-specific amendments may be required to deal with travel management. User expectations will not be met and dissatisfaction will continue to escalate.

Expectations for dispersed recreation users are not likely to be met. In some dispersed areas across the KIPZ (primarily river corridors and lands adjacent to lakes), overuse and resource degradation continues to occur due to the lack of proper facilities and transportation systems. Various groups will continue to advocate their interests and controversy is likely to continue. Unplanned and unmanaged uses will evolve and generate new areas of unresolved conflict.

Developed recreation sites are likely to meet the expectations of most users. Legally required health and safety issues will be met. Minimal funding for recreation site maintenance continues to be a problem and will intensify if the Fee Demonstration Program disappears.

**Possible Strategies in Revising Management Direction for Access and Recreation:**

- Provide management direction for Access and Travel Management Planning, including criteria for developing access strategies by appropriate modes and season of use.
  - Review and re-evaluate Recreation Opportunity Spectrum (ROS) classifications.
  - Determine the appropriate classifications of ROS for both summer and winter uses.
  - Propose management direction for dispersed recreation areas across the KIPZ.
  - Establish uniform Access and Travel Management guidelines for protecting the wilderness character of Wilderness Study Areas and Recommended Wilderness.
  - Establish uniform, specific access and travel monitoring requirements (summer and winter).
  - Establish off-highway vehicle (OHV) direction for the IPNFs.
  - Incorporate Forest-scale Roads Analysis in Alternative development.
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## **CHAPTER 4 – DECISION SPACE, ALTERNATIVE DEVELOPMENT, PRELIMINARY PROPOSED ACTIONS**

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The next step in the planning process is to prepare a Draft Environment Impact Statement (DEIS) and two proposed revised Forest Plans. Preparation of these documents will require an understanding of the specific decisions that are to be made in the Forest Plans. The KIPZ is using the concept of “decision space” to help define the framework and options available for the multiple decisions made in the Forest Plans. The preparation of the DEIS will apply the decision space concept and use it to guide the development of several alternatives.

Following the discussion of decision space is an introduction to the No Action and the Proposed Action. The DEIS will address the effects associated with continuing with current management direction through the No Action Alternative, as well as address the effects associated with the range of alternatives developed through scoping and our collaboration efforts.

### **Decision Space**

Decision space is the concept that only certain options can be considered for any given issue. Acceptable and appropriate options are those that are legal, consistent with Agency policies, implementable, science-based, within expected Agency budgets, and have acceptable risk and uncertainty. An additional consideration for identifying reasonable management options is public values and opinions. The decision space for an issue is defined by such appropriate, acceptable and reasonable management options. The following section describes the factors that define decision space and discusses their role as basic building blocks for the alternatives:

#### **Legal and Agency Policy Requirements**

Many laws, acts, regulations and policy documents guide the forest planning process. All decisions that are made will be in compliance with this direction. Direction for planning also comes from the Forest Service Directive System (Handbooks and Manuals). These will also be followed, as appropriate.

The NEPA of 1969 requires that all environmental analyses “consider a full range of reasonable alternatives to the proposed action that address the significant issues and meet the purpose and need for the proposed action.”

All alternatives must also meet the requirements of other applicable laws, including the Endangered Species Act of 1973, the Multiple Use and Sustained Yield Act of 1960, the National Forest Management Act of 1976, the Clean Air Act of 1955, the Clean Water Act of 1948, the National Historic Preservation Act of 1966, and the Forest and Rangeland Renewable Resources Planning Act of 1974.

Compliance with these laws and other applicable direction will result in a range of alternatives that are all fully implementable and legal. Following this direction facilitates comparison of alternatives.

#### **Scientific Findings**

The KIPZ Interdisciplinary Team (IDT) will rely on a wide range of scientific information for the formulation of alternatives and management direction. This will include individual scientific papers and larger, more comprehensive studies. For example, the ICBEMP Scientific Assessment published in 1996, will be considered in developing management options, restoration priorities or desired ecological conditions.

#### **Public Collaboration and Comment**

On April 30, 2002 our Notice of Intent (NOI) was published, which began our public scoping. All comments received during the public scoping process and comments received during any subsequent community meetings will be used to develop and refine possible alternatives for the DEIS. These

comments will be reviewed for legal and scientific validity, similar to management options identified by KIPZ team members.

In addition, ideas and advice gathered by the two Forest Supervisors and the IDT in their consultation and discussions with Tribal governments, elected officials, and Forest Service employees will be considered in developing alternatives. Consultation with State and Federal agencies has begun and will continue throughout the Forest Plan Revision process.

### **Risk and Uncertainty**

In addition to legal requirements, scientific findings, and public opinion; risk and uncertainty also define the decision space for the alternatives.

The alternatives differ in how risks associated with the timing, location, and intensity of environmental and human disturbances are recognized and managed. Risk can be described with three elements:

- 1) An estimate of the magnitude of a possible loss or gain;
- 2) The probability that the gain or loss will occur; and
- 3) A clear description of exposure - who or what is exposed to risk.

For example, wildfire is an ecological disturbance process that has important benefits and costs. Fire management provides an opportunity to change the risks, costs, and benefits associated with wildfire by, for example, reducing the risk of catastrophic loss of forested communities while reintroducing fire as a desirable ecosystem process.

Individuals, groups, and our broader society exhibit different attitudes toward risk. Public comments will provide information to the decision makers regarding public perceptions of risk.

The alternatives may also differ in how uncertainty - a lack of absolute knowledge about how complex environmental and social systems work and respond to management changes - is considered.

The DEIS and proposed revised Forest Plans will be based on the best available information. Recommendations and decisions will be made based on this information. Scientific research, monitoring, analysis, and synthesis of practical experience are central to increasing knowledge and reducing uncertainty. Adaptive management is the strategy for deliberately creating new information and insight to informed decision-making. That is, adaptive management uses our awareness of risks, costs, and uncertainties to allow actions to be taken in ways that promote learning to reduce those risks, costs, or uncertainties.

Values, attitudes, and beliefs influence how people think about and deal with uncertainty surrounding ecosystem management. Specifically, the balance point between losses and gains, and the costs and benefits of decision-making under conditions of uncertainty will vary from one individual or group or agency to another. Some people may believe that gaps in knowledge are not significant and that enough is known to proceed prudently, if not confidently, with ecosystem management. Some may believe that no amount of knowledge will be sufficient to justify the possibility of adverse outcomes, and that it is best to avoid tinkering with nature's ecosystem processes that can never be completely understood. Still others may believe that people can incrementally understand and improve the management of inherently diverse and dynamic ecosystems to respond to the needs of a diverse and dynamic society (Bormann and others 1994).

The DEIS will display a range of possible and desirable future conditions; propose means to achieve those conditions through land allocations and associated standards and guidelines; identify risks and trade-offs for the alternatives; and propose means to deal with uncertainties about what is known and unknown about the environment and its response to management.

## **Alternative Development**

A range of reasonable alternatives will be developed, analyzed, and presented in the DEIS. Alternatives will vary in how they address the seven revision topics and the preliminary proposed actions for each topic. During alternative development, Forest Plan standards will be updated to reflect the management of each alternative. They will be changed to:

- Update existing land management planning concepts and to incorporate new concepts.
- Incorporate new management area prescriptions and boundaries.
- Remove unnecessary and repetitive direction.
- Reflect new scientific knowledge and incorporate changes in societal attitudes and beliefs.

A key step in alternative development is public scoping. Public scoping started on the KIPZ revision process on April 30, 2002 with the NOI to revise the Forest Plans. When scoping is complete, analysis of the comments received will provide direction for alternative development. The IDT will use the decision space framework described above and will consider public input to develop alternatives that:

- Are technically and legally possible to implement and present clear choices.
- Give consideration to national and regional issues.
- Make efficient use of resources.

To provide a more realistic analysis of the effects and the ability to implement each alternative, a budget analysis will be done for the alternatives. The 1987 Forest Plans were not created using budgetary constraints. Because of this, output levels were estimated that were not attainable given current budgetary allotments. Alternatives will be analyzed using current budget levels and possibly with increased or reduced budget levels. The intention of such analysis is to demonstrate what is reasonable in terms of outputs or outcomes for each alternative.

## **Proposed Action**

KIPZ proposed to revise the KNF and IPNFs Forest Plans in the Notice of Intent (NOI), published in the Federal Register on April 30, 2002 [FR Doc. 02-10548]. Possible strategies, which were listed as Preliminary Proposed Actions in the NOI, are associated with the proposed action. These possible strategies are further defined in this document and the AMS Technical Report. These preliminary proposed actions or possible strategies were shared with members of the public through open houses, a newsletter, various meetings, and the KIPZ website. Comment letters have been received and a content analysis of them will be completed at the end of the scoping comment period.

Scientific thinking is varied and public expectations are not definitive for any of these revision topics, so a policy of adaptive management is integral to the preliminary proposed action. Adaptive management procedures will be used to adjust management direction for future events, changing knowledge, or dynamic social values. Adaptive management involves: (1) establishing desired outcomes and steps towards achieving them based upon scientific knowledge and assumptions about what it would take to reach desired ends, (2) conducting inventories, monitoring, and research to generate new information, and (3) adjusting management objectives and strategies in response to the new information. The preliminary proposed action identifies potential monitoring and research to provide the critical information needed to initiate management adjustments. Through adaptive management we learn from experience and use that knowledge to adjust policy.

## **No Action Alternative**

NFMA regulations at 36 CFR 219.12(f)(7) state that “at least one alternative shall reflect the current levels of goods and services provided by the unit and the most likely goods and services expected to be provided in the future if the current management direction continues. Pursuant to NEPA procedures this alternative shall be deemed the No Action Alternative.”

KIPZ is planning on analyzing an updated form of the No Action Alternative, which reflects current forest-wide direction for both forests. It will meet the NEPA requirement (36 CFR 219.12(f)(7)) that a No Action Alternative be considered. ‘No action’ means that current management allocations, activities, and management direction found in the 1987 Forest Plans, as amended, would continue. The amended management direction that will be analyzed includes such things as the Inland Native Fish Strategy (USDA 1995d), Grizzly Bear Access Management (USDA 2002d), Research Natural Area establishment, and the Off-Highway Vehicle Amendment (USDA 2001c) on the KNF.

In addition to analyzing the No Action Alternative as amended, the DEIS will evaluate modifications to direction provided in the 1987 Forest Plans. These include new definitions, and new technologies and inventories. Output levels will be recalculated for the No Action Alternative to comply with new information, in particular, new scientific and inventory data. The following are some of the key areas in which new definitions and/or new technologies and inventories may result in changes to projections made in the 1987 Forest Plans:

### **Timber suitability**

Regulations at 36 CFR 219.14(d) state that “designation in the plan of lands not suited for timber production shall be reviewed at least every ten years” and that “such lands may be reviewed and re-designated as suited for timber production due to changed conditions at any time.” To comply with this regulation, the suitable timberland base will be analyzed and a new model built to determine the ASQ. ASQ is based on the suitable timberlands, yield tables, economics, and standards and guidelines. Four standards will be used to determine whether a particular parcel contains *tentatively suitable timberlands (TSTL)*. The four criteria are:

- Is the land forested? (36 CFR 219.19 (A)(1)).
- Is the land withdrawn from timber production? (36 CFR 249.13(A)(4))
- Is irreversible resource damage likely to occur? (36 CFR 219.14 (A)(2))
- Is there reasonable assurance of adequate restocking within five years after final harvest? (36 CFR 219.14(A)(3))
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Implementation of INFISH standards and guides may also have had a direct effect on *suitable timberlands (STL)*. In determining STL, Geographic Information System (GIS) will be used to buffer streams and wetlands. The buffering will remove those acres and volumes from the ASQ determination. This reflects a change from the 1987 Forest Plans.

Areas allocated to resource uses that preclude timber production will be removed from STL. These areas may include designated old growth or RNA’s that have been identified since the Forest Plans were developed. This is a change from the 1987 Forest Plans.

### Changes to modeling ASQ

The land management planning model used to estimate ASQ for the 1987 Forest Plan was Forplan. For the new Forest Plans, the land management model will be Spectrum. The primary differences between the models and versions include:

- Allowing different types of land organizations;
- Minimizing the amount of data that must be repeated;
- Disclosing the ingredients in each choice;
- Staying away from functional bias;
- Allowing flexibility in problem formulation; and
- Ability to map the results.

In addition, the following components of the model will be updated:

Suitable timberlands – As explained above, the TSTLs will be analyzed and updated.

Yield tables – The yield tables for the proposed revised Forest Plans will be constructed with the Northern Idaho Variant of the forest vegetation simulation (FVS) growth and yield model, which is an individual-tree, distance-independent model. The modeling of complex stand structure is thus improved because no standard distribution of sizes is assured. This type of model has the capability to simulate growth of uneven-aged or multi-aged stands as well as mixed-species stands. Also, there is greater flexibility in specifying management options, because individual trees can be identified for removal.

Costs and revenues – Costs of timber management will be updated to reflect current costs and to implement standards and guidelines. In addition, the 1987 modeling did not consider the cost of entering roadless areas. The updated model will take these specific costs into account.

Modeling standards and guidelines – The modeling of standards and guidelines is improved under the Spectrum model. The 1987 FORPLAN model did not adequately consider the standards and guidelines necessary to meet visual quality, watershed and wildlife objectives. For example, evolving direction for Threatened and Endangered Species such as Lynx or Grizzly bear has not been adequately considered as to its effects on the two forest's ASQ. This direction has had an effect on the amount of timber harvest that was projected under the 1987 Forest Plans. The objectives for these resources can now be better modeled because of the improved modeling capability under Spectrum.

The discussion above demonstrates the variety of changes (Spectrum model, yield tables, data, guidelines, TSTL) that have occurred since the 1987 Forest Plans were prepared. These changes are expected to result in an annual ASQ level that is different than those projected in the 1987 plans.

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## CHAPTER 5 – PLANNING PROCESS, PUBLIC PARTICIPATION AND COLLABORATION AND NEXT STEPS

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### Planning Process and Public Participation

One of the goals throughout the entire KIPZ Forest Plan Revision process is to encourage participation and collaboration by providing numerous opportunities for public involvement. In order to better understand where, when and how the public is involved throughout the process, following is a brief discussion about the planning process as guided by NEPA regulations and the current 1982 planning regulations:

**Notice of Intent:** A Notice of Intent (NOI) formally initiates the National Environmental Policy Act (NEPA) process. The NOI for the KIPZ to begin Forest Plan Revision was published in the Federal Register on April 30, 2002. The NOI for these two forests described the proposed action, preliminary revision topics and issues with the 1987 Forest Plans; dates for filing the EIS; information concerning public participation; names and addresses of the agency officials who can provide additional information; and some possible preliminary proposed actions/strategies.

**Scoping Comment Period:** The first formal and important opportunity for the public to comment is during the scoping period, which began on April 30, 2002 and currently ends on March 21, 2003 (FR Doc. 02-31136). During this time, the public is to review and provide their comments on the Preliminary Revision Topics/Issues that were identified in the NOI, are on the website [www.fs.fed.us/kipz](http://www.fs.fed.us/kipz), were in our May issue of “KIPZ News”, and were also presented at the open houses held in June 2002. This document is a tool to provide more information to the public about the revision topics in order to provide comments during the scoping comment period.

**Draft Environmental Impact Statement (DEIS) and Proposed Revised Forest Plans:** The 1982 Planning Regulations require the preparation of an EIS when a Forest Plan is revised. The EIS must be conducted in accordance with the requirements of the NEPA and display information used to make the decision on which alternative to adopt as the revised Forest Plan. The next planning step will be to develop one DEIS for both forests and one proposed revised Forest Plan for each forest.

**DEIS Comment Period:** The second formal and important opportunity for the public to comment is after the DEIS is completed. There will be a 90-day public comment period on the DEIS. To assist the Forest Service in identifying and considering issues and concerns on the proposed action, comments on the DEIS should be as specific as possible, refer to specific pages or chapters of the draft statement, address the adequacy of the DEIS or the merits of the alternatives formulated and discussed in the statement.

**Final Environmental Impact Statement (FEIS) and Revised Forest Plans:** After the comment period on the DEIS ends, one of the important first steps during the preparation of the FEIS is reading, analyzing, considering, and then responding to all of the comments by the Forest Service. These frequently lead to a number of changes that are made between the DEIS and FEIS. The current projection is that work on the FEIS will occur from fall 2004 to fall 2005. Documents that we will produce during this phase include: one FEIS for both forests; one Record of Decision for each forest; and one revised Forest Plan for each forest.

**Record of Decision (ROD):** The responsible official will consider the comments, responses, environmental consequences discussed in the FEIS; and applicable laws, regulations, and policies in making decisions regarding these revised Forest Plans. The discussions and reasons for the decisions will be documented in the RODs for the revised Forest Plans. The decisions will be subject to appeal in accordance with 36 CFR 217 and the public will be notified upon completion of the FEIS.

## **Public Participation**

Since the 1987 Forest Plans, there have been significant changes in public perception, social conditions, and how the public wants to be involved. A Social Science Assessment, which is one of our public involvement tools for determining how the public wants to be involved and what they value most, has been completed on each of the KIPZ forests (Impact Assessment, Inc. 1995 and Parker et al., 2002).

The majority of the people interviewed for the Social Science Assessments, attended public meetings, and submitted comment letters indicated that they want to be more involved in actions that affect the NFS lands and their use of this land. They also feel that traditional public involvement, for example informational briefing meetings, has not been effective, nor efficient. One of their suggested solutions is for the Forest Service to focus on ways to bring people with differing views, together to discuss an issue.

To organize the public involvement activities for the various stages of the KIPZ planning process, a Communication and Collaboration Plan was created. The purpose of this plan is to ensure that goals of public activities are clear, responsibilities are identified, contacts are known and timelines are set. The KIPZ has set up a Communication Team, comprised of public affairs specialists, planners, and line and staff officers from the two forests, to guide and support this process. This Communication and Collaboration Plan will be continuously updated to reflect changes in activities or personnel. The intent is to identify our public involvement responsibilities and implement them in a timely effective manner.

### **Public Involvement Activities to Date**

Several news releases have been published throughout the 3 state area and the first “KIPZ News” was distributed in May 2002. The KIPZ News was sent to approximately 2,500 people from existing forest mailing lists and also posted on the KIPZ website. It summarized the preliminary revision topics, advertised the June 2002 open houses, and listed contact information.

During June of 2002, open houses were held on both forests to provide information and get feedback on the preliminary Revision Topics. Thirteen meetings were held in the following locations with over 250 people in attendance:

- **Idaho:** Bonners Ferry, Coeur d’Alene, Moscow, Priest Lake, Priest River, Sandpoint, Silverton, and St. Maries
- **Montana:** Eureka, Libby, Noxon, and Troy
- **Washington:** Spokane

These open houses provided an excellent opportunity to speak individually and collectively with interested members of the public. Many of these meetings had press coverage and newspaper articles in local papers. The concerns raised by the people who attended these meetings are summarized and available on the KIPZ website, and are presented both by community and by issue.

In addition to the open houses, the website, and the newsletter; the Forest Supervisors, District Rangers and individual KIPZ planning team members have been attending a variety of meetings with local interest groups, environmental organizations, other state and federal agencies, and talking with members of the public about the plan revision.

### **Summary of Public Comments to Date**

The scoping comment period has been in effect since April 30, 2002. Many comments have been received on a wide range of issues. These comments are listed in the AMS Technical Report (USDA 2003) and on the KIPZ website ([www.fs.fed.us/kipz](http://www.fs.fed.us/kipz)). These comments have not yet been through the process of content analysis and reflect what people think about public lands, the Forest Service, personal use of National Forests and land management activities. The public comments available on the KIPZ web site are presented in two ways: (1) what was heard in each community, and (2) what was heard

collectively on each issue. This information is valuable in showing which issues are important in which communities. This will be used in identifying management options in the revised plan that are responsive to local concerns where possible.

### **Tribal Consultation**

It is the responsibility of the Forest Service to recognize and honor the government-to-government relationship that exists between the United States government and tribal governments. The objective is to work effectively with the tribes in ways that they feel are meaningful government-to-government relations. All of the tribes that are within or adjacent to the KIPZ have been contacted by the appropriate Forest Supervisor regarding the Forest Plan Revision effort.

The KIPZ planning effort could potentially involve seven tribal governments. The following tribal groups requested a presentation and meetings were held by KIPZ planning team members and the Forest Supervisors: Coeur d'Alene Indian Nation, Kootenai Tribe of Idaho, Kalispell Indian Community of the Kalispell Reservation, and the Confederated Salish and Kootenai Tribe. The following tribes have been contacted, but they have not requested a meeting or presentation to discuss the KIPZ Forest Plan Revision process: Nez Perce Tribe of Idaho and the Spokane Tribe of the Spokane Reservation. The Confederated Tribe of the Colville Reservation was also contacted and there has been no expressed interest in consulting on the KIPZ Forest Plan Revision process.

The objectives of the initial meetings with these tribal groups was three fold: (1) to discuss how we can accomplish meaningful government-to-government relationships as defined by the tribes, (2) identify appropriate contact people, and (3) begin discussing and identifying issues important to the tribes. These discussions will continue throughout the Forest Plan Revision process and at any time requested by a tribal group.

### **Collaboration Activities**

The success of any project depends heavily on the agencies ability to create an atmosphere for effective collaboration and to honestly listen, be open to what the public has to say and to allow true participation. Currently, a collaboration strategy is being developed and will be one of the many public involvement tools that we will use to inform and engage people in the Forest Plan Revision effort. We view collaborative planning not as consensual decision-making, but rather a shared understanding and learning process. We recognize we cannot eliminate the controversy inherent in some public land issues. However, collaboration promotes our ability to better understand each other and appreciate the choices and trade-offs that must be made. Collaboration also promotes learning from people who contribute new and creative ideas we may not have considered otherwise.

Public notice of dates, times, and locations for any upcoming meetings will be provided in local newspapers, posted on the KIPZ website <http://www.fs.fed.us/kipz>, and notices/newsletters to those on our email and hard mail Forest Plan Revision mailing lists.

### **Next Steps**

The following is a list of ongoing and immediately upcoming public involvement activities, or activities involving public comment:

- **Availability of the AMS and the AMS Technical Report** - These two documents will be posted on the KIPZ website <http://www.fs.fed.us/kipz>. They will also be distributed to tribal governments, elected officials, Forest Service offices, and libraries.
- **Close of the scoping comment period** - Content analysis of public comments received through scoping will be done and used in the formulation of the DEIS and proposed revised Forest Plans.

- **Collaboration Activities** - The next round of Collaboration activities and/or meetings will be posted on our website, in our next newsletter and local newspapers as soon as they are finalized.
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### **Sources of Information**

**Website** ([www.fs.fed.us/kipz](http://www.fs.fed.us/kipz)) – The KIPZ website is continuously being updated and kept current. Currently, open house public comments, the newsletter, news releases, this document and the AMS Technical Report, and other information are posted on the site. Content analysis results, an additional newsletter, and other information are expected to be posted in the next few months. For the most current information, the public should view our website.

**Contact Information** - If someone requires information via regular mail, they need to request to be on our mailing list by sending a note to: USDA Forest Service, ATTN: KIPZ Revision Team, 1101 U.S. Hwy. 2 West, Libby, MT 59923 or an email to [rl\\_kipz\\_revision@fs.fed.us](mailto:rl_kipz_revision@fs.fed.us).

## CHAPTER 6 - LITERATURE CITATIONS

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## CHAPTER 7 - GLOSSARY AND ACRONYMS

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**Active Management** - Management approach in which humans actively manipulate ecosystems through timber harvesting and thinning to improve forest health and to reduce fire hazard.

**Activity area** - a land area affected by a management activity to which soil quality standards are applied. Activity areas must be feasible to monitor and include harvest units within timber sale areas, prescribed burn areas, grazing areas or pastures within range allotments, riparian areas, recreational areas, and alpine areas.

**Appropriate Management Response** – Specific actions taken in response to a wildland fire to implement protection and fire use objectives.

**Aquatic Biota** are living things dependent on water. In this document, the term refers to fish and amphibians.

**Aquatic sustainability** - The inherent capability or existing potential for a watershed system to provide water quality, water bodies (streams, lakes, wetlands, ponds, etc.), riparian environs (wetlands, flood plains, stream banks, lake shores, and other lands including terrestrial lands proximal to water bodies that can directly influence the water), and the biologic organisms that live in or are dependent on the water that are necessary to support the beneficial uses of the water.

**Belt Super-group** - comprised of a series of metasedimentary, geologic formations, including the Prichard, Burke, Revett, St. Regis, Upper Wallace, Lower Wallace, Striped Peak, Libby, Spokane, Helena, Empire, Snowslip, Shepard, Mount Shields, Bonner and McNamara.

**Best Management Practices (BMPs)** - A practice or usually a combination of practices that are determined by a State or a designated planning agency to be the most effective and practicable means (including technological, economic, and institutional considerations) of controlling point and nonpoint source pollutants at levels compatible with environmental quality goals.

**Biological diversity (biodiversity)** - The variety and abundance of species, their genetic composition, their communities, and the ecosystems and landscapes of which they are a part. As used in this document, biodiversity refers to native biological diversity; therefore, increases in species diversity resulting from

the introduction of nonnative species would not constitute an increase in biodiversity.

**Collaboration** – as used in this context means to work together in a cooperative relationship with Native American Tribes, agencies and the public in order to accomplish a desired goal.

**Composition** – The component tree, shrub, grass and forb classes in a stand or community.

**Connectivity** - The arrangements of habitats that allows organisms and ecological processes to move across the landscape; patches of similar habitats are either close together or linked by corridors of approved vegetation. The opposite of fragmentation.

**Critical foliar nutrient levels** - minimum concentration of a nutrient needed by a tree in order to function efficiently.

**Current climatic period:** The period of time since establishment of the modern major vegetation types, which typically encompasses the late Holocene Epoch (includes the present), and also including likely climatic conditions within the planning period. The current climatic period is typically centuries to millennia in length, a period of time that is long enough to encompass the variability that species and ecosystems have experienced. This period is considered to be prior to the 1880 and 1910 fire events and to approximately 2500 years ago.

**Desired Future Condition** - A portrayal of the land or resource conditions that are expected to result if goals and objectives are fully achieved.

**Developed Recreation** - Outdoor recreation requiring significant capital investment in facilities to handle a concentration of visitors on a relatively small area. Examples are ski areas, resorts, and campgrounds (OHV EIS)

**Dispersed Recreation** – Outdoor recreation in which visitors are diffused over relatively large areas. Where facilities or developments are provided, they are more for access and protection of the environment than for the comfort or convenience of the people. (OHV EIS)

**Disturbance** - Any relatively discrete event, either natural or human-induced, that causes a change in the existing condition of an ecological system.

**Ecological integrity:** Defined as the capability of supporting and maintaining a balanced, integrated, and adaptive community of organisms having species composition, diversity, and functional organization comparable to that of natural habitats of the region (Karr and Dudley 1981).

**Ecological Process** - The actions or events that link organisms and their environment, such as predation, mutualism, successional development, nutrient cycling, Carbon sequestration, primary productivity, and decay.

**Ecosystem** - An ecosystem is an interacting system of living organisms and their environment.

**Ecosystem Diversity** – The variety of ecological structures, communities, and processes across spatial scales such as regions, subregions, landscapes, and localities. Ecosystem diversity arises from variation in abiotic and biotic components and ecological processes over space and time.

**Ecosystem management:** This is a management practice and philosophy aimed at selecting, maintaining, and/or enhancing the ecological integrity of an ecosystem in order to ensure continued ecosystem health while providing resources, products, or non-consumptive values for humans. An integral part of ecosystem management is the maintenance of ecologically significant structure and processes within the ecosystem. The actions taken reflect the management goals and range from protection from human influence through to an increasing intensity of intervention to serve human needs.

**Ecosystem Sustainability** - The ability to maintain diversity, productivity, resilience to stress, health, and yields of desired values, resource uses, products, or services over time in an ecosystem while maintaining its integrity.

**Environmental Impact Statement (EIS)** – EISs were authorized by the National Environmental Policy Act (NEPA) of 1969. Prepared with public participation, they assist decision makers by providing information, analysis and an array of action alternatives, allowing managers to see the probable effects of decisions on the environment. Generally, EISs are written for large-scale actions or geographical areas.

**Endangered Species** - a plant or animal species listed under the Endangered Species Act that is danger of extinction throughout all or a significant portion of its range

**Environmental Assessment (EA)** - EAs were authorized by the National Environmental Policy Act (NEPA) of 1969. They are concise, analytical documents prepared with public participation that determine if an Environmental Impact Statement (EIS) is needed for a project or action. If an EA determines as EIS is not needed, the EA becomes the document allowing agency compliance with NEPA requirements.

**Expected Weather Conditions** - Those weather conditions indicated as common, likely, or highly probable based on current and expected trends and their comparison to historical weather records. These are the most probable weather conditions for this location and time. These conditions are used in making fire behavior forecasts for different scenarios (one necessary scenario involves fire behavior prediction under expected weather conditions).

**Fire Exclusion** - The disruption of a characteristic pattern of fire intensity and occurrence (primarily through fire suppression).

**Fire Management Area (FMA)** - A sub-geographic area within an FMU that represents a predefined ultimate acceptable management area for a fire managed for resource benefits. This predefined area can constitute a Maximum Manageable Area (MMA) and is useful for those units having light fuel types conducive to very rapid fire spread rates. Predefinition of these areas removes the timelag in defining an MMA after ignition and permits preplanning of the fire area; identification of threats to life, property, resources, and boundaries; and identification of initial actions.

**Fire Management Plan (FMP)** - A strategic plan that defines a program to manage wildland and prescribed fires and documents the fire management program in the approved land use plan. This plan is supplemented by operational procedures such as preparedness, preplanned dispatch, burn plans, and prevention. The fire implementation schedule that documents the fire management program in the approved forest plan alternative.

**Fire Management Unit (FMU)** - Any land management area definable by objectives, topographic features, access, values-to-be-protected, political boundaries, fuel types, or major fire regimes, etc, that set it apart from management characteristics of an adjacent unit, FMU's are delineated in FMP's. These units may have dominant management objectives and preselected strategies assigned to accomplish these objectives.

**Fire Regime** - The fire pattern across the landscape, characterized by occurrence interval and relative intensity. Fire regimes result from a unique combination of climate and vegetation. Fire regimes exist on a continuum from short-interval, low-intensity (stand maintenance) fires to long-interval, high-intensity (stand replacement) fires.

**Fire Severity** - The effects of fire on resources displayed in terms of benefit or loss.

**Fire Suppression** - The practice of controlling forest and rangeland fires in a safe, economical, and expedient fashion while meeting the natural resource objectives outlined in each forest's or grassland's land management plan.

**Fire use** - the combination of wildland fire use and prescribed fire application to meet resource objectives.

**Fire-Adapted Ecosystem** - An arrangement of populations that have made long-term genetic changes in response to the presence of fire in the environment.

**Forest Health** - The perceived condition of a forest derived from concerns about such factors as age, structure, composition, function, vigor, presence of unusual levels of insects or disease, and resilience to disturbance. Individual and cultural viewpoints, land management objectives, spatial and temporal scales, the relative health of the stands that make up the forest, and the appearance of the forest at a point which influences the perception and interpretation of forest health.

**Forest Plan Direction** - Allocation of areas to management prescriptions that consist of goals, objectives, standards and guidelines.

**Forest Roads** - As defined in Title 23, Section 101 of the United States Code (23 U.S.C. 101), any road wholly or partly within, or adjacent to, and serving the National Forest System and which is necessary for the protection, administration, and utilization of the National Forest System and the use and development of its resources. (FSM 7705)

**Fuel Management** - The practice of evaluating, planning, and executing the treatment of wildland fuel to control flammability and reduce the resistance to control through mechanical, chemical, biological, or manual means, or by wildland fire, in support of land management objectives.

**Function** – Includes energy flows of materials across and within the landscape and how one ecosystem influences another. Function also relates to energy

processes such as fire, hydrological processes (including floods), and matter and energy exchange throughout the food chain.

**Functioning-At Risk (FAR)** - Watersheds that are “functioning at risk” continue to have good physical, hydrologic and water quality integrity; however, present or ongoing adverse disturbances are likely to compromise that integrity if the present adverse disturbances are not modified or corrected. At Risk watersheds will have at least moderate physical, hydrologic, and water quality integrity even though they may have been substantially compromised by adverse disturbances.

**Goal** - A concise statement that describes 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 statements form the principal basis from which objectives are developed.

**Guideline** - Preferable or advisable course of action.

**Historic range of variability (HRV)** - The variation in spatial, structural, compositional, and temporal characteristics of ecosystem elements as affected by minor climatic fluctuations and disturbances within the current climatic period. This range is measured during a reference period prior to intensive resource use and management. The range of historic variability is used as a baseline for comparison with current conditions to assess the degree of past change

**IDT** - Interdisciplinary Team. A team representing several disciplines to ensure coordinating planning of the various resources.

**Integrity** – The capacity to support and maintain a balanced, integrated, and adaptive biological system having the full range of elements and processes expected in a region's natural habitat.

**Inventoried Roadless Areas** – Undeveloped areas typically exceeding 5,000 acres that met the minimum criteria for wilderness consideration under the wilderness Act and that were inventoried during the Forest Service's Roadless Area Review and evaluation (RARE II) process, subsequent assessments, or forest planning. Those areas identified in a set of inventoried roadless area maps, contained in Forest Service Roadless Area Conservation, Final Environmental Impact Statement, Volume 2, dated November, 2000, which are held at the National Headquarters of the Forest Service, or any update, correction, or revision of those maps.”

**Landscape** - An area composed of interacting, and interconnected patterns of habitats (ecosystems) that are repeated because of the geology, land form, soil, climate, biota, and human influences throughout, the areas. Landscape structure is formed by patches, connections, and the matrix. Landscape function is based on disturbance events, successional development of landscape structure, and flows of energy and nutrients through the structure of the landscape. A landscape is composed of watersheds and smaller ecosystems. It is the building block of biotic provinces and regions.

**Management Area** - An area with similar management objectives and a common management description.

**Management Direction** - A statement of multiple-use and other goals and objectives, the associated management prescriptions, and standards and guidelines for attaining them. Attainment Report

**Management Prescription** - Management practices and intensity (frequency and duration) selected and scheduled for application on a specific area to attain multiple-use and other goals and objectives.

**Monitoring and Evaluation (of forest plan implementation)** - Determine how well the objectives have been met and how closely management standards and guidelines have been applied. Can lead to recommendations for changes in management direction, amendments, or revisions to forest plans.

**National Environmental Policy Act (NEPA)** - is the basic national law for protection of the environment, passed by Congress in 1969. It sets policy and procedures for environmental protection, and authorizes Environmental Impact Statements and Environmental Assessments to be used as analytical tools to help managers make decisions.

**National Forest System Road** - A classified forest road under the jurisdiction of the Forest Service. The term “National Forest System roads” is synonymous with the term “forest development roads” as used in 23 U.S.C. 205. (FSM 7705)

**Natural Ignition** - A wildland fire ignited by a natural event such as lightning.

**Nonnative invasive species** - plant species that are introduced into an area in which they did not evolve, and in which they usually have few or no natural enemies to limit their reproduction and spread. These species can cause environmental harm by significantly changing the ecosystem composition, structure, or

processes, and can cause economic harm or harm to human health.

**Not Properly Functioning (NPF)** - Watersheds that are “**not properly functioning**” are operating and adjusting beyond that which can be considered to be in dynamic equilibrium; or the physical, hydrologic, or water quality integrity has been so compromised that restoration efforts may be futile without extraordinary funding and very long recovery time periods. Watershed systems that are Not PFC are essentially not capable of fully supporting beneficial uses without significant intervention and or extremely long recovery periods. They may contain aquatic resources that are seriously degraded or are not likely to sustain themselves over time

**Noxious weeds** - plant species designated as noxious weeds by the Secretary of Agriculture or by the responsible State official. These species are generally aggressive, difficult to manage, poisonous, toxic, parasitic, a carrier or host of serious insects or disease, and are nonnative, new, or uncommon to the United States.

**Objective** - A concise, time-specific statement of measurable, planned results that respond to preestablished goals. An objective forms the basis for further planning to define the precise steps to be taken and the resources to be used in achieving identified goals.

**Off-Highway Vehicles or Off-Road Vehicles** - Any motorized vehicle designed for or capable of cross-country travel on or immediately over land, water, sand, snow, ice, marsh, swampland, or other natural terrain; except that such term excludes (A) any registered motorboat, (B) any military, fire, emergency, or law enforcement vehicle when used for emergency purposes, and (C) any vehicle whose use is expressly authorized by the respective agency head under a permit, lease, license, or contract.

**Old-growth forest** - Old single story forest – single canopy layer consisting of large or old trees. Understory trees are often absent, or present in randomly spaced patches. It generally consists of widely spaced, shade – intolerant species, such as ponderosa pine and western larch, and high frequency fire regimes. Old multi-story forest – a forest stand with moderate to high canopy closure – a multi-leveled and multi-species canopy dominated by large overstory trees; high incidence of large trees, some with broken tops and other indications of old and decaying wood; numerous large snags; and heavy accumulations of wood, including large logs on the ground.

**Open house** - a variation of a public meeting that provides a more informal, one-on-one environment to disseminate information on an issue or process.

**Planned Ignition** - A wildland fire ignited by management actions to meet specific objectives.

**Planning Area** - The area of the National Forest System covered by a forest plan.

**Proposed Species** – Any species that is proposed by the Fish and Wildlife Service or the National Marine Fisheries Service to be listed as threatened or endangered under the Endangered Species Act.

**Prescribed Fire** - Any fire ignited by management actions to meet specific objectives. A written, approved prescribed fire plan must exist, and NEPA requirements must be met, prior to ignition. This term replaces management ignited prescribed fire.

**Prescribed Fire Plan** - A plan required for each fire application ignited by managers. It must be prepared by qualified personnel and approved by the appropriate agency administrator prior to implementation. Each plan will follow specific agency direction and must include critical elements described in agency manuals. Formats for plan development vary among agencies although content is the same.

**Prescription** - A set of measurable criteria that guides the selection of appropriate management strategies and actions. Prescription criteria may include safety, economic, public health, environmental, geographic, administrative, social or legal considerations.

**Properly Function Condition (PFC)** - Watersheds in “properly functioning condition” are essentially in good condition in terms of physical, hydrologic, and water quality characteristics and function. PFC watersheds have generally high integrity in terms of those same characteristics and processes. The streams are in dynamic equilibrium with their watersheds (i.e. they adjust appropriately to natural fluctuations of stream flow and sediment loading), and the watershed systems are fully functional, operating within their potential status. The systems are adjusting to disturbances within their apparent natural ranges of variability; and they are or can be expected to respond to disturbances with a trend toward a good condition within a reasonable time period.

**Public Involvement** - The use of appropriate procedures to inform the public, obtain early and continuing public participation, and consider the views of interested parties in planning and decision-making.

**Public Issue** - A subject or question of widespread public interest relating to management of the National Forest System.

**RARE II Roadless area (Roadless Area Review and Evaluation)** - Roadless areas of NF System lands that were inventoried by the Forest Service in 1979.

**Recreational Opportunities** - The combination of recreation settings, activities and experiences provided by the forest.

**Rehabilitation** - The activities necessary to repair damage or disturbance caused by wildland fires or the fire suppression activity.

**Restricted Road** - A National Forest Road or segment, which is restricted from a certain type of use of all uses during certain seasons of the year or yearlong. The use being restricted and the time period must be specified. The closure is legal when the Forest Supervisor has issued an Order and posted that Order in accordance with 36 CFR 261.

**Riparian sustainability** - A subset of Watershed Sustainability in this context. *Biotic sustainability* can be described generically as the ability to meet the needs of current generations without compromising the ability to meet the needs of future generations.

**Risk** - The probability of the occurrence of a hazard and/or the consequences of that hazard. (Hazards are undesirable events.)

**Road** - A motor vehicle travel way over 50 inches wide, unless designated and managed as a trail. A road may be classified, unclassified, or temporary (36 CFR 212.1).

*a. Classified Roads.* Roads wholly or partially within or adjacent to National Forest System lands that are determined to be needed for long-term motor vehicle access, including State roads, county roads, privately owned roads, National Forest System roads, and other roads authorized by the Forest Service (36 CFR 212.1).

*b. Temporary Roads.* Roads authorized by contract, permit, lease, other written authorization, or emergency operation, not intended to be a part of the forest transportation system and not necessary for long-term resource management (36 CFR 212.1).

*c. Unclassified Roads.* Roads on National Forest System lands that are not managed as part of the forest transportation system, such as unplanned roads, abandoned travel ways, and off-road vehicle tracks that have not been designated and managed as a trail; and those roads that were once under permit or other authorization and were not decommissioned upon the termination of the authorization.

**Road analysis** - an integrated ecological, social, and economic science-based approach to transportation planning that addresses existing and future road management options.

**Road construction** - activities that result in the addition of road miles to the forest transportation system.

**Road Decommissioning** - Activities that result in the stabilization and restoration of unneeded roads to a more natural state

**Road Maintenance** - The ongoing upkeep of a road necessary to retain or restore the road to the approved road management objective

**Salvage** - an intermediate cutting made to remove trees that are dead or in imminent danger of being killed by injurious agents.

**Scoping** - activities in the early stages of preparation of an environmental analysis to assess public opinion, receive comments and suggestions, and determine issues during the environmental analysis process.

**Sense of place** - the aesthetic, nostalgic, or spiritual effects of physical locations on humans based on personal, use-oriented or attached-oriented relationships between individuals and those locations. The meaning, values, and feelings that people associate with physical locations because of their experiences there.

**Sensitive species** - those plant and animal species in which a population viability is a concern, as evidenced by significant current or predicted downward trends in population numbers or density, or by significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution.

**Short Interval Fire-Adapted Ecosystem** - Ecosystems experiencing low intensity surface fires with a frequent fire return interval. Examples include long-needle pine and fire-adapted ecosystems such as Ponderosa pine.

**Socially important species** - Wildlife species that the public desires to encounter when using the National Forests. Management levels of these species may be outside of the historic range based on public interest. Examples include: Big game, upland birds, waterfowl, and "watchable" wildlife. Threatened and Endangered species may also be socially important, but they are covered under the species-at-risk section.

**Standard** - Limitations on management activities that must be complied with.

**Structure** – The horizontal and vertical physical elements of forests and grasslands and the spatial interrelationships of ecosystems.

**Suitability** - The appropriateness of applying certain resource management practices to a particular area of land, as determined by an analysis of the economic and environmental consequences and the alternative uses foregone. A unit of land may be suitable for a variety of individual or combined management practices.

**Suppression** - A management action intended to extinguish a fire or alter its direction of spread.

**Sustainable** - The ability to maintain a desired ecological condition or flow of benefits over time.

**Sustainability** – Satisfying present needs without compromising the ability of future generations to meet their needs.

**Thinning** - (a) The cutting down and/or removing of trees from a forest to lessen the chance of a ground fire becoming a crown fire; a method of preparing an area so that a prescribed fire can be more easily controlled. Thinning influences the available amount of fuel and fuel management, and it can indirectly affect fuel moisture content and surface wind speeds. (b) A culture treatment made to reduce stand density of trees primarily to improve growth, enhance forest health, or recover potential mortality.

**Threatened species** - any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range and which the appropriate Secretary has designated as a threatened species.

**Threshold** - A place or point of beginning, the intensity below which a physical stimulus cannot be perceived and produces no response.

**Total Maximum Daily Load (TMDL)** - a calculation of the maximum amount of a pollutant that a water body can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources.

**Values at Risk** - To rate according to a relative estimate of worth when exposed to a chance of loss or damage.

**Viability** - the ability of a population of a plant or animal species to persist for some specified time into the future. Viable populations are populations that are regarded as having the estimated numbers and distribution of reproductive individuals to ensure that its continued existence is well distributed in a given area.

**Watershed sustainability** - Described as a “properly functioning” system in terms of slope stability, erosion, the delivery and fate of sediment and other pollutants, runoff and stream flows, and riparian and channel stability and conditions. Watershed systems in “properly functioning condition” are identified by streams in dynamic equilibrium with their watersheds and water quality that can fully support beneficial uses that are inherent to the watershed.

**Wilderness** – a designated area defined in the Wilderness Act of 1964 in the following way: A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this Act an area of undeveloped federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which – (a) generally appears to have been affected primarily by the forces of nature, with the imprints of man’s work substantially unnoticed; (b) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (c) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (d) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

**Wildland** - Any area under fire management jurisdiction of a land management agency.

**Wildland Fire** - Any nonstructure fire, other than prescribed fire that occurs in the wildland. This term encompasses fires previously called *both* wildfires and prescribed natural fires.

**Wildland Fire Implementation Plan (WFIP)** - A progressively developed assessment and operational management plan that documents the analysis and selection of strategies and describes the appropriate management response for a Wildland fire being managed for resource benefits. A full WFIP consists of three stages. Different levels of completion may occur for differing management strategies (i.e., fires managed for resource benefits will have two-three stages of the WFIP completed while some fires that receive a suppression response may only have a portion of Stage I completed).

**Wildland Fire Management Program** - The full range of activities and functions necessary for planning, preparedness, emergency suppression operations, and emergency rehabilitation of wildland fires, and prescribed fire operations, including nonactivity fuels management to reduce risks to public safety and to restore and sustain ecosystem health.

**Wildland Fire Suppression** - An appropriate management response to wildland fire that results in curtailment of fire spread and eliminates all identified threats from the particular fire. All wildland fire suppression activities provide for firefighter and public safety as the highest consideration, but minimize loss of resource values, economic expenditures, and/or the use of critical firefighting resources.

**Wildland Fire Use** - The management of naturally ignited wildland fires to accomplish specific prestated resource management objectives in predefined geographic areas outlined in FMP's. Operational management is described in the WFIP. Wildland fire use is not to be confused with fire use, which is a broader term encompassing more than just wildland fires.

**Wildland-urban interface** - the line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels. Because of their location, these structures are extremely vulnerable to fire should an ignition occur in the surrounding area.

**Acronyms**

AMS	Analysis of the Management Situation	NFS	National Forest System (includes national forests and grasslands)
ARU	Aquatic Response Unit	NFMA	National Forest Management Act
ASQ	Allowable Sale Quantity	NFMAS	National Fire Management Analysis System
ATV	All Terrain Vehicle	NFP	National Fire Plan
BLM	Bureau of Land Management	NOI	Notice of Intent
BMP	Best Management Practices	NPF	Not Properly Functioning
CFR	Code of Federal Regulations	NRA	National Recreation Area
DEIS	Draft Environmental Impact Statement	NSA	National Scenic Area
EIS	Environmental Impact Statement	NWA	National Wilderness Area
EPA	Environmental Protection Agency	NWPS	National Wilderness Preservation System
ESA	Endangered Species Act	NWSR	National Wild and Scenic Rivers
FAR	Functioning-At Risk	OHV	Off-highway vehicle
FEIS	Final Environmental Impact Statement	PCPI	Per Capita Personal Income
FIA	Forest Inventory and Analysis	PFC	Properly Functioning Condition
FMA	Fire Management Area	PILT	Payments in Lieu of Taxes
FMP	Fire Management Plan	RAPs	Roads Analysis Process
FMU	Fire Management Unit	RARE	Roadless Area Review and Evaluation
FSH	Forest Service Handbook	RNA	Research Natural Area
FSM	Forest Service Manual	ROD	Record of Decision
FVS	Forest vegetation simulation	ROS	Recreation Opportunity Spectrum
GA	Geographic Area	RPA	Resources Planning Act\
GIS	Geographic Information System	SIA	Special Interest Area
HRV	Historic Range of Variability	SMS	Scenery Management System
HTGs	Habitat Type Groups	STL	Suitable timberlands
ICBEMP	Interior Columbia Basin Ecosystem Management Project	TAMM	Timber Assessment Market Model
IDT	Interdisciplinary Team	T&E	Threatened and Endangered
INFS	Inland Native Fish Strategy	TES	Threatened, Endangered and Sensitive
INFISH	preferred variant of INFS, above	TMDL	Total Maximum Daily Load
IPNFs	Idaho Panhandle National Forests	TSTL	Tentatively suitable timberlands
IRA	Inventoried Roadless Area	USC	United States Code
KIPZ	Kootenai Idaho Panhandle Plan Revision Zone	USDA	United States Department of Agriculture
KNF	Kootenai National Forest	USDI	United States Department of the Interior
LRMP	Land and Resource Management Plan	USFWS	United States Fish and Wildlife Service
LTSY	Long-Term Sustained Yield	VRU	Vegetation Response Units
M&E	Monitoring and Evaluation	VQO	Visual Quality Objective
MA	Management Area	WFIP	Wildland Fire Implementation Plan
MIS	Management Indicator Species	WFSA	Wildland Fire Situation Analysis
MMA	Maximum Manageable Area	WSA	Wilderness Study Area
MMBF	Million Board Feet		
MUSYA	Multiple Use Sustained Yield Act		
NEPA	National Environmental Policy Act		
NF	National Forest		



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