United States
Department of
Agriculture

Forest Service

Malheur, Umatilla, &
Wallowa Whitman
National Forests

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Blue Mountains Forest Plan Revision

Current Management Situation Report

Acronyms and Abbreviations

CFR	Code of Federal Regulations
CMS	Current Management Situation
DBH	Diameter breast height
EA	Environmental analysis
EFH	Essential Fish Habitat
EIS	Environmental impact statement
EO	Executive order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FACA	Federal Advisory Committee Act
FR	Federal Register
FS	U.S. Forest Service
FSH	Forest Service Handbook
FSM	Forest Service Manual
GIS	Geographic Information System
HCNRA	Hells Canyon National Recreation Area
HRV	Historic range of variability
HUC	Hydrologic unit code
ICBEMP	Interior Columbia Basin Ecosystem Management Project
IIT	Interagency Implementation Team
INFISH	Interim strategies for managing inland fish-producing watersheds in Eastern Oregon and Washington, Idaho, and portions of California
LAC	Limits of acceptable change
MA	Management area
MBF	Thousand board feet
MMBF	Million board feet
MOU	Memorandum of Understanding
MUSYA	Multiple-Use Sustained-Yield Act
NAAQS	National ambient air quality standards
NAGPRA	Native American Graves Protection and Repatriation Act
NEPA	National Environmental Policy Act
NF	National Forest
NHPA	National Historic Preservation Act
NOAA	National Oceanic and Atmospheric Administration
ODEQ	Oregon Department of Environmental Quality
PACFISH	Interim strategies for managing anadromous fish–producing watersheds in Eastern Oregon, Washington, Idaho, and portions of California
PL	Public Law
PM_s	Particulate emissions
$PM_{2.5}$	Airborne particles smaller than 2.5 micrometers
PM_{10}	Airborne particles smaller than 10 micrometers
RAC	Resource Advisory Council or Committee
RHCA	Riparian Habitat Conservation Area
RMO	Riparian management objectives
RNA	Research Natural Area
RPA	Forest and Rangeland Renewable Resources Planning Act
PSD	Prevention of Significant Deterioration
ROD	Record of decision
ROS	Recreation Opportunity Spectrum
SMS	Scenery Management System
TES	Threatened and Endangered Species
TMDL	Total maximum daily load
USC	United States Code
USDA	U.S. Department of Agriculture
USDC	U.S. Department of Commerce
USDI	U.S. Department of the Interior
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WQMP	Water Quality Management Plan
WSR	Wild and Scenic River
WWNF	Wallowa–Whitman National Forest

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Introduction

The Malheur, Umatilla, Wallowa-Whitman Forests and a portion of the Ochoco National Forest that is administered by the Malheur (collectively referred to as the "Blue Mountains National Forests") in northeast Oregon, southeast Washington, and west-central Idaho are starting the process to revise their Land and Resource Management Plans. These Forest Plans as they are commonly called, are the Forest Service's basic planning tool for managing National Forest System lands.

Purpose of the Current Management Situation Report

Experience, monitoring results, and new science findings indicate a need to revise certain aspects of how the current Forest Plans address resource conditions. One of the first steps in revising the three Forest Plans is the completion of the Current Management Situation report (CMS).

Chapter 1 of this report outlines the Blue Mountains forest plan revision effort including the role of the public in the process. Chapter 2 provides an overview of general current direction for managing national forest lands. Chapter 3 provides an overview of the current Forest Plan management direction and a summary of the major changes in resource conditions and Chapter 4 highlights some of the potential needs for changing the current Forest Plans.

The CMS summarizes information about the conditions of the land and peoples' uses and values associated with it. This provides the foundation for developing a proposal for future management of the forest. It paints a picture of the current social, ecological, and economic setting and helps define the decision space. The Final CMS will help to identify where and why there is a need to change the current plans and what needs to be addressed in this revision.

This report is not a decision document. It has been prepared in accordance with the requirements of the 1982 Forest Planning regulations (36 CFR 219) and the Forest Service Handbook (FSH 1909.12) that require an analysis of the current management situation. When a national forest begins the preparation or revision of a forest plan, it needs to document the current management situation and conditions and trends with regard to the decisions made in the Forest Plans. It also needs to identify any needs for change in those decisions.

Area Description

Geographic Location

The Blue Mountains national forests total approximately 5.3 million acres. They are administered through three Forest Supervisors' offices located in John Day, Pendleton, and Baker City, Oregon; and 15 field offices.

The Blue Mountains Province is located in the Pacific Northwest Region of the Forest Service, primarily in northeastern Oregon and small portions of southwestern Washington and west-central Idaho. This diverse physiographic area borders the Snake River plain on the east, extends south into the Great Basin, west to the Columbia River plateau, and borders the Palouse prairie to the north. The majority of acreage is in Oregon (4.8 million acres) with about 136,000 acres in Idaho, and about 311,000 acres in Washington.

Topography

The west side of the Blue Mountains Province is characterized by several mountain ranges (the Ochoco Mountains, the Strawberry-Aldrich Range, the Greenhorn Mountains, and the Elkhorn Mountains). The Grande Ronde River Valley separates the western mountain ranges from the eastern portion, which is dominated by the Wallowa Mountains, the Seven Devils Mountains, and the canyon lands of the Snake, Grande Ronde, and Imnaha rivers (Baldwin 1964). The landforms include a complex series of foothills and mountains resulting from the erosion of volcanic parent material. Elevation ranges from subalpine summits above 9,000 feet to canyon bottoms below 2,000 feet. The majority of the province drains north to the Columbia River, with the southern half of the Malheur National Forest draining to the Great Basin. Major river basins include the Lower Snake, Middle Columbia, Oregon Closed Basins, John Day, and Middle Snake-Powder.

The area includes a varied landscape of grassland, sage, juniper, deep river canyons, pine and subalpine forests, alpine lakes and meadows. The region's streams and rivers are recognized for their high quality fish habitat. Elk, mule, and whitetail deer inhabit the bunchgrass slopes, deep canyons, and heavily timbered stringers. Bighorn sheep and mountain goats are found along the steep canyon slopes and in higher elevation alpine areas. The area, ancestral and current home to numerous American Indian nations, has been livestock and farming country since pioneer days. Historical uses of the land include harvesting of timber products, mining, and livestock grazing.

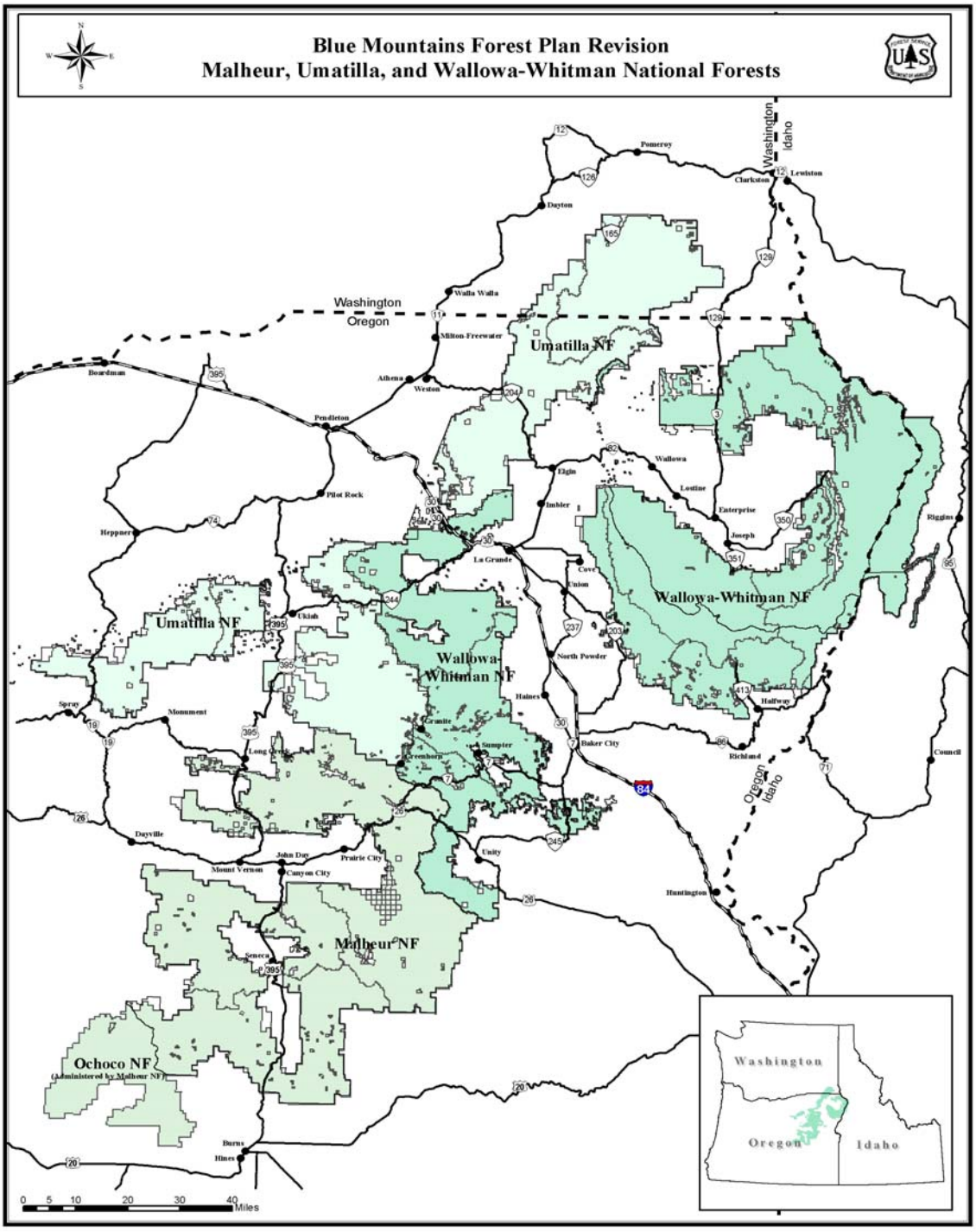
National Forest Descriptions

The Malheur National Forest comprises 1.4 million acres in the southern Blue Mountains with forest headquarters in John Day, Oregon and district offices in Prairie City, John Day, and Burns, Oregon. The Malheur National Forest also manages a 240,000-acre portion of the adjacent Ochoco National Forest; which will be included in the Blue Mountains Forest Plan Revision. The Malheur National Forest encompasses the headwaters of the Silvies, Malheur, and John Day Rivers which provide clean cold water for fish, wildlife, recreation, and agricultural needs. Elevations vary from about 4,000 feet to the 9,038-foot top of Strawberry Mountain. For more information on the Malheur National Forest, visit their website at *www.fs.fed.us/r6/malheur/*

The 1.4-million-acre Umatilla is the northern-most national forest in the planning area and is administered from Pendleton, Oregon with district offices located in Pomeroy and Walla Walla, Washington and Heppner and Ukiah, Oregon. Three wilderness areas, the Wenaha-Tucannon, the North Fork Umatilla, and the North Fork John Day comprise over 20 percent of the forest. The Umatilla National Forest website is located at *www.fs.fed.us/r6/uma/.*

Located on the eastern edge of the Blue Mountains, the Wallowa-Whitman National Forest is over 2.3 million acres and encompasses the Elkhorn and Wallowa Mountains as well as the Hell's Canyon National Recreation Area (HCNRA) where the Snake River cuts the deepest river gorge in North America. Originally two national forests, the Wallowa and Whitman National Forests have been managed together since 1954 from Baker City, Oregon. The southern Whitman Unit, also based in Baker City is named in honor of Dr. Marcus Whitman who was one of the first travelers along the Oregon Trail. The Whitman Unit is comprised of the Baker, Unity, and Pine Ranger Districts. The northern portion of the forest has district offices in La Grande and Enterprise, Oregon. In addition to the office in Enterprise, the HCNRA also has offices in Clarkson, Washington; Riggins, Idaho; and Oxbow, Oregon. The website for the Wallowa-Whitman National Forest is *www.fs.fed.us/r6/w-w.*

Figure 1: Vicinity Map



Chapter 1:
Blue Mountains Forest Plan Revision Effort

Because the Malheur, Umatilla, and Wallowa-Whitman National Forests share many common issues and resource similarities, they are working together and sharing the Blue Mountains Forest Plan Revision Team to revise their Forest Plans. There are several reasons for this collaboration:

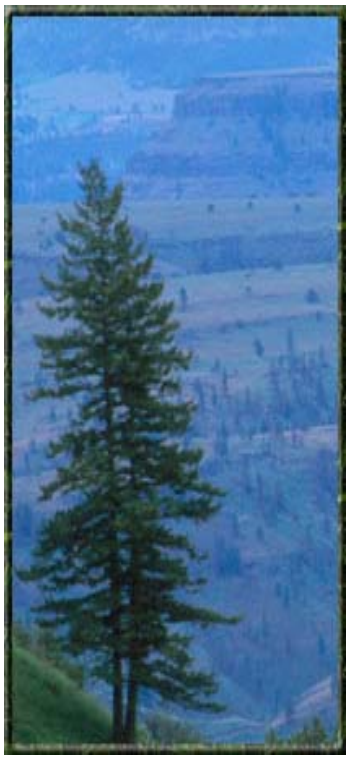
- The timing for revising the three Forest Plans is similar. The current Forest Plans were approved:
  - Malheur National Forest May 1990
  - Umatilla National Forest June 1990
  - Wallowa-Whitman National Forest April 1990
- The three forests share key issues, resources, customers, and interested publics.
- Forest managers desire to have similar management across administrative boundaries.
- By working together and sharing personnel, services, budgets, and experience, the overall efficiency and quality of the revision effort is expected to increase.

National Forest Management Act (NFMA) regulations require that Forest Plans be revised every 10 to 15 years (36 CFR 219.10(g)). The current Forest Plans, therefore, are near the end of their intended life and need to be reviewed and revised. In addition, there have been substantial resource and social changes along with gains in scientific knowledge that have occurred over the past 14 years. These changes need to be incorporated into these plans.

Guiding Principles for Forest Plan Revision

The following principles will govern the forest plan revision process in the Blue Mountains:

- The team will work collaboratively with local communities and others interested in the revision process.
- The revision effort will produce three separate Forest Plans. Associated requirements of the National Environmental Policy act (NEPA) will be met preparing one Environmental Impact Statement (EIS) and three Records of Decision (ROD).
- The Revised Forest Plans will focus on outcomes, not outputs.
- The starting points for the revision are the current Forest Plans. The revision effort will be directed by a "Need for Change" approach. The Need for Change will be identified using a variety of sources including, but not limited to, forest plan monitoring, science from the Interior Columbia Basin Ecosystem Management Project (ICBEMP), and existing watershed assessments.
- The team will make every effort to take advantage of existing work. This includes, but is not limited to, protocols developed in other regions, ICBEMP, combining work efforts with Bureau of Land Management (BLM) planning efforts where appropriate, and work done for the current Forest Plans.
- Each Revised Forest Plan will be built from common elements or building blocks. For example a management area concept will be retained, although its application will be modified from that seen in the current Forest Plans.
- Success is partially defined by completing the revision effort in four years.



Design and Format of the Revised Forest Plans

The Revised Forest Plans for the national forests in the Blue Mountains will look very different from the current Forest Plans. The new format will make the Forest Plans more understandable and will be focused on sustainability. The Forest Plans will use a common frame of reference to describe sustainability called the "sustainability framework". The framework has been initially outlined by the Revision Team and consists of principles, criteria, indicators, and measures which will be used to describe sustainability.

The sustainability framework approach provides a way to integrate social, ecological, and economic concerns with people and places from the very beginning of the planning process. This framework will be used throughout the process to focus on the linkages between these systems to increase understanding of sustainability and make better decisions for the future. Appendix A provides an outline of the sustainability framework.

In addition to the sustainability framework, the Revised Forest Plans will also use a new national format which outlines three main components: Vision, Strategy, and Design Criteria. In the Blue Mountains, a series of Community Collaborative Workshops will be held to develop these components which will provide the basis for developing the Forest Plans.

Part 1: Vision – The first step in the plan revision process is to create a *Vision* that reflects the values of the people who care about the forests. This part of the document will provide the context for managing the three national forests. It describes a vision for the future. It describes the niche that these public lands provide to local communities; the tribes; the states of Oregon, Washington, and Idaho; the region; and the nation. The *Vision* will be composed of "desired condition statements" for the social, ecological, and economic features of the three forests. These statements will describe the desired condition of the landscape and disturbance processes and the acceptable limits of the system as well as the benefits and experiences that these lands can supply. It will also describe how the challenges framed by existing laws and the biological and physical limits will be addressed.

Part 2: Strategy – A *Strategy* for managing the forests is developed to achieve the vision and desired conditions. The Strategy portion of the Forest Plan describes the suitable uses; key objectives for anticipated conditions, uses, and activities; and how the Strategy will be monitored. The Strategy may also recommend areas for special designations.

Part 3: Design Criteria – *Design Criteria* define how future site-specific activities can occur within the context of the Revised Forest Plans. This part of the document acknowledges other guidance, laws, and regulations that are already in place that govern use of the national forests.

Figure 2: Design and Format for Revised Forest Plans

The *National Forest Management Act* (NFMA) requires that one integrated plan be formulated for each unit (for the Forest Service, a unit is a national forest). As directed by the current planning regulations, (this revision effort is currently following the 1982 Planning Regulations), an Environmental Impact Statement and three separate Forest Plans will be produced over a four-year planning period.

Public Participation

The Blue Mountains Forest Plan Revision Team has developed a two-phase strategy for how to work with various groups (both government and private) during the forest plan revision process. The strategy is intended to be dynamic and will be adapted as the planning progresses. Everyone who is interested in the Forest Plan, or who will be affected by it, is encouraged to participate. A series of Community Collaborative Workshops will be held to develop the components of the Forest Plans and will provide the basis for developing the Forest Plans.

Public participation in forest plan revisions adds value to the process and helps promote better decisions and greater understanding of those decisions. Public participation is a very important part of the national forest management decision-making process throughout the planning cycle—from developing, amending, or revising a forest plan, to proposing and developing projects. The value of public participation in decision-making is recognized in both the *National Forest Management Act* (NFMA) and the *National Environmental Policy Act* (NEPA). For more information about NEPA and NFMA, please visit the national website at: *www.fs.fed.us/emc/nepa/index.*

The Role of the Public

Public participation is critical to all stages of the forest plan revision process. Forest plans generated with the support of the public are more likely to endure the test of time. During the plan revision process, the Revision Team will depend on the public to provide additional information about the national forests being affected, to help the team understand public values and ideas about how the area should be managed, and to provide feedback on management proposals.

Public ideas and viewpoints are particularly important in the initial planning stages because they may generate or convey new information that leads to creating a better set of forest plans. Having this information early keeps the process moving forward and helps to avoid reviewing and changing previous work. New information can come from many sources —including other planning efforts, other government agencies, non-government organizations, and the scientific community.

Participating In the Forest Plan Revision

Forest plan revision involves a series of incremental decisions that takes several years to complete. These incremental decisions include what the scope of the proposal will be, what issues are important, what alternatives need to be weighed against each other, how the effects of the proposal can be best analyzed, and what data needs to be collected to inform that analysis. All of these decisions contribute to the overall decision to approve the Revised Forest Plan. Public participation is vital to public land management planning throughout all of these steps.

Two Phases of Public Participation for the Blue Mountains Forest Plan Revision

Public participation is welcome and encouraged throughout the forest plan revision process, however, there are procedural differences between how the public can participate before and after the Proposed Action is issued (in other words, before and after the "NEPA process" begins). Working with the public during forest plan revision is viewed by the Revision Team as occurring in two phases:

Phase I: Collaboration / Pre-NEPA - This phase leads up to developing a Proposed Action and is occurring from January 2004 through 2005. During this phase, working collaboratively is emphasized. Forest planning is largely structured around the *National Environmental Policy Act* (NEPA) and its requirements, but before the "NEPA process" formally begins, there is ample opportunity for the public to

engage the Revision Team in identifying the existing and desired conditions and identifying the things that need to be changed in the current Forest Plans. The procedural requirements of NEPA do not apply in this phase of planning because no final decisions are being made that will affect how the public lands are being managed.

The Revision Team wants to work with everyone who is interested in or will be affected by the revision of the Forest Plans in the Blue Mountains. The team has defined collaboration as co-laboring and co-creating by working with members of the public to design processes and develop products, letting go of controlling the result.

The team has developed a strategy for how to work together, and with the help of a neutral third-party facilitator, this strategy will be refined collaboratively. Working together through a series of Community Collaborative Workshops around the Blue Mountains, the team will develop a vision for the future, create the building blocks that will be used in the new Forest Plans, identify the things in the current Forest Plans that are not working, and craft a Proposed Action.

As the collaboration phase begins, county governments, American Indian tribes, and resource advisory councils and committees are being given the opportunity to be co-conveners of the process. These groups have broad networks of contacts, represent a variety of interests, and have demonstrated that they can build partnerships, resolve conflicts, and solve problems. The co-conveners will lead the effort to bring diverse interest groups in their areas together help develop a strategy for how to work with various interest groups to revise the Forest Plans.

The John Day/Snake River Resource Advisory Council (RAC), and all of the counties and tribes within the Blue Mountains planning area were invited to a meeting in January 2004 to assess their interest and capacity to serve as co-conveners. Seven counties out of 18 contacted have committed to serve as co-conveners.

The Revision Team has met with the counties as co-conveners several times. The participating county commissioners are co-meeting managers and have been instrumental in helping the team develop and coordinate the first round of Community Collaborative Workshops. They have helped determine the workshop content and process, as well as when and where to hold meetings. They also have been the primary contacts for informing local constituents about the collaborative process. Their input is crucial to the forest planning process and how it will affect the natural resources and the communities of the Blue Mountains. The team is currently working with them to develop the second round of workshops.

Phase II: Public Involvement / the "NEPA Process"- This phase begins when the Proposed Action is issued starting the NEPA process. It leads to a decision establishing the new Forest Plans. The Revision Team wants to work closely with the public and partners throughout the entire forest plan revision process, however once the formal "NEPA process" has begun, the agency is bound by the procedural requirements of NEPA and other laws. At that time, formal public involvement procedures will be sued to develop issues and alternatives during preparation of the draft and final Environmental Impact Statements (EIS).

The strategy for working together during the formal NEPA phase of forest plan revision has not yet been determined. However, the team hopes that the relationships developed during the collaboration phase (pre-NEPA) will provide the basis for determining how people want to continue to be engaged in the more procedural requirements associated with the NEPA process. A goal of the overall plan revision effort in the Blue Mountains is to build a strong foundation in the collaboration phase that provides the context for working together through the procedural requirements of the analysis process and ultimately to implementing the Revised Forest Plans.

Chapter 2:
Overview of Current Direction

Forest Planning Background

The *National Forest Management Act* (NFMA) of 1976 requires national forests to develop forest plans and to update or revise them every 15 years or when conditions significantly change. The Malheur, Umatilla, and Wallowa-Whitman Forest Plans were approved in 1990 and are reaching the end of their intended life. Revising the Forest Plans will be done as described in the Code of Federal Regulations (CFR) at 36 CFR 219. Forest plans describe the intended management of national forests to guide how the Forest Service will fulfill its stewardship of natural resources of the forest. Under the 1982 planning regulations, key decisions that are made in the Forest Plan for long-term management of national forests are:

- Establishes forest-wide multiple-use goals and objectives. (36 CFR 219.11(b)).
- Determines the boundaries of management areas and prescribes the activities that may be applied in them (management area prescriptions). (36 CFR 219.11(c)).
- Establishes what the Forest Service must do to monitor and evaluate management activities and effectiveness. (36 CFR 219.11(d)).
- Establishes the forest-wide management requirements (standards and guidelines) for implementing projects under the plan. (36 CFR 219.13 – 219.17).
- Identifies land suitable for producing timber and estimates how much timber the Forest Service will sell from lands suited for timber production (allowable timber sale quantity). (36 CFR 219.14 – 219.16, 219.20 – 219.21).
- Determines which roadless areas will be recommended as part of the National Wilderness Preservation System (36 CFR 219.17) and can address which rivers and streams to recommend for inclusion in the Wild and Scenic Rivers System.

The Nature of Plan Decisions

Forest plans define how the Forest Service manages the national forests. For the most part, each national forest and grassland in the United States has its own Land and Resource Management Plan. Forest plans establish the desired condition for the land and resources and set broad, general direction for managing national forests. Forest plans do not include every decision or analysis that affects forest management. Forest plans identify where and under what conditions an activity or project can proceed.

The Revised Forest Plans for the Blue Mountains will make several key decisions and, of lasting importance, create layered and over-arching management direction. In other words, it will provide the framework within which other project decisions can then be made on a case-by-case and site-specific basis. They are programmatic zoning documents and, normally, they do not make site-specific decisions to undertake particular projects.

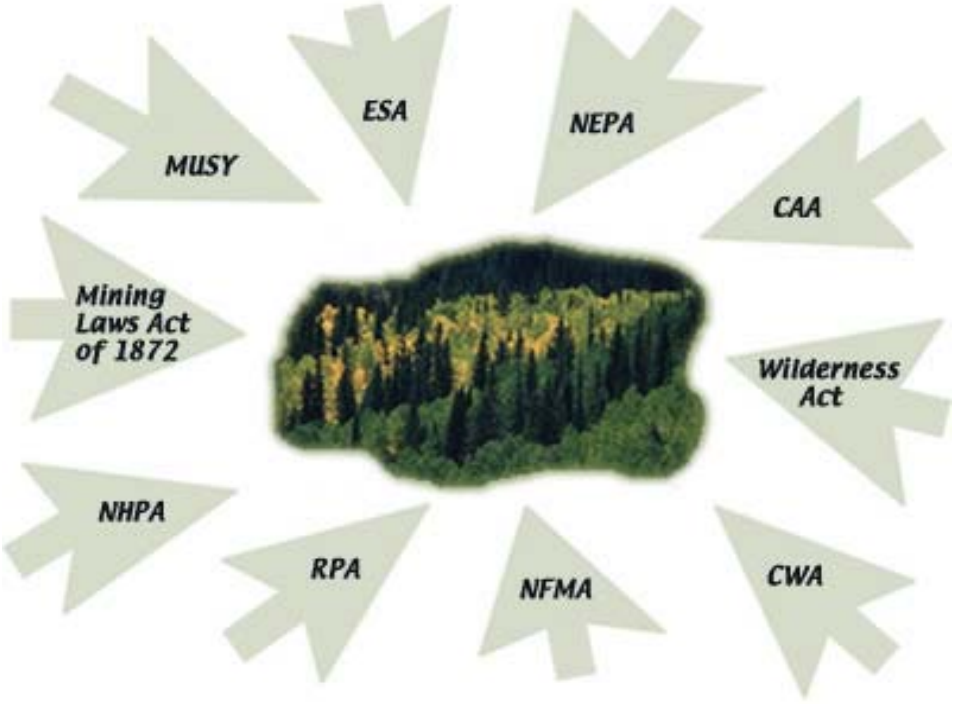
The Forest Service directives system provides a substantial component of the "how to" direction of forest management. Information developed in assessments conducted at broad, watershed, and project-level scales also provide context and inform forest planning and project decisions. Project planning is the final process for determining what is accomplished on the ground consistent with the decisions made and direction outlined in the Forest Plan.

Overview of Current Direction Guiding Forest Plan Revision

Laws and Regulations that Affect Forest Planning

The responsible official (the Regional Forester for the Pacific Northwest Region of the Forest Service) will make their decision in an existing framework of laws that defines the extent of the decision space. In addition to following the *National Forest Management Act* (NFMA) and the *National Environmental Policy Act* (NEPA), plans must set multiple-use goals and objectives, management prescriptions, and standards and guidelines that are consistent with other laws, including but not limited to, the *Multiple-Use Sustained-Yield Act* (MUSYA), the *Endangered Species Act* (ESA), the *Clean Water Act*, the *Clean Air Act*, the *Mining Law of 1872*, the *National Wilderness Preservation System Act*, the *National Historic Preservation Act*, and others. A more detailed description of each of these laws and regulations can be found at: *www.fs.fed.us/biology/planning/guide/laws.*

Figure 3: A Few of the Laws Affecting Forest Planning



Forest Planning Regulations

Direction for forest plan content and for certain analysis procedures and requirements is found in the Code of Federal Regulations at 36 CFR 219. This direction is commonly referred to as the "planning rule" or the "planning regulations". The planning regulations currently in place were completed in 1982 and are the regulations under which the current Forest Plans were developed.

The Forest Service is currently developing changes to the 1982 federal planning regulations to guide the forest planning process. A new planning rule was adopted in November 2000 that established requirements for the implementation, monitoring, evaluation, amendment and revision of land and resource management plans. After a review of the 2000 rule, the Forest Service made a number of changes based on questions regarding implementation. In May 2001, the public had an opportunity to comment on the effects of extending the compliance date for the new rule (66 FR 01-12384; May 15, 2001). An interim rule was issued in May 2002 to extend the date by which all land and resource management plan amendments and revisions would otherwise be subject to the planning regulations adopted (67 FR 02-12508; May 17, 2002). In December 2002, a proposed planning rule was issued in the Federal Register for public comment (67 FR 72770; December 06, 2002).

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

Resources Planning Act Assessment

National resource assessments are produced under the Forest and Rangeland Renewable Resources Planning Act of 1974 (Public Law 93-378) (RPA). Assessments are sources of information on the status and trends of renewable resources in the United States that are used to set the context for strategic planning. These national resource assessments influence the goals, objectives, and associated measures of the Strategic Plan.

USDA Forest Service Strategic Plan

The USDA Forest Service Strategic Plan for Fiscal Years 2004-2008 (USDA 2004) was prepared to provide the context and purpose for agency actions under the Government Performance and Results Act (Public Law 103-62). The strategic plan is intended to be the keystone of the Forest Service management and establishes goals, outcomes, performance measures, and strategies, which apply to management of the national forest lands as well as other Forest Service mission areas. The Strategic Plan covers periods of not less than five years forward from the fiscal year in which it is submitted, and is updated and revised at least every three years. The Strategic Plan articulates the Forest Service Mission 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 six goals:

1 **Reduce the risk from catastrophic wildland fire:** Restore the health of the nation's forests and grasslands to increase resilience to the effects of wildland fire.
2. **Reduce the impacts from invasive species**: Restore the health of the nation's forests and grasslands to be resilient to the effects of invasive insects, pathogens, plants, and pests.
3. **Provide outdoor recreation opportunities:** Provide high-quality outdoor recreational opportunities on forests and grasslands, while sustaining natural resources, to meet the nation's recreation demands.
4. **Help meet energy resource needs:** Contribute to meeting the nation's need for energy.
5. **Improve watershed condition:** Increase the number of forest and grassland watersheds that are in fully functional hydrologic condition.
6. **Mission related work in addition to that which supports the agency goals:** Conduct research and other mission-related work to fulfill statutory stewardship and assistance requirements.

The Revised Forest Plans will embody direction to contribute toward achieving these national goals.

Forest Service Manual and Handbook

Direction in the Forest Service directive system, including the Forest Service Manual (FSM) and the Forest Service Handbook (FSH), is a part of Forest Service management direction that provides appropriate resource management direction. The Revised Forest Plans will be developed consistent with current existing directives.

Regional Guidance

The Malheur, Umatilla, and Wallowa-Whitman National Forests 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 the Blue Mountains planning effort. The forest plan revision process will consider the findings and management strategies contained in these larger assessments and/or strategies including PACFISH, INFISH, and the Eastside Screens (see Regional Amendments in the Plan Amendments section of Chapter 3).

In addition, the Forest Service, Bureau of Land Management, NOAA Fisheries, U.S. Fish and Wildlife Service, Environmental Protection Agency signed a *Memorandum of Understanding* in (USDA/USDI 2003a) to cooperatively implement the *Interior Columbia Basin Strategy* (USDA/USDI 2003) to guide efforts to update land use and management plans for national forests and BLM-administered lands in a four-state area. The strategy is based on several significant scientific reports and a database from the Interior Columbia Basin Ecosystem Management Project (ICBEMP).

The Final EIS for the ICBEMP was released in December of 2000 (USDA 2000b). Although a Record of Decision (ROD) was not issued, regional Forest Service and Bureau of Land Management decision-makers elected to adopt a strategy of incorporating the science into ongoing land management planning efforts. These works represent some of the most up-to-date and complete scientific discussions of basin-wide issues available.

Other Related Planning Efforts

Roadless Area Conservation Rule

In the fall of 1999, the Forest Service began developing a plan for identifying and managing roadless areas. Following extensive public comment and release of a *Draft and Final Environmental Impact Statement*, a *Roadless Area Conservation Rule* was issued in January 2001. However, in May 2001 the U.S. District Court preliminarily enjoined the Forest Service from implementing the rule.

In July 2004, a directive to conserve roadless areas was proposed in a new rule that directs the continued cooperative conservation of roadless areas in national forests and grasslands. The new rule sets a new, straightforward collaborative path to conserving roadless areas by working with the states on state-specific regulations. The rule has been published for public review in the *Federal Register* (69 FR 42636, July 16 2004). The review and comment on the proposed rule would replace the 2001 roadless rule with a petitioning process that would allow state governors the opportunity to seek establishment of management requirements for Inventoried Roadless Areas (IRAs) on national forest lands within their states. Roadless areas will continue to be evaluated through the forest plan revision process. IRAs are those identified in the Roadless Area Conservation FEIS, Volume 2 (USDA 2000b). In addition, the Forest Service announced that it is re-instating the interim protection measures for inventoried roadless areas that expired in June 2003 (69 FR 42648, July 16, 2004). Final decision on the Roadless rule may affect potential for future wilderness designations.

Off-Highway Vehicle Rule

Off-road motor vehicle use for public enjoyment of the national forests has increased in recent years. Motor vehicle use off of roads in the national forests may involve any motor vehicle that can travel off road, such as sport utility vehicles (SUVs) or All Terrain Vehicles (ATVs). An off-road or off-highway vehicle (OHV) is a motor vehicle that is designed or retrofitted primarily for recreational use off of a road. These include mini-bikes, amphibious vehicles, snowmobiles, motorcycles, go-carts, motorized trail bikes, and dune buggies. The Forest Service wants to improve its management by balancing the public's enjoyment of using OHVs with ensuring the best possible care of the land.

In July 2004, the Forest Service published a National OHV Policy proposed rule in the *Federal Register* (69 FR 136, July 15, 2004) This proposed rule gives the public an opportunity to participate at various levels. The 60-day comment on the rule itself is a beginning point. The Forest Service's National OHV Implementation Team is developing tools, techniques, and best practices for managing the use of OHVs on national forest lands. Local national forests have been directed to continue partnerships and working relationships with interest groups to provide enhanced motorized recreation opportunities by having a system of routes and areas offering the best opportunities for OHV use while still meeting the responsibility to sustain resources. As each national forest revises its forest plan, they will address OHV management and consider programmatic decisions that can make OHV use a better-managed recreation activity.

Federal Wildland Fire Management Policy and National Fire Plan

In the aftermath of the wildfires that occurred throughout the nation in 2000, the Federal Wildland Fire Management Policy (USDA/USDI 1995) was reviewed in response to a request from the Secretaries of the Interior and Agriculture. The findings of the review concluded that the 1995 policy was generally sound and appropriate, although conditions of the fire-adapted ecosystems were worse and more complex than previously understood. Changes were identified to improve program management, implementation, oversight, leadership, and evaluation to implement the policy. The *Interagency Strategy for the Implementation of Federal Wildland Fire Management Policy* (USDA/USDI 2003b) primarily adopted guiding principles, policy statements, and implementation actions. The policy is focused on internal federal agency strategic direction for a broad range of fire management related actions.

In October 2000, the Forest Service issued *Protecting People and Sustaining Resources in Fire-Adapted Ecosystems: A Cohesive Strategy (National Fire Plan)* (USDA 2000). The strategy establishes a framework to restore and maintain ecosystem health in fire-adapted ecosystems for priority areas across the interior west. This report describes a cohesive set of actions from which the Forest Service may choose to initiate restoration and maintenance objectives within fire-adapted ecosystems.

Invasive Species Environmental Impact Statement

The Pacific Northwest Region of the Forest Service is currently developing an Environmental Impact Statement (EIS). This effort will enhance the ability of the national forests in Oregon and Washington to protect native ecosystems from invasive, non-native plants. Invasive plants (also known as noxious weeds or exotics) are those plants that are not native to the area and harm natural resources or the people who enjoy them. Approximately 95 invasive plant species have been identified and reported on national forest lands in the Pacific Northwest.

The Invasive Species EIS will build on the existing programs by developing a comprehensive set of standards and guidelines for forest plans, in order to be more effective in preventing and controlling invasive species. The resulting management direction will provide a new roadmap for prevention and site restoration, as well as new and expanded treatment mechanisms, including: biological, fire, mechanical, manual, cultural, and chemical tools critical to successfully managing the invasive plant problem. The Draft EIS was released for public comment in the August 2004 and when finalized will be used in developing the Revised Forest Plans.

Northwest Power and Conservation Council Subbasin Plans

The Northwest Power and Conservation Council is leading an effort to complete subbasin plans that include all of the Blue Mountains. Under the Biological Opinion for the Federal Columbia River Power System (FCRPS) (U.S. Department of Commerce 2000), NOAA Fisheries expects the Bonneville Power Administration, the Army Corps of Engineers, and the Bureau of Reclamation to meet their Endangered Species Act obligations in part through offsite mitigation. Subbasin plans are a substantial component of offsite mitigation. The Biological Opinion relies on the subbasin plans to identify and prioritize specific actions needed to recover listed salmon and steelhead. The Biological Opinion stipulates that subbasin plans will be developed through the Northwest Power and Conservation Council's program and that they will be fully integrated with appropriate state and tribal planning programs.

Federal lands comprise over 60 percent of the currently accessible spawning and rearing habitat for listed fish species within the Columbia Basin (U.S. Corps of Engineers and others 2000). The habitat strategy in FCRPS Biological Opinion and in *The Conservation of Columbia Basin Fish, Final Basinwide Salmon Recovery Strategy* (commonly referred to as the All-H paper) (U.S. Corps of Engineers and others 2000) is premised on a close linkage between federal and non-federal efforts. Subbasin plans are designed to provide documentation of existing assessments, plans, and other available information; describe what is known and already planned; incorporate new information; and set management policy and objectives within a particular subbasin.

The Malheur, Umatilla, and Wallowa-Whitman National Forests have had some involvement in subbasin planning by attending meetings and in some cases have contributed to the outcomes reflected in the subbasin plans. Subbasin plans address aquatic habitat restoration strategies across ownerships and management jurisdictions within a particular subbasin. However, subbasin plans are not binding on the Forest Service's planning process. Consistent with the processes under ESA, NEPA, and NFMA, the Forest Service will consider the vision, goals, and restoration priorities identified in subbasin plans and how subsequent land management planning decisions may contribute to them. There are 15 subbasin planning efforts underway within the Blue Mountains planning area.

Table 1: Subbasin plans within the Blue Mountains.

Subbasin:	State:
Burnt	Oregon
Deschutes*	Oregon
Imnaha	Oregon
John Day	Oregon
Lower Middle Snake	Oregon and Idaho
Malheur	Oregon
Powder	Oregon
Snake Hells Canyon	Oregon and Idaho
Umatilla	Oregon
Walla Walla	Oregon and Washington
Asotin	Washington
Tucannon	Washington
Salmon*	Idaho
Wieser*	Idaho

*Only a small portion of these subbasins are located within the Blue Mountains Plan Revision Area.

Other Factors Affecting Land and Resource Management

Endangered Species Act Consultation

Under Section 7 of the 1973 *Endangered Species Act* (ESA) and related Secretarial Order 3206 (USDI/USDC 1997), federal activities that may have an effect on threatened and endangered species are subject to consultation with the U.S. Fish and Wildlife Service (USFWS) or the National Oceanic and Atmospheric Administration (NOAA Fisheries). Consultation on the Forest Plans was previously completed in 1996 for various salmon species, in 1998 for steelhead and bull trout, and in 2000 for Canada lynx. The mid-Columbia steelhead trout were listed in 1999. ESA consultation for steelhead trout regarding Forest Plans within the mid-Columbia has not been completed. These formal consultations result in Biological Opinions (BOs) from the consulting agencies and include terms and conditions for implementing management activities on national forest lands.

Forest plan-level ESA consultations set the stage for future project-specific ESA consultations. Most of the ongoing and some proposed projects have undergone separate informal and formal ESA consultations. The formal consultations result in Biological Opinions and terms and conditions, some of which may influence the Revised Forest Plans. The following processes have been developed and implemented to improve the efficiency of ESA consultation: Streamlined Consultation (1998); the Blue Mountains Provincial Expedited Consultation Process, 2002; National Fire Plan Consultation Process (2001) and counterpart regulations (2004). All of these consultation processes will influence ESA consultation for the Blue Mountains forest plan revision.

In addition, two listed species, the bald eagle (USDI 1986), and MacFarlane's four o'clock (USDI 2000) have recovery plans in place. Bull trout, steelhead trout, salmon, and Spaldings' catchfly have recovery plans in various stages of preparation. The Canada Lynx Conservation Assessment and Strategy (Ruediger and others 2000) and its subsequent Canada Lynx Conservation Agreement (USDA and FWS 2000) is considered to be the best science available for determining project effects on lynx. Critical Habitat has been designated for Snake River sockeye salmon, Snake River fall chinook salmon, and Snake River spring/summer chinook salmon. Designated Critical Habitat has been proposed for the bull trout.

Table 2 - Federally Listed Terrestrial Species			
Species	**Scientific name**	**Federal status**	**Distribution**
Gray wolf	Canis lupus	Threatened	Malheur, Umatilla and Wallowa-Whitman National Forests
Canada lynx	Lynx canadensis	Threatened	Not known to be present in the Blue Mountains
Pygmy rabbit	Brachylagus idahoensis	Threatened (Washington only)	Umatilla National Forest
Northern bald eagle	Haliaeetus leucocephalus	Threatened	Malheur, Umatilla, Wallowa-Whitman National Forests

Table 3 - Federally Listed Aquatic Species			
Species	**Scientific name**	**Federal status**	**Distribution**
Snake River sockeye salmon	Oncorhynchus nerka	Endangered*	Wallowa-Whitman National Forest
Snake River fall chinook salmon	Oncorhynchus tshawytscha	Threatened*	Umatilla and Wallowa-Whitman National Forests
Snake River spring/summer chinook salmon	Oncorhynchus tshawytscha	Threatened*	Umatilla and Wallowa-Whitman National Forests
Snake River steelhead trout	Oncorhynchus mykiss	Threatened	Umatilla and Wallowa-Whitman National Forests
Mid-Columbia River steelhead trout	Oncorhynchus mykiss	Threatened	Malheur, Umatilla and Wallowa-Whitman National Forests
Columbia River bull trout	Salvelinus confluentus	Threatened**	Malheur, Umatilla and Wallowa-Whitman National Forests
Bliss Rapids Snail	Taylorconcha serpenticola	Threatened	Wallowa-Whitman National Forest

*Designated Critical Habitat **Proposed Designated Critical Habitat

Table 4 - Federally Listed Plant Species			
Species	**Scientific name**	**Federal status**	**Distribution**
MacFarlane's four o'clock	Mirabilis macfarlanei	Threatened	Wallowa-Whitman National Forest
Spalding's catchfly	Silene spaldingii	Threatened	Wallowa-Whitman National Forest
Ute ladies' tresses	Spiranthus diluvialis	Threatened	Unknown
Water howellia	Howellia aquatilis	Threatened	Unknown
Howell's spectacular thelypody	Thelypodium howellii	Threatened	Unknown

Essential Fish Habitat

The *Magnuson-Stevens Fishery Conservation and Management Act* (MSA) requires the identification of habitat essential to conserve and enhance federal fishery resources that are fished commercially. Essential Fish Habitat (EFH) has been designated within the planning area. NOAA Fisheries reviews federal actions to determine if there are any effects to EFH. As part of their review, NOAA Fisheries will provide conservation recommendations to the respective federal agencies where actions are determined to adversely affect EFH.

Federal Trust Responsibilities

The Forest Service shares in the federal government's overall trust responsibility to American Indian tribes where treaty or other legally defined rights apply to national forest lands. In meeting this shared responsibility, the agency assists in carrying out the intent of the treaty and any subsequent case law or amendments. This is done by operating in a just and responsive way and making efforts to adjust the management of national forest lands in favor of the concerns of the respective American Indian tribe(s), as far as practicable, while still maintaining a responsibility to all the people - the general public.

A significant portion of lands ceded by the Confederated Tribes of the Umatilla Indian Reservation, Confederated Tribes of the Warm Springs, Nez Perce Tribe, and Confederated Tribes and Bands of the Yakama Indian Nation of the Yakama Reservation by virtue of the "Treaties of 1855", that still remained public domain, were designated as part of the National Forest System by the Act of June 4, 1897 (Organic Administration Act). These treaties are known for their specific language recognizing the tribes reserved certain rights on the lands ceded. These reserved rights include taking fish, erecting buildings

for curing fish, hunting, gathering roots and berries, and pasturing. Gathering on in the national forests of the Blue Mountains, as protected in treaties with the Nez Perce Tribe, the Confederated Tribes of the Umatilla Indian Reservation, and the Confederated Tribes of the Warm Springs Reservation of Oregon, is viewed by the tribes as vital to their cultural, spiritual, and community well-being.

Although very similar, each treaty contains language unique unto itself and must be read with this knowledge for the national forests of the Blue Mountain to fulfill their trust responsibilities as defined above. Government-to-government consultation, as defined in respective consultation and coordination agreements with these tribes, is ongoing and includes affects the forest plan revision may have on the tribes and the resources connected to their reserved rights.

Memorandums of Understanding with affected American Indian tribes define the formal consultation protocol followed by the three national forests, working closely with the tribes, in ongoing cultural resource programs. Government-to-government consultation on land management planning between the three forests and these tribes is ongoing and includes affects the forest plan revision may have on the tribes.

The Burns Paiute Tribe, Shoshone-Bannock, Shoshone-Paiute Tribes of the Duck Valley Reservation, Fort McDermitt Paiute and Shoshone Tribes, Fort Bid well Indian Community of Paiute Indians, Klamath Tribes, and the Joseph Band of Nez Perce-Colville Confederated Tribes also have interests in the Blue Mountain national forests' management direction and project planning.

Chapter 3:
Overview of Current Management

Current Management Direction

The Forest Plans for the Malheur, Umatilla and Wallowa-Whitman and a portion of the Ochoco National Forests were developed as a result of the *National Forest Management Act*. Each set of planning documents includes an Environmental Impact Statement (EIS) and its appendices and maps, a Land and Resource Management Plan (LMP), and a Record of Decision (ROD).

The team is working on consolidating the guidance in the current Forest Plans into a common set of management direction. Where practical and appropriate, the desired future conditions, existing goals, standards, guidelines, and the management prescription definitions of the three current Forest Plans will be blended into one document to provide an overall summary of the current management direction. The three forests have also begun blending monitoring items across the Blue Mountains.

Standardized management categories are also being drafted similar to those developed by other regions of the Forest Service to provide a common means for comparison of the current management direction between the Blue Mountains national forests. The management categories range more or less along a scale from extensive to intensive management. The purpose of these management categories is to provide a basis for displaying management intent in a consistent manner. This consolidated direction will then essentially become the No-Action Alternative when the EIS is developed later in the forest plan revision process.

Because the 1990 Forest Plans were the first set of planning documents to cover an entire national forest, a large percentage of the management direction repeated agency policy form the Forest Service Handbooks or Manuals or from laws such as the *Resources Planning Act, Endangered Species Act, Wilderness Preservation System Act, National Historic Preservation Act*, and others. However, the Revised Forest Plans will not repeat direction that is already stated elsewhere in law, regulation, or policy. Forest Plans are under law, regulation, and policy in the legal hierarchy and it is understood that the Forest Service must follow all existing direction while carrying out management activities.

It is recognized that there are important differences in the three Forest Plans in response to differences in resource conditions and local communities. Still, appropriate blending of the three Forest Plans will lead to improved management, administration, and implementation consistency across the Blue Mountains. This will also provide better service to those who use and visit the national forests.

Forest Plan Amendments

The Forest Plans for the Malheur, Umatilla, and Wallowa-Whitman National Forests have been amended an average of 35 times over the past 14 years. Plan amendments were used on each forest to implement direction for prescribed natural fire, establish management areas, adjust big-game habitat and cover requirements, relocate old growth replacement areas, allow silvicultural treatment in late and old growth timber stands, make management area boundary adjustments, and to define boundaries, and clarify management objectives for Wild and Scenic Rivers. A complete list of Forest Plan Amendments for each national forest can be found in Appendix B.

Regional Amendments

PACFISH - The *Interim Strategies for Managing Anadromous Fish-producing Watersheds in Eastern Oregon and Washington* (USDA/USDI 1995a) commonly referred to as PACFISH, amended the three Forest Plans to provide management direction to slow degradation of and begin the restoration of aquatic and riparian ecosystems for anadromous fish.

INFISH - *Interim Strategies for Managing Inland Fish-producing Watersheds in Eastern Oregon and Washington, Idaho, and Portions of California: Management direction to protect habitat and populations of resident native fishes outside anadromous fish habitat*, which is known as INFISH (USDA 1995b), amended the Forest Plans with management direction for slowing the degradation and beginning the restoration of aquatic and riparian ecosystems for resident fish.

Eastside Screens - In 1994 the Pacific Northwest Regional Forester of the Forest Service issued *Interim Direction Establishing Riparian, Ecosystem, and Wildlife Standards for Timber Sales on Eastside Forests* that amended the Forest Plans by establishing riparian, ecosystem, and wildlife standards for timber sales on eastside forests (USDA 1995c).

Desired Future Condition Summary (Circa 1990)

In the current Forest Plans, the Desired Future Condition section describes the anticipated conditions that would occur 10 years and 50 years into the future with implementation of the management direction contained in the Forest Plans. In other words, it describes what the three national forests in the Blue Mountains were expected to look like in the years 2000 and in 2040. Focusing on the 10-year conditions, the vision, desired condition statements, and objectives from the three Forest Plans have been synthesized and summarized in the following section based on the sustainability framework of social, ecological, and economic conditions. (See the Design and Format section in Chapter 1)

To be consistent with the Forest Service mission, and to have a common language for identifying resource conditions and processes, the Blue Mountains Forest Plan Revision Team has developed an initial outline of principles, criteria, indicators, and measures, (the sustainability framework), as a common frame of reference for describing sustainability in the Blue Mountains. This framework will be further developed through the Community Collaborative Workshops. Refer to Appendix A for an outline of the sustainability framework.

This sustainability framework emphasizes the conditions and processes necessary to maintain social, ecological, and economic systems that sustain natural resources and communities for present and future generations. Focusing on the linkages between these systems increases understanding of sustainability and provides a way to integrate social, ecological, and economic conditions with people from the very beginning of the process (Haynes and others 1996) (Wright and others 2002).

The following section describes the social, ecological, and economic desired conditions from the current Forest Plans using the sustainability framework. It provides a basis for comparing what the plans intended to achieve to the existing conditions and trends, also outlined in the next section. Some of the desired conditions have been achieved, some have not. Several significant changes in resource conditions and management direction have occurred beyond those anticipated or expected when the Forest Plans were completed in 1990 and these are noted as well. Some of the system conditions in the sustainability framework are not listed in this section because the Forest Plans did not address them. This comparison serves as a starting point for identifying gaps in information and needs to change the Forest Plans in the context of sustainability. Refer to the section on Current Resource Conditions for a description of the existing conditions and trends.

SOCIAL WELL-BEING

Collaborative Stewardship

Stewardship Activities

A spirit of interdependency and cooperation exists between government agencies, local businesses, and communities. The central focus of strategies is to foster and enhance communication, cooperation, and

partnerships. Quality land stewardship and trusteeship continues to be a fundamental underpinning for management of the forests.

Local Area Empowerment and Development

Individuals, groups, landowners, forest users, American Indian tribes, and state and federal agencies cooperate and coordinate in forest management, and community and economic development.
To enhance the vitality of surrounding communities the Forest Service and local citizens have found new methods of operation and opportunities to work together beyond traditional boundaries.

Institutional and Community Capacity

Community Resiliency

Changes in forest outputs of wood fiber, forage, quality water, recreation and aesthetic opportunities and activities affect the social and economic life of the local population and contribute to health of communities. The three forests provide a balance between commodity outputs and amenity resources that strive to maintain economic stability, well-being, and lifestyles of dependent communities, while maintaining the natural character and recreational settings desired by much of the public. Forest management activities and outputs provide opportunities for jobs, income, and support the way of life, social stability, and social well-being of the residents in the local communities.

Ownership Patterns

There are fewer parcels of non-federal land intermingled within the three national forests because several land exchanges have been completed. Land exchange interest and opportunities still exist with major cost-share partners and other major industrial and agricultural landowners. A majority of national forest lines are surveyed, marked, and posted to Forest Service standards, and placed on a maintenance schedule. Cost sharing on all major, jointly shared roads is complete. New work is limited to reconstruction and occasional construction of short segments of spur roads. Some easements on agreement roads have been terminated due to land exchanges. Road access through private land is adequate to provide public use of all major areas on the three forests.

Government-to-Government Relationships

American Indian treaty rights are protected and preserved according to the applicable treaties. Hunting and fishing rights of the Confederated Tribes of the Umatilla Indian Reservation, Confederated Tribes of the Warm Springs, Nez Perce Tribe, and Confederated Tribes and Bands of the Yakama Indian Nation of the Yakama Reservation, The Burns Paiute Tribe, Shoshone-Bannock, Shoshone-Paiute Tribes of the Duck Valley Reservation, Fort McDermitt Paiute and Shoshone Tribes, Fort Bidwell Indian Community of Paiute Indians, Klamath Tribes, and the Joseph Band of Nez Perce-Colville Confederated Tribes
are recognized through fish and wildlife management.

Social Equity

Public safety and assistance to forest users is provided while recognizing diverse needs. Information programs assist the public in understanding management of the various resources and to assist them in their search for a variety of challenging and pleasing experiences. All persons are provided equal opportunity regardless of race, color, creed, sex, marital status, age, handicap, religion, or national origin.

Social and Cultural Values

The forests fill an expanding amenity stewardship role by valuing and managing aesthetic, recreation, and spiritual aspects of the forest. Social indicators of lifestyles, attitudes, beliefs, and values and social organizations are not changing in any substantial way.

Gathering

Fuelwood opportunities are available to the public but they are less accessible and competition has made it more difficult to obtain. Some opportunities are provided as part of road management and slash

treatment projects although fuelwood is frequently poor quality and consists of high amounts of rejected and slash material.

Other forest products, including mushrooms, and berries, and hunting and fishing remain important to forest visitors and residents in the communities in and around the national forests and provide recreational opportunities.

Aesthetics

The forests continue to emphasize visual resource qualities by maintaining, enhancing, rehabilitating, and perpetuating scenic and aesthetic qualities in key areas. Wilderness areas are managed to a preservation standard, allowing only natural ecological changes to occur. Portions of each forest are managed to provide near-natural settings emphasizing visual quality including areas along state highways, key travel routes, major water-related viewsheds, developed recreation sites, and unroaded areas. Uneven-aged vegetation management practices are used where visual quality is a concern.

Cultural Values

The three national forests continue to identify, evaluate, preserve, protect, and enhance various cultural resources. Most of the national forest land in the Blue Mountains has been surveyed for cultural resources. Updated overview, site evaluation, and data recovery plans and protocols have increased knowledge about the prehistory and history of the forests which has led to better management of cultural resources. Public education and interpretive projects in coordination with strong partnerships enhance the enjoyment, understanding, and involvement of the public in cultural resource management.

Special Places

The Forest Plans identified a variety of special management areas as featured attractions and as part of the diversity of recreation opportunities. A wide variety of special interest areas on the three forests (historical, botanical, geological, and cultural sites) have been developed to contribute toward educational, interpretive, and other recreational experiences.

Scenic Areas - Two scenic areas on the Malheur and Umatilla National Forests, Grande Ronde and Vinegar Hill-Indian Rock, have received increased use.

Scenic Byways - The Scenic Byway system is a featured attraction throughout the Blue Mountains, linking forests and communities.

Wild & Scenic Rivers - Portions of several rivers are designated Wild and Scenic Rivers, and accommodate increased use. The character of the wild and scenic river corridors has been maintained in a natural or near natural condition. Detailed river management plans have been completed and activities are occurring as outlined.

Wilderness - Each national forest has implemented wilderness management plans for each wilderness. As defined in the plans, measures to substantially increase the amount of primitive recreation opportunity were undertaken and completed. Indicators and standards tailored to each wilderness and baseline data are established to determine the limits of acceptable change. Fire plays a role in management of wilderness vegetation.

Within wilderness areas across the three forests, hunting camps and temporary structures (such as tent frames) are dismantled as they are discovered. All unnecessary government-owned structures are removed. All mining claims within wilderness are examined for validity, and have current and approved plans of operation, which minimize impact on the wilderness resource.

Research Natural Areas - Ninety percent of the ecosystem representatives for the Research Natural Areas in the Blue Mountains have been located by 1990. All proposed Research Natural Area candidates are established and specific management direction for each area is provided.

Recreation and Tourism

The three national forests continue to provide a diversity of recreation opportunities in a variety of forest settings. Providing for recreational use of the forest receives increased emphasis due to increasing demands for the variety of recreation activities, settings, and experiences. A diverse range of recreation opportunities is available, with some changes to the amount and location of some opportunities. Recreation opportunities would be provided in a variety of areas, including wilderness, unroaded areas, scenic areas, Wild and Scenic Rivers, special interest areas, developed sites, and roaded areas.

Developed Recreation - High use levels occur at the well-maintained recreation sites. The capacity had been reached or exceeded at several water-based developed recreation sites. Developed sites across the forests, including campgrounds, picnic areas, boating sites, and ski areas continue to provide varied recreation facilities.

There are fewer developed campgrounds but those remaining have been expanded to accommodate site-specific demands. Maintenance and improvement of developed sites includes increasing capacity as needed. Vegetation management in campgrounds provides healthy, vigorous, growing trees and shrubbery.

In some areas, such as the Hells Canyon National Recreation Area, recreation site capacity and improved recreational access have been substantially increased. Major changes including road and access improvements and construction of new campgrounds has occurred.

Dispersed Recreation - The national forests of the Blue Mountains maintain a reputation as one of the best places to hunt big game in the Pacific Northwest. Hunting continues to be a featured recreation activity and in some areas the single most important recreation activity. A wide variety of settings for hunting are available. As additional roads are closed to improve big game habitat, decreases in road-related hunting occur. The quality of hunting is maintained as habitat management practices are implemented. Dispersed recreation sites such as hunter camps, retain their desired character although surrounding lands may have changed as a result of other management activities. Fishing has risen in response to increases in resident fish populations and improved stream conditions.

Semi-primitive recreation opportunities have been reduced through development of some of the roadless areas. Available semi-primitive opportunities in the remaining unroaded areas and wildernesses accommodate demand. In these areas, user density has increased, but user conflicts are minimal. Some sites that may have been previously managed as developed campgrounds are now managed as dispersed recreation sites, with a minimum of facilities.

Ecological Integrity

Landscape Function

Disturbance Processes

Invasive Species - Noxious weeds have generally expanded. Treatments have been limited to site-specific applications except in isolated cases where severe infestations on national forest lands might infect adjacent private lands. Other species have become well established and are difficult to eliminate, especially knapweed, yellow starthistle, and ragwort. Some infestations could become more extensive.

Insect and Disease - The incidence of large-scale pest outbreaks has declined and the overall 'health' of the three national forests shows improvement. Large-scale insect infestations have 'run their course' with integrated pest management strategies being put into place. However, the forestlands within the Blue Mountains remain susceptible to large-scale insect outbreaks due to the number of acres of mature and old forest, past fire suppression and harvest practices, and younger immature stands. Silviculture techniques, prescribed burning, and other practices are used to help prevent large-scale infestations and reduce diseases.

Wildfire - Wildfire activity has remained consistent with intense, large fires occurring at a fairly low level. However, the continued use of improved fire suppression strategies has resulted in a more cost-effective fire management program.

Use of prescribed fire increased in project activities of all types and fire is allowed to play a more natural role in wilderness. The fuels management program reduces the risk of large, intense fires. The general fuel hazard level is slowly being reduced through a combination of management activities, resulting in a reduction of natural fuels.

Harvest and Silvicultural Methods - Timber and wood fiber production continues to be a principal forest activity. Today however, management of the trees and stands is directed toward, and tied together with, accomplishment of multiple-use objectives. In areas emphasizing multiple-use values coordinated with timber resource management, forest development and growth is directed toward meeting a variety of criteria, such as producing marginal and satisfactory cover for big game, protecting fishery values, maintaining near-natural visual conditions, and reducing pests.

Emphasis is on managing vegetation within the historic range of variability and increasing late/old structural condition abundance above levels that currently exist. There has been a shift away from even-aged management methods such as clearcutting with corresponding increases in uneven-aged methods. Uneven-aged management is used in viewsheds, riparian areas, and winter ranges, and many other site-specific situations. In these areas, emphasis is placed on natural reproduction and rapid regeneration and tree growth to attain yield-table predictions and meet other resource objectives.

During the decade, species composition and log sizes of timber sale offerings has remained constant. Although demand for ponderosa pine remains high, white fir and other species are increasingly used. Timber harvest units have replaced areas of unbroken forest canopy. A significant percentage of the forest shows areas that have had small to moderate amounts of noticeable timber harvest and recently regenerated and young forest stands are evident in these areas. Wood fiber and biomass residue has increased in balance with long-term site productivity and habitat diversity.

Grazing - Modified grazing strategies and implementation of utilization standards have resulted in reduced use levels in riparian areas so that many of the riparian systems show definite signs of recovery and an improvement in the riparian vegetation. Woody shrubs are more prevalent.

Permitted numbers of livestock and/or seasons of use have declined slightly in response to the utilization standards and resolution of resource conflicts. Key big game winter ranges have been re-analyzed to determine total forage production and to assure that the allocation of that forage between big game and livestock is appropriate.

Hydrologic Function

Water temperature regimes promote recovery or enhancement of riparian vegetation**.** Management activities provide high levels of protection to streams, stream banks, riparian areas, and wetlands. Riparian areas in less than desirable condition have been improved to provide for riparian-dependent resources. These improvements have resulted from better control and administration of livestock use in riparian areas, reduced timber harvest in forested riparian areas, and more roads being closed or obliterated.

Watershed and fisheries habitat improvement projects have been completed on priority streams, and riparian hardwood communities have been increased or re-established. Bank stability, water quality, fish and wildlife habitat, recreation opportunities, and aesthetics have improved. Streamside vegetation is more diverse and abundant with native species. Any significant change in total streamflow or timing of high and low flow has primarily been a result of naturally occurring events and conditions.

Landscape Structure and Composition

Landscape Diversity
The average tree size has been reduced in those portions of the forests managed to emphasize timber production. Fewer large-diameter old growth ponderosa pines are found outside of viewshed corridors, old growth areas, semiprimitive areas, wilderness areas, and wild land scenic river corridors. In some areas, including wilderness, unroaded areas, and some riparian areas, natural or near-natural conditions remain with large blocks of old growth dispersed throughout the landscape. However, based on the historic range of variability, there are no remaining "surplus" old growth areas.

Landscape Patterns
The forests continue to feature a mosaic of large grasslands and forested area, containing elements of both natural and human-influenced forest conditions. In areas outside of wilderness, vegetation appears as a managed forest with the mosaic and variety of harvest patterns varying in size, shape, and arrangement characterized by large trees interspersed with patches of smaller trees, other vegetation, and small openings. Many of the lodgepole pine sites which were harvested in the 1980's as a result of the mountain pine beetle epidemic are now occupied by vigorous young stands of lodgepole pine.

Ecosystem Function

Nutrient cycling/ Carbon sequestration
Nutrient capital on forest and rangelands has been maintained at acceptable levels.

Stream Function
Inventories of most of the streams and lakes on the three forests are complete. Stream temperatures are maintained or improved, instream diversity increased, sediment production decreased, and the existing stream channel stability condition was maintained. The management objective to provide clean, clear, free flowing surface water is being met. Timing of low and high flows and average annual water yields remains consistent.

Ecosystem Structure and Composition

Air Quality
Air quality is maintained at levels adequate for the protection and use of forest resources, and that meet or exceed all state and federal standards and regulations. Prescribed burning is conducted in accordance with state smoke management plans. Available predictive methods, models and cost efficient technologies are used to minimize impacts of prescribed burning on smoke sensitive and Class I Airsheds.

Soil Quality
About half of the all forest soils are in an undisturbed condition. Another portion are affected by ground disturbance, some through repeated activity. A small percentage of the soils in roads, trails, rock pits, and other allocations is in a nonproductive state. Another small percentage has undergone treatment to restore lost productivity due to past management activities. Management goals and objectives related to soils have been met through continued efforts in damage prevention and mitigation.

Water Quality
Water provided by the national forests of the Blue Mountains is an increasingly important resource as demand and competition for its use expands. The forests remain a key source of surface water for local stream systems. The management objective to provide clean, clear, free-flowing surface water has been consistently met. Management activities have continued to provide high levels of protection to streams, stream banks, riparian areas, and wetlands. Municipal watersheds receive high levels of protection.

Special habitats

The current Forests Plans do not have a consistent definition for special habitats but wildlife management is directed toward key habitats and the populations of wildlife they support. Special habitats include late and old forested stands, snags, downed wood, and riparian areas. Other special habitats are cliffs, talus slopes, raptor nests and elk wallows. Some of these habitats have received special designations within the current Forest Plans while others receive protection through standards and guidelines.

It is well known that snags and downed wood are important components of forested ecosystems (Bull and others 1997 and Johnson and O'Neil 2001). Bull (1997) reported that more than 80 species of birds, mammals, reptiles, and amphibians use snags and downed logs within the Columbia River Basin. Johnson and O'Neil stated "Interactions among wildlife, other organisms, and decaying wood substrates are essential to ecosystem processes and functions." They also suggested that inputs of decaying wood are crucial to most aspects of stream processes, such as channel morphology, hydrology, and nutrient cycling.

Habitat for species using dead (snags) and down trees is provided across the landscape. Each of the current Forest Plans prescribe snag and downed wood levels. These levels vary by management area. Within areas of human concentration snag numbers are managed to better account for safety concerns. Snags and green replacement trees have been left in areas where timber harvest has occurred. Generally, snags are retained either as individuals or in small clusters. Wildlife dependent on managed forest environments are evident. In timber harvest areas, dead logs and slash are left on the ground for species utilizing them for habitat such as small burrowing mammals.

Riparian areas continue to provide a diversity of habitat conditions. Unique habitats, such as cliffs, talus, and wet areas, have received protection. Habitat for cavity excavators and cavity nesters is provided at natural levels. Extensive stands of old-growth habitat remain on all three forests and are found within designated old growth areas, semiprimitive areas, wilderness areas, and bald eagle winter roosts. In addition, there are managed old growth replacement stands, some of which are now near old growth stage. Riparian areas, visual corridors, and semiprimitive unroaded areas provide travel routes between old growth areas. The number of botanical areas across the three forests has increased slightly as new unique areas were found during sensitive plant surveys.

Big-game habitat effectiveness has increased through vegetation manipulation and road management. Focus of management is on the habitat components of cover, forage, and road density, and on management of winter ranges, riparian areas, and other important big game areas.

In addition, winter ranges are maintained and improved through cover management, improved security, and forage enhancement. Total cover decreased in that satisfactory cover shows a slight decrease, while marginal cover increased slightly. Close coordination on forage utilization by big game and livestock and application of enhancement techniques has resulted in an increase of browse condition and forage quality and quantity. An aggressive access management plan has helped reduce road densities in summer range, winter range, and wildlife emphasis areas.

Most of the planned, nonstructural wildlife improvement work involves prescribed burning on big game winter ranges to enhance forage and other vegetative conditions. Other wildlife habitat enhancements have occurred including seeding, browse planting, pruning, mechanical disturbance, and fertilizing to enhance forage production. Other projects include aspen stand enhancement and riparian vegetation plantings.

Fish habitat capability has improved under implementation of the Forest Plans and investments in fish habitat improvements improved overall riparian condition. Inventories of most of the streams and lakes on the three forests have been completed providing knowledge to managers for more accurate predictions of the effects of management of the various resources on fish and to minimize negative impacts. Inventories provide the basis for habitat rehabilitation and enhancement. Stream temperatures have been maintained or improved, instream diversity increased, sediment production decreased, and stream channel stability maintained. Continuing trends in improving vegetative, soil, and other conditions

in riparian areas has occurred. A significant amount of structural habitat improvement work on streams bearing anadromous fish has been done and substantial work has also been accomplished on streams with resident fish.

Species Richness

Ecosystem functions were maintained or enhanced to provide a diversity of plant communities with long-term integrity, stability, and productivity.

Population Function

Population viability

In compliance with the Code of Federal Regulations, (36 CFR 219.19) fish and wildlife habitat is managed to maintain viable populations of existing native and desired non-native vertebrate species in the planning area. For forest planning purposes, a viable population has the estimated numbers and distribution of reproductive individuals to insure that viable populations will be maintained and habitat must be provided to at least support a minimum number of reproductive individuals. Habitat is well distributed so that those individuals can interact with others in the planning area.

When the current forest plans were developed, each of the national forests in the Blue Mountains selected certain fish and wildlife species to serve as indicators of, or proxies for, wildlife populations in general. These selected species are referred to a Management Indicator Species (MIS). These MIS were selected because their population changes are believed to indicate the effects of management activities and other species using similar habitat. Table 8 is a list of the MIS selected for the three existing Forest Plans.

Population structure/composition

Populations of indigenous species

Significant increases in the production of both anadromous and resident fish have occurred. Anadromous fish increases are the most noticeable, primarily as a result of actions taken through coordination with the Northwest Power and Conservation Council, the Bonneville Power Administration, the Bureau of Reclamation, affected American Indian tribes, the Columbia River Inter-tribal Fish Commission, and state fisheries departments. A portion of the increases is dependent on and tied to improvements and activities downstream off of national forest lands, and offshore ocean conditions.

Rainbow trout is used as an indicator for other resident fish and has increased as a result of habitat improvements. The opportunity to catch fish has increased as well based on an increased number of legal-sized fish, better access from roads, and more areas with larger, deeper, and more complex pools.

The national forests of the Blue Mountains also provide and manage effective and well-distributed habitats for a wide variety of vertebrate wildlife species. Forest species dependent on younger stands, edges, will find abundant habitat. However, some decrease in old growth/mature tree habitat has occurred as a result of timber harvest activities. Wildlife management is directed toward key habitats including mature and old growth tree stands, dead (snags) and down trees, riparian, and other unique habitats.

In general, big game populations are near desired numbers as species respond to favorable forest habitat. Elk populations have stabilized at the state management objective levels, while deer numbers have increased substantially from previous lows.

Economic Well-Being

Capital and Wealth

Natural Capital

The forests provide a healthy and productive environment and assist in supplying resources, uses, and values which meet local, regional, and national social and economic needs. They continue to play a fundamental role in multiple-use management by providing a balanced variety of natural resource based goods and services to the public. They fill a utilitarian, production-oriented role by providing resources including timber, livestock forage, water, and minerals. The forests are recognized for quality programs in elk habitat management, high quality water, expanding fisheries, timber management including uneven-aged management, and for maintaining the special environments existing in the Blue Mountains. Interest in the locatable mineral potential of eastern Oregon remains high, and claiming activity is increasing in favorable areas outside wilderness. The number of claims inside wilderness continues to decline. Physical and biological impacts are minimized but the short-term effects on water quality continue to be a concern.

An up-to-date mineral resource inventory and evaluation has been completed and supplements knowledge of locatable minerals. With this information, the three forests are in a better position to proactively manage for mineral resource activities. Interest in oil and gas leasing has remained relatively high and fluctuates with energy prices. Geophysical survey and exploration drilling provides better information about where oil and gas resources are located for future development of the resource.

Built Infrastructure

Roads - The forest road system is maintained to meet forest management goals. The process includes an active program of road closures to meet elk habitat requirements, dispersed recreation needs, and soil, water, and economic criteria. The density of open roads has declined below 1990 levels and most local roads are closed to motorized use. Some roads are closed or blocked to standard vehicle use by physical barricades, gates, or signs. Most traffic management is accomplished by physical barricades, rather than more restrictive, law enforcement measures.

The principal access roads are readily identifiable, have paved or graveled surface, and are suitable for passenger car use. A well-signed primary road system assists forest travelers in finding their destination. Other (lower maintenance level) roads look rough or primitive, but many of these are still available for use by the more experienced traveler.

Existing roads in timber sale areas are wider, with improved drainage, include more turnouts, and increased surfacing (primarily gravel). Main routes have been upgraded by resurfacing with either crushed rock or pavement. Some roads have been reconstructed to straighten out sharp curves and over-steep grades. Where culverts did not allow fish passage, or where the existing road was too close to a stream, the roads were closed to vehicle traffic or obliterated and removed from the transportation system.

Trails - The trail system across the three forests has been expanded. Construction, reconstruction, and maintenance of the forest trail system is tailored to recreation demands and protecting other resources. Trails are emphasized in wilderness, the Hells Canyon National Recreation Area, and semiprimitive areas, but opportunities for trail-related recreation within other management areas are available.

Miles of wilderness trails, cross-country ski, snowmobile, mountain bike, and off-highway vehicle (OHV) trails has increased. Several new trailheads were constructed.

Loop trails, closed road systems, and staging area development meets the needs of increased OHV use. Conflicts between OHV use and big game require some adjustments in OHV use seasons and locations. Winter sports areas have been developed for snowmobiling and cross-country skiing.

Other Facilities - Administrative facilities are maintained at the current user level and take into consideration user safety, continuity of service, function, operation costs, protection of investments and appearance. The forests have initiated a cabin rental program to help offset maintenance costs of some facilities.

Utility Corridors and Other Special Uses - Existing utility corridors meet regional needs and electronic site activity has increased. Existing mountaintop electronic sites are sufficient to meet demands.

Flows of Products and Services

A sufficient mix of resource uses meets the foreseeable demand for most resource uses. Economic activity is focused on timber and fisheries resources and to a lesser degree, on livestock grazing. Big game and recreation pursuits are also important.

Marketed Goods and Services

The forests provide a stable amount of raw material for timber industries within and adjacent to the forest's zone of influence. The supply maintains local industries currently in place to remain a cornerstone of a stable and predictable local economy. A sustained yield of wood fiber to meet projected production levels is provided insofar as possible while meeting resource objectives, Forest Plan standards and guidelines, and cost efficiency.

Slightly declining range outputs still assist in maintaining the ranching industry which contributes to the social stability of the area. Sufficient access to forest forage is provided to maintain most herd levels.

Non-marketed Goods and Services

Non-commodity resources maintain the rural, forested setting important to local lifestyles as well as providing a strong foundation for diversifying the economic base of the affected communities. Much of the areas not managed for timber harvest provide a recreation setting relatively free of human intrusions. Many other areas meet other concerns important to forest visitors such as scenic travel corridors and big-game habitat.

Trade and Distributional Equity

Trade Balance

Local counties are attempting to provide a more diverse economic base, including an emphasis on tourism. The three national forests figure prominently in plans that encourage visitors to enjoy the natural scenic and recreational attractions of the area as well as its historical features. Partnerships develop and enhance recreational use of the forests and promote tourism in the area. These efforts are creating a more diverse economic base in the overall economy for the long run.

Income and Employment

Economic indicators including jobs, personal income, payments-to-counties and present net value may increase by very small amounts. Payments to counties for schools and roads continue to depend upon the price of timber as much as the amount sold rather than timber harvest volumes.

Overview of Current Resource Conditions

The following section describes the current social, ecological, and economic conditions based on the sustainability framework described above (see Appendix A). This section provides a brief summary of the existing conditions compared to the desired conditions and objectives described in the previous section and serves as an overview of the current status of resources managed by the national forests of the Blue Mountain. It also includes suggestions on what changes might be considered in revising the current Forest Plans. The Need for Change chapter of the *Final* Current Management Situation Report (Chapter 4) will further explore the needs and concerns identified and document which areas will be addressed in the forest plan revision.

The section is categorized by the sustainability framework (see Appendix A). Some of the resource conditions related to the sustainability framework are not described because they were not addressed by the Forest Plans. Some conditions have been included in this description as a starting point for identifying the appropriate resource conditions necessary to describing sustainability in the Blue Mountains national forests. Within this framework, the first two subsections, the Status of Desired Future Conditions and Objectives and the Status of Desired Future Conditions and Objectives, describe whether the desired conditions that were expected or predicted in the current Forest Plans actually occurred. These are followed by a summary of changes and concerns. The following subsections provide additional information and are divided as follows:

Status of Desired Future Conditions and Objectives provides information about what has been accomplished to reach the original desired future conditions and/or if the objectives outlined in the current Forest Plans are being met. Some of the desired conditions have been achieved, some have not.

Current Conditions and Trends discusses the current conditions in more detail and points out important trends that 1) have influenced whether the desired conditions were achieved and/or 2) may influence the ability or desire to continue working toward the same desired conditions.

Major Changes since 1990 notes changes that have affected management or resource conditions. These include changes in agency direction or policy, changes in resource conditions due to factors other than management activities, or other factors that were not anticipated in the current Forest Plans but had important impact on the current conditions and how they are managed. These changes may explain why some expected conditions did not occur.

Areas of Concern are based on the information in each of the previous subsections. This is an evaluation of the current conditions and the current Forest Plan direction. The Areas of Concern provide an initial list of issues where revision of current forest plan direction may be considered. The Areas of Concern may be related to one or more of the following factors:

- Resource conditions that are not favorable and do not appear to be moving in the right direction (for numerous reasons);
- Continuing trends that would not lead to desirable conditions based on current science;
- Current management direction that does not reflect recent science;
- Desired Future Conditions or other factors that may no longer be appropriate.

These factors will be considered in determining proposed changes to the Forest Plan. However, the revision of the Forest Plan may not be the appropriate solution for some of the concerns in this section. Some concerns may need to be addressed through site-specific, project level planning efforts or through other administrative or decision-making processes. Some concerns may be outside the scope of issues considered through the forest planning process and may need further study or analysis beyond the forest plan revision process. Chapter 4 of the *Final* CMS will be expanded to further address the areas of concerns and need for change that will guide revision of the Forest Plans.

Social Well-Being

Collaborative Stewardship

Collaborative Decision-making

Status of Desired Future Condition and Objectives - Collaboration is not new in the history of the Blue Mountains. For the most part, people from broad-based interests are used to coming together to achieve a goal. Collaboration between local, state, federal agencies, tribes, and other organizations continues to provide the necessary foundation for getting work done in the Blue Mountains. Watershed councils and nonprofit organizations have emerged based on the public's desire to be more involved in management of natural resources and decision-making processes. These interests have culminated in a variety of community-led efforts with the overall goal of restoring natural systems and functions while providing opportunities for the local workforce. Many of these efforts have received national recognition for their innovation in finding flexible approaches to restoration and their commitment to stewardship of the Blue Mountains ecosystems and communities.

Current Conditions and Trends - Monitoring of collaborative stewardship has not occurred in any specific way since the Forest Plans were signed in 1990. However, linking benefits to local communities as part of managing natural resources in a sustainable way has become more clearly identified as a sign of successful collaboration. Communities, organizations, and local, state, federal agencies and tribes have invested in training and people to gain the skills for collaboration.

Initial assessment results completed as part of the forest plan revision process indicate an overall affirmation of the capacity and continued interest in these efforts in the Blue Mountains. People have a lot of ideas for focusing more on integrating multiple planning efforts such as the community fire plans, subbasin plans, and preparing for new national direction. They see this as strength for furthering the goals of ecosystem restoration while adapting to declining levels of resource investments.

Major Changes since 1990 – Several instrumental changes have occurred in the last 10-15 years that have resulted in emphasizing more collaborative partnerships to accomplish ecosystem restoration work. Specific changes include more flexibility to invest in restoration activities and accomplish stewardship work through contracts. In addition, several counties, groups, and watershed councils have organized their efforts to improve their involvement in natural resource decision-making processes

In 1990 the Blue Mountains Natural Resources Institute was started and provided a focus for science-based research specific to the area. In the mid 1990s the Oregon Governor's Watershed Enhancement Board was also formed and provided the impetus to the formation of several watershed councils. Sustainable Northwest initiated a community, field-based sustainability partnership in Wallowa County resulting in the creation of Wallowa Resources, a non-profit organization that focuses on partnerships working cooperatively to improve and restore ecosystem and community health.

In 1998, the State of Oregon, the Forest Service, and the Bureau of Land Management committed to managing work and programs in ways that incorporated and maximized the social and economic needs of local communities. The national forests in the Blue Mountains established a provincial approach to align natural resource work with improving the health and vitality of watersheds and associated communities in response to this commitment (USDA 1999a). As a result, the Forest Service began to focus attention on local social and economic needs in all procurement and management actions.

In 1999, the State of Oregon and the Forest Service established the Blue Mountains Demonstration Area as a place where ecosystem restoration would be accelerated while benefiting local communities. The John Day/Snake Resource Advisory Council (RAC) also began meeting during this

time as an official federal advisory committee to represent citizen concerns and provide advice and recommendations on public land management activities in the Blue Mountains.

In addition, Resource Advisory Committees (also called RACs) were formed under the *Secure Rural School and Community Self-Determination Act of 2000.* This law responded to the decline in payments that counties have historically received based on the receipts from activities on federal lands within the county boundary. These payments have traditionally been used to support schools and roads. The Resource Advisory Committees were formed to recommend how funds from Title II of the Act should be allocated to project work, improve collaborative relationships, and provide advice and recommendations to land management agencies.

In 2003, the *Healthy Forests Restoration Act* was passed and the Healthy Forests Initiative began providing a specific opportunity for communities to empower themselves to reduce the risk of fire to the areas around their communities. Several communities in the Blue Mountains are currently developing community fire plans in collaboration with the Forest Service and other agencies in response to this legislation.

Areas of Concern - Although many of the natural resource management efforts in the Blue Mountains are currently accomplished in a collaborative manner, there are several overlapping planning processes underway that are attempting to establish multiple-resource objectives over various timeframes. The Blue Mountains forest plan revision effort is one more planning process that is straining agencies and people's collaborative capacity and ability to participate in a meaningful way.

Institutional and Community Capacity

Community Resiliency

Status of Desired Future Condition and Objectives - Monitoring of community-level impacts was not identified in the Forest Plans. Changes in population were not anticipated to grow more than 15-20 percent across the planning area. The total population in 1990 (202,000) grew by 15 percent in the impact area to 232,000 in 2003 and is within the range expected.

Current Conditions and Trends - Some individual counties have experienced changes outside the expected range. Morrow County has grown the most (53 percent) followed by Umatilla County (21 percent), while Asotin and Walla Walla counties both grew by 17 percent. Grant County population has declined by 5 percent, while the remaining counties have experienced slight growth (2-8 percent). The overall population in the states of Oregon and Washington grew by about 25 percent over the same time period.

Walla Walla County is the most densely populated county in the planning area with 44.7 people per square mile, followed by Asotin (32.5 person/square mile) and Umatilla County (22.4 persons/square mile). Harney County is the least densely populated (0.7 persons/square mile) followed by Wheeler (0.9 persons/square mile) and Grant County (1.6 persons/square mile). The following figure illustrates the overall change in population (U.S. Census Bureau 2004).

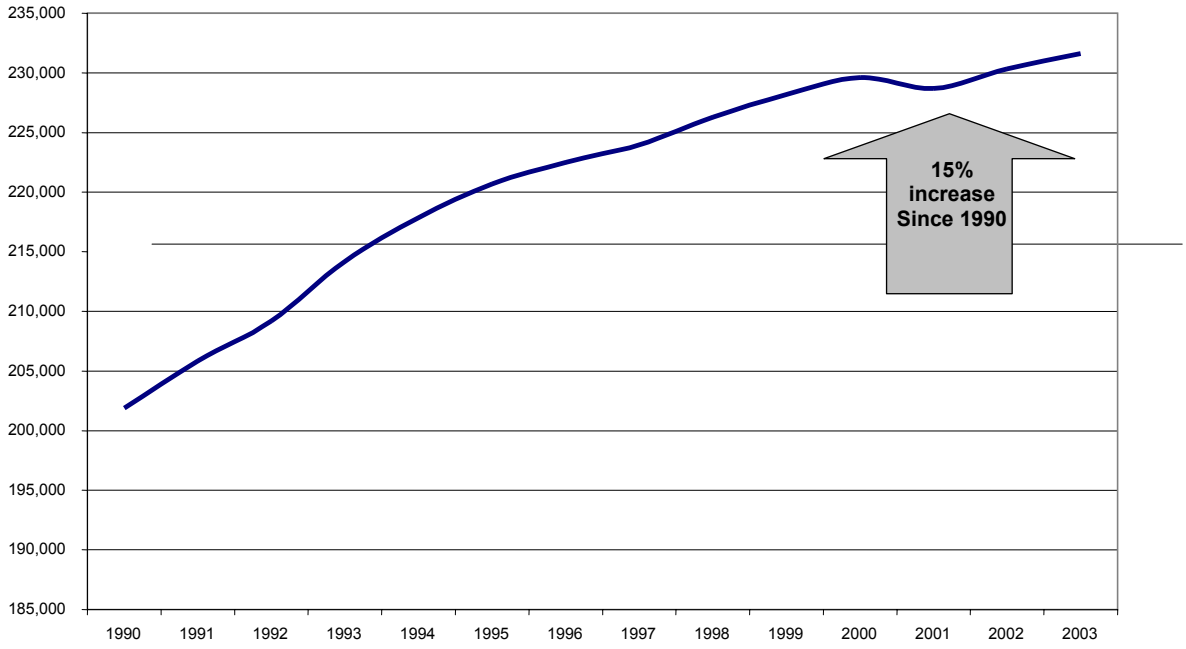
Per capita income provides a relative indication of social and economic well-being in the counties in the impact area. It takes into account both population and income changes, although it does not address income distribution. It does reflect the different income sources to individuals in terms of earnings, interest payments, capital gains and pension payments.

Per capita personal income is total personal income divided by the estimated population. Per capita income (2004 dollars) across the impact area is approximately $26,340, and has risen by 20 percent since 1990. Asotin County experienced the most change in per capita income (+34 percent) followed by both Grant and Columbia counties (+29 percent). The least amount of change in income occurred in Morrow and Columbia counties (+24 percent). Baker, Harney, Morrow, Umatilla, and Wheeler income levels are below the average for the area and Grant, Union, Wallowa, Asotin,

Garfield, Columbia, and Walla Walla are above the average. This area lags behind the statewide average per capita income of $29,585 for Oregon and $33,536 for Washington which grew by 24 percent and 28 percent, respectively (U.S. Bureau of Economic Analysis 2004).

Socioeconomic resiliency ratings estimate the social and economic sensitivity of areas to outside influences. Most of the Blue Mountains include rural communities that have few opportunities to diversify. Based on findings from the ICBEMP, seven of the counties have been identified as containing low levels of resiliency, one is rated medium and four are rated high (Quigley and Bigler Cole 1997).

Figure 4 – Blue Mountain Counties Total Population 1990 - 2003



Major Changes Since 1990 - Globalization of national and international economies has strongly influenced Oregon and Washington economies as well as the nation's, and these changes have had varying effects across the Blue Mountains.

Rural areas have not experienced growth at the same level as the statewide averages. A widening gap between socioeconomic conditions for rural and urban areas is occurring. In addition, the aging of the rural population is replacing natural resource employment with lower-income retirees which is changing the composition of rural communities (State of Oregon 2003).

The ICBEMP and other new information sources have identified various measures of social and economic well-being based on a wide variety of factors that may provide better understanding of changes to community resiliency.

Areas of Concern - Land management activities are major factors affecting local economies and rural community sustainability in the area. The current management direction and monitoring does not adequately recognize and link ecosystem restoration and maintenance activities to changes in social and economic well-being for communities in the Blue Mountains. As a result, some areas of social and economic change due to management activities are being overlooked such as changes in school enrollment, public assistance claims, poverty rates, or seasonal unemployment. Ecologically

sustainable investment and development is a key concern for communities in the area to maintain or improve their socioeconomic conditions and way of life. A better indication of how communities' social and economic well-being are linked to natural resource management activities from the Blue Mountains national forests and other partners is needed.

Government-to-Government Relationships

Status of Desired Future Condition and Objectives – as a distinct objective, Government-to-Government relationships with American Indian tribes was not identified in the current Forest Plans. The topic was vaguely addressed under cultural resources and to a much lesser extent under fisheries and wildlife. Focus was on identifying, protecting, interpreting, and managing significant cultural resources with a goal of preservation. The Forest Plans also directed the forests to recognize treaty rights of tribes.

The evolution of this responsibility is highlighted by the development of formal agreements defining consultation and coordination protocols with area tribes that ceded lands while reserving certain off-reservation rights. A significant portion of those ceded lands are now under the management of the Blue Mountains national forests. The forests have also recently entered into a protocol agreement with a federally recognized tribe that holds no reserved off-reservation rights.

Conditions and Trends – Increased communication between tribal governments and Forest Service line officers (Forest Supervisors and District Rangers) have improved relationships over the years. Discussions defining expectations and needs of all parties have reduced misunderstandings while working toward identifying common ground. Staff-to-staff communications have increased and have led to a better understanding of the significance and interconnectedness of resources within tribal cultures.

Within the Forest Service, tribal relations' training is ongoing and has improved understanding and development of government-to-government relations. Projects are developed that focus on mutual benefits toward forest and watershed health and tribal cultural stability. Some forests have adopted, when practicable, "Wy-Kan-Ush-Wi Wa-Kish-Wit" (The Spirit of the Salmon), the Columbia River Anadromous Fish Restoration Plan of the Nez Perce, Umatilla, Warm Springs and Yakama Tribes developed by the Columbia River Inter-Tribal Fish Commission (CRITFC).

Major Changes since 1990 – Federal American Indian policies and direction has been better defined through numerous Executive Orders regarding consultation and coordination, sacred sites, protection and enhancement of the cultural environment, Environmental Justice, and regulatory planning and review. In addition Memorandums of Understanding (Government-to-Government Relations-1994), Secretarial Orders, Laws and case laws such as Klamath Water Users Protective Association v. U.S. Dept. of the Interior-1999, Washington v. Buchanan-1999, Minnesota v. Mille Lacs Band of Chippewa Indians-1999, have also defined and redefined government-to government relationships. New pending legislation and court decisions have and will continue to adjust and define policy and direction which is also reflected in updated Forest Service manual direction.

Tribal government capacity has increased steadily and tribes are better staffed to respond to proposals and to develop mutually beneficial proposals. Tribal representation and involvement on Resource Advisory Councils and Committees (RACs) has helped to integrate and address tribal needs, promote a better understanding of those needs, improved relationships within the Blue Mountains Province, and yet has not compromised tribal sovereignty.

Areas of Concern – Interests and concerns of tribes and/or tribal input is rarely integrated in planning documents, including the current Forest Plans. These concerns are often found in the heritage resource component. Recognition of tribal cultures/communities as strong, vibrant, contemporary entities with socio-economic and natural resource interests is necessaryl to fulfilling the Environmental Justice responsibilities in project planning. Integration and discussion, within the various functional areas of planning documents (such as water quality, fisheries, recreation, and travel management), of tribal customs and culture concerns and possible effects of projects to tribal

rights, customs and cultures, including recognition of the cumulative effects of activities on reserved rights resources, across ceded landscapes is also needed.

Government-to-government consultation with area treaty tribes holding reserved rights and executive order tribes without reserved rights needs to continue. Consultation should begin early in the development of project proposals and continue on a regular basis as defined in consultation and coordination agreements. This includes regular communication between forest and tribal staff members.

Social and Cultural Values

Aesthetics and Solitude

Visual Quality Objectives/Scenery Management

Status of Desired Future Condition and Objectives - No visual corridor management plans have been amended into the Forest Plans. Visual Quality Objectives were monitored, and usually met. Priority for monitoring was timber harvest and other activities taking place along scenic corridors identified in each Forest Plan.

Current Conditions and Trends - The social assessment for the ICBEMP explains the procedures used to inventory scenic quality throughout the basin using two primary indicators: landscape character and scenic condition. At the broad scale, the landscapes are forests and shrub-grasslands having a predominately-natural appearance. Urban and rural developments visually dominate relatively few of the basin's landscapes although they are highly visible where they do occur. The overall scenic integrity of the landscapes in the basin remains at a relatively high level with over 80 percent dominated by naturally appearing views (Galliano and Loeffler 2000).

Results from the 2002 National Visitor Use Monitoring (NVUM) Surveys indicate that visitors found components such as "scenery" and "condition of the environment" to be both highly satisfactory, and highly important to their recreation experience across the Blue Mountains.

Scenic corridors within the Malheur National Forest were modified by site-specific, non-significant Forest Plan Amendments. These decisions allowed timber harvest activities to take place in the foreground of visual corridors prior to completion of viewshed corridor plans. Most of these activities were timber stand improvement projects which removed trees affected or threatened by insects and disease, and improved wildlife habitat to meet the long-term desired conditions for forest health and wildlife. The treatments met the Visual Quality Objectives and were designed to maintain the future ability to manage the corridors in a holistic manner.

Major Changes since 1990 - In 1994, the *Landscape Aesthetics: A Handbook for Scenery Management* (USDA 1995c) was developed to direct the Forest Service in implementing the Scenery Management System. This system is similar to the older Visual Management System, but applies biological and social considerations to manage aesthetic resources in a more holistic manner. Current national direction is to integrate the new Scenery Management System into the forest plan revision process. This approach will focus on the links to other agency programs and provide an objective process for assessing constituents' preferences and expectations for the character of the landscape. It also presents a range of scenic integrity levels based on the condition or wholeness of landscape character and suggests a systematic approach for developing landscape character goals.

Areas of Concern – In scenic corridors and other areas where the emphasis was on retaining natural appearing conditions, the landscape may be at risk from ecological processes. In the long term, the landscape integrity may be compromised.

Cultural Values and Historic Features

Status of Desired Future Condition and Objectives - Strong educational and volunteer program projects like Passport in Time attract public participation in identifying and understanding these resources. Improved consultation processes with a variety of affected American Indian tribes have

increased effectiveness and contributed towards development of a strong program in heritage resource management. An estimated 80 percent of the Umatilla National Forest has had initial cultural resource surveys completed. While the Malheur and Wallowa-Whitman National Forests have surveyed a smaller percentage of the forests, surveys were completed to support project-level work prior to ground-disturbing activities.

Current Conditions and Trends - With thousands of recorded historic and cultural sites located across the three forests, impact monitoring is only done on a small percentage each year. Survey and monitoring activities are focused in areas where ground-disturbing activities are planned and the risk of site damage is highest.

Major Changes since 1990 –There have been several new laws and executive orders enacted since the Forest Plans were signed including:

- Amendments to the *National Historic Preservation Act* (1992)
- The *Native American Graves Protection and Repatriation Act of 1990*
- *Sacred Sites Act,* (Executive Order #13007 1996)

These additions, along with recent legal decisions have strengthened laws in place for the protection of important heritage resources. They have also assisted the Blue Mountain national forests to build relationships with interested and affected tribal entities and traditional practitioners.

Areas of Concern – While sites impacted by management activities are protected, many other historic and cultural sites have continued to deteriorate from neglect and vandalism. Inventories need to be updated, and sites eligible for special recognition including those eligible for the *National Register of Historic Places* need to be properly nominated. Current monitoring reports indicate that grazing activities, mining activities, and unmanaged recreation (such as cross-country travel by OHVs) pose a high level of concern to heritage resources. Heritage resource managers are also concerned about the backlog of deferred maintenance on historic structures, and disposal of historic structures.

Special Places

Scenic Areas and Special Interest Areas

Status of Desired Future Condition and Objectives - Across the national forests of the Blue Mountains, areas were designated as "Special Interest Areas" within the current Forest Plans. Many of these areas have been identified on Forest Visitor Maps, and a few of the special areas on the Malheur National Forest have interpretive loop trails within the special area designated as National Scenic Trails.

Current Conditions and Trends - Special Areas identified on the Forest Visitor Maps may be classified as minor interpretive sites or "trailheads" and their condition most likely fluctuates with budget conditions. Across the Blue Mountains, developed day use areas scored low in visitor satisfaction of "recreation information availability" and "signing". These areas were also rated as highly important to the visitors in the 2003 NVUM surveys.

Major Changes Since 1990 - Direction guiding Special Interest Areas has not changed since the plans were written.

Areas of Concern - Special Interest Areas are likely to remain highly popular and heavily used. These sites have a developed site component that needs maintenance as covered in the Built Infrastructure section below.

Scenic Byways

Status of Desired Future Condition and Objectives - Scenic byways have been developed and are a popular means for linking the forest with local communities. Those routes are generally in better condition than other roads across the forests.

Current Conditions and Trends - Five unique scenic byways traverse portions of the national forests in northeast Oregon, and are widely supported as a means of linking the three forests with local communities. The Elkhorn Scenic Byway, the Blue Mountain Scenic Byway, the Journey through Time Scenic Byway, The Grande Tour, and the Hells Canyon Scenic Byway are broadly supported as a way to display the diversity of the area and to increase tourism. In the 2003 NVUM survey, "driving for pleasure", "viewing wildlife", and "viewing natural features" are consistently in the top five activities that forest visitors enjoy nationwide, within the Pacific Northwest, and especially on the three national forests of the Blue Mountains. Seasonally, the road conditions vary, but these are primarily well-maintained forest, and state, or county roads.

Major Changes since 1990 - Most of the scenic byways have been established since the current Forest Plans were implemented. The Forest Plans have not been amended to include the Scenic Byway Plans.

Areas of Concern – There are no major concerns with these routes, and a high level of scenic integrity is maintained.

Wild and Scenic Rivers

Status of Desired Future Condition and Objectives - Increased use and increased accommodations along busy river corridors have resulted in a variety of impacts across the three national forests of the Blue Mountains. Forest Plans have been amended to include river management plans for the majority of the rivers designated under the *Wild and Scenic Rivers Act* within the national forests. The Wenaha River on the Umatilla National Forest is the only one that does not have a detailed river management plan.

Table 5: Miles Of River Segment In Categories/Designations

River Name	Length & Classification	Outstandingly Remarkable Values
Eagle Creek	4 wild 6 scenic 17 recreation	Scenery, Recreation, Geology/Paleontology, Fisheries, Historic Cultural Resources
Grand Ronde River	17.4 wild 1.5 recreation	Scenery, Recreation, Fisheries, Wildlife
Imnaha River*	15 wild 4 scenic 58 recreation	Scenery, Recreation, Fisheries, Wildlife, Historic/Prehistoric, Vegetation/botanical, and Traditional values/Lifestyle adaptation
John Day River, North Fork	27.8 wild 10.5 scenic 15.8 recreation	Scenery, Recreation, Fisheries, Wildlife, Historic Resources
Joseph Creek	8.6 wild	Scenery, Recreation, Geologic, Fish And Water Quality, Wildlife, Cultural Resources
Lostine River	5 wild 11 recreation	Scenery, Recreation, Fisheries, Wildlife, Vegetation/Botany
Malheur River	6.0 scenic 6.0 wild	Fisheries, Wildlife, Recreation, Scenery
NF Malheur River	25.5 scenic	Scenery, Geology
Minam River	39 wild	Scenery, Recreation, Geology, Fisheries, And Wildlife
North Powder River	6.0 scenic	Scenery, Recreation
Rapid River	26.8 wild	Traditional use/cultural, prehistoric cultural resources, historic cultural resources, scenery, fisheries, and water quality
Snake River*	32.5 wild 34.4 scenic	Scenery, Recreation, Historic/Prehistoric Cultural Resources, Botanical, Wildlife, Geology
Wenaha River	18.7 wild 2.7 scenic 0.2 recreation	Fisheries, Geology, Scenery

*Wild and Scenic Rivers within analysis area for the Hells Canyon National Recreation Area Comprehensive Management Plan will be supplemented by management guidelines for that 2003 plan

Current Conditions and Trends - Monitoring and protection of Outstandingly Remarkable Values along designated wild and scenic river corridors is ongoing, and evaluation is done on projects within the corridors to make sure they are commensurate with planning guidelines for the Wild and Scenic Rivers.

A recent lawsuit has been filed regarding livestock grazing on both the North Fork of the Malheur, and the Malheur Wild and Scenic Rivers on the Malheur National Forest. Plaintiffs have alleged that the forest's actions and inactions with respect to livestock grazing violate several environmental statutes, including protection of the outstandingly remarkable values for these wild and scenic rivers.

Major Changes since 1990 - Additional wild and scenic study rivers were identified through agreements with appellants of the original Forest Plans. Although some of the eligibility assessments were completed, no amendments were made to the Forest Plans. There were no formal suitability recommendations.

Areas of Concern – Study rivers have not been clearly identified in the Forest Plans. There is a concern that the Outstandingly Remarkable Values of these streams may be compromised.

Wilderness

Status of Desired Future Condition and Objectives - Wilderness management plans are in place for each of the seven wilderness areas on the Blue Mountain national forests. The level of detail and diversity of specific resource management plans varies (for example fire, weed, air quality, information, and rehabilitation plans may either be incorporated in a larger plan, or specifically singled out). Limits of Acceptable Change assessments need to be completed to determine baselines for issues relative to outfitter and guide use, trail reconstruction, and permanent structure removal. Temporary structures within wilderness are removed on an as-needed basis as envisioned in the Forest Plans; while permanent, government–owned structures within the wilderness areas are still used on a limited administrative basis.

Current Conditions and Trends - The table below shows the amount and distribution of existing wilderness areas across the Blue Mountains. According to the *2001 Forest Plan Monitoring and Evaluation Report* (USDA 2002), most of the monitoring has been field observations.

On the Malheur National Forest, "violations of wilderness rules and regulations were minimal, the pristine area maintained its character, the primitive area retained its characteristics and met the management objectives" for both Monument Rock and Strawberry Mountain Wilderness Areas (USDA 2002).

The Umatilla National Forest reports state that "…the amount of non-conforming use is at a low enough level that wilderness values are not being damaged." Wilderness standards are being met for the Wenaha-Tucannon, North Fork John Day, and North Fork Umatilla Wilderness Areas.

For the Wallowa-Whitman National Forest, monitoring for the Eagle Cap and Hells Canyon Wilderness Areas was inconclusive for determining if the wilderness is being managed according to management direction and provisions of the *Wilderness Act*. Minimum maintenance is done on trails within the Baldy Creek unit of the North Fork John Day Wilderness, and non-conforming uses include all-terrain vehicles and mountain bike encroachment. Within the Wallowa-Whitman portion of the Monument Rock Wilderness, all of the trails were maintained; however, Forest Service presence was minimal during the visitor use season.

Major Changes since 1990 - Forest Plan wilderness management direction has been supplemented by the *Hells Canyon National Recreation Area Comprehensive Management Plan* (USDA 2003a). This direction applies to the Hells Canyon Wilderness.

Areas of Concern – Encroachments and non-conforming uses, though limited in scope remain a concern to managers and visitors alike. Trail maintenance, and rehabilitation of heavy-use sites is an ongoing area of concern. Assessment of suitable uses, specifically outfitter-guide services on the Malheur National Forest Wilderness areas, has not been done. Outfitter/guide permit applications in the Strawberry Mountain and Monument Rock Wilderness Areas are not being accepted at this time since the evaluations for these uses have not been completed; a site-specific plan may be needed to determine the suitability for these permits. Final decision on the Roadless Rule may affect potential for future wilderness designation.

Table 6: Existing Wilderness Areas by National Forest		
Name	**Acres of Wilderness**	**Percent Wilderness**
Malheur -		4.8%
Strawberry Mountain	69,350	
Monument Rock	12,620	
Umatilla -		21.7%
Wenaha-Tucannon	177,432	
NF John Day	107,058	
NF Umatilla	20,435	
Wallowa-Whitman		24.5%
Hell's Canyon	214,994	
Eagle Cap	350,461	
Monument Rock	7,030	
NF John Day	14,294	
Totals	**973,674**	**17.7%**

Hells Canyon National Recreation Area (HCNRA)

Status of Desired Future Condition and Objectives - An Environmental Impact Statement (EIS) was completed and a Record of Decision was signed in July 2003 updating the management direction for the HCNRA. Emphasis is on retaining the broad range of high-quality recreation settings and opportunities while emphasizing maintenance of the rustic and primitive character of the area.

Current Conditions and Trends - This area receives high seasonal levels of water-related dispersed and developed use. Non-water-related recreation also occurs, ranging from very primitive backcountry wilderness experiences to driving a scenic byway through two states and several mountain ranges. Hiking, horse packing, and viewing wildlife and natural features, are just a few of the diverse recreation opportunities available in this area.

Major Changes since 1990 - The Forest Plan was amended with new management direction for the HCNRA in 2003. The new management direction, in addition to the Forest Plan direction for the HCNRA, will continue to be implemented as intended in this decision.

Areas of Concern - There is management direction for the HCNRA that is still being implemented under the current Wallowa-Whitman National Forest Plan as amended (for example, PACFISH and the grazing utilization standards). This direction will be evaluated in the forest plan revision process to determine whether or not there are additional needs for change. All of the current direction for the HCNRA including the recent amendment would be reviewed to determine if there were any further compelling needs for change. Because management of the HCNRA was recently reviewed and amended, it is not anticipated that major changes for the HCNRA will occur as a result of the revision of the Forest Plan.

Recreation and Tourism

The Blue Mountain national forests provide a variety of recreation opportunities from highly developed downhill skiing facilities to remote wilderness. The recreation resources are described and managed in terms of recreation opportunities, using the Recreation Opportunity Spectrum (ROS). The ROS inventory identified five physical/social settings on the three forests. (See Table 7). Within the ROS settings, the forests provide two principle types of recreation: developed recreation sites, in which activities are dependent on constructed facilities (such as RV camping, downhill skiing, and recreation residences); and dispersed recreation, where the activities are not dependent on constructed facilities (such as hunting, fishing, and OHV use).

Table 7: Acres of the National Forest Lands in each Recreation Opportunity Spectrum (ROS) class						
National Forest	**Primitive**	**Semi-primitive non-Motorized**	**Semi-primitive motorized**	**Roaded Natural**	**Roaded Modified**	**Rural**
Malheur*	81,300	45,600	140,100	748,100	444,400	
Umatilla	36,000	269,000	6,000	119,000	972,000	
Wallowa-Whitman	590,815	269,000	260,200	985,600	242,100	1,500

* may not include Emigrant Creek Ranger District lands formerly administered by the Ochoco National Forest.

Developed Recreation Sites

Status of Desired Future Condition and Objectives - Improvements to developed recreation sites have been made to reduce the deferred maintenance backlog, provide support to volunteer hosts, and to build or maintain facilities in compliance with the *Americans with Disabilities Act* (ADA).

Some developed sites have been downgraded to "dispersed areas" and facilities have been removed. Developed sites at selected high use sites have been upgraded to meet ADA and other standards. New forms of recreation have been accommodated through the cabin rental program and through state and local partnerships with nordic skiers, snowmobile clubs, equestrian groups, and OHV riders. Outside funding and partner organizations have been instrumental in increasing the diversity of recreation opportunities across the three forests.

Current Conditions and Trends - Facility infrastructure continues to have a backlog of deferred maintenance needs. Sites are slowly coming into conformance with ADA standards. Capitol improvement projects have upgraded some high use sites and agreements with other recreation providers and volunteer groups have resulted in improved sites at many locations.

The Oregon *State Comprehensive Outdoor Recreation Plan* (SCORP) (State of Oregon 2003) survey specifically identified two major developed facility-related issues in this planning region of Oregon. Funding priorities established in the report were for major rehabilitation of outdoor recreation facilities (paving, OHV areas, watchable wildlife areas, and ADA accessibility), and for winter recreation facilities (snow parks, snowmobile parking, trail shelters, and winter RV parking).

The October 2002 *Assessment of Outdoor Recreation in Washington State* (Eychaner 2002) reported that a growing demand is resulting in more reported crowding, increased specialization, increased user conflicts, and increased management actions to limit adverse impacts to access and activities.

The top five most popular activities across the Blue Mountains involve developed facilities according to the 2003 NVUM surveys. Developed campgrounds and picnic areas remain popular, as are developed fishing sites. In some of the developed sites, a few visitors had the overall impression that the site was crowded, but it was not a prevailing issue with those surveyed.
The demographic results from the NVUM surveys indicate that the "average visitor" to the Blue Mountain national forests is: male (77 percent), between 41 and 60 years old (45 percent), and white (97 percent). The vast majority of visitors come from counties contiguous to the forest boundaries, about 38 percent of them stay overnight on the forests, and the average length of their stay is 31 hours. The national forests serve as "backyards" to moderate population areas for activities that are not often available in the private sector (viewing scenery and wildlife, developed and primitive camping, hiking, and walking).

Major changes since 1990 - The *1996 Interior Appropriations Act* included the Recreational Fee Demonstration Program, commonly referred to as the Fee Demo Program (PL 104-134). This authority has been implemented across the national forests of the Blue Mountains and provided supplemental funding for operations, maintenance, and improvements on a program-specific or site-specific basis.

Areas of Concern - A low percentage of sites in developed areas are designed to meet ADA guidelines, and the backlog of deferred maintenance continues to increase. Adaptation to new uses (longer and wider recreational vehicles (RV's), OHV camping, and equestrian use) is slow and may not meet the needs

of current visitors. National standards for health and cleanliness, safety and security, recreation setting, responsiveness, and condition of facilities may not be met at all developed sites.

Dispersed Recreation

Status of Desired Future Condition and Objectives - Big game hunting, relaxing, and gathering forest products (such as berries, mushrooms, and fuelwood) and most fishing take place in a variety of dispersed recreation settings. The acres of semi-primitive opportunities have decreased slightly in some areas due to road construction. The supply of semi-primitive recreation still exceeds the demand as predicted in the current forest plans, but some site-specific displacement of individual users may have occurred due to road closures. Although user density may have increased over the past decade, user conflicts are minimal.

Current Conditions and Trends - In the current Forest Plans, uses allowed within the Management Area guidelines are specific to the intensity of development within the Management Area itself. Summer and winter motorized use is increasing. Winter activity takes place largely on trail systems, (see the Trails section under Built Infrastructure). The off-highway vehicle section below also discusses this growing segment of recreation use.

The national forests are the primary provider nationwide of dispersed recreation opportunities (*National Survey on Recreation and the Environment 1999-2002* (USDA 2003)). Potential activities that take place on national forest lands (that have not been previously discussed) where the Forest Service is most likely the "primary provider" include: rustic motorized and non-motorized camping, hunting, viewing scenery and wildlife, nature study, orienteering, geocaching, "hanging out and relaxing," fishing, gathering forest products, hunting, hang gliding, parasailing and paragliding, and target shooting.

Nature and natural settings play an important role in many activities by category and type. There is a high participation in observing and photographing the outdoors, especially wildlife, as well as continued participation in nature-dependent activities of hunting and fishing, all of which indicates the importance of preserving habitat for fish and wildlife.

Major Changes since 1990 - Use in these less developed areas of the three forests is dependent on forest roads for access. Implementation of the current Forest Plans, as well as significant plan amendments including PACFISH and INFISH, have begun to reduce road densities and motorized in certain watersheds.

Areas of Concern - Dispersed recreation is a major niche that many visitors highly value. Visitors who use the forest for dispersed activities choose to do so for varying reasons, the most often heard is "I want to just get away from it all". Because the budget focus is on more tangible, developed site activities and facilities, these areas of the forests receive little administrative presence. The result is increased user conflicts and potential for resource damage. The issue most common to all dispersed use visitors is access and motorized use, with debate about road density, maintenance, and closures. One area of enhanced concern to the resource is the user conflicts that often occur in the heavily used riparian areas across the national forests.

Off-Highway Vehicle Use

Status of Desired Future Condition and Objectives - Objectives in the current Forest Plans included providing a wide variety of recreation settings, opportunities, and experiences based on the Recreation Opportunity System (ROS) of identifying suitable management activities across the national forest.

Current Conditions and Trends - Since 1989, off-highway vehicle (OHV) use of national forests has changed dramatically. This overall increased use is also occurring across the Blue Mountains. Factors such as an increase in recreationists with more disposable income, advanced technologies and abilities for OHVs, and an aging population, has led to an increase in use. However, not all OHV users are pursuing recreational activities, and use is not limited to roads and trails. The traditional high use

periods of mid-summer and early fall have also been expanded due to increased hunting seasons and riders using the machines for new activities. Some general user categories and uses are:

Variety of Users:
- Hunters – estimated to be more than 75 percent of tri-forest users
- Trail and road riders – families, individuals, and small groups.
- Cross-country users – explorers, antler hunters, and mushroom pickers
- Forest Service permittees and adjacent landowners
- Organized clubs and events riders
- State and federal administrative use
- Extreme riders – less than 1 percent

Variety of Uses:
- Cross-country travel – exploring, retrieving game, hunting antlers, and picking berries
- Long distance routes – long day loops
- Family recreation – short rides and loops; "tot lots" and play areas.
- Personal challenges – hill climbing, rugged terrain, variety and difficulty of trails.
- Permit related – fence maintenance, utility corridor inspection, Forest Service surveys and monitoring
- Adjacent property and home related use – short trips to visit neighbors, or going to local markets.

Variety of Seasons:
- Spring - Winter: hunting
- Summer: vacation and leisure-time use
- Year-round: local resident use

Major Changes since 1990 - In 2003 a tri-forest off-highway vehicle (OHV) management strategy was completed that prioritized critical issues and areas across the three national forests in the Blue Mountains. This strategy was initiated by a change in the Oregon State law regarding OHV use on Forest Service roads and areas. The strategy sought to address the differences in the three forests. For example, the Umatilla National Forest is currently designated as "closed unless posted open" for cross-country OHV travel. While the Malheur and Wallowa-Whitman National Forest have specific areas that are closed for all or portions of the year, they have no forest-wide policy. This situation has led to confusion and lack of compliance across the three forests.

The 2003 SCORP survey revealed that in northeastern Oregon, motorized activity has increased with almost all types of riders since 1987. Specifically, four-wheel use has increased 48 percent, OHV riding 46.6 percent, motorcycle use 73.1 percent, and snowmobiling 10.1 percent. Since the Blue Mountains offer many opportunities for these types of activities, these trends are valid for the three forests.

Areas of Concern - As discussed in the Related Planning Efforts section of Chapter 2, there is a need to improve management of off-highway vehicle use. Areas across the Blue Mountains will need to be evaluated during the forest plan revision process to determine the suitability of road and trail OHV use, as well as cross-country motorized use. Natural resource impacts, desirable levels of use, safety considerations of mixed vehicle use, and social concerns relative to law enforcement, neighboring landowners, and changing national policy direction are all considerations.

Customs and Cultures

Status of Desired Future Condition and Objectives - Although the Forest Plans specify expanding the stewardship role of the forests to provide amenities such as aesthetics; recreation and spiritual values; and maintaining lifestyles, attitudes, beliefs and social organizations, they did not establish specific objectives that could be readily monitored to determine whether changes were beyond those expected.

Current Conditions and Trends - People in the various communities across the Blue Mountains and people that do not reside in this area hold widely varying attitudes, beliefs, values and perspectives about the ecosystem. Values also reflect different views held by people about whether the ecosystem

provides value independent of utilitarian motives by people or as some function of providing uses to humans. These differences can generally be characterized as commodity and non-commodity values. Commodity values such as timber, minerals, water, and range often contrast with non-commodity values for recreational, ecological, spiritual, and aesthetic values (Steel 1994).

Eastern Oregon residents as a whole indicate preferences for a quality place to live, outdoor recreation, and wildlife habitat (Brunson and others 1994). However, most residents of Oregon "want the forestland of the state to be managed for a balance of social, economic, and environmental benefits" (Davis, Hibbits, and McCaig 2001).

Residents of the broader interior Columbia Basin that encompasses portions of Oregon, Washington, Idaho, Montana, Nevada, and Wyoming reveal top priorities for protection of forests, rangelands, and wilderness. The majority (76 percent) of these residents favor protecting watersheds, fish and wildlife habitats, endangered species, ecosystems, and wilderness (Haynes and Horne 1997).

In a survey of the American public and their values about forest and grassland management, the majority of the public agreed that people should be concerned with how public lands are used (91 percent). They also agreed (84 percent) that "future generations should be as important as the current one" in decision-making processes that affect public lands. The role of public lands is mixed on whether jobs and income for local people is the most important with 41 percent disagreeing while 33 percent agreed. The rest of the public (26 percent) was neutral on this point (Shields and others 2002).

Major Changes since 1990 - The ICBEMP provided a foundation of knowledge and information on social values related to federal lands at the broad-scale. Several studies were completed that provide a greater understanding of how management affects various social values. The findings indicate people support environmental protection as a social priority, but are increasingly concerned with balancing costs to society (USDA 1996).

Sense of place, or how people attach meanings to places in the landscape, has emerged as a strong influence on collaborative, community-based partnerships and planning processes which has implications for natural resource politics (Cheng, Kruger, and Daniels 2003).

More recognition of social values as part of the 'human dimensions' of natural resource management and conflicts has resulted in the development of many techniques to enhance and support decision-making processes (Hall and Bigler Cole 2001).

Areas of Concern - Although more attention has been placed on integrating social values into the planning framework, the current Forest Plans are vague about integrating ecosystem needs and social values in the context of sustainability.

Ecological Integrity

Landscape Function

Disturbance Processes

Invasive Species

Current Conditions and Trends - Noxious or invasive weed species are recognized as a major threat to native plant communities especially on disturbed sites and grasslands. The area impacted by invasive weed species has increased throughout the interior Columbia Basin, including the Blue Mountains, over the last 100 years (Quigley 1996). The same trend for increasing noxious weeds has also occurred in the Blues over the last 10-15 years. A large portion of the Blue Mountains is characterized as being susceptible to exotic weed invasion (USDA 1996). The susceptibility is tied to areas dominated by dry forest, dry grass, dry shrub, and cool shrub types; which are the types of sites that many invasive species evolved in and are adapted to.

Status of Desired Future Condition and Objectives - The current Forest Plans stated that invasive weed species would be present on the forests but the spread would be controlled. Invasive species are currently still present and increasing in distribution.

The objectives for invasive species treatment include using an integrated approach to treat 200-500 acres per year on each Forest. Invasive weed treatments on the Umatilla and Wallowa-Whitman National Forests have greatly exceeded those projected in the current Forest Plans. Approximately 7,200 acres per year of invasive weed species were treated within the national forest lands in the Blue Mountains from 1997 to 2001.

The Umatilla National Forest completed a forest-wide noxious weed assessment in 2001 that indicated over half (24) of the watersheds on the forest have a high risk of noxious weed invasion and spread (USDA 2002). Inventoried acres of invasive weed species appear to be increasing, but it is unknown if there is an actual increasing trend and the increase in number of sites is real or if the surveys and inventories are just locating pre-existing sites.

Major Changes since 1990 - An effort has been initiated to prepare an Environmental Impact Statement (EIS) on invasive species at both the regional and Blue Mountains province level. The Blue Mountains noxious weed EIS is in the early initiation phase and will analyze site-specific treatments. The regional EIS will develop standards for prevention and treatment, along with analyzing new tools for treatment. The regional EIS is expected to be released in draft in 2004. Since 1990 there has been an increased awareness of other types of invasive species such as zebra mussels and brook trout.

Areas of Concern - There may be a need to set priorities for individual treatments to be more successful at the landscape scale. There is also a concern whether the standards in the Invasive Species EISs will allow successful treatment and prevention of invasive weed species.

A recent court decision (Blue Mountain Biodiversity Project v. U.S. Forest Service, Cv 01-703-HA) concluded that the Malheur National Forest Environmental Assessment for Noxious Weed Control Project was insufficient under NEPA because it was tiered to the Managing Competing and Unwanted Vegetation Final Environmental Impact Statement (USDA 1988) and its mediated agreement, which the court determined to be inadequate. As a consequence, the Malheur National Forest currently is not able to use chemicals to treat weeds which will have potential ecological and economic impacts.

Insects and Disease

Status of Desired Future Condition and Objectives - With the exception of fewer areas under intensive management, the existing current condition is similar to the predicted desired future condition in the current Forest Plans. The forecast was for large-scale outbreaks to have run their course but much of the landscape would still be susceptible to infestations above historic levels. The large-scale risk was expected to slowly decrease over time as the timber stands coming under management and meeting species composition, structure, and density goals increased. No clear numerical objectives for risk reduction were established or monitored.

A certain amount of death in the forest is an important part of ecosystems dynamics. Snags and downed logs are key components for sustaining certain wildlife populations, as well as, nutrient cycling (Johnson and O'Neil 2001). Refer to the section on Ecological Legacies for more information.

Current Conditions and Trends - Several large-scale outbreaks of insects including spruce budworm, spruce bark beetle, and Douglas-fir tussock moth that occurred in the 1980s and 1990s have collapsed after causing extensive defoliation and mortality. Most plant diseases are increasing in occurrence and severity due to changes in species composition, stand structures, stocking levels, and disturbances (Scott and Schmitt 1996).

According to the *1999 Blue Mountains Forest Plan Monitoring and Evaluation Report,* the five-year trend (1995 to 1999) for most insects in the Blue Mountains has been downward (USDA 2000). The

few that have a slight upward trend include Douglas-fir tussock moth, larch casebearer, and woolly adelgid in subalpine fir.

Major Changes since 1990 – Development of insect and disease risk models such as the rapid risk rating system and UPEST have allowed analysis of large scale insect and disease impacts from management actions. Recent reports specific to the Blue Mountains such as *Forest Health on National Forest Lands in the Blue Mountains 1990-1996: Insects and Diseases* (Scott and Schmitt 1996). And *Forest Health Update: Five Years Later, Monitoring Report to the Forest Supervisor* (Fletcher 1996) have provided greater understanding of the long-term ecological implications of some past treatments which led to unanticipated large, landscape-level changes

Areas of Concern – There is a growing concern that past practices have created potential conditions for larger scale and more severe disturbances than those that may have occurred historically.

At the subbasin level, there have been increases in susceptibility to Douglas-fir beetle and Douglas-fir mistletoe due to increased cover, connectivity, stand densities, and multi-layered canopies of Douglas-fir and grand fir (Hessberg 1999). In addition, the amount of area susceptible to annosum root disease and root rot has increased (Hessberg and others 1999).

The duration, extent, and severity of defoliator and bark beetle outbreaks have increased with the increased quality, uniformity, and continuity of fir host types (Hessberg and others 1999a). Landscapes (rather than patches) are susceptible to defoliator and bark beetle outbreaks (Hessberg and others 1994). There is a continued loss of whitebark pine due to blister rust.

Wildfire/Prescribed Fire

Status of Desired Future Condition and Objectives - The current Forest Plans stated that large wildfire acres burned would be close to the acres burned during the last planning period or declining as natural and activity-related fuel reductions were implemented. On the Wallowa-Whitman National Forest, wildfire acres burned increased from 20,000 during the period of 1970-1980 to over 163,000 during the period of 1990 to 1998. The Malheur and Umatilla National Forests experienced similar trends. High intensity, stand-replacement fires occur on sites historically dominated by low intensity fire. Objectives for reducing these severe intensity fires has not been met because landscape conditions have become susceptible to uncharacteristically severe wildfire, at a rate faster than the ability to manage them into a condition that supports characteristic (historic) intensities.

In general, the trend for natural fuel treatments is above levels predicted in the current Forest Plans, but below those that may be needed to restore ecosystem function. The predicted level of treatment of natural fuels from 1997 through 2001 across the three forests was approximately 5,000 acres per year. The actual level averaged 26,000 acres per year. The accomplishment for natural fuel treatments is variable and tied to weather conditions that influence the degree of opportunities each year. Accomplishment is also tied to available budgets that have risen in recent years due to increasing concerns for damage from wildfire that might be reduced by implementing prescribed under burning.

Fuel treatment levels from timber sale activities are below those projected in the current Forest Plans. The projected level of activity fuel treatment for the combined three forests was 36,000 acres per year. The actual level of treatment averaged 13,000acres per year for the three forests. The decrease in activity fuel treatments is directly tied to the decreasing timber harvest levels.

Current Conditions and Trends - Acres burned by wildfire in the Blue Mountains have increased over the last 20 years when compared to totals prior to 1980. High severity wildfires within the warm, dry forest types have increased in both extent and severity when compared to estimated historic levels.

The use of Fire Managed for Resource Benefit (FMRB) has only occurred in a limited number of situations in wilderness areas across the three national forests. Acres of natural fuel treatments are increasing. Acres of activity-related fuel treatment are decreasing and related to decreased timber harvest.

Major Changes since 1990 - Adoption of the Interagency Strategy for the Implementation of Federal National Wildland Fire Policy (USDA 2003), and the National Fire Plan and Ten-year Cohesive Strategy (USDA 2000a) guides the management of fire and how it plays a role in ecosystem management.

The *Healthy Forest Restoration Act* was passed in 2003. The related Healthy Forest Initiative developed new administrative and legislative tools to help restore healthy ecosystems and assist in executing core components of the National Fire Plan that will accelerate treatments designed to restore healthy ecosystems. To accomplish similar objectives on tribal lands, the *Tribal Forestry Protection Act of 2004* was also enacted.

Areas of Concern - Due to fire suppression and other factors, there are higher and more contiguous fuel loads across the landscape. Because of the build up of fuels, disturbance processes have been altered and fires are now more severe and intense than historic levels especially in the warm, dry forest types (Quigley and Arbelbide 1997). There is a concern that current guidelines do not adequately address restoration activities after large-scale disturbances from wildfire or insects.

The influx of people into the wildland-urban interface has, in many cases, created an increasing risk of wildfire. The amount, size, intensity of fires, and federal resources expended in the wildland-urban interface have increased since the 1980s (Hill 1999). Much of the private land within a quarter-mile buffer adjacent to national forest lands is classified as moderate-to-high risk to wildland fire. In the past, a wildfire that might have been considered benign because of its location on forested lands can now quickly become a threat to homes, structures, and property. There are also concerns over potential use of natural and or human-caused fire outside wilderness to lower the overall fire risk across the landscape.

The standards and guidelines in the current Forest Plans do not have a priority system for identifying the scale, spatial arrangement, and types of completed and planned fuel treatments that would be effective in creating a resilient, sustainable landscape. There are also concerns that the amount of area needing to be treated to restore landscapes may not be implementable given current budget, workforce, smoke management requirements, and narrow treatment windows.

Timber Harvest/Silviculture

Status of Desired Future Condition and Objectives - Over a significant portion of the three national forests, outside of wilderness, the original Desired Future Conditions included a matrix of heavily managed lands, having an even-aged character with harvest rotations generally less than 100 years interspersed with small patches of unmanaged vegetation. This Desired Future Condition was modified in 1993 by the Eastside Screens (USDA 1995c) to shift management towards conserving late/old structural conditions across the landscape. The original Desired Future Condition was never achieved and current management continues to maintain multi-layered late/old structures by limiting activities that would significantly modify stand structure.

The use of even-age methods of timber harvest has been reduced to less than 10 percent of what was projected in the current Forest Plans. Total harvested acres (even and uneven age) between the three national forest of the Blue Mountains declined to 76,000 for the period of 1998-2002. The projected levels for that time period were originally 260,000 acres.

The number of acres planted has been declining since the early 1990s to levels that are 130,000 acres less than what was projected from 1990 to 2001. The focus for planting has shifted from areas needing regeneration from timber harvest to acres needing regeneration due to wildfires.

Objectives to pre-commercially thin timber stands before they reach two inches in diameter have not always been achieved. Accomplishment of precommercial thinning is approximately 50,000 acres less than what was projected for the last 10 years due to decreasing budgets. Objectives for acres treated were not achieved in any of the planned categories.

Current Conditions and Trends - The Natural Capital section of this document contains information on trends for timber volume harvested. Current levels of acres of silvicultural treatment and volume of timber harvested have greatly decreased from projected levels in the current Forest Plans. Harvest methods have shifted from even-age management to uneven age methods. National policy direction, as well as increasing experience in applying ecosystem management, has substantially reduced the number of clearcut acres. On the Malheur National Forest 7,459 acres were clearcut in 1992 compared to 65 acres in 1999. The Umatilla National Forest reduced clearcutting from 3,299 acres in 1988 to 1,352 in 1999. Total clearcut areas on the Wallowa-Whitman National Forest were reduced to almost none in 1999.

The trend for acres accomplished for reforestation and precommercial thinning is also declining. Acres of precommercial thinning needed to create a more resilient condition are rapidly increasing beyond the ability to accomplish considering current or anticipated budgets.

Major Changes since 1990 - Implementation of the Eastside Screens and PACFISH/INFISH greatly reduced the number of acres that were available for stand treatment activities that would be accomplished using a timber sale. National policy direction to implement ecosystem management reduced the amount of clearcutting and increased the degree of retention of trees in harvest units.

Areas of Concern - There are concerns management practices have created a landscape condition dominated by dense, multi-layered stands, with tree species not well suited to the site. This contributes to the potential for uncharacteristically severe and large disturbances, eventually creating an unsustainable system.

Timber harvest prescriptions implemented typically leave more trees per acre than were envisioned in the current Forest Plans, decreasing timber harvest yields for most acres treated. The maximum (full) stocking levels for forested stands assumed under the current Forest Plans may need to be lowered in some cases to meet more integrated resource management needs such as lowering the fire hazard across the landscape, accelerating development of certain wildlife habitat conditions, reducing the need for and cost of slash treatment from precommercial thinning activities.

The backlog of forested stands needing some level of stocking control, such as precommercial thinning for planted units and wild stands with ladder fuel undergrowth greatly exceeds the recent level of accomplishment and levels projected in the 1990 Forest Plans (Powell and Rockwell 2002). This backlog will continue to add to the broad scale condition of increased potential for uncharacteristic disturbances. This backlog may require a prioritization system for deciding which will provide the greatest benefit when thinned.

The concept of ecosystem stability was used when the current Forest Plans were developed. Current science indicates that ecosystems are dependent on disturbances for maintenance and that a state of climax or stability will rarely be achieved (Botkin 1990). The current Forest Plans contained several references to ecosystem management and the necessity of disturbances, such as fire, to maintain systems, but disturbance is not emphasized as being necessary to create sustainable systems.

There is a concern that a higher level of multi-layer, late-old structure (LOS) exists than historic conditions and that those levels may not be sustainable given concerns for uncharacteristically severe wildfire and insect, disease outbreaks. There may be a need for increased emphasis in the Forest Plans for building site-specific plant association groupings, species composition, structural stage, and disturbance guidelines into the historical range variability (HRV) process.

Grazing

Status of Desired Future Condition and Objectives - The desired condition in the current Forest Plans projected an improvement in the condition of grazing allotments due to decreased utilization of grasses and shrubs, decreased utilization of riparian areas as a result of implementation of Riparian Management Objectives (RMOs) from PACFISH and INFISH, updated allotment plans.

The percent of pastures within grazing allotments meeting the utilization standards has varied from 80 to 100 percent, with most allotments being above the 90 percent level. However, meeting the utilization standards does not always indicate condition or trend. Additional data is currently being collected that will better describe the current condition and characterize trends to allow a more localized comparison to conditions described at the interior Columbia Basin scale.

The three national forests in the Blue Mountains are in the process of updating the existing allotment management plans. The *1995 Rescission Act* (PL 104-19) required the Forest Service to develop a new schedule to complete the process outlined in the *National Environmental Policy Act* (NEPA) for new allotment plans within 15 years. The forests are behind schedule in completing this requirement (USDA 2000) but have recently accelerated the pace of this project. The Natural Capital section of this document contains information on trends for Animal Unit Months (AUMs).

Current Condition and Trends - Most of the southern end of the Blue Mountains (Malheur and southern Wallowa-Whitman National Forests) as well as the far north end (Wallowa Valley Ranger District), were characterized by the ICBEMP as having between 70-100 percent low range and ecological composite integrity (USDA 1996). Forage conditions have been reduced by woodland juniper encroachment and expansion of invasive weed species. A decline in herb lands and shrub lands was observed. Much of the area was characterized as sensitive to overgrazing and invasive plants. Most of the Umatilla National Forest and the western portion of the Wallowa-Whitman National Forest (La Grande and Baker Ranger Districts) was modeled by ICBEMP as having 76 percent low range integrity and 58 percent low ecological integrity, with existing conditions that have been highly altered from historic conditions by livestock grazing, timber harvest, and exclusion of fire. Historic high levels of grazing combined with possible climate shifts and fire suppression may have created conditions favorable to the establishment of large numbers of tree seedlings.

Major Changes since 1990 -
The 1995 Rescission Act required an new accelerated allotment management plan update schedule that would result in site-specific management changes that would lead to improved resource conditions as needed.

PACFISH (USDA 1995a) and INFISH (USDA 1995b) standards and subsequent Biological Opinions from the U.S Fish and Wildlife Service and NOAA Fisheries have required additional monitoring that will need to be carried into the Revised Forest Plans.

Areas of concern – There may be a better way than the IIT monitoring to evaluate the range of conditions within the entire area (upland and riparian) of the allotments.

There may not be adequate ecological trend data in all biophysical environments to assess whether the current utilization standards are adequate to protect the resource or indicate condition and trends. There is an inconsistent approach to range capability and suitability analysis between the three forests.

There is a concern that the forests should switch from the current range single pathway successional model to the concept of "state and transition" models which recognizes multiple successional pathways depending on the type of disturbance and environmental conditions present on the site. More specific desired conditions based on the different potentials for different shrub, forest, and grassland plant communities may be better than the current overall desired condition.

Landscape Structure and Composition

Landscape Diversity

Status of Desired Future Condition and Objectives - The current Forest Plans predicted that landscape diversity would be maintained by even-aged timber management practices that would create a mosaic of timber cutting patterns of varying sizes, shapes, and arrangements.

Current Conditions and Trends - Current data indicate a trend of decreasing acres of dry forest late and old structure (LOS) among the Blue Mountains national forests, primarily due to timber harvest and wildfire. Most of the reduction in LOS and large trees occurred prior to the implementation of the Eastside Screens in 1993. Since 1993 the only loss of LOS or large trees on national forest lands has been due to wind events or wildfire, and from a few timber sales designed and sold prior to 1993. Many changes to timber stand structure have occurred due to changes in disturbance regimes.

Major Changes since 1990 – The ICBEMP observed many changes at the landscape level and other have been identified at the subbasin level through watershed analysis including decreases in shrub and grasslands area. The distribution of aspen is decreasing and the recruitment of younger trees is declining due to conifer encroachment, browsing, and the exclusion of fire. Whitebark pine is also decreasing.

There has been a loss in the abundance and distribution late-old structure (LOS) and trees greater than 21 inches diameter at breast height (DBH) due to wildfire and timber harvest, especially in the dry and moist forest types. There has also been a loss of large and medium trees across the landscape in stands not classified as late-old structure. Patch size and amount of dry forest late-old structure has decreased and isolation/fragmentation has increased.

Generally, timber stand diameters have decreased and the average timber stand density has increased. There has been an increase in the seedling stage and young multi-layered forests. Juniper and conifer encroachment onto grassland, shrubland, and woodland types has also increased.

Areas of Concern - The major changes over the last 10 to 15 years across the Blue Mountains may have reduced biodiversity and created a landscape condition dominated by dense, multi-layered stands, with tree species not well suited to the site. This contributes to the potential for uncharacteristically severe and large disturbances such as wildfire, insects, or disease. These conditions could create an unsustainable system.

Landscape Patterns

Status of Desired Future Condition and Objectives - The Desired Future Condition in the current Forest Plans stated that in those portions of the three national forests managed for timber emphasis, the average tree size would be reduced; fewer large diameter old growth ponderosa pine would be found outside of protected areas; and that large blocks of old growth forests would be retained within wilderness, unroaded areas, and some riparian areas.

The Umatilla National Forest allocated 52,600 acres to dedicated and managed old growth (USDA 1990b); the Malheur National Forest allocated 47, 690 acres as old growth (USDA 1990a) and the Wallowa-Whitman National Forest allocated 37,000 acres as old growth (USDA 1990c). Additional old growth acres occurred on each national forest; however they were not specially designated as old growth areas. All three of the Forest Plans linked the old growth objectives to objectives for numbers and numbers of pairs of Management Indicator Species (MIS). Refer to the Population Viability section for a discussion on objectives for Management Indicator Species.

Current Conditions and Trends - Timber patch size, distribution, and connectivity have changed from historical conditions. See the Landscape Diversity section above for a further description. The current Forest Plans provided for late-old structure (LOS) through a network of designated old growth (DOG) areas. The Forest Plans assumed that connectivity between the DOG areas would be provided by riparian areas. The Eastside Screens (USDA 1995c) amended the Forest Plans regarding the retention and connectivity of late-old structure stands. The amendment required the protection of late-old structure strands from timber harvest if the existing level of late-old stands was below the estimated historic range of variability.

Major Changes since 1990 - The Eastside Screens amended the Forest Plans to better account for patch size, distribution, and connectivity. However, the Eastside Screens were intended to be interim direction. The forest plan revision process will need to determine which part of this direction is still appropriate and incorporate them into the Revised Forest Plans for the Blue Mountains national forests.

The Interior Columbia Basin Ecosystem Management Project (ICBEMP) brought together current information regarding landscape dynamics. The forest plan revision process needs to recognize the recommendations presented by ICBEMP.

Areas of Concern - In roaded subbasins, basin-wide timber patch densities are higher, average patch sizes are smaller, edge density is greater, landscape fragmentation has increased, and patch type connectivity has been decreased which may lead to population viability problems for certain species (Hessburg and others 1999). In wilderness-dominated watersheds, timber patch type connectivity has increased and landscape patterns have been simplified across the interior Columbia Basin.

A portion of the designated old growth areas currently have a structural stage condition that is not classified as old growth. In addition, there are possible inconsistencies between the three forests in the type of forest condition that is classified as old growth. The "hands off" philosophy for managing old growth areas with a historic frequent and low intensity fire regime is not a practice that will be sustainable through time. In addition, the current system of Forest Plan designated old growth areas being relatively small and isolated pieces of habitat, does not fit into new concepts of landscape ecology, historic range of variability, and habitat connectivity.

Ecosystem Function

Productive capacity

Status of Desired Future Condition and Objectives - Average growth rates of trees exceed removal and mortality rates. The desired future condition in the current Forest Plans stated that the landscape would be dominated by productive stands of timber with growth rates matching yield tables based on well-timed treatments that would maximize production. Current levels of mortality are higher than original assumptions. The three forests are currently not meeting the originally outlined objectives in the current Forest Plans.

Current Conditions and Trends – The trend for the number of small diameter and dense stands continues to increase.

Major Changes since 1990 – No major changes have occurred.

Areas of Concern – If average growth rates of trees continue to exceed removal and mortality rates, it will lead to conditions susceptible to uncharacteristically large-scale, severe disturbances including insects, disease, and fire.

Ecosystem Structure and Composition

Air Quality

Status of Desired Future Condition and Objectives - Current Forest Plan direction for the Blue Mountains includes compliance with the *Clean Air Act* and state air quality standards, and compliance with state implementation plans for air quality. Smoke from prescribed fires is the primary air quality concern on the three Blue Mountains national forests.
Federal and state standards include protection of air quality-related values in Class I Areas (wilderness areas over 5,000 acres that existed on or before August 1977 and the Hells Canyon National Recreation Area).

Washington, Oregon, and Idaho each have air quality implementation plans that outline measures to be implemented to meet requirements of the Clean Air Act. Under the 1990 Clean Air Act

Amendments, all planned federal land management actions must meet State Implementation Plan (SIP) requirements.

A statewide Memorandum of Understanding exists between the Oregon Department of Forestry (ODF) and the Pacific Northwest Region of the Forest Service which specifies coordination between the agencies for prescribed fire operations. A companion agreement between ODF, the Oregon Department of Environmental Quality (DEQ), the Forest Service, and the Bureau of Land Management (BLM) places annual limits on allowable emissions (PM_{10}) from prescribed fires on federally-managed lands in the Blue Mountains. The current agreement limits PM_{10} emissions to a combined 15,000 tons per year by the three national forests in the Blue Mountains of Oregon. This limit has not been exceeded since going into effect. The agreement also specifies that BLM and the Forest Service will give "careful evaluation" to meteorological conditions and potential impacts to Class I Areas and urban areas, including Baker City, Enterprise, La Grande, Burns, John Day, and Pendleton.

Current Conditions and Trends - Smoke emissions from the three national forests have declined since 1991, largely due to a decrease in treatment of activity fuels caused by a decline in the amount of timber harvested.

From 1992 through 2002, most sites in Oregon show improving trends in air quality. Similar findings were reported for Washington State. In the Blue Mountains, only La Grande remains as a non-attainment area for any pollutant (PM_{10}).

In 1991, 43 percent of Washington's air pollution was derived from motor vehicle exhaust compared to 57 percent in 1999. Air pollution from industrial sources, woodstoves, and outdoor burning contributed 55 percent of air pollution in the state in 1991 and only 33 percent in 1999. Changes in the quantity of air pollutants from different sources are due to increases in motor vehicle use (this is generally true in Washington, Oregon, and Idaho) and successful regulation of pollutants from other sources.

Major Changes since 1990 - In 1999, the *Clean Air Act* was amended to include the *Regional Haze Rule* (64 FR 35713, July 1, 1999). The *Regional Haze Rule* added air quality criteria and monitoring requirements for $PM_{2.5}$ emissions ($PM_{2.5}$ emissions are air-borne particles smaller than 2.5 micrometers). Research has shown that fine particulates in the air are an important factor in reducing visibility. More importantly, airborne particulates have been identified as a cause of respiratory and cardiovascular disease.

The Environmental Protection Agency (EPA) designated the La Grande Urban Growth Boundary as a non-attainment area for PM_{10} (PM_{10} refers to airborne particles smaller than 10 micrometers) in 1991. The EPA approved the La Grande PM_{10} attainment plan in 1995. The attainment plan specifies restrictions on wood-burning stove emissions and includes measures to reduce fugitive dust and industrial emissions. The *Clean Air Act* includes provisions for Prevention of Significant Deterioration (PSD) of air quality in areas where air quality standards are currently being met.

The Oregon Air Quality Implementation Plan was updated with new smoke management provisions in 1993. An interagency agreement between the U.S. Forest Service, Bureau of Land Management, Oregon Department of Environmental Quality, and Oregon Department of Forestry was established in 1994 and provides a framework for implementing an air quality program in northeast Oregon under which emissions from prescribed burning are managed. Revisions to the smoke management rules for the Blue Mountains were made in September 1995 and limit particulate emissions to 15,000 tons per year from national forest lands and emissions from BLM-administered lands to 6,500 tons per year. The Idaho Department of Environmental Quality and Washington Department of Ecology are not signatories to the agreement, but the existing agreement calls for coordination of prescribed burning activities with those agencies.

Current Conditions and Trends - Smoke emissions from the three national forests have declined since 1991 partially due to the decline in the amount of timber harvested. Reduced timber harvest has resulted in a decrease in the treatment of activity-related fuels. Although the acres of natural fuels burned has increased steadily since 1990, burning of these types of fuel generally results in lower particulate emissions than burning of fuels that accumulate from timber harvest.

Most sites in Oregon show an improving trend in air quality for the period of 1992–2002, with similar findings in Washington State. In the Blue Mountains, only La Grande remains as a non-attainment area for any pollutant (PM_{10}), although the city met National Ambient Air Quality Standards (NAAQS) in 2003.

In 1991, 43 percent of Washington's air pollution was derived from motor vehicle exhaust compared to 57 percent in 1999. Air pollution from industrial sources, woodstoves, and outdoor burning contributed 55 percent of air pollution in the state in 1991 and only 33 percent in 1999. Changes in the quantity of air pollutants from different sources are due to increases in motor vehicle use (this is generally true in Washington, Oregon, and Idaho) and successful regulation of pollutants from other sources.

Areas of Concern - The primary activity on national forest lands affected by air quality laws and regulation is prescribed burning (for fuel-reduction or habitat improvement). Statewide air quality implementation plans and smoke management plans are in effect in Oregon, Washington, and Idaho. EPA and state regulatory agencies recognize that wildfires are beyond the control of land management agencies. Smoke generated from wildfires is not considered to be a violation of air quality standards.

Continued population growth within the wildland-urban interface may increase use of the surrounding forest areas, thus increasing wildfire risk and complicate prescribed fire management.

In Oregon, current statewide limits on PM_{10} emissions for the three Blue Mountain national forests are set at 15,000 tons per year by agreement. Adjustments of this limit (up or down) have implications for fuels management programs on the three national forests. In general, the three forests have operated well under this limit due to a decrease in the volume of timber harvested and a corresponding decline in activity fuels treatment acres.

Water and Soils

Status of Desired Future Condition and Objectives – The three forests are in compliance with state and federal water quality guidelines, including Washington and Oregon state water quality criteria and the *Clean Water Act*. Protection of long-term soil productivity through implementation of soil quality standards and best management practices (BMPs) is ongoing and protection of water quality in domestic supply watersheds and protection and enhancement of riparian areas is a priority. In addition, the three forests are in compliance with direction for protection of floodplains and wetlands as required under Executive Orders 11988 (42 FR 26951, May 24, 1977) and 11990 (42 FR 26961 May 24, 1977), respectively.

Water quality is regulated by the Department of Environmental Quality in Idaho and Oregon, and the Department of Ecology in Washington State. Section 303(d) of the *Clean Water Act* requires that all states report biennially to Congress all streams that are known to exceed water quality criteria for designated beneficial uses. The 303(d) "list" includes those streams which do not meet their designated water quality criteria. Beneficial uses include (but are not limited to) cold-water fish habitat, domestic water supplies, irrigation, livestock watering, and recreation. The water quality criteria associated with these uses varies and is set by the individual states.

For streams listed on the 303(d) list, the *Clean Water Act* requires the completion of a Total Maximum Daily Load (TMDL) assessment. TMDL is a calculation of the maximum amount of a pollutant that a body of water can receive and still meet water quality standards, with an allocation of that amount to the pollutant's sources. The TMDL assessment process is used to identify the

extent of pollution or impairment and the general sources of pollution. The TMDL assessment also identifies actions needed to restore water quality.

Water quality in municipal-supply watersheds is protected through implementation of Memorandums of Understanding between the individual forests and the cities of John Day, Canyon City, Long Creek, Baker City, La Grande, and Walla Walla.

Current Conditions and Trends - According to scientific assessments in ICBEMP, riparian systems in several Blue Mountain watersheds have declined from their historic extent and condition. The ICBEMP study noted a decline in riparian shrub communities in the Blue Mountains of up to 70% since the 1930's resulting from impacts of agricultural development, roads, grazing, logging, water development, and other human uses.

TMDL assessments have been developed for the Umatilla and Upper Grande Ronde River basins by Oregon DEQ and implementation plans are in place to improve water quality in these basins. TMDL assessments for all other basins in the Blue Mountains are scheduled to be completed on a priority basis by 2010.

Major Changes since 1990 - Listing of Columbia and Snake River Chinook salmon and steelhead and bull trout under the *Endangered Species Act* (ESA). Listings of fish species as threatened or endangered under the ESA has resulted in more stringent management of activities that could potentially affect salmon, steelhead or bull trout, including amendments to the Forest Plans to adopt interim strategies for protection of anadromous (PACFISH) and resident (INFISH) fishes. In addition, Riparian Habitat Conservation Areas (RHCAs) were established and designation as key watersheds of any watershed that contains critical habitat for listed fish species. This includes all watersheds on the Umatilla National Forest.

The three forests have received Biological Opinions on many projects from NOAA Fisheries and the U.S. Fish and Wildlife Service which impose additional restrictions on management activities for the protection of anadromous and resident fish.

Many river basins and tributary streams on the three forests are not in compliance with Section 393(d) of the *Clean Water Act*. These streams and river basins are listed as water-quality impaired s in Washington and Oregon. More than 75% of these individual stream listings are for exceeding stream temperature criteria and the majority of listings have occurred since 1996.

Each of the Forests has completed (or is nearing completion of) a watershed restoration prioritization report. Watershed assessments were also conducted as part of ICBEMP. These assessments described, on a broad scale, changes in habitat characteristics for anadromous and resident fish, changes in land use, and changes in riparian habitats for all subbasins (4^{th}-level hydrologic units) in the interior Columbia River basin.

The Northwest Power and Conservation Council is leading an effort to complete subbasin plans that will cover all of the Blue Mountains. The subbasin plans, scheduled to be completed in 2004, are a requirement of the Biological Opinion for the Federal Columbia River Power System (FCRPS) (U.S. Department of Commerce 2000). When completed, the subbasin plans will provide a basis for prioritizing habitat restoration efforts for anadromous and resident salmonids in the Columbia River basin.

Each of the forests has completed (or is nearing completion) of a watershed restoration prioritization report. Watershed restoration priorities have also been established at the Regional level. The John Day River ranks as one of the highest restoration priorities in the Blue Mountains as well as regionally because it is one of only two streams in the Columbia River Basin with intact populations of wild steelhead and chinook salmon. It is also one of the few stream systems with no dams.

Areas of Concern - In the Blue Mountains the primary source of water quality degradation is elevated stream temperatures. Elevated water temperatures may be caused by a lack of streamside

vegetation, degraded channel conditions, altered flow regimes, or some combination of these conditions. Current and expected management emphasis is largely driven by concerns related to the protection of threatened or endangered fish species.

A few streams or stream reaches are listed as impaired due to high-suspended sediment loads or high turbidity. Contamination by heavy metals continues to be a concern for some streams that have been impacted in the past by mining operations. High stream temperatures due to lack of stream shade provided by riparian vegetation raises concerns over the health of riparian areas in the Blue Mountains.

The most common management activity in riparian areas is livestock grazing and the main management controls are pasture rotation and forage utilization standards. Changes in utilization standards may be needed to ensure that water quality concerns are being adequately addressed and to provide for enhancement and recovery of riparian shrub communities.

Some water rights associated with permitted uses on the forests are not being used. Under State law, unused water rights could be subject to forfeiture. It is possible that some currently unused water rights could be converted to instream water rights to enhance aquatic and riparian habitats and improve water quality.

Watershed analyses are completed on less than 50 percent of the watersheds on the three forests. An inventory of riparian conditions across the three forests was proposed under the existing Forest Plans, but has not been completed, although classifications of riparian (1997) and wetland (2004) types have been completed, or are near completion. The three forests have had ongoing programs of road closures to meet road density goals. Progress has been made in meeting road density guidelines, but more work is needed.

There is some concern over the ongoing impacts of legacy disturbances (historic disturbances with long-lasting effects on aquatic and riparian ecosystems). More knowledge is needed of the timeframes of recovery from these disturbances. The current aquatic conservation strategy includes measures that were originally intended to be interim guidelines for the protection of threatened or endangered fish species. There is a need to reassess these measures and incorporate them into the revised Forest Plans.

Ecological Legacies

Status of Desired Future Condition and Objectives – Ecological legacies are important living and non-living components of the environment that persist through multiple phases or cycles of successional change in a particular ecosystem. Examples include remnant snags within younger forested stands, caves, brush piles, raptor nests, and beaver dams (Wright and others 2002).

Habitat for maintaining potential populations of Management Indicator Species (MIS) using snags and down logs was to be provided across the landscape. The level of snags and down logs retained varies by management area and national forest. The 2001 Forest Plan Monitoring Report indicates that the three national forests are not meeting the prescribed snag and downed log requirements.

Current Conditions and Trends - Current data indicate a decreased number large trees (over 21" diameter at breast height (dbh)) and large snags as opposed to estimated historic conditions. Very little data exists on historic levels of downed logs within the three national forests that could be used to indicate trends but there is information on existing levels from forest inventory plots.

According to past watershed and project level analysis, areas with developed road systems and past timber harvest activities have had reductions in the number of large diameter snags. Undeveloped areas, such as inventoried roadless or wilderness have, in most cases, had increases in snags due to insect outbreaks and wildfires. Hessberg and others (1999a) found that dead tree abundance had increased from pre-settlement conditions, but primarily in small size classes. Many of the accessible

medium and large trees had been harvested. Large trees and snags have decreased by 20 percent across the interior Columbia Basin (Quigley 1996).

Distribution of hardwoods, including aspen, has decreased, as well as recruitment of young age classes, due to conifer encroachment, browsing, and exclusion of fire. Many hardwoods require specific disturbances such as fire or floods to create conditions suitable for establishing new trees. In addition, browsing from ungulate species often destroys new seedlings in established stands.

Major Changes since 1990 - The Forest Plans were amended by the Eastside Screens to maintain 100 percent of cavity-nesting birds which generally required leaving levels of dead trees above those required in the 1990 Forest Plans.

Areas of concern - There has been a reduction in large snags and down woody material on portions of the landscape, especially those with past timber harvest activities. However, down logs have increased in dry forest systems where low intensity fire has been suppressed. There is an inconsistent approach between the three Forests in determining the appropriate number, size, and kinds of snags to leave on the landscape.

There is also a decrease is the distribution and recruitment of young age classes for species such as aspen, cottonwood, and whitebark pine due to conifer encroachment, browsing, and exclusion of fire. These conditions could lead to potential reductions in sustainability of certain wildlife populations, and key ecosystem components such as hardwoods and whitebark pine.

Special Habitats

Status of Desired Future Condition and Objectives - Special habitats are unique groupings of living organisms and their environments that are limited in geographic extent and sensitive to change by common human or natural change elements. Typically such areas are not strongly resilient to external disturbance and may take a long time to recover. Special habitats include areas like seeps, springs, bogs, riparian areas, aspen clones, ancient juniper stands, and whitebark pine stands (Wright and others 2002).

The desired future condition is to continue the protection of the special habitats. The objectives for special habitats tend to be reflected in population estimates for Management Indicator Species (MIS). Almost all of the MIS are linked to old growth, snags, (refer to the Ecological Legacies section above) or riparian areas. Refer to the section on Population Viability for a discussion on MIS.

Each of the current Forest Plans identifies a desired condition for riparian areas. Generally, the desired condition is focused on improving habitat conditions which would lead to increased fish populations. The Forest Plans predicted that a significant amount of structural habitat improvement would take place within anadromous fish streams and that inventory of most of the streams and lakes across the three forests would be completed.

Riparian management objectives vary in the three Forest Plans. PACFISH and INFISH amended the Forest Plans to include objectives, standards, and monitoring requirements for riparian areas. Consultation on the Forest Plans with NOAA Fisheries and the U.S. Fish and Wildlife Service under the Endangered Species Act for PACFISH and INFISH added more requirements, particularly monitoring. The resulting Forest Plan amendments were then added to the existing direction in the three Forest Plans instead of being incorporated into them.

Current Conditions and Trends - A wide variety of special habitats occur across the Blue Mountains. Some of these habitats were officially designated as Management Areas as part of the original planning process. These areas are listed in Table 8 below. Other, undesignated habitats (such as cliffs, talus slopes, and wet areas) are considered unique and receive certain protections.

Riparian areas are also considered to be special habitats. Riparian areas across the Blue Mountains, as well as all other national forests within the Columbia River Basin, are afforded protection through

interim management direction referred to as PACFISH and INFISH. Additional protection measures may have resulted from project-specific ESA consultations. The interpretation of habitat protection provided by PACFISH and INFISH varies between the three national forests. In addition to providing habitat for fish populations, riparian areas also serve as travel corridors between old growth units for big game species.

Table 8: Management Areas Pertaining to Botany, Fish, and Wildlife

Management Area	Malheur National Forest	Umatilla National Forest	Wallowa-Whitman National Forest
Non-Anadromous Riparian	3A*		
Anadromous Riparian	3B		
Big Game Winter Range Maintenance	4		
Bald Eagle Winter Roosts	5		
Botanical *	8	A9	
Research Natural Areas	9	D2	12
Old Growth	13		15
Dry Cabin Wildlife Emphasis Area	20A		
Utley Butte Wildlife Emphasis Area	20B		
Wildlife Emphasis Area	21		
Dedicated Old Growth		C1	
Managed Old Growth		C2	
Big Game Winter Range		C3	
Sensitive Big Game Winter Range		C3A	
Wildlife Habitat		C4	
Riparian and Wildlife		C5	
Special Fish Management Area		C7	
Grass Tree Mosaic		C8	
Timber and Big Game		E2	
Big Game Habitat Emphasis			3,3A

*Numerical Identification of Management Area
**Botanical Areas are included within Special Interest Areas

Major Changes since 1990 - Many new species have been listed as threatened or endangered under the ESA since the current Forest Plans were adopted. Designated Critical Habitat has been established for some of the listed species.

The Interior Columbia Basin Ecosystem Management Project (ICBEMP) established source habitats which need to be addressed within the Forest Plan Revision.

PACFISH and INFISH amended the current Forest Plans. ESA consultation for PACFISH and INFISH added more requirements that need to be included within the Forest Plan Revision. PACFISH/INFISH increased the level of monitoring for actions occurring within riparian areas.

Areas of Concern - The condition and trend of special habitats within the planning area is not well understood. Properly functioning special habitats will likely to be one of the key cornerstones for ecological sustainability within the planning area.

The current Forest Plans do not incorporate any evaluation of the source habitats identified by the ICBEMP. There is a concern that there is a lack of consistency regarding the PACFISH and INFISH amendments between the three forests.

The *2001 Blue Mountains Monitoring Report* (USDA 2002) lacks information regarding special habitats. The notion that riparian areas serve as travel corridors was not brought forward into the annual monitoring reports and the number of botanical areas was expected to increase but has not.

Distribution of aspen has decreased, as well as recruitment of the younger age classes, due to conifer encroachment, ungulate browsing and exclusion of fire.

Species Richness

Status of Desired Future Condition and Objectives - Species richness is a measure of the number of different kinds of plants and animals present and is a key indicator of the structure of ecosystems. The current Forest Plans identified the need to perpetuate and recover threatened and endangered species and to monitor populations of selected MIS.

The bald eagle, peregrine falcon, and MacFarlane's four o'clock were all listed as endangered or threatened at the time the original Forest Plans were completed. Each of these species had a recovery plan in place at the time the current Forest Plans were implemented. Each of the recovery plans contained recovery actions that pertain to the Forest Service.

Current Conditions and Trends - The current Forest Plans identified 24 different species or groups of species as Management Indicator Species (MIS). It was anticipated that by selecting and managing for these species, the needs for all of the other fish and wildlife species would be adequately met. See Table 9 for a list of the MIS by National Forest within the plan revision area. Refer to the section on Population Viability for a discussion on MIS.

Major Changes since 1990 - In 1990 when the Forest Plans were implemented there were three species (bald eagle, peregrine falcon and MacFarlane's four o'clock) listed as threatened or endangered within the Blue Mountains. Since 1990, several other species have been listed under the *Endangered Species Act*. The current Forest Plans have been amended in response to the listing of various salmon species, steelhead, and bull trout. Recent listings that have not resulted in forest plan amendments include the mid-Columbia steelhead and Canada lynx.

Since the Forest Plans were implemented in 1990, the peregrine falcon has been taken off the federal threatened and endangered species list and is now considered a sensitive species in the Pacific Northwest Region of the Forest Service.

The following species have been added to the federal threatened and endangered species list as "threatened" since the current Forest Plans were implemented: Canada lynx, gray wolf, bull trout, Spalding's catchfly, Howell's spectacular thelypody, Snake River fall chinook salmon, Snake River spring/summer Chinook salmon, Snake River steelhead, Middle Columbia steelhead and the Bliss Rapids snail. Snake River sockeye has been listed as endangered.

Of these listed species, the following have either designated critical habitat or proposed designated critical habitat: Snake River fall chinook salmon, Snake River spring/summer chinook salmon, Snake River sockeye salmon, bull trout (proposed), and MacFarlane's four o'clock. Essential Fish Habitat (EFH) has been designated for the Snake River and John Day River chinook salmon, coho salmon, Spalding's catchfly, Ute ladies tresses, water howellia, and Howell's spectacular thelypody.

The following species are currently candidates to be listed as either endangered or threatened by the U.S. Fish and Wildlife Service: Washington ground squirrel, yellow-billed cuckoo, Columbia spotted frog, northern wormwood, and slender moonwort. Some species, such as Greenman's desert parsley, have a Conservation Strategy (1999) to insure adequate protection measures are in place. Other species like red-fruited lomatium have a monitoring strategy in place.

The ICBEMP also identified other species of concern, as well as, source habitats. Various combinations of cover type–structural stages make up source habitats for terrestrial species and provide the range of vegetation conditions required by these species for food, reproduction, and other needs (Wisdom and others 2000).

Areas of Concern - Several additional species have been listed as threatened, endangered, or candidate species under the Endangered Species Act since the Forest Plans were completed in 1990. The current Forest Plans provide direction for following the Species Recovery Plans in place at the

time at that time. However it is not clear from the subsequent Forest Plan Monitoring and Evaluation Reports how recovery accomplishments were documented.

Population Function

Population Viability

Status of Desired Future Condition and Objectives - The *National Forest Management Act* (NFMA) requires that "…fish and wildlife habitat be managed to maintain viable populations of existing…species in the planning area." To insure this, the regulations direct that: (1) "habitat must be provided to support, at least, a minimum number of reproductive individuals and (2) "habitat must be well-distributed so that those individuals can interact with others within the planning area".

The current Forest Plans identified the need to maintain minimum viable populations of MIS. The current Forest Plans also identified the need to monitor the MIS to determine their population status and trend.

Current Conditions and Trends - To assure that these viable populations are maintained the three national forests identified management requirements for a number of wildlife species within the their respective planning areas. The current Forest Plans identified 24 different species, or groups of species, as Management Indicator (MIS). These species were emphasized because their populations can be used as an indicator of the health of a specific habitat type. By selecting and managing for these MIS the needs for all of the other fish and wildlife species would be accounted for. (See Table 9).

Major Changes since 1990 - There are now additional analysis tools available for determining population viability than in 1990. There has been an increase in litigation regarding MIS.

There have been many landscape disturbances (including wildfires, prescribed fires, livestock grazing, timber sales, road and trail construction, and flood events) within the Blue Mountains since the current Forest Plans were implemented. These disturbances may have influenced the habitat that the MIS depend on.

Since the time the current Forest Plans were implemented, the Forest Service, along with others involved with the Interior Columbia Basin Environmental Management Project (ICBEMP), conducted a broad-scale scientific assessment and evaluated a different mix of species and identified "Source Habitats" within the interior Columbia Basin (Wisdom and others 2000).

Areas of Concern - Since the completion of the Forest Plans, the status and population trends of several wildlife species have changed. For some species, monitoring has not been adequate to determining a trend in their population.

Monitoring for MIS within the planning area has been sporadic according to the *Forest Plan Monitoring and Evaluation Reports (USDA 1997-2001*). Some surveys for MIS has been conducted for specific projects and this information has been used to determine the effects a site-specific project may have on a particular MIS.

One of the objectives of the Strategic Plan for the Forest Service (USDA 2004) is to "Provide ecological conditions to sustain viable populations of native and desired nonnative species and to achieve objectives for management indicator and focal species." As written and implemented, the current Forest Plans may not be sustaining minimum viable populations of MIS.
The *Columbia Basin Strategy* (USDA/USDI 2003) provides guidance for incorporating the ICBEMP science data and resource information into land and resource management plans. The strategy identifies key elements that need to be addressed in future planning efforts. The current Forest Plans do not address some of these elements such as source habitats.

Table 9: Management Indicator Species				
Management Indicator Species	**Criteria for Selection**	**Malheur**	**Umatilla**	**Wallowa-Whitman**
Rocky Mountain Elk	Commonly hunted; general habitat needs; cover/forage/roads	X	X	X
Pileated Woodpecker	Old growth; dead and down tree habitat; mature habitat with large trees	X	X	X
Pine Marten	Old growth; mature and old growth stands at high elevations	X	X	X
Three-toed Woodpecker	Old growth; dead and down in mature and old lodgepole pine	X	X	
Lewis' Woodpecker	Dead and defective habitat	X		
Yellow-bellied Sapsucker	Dead and defective habitat	X		
Red-breasted Sapsucker	Dead and defective habitat	X		
Williamson's Sapsucker	Dead and defective habitat	X		
Downy Woodpecker	Dead and defective habitat	X		
Hairy Woodpecker	Dead and defective habitat	X		
White-headed Woodpecker	Dead and defective habitat	X		
Black-backed Woodpecker	Dead and defective habitat	X		
Northern Flicker	Dead and defective habitat; old growth juniper habitat	X		
Primary Cavity Excavators	Snag habitat; dead and down tree habitats; standing dead trees		X	X
Goshawk	Mature to old conifer stands			X
Steelhead Trout	Anadromous riparian; streams/riparian habitats; high quality water and fishery habitat	X	X	X
Bull Trout	Non-anadromous riparian	X		
Cutthroat Trout	Non-anadromous riparian	X		
Rainbow/Redband Trout	Non-Anadromous riparian	X		
Brook Trout/Rainbow Trout	Riparian habitat			
Rainbow Trout (resident)	Streams/riparian habitats		X	
Resident Trout	High quality water and fishery habitat			X

Primary Cavity Excavators—Definitions:

-Ochoco National Forest—Wildlife species that excavate cavities in snags.

-Umatilla National Forest—Wildlife species that excavate cavities in snags.

-Wallowa-Whitman National Forest—Common flicker, Lewis' woodpecker, yellow-bellied sapsucker, Willamson's sapsucker, hairy woodpecker, downy woodpecker, white-headed woodpecker, black-backed woodpecker three-toed woodpecker, northern three-toed woodpecker, mountain chickadee, white-breasted nuthatch, red-breasted nuthatch and pygmy nuthatch.

-Malheur National Forest—Did not use the catch-all group of primary cavity excavators.

Resident Trout—Definition"

-Wallowa-Whitman National Forest—Did not define resident trout.

-Other National Forests—Did not use the catch-all group of resident trout.

Population Structure and Composition

Populations of Indigenous Species

Status of Desired Future Condition and Objectives

The current Forest Plans did not identify any vertebrate or non-vertebrate (other than plants) indigenous species within their area of analysis. Management direction in the current Forest Plans identified a need to survey and provide management plans for threatened, endangered, and sensitive (TES) plant species.

Botanical survey work has been completed throughout the Blue Mountains. Most of this work was associated with specific projects with some focused surveys completed for federally listed species. The

number of special interest botanical areas was expected to increase across the three national forests, but has not.

Current Conditions and Trends- There is very little information in the annual Forest Plan Monitoring and Evaluation Reports regarding special plant species. Most of the plant monitoring conducted across the Blue Mountains is focused on species presence surveys for specific projects.

Major Changes since 1990 - Several plant species have been listed as either endangered or threatened under the ESA. Although the current Forest Plans have not been amended or revised to reflect these new listings, these species have been addressed within specific project analysis.

Several changes have been made to the sensitive plant list as identified by the Pacific Northwest Region of the Forest Service. These changes have not been brought forward into the current Forest Plans. However, these sensitive species have been addressed within specific project analysis. The ICBEMP identified new science, issues, and concerns regarding threatened, endangered, and sensitive plants within the Blue Mountains.

Areas of concern

A systematic or coordinated survey for threatened, endangered, and sensitive plant species has not been done within the Blue Mountains and Recovery Plans or conservation assessments for these plants have not been developed.

Numerous sensitive plant species have been added to the R-6 Sensitive Species list since the Forest Plans were completed in 1990. New information regarding plants of special concern was identified by the ICEBMP.

Organism Function

Genetic Migration

Status of Desired Future Condition and Objectives - Migration is a process that contributes to the day-to-day and year-to-year health and survival of populations (particularly animal populations) through the selection of environments that are best suited to survival. Migration is also a genetic process, whereby genes migrate between individuals in a population or between sub-populations contributing to the diversity and adaptation of natural populations. Genetic migration refers to the movement of genes within a population. This indicator assesses the effects of management practices that disrupt natural migration pathways or create new migration pathways. Sustaining populations of selected plants and animals is a foundation of sustainable ecosystems.

Current Conditions and Trends -Numerous specific actions have been taken to fix culverts and obliterate roads which have contributed improved migration for some species. However, countless numbers of migration barriers and deterrents remain within the planning area.

Major Changes Since 1990 -There has been an increased awareness regarding genetic diversity and population viability for all forms of fish, plants and wildlife. Recent Forest Plan Amendments such as PACFISH, INFISH, and the Eastside Screens identify the need to maintain movement patterns for fish and wildlife.

Areas of Concern- Genetic migration was not directly addressed within the current Forest Plans. Barriers to migration such as dysfunctional culverts, all forms of roads, dams, the dewatering of streams and other permanent habitat alterations occur throughout the Blue Mountains. These barriers influence the movement and genetic interchange of certain species (Schnoewald-Cox and others 1983). Little is known of the genetic relationships of redband trout and migratory steelhead in many of the watersheds containing anadromous fish.

ECONOMIC WELL-BEING

Capital and Wealth

Natural Capital

Minerals

Status of Desired Future Condition and Objectives - General direction in the current Forest Plans is to provide for exploration, development, and production of a variety of minerals. Activities on and access to mineral claims are governed by U.S. mining laws and managed according to direction in the Forest Service Manual (FSM 2820). Withdrawals of lands from appropriation or entry can be made, in accordance with the *Federal Land Policy and Management Act of 1976* and other federal regulations, for areas designated as wilderness or wild and scenic rivers.

Operating plans are required of claimants who propose mining activities involving surface disturbance on national forest lands. Distinction is made between common materials (sand, gravel, or rock), energy resources (oil, gas, and geothermal) and locatable minerals (gold and silver).

Current Conditions and Trends - The number of active mining claims varies from year to year, in part due to changes in mineral prices. As of 2001, there were 120 active mining claims on the Malheur National Forest, 25 active mining claims on the Umatilla National Forest, and approximately 300 active mining claims on the Wallowa-Whitman National Forest. Approximately 80 percent of the operating plans on the Wallowa-Whitman National Forest meet current Forest Plan standards and guidelines and an estimated 85 percent of claimants complete suitable reclamation work. In 2001 all inspected operations on the Malheur and Umatilla National Forests met Forest Plan standards and guidelines.

A few hot springs are located throughout the Blue Mountains, but the potential for geothermal resource development is not considered high. Sources of sand, gravel, crushed rock, and limestone exists on national forest lands, but their value is low and sources of these materials must usually be near transportation sources and the point of consumption to be used economically.

Major Changes since 1990 - Changes in annual assessment fees charged by the Bureau of Land Management (BLM) and changes in fee structure have resulted in a decline in the number of active claims. Increased protection of riparian areas and stream channels with implementation of the PACFISH and INFISH guidelines has resulted in stricter requirements for and longer timeframes for approval of operating plans.

Assessments of oil and gas potential and geothermal potential in northeast Oregon and southeast Washington have been conducted by the U.S. Bureau of Reclamation and U.S. Department of Energy. The Vale geothermal field is the nearest potential site for geothermal exploration to the Blue Mountains. In addition, the market price of gold has increased but this does not appear to have greatly increased recent mining activity.

Areas of Concern - The time required to process operating plans has increased. There is a need to provide consistency in administration of mineral claims between the three forests.

Monitoring reports for the three forests indicate that some standards and guidelines for other forest resources cannot be met during some placer mining operations. This includes limiting soil detrimental conditions, maintaining streamside and riparian vegetation, giving preferential consideration to riparian-dependent species, and maintaining old growth qualities, including solitude.

The location of all abandoned mine sites are not known. Abandoned mine tunnels and shafts can be hazards to public safety. Water discharged from underground mines may be a source of heavy metals or acid mine drainage, which can adversely affect water quality.

Lands

Status of Desired Future Condition and Objectives - The emphasis of the lands program is on opportunities to consolidate land ownership, decrease management conflicts, secure and mark land boundaries, and secure rights-of-way and easements for administrative use, public needs, and utility corridors.

Current Conditions and Trends - Rights-of-way for private land access and utility corridors are conducted on an as-needed basis. Corridor planning is ongoing. The disposal of unneeded structures, facilities, and administrative sites is ongoing, pending the availability of funds.

Major Changes since 1990 - The three national forests in the Blue Mountains have completed land exchanges or purchases that have resulted in the exchange of approximately 12,500 acres of national forest land for 26,274 acres of non-federal lands since the Forest Plans were implemented. Completion of the Blue Mountains Land Exchange, which involves approximately 18,000 acres of federal lands and 32,000 acres of non-federal lands, is pending and may change the lands included in the three forests during the forest plan revision process.

Areas of Concern - The time required to complete land exchanges has increased in response to legal and administrative requirements which results in increased costs. At the same time, with reduced funding, fewer land exchanges will be pursued and some discretionary projects may not be completed.

Built Infrastructure

Trails

Status of Desired Future Condition and Objectives - The trail system across the three national forests has not expanded to the scale anticipated in the current Forest Plans. New trail construction has been minimal throughout the planning area, although former roads have been converted to motorized or non-motorized trails. Winter trail opportunities have increased (these generally use roads and trail systems). Trail re-construction has been based on needs for increased public safety, compliance with riparian enhancement, or through implementation of wild and scenic river plans.

Emphasis on keeping horse and hiker trails well-maintained is strong and many partners provide volunteer labor. In a few areas, active partner groups are supporting the development of OHV and snowmobile trails to create longer systems, connections to adjacent communities, and more challenging rides.

Overall, it is likely that in most cases, the standards for trail maintenance have not been met for the majority of system trails.

Current Conditions and Trends - Trails have maintenance objectives designed to meet a variety of Recreation Opportunity Spectrum (ROS) experience levels. Trail construction design and maintenance standards are based on the type of anticipated use for the trail. The Forest Service also includes national and regional standards for clearing height, surface type, drainage structures, slopes, and tread width based on use type, and difficulty rating.

The trail system on national forest lands is comprised of non-motorized and motorized trails. Table 10 shows the number of miles of each type of trail across the three forests.

Although there are limited opportunities for motorized recreation on system trails throughout the three national forests, this use is increasing both regionally and locally. Currently, due to trail widths, two-wheeled motorized use opportunities are greater than four-wheeled motorized use.

Traditional (non-motorized) trail use was on the increase in the years prior to establishment of the Forest Plans. However, recent visitor information from the Statewide Comprehensive Outdoor

Recreation Plans (SCORPs) show day-hiking and horseback riding use is slightly decreasing, while backpacking use has increased.

The National Visitor Use Monitoring (NVUM) survey results from the Blue Mountain national forests indicate about 18 percent of forest visitors used forest trails. Another 5 percent use "winter trails" (both motorized and non-motorized). Hiking and walking remain in the top five primary uses of each of the national forests of the Blue Mountains.

Opportunities continue to grow for strong two- and three-way partnerships between the state departments of parks and recreation, volunteer groups, and the national forests to share revenue (from the state as funneled through various federal agency programs), labor, and technical expertise from volunteer groups and agency personnel.

Table 10: Current Miles of Trail

Type of Trail	Malheur NF	Umatilla NF	Wallowa-Whitman NF*
Wilderness	133.6	355	898
All-Purpose (hiking, horse, mountain biking & motorized use)	46.9	361	
Non-Motorized	95.9	99+	
Foot-only (non-Wilderness)	10.9		
Barrier-Free (handicapped accessible)	2.5		
Mountain Bike	223.1		
Snowmobile	502.5	(est.) 500	
Nordic Ski (cross-country skiing)	17.0	38	
Total Miles of Trail	1032.4	1353	2653

(Blanks are result of database uncertainty at time of report)

Major Changes since 1990 - Combining motorized and non-motorized users at trailheads and along travel routes result in occasional conflicts. Major trail construction, closures, and conversions have been done as a result of implementing wilderness management plans, wild and scenic river plans, and the HCNRA Comprehensive Management Plan. The INFISH and PACFISH amendments to the Forest Plans have placed increased emphasis on maintenance and re-construction of trail systems within riparian areas.

Areas of concern - Decreased funds and limited partnerships have presented challenges to completing adequate "customer service-oriented" maintenance on many trails. The majority of trails have numerous maintenance needs, due to an aging infrastructure. Trails are used differently and more heavily than the level for which they were originally designed.

Roads

Status of Desired Future Conditions and Objectives - The transportation system on the Malheur, Umatilla, and Wallowa-Whitman National Forests serves a variety of resource management and access needs. Most roads on the three forests were originally constructed for commercial purposes including grazing, timber, and mineral extraction. The current Forest Plans describe an overall increase in the miles of road across the three national forests; the mileage has decreased by about 3 percent.

Road maintenance funding is not adequate to maintain and sign roads to the current maintenance level objectives. There are potential environmental impacts from the road system that need to be prioritized and evaluated for future analyses at a lower (watershed or sub-watershed) scale. High road densities in some areas do not meet standards in the current Forest Plans. Road access may not be adequate for future management and public access needs.

Current Conditions and Trends - Special road designations are part of the three forests' transportation systems. These designations include Scenic Byways, Forest Highways, and state and county Scenic Byways. Roads designated in one of these programs generally receive strong emphasis is for safety, user comfort, and resource management.

Table 11: Current Maintenance Levels and Total Miles of Forest Service Roads.						
Road Maintenance Level	**Malheur National Forest**		**Umatilla National Forest**		**Wallowa-Whitman National Forest**	
	Miles	**Percent of Total**	**Miles**	**Percent of Total**	**Miles**	**Percent of Total**
1 - Basic Custodial Care (closed or restricted)	2638	27.3%	2209	46%	4293	46.2%
2 - High Clearance Vehicles	5812	60.1%	1786	37%	4199	45.2%
3 - Passenger Vehicles – Surface not Smooth	883	9.1%	644	13%	634	6.8%
4 – Passenger Vehicles – Smooth Surface,	317	3.2%	190	4%	16	0.2%
5 – Passenger Vehicles - Smooth Surface, Dust-free, Possibly Paved	19	0.2%	108	2%	148	1.6%
Totals	9670	100%	4946	100%	9290	100%

The 2003 Oregon Statewide Comprehensive Outdoor Recreation Plan (SCORP) survey indicated that road-related access was a high priority issue for this planning region of Oregon. The plan specifically identified "providing recreational access to public lands", "acquisition for trail development (motorized and non-motorized)", and "purchase of easements across private lands to access public lands" as priorities.

Results of the 2003 National Visitor Use Monitoring (NVUM) surveys for the national forests of the Blue Mountains indicate that the main constructed facility that visitors use is "forest roads" and Scenic Byways. Driving for pleasure rates very high as an activity forest visitors enjoy. The user satisfaction with the condition of these national forests roads is not especially high, and in the general forest areas, signing was seen as important although lacking.

Major Changes since 1990 - In 2001, the Forest Service issued the *National Forest System Road Management Rule* (66 FR 3206, January 12, 2001). This rule revises regulations concerning the management, use, and maintenance of the National Forest Transportation System.

In addition, each national forest was directed to complete a Roads Analysis Report. During the analysis process, key issues are developed, and the product of the analysis is a report for decision-makers and the public that documents the information and analyses used to identify opportunities and set priorities for future national forest road systems. Each Blue Mountain forest has recently completed a draft Roads Analysis Reports for roads in Maintenance Levels 3, 4, and 5.. The analysis is designed to provide decision-makers with critical information to develop and maintain road systems that are safe and responsive to public needs and desires, are affordable and efficiently managed, have minimal negative ecological effects on the land, and are in balance with available funding for needed management actions.

Changes in logging methods, a moratorium directive on road building in roadless areas, land exchanges, and appropriations have influenced how roads are managed and maintained in the last decade.

Areas of Concern - Current funding levels are not adequate to maintain existing roads to applicable standards to minimize ecological impacts and allow efficient and safe use. The roads analysis reports for the Malheur, Umatilla, and Wallowa-Whitman National Forests show that approximately 20 percent of the roads are in the primary road system and expend roughly 80 percent of the forests road maintenance and operation budgets. The other 80 percent of the road miles cannot be maintained on the remaining 20 percent of the appropriated budget.

Recreational use of roads on the three national forests has increased. As roads are closed or decommissioned to address other resource concerns, the open roads available for pleasure driving and sightseeing becomes limited. Roads built for logging or mining use now have a higher level of use and multiple user types. Large recreational vehicles use roads concurrently with commercial vehicles and off-highway vehicles (OHVs) such as 4-wheelers. These uses sometimes create serious concerns for the safety of the road users.

Special Uses and Utility Corridors

Status of Desired Future Condition and Objectives - Specific direction in the current Forest Plans for special uses is limited. Special uses are permitted across the forests in accordance with management area guidelines, and using national and regional direction.

Current Conditions and Trends - The current list of existing recreation special-use permits is shown in Table 11 below. These special recreation providers have a distinct niche in the forests. Outfitter and guides, ski area operators, concessionaires, resorts, and organization camps all provide highly valued public recreation services on national forest lands.

Recreation and tourism has become Oregon's number one industry (Oregon SCORP), and recreation-related employment has increased in the private sector and expanded their ability to provide opportunities on public lands. While there may be a continual pressure to permit additional businesses on the forests, this pressure seems to be coming from interested entrepreneurs searching for business opportunities rather than from the customers searching for a privately operated recreation services.

On the Wallowa-Whitman and Umatilla National Forests, recreation residence special use permits will need to be reviewed on a tract-by-tract and lot-specific basis by December 31, 2006 for re-issuance under the *Cabin Users Fee Fairness Act*. These site-specific decisions are not expected to be changed during Forest Plan Revision, however, a description of whether or not other lands are suited for recreation residences may be analyzed in the process.

Table 12: Recreation Special Use Permits on the three National Forests *

Type	Malheur	Umatilla	Wallowa-Whitman	Total
Ski Areas		2	1	3
Campground Concession Operations	1	1	2	4
Outfitter/Guide	11	32	62	105
Recreation Residences		98	43	141
Target Range		1	2	3
Resort	1		2	3
Organizational Camp	1			1
Tramway			1	1
Recreation Events	6	3	15	24
Recreation Rental Program Cabins	3	10	8	21
Other Recreation Special Use Permits			2	2

*From Infra Database (11/20/2003)

Major Changes since 1990 - Some changes to the number of permits, service days allowed, and the special use permitting process have occurred in the HCNRA including for the Wild and Scenic Snake River. No forest plan amendments have occurred on the Malheur and Umatilla National Forests that affected the special use permit process.

Areas of Concern- There is a concern that fees generated from special-use permits are not recovering pre-issuance processing costs, and staff time, training, and funding are not adequate to appropriately inspect the high-use permittees and assure proper operation. There is also a concern that illegal operators may be underreported and current services may not meet objectives for providing a high quality recreation experience.

Flows of Products and Services

Production of Marketed Goods and Services

Status of Desired Future Condition and Objectives - Flows of market goods and services across the three national forests include timber and forage production. The Forest Plans anticipated providing a consistent amount of timber for industry within the area to maintain a stable and

predictable local economy. The average annual timber production has declined 63 percent to 170 Million Board Feet (MMBF) sold compared to the anticipated Forest Plan average annual output levels of 465 MMBF across the three forests. Average annual domestic grazing permitted of 302,000 Animal Unit Months (AUMs)) has also declined compared to anticipated Forest Plan average annual permitted levels of 354,000 AUMs, but at a slower rate (-15 percent).

Current Conditions and Trends - During the first five years following the release of the current Forest Plans, timber volume sold from the three forests fell to the lowest level in the decade (45 MMBF). Although volume sold increased briefly to around 200 MMBF in the late 1990s, the amount sold for the past three years from the three forests combined has ranged from approximately 50 to 60 MMBF. Timber volume removed from the three forests declined in the same manner as volume sold, with a slight peak in 1999.

The permitted grazing remained fairly constant until the late 1990s. Since then there has been an overall average annual decline of -6 percent. The Wallowa-Whitman National Forest shows a decline due to removal of sheep grazing in the Hells Canyon National Recreation Area in 1996. The following graphs illustrate the overall trends in timber and forage produced from the Malheur, Umatilla, and Wallowa-Whitman National Forests.

Major Changes since 1990 - Salmon were listed as threatened or endangered in 1992 resulting in additional direction known as PACFISH and INFISH (USDA/USDI 1995a)(USDA 1995b). Monitoring provisions were reviewed in 1997 in conjunction with requirements under the 1995 Rescission Act (Public Law 104-19). In addition, in 1995 the Eastside Screens provided interim management direction for riparian, ecosystem, and wildlife standards for timber sales (USDA 1995c). These changes have contributed to major reductions in the level of timber and forage outputs anticipated in the Forest Plans.

Areas of Concern - The degree of reliance of counties and communities on timber and forage produced from the forests varies widely across the Blue Mountains. For the communities that are most heavily dependent on predictable levels of timber or forage production from the forests, the reduced production levels have caused greater emphasis on how to maintain or restore ecological integrity while considering the social and economic needs of the surrounding communities.

Figure 5: Total Volume Sold (MMBF) - Blue Mountains National Forests Fiscal Year 1990 - 2001

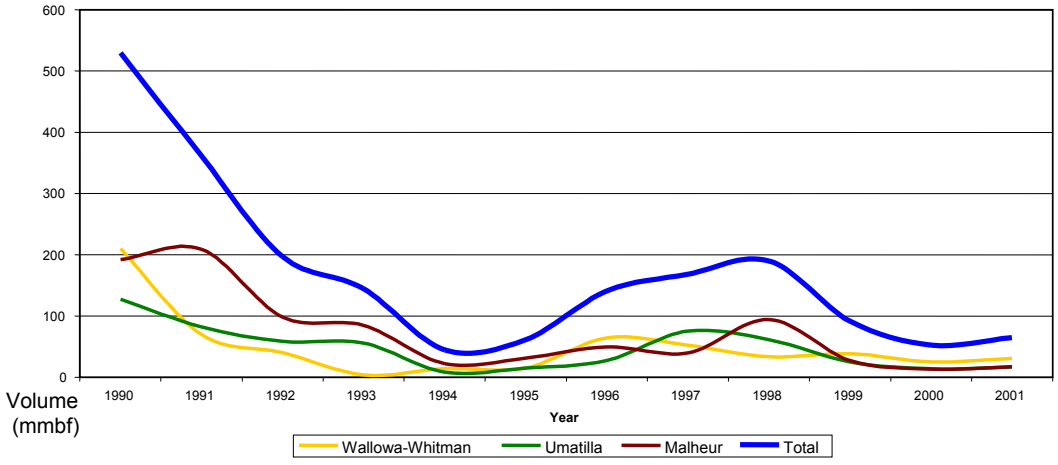


Figure 6: Total Volume Removed - Blue Mountains National Forests
Fiscal Year 1990 - 2001

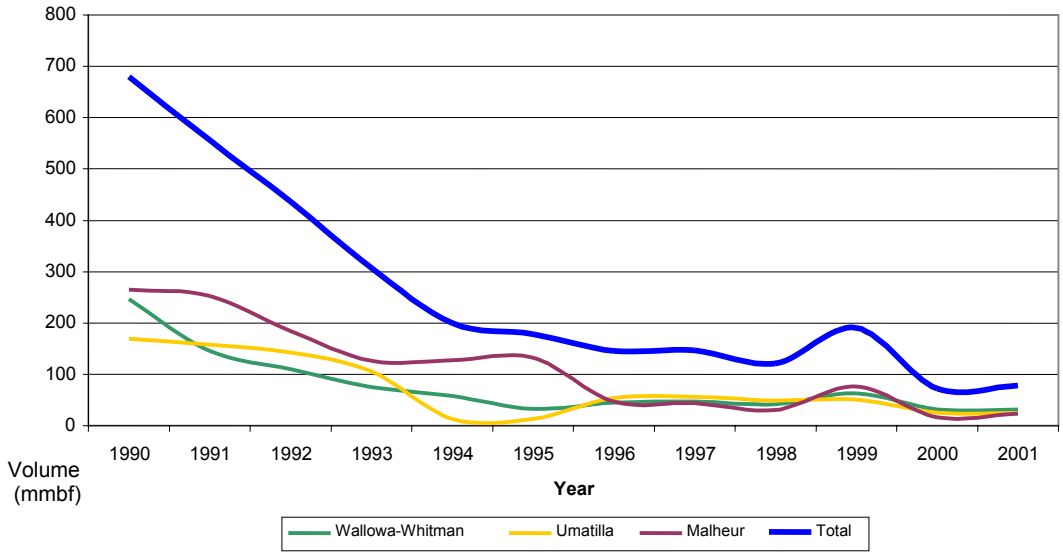
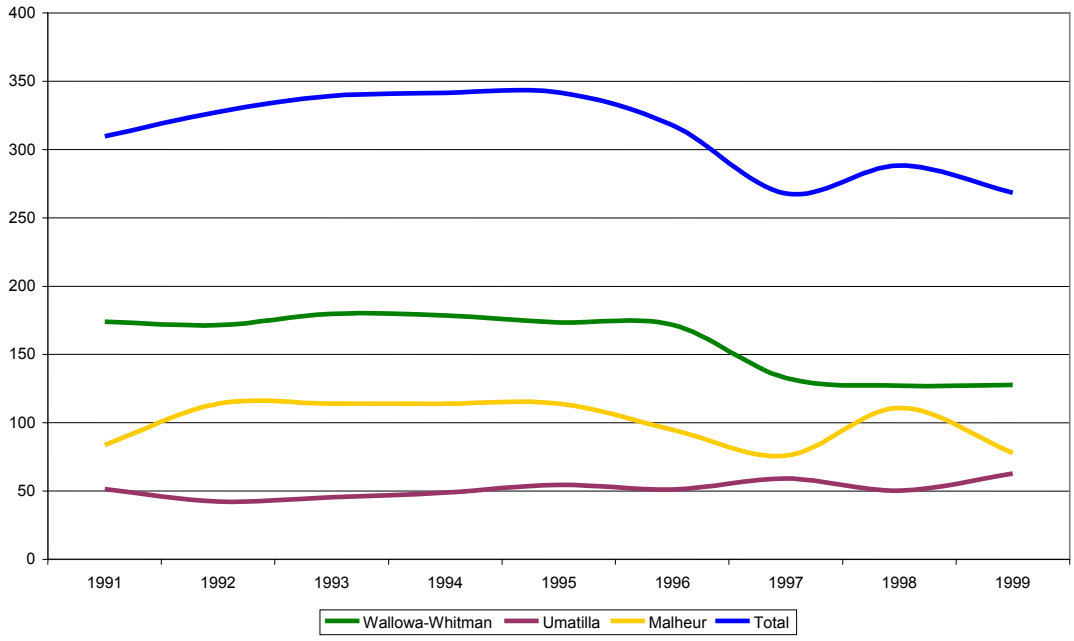


Figure 7: Total Animal Unit Months - Blue Mountains National Forests
Fiscal Year 1991 - 2000



Production of Non-market Goods and Services

Status of Desired Future Condition and Objectives - Non-market goods and services are generally considered public goods and are not traded in the market place. Non-market values relate to on-site uses of the national forests that consume a good or service such as hunting, fishing, mushroom picking, and Christmas tree harvesting. Non-market values relate to on-site uses that are non-consumptive such as dispersed recreation, wildlife viewing, or photography. In addition to values associated with being physically in the forests, passive (non-use) or preservation values capture important economic value to the public (Swanson and Loomis 1996). Passive or non-use values occur when people receive benefits through the satisfaction of knowing that it exists or that it remains available to bequest to future generations rather than through actively using resources or visiting the area. Passive or non-use values are one measure of intrinsic or inherent value associated with off-site uses.

Although these non-market goods, services, and related social values are described as a desired conditions for the Blue Mountains, only some of them have been directly monitored and efforts have been mostly focused on tracking consumptive uses. This information indicates that Christmas trees, post and poles, fuelwood, and mushrooms continue to be provided to surrounding communities, family groups, reserved tribal rights, or as traditional pursuits.

Personal use of these products remains important to local lifestyles in terms of supporting subsistence needs and recreation. The availability of these resources, combined with their close proximity to surrounding communities, continues to make the national forests very popular with local residents, as well as out-of-area visitors. In some instances, fuelwood and mushroom harvesting supports the livelihoods of people living in the area. Commercial mushroom harvesting has increased over the past ten years on a seasonal basis, depending on the level of wildfires that occur.

Current Conditions and Trends - Woody material such as fuelwood, posts, poles, boughs, and non-saw material are classified as non-timber products across the three forests. This includes everything permitted or otherwise sold except saw timber, Christmas trees, and mushroom permits.

The trend from 1996-2001 indicates a downturn in the level of use of about 18 percent for non-timber products. The Wallowa-Whitman National Forest is the largest contributor of these products and shows the highest drop largely due to declines in post and pole sales and commercial firewood harvested. Christmas tree harvesting has remained fairly steady with a slight upward trend (3 percent). Mushroom harvesting has been widely variable with a peak following several large fires in 1996. The following figures illustrate these trends.

Major Changes since 1990 - Wallowa-Whitman National Forest fuelwood program now includes direction to consider the value of standing and down, dead wood materials to the forest ecosystem when assessing removal of trees for firewood. However, there have been only minor limitations to personal fuelwood gathering activities for the most part on the three forests. The forests have been working together to provide a combined permitting process to provide better service to the public while allowing for more consistent management of the available fuelwood resources.

Areas of Concern - Many people depend on the national forests directly or indirectly for a wide range of non-market goods and services and other values that are generated over time from the sustainable, productive capacity of the ecological system. The degree and distribution of changes between components of the land and the stewardship of adequate capital are the major concerns related to sustainability.

In addition, economic value does not fully capture all of the costs associated with these activities, nor does it account for the full range of benefits including to other social values. Some services from the ecosystem such as diversity, scenic quality, water quality, or air quality have no reasonable basis for estimating dollar values and need to be considered qualitatively. The impacts to non-market goods and services may not be fully accounted for in assessing ecosystem conditions.

Figure 8: Total Value of Nontimber Products Removed (2004$) - Blue Mountains National Forests Fiscal Year 1996 - 2001

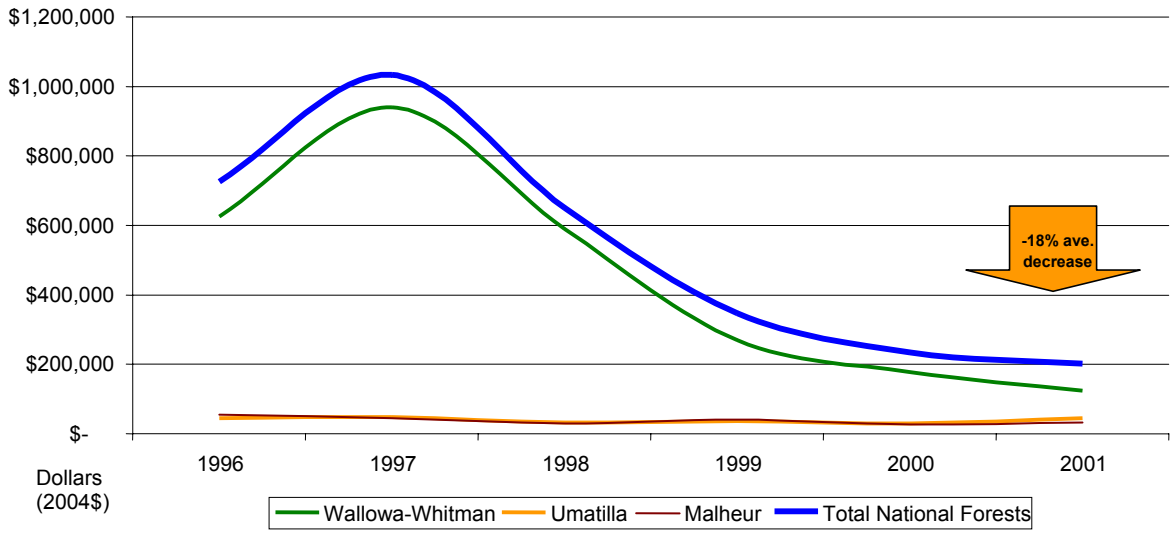


Figure 9: Total Value of Christmas Trees Harvested 2004$) - Blue Mountains National Forests Fiscal Year 1996 - 2001

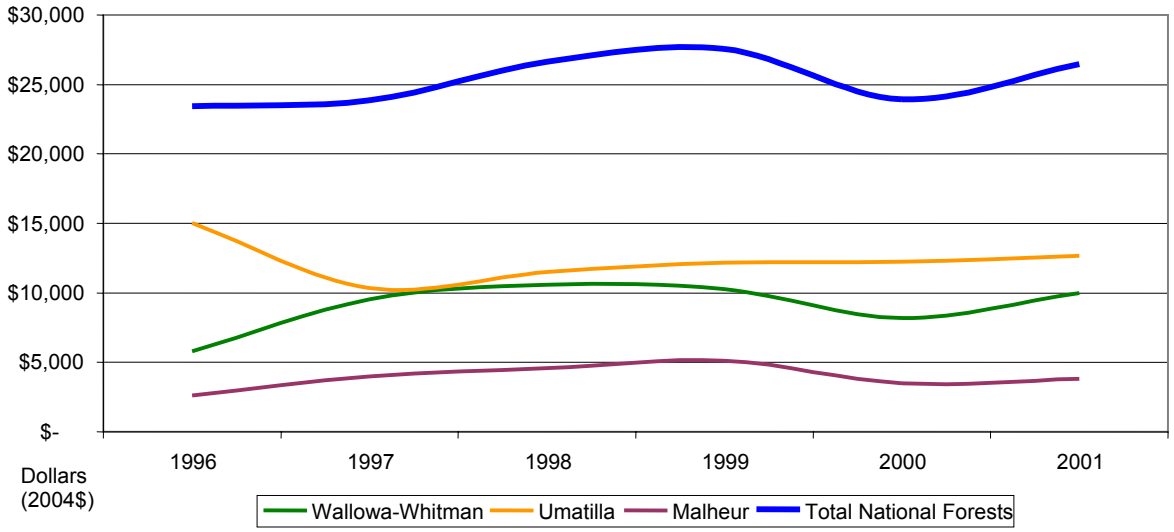
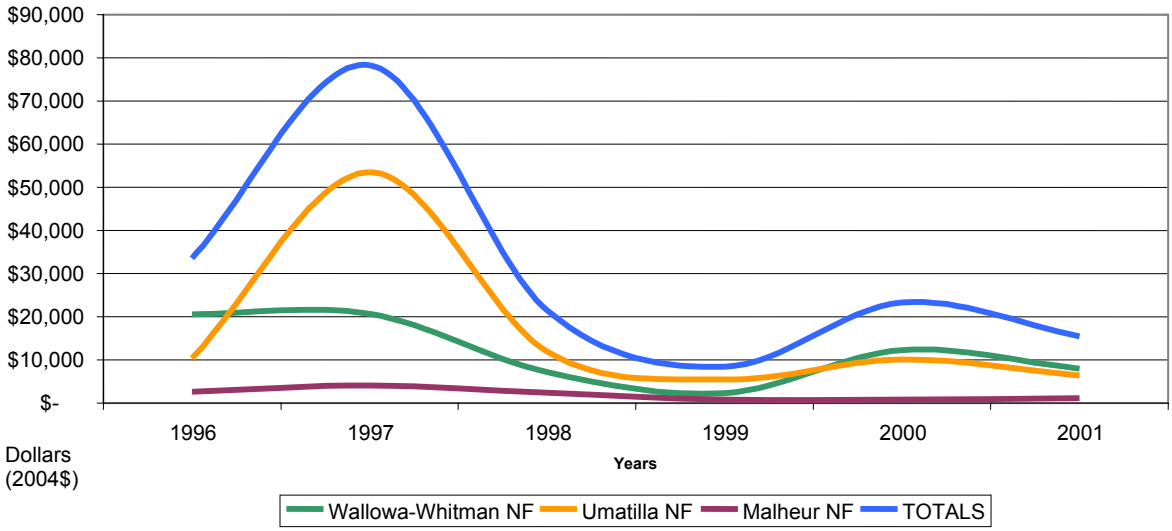


Figure 10: Total Value of Mushrooms Harvested 2004$) - Blue Mountains National Forests Fiscal Year 1996 - 2001



Trade and Distribution Equity

Industry Output

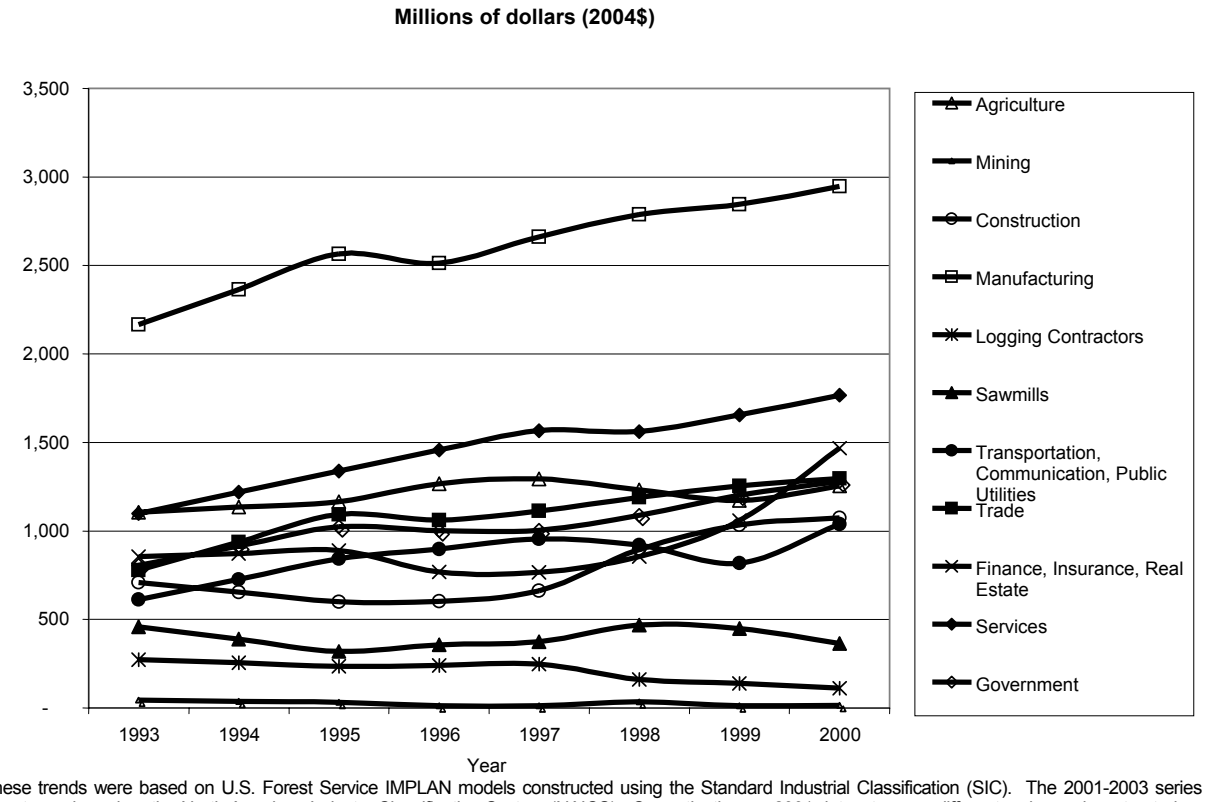
Status of Desired Future Condition and Objectives - The current Forest Plans anticipated that some counties would achieve a more diverse economic base through promotion of tourism and recreational opportunities. When the Forest Plans were signed, manufacturing (including logging contractors and sawmills) and agriculture provided the top two industries in terms of the value of their total production or industry output, followed by services. Although manufacturing remains the highest producer, services provide the second highest value followed by finance, real estate, and insurance. Agriculture is still a top producer in the area.

Current Conditions and Trends - The value of total production from all industries in the area has increased by 42 percent since 1993. Changes within the industries in the area have been widely variable. The largest growth occurred in finance, insurance, and real estate (71 percent) followed by transportation, communication and public utilities (69 percent) and trade (66 percent). The largest decline for industry sectors occurred in mining (-65 percent), logging contractors (-59 percent) and sawmills (-21 percent). The remaining industries in the area also changed at various rates: agriculture (13 percent), manufacturing not including logging contractors and sawmills (36 percent), construction (51 percent), government (59 percent), and services (61percent). The following figure illustrates these changes:

Major Changes since 1990 - Declines in timber availability from the Blue Mountains, improvements in technology and productivity, and increased global competition have caused a decline in the forestry and agriculture industries.

Areas of Concern - The current Forest Plans projected impacts to economies that have not occurred or changes have occurred that were unanticipated. A more realistic approach to assessing and tracing linkages between the Blue Mountains National Forests' management activities and other social and economic changes that are occurring (regardless of these actions) is needed to provide a better understanding of the context for sustainability of the area.

Figure 11: Industry Output 1993 - 2000*



(*These trends were based on U.S. Forest Service IMPLAN models constructed using the Standard Industrial Classification (SIC). The 2001-2003 series datasets are based on the North American Industry Classification System (NAICS). Currently, the pre-2001 datasets are a different series and are treated as discontinuous and not comparable, and are not included in this analysis).

Income and Employment

Status of Desired Future Condition and Objectives - Employment and income were not anticipated to change anymore than 15-20 percent. Declines in timber harvesting have contributed to significant declines in comparison to projections from the current Forest Plans for timber-related employment. Livestock-related employment has varied within the changes expected. Changes in recreation-related employment have not been captured with any degree of certainty due to variations in counting recreation use over the past ten years.

Current Conditions and Trends - Total employment (farm and non-farm) has increased about 19 percent since 1990 with approximately 130,000 people now employed in the planning area. Total earnings from employment have increased 38 percent overall as a result of 39 percent increase in earnings from non-farm employment and 7 percent from farm-related employment. Changes within industries have been widely variable in employment and income in relation to the industry outputs previously discussed.

The highest increases in employment occurred for finance, insurance, and real estate (49 percent) followed by construction (44 percent), and mining (42 percent). Income changes were the highest similarly for finance, insurance, and real estate (127 percent) followed by construction (107 percent), although mining had the largest decline (-56 percent) in income of all industries. Logging contractors and sawmills also experienced large declines in income (30 to 50 percent respectively). The following table describes the changes in employment and income for each industry from 1993 to 2000.

Table 13: Employment and Income by Industry from 1993 to 2000*		
Industry	**Employment Changes**	**Income Changes**
Agriculture	30%	8%
Mining	42%	-56%
Construction	44%	107%
Manufacturing	13%	30%
Logging Contractors	-47%	-50%
Sawmills	-30%	-30%
Transportation, Communication, Public Utilities	15%	43%
Trade	13%	33%
Finance, Insurance, Real Estate	49%	127%
Services	31%	49%
Government	6%	39%
Total	**19%**	**38%**

(*These trends were based on U.S. Forest Service IMPLAN models constructed using the Standard Industrial Classification (SIC). The 2001-2003 series datasets are based on the North American Industry Classification System (NAICS). Currently, the pre-2001 datasets are a different series and are treated as discontinuous and not comparable, and are not included in this analysis).

Restoration and stewardship projects specifically funded by the National Fire Plan (USDA 2000) and other investment sources have been occurring with attention toward creating employment for residents in counties across the Blue Mountains. Recent research and information has provided better methods for determining these impacts in the future. Initial results from studying impacts in three counties in the area (Grant, Union, and Wallowa) indicate that people that do not reside in these counties accomplished 80 percent of the work in these counties. They may however reside in other counties in the Blue Mountains. Some issues are still limiting this type of work such as the lack of enough contracts, timing, bonding requirements, bidding procedures, capital investments, and equipment needs, small crew sizes, and lack of skilled labor (Wallowa Resources and others 2004).

Major Changes since 1990 – Several workshops and training sessions have occurred in the past five years to provide more information to contractors residing in the Blue Mountains to increase their capacity to acquire restoration-related employment. In 2000, Resource Advisory Committees were formed as a result of the *Secure Rural School and Community Self-Determination Act of 2000* (PL 106-393). Recognizing that revenue from timber harvest has sharply declined during recent years, the law addresses funds that have been received from activities on federal lands which have historically been shared with counties to support schools and roads. For each year 2001-2006, the law allows counties to receive a payment from the federal government based on the average of their top three years (1986-1999) of payments from federal lands. Title I of the Act states that counties will use 80-85% of their lump sum payment for schools and roads.

The Title II and Title III of the Act provide for using the remainder of the payments (15-20 percent) for what are referred to as "Title II or Title III" projects. Title II projects can occur on or off federally managed lands, but must benefit federal lands in some way such as through road maintenance or watershed restoration projects. Title III projects directly benefit the county in some way such as through improved emergency services. Through the Resource Advisory Committees, counties can choose how they want to distribute funds and they may allocate funds entirely to Title II or to Title III projects or through some combination of both.

Areas of Concern - Output, employment, and income projections described in the Forest Plans are outdated, indicating that modeling the economy is imprecise in identifying impacts to counties and communities from projected levels of outputs. Approaches that recognize overall changes in the local, regional, national, and global economy and in addition, more focused attention on efforts to create a restoration-based economy in the Blue Mountains are important to understanding potential impacts and uncertainty at various scales.

Chapter 4:
Need for Change

Forest plan revisions are based on the concept of "Need for Change". This means that the 1990 Forest Plans will be examined and portions that are still appropriate will be carried forward into the new plan. Those portions that are not working (that "need change") will be reviewed and changed or updated. This section will be further developed through the Community Collaborative Workshops. Some initial highlights of needs for change have been identified to start the process.

Provincial Consistency

The three forests share key issues, resources, customers, and interested publics. The three national forests need to work together to consider management of ecosystems across administrative boundaries and develop a more consistent management program. By working together and sharing personnel, services, budget, and experience, the overall efficiency and quality of the revision effort is expected to increase.

Appropriate blending of the three Forest Plans will lead to improved management, administration, and implementation consistency across the Blue Mountains. This will provide better service to constituents of the three national forests.

Changing Social Values

There have been many changes to society since the Forest Plans were approved in 1990. 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 1990 Forest Plans need to be reviewed.

A description of many of the changes to the local communities and residents is found in Chapter 3 of this document. An example of a changing social value is an increasing awareness and concern with linking stewardship activities to improve social and economic conditions of communities in the Blue Mountains while recognizing changes in the broader social context of a global economy. Another example is the widely varying values that people hold to describe what a balance of the social, economic, and environmental benefits from the forests means to them.

Over the past 14 years, natural resource management activities have been planned and implemented in a way that emphasizes greater attention to collaborative involvement and decision-making. These efforts have increasingly changed how people expect to be involved in forest planning processes and contributed to integrating resource needs and meeting concerns through partnerships with the public.

Laws, Regulations, and Policy

Since the 1990 Forest Plans were finalized, there have also been many changes to the direction that guides natural resource management. This direction is found in laws; regulations that implement laws; Forest Service directives (Manuals and Handbooks); and internal agency policy. Internal policy comes to forests through letters from the Chief of the Forest Service and from Regional Foresters. Also refer to the following section titled "Evolving Agency Direction since Forest Plans were Adopted" for additional information.

As outlined in previous sections of this document, numerous new policies have been put into effect since the 1990 Forest Plans were adopted. These include, but not limited to: the Roadless Conservation Rule, the Federal Wildland Fire Management Policy (USDA/USDI 1995 and 2003); the Forest Roads Rule and Policy as well as the interim direction known as PACFISH, INFISH, and the Eastside Screens, which

amended the 1990 Forest Plans. In addition, there have been numerous court decisions that identify and interpret the implementation of some of the above laws regulations, and policies.

Science Developments

In the past decade, there have been many scientific studies and assessments that address land management issues applicable to the Blue Mountains. Such developments include, but are not limited to the *Integrated Scientific Assessment for Ecosystem Management in the Interior Columbia Basin* (Quigley 1996), *Forest Plan Monitoring and Evaluation Reports*, other scientific publications, and studies. Management of threatened and endangered 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.

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 this plan revision. Improved analysis and data should also result in revised estimates of outputs and outcomes that are realistic and attainable. Each revision topic in this Current Management Situation Report and future documents will cite specific sources of scientific information that is used in the planning analysis.

Listing Of Aquatic Species and Lynx as Threatened Species

In 1990 when the Forest Plans were implemented there were three species (bald eagle, peregrine falcon and MacFarlane's four o'clock) listed as threatened or endangered within the Blue Mountains. Since 1990, several other species have been listed under the *Endangered Species Act* (see the Species Viability section in Chapter 3 for a list of current threatened and endangered species on the three national forests).

The current Forest Plans have been amended in response to the listing of various salmon species, steelhead, and bull trout. Snake River fall chinook salmon, Snake River spring/summer chinook salmon, Snake River sockeye salmon, bull trout (proposed), and MacFarlane's four o'clock have either designated critical habitat or proposed designated critical habitat. Essential Fish Habitat (EFH) has been designated for the Snake River and John Day River chinook and coho salmon.

Recent listings that have not resulted in forest plan amendments include the mid-Columbia steelhead and Canada lynx.

Agency Direction

Since the current Forest Plans were adopted, the Forest Service's policy and resource management direction has continued to evolve. Much of the analysis that will be done through the forest plan revision will be based upon an understanding of the sustainable interrelationships and processes involved in protecting ecosystems and managing for multiple-uses.

The U.S. Forest Service's mission of *Caring for the Land and Serving People* has expanded over the last 100 years from sustaining commodity outputs to sustaining the "health, diversity, and productivity of the nation's forests and grasslands to meet the needs of present and future generations" (USDA 2003). Many laws have been passed that call for federal agencies to pursue this mission. 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*.

When the Forest Plans were finished in the early 1990's, most projects and monitoring efforts were based on tracking resource outputs or managing issues for specific resource areas such as timber or wildlife because the Forest Plans were designed this way. Since then, forest managers have learned from efforts to implement and monitor the Forest Plans that achieving the desired conditions described in the Forest Plans is not an absolute process. Changing social values and resource conditions make managing resources independently of each other difficult to implement.

Several efforts have emerged over the last 10-15 years that focus on how to develop criteria and indicators for sustainability that are relevant at the regional, forest, or community level. These efforts recognized that assessing and monitoring sustainability requires attending to multiple scales. From 1999-2002, eight national forests across the nation, including the national forests in the Blue Mountains, conducted a pilot study of developing criteria and indicators to evaluate social, ecological, and economic systems and contributions to sustainability at the forest level (Wright and others 2002). The results of this effort have provided the foundation for developing the initial Sustainability Framework for the forest plan revision process. See Chapter 3 for the description of the current resource conditions related to some elements of this framework. Refer to Appendix A for the complete outline of the Draft Sustainability Framework.

Glossary

Many definitions in this glossary are from the sources listed below. Numbers in parentheses at the ends of definitions indicate which source. Some definitions are not specifically referenced but are in general use within the Forest Service. Terms adequately defined in general dictionaries are not necessarily included, though some of those that are less well known are included for the convenience of the reader. Words that are used in definitions and also defined elsewhere in the glossary are typed in bold print.

Source List

1. 36 CFR 219 *National Forest Management Act Regulations*
2. *Regional Guide for the Pacific Northwest Region*, 1984.
3. *Society of American Forests Dictionary of Forestry Terms*, 1971.
4. *Wildland Planning Glossary*, USDA, 1976.
5. *Wildlife Habitats in Managed Forests, The Blue Mountains of Oregon and Washington*, 1979.
6. *Forest Service Manual* or *Forest Service Handbook*
7. *A Glossary of Terms Used in Range Management*, *Second Edition*, Society for Range Management, 1974.
9. *Interior Columbia Basin Ecosystem Management Project DEIS*, USDA, 1997.
10. *Wallowa–Whitman National Forest Land and Resource Management Plan*, 1990.
11. *Interior Columbia Basin Ecosystem Management Project SDEIS*, USDA, 2000.
12. *Interior Columbia Basin Ecosystem Management Project FEIS*, USDA, 2000.
13. *A dictionary of ecology, evolution and systematics*, Cambridge University Press, 1982.
14. Webster's 7th Dictionary
15. Hells Canyon National Recreation Area Comprehensive Management Plan, 2003

Administrative unit – A management area—such as a Forest Service national forest under the administration of one line officer. Forest Service line officers include district rangers and forest supervisors. (12)

Air pollutant – Any substance in air that could, if in high enough concentration, harm humans, animals, vegetation, or material. Air pollutants may include almost any natural or artificial matter capable of being airborne, in the form of solid particles, liquid droplets, gases, or a combination of these. (12)

Air quality – The composition of air with respect to quantities of pollution therein; used most frequently in connection with "standards" of maximum acceptable pollutant concentrations. (12)

Allotment (grazing) – Area designated for the use of a certain number and kind of livestock grazing for a prescribed period of time. (12)

Allotment management plan (AMP) – A document that specifies the actions to be taken to manage and protect the rangeland resources and reach a given set of objectives. (6)

Allowable Sale Quantity (ASQ) – On a national forest, the quantity of timber that may be sold from a designated area covered by the forest plan for a specific period of time. (10)

Alternative – One of several policies, plans, or projects proposed for decision–making. In an EIS, one of a number of possible options for responding to the purpose and need for action. (2, 6, 12)

Amenity – Resource use, object, feature, quality, or experience that is pleasing to the mind or senses; typically refers to values for which monetary values are not or cannot be established, such as scenic or wilderness values. (12)

Analysis file – A file containing records of the scoping and analysis processes conducted during the preparation of a NEPA document. The file is typically stored at the Forest Service office from which a final decision is issued.

Anadromous fish – Fish that hatch in fresh water, migrate to the ocean, mature there, and return to fresh water to reproduce; for example, salmon and steelhead. (12)

Animal unit month (AUM) – The amount of forage required by one mature (1000 lb.) cow or its equivalent for one month (based upon average forage consumption of 26 lb. of dry matter per day).

Aquatic – Pertaining to water. (12)

Archaeological sites – Sites containing relics, artifacts, and other evidence of past human cultures, including historic properties as defined by the National Historic Preservation Act. (16)

Assessment – The collection, integration, examination, and evaluation of information and values. (12)

Basin (river) – (1) In general, the area of land that drains water, sediment, and dissolved materials to a common point along a stream channel. River basins are composed of large river systems. (2) In this document, the term refers to the equivalent of a 3rd-field hydrologic unit code, such as the Columbia River Basin. (12)

Best management practices (BMPs) – A practice or combination of practices that is determined by a state (or designated area–wide planning agency) after problem assessment; examination of alternative practices; and appropriate public participation to be the most effective, practicable means (including technological, economic, and institutional considerations) of preventing or reducing the amount of pollution generated by nonpoint sources to a level compatible with water quality goals (*Federal Register, Volume 40, No. 230*, 11/28/75).

Biophysical – The combination of biological and physical components in an ecosystem. (12)

Biophysical environment – A combination of plant communities and environmental conditions such as temperature and moisture.

Biomass – Dry weight of organic matter in plants and animals in an ecosystem, both above and below ground. (12)

Biotic –Living. (12)

Broad scale – A large, regional area, such as a river basin and typically a multi-state area. (12)

Browse – That part of leaf and twig growth of shrubs, woody vines and trees available for animal consumption. (7)

Bureau of Land Management (BLM) – An agency within the Department of the Interior with land management responsibility for the public domain lands.

Candidate species – Plant and animal species that may be proposed for listing as endangered or threatened in the future, in the opinion of the U.S. Fish & Wildlife Service (USFWS) or NOAA Fisheries. (12)

Canopy – In a forest, the branches from the uppermost layer of trees; on rangeland, the vertical projection downward of the aerial portion of vegetation. (12)

Canopy closure – The amount of ground surface shaded by tree canopies as seen from above. Used to describe how open or dense a stand of trees is, often expressed in 10 percent increments. (12)

Capability – The potential of an area of land to produce resources, supply goods and services, and to allow resource uses under an assumed set of management practices at given levels of management intensity. Capability depends upon current conditions and site conditions such as climate, slope, landform, soils, and geology, as well as the application of management practices such as silviculture or protection from fire, insects and disease. (1)

Capital investment – An input that increases the stock of natural or man–made resources (assets) needed to maintain or increase the flow of outputs in the future. Benefits resulting from capital investments are normally recouped in excess of one year; activities that create or improve capital assets to obtain benefits occurring during several planning periods. (6)

Carrying capacity –The number of animals or plants that can be maintained over a specific period of time on a specified amount of land without damage to either the organisms or the habitat. (12)

Ceded lands – Lands that tribes ceded to the United States by treaty in exchange for reservation of specific land and resource rights, annuities, and other promises in the treaties. (12)

Channel (stream) – The deepest part of a stream or riverbed through which the main current of water flows. (12)

Class I area – Under the 1977 Clean Air Act amendments, all international parks, national parks larger than 6,000 acres, and national wilderness areas larger than 5,000 acres which existed on August 7, 1977. This class provides the most protection to pristine lands by severely limiting the amount of additional air pollution that can be added to these areas. (12)

Code of Federal Regulations (CFR) – A codification of the general and permanent rules published in the *Federal Register* by the executive departments and agencies of the federal government. (1)

Collaboration – Working together; to cooperate willingly with an agency or instrumentality with which one is not immediately connected. The Blue Mountains Forest Plan Revision Team has defined collaboration as: to co-labor and co-create by working with members of the public to design processes and develop products, letting go of controlling the result. (12)

Congressionally classified and congressionally designated areas – Areas that require congressional enactment for their establishment such as wildernesses, wild and scenic rivers, and recreation areas.

Connectivity – The arrangement 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 appropriate vegetation. The opposite of fragmentation. (12)

Conservation strategy/conservation agreement – Plans to remove or reduce threats to candidate and sensitive species of plants and animals so that a listing as threatened or endangered is unnecessary. (12)

Consultation – (1) An active, affirmative process that (a) identifies issues and seeks input from appropriate American Indian governments, community groups, and individuals; and (b) considers their interests as a necessary and integral part of the Forest Service's decision-making process. (2) The federal government has a legal obligation to consult with American Indian tribes. This legal obligation is based in such laws as NAGPRA, AIRFA, and numerous other executive orders and statutes. This legal responsibility is, through consultation, to consider American Indian interests and account for those

interests in the decision. (3) The term also refers to a requirement under Section 7 of the Endangered Species Act for federal agencies to consult with the U.S. Fish and Wildlife Service and/or NOAA Fisheries with regard to federal actions that may affect listed threatened and endangered species or critical habitat. (12)

Cooperate - To act jointly or work with another or others; operate jointly; common effort or labor.

Corridor (landscape) – Landscape elements that connect similar patches of habitat through an area with different characteristics. For example, streamside vegetation may create a corridor of willows and hardwoods between meadows or through a forest. (12)

Cover – (1) Trees, shrubs, rocks, or other landscape features that allow an animal to partly or fully conceal itself. (2) The area of ground covered by plants of one or more species. (12)

Cover type – A vegetation classification depicting a genus, species, group of species, or life form of tree, shrub, grass, or sedge. The present vegetation of an area. (12)

Criteria pollutants – Air pollutants designated by the Environmental Protection Agency (EPA) as potentially harmful and for which ambient air standards have been set to protect the public health and welfare. The criteria pollutants are carbon monoxide, sulfur dioxide, particulate matter, nitrogen dioxide, ozone, hydrocarbons, and lead. (12)

Crown – The part of a tree containing live foliage; treetops. (12)

Culture – The ideals, values, and beliefs that members of a society share to interpret experience and generate behavior that is reflected by their work and thought. (Haviland 1999)

Cultural resources – Historic and archeological resources. Refer to heritage resources.

Current direction – The existing direction in approved management plans; continuation of existing policies, standards and guidelines; current budget updated for changing costs over time; and, to the extent possible, production of current levels and mixes of resource outputs. (12)

Density (stand) – The number of trees growing in a given area, usually expressed in terms of trees per acre. (12)

Desired future condition (DFC) – A portrayal of the land or resource condition that is expected to result if goals and objectives are fully achieved. (1)

Developed recreation – Recreation that requires facilities that in turn result in concentrated use of an area; for example, a campground. (12)

Dispersed recreation – Recreation that does not occur in a developed recreation site; for example, hunting or backpacking. (12)

Disturbance – refers to events that alter the structure, composition, or function of terrestrial or aquatic habitats. Natural disturbances include, among others, drought, floods, wind, fires, wildlife grazing, and insects and diseases. Human–caused disturbances include, among others, actions such as timber harvest, livestock grazing, roads, and the introduction of exotic species. (10)

Diversity – The distribution and abundance of different plant and animal communities and species within the area covered by a land and resource management plan. (1) (2)

Draft environmental impact statement (DEIS) – The draft statement of predicted environmental effects that is required for major federal actions such as revising a land–use plan under section 102 of NEPA and released to the public and other agencies for comment and review. (6)

Eastside Screens – *Interim management direction establishing riparian, ecosystem, and wildlife standards for timber sales on Forest Service-administered lands in eastern Oregon and Washington*. (USDA 1995c) (12)

Ecological integrity – In general, ecological integrity refers to the degree to which all ecological components and their interactions are represented and functioning; the quality of being complete; a sense of wholeness. Absolute measures of integrity do not exist. Proxies provide useful measures to estimate the integrity of major ecosystem components (forestland, rangeland, aquatic, and hydrologic). Estimating these integrity components in a relative sense across the project area helps to explain current conditions and to prioritize future management. Thus, areas of high integrity would represent areas where ecological functions and processes are better represented and functioning than areas rated as low integrity. (12)

Ecological processes – The flow and cycling of energy, materials, and organisms in an ecosystem. Examples of ecosystem processes include the carbon and hydrologic cycles, terrestrial and aquatic food webs, and plant succession, among others. (12)

Economy – System of production, distribution, and consumption of economic goods. (12)

Ecosystem – A complete, interacting system of living organisms and the land and water that make up their environment; the home places of all living things, including humans. (12)

Ecosystem-based management – The use of an ecological approach to achieve multiple-use management of public lands by blending the needs of people and environmental values in such a way that lands represent diverse, healthy, productive, and sustainable ecosystems. (12)

Ecosystem function (processes) – The major process of ecosystems that regulate or influence the structure, composition, and pattern. These include nutrient cycles, energy flows, trophic levels (food chains), diversity patterns in time/space development and evolution, cybernetics (control), hydrologic cycles and weathering processes. (2)

Ecosystem health – A condition where the parts and functions of an ecosystem are sustained over time and where the system's capacity for self-repair is maintained, such that goals for uses, values, and services of the ecosystem are met. (12)

Emission – A release of air contaminants into the outdoor atmosphere. (12)

Endangered species – Any species of animal or plant that is in danger of extinction throughout all or a significant portion of its range. Plant or animal species identified by the Secretary of the Interior as endangered in accordance with the 1973 *Endangered Species Act*.

Endemic species –Plants or animals that occur naturally in a certain region and whose distribution is relatively limited to a particular locality. "Endemism" is the occurrence of endemic species in an area. (12)

Environment – The combination of external physical, biological, social, and cultural conditions affecting the growth and development of organisms and the nature of an individual or community. (12)

Environmental analysis – A comprehensive evaluation of actions and their predictable short– and long–term environmental effects, which include physical, biological, economic, social, and environmental design factors and their interactions. (2)

Environmental impact statement (EIS) – A statement of the environmental effects of a proposed action and alternatives to it. It is required for major federal actions under Section 102 of the National Environmental Policy Act (NEPA), and released to the public and other agencies for comment and review. It is a formal document that must follow the requirements of NEPA, the Council on Environmental Quality (CEQ) guidelines, and directives of the agency responsible for the project proposal. A Draft EIS is released to the public and other agencies for review and comment. A Final EIS is issued after consideration of public comments. A Record of Decision (ROD) is based on the information and analysis in the Final EIS. (4, 12)

Erosion – The wearing away of the land surface by running water, wind, ice, gravity, or other geological activities; can be accelerated or intensified by human activities that reduce the stability of slopes or soils. (12)

Evaluation – An essential companion activity to monitoring; the tool for translating data gathered by monitoring into useful information that could result in change or adaptive management. (10)

Exotic – A plant of animal species introduced from a distant place; not native to the area.

Federal Trust Responsibility – The USDA Forest Service shares in the federal government's overall trust responsibility to American Indian tribes where treaty or other legally defined rights apply to national forest lands. In redeeming this shared responsibility, the agency assists in carrying out the intent of the treaty and any subsequent case law or amendments, by operating in a just and responsive way; making efforts to adjust the management of national forest lands in favor of the concerns of the respective American Indian tribes(s), as far as practicable, while still maintaining a responsibility to all the people – the general public. These actions and adjustments need to be carried out through consultations with other tribal officials or their designees, on a government–to–government basis.

Final environmental impact statement (FEIS) – The final version of the statement of environmental effects required for major federal actions under section 102 of the National Environmental Policy Act. It is a revision of the draft environmental impact statement to include public and agency responses to the draft. (4)

Fine scale – A single landscape, such as a watershed or subwatershed. (12)

Fire-dependent systems – Forests, grasslands, and other ecosystems historically composed of species of plants that evolved with and are maintained by fire regimes. (12)

Fire cycle, fire frequency – See fire return interval. (12)

Fire-intolerant – Species of plants that do not grow well with or die from the effects of too much fire. Generally these are shade-tolerant species. (12)

Fire regime – The characteristics of fire in a given ecosystem, such as the frequency, predictability, intensity, and seasonality of fire. (12)

Floodplain – The portion of a river valley or level lowland next to streams which is covered with water when the river or stream overflows its banks at flood stage. (12)

Forage – All browse and herbaceous foods that are available to grazing animals. It may be grazed or harvested for feeding. See Rangeland Vegetation. (7)

Forb – Broad–leafed, herbaceous, nongrass–like plant species other than true grasses, sedges, and non–woody plants; fleshy leafed plants; having little or no woody material.

Forest Fragmentation – The breakup of a large land area into smaller patches isolated by areas converted to a different land type. (10)

Forest Plan (Forest Land and Resource Management Plan) – A document that guides natural resource management and establishes standards and guidelines for a national forest; required by the National Forest Management Act. (12)

Forest Service Handbook (FSH) – For Forest Service use, directives that provide detailed instructions on how to proceed with a specialized phase of a program or activity. (6)

Forest Service Manual (FSM) – A system of manuals that provides direction for Forest Service activities.

Fragmentation (habitat) – The break-up of a large land area (such as a forest) into smaller patches isolated by areas converted to a different land type. The opposite of connectivity. (12)

Fuel – Plants both living and dead, and woody vegetative materials that are capable of burning.

Fuel load – The dry weight of combustible materials per unit area; usually expressed as tons per acre. (12)

Geographic Information System (GIS) – An information processing technology to input, store, manipulate, analyze, and display data; a system of computer maps with corresponding site-specific information that can be combined electronically to provide reports and maps.(12)

Goals – Concise statements that describe a desired condition to be achieved sometime in the future (36 CFR 219.3) with respect to resource programs and management activities. Examples of broad programs and activities include the provision and/or protection of recreation opportunities, wildlife habitat, heritage resources and transportation systems. (1)

Graze – The consumption of standing forage by livestock or wildlife. (7)

Grazing Permit – Document authorizing livestock to use National Forest System lands or other lands under Forest Service control for livestock production. (6)

Ground fire — A fire that burns the organic material in the soil layer and the decayed material or peat below the ground surface. (12)

Guidelines – Discretionary measures that are preferable or advisable that may be incorporated into projects and programs. They provide management options for adapting projects and programs to current physical, biological, social, economic, technical and legal conditions. Examples of guidelines include strategies to manage visitor use using suggested technical publications, recommendations to consider using traditional equipment at cultivated sites, and considering fall burning to protect areas with biological crusts. (1)

Habitat – A place that provides seasonal or year-round food, water, shelter, and other environmental conditions for an organism, community, or population of plants or animals. (12)

Habitat type — A group of plant communities having similar habitat relationships. (12)

Harvest – (1) Felling and removal of trees from the forest; (2) removal of game animals or fish from a population, typically by hunting or fishing. (12)

Headwaters– Beginning of a watershed; unbranched tributaries of a stream. (12)

Herbaceous – Green and leaf-like in appearance or texture; includes grasses, grass-like plants, and forbs, with little or no woody component. (12)

Herbivore – An animal that subsists on plants or plant materials, either primarily or entirely. (12)

Heritage Resource –Remains of sites, structures, or objects used by humans in the past–historic or prehistoric. Consists of fragile and nonrenewable evidence of human activity, occupation and or endeavor as reflected in districts, sites, structures, artifacts, objects, ruins, works of art, architecture and natural features that were or are of importance in human events. Heritage resources are further categorized in terms of their prehistoric and historic values; however, each of these aspects represents a part of the continuum of events representing the earliest evidence of man to the present day (36 CFR 800). Historic property means any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register. This includes artifacts, records, and remains that are related to and located within such properties.

Historic range of variability – The natural fluctuation of ecological and physical processes and functions that would have occurred in an ecosystem during a specified previous period of time. HRV is discussed as a reference point to establish a baseline set of conditions for which sufficient scientific or historical information is available, and enables comparison to current conditions.

Historic site – Site associated with the history, tradition, or cultural heritage of national, state, or local interest, and of enough significance to merit preservation or restoration. (4)

Hydrologic – Refers to the properties, distribution, and effects of water. "Hydrology" refers to the broad science of the waters of the earth—their occurrence, circulation, distribution, chemical and physical properties, and their reaction with the environment. (12)

Hydrologic unit code (HUC) – A hierarchical coding system developed by the U.S. Geological Survey to identify geographic boundaries of watersheds of various sizes. (12)

Implement – To carry out. (12)

INFISH – *Interim strategies for managing fish–producing watersheds in Eastern Oregon and Washington, Idaho, Western Montana and portions of Nevada while environmental analyses of long–term strategies are being prepared* (USDA 1995b).

Instream flow – Flow of water in its natural setting (as opposed to waters diverted for 'off-stream' uses such as industry or agriculture). Instream flow levels provided for environmental reasons enhance or maintain the habitat for riparian and aquatic life, with timing and quantities of flow characteristic of the natural setting. (12)

Interagency – Involving Forest Service, BLM, U.S Fish and Wildlife Service, NOAA Fisheries, and other federal agencies. (12)

Intermittent stream – A stream that flows only at certain times of the year when it receives water from other streams or from surface sources such as melting snow. (12)

Invasive plant species – Non–native plant species that invade or are brought into an ecosystem where they have the ability to compete with, and at times overshadow, the existing native plant species. Noxious weeds are a specific type of invasive plants that carry a legal designation due to their potential for detrimental impacts to the environment.

Inventoried Roadless Areas – Those areas identified in the Forest Plan and listed on a set of inventoried roadless area maps, contained in *Forest Service Roadless Area Conservation, Final Environmental Impact Statement, Volume 2*, (USDA 2000), which are held at the National headquarters of the Forest Service, or any update, correction, or revision of those maps. (6)

Invertebrate – Small animals that lack a backbone or spinal column. Spiders, insects, and worms are examples of invertebrates. (12)

Issue – A point, matter of controversy, dispute, question of public discussion, or general concern over resource management activities or land uses to be addressed or decided through the planning process. To be considered a "significant' environmental impact statement issue, it must be well defined, relevant to the proposed action, and within the ability of the agency to address through alternative management strategies. (2, 12)

Landscape— All the natural features such as grasslands, hills, forest, and water, which distinguish one part of the earth's surface from another part; usually that portion of land which the eye can comprehend in a single view, including all its natural characteristics. (12)

Landscape character – Identifiable image made by particular attributes, qualities, and traits of a landscape. (USDA 1995)

Landscape structure – The mix and distribution of stand or patch sizes across a given area of land. Patch sizes, shapes, and distributions are a reflection of the major disturbance regimes operating on the landscape. (12)

Land use allocation – The commitment of a given area of land or a resource to one or more specific uses – for example, to campgrounds or wilderness. (4)

Long term – Generally refers to a period longer than 10 years. In Chapter 4 of this EIS, refers to the period evaluated by the Science Advisory Group, either at 100 years ('long term') or over an average of 10 decades into the future ('long term average'). (12)

Mainstem – The main channel of the river in a river basin, as opposed to the streams and smaller rivers that feed into it. (12)

Maintain – (1) To continue. (2) For this document, the term is intended to convey the idea of keeping ecosystem functions, processes, and/or components (such as soil, air, water, vegetation) in such a condition that the ecosystem's ability to accomplish current and future management objectives is not weakened. Management activities may be compatible with ecosystem maintenance if actions are designed to maintain or improve current ecosystem condition. (12)

Management area (MA) – An area with similar management objectives and a common management prescription. (1) (6)

Management direction – A statement of goals and objectives, management prescriptions, and associated standards and guidelines for attaining them. (12)

Management indicator species – A species selected because its welfare is presumed to be an indicator of the welfare of other species using the same habitat. A species whose condition can be used to assess the impacts of management actions on a particular area. (5)

Migration corridor – The habitat pathway an animal uses to move from one place to another. (12)

Mining – Any activity related to the discovery, extraction and exploration of minerals under the Mining Act of 1872, 30 U.S.C. 22 *et seq*., and the Mineral Leasing Act of 19200, 30 U.S.C. 191 *et seq*., through the use of, among other things, hydraulic equipment, pans ground sluicing, sluice boxes, rockers, or suction dredges. (15)

Mining claim – A particular parcel of public land, valuable for a specific mineral deposit or deposits, for which an individual has asserted a right of possession. The right is for developing and extracting a discovered mineral deposit. (6)

Minerals materials – A collective term used to describe petrified wood, and common varieties of sand, gravel, stone, pumice, pumicite, cinders, clay, and other similar materials. Common varieties do not include deposits of those materials that are valuable because of some property giving them distinct and special value. (6)

Mitigation – measures to: (a) avoiding the impact altogether by not taking a certain action or parts of an action; (b) minimizing impacts by limiting the degree or magnitude of the action and its implementation; (c) rectifying the impact by repairing, rehabilitating, or restoring the affected environment; (d) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and, (e) compensation for the impact by replacing or providing substitute resources or environments. (40 CFR Part 1508.20)

Monitoring – A process of collecting information to evaluate whether or not objectives of a project and its mitigation plan are being realized. Monitoring allows detection of undesirable and desirable changes so that management actions can be modified or designed to achieve desired goals and objectives while avoiding adverse effects to ecosystems. (12)

Mosaic – A pattern of vegetation in which two or more kinds of communities are interspersed in patches, such as clumps of shrubs with grassland between. (12)

Motorized equipment – Any machine powered by a nonliving source. This term does not include motorized river craft or small hand-held devices such as flashlights, shavers, wristwatches, and Geiger counters. (15)

Multiple-use management – The management philosophy articulated by the Multiple Use-Sustained Yield Act of 1960. This law provides that the renewable resources of the national forests are to be managed in the combination that best meets the needs of the American people. It further stipulates that the Forest Service is to make judicious use of the land for some or all of these resources and related services over areas large enough to ensure that sufficient latitude exists to subsequently adjust management in conformity with changing needs and conditions. (12)

National Ambient Air Quality Standards (NAAQSs) – Standards set by the Federal Environmental Protection Agency for the maximum levels of air pollutants that can exist in the outdoor air without unacceptable effects on human health or the public welfare. (12)

National Environmental Policy Act (NEPA) of 1969 – An Act to declare a national policy which will encourage productive and enjoyable harmony between humankind and the environment, to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of humanity, to enrich the understanding of the ecological systems and natural resources important to the nation, and to establish a Council on Environmental Quality. (The Principal Laws Relating to Forest Service Activities, Agriculture Handbook No. 453, USDA, Forest Service, 359 pp.)

National Forest Land and Resource Management Plan (Forest Plan) – A Plan which "...shall provide for multiple use and sustained yield of goods and services from the National Forest System in a way that maximizes long–term net public benefits in an environmentally sound manner." (1)

National Forest Management Act (NFMA) – A law passed in 1976 as an amendment to the Forest and Rangeland Renewable Resources Planning Act, requiring the preparation of Regional Guides and Forest Plans and the preparation of regulations to guide that development.

National Forest Lands – The National Forest System (NFS) consists of units of federally-managed forest, range, and related lands throughout the United States and its territories, united into a nationally significant system dedicated to the long–term benefit for present and future generations. The National Forest System includes all national forest lands reserved or withdrawn from the public domain of the United States, all national forest lands acquired through purchase, exchange, donations, or other means, the national grasslands and land utilization projects administered under Title III of the Bankhead–Jones Farm Tenant Act (50 Stat. 525, 7 USC 1010–1012), and other lands, waters, interests therein which are administered by the Forest Service or are designated for administration through the Forest Service as part of the system. (Forest and Range Renewable Resources Planning Act of 1974)

National trail, recreation – Trails designated by the Secretary of the Interior or the Secretary of Agriculture as part of the national system of trails authorized by the National Trails System Act. National recreation trails provide a variety of outdoor recreation uses.

Native species – Species that normally live and thrive in a particular ecosystem.

Noxious weeds – A plant species designated by federal or state law as generally possessing one or more of the following characteristics: aggressive and difficult to manage; parasitic; a carrier or host of serious insects or disease; or non–native, new or not common to the United States. According to the Federal Noxious Weed Act (PL 93–639), a noxious weed is one that causes disease or has other adverse effects on the human environment and therefore is detrimental to the agriculture and commerce of the United States and to the public health. (10)

Objective – Focused statements that describe the incremental progress expected to take place to meet goals (desired conditions) over the ten–year planning period (36 CFR 219.11 (b)) with respect to estimated quantities of services and accomplishments (Forest and Rangeland Renewable Resources Planning Act). Objectives identify specific opportunities and intended activities in terms of ongoing programs and discrete projects to support the goals for the planning area. Examples of ongoing programs include visitor education, resource inventory, facility maintenance, and use monitoring. Examples of discrete projects include campground development, wildlife introduction, prescribed burning and road decommissioning. (1)

Off–highway or off-road vehicle – Small two–, three–, and four–wheel recreational vehicles, less than 50 inches wide, and large four–wheel drive sport utility vehicles and pick–up trucks that are capable of traveling off public roads; interchangeable with 'all–terrain vehicle'.

Old growth – ecosystems distinguished by old trees and related structural attributes. Old growth encompasses the later stages of stand development that typically differ from earlier stages in a variety of characteristics that may include tree size, accumulation of large woody material, number of canopy layers, species composition, and ecosystem function. The Pacific Northwest Region (Region 6) defines old growth in terms of dominant species, site productivity, number of canopy layers, diameter, number of trees, tree age, tree decadence, number and size of standing dead trees, and number and size of down woody material. (10).

Outdoor recreation activities – Activities such as camping, picnicking, rafting, boating, hiking, rock climbing, fishing, hunting, horseback riding, and the viewing of wildlife or scenery. (16)

Outfitter and guide – Providing through rental or livery any saddle or pack animal, vehicle or boat, tents or camping gear, or similar supplies or equipment, for monetary reward or other gain. The term " guide" includes the holder's employees, agents, and instructors.

Outstandingly remarkable values – Term used in the Wild and Scenic Rivers Act of 1968; to qualify as outstandingly remarkable, a resource value must be a unique, rare, or exemplary feature that is significant at a regional or national level.

Overstory – portion of the trees, in a forest or in a stand or more than one story, forming the upper or uppermost canopy.

PACFISH – *Interim strategies for managing anadromous fish–producing watersheds in Eastern Oregon and Washington, Idaho, and portions of California.* (USDA/USDI 1995a).

Pathogen – An agent such as a fungus, virus, or bacterium that causes disease. (12)

Pattern – The spatial arrangement of landscape elements (patches, corridors, matrix) that determines the function of a landscape as an ecological system. (12)

Permittee (livestock) – Any entity that has been issued a grazing permit. (6)

PM_{10} – Particulate matter that measures 10 micrometers in diameter or less, a size considered small enough to invade the alveolar regions of the lung. PM_{10} is one of the six pollutants for which there is a national ambient air quality standard. (12)

Precommercial Thinning – Precommercial thinning is designed to improve the health and vigor, increase resilience, enhance shrub/forb layer diversity, accelerate development of sapling to small pole–sized material, and promote stand differentiation in stands otherwise displaying poor differentiation and thereby protect and enhance ecosystem health and restoration by reducing risk of fire and disease or insect infestations.

Primitive recreation – Those types of recreation activities associated with unroaded land; for example: hiking, backpacking, and cross–country travel. (4)

Private land – Land not in federal, state, or local government ownership. (16)

Proper Functioning Condition – Riparian and wetland areas achieve Proper Functioning Condition when adequate vegetation, landform, or large woody debris is present to dissipate stream energy associated with high water flows. This thereby reduces erosion and improves water quality; filters sediment, captures bedload, and aids floodplain development; improve flood–water retention and ground water recharge; develops root masses that stabilize stream banks against cutting action; develops diverse ponding and channel characteristics to provide the habitat and water depths, duration, and temperature necessary for aquatic vertebrate and invertebrate production, waterfowl breeding, and other issues; and supports greater biodiversity. The functioning condition of riparian and wetland areas is a result of the interaction among geology, soil, water and vegetation. (10)

Project – An organized effort to achieve an objective identified by location, timing, activities, outputs, effects, and time period and responsibilities for executions. (6)

Proposed action – A proposal by a federal agency to authorize, recommend, or implement an action. (12)

Quality of life – Refers to the satisfaction people feel for the place where they live (or may visit) and for the place they occupy as part of that experience. (12)

Quantitative – Traits or characteristics that can be measured with numbers. (12)

Range condition – The current composition or productivity of a range relative to what that range is capable of producing as a potential natural community. Often synonymous with forage condition. (6)

Range Analysis – The systematic interpretation, analysis, and evaluation of data for rangeland resource management planning. It provides ecological and other information for overall forest land and resource management planning and allotment management planning. (6)

Rangeland (Range) – Land on which the native vegetation is predominately grasses, grass–like plants, forbs or shrubs suitable for grazing or browsing use. Forested sites and non–forested sites providing forage and habitat for domestic and wild herbivores are included. (6)

Rangeland Resources – The physical and biotic resources of rangeland ecosystems. (6)

Rangeland Vegetation – Vegetation on all land with rangeland resource objectives or rangeland resource values, including riparian areas. Generally, the focus is on land supporting grass or grass-like plants, forbs, or shrubs during one or more ecological stages. Forested and non–forested sites providing forage and habitat for wild and domestic animal species are included. (6)

Record of Decision (ROD) – An official document separate from, but associated, with a final environmental impact statement in which a deciding official identifies all alternatives, and specifies which were environmentally preferable, states the decision, and states whether all practicable means to avoid environmental harm from the alternative have been adopted, and if not, why not. (40 CFR 1505.2)

Recreation – Leisure time activity such as swimming, picnicking, boating, hunting, and fishing. (Federal Register 38(174:24803)

> **Recreation, developed** – Recreation that requires facilities that, in turn, result in concentrated use of an area. Examples of developed recreation areas are campgrounds and ski areas; facilities in these areas might include roads, parking lots, picnic tables, toilets, drinking water, ski lifts, and buildings. (2)
>
> **Recreation, dispersed** – A general term referring to recreation use outside developed recreation sites; this includes activities such as scenic driving, hiking, backpacking, hunting, fishing, snowmobiling, horseback riding, cross–country skiing, and recreation in primitive environments. (2)

Recreation opportunity – The availability of choices for users to participate in the recreational activities they prefer within the settings they prefer.

Recreation Opportunity Spectrum (ROS) — Land delineations that identify a variety of recreation experience opportunities categorized into six classes on a continuum from Primitive to Urban. Each class is defined in terms of the degree to which It satisfies certain recreation experience needs, based on the extent to which the natural environment has been modified, the type of facilities provided, the degree of outdoor skills needed to enjoy the area, and the relative density of recreation use. The six of the seven classes dealt with on the Blue Mountain national forests are:

> **Primitive -** Area is characterized by an essentially unmodified natural environment of fairly large size. Interaction between users is very low and evidence of other users is minimal. The area is managed to be essentially free from evidence of human-induced restrictions and controls. Motorized use within the area is not permitted.

Semi-primitive Nonmotorized - Area is characterized by a predominantly natural or natural-appearing environment of moderate to large size. Interaction between users is low, but there is often evidence of other users. The area is managed in such a way that minimum on-site controls and restrictions may be present, but subtle. Motorized recreation use is not permitted, but local roads used for other resource management activities may be present on a limited basis Use of such roads is restricted to minimize impacts on recreational experience opportunities
Semi-primitive Motorized - Area is Characterized by a predominantly natural or natural-appearing environment of moderate to large size. Concentration of users is low, but there is often evidence of other users. The area is managed in such a way that minimum onsite controls and restrictions may be present, but would be subtle.
Motorized recreation use of local primitive or collector roads with predominantly natural surfaces and trails suitable for motor bikes is permitted.
Roaded Natural - Area is characterized by predominantly natural-appearing environments with moderate evidence of the sights and sounds of humans. Such evidence usually harmonizes with the natural environment. Interaction between users may be moderate to high, with evidence of other users prevalent. Resource modification and utilization practices are evident, but harmonize with the natural environment. Conventional motorized use is allowed and incorporated into construction standards and design of facilities.
Roaded Modified - Area is characterized by a considerably modified natural-appearing environment with considerable evidence of the sights and sounds of humans. Such evidence seldom harmonizes with the natural environment. Interaction between users may be low to moderate, but evidence of other users is prevalent. Resource modification and utilization practices are evident and seldom harmonize with the natural environment. Conventional motorized use is provided for in construction standards and design of facilities. The area is managed to meet modified and maximum modified visual quality objectives.
Rural - Area is characterized by a substantially modified natural environment. Sights and sounds of people are evident. Renewable resource modification and utilization practices enhance specific recreation activities or provide soil and vegetative cover protection.
NOTE: The other ROS classification, Urban, is not applicable to the national forests of the Blue Mountains.

Recreation visit – An entry of one person to a national forest recreation site or area of land or water for the purpose of participating in one or more recreation activities for an unspecified period of time. (6)

Recreational capacity – The number of people that can take advantage of the recreation opportunity at any one time without substantially diminishing the quality of the experience or the biophysical resources. (2)

Recreational facilities – Facilities associated with or required for outdoor recreational activities and includes, but are not limited to, parks, campgrounds, hunting and fishing lodges, and interpretive displays. (16)

Reforestation – Treatments or activities that help to regenerate stands of trees after disturbances such as harvest or wildfire. Typically, reforestation activities include preparing soil, controlling pests, and planting seeds or seedlings. (12)

Refugia – Areas that have not been exposed to great environmental changes and disturbances undergone by the region as a whole; refugia provide conditions suitable for survival of species that may be declining elsewhere. (12)

Regeneration – The process of establishing new plant seedlings, whether by natural means or artificial measures (planting). (12)

Regulations – Generally refers to the Code of Federal Regulations, Title 36, Chapter II, which covers management of the Forest Service. (2)

Research natural area (RNA) – An area set aside by a public or private agency specifically to preserve a representative sample of an ecological community, primarily for scientific and educational purposes. In USDA Forest Service usage, Research Natural Areas are areas designated to ensure representative samples of as many of the major naturally–occurring plant communities as possible. (4)

Resident fish – Fish that spend their entire life in freshwater; examples include bull trout and westslope cutthroat trout. (12)

Resource – Anything which is beneficial or useful – be it animal, vegetable, mineral, a location, a labor force, a view, an experience, etc. Resources, in the context of land use planning, thus vary from such commodities as timber and minerals to such amenities as scenery, scenic view points, or recreation opportunities. (4)

Resource Advisory Council – Resource advisory councils (RACs) were established by the BLM to provide a forum for non-federal partners to engage in discussion with agency managers regarding management of federal lands.

Resource Advisory Committee – The Secure Rural Schools and Community Self-Determination Act of 2000(Public Law 106-393) established seven Resource Advisory Committees (RACs) for the State of Oregon and eleven Resource Advisory Committees for the State of Washington. The purpose of the RACs is to improve collaborative relationships and to provide advice and recommendations to the Forest Service consistent with (the Act), which governs the RACs and the charter. RACs review projects proposed under Title II of the Act by participating counties and other persons and propose projects and funding to the Secretary of Agriculture under section 203 of the Act. (USDA Regulation #1042-144)

Restoration – Holistic actions taken to modify an ecosystem to achieve desired, healthy, and functioning conditions and processes. Generally refers to the process of enabling the system to resume its resiliency to disturbances as if the disturbances were absent. Restoration management activities can be either active (such as control of noxious weeds, thinning of over–dense stands of trees, or redistributing roads) or more passive (more restrictive, hands–off management direction that is primarily conservation oriented). (8, 10)

Riparian Habitat Conservation Areas (RHCAs) – Portions of watershed where riparian–dependent resources receive primary emphasis, and management activities are subject to specific standards and guidelines. RHCAs include traditional riparian corridors, wetlands, intermittent headwater streams, and other areas where proper ecological functioning is crucial to maintenance of the streams water, sediment, woody debris and nutrient delivery system. (10)

Riparian Management Objectives (RMOs) – Quantifiable measures of stream and streamside conditions that define good fish habitat, and serve as indicators against which attainment, or progress toward attainment, of the riparian goals will be measured. (10)

Road maintenance level – The current operational level of maintenance assigned to a route management section. (6)

Value Descriptions

1. Road closed to four–wheel vehicles 50 inches wide or wider; basic custodial care
2. High clearance vehicles, (i.e., four–wheel drive or off–road vehicle) basic drainage only
3. Suitable for passenger cars, must meet Highway Standards Act
4. Moderate degree of comfort to users, must meet Highway Standards Act
5. High degree of safety and comfort, must meet Highway Standards Act

Runoff (surface) – Fresh water from precipitation and melting ice that flows on the earth's surface into nearby streams, lakes, wetlands, and reservoirs. (12)

Salmonids – Fishes of the family Salmonidae, including salmon, trout, chars, whitefish, ciscoes, and grayling. (12)

Salvage – Harvest of trees that are dead, dying, or deteriorating due to fire, wind, insect or other damage, or disease. (12)

Scale – (1) The level of resolution under consideration (for example, broad scale or fine scale); (2) the ratio of length on a map to true length. (12)

Sediment – Solid materials, both mineral and organic, in suspension or transported by water, gravity, ice, or air; may be moved and deposited away from their original position and eventually will settle to the bottom. (12)

Selective cutting – Single tree or group selection cutting and is the periodic removal of trees individually or in small groups from an uneven aged forest in order to maintain diverse stands, with the sustainability and improvement of the forest using an ecosystem approach to management being a primary consideration. (15)

Sensitive species – Plant or animal species identified by a Forest Service regional forester for which population viability is a concern either (a) because of significant current or predicted downward trends in population numbers or density, or (b) because of significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution. Those species that have appeared in the Federal Register as proposed for classification or are under consideration for official listing as endangered or threatened species, that are on an official State list, or that are recognized by the Regional Forester as needing special management to prevent placement on Federal or State lists. (2, 12)

Seral – Refers to the stages that plant communities go through during the progression in structure and composition over time. Development stages have characteristic structure and plant species composition. In a forest, for, example, early seral refers to plants that are present soon after a disturbance or at the beginning of a new successional process (such as seedling or sapling growth stages in a forest); mid-seral in a forest would refer to pole or medium saw timber growth stages; late or old seral refers to plants present during a later stage of plant community succession (such as mature and old forest stages). (10, 12)

Seral stage – The developmental phase of a forest stand or rangeland with characteristic structure and plant species composition. (12)

Shade-intolerant – Species of plants that do not grow well in or die from the effects of too much shade. Generally these are fire-tolerant species. (12)

Shade-tolerant – Species of plants that can develop and grow in the shade of other plants. Generally these are fire-intolerant species. (12)

Short-term – Generally refers to a period of 10 years or less. (12)

Silviculture – the practice of manipulating the establishment, composition, structure, growth, and rate of succession of forests to accomplish specific objectives and meet desired future conditions.

Site – A specific location of an activity or project, such as a campground, a lake, or a stand of trees to be harvested. (12)

Society – A group of people who have a common homeland, are interdependent, and share a common culture. (6)

Soil – The earth material that has been so modified and acted upon by physical, chemical, and biological agents that it will support rooted plants. (12)

Source Habitat – Habitat in such conditions that result in a positive or increasing population growth for a particular species. Those characteristics of vegetation that support long-term wildlife species persistence, or characteristics of vegetation that contribute to stable or positive population growth for a species in a specified area and time. Various combinations of cover type–structural stages make up source habitats for the terrestrial species and provide the range of vegetation conditions required by these species for food, reproduction, and other needs. (Wisdom and others 2000) (10, 12)

Spatial – Related to or having the nature of space. (12)

Species – A population or series of populations of organisms that can interbreed freely with each other but not with members of other species. (12)

Stand – A stand is a spatially continuous group of trees and associated vegetation having similar structures and growing under similar soil and climactic conditions. (Oliver and Larson, 1990)

Stand composition – The vegetative species that make up the stand. (12)

Stand density – Refers to the number of trees growing in a given area, usually expressed in trees per acre. (12)

Stand structure – The mix and distribution of tree sizes, layers, and ages in a forest. Some stands are all one size (single-story), some are two-story, and some are a mix of trees of different ages and sizes (multi-story). (12)

Standards – Mandatory measures that place limitations on management activities to ensure compliance with applicable laws and regulations or to limit the discretion authority in making decision on projects. Standards are limited to those actions that are within the authority and ability of the agency to meet or enforce. They establish procedures, set thresholds, constrain activities, prescribe remedies, and define penalties. Examples of standards include density for road systems, cover for elk herds, buffers for riparian areas, and levels of social encounters for recreation experience. (1)

Standards and guidelines (S&G) – Principles specifying conditions or levels of environmental quality to be achieved. (Forest Plan)

Structure – Any permanent building or facility, or part thereof such as barns, outhouses, residences, and storage sheds. This includes transmission line systems, substations, commercial radio transmitters, relays or repeater stations, antennas, and other electronic sites and associated structures.

Structure – The size and arrangement, both vertically and horizontally, of vegetation. (12)

Structural stage — A stage of development of a vegetation community that is classified on the dominant processes of growth, development, competition, and mortality. (12)

Subbasin – Equivalent to a 4th field Hydrologic Unit Code (HUC), a drainage area of approximately 800,000 to 1,000,000 acres. (10)

Subsistence – Customary and traditional uses of wild renewable resources (plants and animals) for food, shelter, fuel, clothing, tools, etc. (12)

Subwatershed – a drainage area of approximately 20,000 acres, equivalent to a 6th–field Hydrologic Unit Code (HUC). Hierarchically, subwatersheds (6th–field HUC) are contained within watersheds (5th–field HUC_, which in turn are contained within a subbasin (4th –field HUC). (10)

Succession – a predictable process of changes in structure and composition of plants and animal communities over time. Conditions of the prior plant community or successional stage create conditions that are favorable for the establishment of the next stage. The different stages in succession are often referred to as seral stages. (10)

Suitable – The appropriateness to apply certain resource management practices to a particular area of land, as determined by an ecological and environmental analysis of the land. A unit of land may be suitable for a variety of individual or combined management practices. (15)

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. The National Forest Management Act (NFMA) requires that forest plans determine that a unit of land may be suitable for a variety of individual or combined management practices. (6)

Sustainability – (1) Meeting the needs of the present without compromising the abilities of future generations to meet their needs; emphasizing and maintaining the underlying ecological processes that ensure long-term productivity of goods, services, and values without impairing productivity of the land. (2) In commodity production, refers to the yield of a natural resource that can be produced continually at a given intensity of management.

Talus – A slope formed by the accumulation of rock debris at the base of a cliff. (14)

Terrestrial – Pertaining to the land. (12)

Thermal cover – Cover used by animals to protect them against weather. (12)

Thinning –An operation to remove stems from a forest for the purpose of reducing fuel, maintaining stand vigor, regulating stand density/composition, or for other resource benefits. Although thinning can result in commercial products, for the purposes of this EIS, thinning generally refers to non-commercial operations. (12)

Threatened species – Species listed under the Endangered Species Act that are likely to become endangered within the foreseeable future throughout all or a significant portion of their range. (12)

Trend (as used to define range conditions) – The direction of change in range or forage condition or in ecological status. (6)

Tribe – Term used to designate any American Indian tribe, band, nation, or other organized group or community which is recognized as eligible for the special programs and services provided by the United States to American Indians because of their status as American Indians. (12)

Underburning – A type of prescribed fire that burns ground vegetation and ladder fuels on the surface under a live tree overstory. Intended to meet specific management and/or resource objectives.

Ungulates – Hoofed, plant-eating mammals such as elk, deer, and cattle. (12)

Upland – The portion of the landscape above the valley floor or stream. (12)

Vertebrate – An animal with a backbone; mammals, fishes, birds, reptiles, and amphibians are vertebrates. (12)

Viability – In general, viability means the ability of a population of a plant or animal species to persist for some specified time into the future. For planning purposes, a *viable population* is one that has the estimated numbers and distribution of reproductive individuals to ensure that its continued existence will be well distributed in the planning area. (12)

Viable population – A population that is regarded as having the estimated numbers and distribution of reproductive individuals to ensure that its continued existence is well distributed in the project area. (12)
Watershed – (1) The region draining into a river, river system or body of water; (2) a drainage area of approximately 50,000 to 100,000 acres, which is equivalent to a 5th field Hydrologic Unit Code (HUC). (10).

Weed – A plant considered undesirable, unattractive, or troublesome, usually introduced and growing without intentional cultivation. (12)

Wetland – In general, an area soaked by surface or groundwater frequently enough to support vegetation that requires saturated soil conditions for growth and reproduction; generally includes swamps, marshes, springs, seeps, bogs, wet meadows, mudflats, natural ponds, and other similar areas. (12)

Wild and Scenic River – Those rivers or sections of rivers designated as such by congressional action under the Wild and Scenic Rivers Act of 1968, as supplemented and amended. Within this document the following classifications are used:

Wild river areas – Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted.
Scenic river areas – Those rivers or sections of rivers that are free of impoundments, with watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.
Study river areas – Those rivers formally designated by Congress to be studied under Sections 5(a) and 5(b) of the Wild and Scenic Rivers Act.

Wilderness – Areas designated by congressional action under the 1964 Wilderness Act. Wilderness is defined as undeveloped federal land retaining its primeval character and influence without permanent improvements or human habitation. Wildernesses are protected and managed to preserve their natural conditions, which generally appear to have been affected primarily by the forces of nature with the imprint of human activity substantially unnoticeable; have outstanding opportunities for solitude or a primitive and unconfined type of recreation; are of sufficient size to make practical their preservation, enjoyment, and use in an unimpaired condition; and may contain features of scientific, educational, scenic, or historical value as well as ecologic and geologic interest. (2)

Wildfire – A human or naturally caused fire that does not meet land management objectives. (12)

"Wildland Fire Use for Resource Benefit" – Formerly referred to as "prescribed natural fire." A fire ignited by lightning but allowed to burn within specified conditions of fuels, weather, and topography, to achieve specific objectives. (12)

Appendix A – Draft Sustainability Framework

The Revised Forest Plans for the national forests in the Blue Mountains will look very different from the current Forest Plans. The new format will make the Forest Plans more understandable and will be focused on sustainability. The Forest Plans will use a common frame of reference to describe sustainability called the "Sustainability Framework". The framework has been initially outlined by the Revision Team and consists of principles, criteria, indicators, and measures which will be used to describe sustainability.

The sustainability framework approach provides a way to integrate social, ecological, and economic concerns with people and places from the beginning of the planning process. This framework will be used throughout the process to focus on the linkages between these systems to increase understanding of sustainability and make better decisions for the future. This appendix provides an outline of the Draft Sustainability Framework. It is a first approximation to describe sustainability for the national forests of the Blue Mountains and will be further refined and adapted through the collaborative process.

Principal 1- Social Well-Being

Collaborative Stewardship

- Contribution of local, traditional, and ecological knowledge
- Collaborative decision-making
- Stewardship activities
- Local Area Empowerment and Development

Institutional and Community Capacity

- Community resiliency
- Institutional adequacy
- Ownership patterns
- Govt-to-Govt relationships

Social Equity

- Environmental justice and civil rights
- Disabled Access
- Worker health and safety
- Public health and safety
- Community and environmental health

Social and Cultural Values

- Gathering
- Aesthetics and solitude
- Education and research
- Cultural values and historic features
- Spiritual values and special places
- Access and use rights
- Recreation and tourism

Customs and Culture

Principal 2- Ecological Integrity

Landscape Function

- Disturbance processes
- Hydrologic Function
- Long-term community dynamics

Landscape structure and composition

- Landscape diversity
- Landscape patterns

Ecosystem Function

- Productive capacity
- Functional diversity
- Invasive species
- Nutrient cycling
- Carbon sequestration
- Stream function

Ecosystem Structure and Composition

- Air, soil and water quality
- Ecological legacies
- Special habitats
- Species Richness

Population function

- Population viability

Population structure/composition

- Populations of indigenous species

Organism function

- Genetic mixing
- Genetic migration
- Genetic selection

Organism structure/composition

- Genetic diversity

Principal 3-
Economic Well-Being

Capital and wealth

- Natural capital – forests
- Natural capital- recreation
- Natural capital – wildlife and fish
- Natural capital – range
- Other natural capital
- Built infrastructure – roads and trails
- Built infrastructure – recreation facilities
- Built infrastructure – other facilities
- Human capital

Flows of products and services

- Production of marketed goods and services
- Production of non-marketed goods and services

Trade and distribution equity

- Trade balance
- Workforce diversity
- Income and employment
- Equity

Efficiency

- Net Rent

Appendix B – Forest Plan Amendments

The number and general nature of amendments for each national forest in the Blue Mountains is listed below, from 1990 to present:

Malheur National Forest

Date	Amendment Topic
11/26/1990	Modified the following standards and guidelines within the Snowshoe (Fire) Recovery Area; percent visual disturbance at one time, minimum width of riparian areas adjacent to existing roads, and location of old growth replacement areas.
12/06/1990	Modified the following standards and guidelines within the Sheep Mountain (Fire) Recovery Area; percent visual disturbance at one time, and minimum width of riparian areas adjacent to existing roads.
12/10/1990	Modified wildlife cover standard in the Jungle Analysis Area to allow for treatment of insect and disease problems.
05/24/1991	Allowed the total big game winter range cover in the Gabe Timber Sale area to be reduced from the existing 18% to 17%, which is below the standard.
07/09/1991	Allowed harvest of hazard trees in visual foregrounds of sensitivity level 1 or 2 corridors prior to the completion of a visual corridor plan.
09/06/1991	Replaced the monitoring plan with a more detailed plan; 41 items unchanged, added Dispersed Recreation Facilities and Trail System, dropped Recreation Opportunity Spectrum and Plan Standards – General, and combined Water Quality Protection and Water Cumulative Effects.
09/06/1991	Refined visual foreground and middleground areas (Forest Road 15 and 15, County road 63), resulted in 1,049 acre change from MA 14 to MA 1.
09/23/1991	Allowed timber harvest in a sensitivity level II foreground viewshed corridor in the Glade II Timber Sale Area prior to the completion of a viewshed corridor plan.
09/26/1991	Allowed timber harvest in viewshed corridor foreground in the Hog Timber Sale area prior to the completion of a viewshed corridor plan.
04/14/1992	Modified the boundary of the visual corridor along U.S. Highway 395 in the Joaquin Commercial Thinning Review Area, and allowed silvicultural treatment prior to completion of a viewshed corridor plan.
07/15/1992	Established new management area (MA 22a) for the North Malheur Scenic River. Determined suitable timber lands, reduced annual forest ASQ, allowed intensive grazing management strategy, and changed the old growth management strategy.

Date	Amendment Topic
08/07/1992	Established new management area (MA 22b) for the Malheur Wild and Scenic River. Determined suitable timber lands, reduced annual forest ASQ, allowed intensive grazing management strategy, and changed the old growth management strategy.
08/19/1992	Allowed big-game cover and habitat effectiveness index on the Slip and Slide Timber Sales to drop below standards.
08/21/1992	Allowed Dry Analysis Area timber management activities and connected actions to occur in the visual corridor foreground of County Road 65 and Forest Road 15, in the absence of a visual corridor plan.
10/13/1992	Modified four visual corridor standards in the Genesis New Perspectives Demonstration Project to allow for silvicultural treatment due to declining forest health.
11/17/1992	Designated an old growth replacement area in the Forks Timber Sale Review Area further than the standard of one-quarter mile from the original old growth unit.
11/17/1992	Allowed big-game cover levels and habitat effectiveness index on the Leek Timber Sale to be below standards to achieve long-term desired future conditions.
03/02/1993	Designated an old growth replacement area on the Hog Flat Planning Area more than one-quarter mile from the original old growth area.
04/13/1993	Allowed cover on the Driveway Timber Sale to remain below big-game Winter Range Maintenance standards in subwatershed 14I.
05/20/1993	Provided public access into the Vinegar Hill/Indian Rock Scenic Area as part of the VV Salvage Sale decision by allowing Forest Road 2010 to remain open.
07/11/1993	Relocated Dedicated Old Growth Area #27 to Brophy Creek Drainage and reallocated MA-13 lands to MA-1 lands in the Tin Can Planning Area.
07/21/1993	Allowed sanitation salvage of dead and dying timber within Basket Salvage unit 1prior to completion of a viewshed corridor plan for Forest Road 16.
08/04/1993	Allowed timber management activities and connected actions in the visual corridor foreground of U.S. Highway 395 and County Road 65 in the Fawn Analysis Area, prior to completion of a viewshed corridor plan. Located an old growth replacement block beyond a one-quarter mile radius from the original dedicated old growth block.
08/13/1993	Modifications within the Shirttail Analysis Area in the Shirttail Creek/Rail Creek subwatershed; relocated two dedicated old growth areas, changed the middleground boundary of viewshed corridor along U.S. Highway 395, and allowed a created opening size exemption within the middleground of the viewshed corridor.
07/11/1994	Allowed big game cover to be below Big Game Winter Range Maintenance requirements for the portion of subwatershed 15E within the Cow Cabin Timber Sale Review Area.

Date	Amendment Topic
11/25/1994	Allowed harvesting in a visual corridor without a corridor plan, and exceeded the maximum allowable opening size in a visual corridor in the Cabin Fire Recovery Project.
08/18/1995	Allowed harvest entry into several late and old stands as prescribed in the Genesis Ecosystem Management Project.
08/18/1995	Allowed road construction within a riparian area in the Dear John Timber Sale so a road along a fish bearing stream could be obliterated.
09/21/1995	Moved a dedicated old-growth stand within the Awake Timber Sale Area to a location that better met management requirements, and allowed harvest in an REA for aspen improvement.
11/16/1995	Allowed harvest entry into late and old stands in the Starr Timber Sale Area to treat unhealthy understories. Allowed higher than natural levels of concentrated slash in the sensitivity level I visual corridor.
11/16/1995	Allowed treatment in late and old growth stands in the Prater Planning Area to maintain and enhance bald eagle winter roost habitat. Replaced a previously withdrawn Plan amendment.
01/22/1996	Allowed salvage harvest entry into a dedicated old growth stand and a semi-primitive non-motorized area within the Powder Fire Salvage.
04/22/1996	Allowed activities to reduce cover stands in the Reek Timber Sale Area below standards.
07/25/1996	Allowed treatment of root rot pockets in the Guard Timber Sale Area that fragmented a large block of LOS.
07/31/1996	Made PACFISH standards for mining activities consistent with federal regulations.
08/12/1996	Allowed harvest in the Job Timber Sale which reduced the number of large trees in a stand below levels in the Eastside Screens. Allowed new road construction in a class IV RHCA to better meet riparian RMOs.
10/24/1996	Allowed harvest of trees greater than 21 inches diameter due to mistletoe and insect infestation, reduction of Large Tree GTR, and regeneration harvest within a Goshawk PFA; all within the Parish Timber Sale area.
12/12/1996	Designated Seed Orchards and Evaluation Plantations as Administrative Sites.
01/06/1997	Allowed harvest of trees greater than 21 inches diameter to reduce competition and promote future growth, to reduce levels of mistletoe, and to improve economic viability of proposed treatments within the Clear Creek –91B Timber Sale Area.
01/22/1997	Allowed harvest of trees greater than 21 inches diameter to reduce inter-tree competition and promote vigor of residual large trees in the Mossy Timber Sale Area.

Date	Amendment Topic
07/11/1997	Allowed cover to drop below established standards, harvest of trees greater than 21 inches diameter where they compete with aspen, and selection harvest to maintain or enhance old forest conditions within the Badger Timber Sale Area.
07/13/1998	Allowed short term management activities not consistent with current direction within the Summit Fire Recovery Project Area.
03/16/2000	Allowed a stand to move out of connectivity and adjusted the boundaries of Dedicated and Replacement Old Growth management areas in the Dry Fork Analysis Area.
12/05/2000	Relocated two dedicated old growth blocks outside of lands legislated to be exchanged in the Triangle Land Exchange.
01/29/2001	Allowed reduction of big game cover, loss of visual retention characteristics along Highway 26, and adjusted dedicated old growth boundaries in the Olmstead Vegetative and Road Management Project Analysis Area.
07/13/2001	Relocated Designated Old Growth and designated Replacement Old Growth within the PARASOL Vegetation and Watershed Management Project.
04/05/2004	Adjusted snag distribution strategy to leave large, unharvested, patches on greater than a 40-acre basis. Relocated Dedicated Old Growth and Replacement Old Growth areas in the Flagtail Fire Restoration Project.
04/20/2004	Adjusted snag distribution strategy to leave large, unharvested, patches on greater than a 40-acre basis. Relocated Dedicated Old Growth and Replacement Old Growth areas in the Monument Fire Restoration Project.
08/04/2004	Adjusted big game cover Habitat Effectiveness Index (HEI) and components of HEI below Forest Plan Standards or further reduction of existing conditions that currently do not meet standards. Adjusted boundaries of Dedicated Old Growth and establish Replacement Old Growth areas in the Silves Canyon Watershed Restoration Project.

Umatilla National Forest

Date	Amendment Topic
03/08/1991	Corrected wording, phrases, and miscellaneous errors.
03/08/1991	Permitted existing motorized use to continue on a trail in the A1 Management Area.
06/22/1992	Exempted the Turner Otter project from certain standards to facilitate salvage and restoration projects.
09/04/1992	Exempted the Windy Springs project from certain standards to facilitate restoration work.
05/06/1993	Exempted the Indianberry Salvage and Rehabilitation project from certain standards to facilitate restoration work.
09/07/1993	Clarified management objectives for the North Fork John Day Wild and Scenic River and defined its boundaries.
12/13/1993	Clarified management objectives for the Grande Ronde Wild and Scenic River and defined its boundaries.
03/30/1994	Added Appendix D (Prescribed Natural Fire Implementation Process) to clarify the national implementation intent.
05/20/1994	Implemented the Eastside Interim Direction EA (Regional Forester's Amendment No. 1, Screens). Short-term direction to maintain options for old growth related and other species while a complete analysis is developed as part of the Eastside EIS.
02/06/1995	Implemented East End Salvage and Restoration Projects FEIS changes in Management Areas. Corridor along the Blue Mountain Scenic Byway changed from A1 to A4 to allow greater flexibility in management. Reallocated 148 acres of existing old growth habitat as C1 to replace an unsuitable stand currently allocated as C1.
02/24/1995	Added management direction contained in Interim Strategies for Managing Anadromous Fish Producing Watersheds on Federal Lands in Eastern Oregon and Washington, Idaho, and Portions of California EA (PACFISH). Intended to arrest and reverse the decline in anadromous fish habitat until longer term options are developed.
06/12/1995	Continued Interim Management Direction Establishing Riparian, Ecosystem and Wildlife Standards for Timber Sales (Regional Forester's Amendment No. 2, Screens). Amended direction in Regional Forester's Amendment No. 1 (Umatilla Forest Plan Amendment No. 8, dated 94/05/20).
02/14/1996	Permitted harvest of selected trees over 21 inches dbh in units 29 and 30 of the Indianberry Salvage and Rehabilitation Project. Needed to meet silvicultural objectives.
05/08/1996	Exempted the Camas Restoration Project from certain standards to facilitate restoration work.
05/29/1996	Exempted the Tucannon Timber Sale from certain standards to facilitate restoration work.

Date	Amendment Topic
10/02/1996	Exempted the Rock Hard Salvage Sale from certain standards to facilitate restoration work.
12/10/1996	Exempted the Wheeler Point Fire Salvage Sale from certain standards to facilitate restoration work.
02/02/1997	Added Forest-wide management requirements for oil and gas leasing; including standard lease terms, lease notices, supplemental stipulation, and stipulation base map.
09/08/1997	Implemented Big Tower changes in standards and guidelines, and Management Areas. Standards and guidelines changed were HEI requirements in C3 and C7; dispersion of created opening requirements in C3, C4, C5, and C7; and successional state requirements in C4. Management Area delineations were developed for private land acquired by the Forest in 1988. This amendment will be superceded by an amendment in the Tower Fire Projects EIS Record of Decision.
06/01/1998	Implemented Cliffhanger Timber Sale EA changes in Management Areas. Because of public interest in the Whitman Interpretive Trail, both sides of Forest Road 3109 (which accesses the trail) changed from C4 to A4 (330 acres); and Whitman Interpretive Trail area changed from C4 to A6 (40 acres). Two hundred acres around the top of Spring Mountain changed from C4 to A9 to protect a prairie falcons nest site.
11/05/1998	Implemented Abla Timber Sale and Fuel Reduction Project EA changes in Management Areas. Portions of areas along Forest Road 6403 changed from A3 to A4 to give greater flexibility in constructing a fuel break.
06/12/2000	Implemented Eden Timber Sale and Fire Reintroduction Project adjustments to a Dedicated Old Growth area boundary.
06/16/2003	Identified 1,300 acres of dedicated old growth stands (Management Area C1) to replace those lost in the Tower Fire.
04/30/2004	Changed HEI standard in the Monument C3 Management Area from 70 to 67 for the duration of the Bologna Basin Project.
05/13/2004	As part of the Pedro/Colt Decision Management Area C1 boundaries were adjusted, moving them away from system roads and Management Area C3 was changed to C4.
07/09/2004	Changed HEI standard in the Monument C3 Management Area from 70 to 67 for the duration of the Rimrock project.

Wallowa-Whitman National Forest

Date	Amendment Topic
03/15/1991	Added a new range allotment planning schedule and made errata type corrections.
05/24/1991	Changed about 70 acres from MA 1 to MA 16 to permit development and management of Blue Mountain segment of the Oregon Trail. Changed road and trail visual sensitivity in the same area.
12/23/1991	Modified the Wildlife Standard and Guideline No. 5 to incorporate the "Bighorn/Domestic Sheep Management Strategy for the Wallowa-Whitman National Forest". Decision reversed by the Deputy Regional Forester on June 23, 1992.
04/02/1992	Changed standards and guidelines to say management of competing and unwanted vegetation will tier to the FEIS for Managing Competing and Unwanted Vegetation, USDA Forest Service, Pacific Northwest Region, December 1988 or subsequent NEPA documents.
08/06/1992	Incorporated definitions and review process for river craft for the Snake River Recreation Management area. Allocated Cache Creek area (purchased in June 1991) to Management Area 9 (6,549 acres) and Management Area 16 (7 acres).
01/05/1993	Incorporated management direction from the Imnaha Wild and Scenic River Management Plan.
07/07/1993	Incorporated management direction for the Lostine Wild and Scenic River.
09/13/1993	Incorporated management direction for the North Fork John Day Wild and Scenic River.
12/17/1993	Incorporated management direction for the Grande Ronde Wild and Scenic River.
02/04/1994	Added implementing direction for the use of prescribed fire within wilderness.
05/20/1994	Extended interim management direction establishing riparian, ecosystem, and wildlife standards for timber sales on Eastside forests pending completion of the Eastside Ecosystem Management Strategy. (Regional Forester Amendment #1).
05/26/1994	Added direction for long and short term snag management levels. Redesigned Sufferin Smith Timber Sale to meet eastside ecosystem screens.
06/07/1994	Incorporated management direction for the Joseph Creek Wild and Scenic River.
12/21/1994	Approved the Wild and Scenic Snake River Recreation Management Plan for the administrative area of the Wild and Scenic Snake River corridor.
12/22/1994	Incorporated direction dealing with the management of the Eagle Creek Wild and Scenic River.
01/13/1995	Incorporated direction dealing with the management of the Eagle Cap Wilderness and the Minam Wild and Scenic River.

Date	Amendment Topic
02/24/1995	Interim Strategies for Managing Anadromous Fish-producing Watersheds in Eastern Oregon and Washington, Idaho, and Portions of California (PACFISH). (Regional Forester Amendment #3).
06/08/1995	Revised Interim Standards for Timber Sales on Eastside Forests. (Regional Forester Amendment #2).
07/28/1995	Interim Strategies for Managing Inland Fish-producing Watersheds in Eastern Oregon and Washington, Idaho, and Portions of California (INFISH). (Regional Forester Amendment #4).
07/31/1995	Documented selection of the preferred alternative for the Eagle-Paddy Timber Sale, which affected the Eastside Screens.
09/09/1996	Added direction to the Wild and Scenic Snake River Recreation Management Plan to proceed with implementation of proposed outfitter-guide use allocations and operational limitations.
12/18/1996	Documented selection of the preferred alternative for Dark Horn Salvage Sale Project. Affected PACFISH by treating riparian habitat conservation areas.
12/18/1996	Documented selection of the preferred alternative for Eagle Holcomb Timber Sale. Affected Eastside Screens by harvesting trees greater than 21 inches DBH. As a result of administrative appeals, trees greater than 21 inches were dropped from the sale.
05/13/1997	Documented selection of preferred alternative for Spring Creek Restoration Project. Affected PACFISH by treating riparian habitat conservation areas.
07/14/1997	Allowed harvest in 34 acres of Late Old Structure stands in the Dry Melon Timber Sale. Affected Regional Forester Amendment #2 by harvesting LOS stages in a watershed that is below the Historic Range of Variation for LOS.
05/05/1999	Established direction for management of outfitters and guides in the Eagle Cap Wilderness.
03/20/2000	Allowed cutting of trees greater than 21 inches in diameter on the Starkey Research Restoration and Fuels Reduction Project to validate squirrel/dwarf mistletoe research.
05/10/2000	Changed the Government Draw Research Natural Area from a "proposed RNA" to an "established RNA". Name was later changed to Gerald S. Strickler RNA.
05/01/2001	Carrol Creek Fire Salvage and Restoration Project – Modified area of Old Growth designation.
05/25/2001	Changed Vance Knoll Research Natural Area from a "proposed RNA" to an "established RNA".
07/21/ 2003	To provide management direction for the Hells Canyon National Recreation Area.
03/19/2004	Documented selection of Alternative D for Spooner Vegetation Management Project. Adopted applicable standards and guidelines from the 2000 Canada Lynx Conservation Assessment and Strategy for the Spooner project area.

Appendix C – Reference Citations

All of the documents and files chronicling the Blue Mountains Forest Plan Revision process are available for review in the analysis files at the Wallowa-Whitman National Forest Supervisor's Office, 1550 Dewey Avenue, Baker City, Oregon, 97814. These documents and files contain the detailed information used to develop this and other Forest Plan Revision documents and are referenced at appropriate places in the text and appendices.

Copies of the Code of Federal Regulations (CFRs), Forest Service Manuals (FSM) and Handbooks (FSH), are also located at the USDA Forest Service Washington Office, P.O. Box 96090, Washington, D.C. 20090-6090 or www.fs.fed.us.

Other congressional acts, legislative acts, and executive orders such as and including the *National Environmental Policy Act*, the *National Forest Management Act*, the *Forest and Rangeland Renewable Resources Planning Act,* the *Multiple Use Sustained Yield Act*, the *Organic Act*, the *American Indian Religious Freedom Act*, the *Archaeological Resource Protection Act*, the *Native American Graves Protection and Repatriation Act*, Executive Orders, the *Endangered Species Act*, the *Clean Air Act*, the *Clean Water Act*, the *Americans with Disabilities Act*, and the *Federal Advisory Committee Act* can be located at www.access.gpo.gov/nara. The Federal Register and Executive Orders can also be accessed at this website.

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