Chapter 4

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CHAPTER 4. FOREST MANAGEMENT DIRECTION

Introduction

Chapter 4 presents the management goals, objectives, Forest-wide Standards and Guidelines, and management area direction that constitute the overall direction for land and resource management covered by the Plan. The chapter includes the following sections:

FOREST MANAGEMENT GOALS - Multiple-use and other goals established in the planning process to develop the Plan and guide Forest management in the future.

DESIRED FUTURE CONDITION OF THE FOREST - A description of what the Forest should be like at the end of 10 years and at the end of 50 years, given full implementation of Forest Plan direction.

FOREST MANAGEMENT OBJECTIVES - The levels of goods, services, and effects that are anticipated to be produced as the Plan is fully implemented. The objectives are supplemented with narrative summaries of resource outputs and schedules.

FOREST-WIDE STANDARDS AND GUIDELINES - Identify Forest-wide requirements and conditions to be met while achieving the Plan's goals and objectives.

MANAGEMENT AREAS - A description of each selected management strategy (practices and prescriptions) for specified areas. The management areas list goals, descriptions, desired future conditions, standards and guidelines, and management practices by resource element for each area.

Additional supporting information is contained in the Appendices.

FOREST MANAGEMENT GOALS

Forest management goals are statements providing direction for the future and describing the desired conditions to be achieved. The goals are expressed in broad terms and are timeless in that they have no specific date by which they are meant to be completed. The Umatilla National Forest management goals are to:

Provide land and resource management that achieves a more healthy and productive forest and assists in supplying lands, resources, uses, and values which meet local, regional, and national social and economic needs.

Provide for a broad spectrum of recreation opportunities and experiences and a variety of recreation settings on the National Forest for Forest recreationists.

Provide attractive natural to near-natural settings for Forest users along important highways, roads, trails, and in and around developed and primitive sites.

Preserve, protect, and improve the resources and values of the Forest's wildernesses.

Protect and enhance the outstandingly, remarkable values and free-flowing condition of the Wild and Scenic Rivers.

Protect and perpetuate special areas and related resources for their unique values

Provide for the protection and preservation of cultural resource values through a program which integrates inventory, evaluation, protection, and enhancement (including interpretation).

Provide, develop, and enhance effective and well-distributed habitats throughout the Forest for all existing native and desired nonnative vertebrate wildlife species.

Provide and manage big game (elk and deer) habitat and its components (cover, forage, and roads) to assist in meeting state wildlife agency population management objectives.

Provide and maintain a diverse, well-distributed pattern of fish habitats to assist in doubling anadromous runs in the Columbia River Basin (by the year 2000) in cooperation with Native American tribes, states, and other agencies. The goal applies to all areas dominated by riparian vegetation, including areas containing anadromous and resident fish habitat, perennial and intermittent stream courses, wetlands, and floodplains.

Maintain or improve habitats for all threatened or endangered plant and animal species on the Forest, and manage habitats for all sensitive species to prevent the species from becoming threatened or endangered.

Manage the forage resources for an improving vegetative trend in areas in less than 'fair' condition and for an upward or stable trend for areas in 'fair' or better condition. Provide for forage productivity and make suitable range available for livestock grazing. Increase the level of forage production where cost efficient and consistent with other resource goals.

Provide for diversity of plant and animal communities and species consistent with overall multiple-use objectives for the Forest. Maintain or enhance ecosystem functions to provide for the long-term integrity (stability) and productivity of biological communities.

Provide areas for research and education purposes which are typical of unique natural ecosystems and are in undisturbed or nearly undisturbed condition.

Provide for production and sustained yield of wood fiber and insofar as possible meet projected production levels consistent with various resource objectives, standards and guidelines, and cost efficiency.

Manage Forest lands to maintain or enhance soil and land productivity.

Manage Forest resources to protect all existing beneficial uses of water and to meet or exceed all applicable state and Federal water quality standards. Within the Forest capability, maintain or enhance water quantity, quality, and timing of streamflows to meet needs of downstream users and other resources. Maintain integrity and equilibrium of all stream systems, riparian areas, and wetlands on the Forest. Manage designated municipal supply watersheds to provide water which, with treatment, will result in a satisfactory and safe supply.

Maintain air quality at a level adequate for protection and use of Forest resources and which meets or exceeds applicable Federal and state standards and regulations.

Provide for exploration, development, and production of a variety of minerals on the Forest consistent with various resource objectives, environmental quality, and cost efficiency.

Promote human resources, civil rights, and community development within the zone of influence of the Forest. Promote cooperation and coordination with individuals, groups, landowners, Forest users, Native American tribes, and state and Federal agencies in forest management, and community and economic development.

Provide for the use and occupancy of the Forest by private individuals or Federal, state, and local governments when such use is consistent with Forest management objectives, is in the public interest, and cannot be reasonably served by development on private land.

Provide an optimum pattern of landownership within the Forest considering resource goals and efficiency of managing the Forest.

Provide and manage a safe and economical road and trail system and facilities needed to accomplish the land and resource management and protection objectives on the Forest.

Provide and manage administrative facilities sufficient to serve the public and accomplish land and resource management and protection objectives of the Forest.

Provide and execute afire protection and fire use program that is cost efficient and responsive to land and resource management goals and objectives.

Protect forest and range resources and values from unacceptable losses due to destructive forest pests through the practice of integrated resource management.

DESIRED FUTURE CONDITION OF THE FOREST

Introduction

The future condition of the Forest will reflect the results achieved through implementation of the Forest Plan in meeting management goals and objectives. The desired future condition describes what the Forest should be like given implementation of management direction contained in the Plan.

Management of the Forest during the next decade will contribute toward the long-run picture, but more than four decades will probably pass before the effects of the Plan are evident over the entire Forest. The following remarks describe expected physical and biological setting of the Forest after 10 and 50 years, assuming the direction from this Plan remains constant. (The reader should remember that this Plan will be revised at least every 15 years.)

DESIRED FUTURE CONDITION IN 10 YEARS

Overview

During the next 10 years, the Forest will continue its fundamental role in multiple-use management by providing a balanced variety of natural resource based goods and services to the public. The Forest will continue to fill a utilitarian, production-oriented role by providing resources including timber, livestock forage, water, and minerals. The Forest will also fill an expanding amenity stewardship role by valuing and managing aesthetic, recreation, and spiritual aspects of the Forest. Quality land stewardship and trusteeship will continue to be the fundamental underpinning for management of the Forest. The Forest will be 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.

The Umatilla will continue to feature a mosaic of large grasslands and forested area, containing elements of both natural and human-influenced forest conditions. By the year 2000, parts of the Forest will show change as vegetation management and developmental activities continue. About 60 percent of the Forest will show areas having small to moderate (varying) amounts of noticeable harvest as criteria for big game habitat, visual quality, timber management, forage production, and others are applied. Recently regenerated and young forest stands will be evident in these areas. The incidence of large scale pest outbreaks will have declined and the overall 'health' of the Forest will show improvement. On the remainder of the Forest, including wilderness, unroaded areas, dedicated old growth units, and some riparian areas, natural or near natural conditions will continue. Large areas of grass-tree mosaic and 'stringers' will remain in a natural condition. In addition, natural-appearing areas will be featured along principal travel routes, in recreation use areas, and in riparian areas.

A diversity of recreation opportunities in a variety of forest settings will continue to be provided. Use of the well-maintained recreation sites will continue to occur at high levels. Hunting will continue to be a featured recreation activity and will occur in a variety of settings. Big game populations will be near desired numbers as species respond to favorable forest habitat. Other wildlife dependent on managed forest environments will be evident. Recovering and improving anadromous fish runs will be a feature, particularly on the south end of the Forest. Resident fishing opportunities will be expanding. Although the level of future road development is high, motor vehicle access will be somewhat limited because of the many road closures.

Economic activity will be focused on the timber and fisheries resources and, to a lesser degree, on livestock grazing. Economic activity centered on big game and recreation pursuits will also be important.

RECREATION

Increasing demands for the variety of recreation activities, settings, and experiences will be met as the Forest provides a broad mix of such opportunities. Recreation opportunities will be provided in a variety of management areas, including wilderness, unroaded areas, scenic areas, Wild and Scenic Rivers, special interest areas, viewsheds, developed sites, and roaded areas. The Forest will continue to implement the national recreation strategy and will be involved with partnerships to accomplish a variety of recreation, wildlife, and fisheries projects.

Although potential semi-primitive opportunities will be reduced during the decade, through development of some of the roadless areas, available semi-primitive opportunities in the remaining unroaded areas and wildernesses (over 30 percent of the Forest) will accommodate demand. Some increases in user density will occur in these areas, but user conflicts will be minimal. Recreation opportunities in roaded and modified context will continue to be important and abundant on the Forest.

The Forest will maintain its reputation as one of the Blue Mountains' best places to hunt big game. Big game hunting will continue to be the single most important recreation activity on the Forest and will remain at high levels. A wide variety of settings for hunting will be available. Some decreases in road-related hunting will occur as additional road closures are used to improve big game habitat. The quality of hunting will be maintained as habitat management practices are emplaced. Fishing is also expected to rise in response to increases in resident fish populations and improved stream conditions.

The trail system will be expanded Existing trails will be retained and reconstructed, and new trails will be added. The expanded and upgraded trail system will contribute toward meeting long standing needs, distributing use, increasing capacity, and accommodating new uses. The Blue Mountain Trail System will be completed.

Off-highway vehicle use will be accommodated through development of loop trails, closed road systems, and staging areas. Conflicts between OHV use and big game will require some adjustments in OHV seasons of use and locations. Winter sports, growing in popularity, also will be accommodated, with the Tollgate area remaining a major winter activities focal area. Other all season roads will provide for an expanded sno-park system.

Special Areas

A variety of special management areas will be featured attractions as part of the diversity of recreation opportunities. Parts of the Grande Ronde, Wenaha, and North Fork John Day rivers, presently classified Wild and Scenic Rivers, will accommodate increased use; the two scenic areas (Grande Ronde and Vinegar Hill-Indian Rock) are major attractions which will also receive increased use. The variety of special interest areas on the Forest (historical, botanical, geological, and cultural sites) is being developed as planned, and will contribute toward educational and other recreational experiences. The Forest Scenic Byway will also be a featured attraction.

The many 'special places' including hunter camps and certain roadless areas such as Spangler, Walla Walla River, and Hells Half Acre will also receive protection and management for recreation, visual, and aesthetic values.

Developed Recreation

The Forest developed sites, including campgrounds, picnic areas, boating sites, ski areas, and others, shall continue to provide a variety of recreation facilities. The sites will be maintained in clean, neat, safe, and useable condition. However, increasing use at developed sites near

water will occur, and capacities will be reached or exceeded for several sites. Some additions to facilities have been provided, plans completed, and action initiated to respond to the growing future demand.

Visual Resources

Visual resource quality will continue to be emphasized across the Forest through application of visual management practices. During the next decade, the Forest will continue to maintain, enhance, rehabilitate, and perpetuate scenic and aesthetic qualities in key areas throughout the Forest. The wildernesses (about 20 percent of the Forest) will be managed to preservation standard, allowing only natural ecological changes to occur. Nearly 26 percent of the Forest, or about 391,000 acres, will be managed to provide near natural settings emphasizing visual quality, including areas along state highways, key Forest travel routes, major water-related viewsheds, developed recreation sites, and unroaded areas.

Where visual quality is a concern and vegetation management is to be used, uneven-aged management will be the method practiced most often. Vegetation management will change forest conditions to incorporate more open stands; vegetation will be characterized by large trees interspersed with patches of smaller trees, other vegetation, and small openings. In the remaining area of the Forest, outside wildernesses, vegetation will appear as a managed forest with the mosaic and variety of harvest patterns varying in size, shape, and arrangement.

CULTURAL RESOURCES

During the next 10 years, the Forest will continue to identify, evaluate, preserve, protect, and enhance its cultural resources. A professionally-designed, systematic inventory will be conducted prior to initiation of Forest projects. The accumulated data from inventories will facilitate comparisons of cultural properties, provide a basis for evaluations of significance, and contribute to informed decisions when resource conflicts exist. The Forest will be working closely with the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) through the consultation memorandum of agreement, affected Native American Indians, and other interested patties in the development of the program.

Most of the inventory will continue to be in support of the timber sale program. Of the tentatively suitable timberland on the Forest, an estimated 87 percent or 700,000 acres will have completed cultural resource inventories. Approximately 5 percent of these acres will require further investigations because of known site distributions or high cultural resource sensitivity. Where substantial inventory needs remain on the Forest, (such as in wildernesses) the areas will be inventoried, initially through special projects based on a sampling strategy. As the need for project related inventory declines, efforts to inventory nonproject acres will increase based on the available funding.

Site-specific management strategies will be developed over the next decade for properties determined eligible for the National Register of Historic Places. These management strategies will specify overall objectives and a program of work to accomplish objectives.

Data recovery operations will be carried out where conflicts occur between the onsite management of archeological resources and other resource needs. The purpose of data recovery is to document archeological information. Data recovery projects may contribute significantly to current archeological research by redefining research goals and by developing a regional context in which to evaluate and manage other similar or associated sites.

WILDERNESS

Wilderness Management Plans will be implemented for each wilderness. As defined in the plans, measures to substantially increase the amount of primitive recreation opportunity will be undertaken and completed. Indicators and standards tailored to each wilderness and baseline data will be established to determine limits of acceptable change (LAC). An effective education

program will result in most visitors becoming knowledgeable of wilderness ethics and practicing 'leave no trace' techniques. All hunting camps and temporary structures (tent frames) will be dismantled and campsites cleaned. Validity examinations will be made for all wilderness mining claims, and plans of operation will be put into effect for valid claims to minimize impact on the wilderness resource. All unnecessary Government-owned structures are to be removed. Fire will play a role in management of wilderness vegetation.

WILDLIFE

The Forest will continue to provide and manage effective and well-distributed habitats for a wide variety of vertebrate wildlife species. Forest species dependent on younger stands, edges, and openings will do well Populations of others, including Forest indicator species, will remain relatively high, although some decrease will occur as timber harvest reduces habitat. Wildlife management will be directed toward key habitats including mature and old growth tree stands, dead (snags) and down trees, riparian, and other unique habitats.

Habitat for species associated with mature tree and old growth stands will be provided through dedicated forested units, managed lodgepole stands, riparian areas, and unroaded areas distributed throughout the Forest. About 91,100 acres, (about 6 percent of the Forest outside of wilderness) will be managed directly to provide for old growth/mature tree habitat. Decreases in other old growth/mature tree habitat will occur through the life of the Plan due to timber harvest activities.

Habitat for species using dead (snags) and down trees will be provided throughout the Forest. Snags, plus trees for replacement snags, will be left in areas where timber harvest is occurring, either as individual snags or in small clusters. Amounts will vary by management area, ranging from 40 to 100 percent of potential populations of using wildlife species. On a Forest-wide basis, outside wilderness, snag levels will begin to approach the anticipated use level of about 65 percent of maximum potential population. Dead logs and slash will be left on the ground for species utilizing such habitat.

Riparian areas will continue to provide a diversity of habitat conditions. Unique habitats, such as cliffs, talus, and wet areas, will receive protection. Planned habitat improvement projects will result in about 10,000 acres and 75 structures of improvements annually. Most of the planned, nonstructural wildlife improvement work will involve prescribed burning on big game winter ranges to enhance forage and other vegetative conditions.

BIG GAME

Since management of big game summer and winter ranges is emphasized throughout most of the forest, big game habitat potential will be maintained Forest-wide. Focus of management will be on habitat components of cover, forage, and roads, and on management of winter ranges, riparian areas, and other important big game areas. Changes should result as predicted: Satisfactory cover will decrease slightly, marginal cover will increase slightly, forage quantity and quality will improve, and about half the roads will be closed. In addition, winter ranges will be maintained and improved through cover management, improved security, and forage enhancement. As a result of management during the next decade, potential big game populations will be within 5 percent of the state management objective and winter range management will assist in keeping elk and deer on the Forest. Deer populations will be recovering from the low levels of the late 1980's. The Umatilla will continue to be known for its big game.

THREATENED, ENDANGERED, AND SENSITIVE SPECIES

All management activities recognize and will be responsive to the requirements of the Endangered Species Act. Potential roost sites will be inventoried and protected adjacent to recognized feeding areas. Two potential bald eagle nesting sites are targeted for the Grande

Ronde River as part of the Recovery Plan objectives. Peregrine habitat will also be surveyed and/or protected in accordance with recovery plans.

Surveys for threatened, endangered, and sensitive plants will essentially be completed (within the next 15 years), lists will be revised, and management plans will protect and enhance identified plants. Federal and regional lists (T&E) will continue to change. Surveys will probably document large numbers of some plants and will result in those species being removed from the lists; other species will probably be located for the first time and will be added. The number of botanical areas on the Forest can be expected to increase slightly as new unique areas are found during sensitive plant surveys.

RESEARCH NATURAL AREAS

Ninety percent of the ecosystem representatives for the Research Natural Areas in the Blue Mountains will have been found. All proposed RNA candidates on the Forest will have been established and specific management direction provided. Management of each area will proceed according to direction.

RIPARIAN/FISH

Ten years from now, significant increases in the production of both anadromous and resident fish will have occurred on the Forest. Anadromous fish increases will be the highest and most noticeable, primarily as a result of actions taken through coordination between the Forest and the Northwest Power Planning Council (in its Fish and Wildlife Program), the Bonneville Power Administration, the U S. Bureau of Reclamation, the Confederated Tribes of the Umatilla Indian Reservation, Columbia River Inter-tribal Fish Commission, Oregon Department of Fish and Wildlife, and the Washington Department of Fisheries.

Inventories of most of the streams and lakes on the Forest will have been completed. This knowledge will allow the Forest managers to predict more accurately the effects of management of the various resources on fish and to minimize any negative impacts. Inventories also will be the basis for habitat rehabilitation and enhancement. By the end of the period, a sustained habitat improvement program, based on plans developed in coordination with other agencies (and upon stream and lake inventories) will be well along its way to completion. Fisheries habitat capability will improve Forest-wide as a result of management emphasis and activities. Stream temperatures will be maintained or improved, instream diversity increased, sediment production decreased, and stream channel stability maintained. Trends in improving vegetative, soil, and other conditions on Forest riparian areas will continue. Overall riparian condition will be better than the present riparian status and will play an important role in meeting long-term goals to increase anadromous fisheries.

The number of rainbow trout on the Forest (an indicator of the number of all other resident fish) will have increased as a result of habitat improvements. The opportunity to catch fish will have increased even more, based on the increased number of legal-sized fish, better access from roads, and more fishable areas in the form of larger, deeper, and more complex pools. As a result of riparian management and fish habitat improvement, anadromous fish production will increase dramatically, including native fishery, during this period. The Forest Service will have enhanced most of the higher priority and cost efficient on-Forest habitat. The Forest will be contributing to the Northwest Power Planning Council's goal of doubling the fish runs by the year 2000.

A share of the increase will be dependent on and tied to improvements in downstream survival (between the Forest and ocean) and effective harvest controls.

RANGE

Management

In the first 10 years, forage will continue to increase in quality and quantity as a result of timber harvest, wildlife and range improvement projects, and range management actions. An increase of 6 percent in permitted livestock use will be realized through timber harvest area transitory forage. Increased use of clearcuts by livestock will occur.

Revision of outdated range allotment management plans will be completed; all others will be kept current. Allotment plans will continue to implement improved management systems on about 76 percent of the Forest and continue the trends toward improved rangeland and riparian conditions that have come about in the last 25-30 years. The structural and nonstructural improvements needed to achieve improved conditions and planned use will be added. Key big game winter ranges will be re-analyzed to determine total forage production and to assure that the allocation of that forage between big game and livestock is correct.

Noxious Weeds and Poisonous Plants

Although not desired by Forest managers, noxious weed populations will continue to expand. Canada thistle population levels will probably remain constant with the level of timber harvest activity, and may not be treated except in isolated cases where severe infestations on National Forest System lands might infect adjacent private lands. Other species, once well established, will have become virtually impossible to eliminate. If the use of chemicals for control is not allowed early in this time period, infestations of several species (especially knapweed, yellow starthistle, and ragwort) could become extensive and severe.

TIMBER

Timber and wood fiber production will continue to be a principal Forest activity. In the long run, management of the Forest trees and stands will be directed toward, and tied together with, accomplishment of multiple-use objectives, including production of wood fiber, and maintaining and enhancing visual quality, forage production, recreation opportunities, wildlife habitat, and fish production.

On areas emphasizing multiple-use values coordinated with timber resource management, forest development and growth will be 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 pest lasses. Such areas (about 55 percent of the Forest) include Management Areas A3, A4, A5, A10, C2, C3, C4, C5, C7, E2, and F4. Forest yield will vary from low to relatively high levels in these areas. All principal forest management techniques will be available and used. Even-aged management systems will often be employed; uneven-aged management will be emphasized in viewsheds, riparian areas, and winter ranges, and used in many other site-specific situations. In these management areas, prompt forest regeneration and rapid tree growth at desired stocking levels will also be important to meeting other resource objectives.

Clearcuts, shelterwoods, selection, modified even-aged practices; other forest harvests, plantations, thinnings, and roads will be more evident. About 30 percent of the previously roadless areas will be developed through timber harvest. Harvest units will replace areas of unbroken forest canopy. Some reduction in large trees and increase in regeneration areas will also be evident where partial cutting has occurred during the past 10-30 years. Cleanup of dead lodgepole pine and Douglas-fir bark beetle killed stands will be completed, and regeneration of these forest stands started.

Where timber and wood fiber are of principal concern (about 6 percent of the Forest, under Management Area EI), forest development and growth performance will be keyed to producing relatively high levels of periodic (annual) yields. Emphasis will continue to be on conversion of existing mature and overmature stands to faster growing, more vigorous ones. Even-aged management will be the primary system employed, including clearcutting, shelterwood, and

modified methods. Emphasis will be placed on obtaining more rapid regeneration, more natural reproduction, and faster-growing stands approaching yield-table predictions.

A variety of management techniques will be used to achieve long-term desired conditions emphasizing forest growth, productivity, health, and diversity. Practices include: 1) Species composition and stocking level control emphasizing seral species; 2) animal, insect, and disease protection, 3) regeneration of stands which are not meeting growth expectations: and 4) utilization of genetically improved stock. Utilization of wood fiber will be high.

Competition for wood fiber provided by the Forest will continue to be high. During the decade, the allowable sale quantity (ASQ) of 124 MMBF, of which about 24 MMBF will be ponderosa pine, and a total sale quantity (sawlogs, chippable, and fuelwood) of 159 MMBF per year will be offered for sale annually. Species composition and log sizes of sale offerings will be similar to that available on the Forest currently. Although demand for ponderosa pine will remain high, white fir and other species will be increasingly used. Firewood will still be available and meet demand, but will be less accessible and consist of higher amounts of cull and slash material. Timber and wood fiber production will continue to be very important to the economy of the area.

WATER/SOIL

Water provided by the Forest will be an increasingly important resource as demand and competition for it expands. The Forest will remain a key source of surface water for local stream systems. Ten years from now, the water arising on Forest watersheds will be undiminished in quantity and quality. In many stream reaches on the south end of the Forest, water temperature regimes will improve due to measures taken to promote recovery or enhancement of riparian vegetation. Water quality will also improve in the Clear Creek watershed due to treatment of acid drainage from abandoned mines. The Forest management objective to provide clean, clear, free flowing surface water will be met.

Timing of low and high flows and average annual water yields will remain about the same for the variety of users. Any significant changes in total streamflow or timing of high and low flow are expected to result primarily from naturally occurring events and conditions. Management activities through the decade will continue to provide high levels of protection to streams, streambanks, riparian areas, and wetlands. The Mill Creek and Walla Walla watersheds will receive high levels of protection through the decade.

About 40 percent or more of the Forest soils will remain in a natural, undisturbed condition. Another portion will be affected for the first time by ground disturbance, while the remainder will be affected through repeated activity. A small percentage of the Forest soil in roads, trails, rock pits, and other allocations will be in a nonproductive state. Another small percentage will undergo treatment to restore lost productivity due to past management activities. However, the majority of Forest soils will be in about the same productive condition as today. Forest-wide, goals and objectives related to soils will be met through continued efforts at utilizing soil damage prevention and mitigation techniques.

MINERALS AND ENERGY

Interest in the locatable mineral potential of eastern Oregon remains high, and claiming activity will increase in favorable areas outside wilderness. The number of claims inside the wilderness will continue to decline. Mining for gold will continue to be active. Physical and biological impacts will be minimized but the short term effects on water quality will continue to be a concern.

An up-to-date mineral resource inventory and evaluation will be completed to supplement knowledge of locatable minerals. With this information, the Forest will be in a better position to manage proactively for locatable mineral resource activities.

Oil and gas leasing activity will fluctuate with energy prices, but interest in the Forest will remain relatively high. Interest in the lignite deposit in the Grande Ronde River Area for eventual development will increase. Geophysical surveys and exploration drilling for oil and gas in the Columbia Basin area will provide better information as to where oil and gas resources are likely to be found. Any significant discoveries will bring new leasing activity to the area. Consequently, continued exploration will better define potential targets, and poorly located speculative leases will be dropped. Based upon newly acquired data, the remaining leases will concentrate on areas with a high potential for the occurrence of energy minerals. The Forest will then be in a better position to plan for development of the resource.

The public's interest in common variety mineral commodities will continue at about the present level; the demand for Forest Service road construction and reconstruction for access to these minerals will remain at about current levels. The resource will continue to be inventoried to identify sources needed for specific projects.

Withdrawals

All existing withdrawals will have been reviewed as required by FLPMA, and unneeded withdrawals will have been revoked. Unpatented mining claims located within wilderness areas will either have been abandoned, or operating plans will have been submitted and valid existing rights will have been determined. As a result, more complete knowledge about mining activities can be anticipated within areas designated as wilderness.

LANDS

About 88 percent of the Forest property lines will be surveyed, marked, and posted to Forest Service standards, and will be on a maintenance schedule.

Cost sharing on all major, jointly-shared roads will have been completed. New work sharing will be limited to reconstruction and occasional construction of short segments of spur roads. Termination easements on agreement roads will be necessary due to land exchange. Road access through private lands will also be adequate to provide public use of all major areas on the Forest

Land Exchange

All current land exchanges will have been completed. Other changes in ownership will occur as efforts continue to consolidate national forest ownership. Land exchange interest and opportunities will still exist with Forest major cost-share partners and other major industrial and agricultural landowners.

Utility Corridors Special Uses

Existing corridors are anticipated to meet regional needs through the next 10 years. The proposed corridor from Blalock Mountain to Troy, Oregon, will not be needed during this period. A rapid increase in electronic site activity is anticipated. Existing mountaintop sites will be sufficient to meet the I0-year demands. Most other special uses currently on the Forest will continue through the period.

Encroachment and Title Claims

Current cases requiring litigation will be resolved. The current backlog of cases, including mining claim occupancy, will not be resolved. New cases will be resolved promptly using a variety of methods, depending on the circumstances of each case. One Small Tract Act case per year is anticipated.

TRANSPORTATION

Roads

During the first decade, planned local roads needed to support the timber management program will be constructed. The Forest road system will continue to be operated to meet Forest goals, a process which will include an active program of road closures to meet elk habitat requirements, dispersed recreation needs, and soil, water, and economic criteria, as described in District access management plans. Most local roads will be closed to motorized use. Even though additional roads are constructed, the density of open roads will decline below current levels to an average of about 2.0 miles per square mile, Forest-wide. The miles of roads suitable for passenger cars will increase slightly as roads reach their objective level of maintenance. All of the arterial and about half the collector roads will be managed for passenger cars: the remainder will be managed for high clearance vehicles. Desired conditions for trails are described under the Recreation section.

Other Facilities

All facilities will be maintained at their user level which includes consideration of user safety, continuity of service, function, operation costs, protection of investment, and appearance.

PROTECTION

Fire

Overall, wildfire activity will remain at about current levels and intense, large fires will occur at about the same level as today. However, the continued use of fire suppression strategies will result in a more cost-effective fire management program.

Use of prescribed fire will expand in project activities of all types and in reduction of natural fuels Fire will be allowed to play a more natural role in the wildernesses. The general fuel hazard level will slowly be reduced through the combination of management activities. The fuels management program will help reduce the risk of large, intense fires.

Pest Management

By the end of the decade, current large scale spruce budworm and Douglas-fir bark beetle infestations, will have 'run their course." Integrated pest management strategies in all activities will be practiced. But, the Forest will remain susceptible to large-scale insect outbreaks due to such factors as the number of acres of mature and older forest, past fire suppression, past harvest practices, and younger immature stands. Silviculture techniques, prescribed burning, and other practices will be employed to help prevent such large-scale infestations and reduce diseases. The overall 'health' of the Forest will slowly improve.

PACIFIC NORTHWEST STRATEGY

Opportunities for the Forest to help enhance the vitality of surrounding communities will occur through a Regional initiative called the Pacific Northwest Strategy. It is envisioned that the Pacific Northwest Strategy will be a new focus of operation for many people, one that empowers Forest Service people and local citizens to look and work beyond the traditional boundaries. At the same time, it reaffirms and emphasizes working with other government agencies, local businesses, and the communities themselves in a spirit of interdependency and cooperation that has always existed at the local ranger district level. As the strategy becomes an integral part of doing business, its central focus will be to foster and enhance communication, cooperation, and partnerships.

DESIRED FUTURE CONDITION IN 50 YEARS

By 2040, actions initiated and carried out under the Forest Plan will become readily apparent. The following section describes the results of management and conditions of the Forest in 50 years, provided the demand for Forest resources and the management described in the Forest Plan continues.

Wilderness, scenic areas, dispersed recreation areas, old growth, research natural areas, and a few other forest areas undisturbed by timber management will remain substantially unaltered, except for subtle vegetational changes. Forest stands in these areas will be older, some showing signs of climax conditions, but many will exhibit more open, subclimax conditions due to 50 years of prescribed burning. Where recreation use is permitted, “wear areas” will be evident. The amount of recreation use will be near the upper limits of capacity, but efforts to teach a strong land ethic to visitors will keep impacts within limits of acceptable change. Direct methods of regulating behavior will become commonplace and accepted.

Lower elevation rangelands (big game winter range, nontimber areas, and 'stringers') will also be much the same as today. Areas of historic heavy use will have essentially recovered and will be productive. Forest stringers will show evidence of expansion. Use by big game and livestock will remain high.

On about one-third of the Forest, timber stands will have a noticeably managed appearance. Conversion of the older forest to younger, thriftier stands will have occurred on most of the suitable acres. The overall appearance will be a mosaic pattern of even-aged management areas with varying unit and tree sizes, uneven-aged management areas with small groups and clumps of trees of varying sizes, and interspersed tree stands of old growth, riparian, and unlogged natures. Production of wood products will have been continuous through time. Overall, 'green' material production will begin to increase at the planned level, and cull and dead material supplies will begin to decline. Smaller trees will contribute an increasing share of the total yields.

As a result of timber management activities, forage production will be abundant and will have reached an equilibrium level of high output. The road system will be essentially complete and under management; only minor reconstruction projects will occur except where construction is needed to accommodate mineral activities. Many roads will be closed to motorized use but will be available for recreational uses.

Where timber management occurs, the general forest appearance will reflect the multiple-use emphasis which include production and maintenance of wood fiber, wildlife habitat, visual resource, and other values. Differences will be characterized by unit size and spacing, tree sizes and stand densities, and vegetative composition. Across the Forest, diversity will remain high in forest vegetation species and stand and plant community conditions.

Where other values are emphasized, the Forest will present a diversity of conditions. Natural appearing stands featuring large trees intermixed with younger trees and other vegetation will be found in managed viewsheds, many riparian areas, winter ranges, and many other areas. Management areas emphasizing wildlife criteria will show contrasting unit size and shape, denser stands, layered canopies in older stands, and higher levels of dead and down trees. Where wood fiber production is emphasized, the Forest will approach a regulated, more uniform condition in terms of tree sizes on a given unit. Stand ages will vary from 0 to 250 years. In summary, forested areas under vegetation management will show the appearance of human activity, more so than at present.

Although the extent of area impacted by management activity will be expanded, in general, soil conditions will be Similar to current conditions. Some additional areas will be adversely impacted despite prevention and mitigation measures. The Forest will continue to provide clear, cool water. Quality water will be even more precious than at present; demand will be high from all users. However, available supply from the Forest will remain essentially unchanged.

Riparian areas and stream habitat will be in excellent condition as a result of long-term protection and management, and fish enhancement work. The trends in riparian areas toward quality fish and wildlife habitat, and populations reaching potential levels will be realized. The years of riparian protection and fish habitat improvement will pay off by increasing anadromous fish production by five times over current levels (highest levels since the 1950's) and by bringing

resident fish to peak production levels. The Forest will be in the mode of rebuilding improvements initially constructed under direction of the Plan.

Various species of wildlife will continue to be important on the Forest. Old growth habitat in dedicated and managed units and other areas will remain at planned levels, sustained through time, and continue to meet needs for diversity, aesthetics, and wildlife. Dead and down tree habitat amounts will also continue to meet dependent wildlife needs. Forest-wide, some decline in indicator species populations dependent on old growth and dead/down trees will occur as forest management activities reduce the total amount of key habitat. However, moderate population levels of indicator species dependent on these habitats will be maintained. Annual habitat improvement work will assist in maintaining populations. The biological capacity for species dependent on young tree conditions will increase dramatically. High levels of wildlife populations related to younger, seral forest conditions will be produced.

The Umatilla will continue to be known for its big game. Populations of elk will remain high, although forest cover and forage will have been changing and evolving through time across the Forest. Management of timber (cover), forage, and roads will continue to produce quality big game habitat. Big game winter range habitat condition will be excellent, as satisfactory cover is managed and quality forage is produced through prescribed burning. The impact of elk and deer populations on private lands will have declined to low levels because of increased forage and habitat security on the Forest. Road closures will remain high to maintain the quality of habitat and provide security for elk and deer.

Livestock grazing will be maintained at moderate levels and will harvest part of the increased forage developed through timber harvest. Forage allocations will continue to provide for big game and livestock needs. Upgraded allotment plans will continue the process of implementing improved grazing systems; rangeland improvements identified in plans will be installed and maintained. Overall, rangeland conditions and riparian areas will be substantially improved. Noxious weeds will be present on the Forest, but the spread will be controlled.

Demand for mineral and energy sources will be increasing and the Forest will respond to this demand. Improved knowledge about the mineral potential will result from extensive Forest inventories. Marginal and newly discovered coal, geothermal, oil, and gas resources will receive attention. The Forest will be in a position for proactive management of mineral and energy resources, including use of improved management and reclamation techniques. Development of the Forest potential will have been initiated. Withdrawals will continue to be periodically reviewed for their need and potential for operation.

Much of the lands activity will be completed (or nearly so), including land lines, area boundaries, rights-of-way, and ownership adjustments. New communications systems will replace many ground based facilities, but existing and proposed electronic sites will be used to capacity. Existing and proposed utility corridors will be fully utilized. Access through private lands will provide public use of roads, trails, and areas on the Forest.

Changing forest conditions will continue to influence recreation activities, settings, and experience opportunities. At the same time, demand will increase significantly for most of the various recreation opportunities. The Forest will continue to provide a range and diversity of recreation opportunities similar to that provided today. The supply of roaded and modified environments will increase more than 20 percent, and at the same time, the level of natural to near natural settings will be retained. Most recreation use will occur in the amply supplied forest environments influenced by vegetation management and road development. The Forest will continue to meet demand for primitive and semi-primitive opportunities found in wilderness, unroaded, and other areas. However, frequency of encounters in these areas will be noticeably increased. The many special opportunities will continue to be feature attractions, available through wild rivers, scenic areas, botanical, geologic, and historic areas, scenic byways, and other interpreted cultural resource properties.

Hunting will continue to be a featured activity, and use will be about the same as it is currently despite changes in big game populations. Fish use will continue to increase substantially; sport fishing for salmon and steelhead will be another featured attraction. An expanded and well maintained trail system will provide increased opportunities for a variety of motorized and nonmotorized uses. An integrated trail network system tied to larger systems will traverse the Blue Mountains.

Developed recreation sites and facilities will meet needs, and will be fully utilized. Additional campsites will be added at water-related sites on the Forest, use of older sites will remain high and many facilities will be replaced and remodeled. Visual resources will continue to be emphasized across the Forest; the appearance of natural and near natural conditions will be created and maintained through vegetation management including uneven-aged timber management in sensitive viewsheds.

Wildernesses will be returning to a more pristine condition through use and management of fire Some visitor impacts will be noticeable along heavily traveled routes and in popular hunting campsites, but will be within established standards for limits of acceptable change. Visitor use will be near the maximum level, but well informed visitors will have a high land ethic and will not unnecessarily degrade the area. Some specific campsites will be hardened to withstand the use. Direct controls to disperse the number of visitors and impacts during the hunting season will be necessary Locatable minerals will be removed from valid mining claims and the sites restored to a natural-appearing condition. All land inholdings within the wildernesses will have been acquired and will be managed as a part of the wilderness system.

PACIFIC NORTHWEST STRATEGY

Each community will have capitalized on its uniqueness and involved its citizens in the development of a desired future. The activities associated with the Pacific Northwest Strategy will continue to support the goals and plans of resource-dependent communities.

FOREST MANAGEMENT OBJECTIVES

The projected annual levels of goods and services which will be available from the Forest, with full implementation of the Plan, are summarized in Table 4-1. Planned outputs and activities are the resource management objectives for the Forest. Table 4-1 also shows the annual funding levels necessary to meet the proposed outputs and activities. A narrative description of the planned resource programs and objectives follows the table.

The Forest objectives or planned average annual scheduled outputs and effects may not always be accomplished in any given year. Changes in budgets, data, assumptions, or other items used in the development of the Plan could affect accomplishment of outputs and activities. Should appropriated budgets or personnel vary significantly from the planned needs, final outputs of goods and services may vary according to the funding level. Adjustments in outputs and effects will be evaluated to determine whether adjustment of the Plan is necessary.

Appendix A identifies projects anticipated to occur on the Forest in the next 10 years.

TABLE 4-1. PROJECTED RESOURCE OUTPUTS AND EFFECTS EXPRESSED AS AN AVERAGE ANNUAL YIELD/DECADE

OUTPUTS/EFFECTS	UNIT	DECADES				
		1	2	3	4	5
RECREATION						
Developed Recreation Use	M RVD's[1]	280	340	370	395	415
Developed Recreation Capacity	M PAOT Days	702.4	718.9	748.4	753.9	765.9

TABLE 4-1. PROJECTED RESOURCE OUTPUTS AND EFFECTS EXPRESSED AS AN AVERAGE ANNUAL YIELD/DECADE

OUTPUTS/EFFECTS	UNIT	DECADES				
		1	2	3	4	5
Nonwilderness Dispersed Recreation Use Capacity						
-Roaded	M RVD's	2,832	2,967	2,933	2,906	2,884
-Unroaded	M RVD's	132	122	120	118	115
Dispersed Recreation Use	M RVD's	1,194	1,253	1,317	1,373	1,431
Wildlife Use (Big Game)	M WUD's[2]	540	525	534	528	550
Fish Use						
-Anadromous	M FUD's[2]	44.8	74.1	87.1	100.2	113.2
-Resident	M FUD's	11.75	135.5	148.8	162.2	175.5
Wilderness Use	M RVD's	115	119	139	159	180
Wilderness Capacity	M RVD's	180	180	180	180	180
Roads Suitable for Public Use						
-Passenger Car	Miles	900	925	950	950	950
-High Clearance Vehicles		2,530	2,677	2,823	2,823	2,823
Trail Construction/Reconstruction	Miles	30	35	40	45	50
Trail Maintenance Miles	Miles	400	550	650	750	800
Developed Site Construction/Reconstruction	Persons At One Time (PAOT	255	290	240	120	120
Recreation Opportunity Spectrum (ROS)						
-Primitive	M Acres	128	128	128	128	128
-Semi-Primitive Nonmotorized	M Acres	254	254	254	254	254
-Semi-Primitive Motorized	M Acres	115	115	115	115	115
-Roaded Natural	M Acres	203	203	203	203	203
-Roaded Modified	M Acres	806	806	806	806	806
-Rural	M Acres	5	5	5	5	5
Visual Quality Objectives						
-Preservation	M Acres	304	304	304	304	304
-Retention/Partial Retention	M Acres	388	388	388	388	388
-Modification/Max. Mod.	M Acres	819	819	819	819	819
Wild and Scenic Rivers						
-Wild	Miles	60.4	60.4	60.4	60.4	60.4
-Scenic	Miles	10.5	10.5	10.5	10.5	10.5
-Recreation	Miles	3.9	3.9	3.9	3.9	3.9
WILDLIFE						
Wildlife Management Indicator Species						
-Pileated Woodpecker	Potential No.	810	740	680	680	680
-Northern Three-toed Woodpecker	Potential No.	240	215	215	210	190
-Pine Marten	Potential No.	360	330	300	270	250
-Primary Cavity Excavators	% of Potential Population	65	65	65	65	65
Wildlife Habitat Structural Improvement	No. Structures	75	100	100	100	100
Wildlife Habitat Nonstructural Improvement	M Acres	10.0	12.0	12.0	12.0	12.0
BIG GAME						
Rocky Mountain Elk	Potential No.	21,200	20,600	20,900	20,700	21,500
-Satisfactory Cover	M Acres	164.7	181.2	185.1	227.2	258.4
- Habitat Effectiveness Index	Percent	69	67	68	68	70
Mule Deer	Potential No.	18,300	17,700	18,200	17,800	18,700
Open Road Density[3]	Mi. per Sq. Mi.	2.0	2.1	2.2	2.2	2.2
FISH						
Fish Management Indicator Species						

TABLE 4-1. PROJECTED RESOURCE OUTPUTS AND EFFECTS EXPRESSED AS AN AVERAGE ANNUAL YIELD/DECADE

OUTPUTS/EFFECTS	UNIT	DECADES				
		1	2	3	4	5
-Steelhead	M Smolts	1,841	2,504	2,835	3,165	3,496
-Rainbow Trout	M Legal Trout	473	525	543	561	578
Fish Commercial Harvest	M Lbs.	70.4	113.6	132.7	151.9	171.0
Anadromous Fish Production	M Smolts	2,818	4,619	5,419	6,220	7,020
Anadromous Fish Habitat Improvement	M Lbs.	20.7	41.4	62.1	82.8	103.5
RIPARIAN						
Riparian Regeneration Harvest	Acres	50	76	199	41	103
TIMBER						
Lands Tentatively Suitable for Timber Production	M Acres	807.2	807.2	807.2	807.2	807.2
Lands Suitable for Timber Production	M Acres	618.8	618.8	618.8	618.8	618.8
Lands with Timber Yield Reduction	M Acres					
-Full Yield		413.3	441.3	441.3	441.3	441.3
-50-99% of Full Yield		177.5	177.5	177.5	177.5	177.5
-1-49% of Full Yield		0	0	0	0	0
-Unregulated		188.4	188.4	188.4	188.4	188.4
Long-term Sustained-yield	MMCF	32.8	32.8	32.8	32.8	32.8
Timber Sale Program Quantity	MMCF	28.4	28.4	30.3	30.3	30.3
Allowable Sale Quantity (ASQ)		22.2	22.2	23.7	23.7	23.7
Ponderosa pine included in ASQ		4.2	3.8	3.9	4.8	4.6
-Chip Material		3.6	3.6	3.8	3.8	3.8
-Firewood		2.6	2.6	2.98	2.8	2.8
Timber Sale Program quantity	MMBF	159	159			
Allowable Sale Quantity (ASQ)		124	124			
Ponderosa pine included in ASQ		24	21			
-Chip Material		20	20			
-Firewood		15	15			
Harvest Prescriptions	M Acres					
-Clearcut		4.0	3.3	2.8	3.1	2.3
-Shelterwood		2.6	3.2	3.3	2.8	3.0
-Overwood/Shelterwood Removal		1.5	1.2	2.4	2.5	2.1
-Commercial Thinning		0.1	0.0	1.6	0.0	1.6
-Uneven-aged Mgmt.		0.9	1.2	2.4	1.3	2.3
Reforestation Planting	M Acres	4.4	3.6	3.7	3.4	3.1
Natural Regeneration	M Acres	3.1	4.0	4.8	3.7	5.6
Timber Stand Improvement	M Acres	2.9	3.3	5.0	6.2	6.3
Pest Management Stands Acres Managed	M Acres	108	104	143	129	148
FIRE						
Fire Management Effectiveness Index	$'s/M Protected Acres	779	779	779	779	779
Fuel Treatment	M Acres					
-Activity Fuel		5.8	6.3	7.4	6.4	6.8
-Natural Fuels		3.4	3.4	3.4	3.4	3.4
TRANSPORTATION						
Arterial/Collector Road Reconstruction	Miles	33	26	22	22	22
Local Roads Construction/Reconstruction	Miles	92/61	27/25	14/20	7/20	3.5/20
Road Maintenance	Miles	4,538	4,777	4,949	4,978	5,005
RANGE						
Permitted Grazing	1,000 AUM's	58.0	58.0	58.0	58.0	58.0
Potential Grazing	1,000 AUM's	62.8	73.5	75.5	70.8	67.9

TABLE 4-1. PROJECTED RESOURCE OUTPUTS AND EFFECTS EXPRESSED AS AN AVERAGE ANNUAL YIELD/DECADE

OUTPUTS/EFFECTS	UNIT	DECADES				
		1	2	3	4	5
Available Forage	Million Pounds	219.7	257.6	267.2	251.8	243.0
Vegetation Management	M Acres	1.7	1.7	1.7	1.7	1.7
WATER AND SOIL						
Water Yield Estimate	M Acre Feet	2.460	2.460	2,460	2,460	2,460
Sediment Yield Estimate	Tons (Index)	19,700	20,000	20,300	21,500	20,600
Improved Watershed Condition	Acres	454	815	843	729	680
MINERALS AND ENERGY						
Minerals Proposals, Leases, & Applications	Cases	240	264	290	329	351
Energy Minerals Production						
-Lignite	Billion BTUs[4]	0	0	0	0	0
-Oil and Gas		138	690	690	690	1,400
-Geothermal		0	0	0	0	0
Non-Energy Minerals Production	Million $'s	0.9	13.8	13.8	13.8	31.8
Area Open for Development	M Acres	872	872	872	872	872
LANDS						
Land Exchange	Acres	500	350	250	100	50
Land Line Location	Miles	37.5	-	-	-	0
Maintenance	Miles	83	83	83	83	
SOCIOECONOMIC						
Present Net Value	Millions of $'s	1,000.2	-	-	-	-
Returns to Treasury	Millions of $'s	20.1	22.1	24.6	26.3	29.0
Payments to Counties	Millions of $'s	5.0	5.6	6.1	6.6	7.2
Changes in Employment	Number of Jobs	+375	-	-	-	-
Changes in Income	Millions of $'s	+4.6	-	-	-	-
Total Budget Costs	Millions of $'s	20.5	18.1	19.4	18.7	18.1
Operational Cost	Millions of $'s	11.4	11.4	11.8	11.7	11.7
Capital Investment Cost	Millions of $'s	9.1	6.7	7.6	7.1	6.4

1 Recreation Visitor Days
2 Wildlife and/or Fish User Days
3 Forest-wide estimated mi./sq. mi. result based on Forest Plan intent and management objectives.
4 British Thermal Units

RESOURCE SUMMARIES

Introduction

The resource summaries section contains supplementary narrative information about management objectives and planned activities necessary to produce the outputs and effects displayed in Table 4-1. The planned activities will become the foundation for developing the annual program of work and the Forest budget. The section also provides some information and data necessary for people implementing resource projects on the ground.

RECREATION

RECREATION SITES

Demand for use of the water-related campgrounds will continue to be high; these facilities are expected to be used near capacity on most weekends. Therefore, priorities for managing camping facilities will be directed toward water-related sites. The other campgrounds will be managed to accommodate occasional use during the summer months. All open facilities are expected to be filled during the hunting season. Facilities will be maintained to be safe, sanitary, and pleasant in appearance.

Fee collection will be implemented on sites which meet basic criteria, and where it can be administered efficiently to recover a portion of the operational costs. Concessionaires will be allowed to operate campgrounds where economics and ability to serve the public are favorable. The Campground Host program will be continued to help improve service to the public and reduce costs

Recreation use will be closely monitored to assist in determining need for change. Capacity will be expanded at sites where monitoring shows that regional standards for occupancy rates are degraded and physical attributes of the area. Priority will be placed on upgrading facilities to appropriate standards before significant expansion is implemented. Potential recreation developments and the schedule of activities are displayed in Appendix A.

Many small developed sites will continue to exist, but as facilities deteriorate, only improvements to provide minimum health, safety, and resource protection will be made and maintained. Some of the minor sites may be converted to occupancy spots, to be used primarily during the hunting season.

Vegetative management plans will be made for recreation sites at Development Scale 3 and above, in order to maintain or improve the natural environment. Small timber sales may be used to accomplish the vegetative manipulation necessary to keep the trees thrifty and safe. Knutson-Vandenburg (K-V) funds may be used to accomplish resource treatment projects.

Recreation residences and the Buck Creek group camp will continue through the term specified in their use authorizations. The Slickear tract will terminate on December 31, 2003, all other recreation residences run through December 31, 2008. Future use determinations will be made prior to their termination dates to evaluate reissue of the permits.

The two downhill ski areas will continue to operate according to their master plans. Ski Bluewood has room for considerable expansion within its permitted area. Spout Springs expansion would require area enlargement. Both areas will receive an environmental analysis to evaluate any proposed expansions.

The Forest will rely heavily on state programs to provide facilities for snowmobile, OHV, and ATV activities. User groups will be involved in planning and operating the programs.

Trailhead facilities will be increased and improved to provide auxiliary facilities for semi-primitive opportunities. The facilities will accommodate the various transportation modes appropriate for

the setting; i.e., stock, OHV, snowmobile, backpacker, etc. Timber sale activities and Forest road and trail funds will be used where possible to benefit trail facilities

DISPERSED AREAS

Five primary recreation opportunity (ROS) classes have been identified for the Forest Plan Primitive, Semi-primitive Nonmotorized, Semi-primitive Motorized, Roaded Natural, and Roaded Modified. Management will be directed toward meeting the, desired standards for each of the identified ROS types described in management areas and prescriptions and ROS Users Guide. Monitoring will be used to assure that settings are being maintained and not degraded.

Primitive and Primitive and semi-primitive recreation opportunities will be provided in the Semi-Primitive wildernesses and remaining roadless areas. Primitive recreation opportunities will be Recreation expanded in the Wenaha-Tucannon and North Fork John Day wildernesses to a total of about 128,000 acres. Eleven roadless areas will remain essentially unroaded and will still qualify as roadless areas. Of these, 7 areas totaling about 55,000 acres will be managed with emphasis on semi-primitive dispersed recreation and scenic values, as shown in Table 4-2. Also included is the Hells Half Acre/Bald Mtn. area that qualifies for semi-primitive recreation, but was not analyzed as a roadless area due to its insufficient size.

TABLE 4-2. MANAGEMENT AREA - SEMI-PRIMITIVE RECREATION EMPHASIS

Umatilla National Forest

Area	Management Area	Umatilla NF M Acres	Total M Acres
UPPER TUCANNON	A1	4.9	4.9
WENATCHEE	A1	15.1	15.1
SPANGLER	A2	4.1	4.1
LOOKINGGLASS	A1	3.2	3.2
GRANDERONDE	A8, A7	11.2	16.5[1]
HELLS HALF ACRES/BALD MTN. [3]	A1	2.8	2.8
VINEGAR HILL-INDIAN ROCK (GREENHORN MTN)	A8	8.1	24.9[2]
JUMP-OFF JOE	A8	5.5	5.5

1 includes Wallowa-Whitman NF
2 includes Malheur NF and Wallowa-Whitman NF
3 Not a roadless area based on size requirement

Four other areas totaling about 142,000 acres are managed in an unroaded status for wildlife or water values, but will be available for and provide semi-primitive and roaded natural recreation opportunities. Table 4-3 shows the areas and management direction. Five of the areas will be managed under Management Area C8 (Grass-tree Mosaic) which permits existing roads. However, the expectation is that the roadless portion of the GTM areas will remain roadless. Most of the Walla Walla River Watershed will also be managed in an unroaded condition. The Mill Creek Municipal Watershed is the one excepted roadless area, because dispersed recreation use will be limited to protect water quality.

TABLE 4-3. MANAGEMENT AREAS - SEMI-PRIMITIVE RECREATION OPPORTUNITIES

Umatilla National Forest

Area	Management Area	Total Roadless Acres
ASOTIN	C8	11.9
WALLA WALLA RIVER	F4	33.1
HELLHOLE	C8	48.2
HORSESHOE	C8	6.2
SKOOKUM	C8	6.0
POTAMUS	C8	5.2

Roaded Opportunities

Nearly 14 percent of the Forest, outside the wildernesses, will provide recreation in a roaded natural setting. The remaining portion of the Forest will feature roaded recreation in modified settings. Ample roads will be available to access all portions of the Forest, however, about half the roads will be closed to motorized use, thereby providing walk-in hunting and other nonmotorized opportunities.

Off-Highway Vehicle Use

Opportunities for off-highway vehicle (including all-terrain vehicle) recreation will be increased. OHV routes for loop trips will be emphasized in roadless and roaded natural areas. An area of slightly over 300,000 acres will be managed to provide quality OHV opportunities. About 62 percent of the nonwilderness, unroaded lands will be available for semi-primitive motorized recreation. Base facilities will be provided at sites that have good access for support vehicles and that are convenient for the Forest to administer. Management prescriptions indicate whether or not OHV use will be allowed in the various management areas. Timber sale planning will incorporate post sale OHV and other trail use considerations in sale design and sale area improvement.

Trails

The Forest motorized access and travel management plans (to be developed) will be used to determine the areas, roads, and trails where motorized use is appropriate, thus promoting user safety, preventing resource damage, and minimizing resource and user conflicts. The plans will also be designed to be helpful to the public so they can determine which areas, roads, and trails meet their general needs. Public involvement will be emphasized during review and revision of the motorized access and travel management plans. Areas, roads, and trails will be posted to give the public notice of the closure 1 year before the closure is to be in effect.

Trail system management will be directed toward meeting objectives of the ROS classes shown in the management areas in this chapter. A trail management activity plan will be developed to make decisions about standards for specific trails or trail systems, maintenance schedules, funding, management of trail use, and priorities for construction and reconstruction. The plan will provide a network of loop routes for OHV's, as well as identify opportunities for other types of users. The plan will be considered in the context of logical land units rather than single trails.

Trails may be constructed to distribute recreation use, accommodate new activities, improve the recreation opportunity, or provide additional capacity. Where resource management activities impact trail routes, the trail will be protected, rebuilt, relocated, or replaced in another setting. The proposed trail construction and reconstruction schedule is shown in Appendix A. Trail facilities will be maintained to standards appropriate for the recreation setting Some trails will be considered for inclusion in the National Recreation Trail System (NRT). Emphasis will be given to completing the Blue Mountain Trail. Trails will have priority for NRT designation if they have

differing activities, are available for a long season of use, traverse through natural or near-natural appearing landscapes, and have good road access.

Dispersed campsites (occupancy spots), especially those used recurrently by hunters, will receive special consideration and protection. Project planning and implementation will provide for the protection and enhancement of hunter camps where compatible with other resource management objectives. Road construction and timber harvest project considerations for recreation use sites will include maintenance, improvement of site character, visual quality, and provision for future recreation use.

Operations

Management emphasis will be placed on providing 'Recreation Opportunity Guides' and other information services to disperse use and reduce resource impacts. Basic information goals will be to help the public receive a satisfying recreation experience, and to improve the land ethic of Forest users. User groups will be heavily involved in the planning and operating of facilities and activities for their respective interests.

Permits for outfitters and guides will be issued where public need and demand is apparent. Services for rafting and hunting will continue near present levels while opportunities for pack trips and nature studies could increase. Opportunities for outfitted winter treks are available.

Wild and Scenic Rivers

The Omnibus Oregon Wild and Scenic Rivers Act of 1988 designated the classification of the three rivers (Grande Ronde, North Fork John Day, and Wenaha), as shown in Table 4-4. Actual corridor boundaries and joint multiagency management plans are to be completed by October 1991 by an ad hoc task group representing the Umatilla and Wallowa-Whitman National Forests, the BLM, and others. Interim river management will follow direction in Management Area A7. The Forest Plan will be amended to incorporate each river management plan when completed.

TABLE 4-4. WILD AND SCENIC RIVERS - MILES

Umatilla National Forest

River/Segment	Classification			Total (Miles)
	Wild	Scenic	Recreational	
GRANDE RONDE				18.9
Wallowa River to Forest Boundary			1.5	
Forest Boundary to Forest Boundary	1.74			
NORTH FORK JOHN DAY				43.7
Forest Boundary to Trail Creek			0.6	
North Fork John Day Wilderness	24.3			
NJFD Wilderness to Texas Bar Creek		10.5	8.3[1]	
Texas Bar Creek to Camas Creek				
WENAHA				21.4
S. Fork/N. Fork Jct. To Forest Boundary	18.7			
Forest Boundary to Grande Ronde	____	____	2.7	____
TOTALS	60.4	10.5	13.7	84.0

1 Texas bar Creek to Forest Boundary is 3.9 miles; non-National Forest portion, Boundary to Camas Creek, is 4.4 miles.

Special Areas

In addition, the Fremont Historic District, Greenhorn Townsite, Target Meadows, Big Sink, and 10 overlooks will be developed and managed as special interest areas. Six proposed botanical areas will also be available to provide educational opportunities. Management plans will be developed for these areas and 10 viewpoints shown in Table 4-2 (also see Appendix A)

Visual Resource

In total, about 26 percent of the Forest, outside of wildernesses, will be managed to provide a natural to slightly altered visual appearance. This equates to a partial retention visual standard, as described in the Landscape Management Handbook. Lands managed to meet the standards include unroaded areas, old growth stands, and some riparian areas where timber harvest is restricted. Other areas are viewsheds and some riparian areas where timber management and harvest are designed to maintain or produce a large-tree appearance. All wildernesses will be managed to the visual quality standard of preservation.

The visual quality objectives of retention and partial retention are emphasized in viewshed, which include state highways, key Forest travel routes, and major water features. In the viewsheds, modification may be used on the background distance zones which have minimal variety. Viewsheds will be managed to the specifications of the A3 and A4 Management Areas as identified on the Forest Plan map. Table 4-5 displays visual management intent for each inventoried viewshed.

Viewshed corridor management plans for sensitivity level 1 and 2 viewsheds will be developed according to direction, and will specify vegetative manipulation guidelines to attain the desired forest character. The plans will indicate scheduling and amounts of timber harvest needed to maintain or enhance long-term visual characteristics.

Although about two-thirds of the Forest, outside the wildernesses, will eventually be modified, activities will be designed to borrow from naturally established form, line, color, and texture so that the affected areas may eventually resemble natural occurring ones. Modified silvicultural systems and techniques will also be used to help minimize impacts to visual quality. The Forest Landscape Management Plan will be updated, based on allocations and decisions in the Forest Plan.

The principles contained in Volumes 1 and 2 of the National Forest Landscape Management Handbook, and other published handbooks within the Visual Management System (Utilities, Range, Roads, Timber, Fire, and Ski Areas) will be used to manage the visual resource.

TABLE 4-5. VIEWSHED MANAGEMENT*

Umatilla National Forest

No.	Name of Viewshed	Acreage	Sensitivity Level	Visual Quality Objectives Fg[1]	Mg[2]
1	Desolation Creek Road #10	39,625	2	PR [3]	M [4]
2	Granite Creek Trail #3016	229	1	R	R
3	Highway #395	6,936	1	R [5]	PR
4	North Fork John Day River	3,649	1	R	PR
5	Winom Creek Trail #3153	791	1	P [6]	P
6	Big Creek Trail #3151	75	1	P	P
7	Ukiah-Granite Road #52	23,537	1	R	PR
8	Tower	3,728	2	M	M
9	Highway #244	9,073	1	R	PR
10	Pearson Creek Road #54	11,182	2	PR	M
11	Western Route Road #53	11,540	2	PR	M
12	Tupper Road #21	2,079	2	PR	M

No.	Name of Viewshed	Acreage	Sensitivity Level	Visual Quality Objectives Fg[1]	Mg[2]
13	Highway #207	8,579	1	R	PR
14	Bull Prairie Road #2039	1,393	2	PR	M
15	Penland Lake Road #2084	2,084	2	PR	M
16	Meacham Creek	12,103	2	PR	M
17	Summit Road #31	34,982	2	PR	M
18	Umatilla River Road #32	8,728	2	PR	M
19	Highay #204	10,155	1	R	PR
20	Buck Creek Trail #3073	57	1	P	P
21	NF Umatilla River Trail #3083	53	2	PR	M
22	Jubilee Road #64	8,438	1	R	PR
23	Skyine Road #6403	8,074	2	PR	M
24	Jarboe Road #63 and #62	41,897	3	M	M
25	Grande Ronde Road Scenic Area	14,088	1	R	PR
26	Wenaha River Trail #3106	1,480	1	R	PR
27	S. Fork Walla Walla Trail #3225	13,7708	1	R	PR
28	Tiger Creek Road #65	8,333	2	PR	M
29	Touchet Road #64	8,874	1	R	PR
30	Godman Road #46	15,433	3	M	M
31	Grouse Flat Road #40	39,422	2	PR	M
32	Tucannon Road #47	8,654	1	R	PR
33	Target Meadow Road #6401	1,035	2	PR	M
	Total	360,014			
	Viewsheds with 1 or 2 Sensitivity (Number)			23	
	VQO Retention (1,000 Acre)		103		
	VQO Partial Retention (1,000 Acre)		167		
	Subtotal		270		
	Modification or Maximum Modification (1,000 acre)			89	

Abbreviations:

1 fg = Foreground Distance Zone
2 mg – Middle Ground Distance Zone
3 PR – Partial Retention
4 M – Modification
5 R – Retention
6 P – Preservation

* See glossary for definition of terms in the table.

CULTURAL RESOURCES

The Forest-wide Standards and Guidelines incorporate appropriate historic preservation laws, regulations, and policies, and will direct future management decisions on cultural resources.

Cultural resource inventory and evaluation will be guided by the Cultural Resources Inventory Plan (June 1989). Under the direction of a cultural resource professional, inventory and evaluation will precede all ground-disturbing projects. During the next several years, about 50,000 acres will be surveyed each year, but in the following years between 25,000 and 30,000 acres will be surveyed and evaluated annually. The number of acres surveyed annually will depend, in large part, upon the location and total acres included within projected timber sale areas. Information collected during these inventories will be used to refine the cultural resource sampling strategy used on the Forest. Approximately 10 percent of the inventoried acres will require further investigation due to known site distributions or due to high cultural resource sensitivity. Emphasis will be placed on monitoring these areas.

Federal legislation requires, and some publics have identified, a need to inventory Forest acres not affected by project activities. Depending on the level of available funding, priorities for a nonproject related inventory will be:

a. Statistical sample:

b. areas experiencing degradation through natural processes or intensive public use;

c. areas of reported, but unverified sites; and

d. areas of high cultural resource sensitivity as identified in the Forest Cultural Resource Inventory Plan.

All sites located during a survey will be documented to Regional standards. As time and funding permit, records will also be prepared for the current backlog of unrecorded or insufficiently recorded sites.

An 'evaluation of significance' will precede implementation of any activity that may affect an identified site. Such an assessment is vital to the management of cultural resources, to the selection of resources for in-place preservation, and to the mitigation of adverse effects through data recovery projects. Sites will be treated as individual properties, thematic groups, or historic districts. Cultural resource management strategies will be developed for selected National Register sites and structures.

Significant sites will be nominated to the National Register at the rate of approximately two per year. In the next decade this may be limited to nomination of the already evaluated depression-era administrative sites, but in ensuing decades additional site types such as the ridge-top lithic scatters on the Pomeroy Ranger District, lookout towers and mining districts will be included.

Enhancement projects will be undertaken in conjunction with the inventory and evaluation programs Initially, stabilization and public interpretation of the Fremont Powerhouse will be accomplished over the next few years. Other possible interpretation opportunities include Greenhorn Townsite, Target Meadows, and the Summit Guard Station. Scientific evaluation may be undertaken at specific sites on all ranger districts after consultation with the appropriate SHPO and interested Native American tribes. This evaluation will be encouraged in order to better understand information which is recorded during inventory and to advance our knowledge of past lifeways.

Protection of historic and prehistoric sites will continue to be vigorously pursued on the Forest. Sites subject to disturbance, either by project related activities or unauthorized excavation, will be monitored on a regular basis. Emphasis will be placed on apprehending and prosecuting looters.

WILDERNESS

Wilderness direction for the three Forest wildernesses is provided in Management Area (Strategy) BI, and in the three wilderness activity plans (1986) which are summarized in Appendix B. No additional areas are considered for wilderness in this Forest Plan.

Increased emphasis will be placed on implementing and refining the wilderness activity plans. Public information and education will be instrumental in improving wilderness ethics and 'leave no trace' techniques.

The Limits of Acceptable Change (LAC) process, incorporating public participation, will be used to determine needs for limiting and distributing visitor use. The initial LAC indicators and standards will need to be verified and refined for each wilderness.

The amount of wilderness land which meets standards for the 'Primitive' wilderness resource spectrum will increase to about 128,000 acres as past impacts of use are reduced, trails are managed to wilderness standards, and the LAC process is fully implemented. Remaining

wilderness acres will be managed to the Semi-primitive recreation opportunity class. Attention to nonconforming uses will improve the overall wilderness resource, especially with regard to the North Fork John Day Wilderness mining impacts and the Wenaha-Tucannon Wilderness permanent hunting camp structures.

Permitted livestock grazing use in wilderness is as follows. These AUM figures may be adjusted upon completion of updated allotment plans.

TABLE 4-6. LIVESTOCK GRAZING IN WILDERNESS

Umatilla National Forest

	Domestic Grazing Permits			Recreation (Horse)
Wilderness	Kind	No.	AUM's	AUM's
Wenaha-Tucannon	Cattle & Horses	485	425	400
North Fork Umatilla	Sheep & Goats	1,000	450	1
North Fork John Day	Cattle & Horses	412	544	72
	Sheep & Goats	850	172	
Total		2,747	1,591	473

The area surrounding the wildernesses will be managed so as not to adversely effect the adjacent wilderness resource.

Implementation actions will be coordinated with adjacent forests and agencies. Coordination will assure consistency in wilderness management actions.

WILDLIFE

The implementation of wildlife direction and emphasis is achieved primarily through coordination with other resources, especially timber, road, recreation, fish, and range management, in order to maintain or improve habitat for wildlife. Specific direction is summarized in the Forest-wide Standards and Guidelines and in the management areas. In general, management areas emphasizing wildlife (C1, C2, C3, C3A, C4, C5, and C8) will provide high quality habitat conditions for wildlife indicator species and other represented wildlife. Other management area direction and the Forest-wide Standards and Guidelines will assure that at least minimum acceptable habitat conditions are provided. Proper implementation of all area direction and standards and guidelines is an important aspect to providing for the needs of wildlife.

The Forest Plan supersedes and replaces all previous wildlife management plans including: Umatilla Wildlife Management Unit Plan (February 1971), and Old Growth Wildlife Habitat on the Umatilla National Forest (August 1980). Two big game winter range management plans, Bridge Creek Biological Unit Management Plan (June 1978), and Lower Meacham Creek Winter Range Habitat Improvement Plan (November 1985), are incorporated by reference into the Forest Plan until superseded by a comprehensive big game winter range management plan (to be developed).

Nongame Wildlife Species Habitat

With the implementation of the Forest Plan, old growth and mature tree habitats will occur in dedicated units in the mixed conifer and ponderosa pine habitat types and in managed units in the lodgepole types. A total of 52,600 acres of habitat will be maintained outside of wilderness. The dedicated old growth/mature tree units in the mixed conifer habitats have been identified and mapped and are shown on the Forest Plan maps as Management Area C1. Feeding areas surrounding dedicated units will be considered and implemented in project activities. Table 4-7 summarizes the nonwilderness old growth areas by type and for each of the management indicator wildlife species.

TABLE 4-7. SUMMARY OF MIXED CONIFER/PONDEROSA PINE OLD GROWTH

Umatilla National Forest

Management Indicator Species	Old Growth Habitat Condition[1]	Nonwilderness	
		Number of Units	Acres
Pileated woodpecker	Suitable	63	24,665
	Capable	63	11,610
Pine marten	Suitable	26	6,280
	Capable	2	370
Pileated woodpecker and Pine Marten	Suitable Capable	16	5,640
Northern three-toed woodpecker	Suitable	26	2,255
	Capable	18	1,780
	Totals	184	52,600
Other Existing Inventoried Old Growth Habitat			83,040

1 Suitable - Existing old growth tree habitat now meeting the minimum Regional definition.

Capable - Acres or areas identified as being capable of becoming old growth In time, but not now meeting the Regional old growth tree habitat definition These areas were selected to meet distribution requirements

Lodgepole pine habitat units will be managed to meet the specifications listed in Management Area C2. The lodgepole units will change location with time; the initial existing units have been located on the ground. Based on acres of lodgepole pine, the following numbers of units and minimum acres by Ranger District (outside of wilderness) have been identified and will be managed on the ground.

TABLE 4-8. SUMMARY OF LODGEPOLE PINE OLD GROWTH

Umatilla National Forest

Ranger District	Percent of Lodgepole Pine Acres	Number of 75-Acre Old Growth Units	Acres	
			0-40 Years	40-80 Years
Heppner	11.2	7	585	585
North Fork John Day	79.8	32	3,000	3,000
Pomeroy	4.7	2	150	150
Walla Walla	5.3	3	300	300
Total	100.0	44	4,035	4,035

An estimated 38,500 acres of existing old growth/mature tree habitat occur in roadless, riparian, and other suitable habitat areas, outside of wilderness. Old growth in each of these areas (Management Areas AI, A2, A7, A8, C3A, C7, C8, D2, F2, and F4) will be protected. Therefore, a combined total of about 91,100 acres of dedicated and other contributing old growth/mature tree habitat will be provided on the Forest, outside of wilderness. This important habitat component will be dedicated or managed for pileated woodpeckers, pine martens, northern three-toed woodpeckers, and other wildlife species heavily dependent on this habitat type.

Dead and down tree habitat under the Forest Plan also will be managed under Forest-wide Standards and Guidelines and management area direction. Populations of the wildlife indicator species will be maintained at about 65 percent of potential population level Forestwide. An average estimated snag density of about 1.5 snags per acre will be maintained. Replacement snags will be planned for and provided in project activities. Areas with restricted timber harvest are expected to contain natural levels of dead and down trees.

Big Game Wildlife Species Habitat

Quality big game habitat will be achieved through vegetation and road management techniques with emphasis on habitat components of cover, forage, and roads. Achieving big game habitat objectives will require meeting HEI and cover standards for Management Areas A10, C4, C5, C7, EI, E2, and F4 and the following:

- Maintaining, enhancing, or developing satisfactory and marginal cover where timber management is used.
- Enhancing forage, particularly on big game winter ranges, using a variety of techniques.
- Effectively closing roads according to district motorized access and travel management plans.
- Coordinating timber and road management project plans and implementation actions.
- Managing key big game habitats including riparian areas, migration corridors, and calving areas.

Big game winter range habitat conditions will also be maintained or improved by using specific directions summarized in the Forest-wide Standards and Guidelines and the Management Areas (Strategies) C3, C3A, C8, F4, and others. On winter ranges, directions provide for high levels of habitat effectiveness through maintenance and growth of satisfactory cover (the existing satisfactory cover or 10 percent, whichever is lower), marginal cover, improving forage, and providing fewer open roads. Uneven-aged management is emphasized. Prescribed burning is a principal program and technique used for winter range habitat maintenance, for forage enhancement, and to assist in keeping big game animals on the Forest during the winter.

As a result of the various big game management activities, elk populations are expected to be maintained and deer number will recover through the decade. Projects to enhance big game and other wildlife habitat conditions are scheduled and listed in Appendix A.

THREATENED/ ENDANGERED/ SENSITIVE PLANT AND ANIMAL SPECIES

There are no known federally-listed threatened or endangered plant species on the Forest. Twenty-two plant species found on the Forest have been listed on the Region 6 Sensitive Plant list (see Table 4-91. However, other species may be listed when they are located (or are suspected to be present) on adjacent areas (refer to Appendix L of the FEIS for a listing).

Before a project is initiated, inventories for population and distribution of threatened, endangered, and sensitive species will be conducted on a priority basis. Biological evaluations will be prepared. Each inventory will list all plant species found in the survey area. Previously surveyed areas can be checked for species occurrence when the Federal and regional plant list change. Currently, about 25 percent of the Forest acres have been surveyed for threatened, endangered, and sensitive plant species.

TABLE 4-9. SENSITIVE PLANT SPECIES DOCUMENTED ON THE FOREST

Umatilla National Forest

(AS OF DECEMBER 1988)

Scientific Name	Common Name
Allium campanulatum	Sierra Onion
Allium dictuon	Blue Mountain Onion
Allium madjdum	Swamp Onion
Allium tolmiei var. platyphyllum	Flat-leaved Onion
Aster sibiricus var meritus	Arctic Aster
Astragalus anhuri	Arthur's Milkvetch
Astragalus diaphanus var. diaphanous	Transparent Milkvetch
Botrychium lunaria	Moonwort Grape-Fern
Carex limnophila	Pond Sedge
Cirsrum utahense	Utah Thistle
Dryopteris hlix-mas	Male Fern
Lupinus sabinii	Sabin's Lupine
Lycopodium annotinum	Stiff Clubmoss
Mimulus clivicola	Bank Monkey-flower
Mimulus washingtonensis	Washington Monkey-flower
Physaria didymocarpa var. didymocarpa	Common Twinpod
Ranunculus oresterus	Blue Mountain Buttercup
Ribes cognatum	Umatilla Gooseberry
Ribes wolfii	Wenaha Currant
Silene scaposa var. scaposa	Scapose Catchfly
Spiraea densiflora var. splendens	Subalpine Spiraea

Eleven additional animal species are considered 'sensitive' in the Blue Mountain portion of the Region. Sensitive species are those that could become endangered within the state in the foreseeable future if no management action protects their habitats. These are also candidate species for Federal status. Table 4-10 summarizes the T/E/S and wildlife species occurring on the Forest.

TABLE 4-10. THREATENED. ENDANGERED AND SENSITIVE WILDLIFE SPECIES

Umatilla National Forest

Common Name	Scientific Name
A. BIRDS	
American peregrine falcon	Falco peregrinus anatum
Northern bald eagle	Haliaetus leucocephalus
Ferruginus hawk	Buteo regalis
Long-billed curlew	Numenius americanus
B. MAMMALS	
Preble's shrew	Sorex preblei
Townsend's western big-eared bat	Plecotus townsendii townsendii
California wolverine	Gulu gulo luteus
Gray wolf	Canis lupus
North American lynx	Felis lynx Canadensis
California bighorn sheep	Ovis canadensis californiana
C. INVERTEBRATES	
Blue Mountain clyptochian	Cryptochia neosa
D. FISH	
Bull trout	Salvelinus confluentus
Redband trout	Oncorhynchus mykiss

Biological evaluation and any required surveys and inventories of all threatened, endangered, and sensitive species will be completed prior to all project activities to insure the protection and/or mitigation of all T/E/S species.

The Forest will coordinate closely with the U.S. Fish and Wildlife Service concerning all proposed management activities that have the potential to impact threatened or endangered species. The Forest will participate in the recovery objectives for both bald eagles and peregrine falcons outlined in Chapter III of the FEIS.

Monitoring will be used in the evaluation of estimated outputs in the FEIS and the anticipated habitat conditions described in the Forest-wide Standards and Guidelines, and in the management areas. The evaluation will determine if wildlife habitats and population trends occur as projected, and will form the basis for changing plan direction if necessary. Details of these monitoring actions are outlined in Chapter 5.

Six botanical areas that contain plants unique to the Blue Mountains are proposed in the Forest Plan. Topography and settings of each area are quite varied. The areas provide unique educational opportunities and scientific values. (See Table 4-11.)

TABLE 4-11. PROPOSED BOTANICAL AREAS

Umatilla National Forest

Recommended Areas		Key Plant Species
Charley Creek	50 acres	Wenaha Currant
Teal Spring	5 acres	Dusty Maiden Wenaha Currant
Woodward Campground	15 acres	Bracted Lousewort Early Coral-root
Ruckel Junction	5 acres	Sabine's Lupine
Sheep Creek Falls	500 acres	Male Fern Mountain Fern Maidenhair Fern Devil's Club
Shimmiehorn Canyon	140 acres	Oak Fern Maidenhair Fern Licorice Fern Lady Fern

RESEARCH NATURAL AREAS

Research Natural Areas (RNA's) are sites where some natural features are preserved for scientific and educational purposes and natural processes are allowed to dominate. Their main purposes are: (1) Preservation of examples of all significant natural ecosystems for comparison with those influenced by man; (2) provision of educational and research areas for ecological and environmental studies; and (3) preservation of gene pools for typical and rare and endangered plants and animals (USDA Forest Service 1975).

On the Forest, two RNA's are established and six others are proposed (see Table 4-10 and Appendix H of the FEIS for details). When suitable new areas are identified they will be considered for addition to the RNA inventory. Prior to establishment, a comprehensive formal

report will be made. For RNA's proposed on National Forest System lands, the report is submitted to the Chief of the Forest Service for approval. Upon establishment of each area, a Research Natural Area Management Plan will be prepared.

TABLE 4-12. EXISTING AND RECOMMENDED RESEARCH NATURAL AREAS

Umatilla National Forest

Name	Area (acres)	Location (District)	Plant Community Exemplified
EXISTING			
Pataha Bunchgrass	69	Pomeroy	Blue bunchgrass wheatgrass/ Sandberg's bluegrass
Rainbow Creek	576	Pomeroy [1]	Grand fir – white pine grand fir/thinleaf huckleberry, mixed conifer with larch dominance
RECOMMENDED			
Birch Creek Cove	410	North Fork John Day	Mid to high elevation Sedge and grass wetlands
Elk Flats Meadows	75	Walla Walla	Tufted hairgrass meadow aspen
Elk Flats-Wenaha Breaks	1,665	Pomeroy [1]	Grand fir – Pacific yew grand fir/twinflower lodgepole pine/thinleaf huckleberry, low elevation permanent pond
Kelly Creek Butte	80	Heppner	Stiff sagebrush/bunchgrass
Mill Creek Municipal Watershed	7,950	Walla Walla [2]	Douglas-fir, ponderosa pine/snowberry mid-elevation stream
Vinegar Hill	410	North Fork John Day, Long Creek [3]	Whitebark pine Subalpine sagebrush communities

1 Area located within the Wenaha-Tucannon Wilderness
2 Area located within the Mill Creek Municipal Watershed
3 Malheur National Forest

RIPARIAN/FISH

Projected increases in fish production (shown in Table 4-1) result from a combination of approaches including Forest riparian and other management practices, direct Forest improvement projects, and emphasis by a number of constituent groups working on downstream fish problems.

Coordinating implementation activities in and near streams will be emphasized. Timber harvest, related road building, livestock grazing, and mining are activities which have the potential to reduce fish habitat capability and impact riparian areas on the Forest. (See Chapter IV of the FEE for discussion.) Use of the Umatilla National Forest Best Management Practices (see Forest-wide Standards and Guidelines), Management Areas C5 and C7, and other management areas with no riparian harvest (AI, A2, A7, A8, B1, C1, C8, and F4) is expected to improve fish habitat capability across the Forest.

The primary method for achieving riparian area objectives will be the application of the Forest-wide Standards and Guidelines and management area direction, as they relate to riparian area activities, stream surface shading, potential large woody material placement, riparian forage utilization, and floodplain management. Early in the planning process, the Forest recognized the importance of these resources through the mapping of anadromous and resident fish habitat streams, wetlands, and their associated riparian areas. Moreover, our knowledge of critical parameters relating to these areas should improve significantly over the next 10 years as instream habitat and coordinated riparian resource inventories are completed for Forest streams and wetlands. During the next decade, a classification system for riparian vegetation types will be completed which will become an integral part of riparian management and inventory efforts.

The focus will also be on improving habitat conditions for parameters that limit fish population size on the Forest. These include protecting and improving riparian vegetation to provide shade, reducing stream temperatures and sediment, and improving stream geomorphology (maintaining and adding large wood, developing pools and stream complexity, and stabilizing streambanks) to improve rearing habitat. Riparian vegetation condition and trend should continue to improve rapidly. Streambank and instream component improvement will occur but more slowly. Monitoring will be used to test effectiveness of standards and guidelines and management area direction as related to riparian and fish management.

Forest-wide fish habitat enhancement accounts for the bulk of the Forest related increases in fish production. During the next decade, emphasis will be placed on enhancement work in the North Fork John Day River system which has the greatest potential for increased fish production and the fewest downstream problems. Improvement work is also scheduled in the other Forest river systems. See Appendix A for the schedule of fish habitat improvement work. A combination of Knutson-Vandenburg (K-V) and Bonneville Power Administration (BPA) appropriated funds will be used on improvement projects. A portion of the K-V funds will be utilized for resident fish enhancement.

Two key assumptions in the Forest Plan are that various groups and agencies interested in water and fish problems will continue working to remove barriers to increased fish production, and that their efforts will be successful. The Forest will continue coordination and cooperation in these improvement efforts.

RANGE

Forage

Most of the projected forage production increases in the next 30 years will be a result of transitory range created by timber harvest. Improving range condition and trend across the Forest will also result in some forage increases. The forage increase will result in an increased potential grazing capacity, even after meeting big game forage needs.

During the next decade, permitted use will increase to 58,000 AUM's, about 6 percent above current levels (see Table 4-1), due to the expanded transitory forage base. Intensive grazing of clearcuts, shelterwoods, and other timber harvest areas is planned. Increased grazing on transitory ranges will most often require only improved management techniques such as riding, salting, and improvement construction to make use of available forage within existing allotments. Range management coordination will be required on the harvest areas and on adjacent riparian areas. Some adjustment in allotment boundaries also may be required.

The increase in forage should accommodate some increases in use by livestock and big game. Available forage will be 'split' between livestock and big game on a 40-60 basis. Some livestock grazing capacity on big game winter ranges will be allocated where forage for big game can be enhanced.

Utilizing the full range potential will require that several conditions be met. The agricultural industry is assumed to be able to provide the livestock necessary to utilize the increased forage production. Allotment management plans must be kept current with existing resource capacities and conditions. As shown in Appendix A, each allotment is scheduled to be updated, to the extent necessary, once every 10 years.

Updated or reanalyzed allotment management plans will fully implement forage utilization standards and any increased livestock numbers. The plans will also address improved range conditions, and provide specific schedules of range improvements. In addition, the allotment management plans will provide for coordination with other resources and with the various permittees.

With a few exceptions (A6, D2, F2), livestock grazing is permitted across the Forest in all management areas. On about 76 percent of the Forest, intensive to extensive (Range Strategy C and D) management will be practiced, and a moderate to high level of cost-effective improvements (such as fencing and water developments) is planned. About 5 percent of the Forest will receive extensive use (Range Strategy B) with the aid of few or no improvements, and the remaining 19 percent will not be available for use by livestock.

Noxious Weeds and Poisonous Plants

Noxious weeds now infest an estimated 6,000 acres of the Forest. Areas of infestation are associated with activities such as timber harvest, road construction, livestock grazing, and recreation. With the planned level of activity, the potential exists for expanded infestations of weeds on the Forest.

Control efforts will be initiated on the Forest. The Forest Noxious Weed Control Plan (November 1989) is incorporated into the Forest Plan by reference and provides direction for inventory and treatment of target species, interagency and landowner coordination, and funding. The methods of treatment will also be in accordance with the direction in Managing Competing and Unwanted Vegetation, FEIS, November 1988. Essentially, the forests are directed to emphasize prevention and natural ecosystem processes, and reduce reliance on herbicides. However, all treatment methods are available. Cost of treatments will vary greatly. Hand methods are approximately four to six times as expensive as chemical treatment, and will not keep up with the current level of infestation under the present budgets. If effective biological controls are found or herbicides used, the problem will be contained or lessened. Otherwise, the problem will get progressively worse. Presently, progress is being lost in all areas in the control of noxious weeds.

Several plant species not classed as noxious weeds (but as poisonous plants) have caused economic loss to livestock. Generally, control efforts have not been initiated on the Forest because these species have not been abundant and forage conditions have been favorable. No control efforts have been carried out in recent years, and none are planned for the future. See Table 4-13 for a list of Forest problem plants.

TABLE 4-13. PROBLEM PLANTS ON THE UMATILLA NATIONAL FOREST

Umatilla National Forest

PRIMARY NOXIOUS WEEDS OCCURRING ON THE FOREST	
Tansy ragwort	(Senecio jacobaea)
Yellowstar thistle	(Centaurea solstitialis)
Dalmation toadflax	(Linaria dalmatica)
Diffuse knapweed	(Centaurea diffusa)
Spotted knapweed	(Centaurea maculosa)
Canada thistle	(Cirsium arvense)
Scotch thistle	(Onopordum acanthium)
Common St Johnswort	(Hypericum perforatum)

SOME SPECIES OF POISONOUS PLANTS COMMON TO THE UMATILLA NATIONAL FOREST

Deathcamas	(Zigadenus spp.)
Larkspur species	(Delphinium spp.)
Lupine species	(Lupinus spp.)*
Milkvetches or Locoweed species	(Astragalus spp.)**
Water hemlock	(Circuta douglasii)
Prunus (cherry) species	(Prunus spp.)
Wild red baneberry	(Actaea rubra)
Green false hellebore	(Veratrum viride)

* Lupinus sabinii is a documented Sensitive plant species on the Forest, Lupinus biddiet and Lupinus cusickil are suspected to occur on or near the Forest.

** Astragalus arthuri and Astragalus diaphanus are documented Sensitive plant species on the Forest, Astragalus cusickii is suspected to occur on or near the Forest

Under no circumstances would any proposed control efforts target documented or suspected Sensitive plant species.

On the Forest, 807,233 acres have been classified as tentatively suitable for timber production. Timber harvest is scheduled on 618,769 of these acres to facilitate wood fiber production and to achieve the following various multiple-use objectives:

Management Emphasis	Management Area
Visual	A3, A4, A5, A7 (part)
Wildlife	A10, C2, C3, C4, C5, E2, F4 (small part)
Fish	C5, C7
Timber/Forage	E1

TIMBER

Timber management will not be used on a scheduled basis on 188,464 acres in order to meet the following direction:

Provide old growth to meet Management Requirements (MR's). Criteria have been provided in Regional direction and are shown in the Forest-wide Standards and Guidelines.

Provide winter range satisfactory and marginal cover to achieve, insofar as possible, 'optimum' cover conditions on winter range. (This is a discretionary constraint identified and discussed in the FEIS, Chapter II and Appendix 8.)

Provide for Management Area direction in AI, A2, A6, A7 (part), A8, A9, C l , C3A, C7 (riparian), C8, D2, F2, and F4 (most part).

Various others areas were withdrawn from consideration for timber production including all wildernesses, forests with regeneration difficulty, and lands not capable of producing a crop of wood. Table 4-14 summarizes the Forest land classes. Table 4-15 displays a breakdown of the suitable and unsuitable lands by management area. Table 4-17 shows the potential growth as related to suitable lands.

Forest Land Classification

TABLE 4-14. FOREST LAND CLASSIFICATION SUMMARY

Umatilla National Forest

Classification	Acres
Non-Forested land (includes water)	316,362
Forested land	1,086,113
Forested land withdrawn from timber production	236,431
Forested land not capable of producing crops of industrial wood	24,920
Forested land physically unsuitable:	
Irreversible damage likely to occur	0
Regeneration difficulty	17,529
Forested land--inadequate information	0
Tentatively Suitable Forest land	807,233
Forest land not allocated for timber production	188,464
Unsuitable Forest land	449,414
Total Suitable Forest land	618,769
Total National Forest land	1,402,467

TABLE 4-15. MANAGEMENT AREAS SUITABLE LANDS

Umatilla National Forest

	Management Areas	Suitable Lands	Unsuitable/ Nonselected Lands
A1	NONMOTORIZED DISPERSED RECREATION	0	27,319
A2	OHV RECREATION	0	7,523
A3	VIEWSHED1	19,772	23,942
A4	VIEWSHED2	15,007	13,673
A5	ROADED NATURAL	2,903	1,833
A6	DEVELOPED RECREATION	0	4,432
A7	WILD AND SCENIC RNER	3,344	4,261
A8	SCENIC AREAS	0	31,442
A9	SPECIAL INTEREST AREA	0	3,152
A10	WENAHA-TUCANNON SPECIAL AREA	2,547	747
81	WILDERNESS	0	304,400
C1	DEDICATED OLD GROWTH	0	41,184
C2	MANAGED OLD GROWTH	3,455	167
C3	BIG GAME WINTER RANGE	50,037	102,719
C3A	SENSITIVE BIG GAME WINTER RANGE	0	8,161
C4	WILDLIFE HABITAT EMPHASIS	202,431	56,447
C5	RIPARIAN/WILDLIFE	17,158	10,050
C7	SPECIAL FISH MANAGEMENT AREA	87,477	17,860
C8	GRASSTREE MOSAIC	0	96,471
D2	RESEARCH NATURAL AREA	0	1,586
El	TIMBER/FORAGE	55,406	36,015
E2	TIMBER AND BIG GAME	154,970	44,579
F2	MILL CREEK MUNICIPAL WATERSHED	0	20,815
F3	HIGH RIDGE EVALUATION AREA	880	0
F4	WALLA WALLA RIVER WATERSHED	3,382	31,568
TOTALS		618,769	892,345

TABLE 4-16. PRESENT AND FUTURE FOREST CONDITIONS

Umatilla National Forest

	Unit Measure	Suitable Land
PRESENT FOREST		
Growing Stock	MMCF	1,220
	MMBF	6,932
Live cull	MMCF	6.8
	MMBF	37.0
Salvable Dead	MMCF	166.0
	MMBF	287.8
Annual Net Growth	MMCF	12.0
	MMBF	67.2
Annual Mortality	MMCF	10.7
		30.8
FUTURE FOREST:		
Growing Stock	MMCF	1,147.9
Annual Net Growth	MMCF	34.7
Rotation Age	YEARS 80 [1] to 110	

AGE CLASS DISTRIBUTION	Present Forest		Future Forest (150 Years)	
	Age Class	Suitable Forest Acres	Age Class	Suitable Forest Acres
	0-10	54,117	0-10	
	11-20		11-20	
	21-30	26,086	21-30	
	31-40	16,352	31-40	58,081
	41-50		41-50	43,172
	51-60		51-60	51,969
	61-70		61-70	49,254
	71-80		71-80	55,840
	81-90		81-90	50,158
	91-1 00		9 -1 00	37,327
	101-110	65,283	101-110	28,471
	111-120		111-120	21,068
	121-130	4,903	121-130	67,239
	131-140	48,203	131-140	31,178
	141-159	20,392	141-159	44,864
	151+	383,465	151-160	2,926
			161-170	2,133
			171-180	99
			181-190	75,027
			191+	

1 Average rotation age for regeneration stands on lands with timber emphasis by major forest types is 94.4 years (excludes areas with visual emphasis)

The distribution of age classes in Table 4-16 for the Present Forest are only a broad estimation based upon the 1981 Forest Inventory. The inventory did not provide estimates of age class distribution by acres, so an estimated age was assigned to the size classes in the inventory, and the distribution in Table 4-1 6 was derived. The figures for the Future Forest will more closely approximate the actual age class distributions found in year 150.

Only suitable lands are included in these age class distributions. Ages on nonsuitable forested lands will be considerably older than those for the suitable managed forest lands,

Timber Productivity

TABLE 4-17. TIMBER PRODUCTIVITY CLASSIFICATION

Umatilla National Forest

Potential Growth (Cubic Feet/Acre/Year)	Suitable Lands (Acres)	Unsuitable Lands
Less than 20	28,534	347,705
20-50	211,074	179,000
50-85	289,557	188,249
85-120	89,603	68,744
120+	0	0
SUBTOTAL	618,769	783,398
GRAND TOTAL	1,402,467	

Timber Sale Activities

During the next 10 years, the annual allowable sale quantity (ASQ) will average 124 million board feet (22 2 million cubic feet). The ASQ includes chargeable volume of green and recently dead timber meeting minimum utilization standards found in the Regional Guide. Figure 4-1 displays the ASQ (base sale schedule) and long-run sustained-yield capacity projected for the next 150 years. Additional nonchargeable volume which includes cull, chip material, firewood, and special products is at an annual total of 35 million board feet (6.2 million cubic feet).

FIGURE 4-1. BASE SALES SCHEDULE

Allowable Sale Quantity

Tables 4-18 and 4-19 present a summary of projected volumes and acres by silvicultural harvest system, logging methods, and species for the next decade. A more detailed presentation of year by year tentative planned sales, harvest activities and chargeable volume by management areas can be found in the Forest Plan Appendix A. Actual sale volumes, locations, and other pertinent information will be confirmed upon completion of field work.

TABLE 4-18. ALLOWABLE SALE QUANTITY AND TIMBER SALE PROGRAM QUANTITY[1]

(ANNUAL AVERAGE FOR FIRST DECADE)
Umatilla National Forest

Harvest Method	Allowable Sale Quantity[2] Sawtimber (MMCF)	Other Products (MMCF)
Regeneration harvest:		
Clearcut	9.92	0
Shelterwood and seed tree	5.85	
Uneven-aged Management		
Group Selection	1.39	0
Single Tree Selection	0.20	0
Overstory Removal	4.76	0
Intermediate harvest:		
Commercial harvest:	.08	0
Salvage/sanitation	0	0
Totals	22.2	0

	Additional Sales[3] Sawtimber (MMCF)	Other Products (MMCF)
Total for all harvest methods	0	6.2

Allowable sale quantity 22.2 (MMCF), 124 (MMBF)[4]
Timber Sale program quantity [5] 28.4 (MMCF); 159.2 (MMBF)[4]

1 To be expressed to nearest .1 MM board and cubic feet
2 Only includes chargeable volumes from suitable lands
3 Only Includes nonchargeable volumes from suitable and/or unsuitable lands
4 Based on local unit of measure.
5 Total of allowable sale quantity and additional sales

TABLE 4-19. TEN-YEAR TIMBER SALE ACTION PLAN SUMMARIES—TOTAL FOREST

Umatilla National Forest
Summary of Volumes[1] by Species

	10 Year Goals FY '90-99			Balance to be Programmed FY '95-99			5-Year Program FY '90-94		
Species	[2]	MMCF	MMBF	[2]	MMCF	MMBF	[2]	MMCF	MMBF
PP		40	225		19	107		21	118
I, DF		89	496		46	256		43	240
WF, S, Other Species		93	519		48	267		45	252
SUBTOTAL		222	1,240		113	630		109	610
Chip and Other[3]		35	200		18	102		17	98
Firewood[4]		27	150		14	77		13	73
GRAND TOTAL		284	1,590		145	809		139	781

Summary of Acres and Volumes[5] by Silvicultural Method

	10 Year Goals FY '90-99			Balance to be Programmed FY '95-99			5-Year Program FY '90-94		
Silvicultural Treatment	M Acres	MMCF	MMBF	M Acres	MMCF	MMBF	M Acres	MMCF	MMBF
Clearcut	47.36	99	555	24.06	50	282	23.30	49	273
Uneven-aged	3.86	16	88	1.96	8	45	1.90	8	43
Shelterwood	24.41	58	327	12.41	29	166	12.00	29	161
Final Shelter/Overwood	13.56	48	266	6.89	25	135	6.67	23	133
Commer. Thin, Salvage	.71	1	4	.36	1	2	.35	-	2
TOTALS	89.90	222	1,240	45.68	113	630	44.22	109	610

Summary of Acres and Volumes[5] by Logging System

	10 Year Goals FY '90-99			Balance to be Programmed FY '95-99			5-Year Program FY '90-94		
Logging System	M Acres	MMCF	MMBF	M Acres	MMCF	MMBF	M Acres	MMCF	MMBF
Ground	55.45	130	726	28.45	68	379	27.00	62	347
Cable	30.10	84	468	16.53	48	238	13.57	41	230
Aerial	4.35	8	46	.70	2	13	3.65	6	33
TOTALS	89.90	222	1,240	45.68	113	630	44.22	109	610

1 Volumes are for material meeting sawlog merchantability standards, except the Chip and Other and the Firewood volumes listed under Species
2 Species overlaps preclude reliable estimates of acres by species.
3 Material other than personal use firewood which does not meet sawlog merchantability standards.
4 Personal use firewood
5 Volumes are for material meeting sawlog merchantability standards.

DEFINITIONS
PP – Ponderosa pine
L – Western Larch
DF – Douglas-fir
WF – White fir
S – Engelmann spruce
LP – Lodgepole pine

The full range of timber management activities and techniques will be used during the decade. Even-aged management, including clearcuts, shelterwoods, and modifications of these techniques, will be the principal system employed. Uneven-aged management practices (group and single tree selection) will also be used, primarily in riparian areas, viewsheds, winter ranges, ponderosa pine types, and other areas.

The determination of appropriate harvest methods is tentative and was based on criteria from the Regional Guide for the Pacific Northwest Region, the National Forest Management Act Regulations, and the professional judgment of Forest silviculturists. Site-specific conditions and considerations will be examined and analyzed prior to final determination of the appropriate harvest method used on the ground. Silvicultural practices will be designed and employed to

meet management objectives. For detailed discussion on determination of appropriate harvest methods for the Forest, see Appendix K of the FEIS.

Accomplishment of other timber management activities will be important in achieving all of the Forest multiple-use goals. Key activities include:

- Regeneration of forest stands,
- utilization of genetically improved stock,
- stocking level and species control, and
- animal, insect, and disease control.

TABLE 4-20. PROJECTED ANNUAL TIMBER MANAGEMENT ACTIVITIES

Umatilla National Forest

Activity	Acres/year
Planting	4,375
Natural Regeneration	3,145
Precommercial Thinning	2,620
Release	232

The Forest will continue to operate under direction of existing tree improvement plans. The June 1985 Umatilla Tree Improvement Plan is incorporated into the Forest Plan by reference.

Successful implementation of the Forest Plan requires and is dependent on a high level of internal resource coordination. The timber sale program provides the major vehicle through which coordination will be accomplished. The timber program affects, and is affected by, all the other Forest resources.

WATER/SOIL

Water and soil programs are designed to fulfill the Forest watershed goals of providing an undiminished flow of quality water and maintaining or enhancing soil productivity in order that resource and user needs be met. These programs focus on several actions (1) Coordinating with other resource activities to ensure protection of watershed values through application of Best Management Practices (BMPs); (2) monitoring the effects of planned activities and long-term changes in water quality and soil productivity; (3) studying the response of water yield and timing to timber harvest activities; (4) rehabilitating damaged soil and water resources where they occur; (5) inventorying basic water and soil and their conditions; (6) managing national forest water rights; and (7) coordinating with various agencies and interested parties on soil and water related issues.

WATER

Programs to protect and enhance water quality are a major aspect and emphasis of watershed management and will guide activities across the Forest. A 5-year action plan will be developed to aid in the implementation of the watershed direction in the Plan. Watershed program personnel will engage primarily in assisting in the assessment of water quality protection needs. They will be involved in development and implementation of BMP's, evaluation of BMP effectiveness, and in assisting and coordinating watershed management with timber, range,

minerals, and fish projects. Increased emphasis will also be given to water quality monitoring at both the ambient and project levels.

Potential impacts of forest management on water quantity will also be a focus of watershed program activities. The Forest will continue to study the effects of timber harvest activities on water quantity related parameters at the Umatilla Barometer Watershed. These parameters will include water yield, low flows, peak flows, and timing of flows. Information from these studies will be used to adjust Forest management policies and practices, if needed. Where water uses are sensitive to flow timing changes, the potential to affect such changes will be considered during project planning activities Forest-wide Standards and Guidelines will be applied to insure that favorable conditions of flow are maintained.

Proper management of stream and riparian areas will also receive emphasis in the activities of the watershed program. The primary method for achieving riparian area objectives will be the application of Forest-wide Standards and Guidelines (also see Riparian/Fish discussion in this section). The Forest will adhere to all provisions of Executive Orders relating to wetland and floodplain management.

A moderate level of watershed improvement activity is planned for the next decade to restore degraded watershed areas and to improve the productivity of watersheds in general. Upgrading the watershed improvement needs inventory will be an emphasis in the early part of the planning period. The improvement will decline in the future since emphasis will be on prevention of adverse impacts to watershed condition rather than on restoration.

Special management emphasis will be given to water and related resources in certain critical watersheds throughout the planning period including. The Mill Creek Municipal Watershed (Management Area F2), where timber harvest and livestock grazing will be prohibited; large portions of the Walla Walla River Watershed (F4), which will preclude timber harvest: and within the riparian areas of the upper North Fork John Day (C7), which will also prohibit timber harvest.

The Forest has nearly completed the water rights applications process for obtaining the consumptive use rights needed to meet resource objectives. But up to half a dozen new cases per year are anticipated, primarily to meet the range program needs. Instream flow needs will be identified, quantified, and protected on a case-by-case basis as need arises

As a result of emphasis on and management of water, water temperature regimes are expected to improve in areas where past activities have affected stream surface shading. And even though stream sedimentation is expected to increase on a localized basis, any water quality changes will be well within the acceptable levels prescribed by Oregon and Washington State standards. Also, given the assumption of little change in local precipitation patterns, future water yields are anticipated to be about the same as they have been in the past, averaging about 2.5 million acre-feet annually. Potential impacts to downstream water users and instream habitat should be low; water yields and low flows are not expected to change appreciably from current conditions.

SOIL

The Umatilla National Forest Soil Resource Inventory (USDA Forest Service 1978a) serves as the main document for program and project planning. It is supplemented and supported by the technical knowledge of forest resource experts. However, an updated soil inventory is planned for the next decade to provide more detailed and complete information on what the effects of each project will be upon the soil resource. The inventory will allow for better management of the soil resource, and will help maintain its basic productivity by giving Forest managers access to better information for decision making. Forest managers will be able to apply a better understanding of soils to such things as reforestation, site preparation, and potential regeneration success.

In the future, a major emphasis of the Forest soils program will be the maintenance of soil productivity. Programs and projects involving the soil resource will be evaluated in terms of the existing productive capacity and the potential changes to that capacity if the program or project is carried out. The objectives for potentially ground-disturbing projects are to prevent significant changes to soil productivity, and to mitigate or restore degraded soils to a preactivity condition if preventative measures cannot be applied during the project.

The Forest-wide Standards and Guidelines are designed to maintain a minimum of 80 percent of a project area (or cutting unit) in a nondetrimental soil condition with respect to the effects of compaction, displacement, and erosion. Threshold detrimental soil conditions are expressed in terms of bulk density levels, amount of bare ground, burned soil condition, mass failure rate, and displaced soil amount. If a project is expected to cause the threshold values of an area affected detrimentally to exceed the standard values, then the project is either altered to meet the standard or dropped. Monitoring studies will be conducted to identify trends and long-term effects, and to insure that Forest-wide Standards and Guidelines are being followed and met. The Forest plans to support and cooperate with research efforts which address long-term site productivity concerns.

MINERALS

Continuing interest is assumed in the mineral resources of the Forest although the actual amount and location of projected mineral activity are difficult to predict. In the interest of decreasing this uncertainty, and for the purpose of encouraging mineral development, the Forest will continue to support geologic mapping and mineral resource inventory programs.

The Forest will apply the Forest-wide Standards and Guidelines to regulate the surface resource impacts of mineral activities so that they are conducted in as compatible a manner as possible with other resource uses and environmental standards. The overall objective is to ensure that no unnecessary or undue degradation of the environment occurs, while ensuring that environmental protection stipulations and reclamation objectives are reasonable, enforceable, economical, and successful. When necessary, reclamation objectives will be ensured by adequate bonding.

Furthermore, ongoing reclamation projects, such as the one in place on Clear Creek near Granite, Oregon, will continue to receive emphasis. Riparian and fish habitat areas that have been degraded through mining activity in the past, or ones that have been damaged through more common forest practices, will undergo scheduled rehabilitation along with other such areas.

Withdrawals from mineral entry include congressionally mandated wildernesses, the Mill Creek Municipal Watershed, some key areas including RNA's, campgrounds, and administrative sites, and areas as determined necessary through an analysis of affected resource values. Existing and proposed withdrawals have been reviewed as specified in the Federal Land Policy and Management Act of 1976. The review was completed in 1990. As seen in Table 4-19, about 13 percent of the Forest, composed mainly of old growth, riparian, dispersed and developed recreation sites, and special areas, will be managed under increased access and resource protection restrictions. The remainder of the Forest (65 percent) will have normal restrictions through permits and operating plans.

TABLE 4-21. EFFECTS OF MANAGEMENT AREA DIRECTION ON MINERAL ACCESS BY MINERAL POTENTIAL

Access Restrictions	High	Moderate	Low/Unknown	Total	Percent + Net NF Acres
Withdrawn	-	30,000	323,273	353,273	25
High	3,500	1,000	20,100	24,600	2
Moderate	4,600	4,000	141,700	150,300	11
Low	-	-	872,034	872,034	62

Within withdrawn areas, valid existing rights must be confirmed before approving mineral development activities. However, once confirmed, the Forest will facilitate the mineral development activities authorized by those rights. In many withdrawn areas, prospecting activities can be conducted in a manner compatible with the purposes of the withdrawal. Such activities provide no rights to develop the mineral resources, so when proposed, they should be encouraged. The results of any such prospecting will be used when reviewing withdrawals, as required by FLPMA If mineral resources are discovered, and mineral development is determined to be the best use for an area that is presently withdrawn, the withdrawal may be revoked.

Minerals are not subject to scheduling, and the Forest has little or no direct control over any utilization of the resource until a project or program has been proposed. Since proposals come from the public or other agencies, determination of where or when entry will be requested is impossible to plan for, and control over future mineral activity is a very difficult proposition.

However, as with other resources, program and project review will be an important part of management of the minerals program. Through the review procedures and strict adherence to FLPMA, NEPA, and NFMA, mineral management activities can be made more efficient, and reclamation techniques and objectives can be made more successful. The actual effects that mineral activities have on sensitive resources will also be evaluated. In addition, the mineral supply/demand situation will be studied and newly acquired mineral resource information will be evaluated for possible impact on the Forest and the Plan.

LANDS

Use of existing utility corridors will be continued. One potential new corridor extending from Blalock Mountain to Troy, Oregon, is identified and may be used pending an EIS.

Existing term special uses are expected to continue through the life of the Plan. Given adequate funding, inspection for pipelines (oil and gas transmission), power lines, and electronic sites will occur annually, at a minimum. All other inspection frequencies will follow schedules found in the Forest Service manuals.

Landownership guidance is provided in Forest-wide Standards and Guidelines and management area direction. Direction is also provided by the Land Ownership Adjustment Plan (May 1986), which is incorporated into the Forest Plan, by reference. Overall priorities for landownership adjustments are: (1) Those that make improved resource management possible, and (2) those that increase management efficiency and reduce management costs. The Landownership Adjustment Plan is found in Appendix B of the Forest Plan.

TRANSPORTATION

Roads

The Forest transportation system is (and will continue to be) planned, constructed, and managed to facilitate land and resource management objectives. Coordination with the objectives of wildlife, timber, range, recreation, fish, and water is essential. Specific direction for transportation system planning, construction, and operation is summarized in the Forest-wide Standards and Guidelines and management areas.

New road construction will occur almost entirely as a result of timber harvest operations and will be limited to local roads. The arterial and collector roads are essentially in place. Arterials and collectors currently at standards lower than required to meet objectives will be reconstructed to an appropriate standard. Reconstruction will be required on some local roads for safety, economy of operations, and/or to meet resource objectives. Construction and reconstruction activities are shown in Table 4-1, and activity schedules for all classes of roads are listed in Appendix A of the Plan. The disaggregation of road construction between the Districts is shown in Table 4-22.

TABLE 4-22. MILES OF CONSTRUCTION BY DISTRICT PER DECADE

Umatilla National Forest

District/Decade	1	2	3	4	5
Heppner	215	75	34	19	7
North Fork John Day	406	168	79	42	18
Pomeroy	90	56	14	2	0
Walla Walla	259	88	37	22	7

Each ranger district will develop access management programs within 2 years in order to determine the nature and extent of road access that will best meet resource requirements as well as address the publics' desire for access to those resources. The access management programs will be developed through a NEPA process that involves interested and affected publics. Guidance for these programs will come from the management area direction in the Plan as well as Forest-wide Standards and Guidelines for meeting resource needs. The program will be developed into the district motorized access and travel management plan (also see Recreation and Wildlife). The effect of these programs will most likely be a reduction in the amount of open road available on the Forest.

Forest-wide, many roads will be closed, primarily in response to big game habitat and recreation requirements, but also to meet soil, water, and economic criteria. Some areas will have most roads open to-provide a balance of recreation experiences. Open road densities will be managed and monitored on an allocation zone (subwatershed) or management area basis. A Forest-wide average open road density of 2.0 miles per square mile is anticipated to result from implementation of management area direction; open road density will vary between allocation zones in response to objectives. All of the arterial and about half the collector roads will be managed for passenger cars, and the remainder will be for high clearance vehicles as shown on the following page.

The total amounts of Forest roads managed for passenger and high clearance vehicles are as follows:

Roads managed for passenger cars - 900 miles, and roads managed for high clearance vehicles - 2,530 miles.

Trails

Amount of construction and reconstruction of planned trails is described in the recreation section and shown in Table 4-1 and Appendix A of the Plan.

AIR QUALITY

Air quality protection will be achieved by complying with Forest-wide Standards and Guidelines and direction in the Pacific Northwest Region FEIS, Managing Competing and Unwanted Vegetation (Nov 1988). The Forest will also comply with state and local regulations and guidelines directed at preventing and controlling air pollution.

FIRE MANAGEMENT

The fire management program supports accomplishment of many of the land and resource objectives. A high level of cost-effective fire protection will be employed to protect resource values and investments. An appropriate suppression response of confine, contain, or control will be made on all wildfires commensurate with the objectives and standards and guidelines identified for each management area. Wildfire suppression, use of fire and fuel treatments will require coordination with resource managers in order for all programs to be successfully accomplished. Within the scope of the Forest Plan, a fire management plan will be developed to provide additional program detail and direction.

The National Fire Management Analysis System (NFMAS) will be used to monitor the protection programs that were developed on the basis of the fire-related needs of planned land and resource management objectives. The system will provide a consistent method for evaluating and comparing the effectiveness and efficiency of the fire management program. Efficiency will be measured using an economic criterion based on the total cost of the fire program, plus the net change in the value of planned resource outputs on the protection areas as a result of wildfire (cost and net value change).

Fire will be allowed to more fully play its natural role in the ecology of the Forest. Fire management in wilderness will be directed by the appropriate wilderness activity plans (includes fire management), which have been incorporated into the Forest Plan by reference. Natural fire occurring in wilderness will be treated as a prescribed fire until declared a wildfire. All human-caused fires occurring in wilderness require an appropriate suppression response.

Prescribed fire will be used as a management tool to reduce fire hazards created by management activities and naturally occurring fuels, to prepare sites for reforestation and to maintain and improve other resources such as range and wildlife. Prescribed burning will be the principal program and technique used for winter range habitat maintenance, for forage enhancement and to assist in keeping big game animals on the Forest during the winter.

FOREST-WIDE STANDARDS AND GUIDELINES AND MANAGEMENT AREAS

Introduction

The Forest-wide Standards and Guidelines and management areas have been developed according to Regional direction. Each document has been prepared for the purposes of:

1. Identifying direction for activities on the Umatilla National Forest.
2. Identifying management actions to resolve the issues, concerns, and opportunities (ICO’s).

Forest-wide Standards and Guidelines are applicable to all areas of the Forest unless specifically stated in the management areas. Forest-wide Standards and Guidelines include management requirements (MR's) and other important direction. The management areas are designed to apply to specifically identified land areas. Both Forest-wide Standards and Guidelines and management areas contain goal statements reflecting the expected results for a Forest resource, activity, or land area. Each provides direction emphasis from the USDA Forest Service manuals, handbooks, and the Regional Guide. Each responds to Forest ICOs, appropriate laws including applicable state and local laws, regulations, existing direction, land capabilities, and professional judgment.

FOREST-WIDE STANDARDS AND GUIDELINES

RECREATION

Goal

MANAGE FOR A BROAD SPECTRUM OF RECREATION OPPORTUNITIES AND EXPERIENCES ON THE FOREST.

General

1. Use the Recreation Opportunity Spectrum (ROS) to inventory the array of recreation opportunities on the Forest and to guide management of the physical, social, and managerial settings.
2. Encourage public participation in recreation management and in the decisionmaking process for projects, programs, or policies affecting recreation opportunities.
3. In all management activities, incorporate recreation considerations to enhance the quality of opportunities and positively affect use.
4. Provide Forest recreationists with freedom of choice in selecting sites, areas, routes, and activities to meet their recreation needs.
5. Emphasize "leave no trace' techniques in all portions of the Forest to reduce management costs and minimize resource impacts.
6. Increase revenues from recreation use where cost-effective. Fees should be competitive, based on market values and the principle that those who benefit directly pay for the activity or facility. Where possible, receipts should be used to benefit the area where the fees were collected.
7. Risk management will include reasonable efforts to provide inspections of lands and facilities, warnings on the safe use of areas/facilities and inherent dangers, management of medical emergencies, training and supervision of personnel, accident and injury reporting, documentation, and sharing of information.
8. Develop a Forest Recreation Opportunity Guide (ROG) containing the kinds and locations of the Forest recreational opportunities. Highlight a wide variety of opportunities (locations and activities) to disperse use; e g., roadless, old growth, wildlife areas, historic sites, unique ecological areas, scenic routes, facilities for the disabled, motorized, rivers, streams, and other special places. Include basic management policies and regulations that govern the area. Update as needed to keep information current.
9. Maintain and update the Recreation Information Management (RIM) System to provide data for recreation planning and management per manual and handbook direction.
10. Maintain recreation as an important component of access management. Acquire the access needed to provide Forest recreation opportunities, in compliance with laws and regulations. Retain or acquire public access to all areas of the Forest utilizing easement, prescriptive rights, land acquisition, and land exchange procedures.
11. Priority will be placed on preventing conflicts among users by good communications and providing information to affected people. Indirect management actions (i.e., design, education, information, etc.) will be preferred over direct actions (i.e., restrictions, enforcement, etc.). Generally, recreation conflicts will be resolved in order of priority: (1) Public safety, (2) wise use of resources, (3) retention of or increased wide spectrum of opportunities, (4) prevention or filling of recreation opportunity voids, and (5) relation to the surrounding environment.

12. Make the first impression of the Forest a good one. Put priority on 'curb appeal' at Forest entrances, administrative sites, major Forest roads, recreation developments and other high use places.
13. A positive approach should be used when stating rules and regulations (signs, brochures, etc.). Regulation of outdoor recreation should be minimized; ensure that those adopted are effective, useful, and justified. Regulations should contribute to enjoyable experiences in the long run, rather than be for the convenience of administrators.

Customers

1. Customer satisfaction will receive attention equal to that given to good land stewardship.
2. Emphasize customer service by:
    a. developing knowledge and understanding of customer needs, wants, and preferences. Monitor changes in customer preferences to respond with appropriate services;
    b. developing, implementing, and administering programs and services that provide a variety of ways to satisfy customer needs and wants;
    c. increasing Forest employee awareness and responsiveness to needs and wants of customers; and
    d. strengthening outreach programs about Forest information and recreation opportunities to underserved communities, minorities, and publics.

Recreation Service: Partnerships

1. Seek new partnerships with outdoor recreation user groups and other recreation providers (for-profit, non-profit entities and public agencies) and strengthen existing ones to enhance recreation resources, services, and facilities. Explore expansion of partnerships with aging, handicapped, minority, youth organizations, and CTUIR.
2. Cooperate with the private sector to increase recreation opportunities adjacent to resorts and recreational facilities. Public service concessionaires (outfitters, ski areas, campground operators, etc.) will be encouraged to be partners with the Forest Service in developing and providing recreation opportunities. Managers will recognize the necessity of developing arid maintaining partnerships in the public interest.
3. Utilize all types of methods to improve partnerships. Leverage available Forest Service dollars by attracting outside funding and support from potential partners whenever possible.
4. Develop and utilize a communications network with recreation providers to share recreation information within the Forest Service and with partners.
5. Where Forest Service Manual and 'Umatilla National Forest Outfitter-Guide Application Evaluation Procedure' criteria are met, outfitter and guide operations may be authorized and permitted.
6. Priority will be given to facilities and operations providing services beneficial to the interpretation of natural resources and national forest management.

Dispersed Recreation

1. Provide for a spectrum of recreational activities such as hunting, fishing, gathering forest products, viewing scenery, camping, hiking, floating, and so forth.

2. Provide a range of physical (remoteness, size of area, evidence of humans), social (encounters), and managerial (restrictions, information services) settings for recreation.

3. a. Inventory, evaluate, and manage dispersed occupancy sites and other special places. Project planning will provide for the protection of established occupancy spots (especially hunter camps) and other special places. Sites will be rendered unusable only when not in public demand or a higher priority use for other resources is timely, clearly needed, and where other sites to satisfy the recreation need are made available.

   b. Manage the occupancy sites and adjacent area to at least partial retention visual quality level.

4. a. Incorporate an integrated ecosystems approach, the special appeal of the Blue Mountains, Scenic Byways and Corridors Management (roads, trails, and rivers) into Forest recreation planning and management. Coordinate with adjacent landowners to achieve a continuity of management along corridors and areas.

   b. Identify the potential of any proposed activity to change Recreation Opportunity Spectrum (ROS) classes in all project environmental analyses.

5. Manage public use as necessary to provide safety, sanitation, and appropriate resource setting, while minimizing regimentation. When necessary to place restrictions on use, reasons should be explained and displayed in offices, literature, and at the point of restriction.

6. Provide specialized or modernize dispersed facilities, or site modification needed to maintain or enhance the variety of dispersed recreation opportunities, prevent pollution from human waste, provide safety (including fire), or reduce undesired resource effects.

7. Encourage people not requiring or desiring a wilderness setting to use nonwilderness National Forest System lands for their recreation needs.

8. Location and design standards for, and construction of, new or reconstructed roads and trails will accommodate user developed occupancy spots at locations and quantities appropriate to the planned ROS experience level.

9. Operate and maintain the Forest road system to provide dispersed recreation opportunities in concert with management area emphasis and direction.

10. Limit motorized vehicles to roads, trails, and areas which are designated for use in the Umatilla National Forest Motorized Access and Travel Management Plan. Temporary exceptions are authorized for those conducting official duties including firefighting, organized rescues, duties by special use permit or contract, and others listed in the Forest Motorized Access and Management Plan or having the district ranger's authorization.

Recreation Sites

1. Developed facilities will be administered and maintained to provide visitor safely and sanitation, protect facility and site resources, and provide for visitor recreation needs and convenience.

2. Developed facilities will be kept in a safe and sanitary condition or closed or removed. Minimum standard is Condition Class #2 (RIM Facility and Condition Standards, FSH 2309.11, Section 192-21) (USDA Forest Service [n.d.]a).

3. Plan, budget, and implement a systematic renovation and replacement of existing recreation facilities. Where practical, older facilities should be redesigned and adapted to allow access by people with physical disabilities. Provide specialized facilities needed to meet developed recreation demand.

4. The minimum level of management for any developed site will be Development Scale 2 (FSM 2310).
5. Appropriate recreation facilities will be considered for all lakes, water impoundments, and other water oriented opportunities.
6. New recreation sites and facilities may be constructed in response to identified demand for additional facilities or specific needs for customer satisfaction, or to fill recreation opportunity voids. An environmental analysis will be used to confirm the need for new sites and facilities.
7. Access roads to developed sites should be operated and managed to permit passenger car traffic.

Interpretation

Provide interpretation, information, and environmental education with focus on prehistory, history, ecological principals, and multiple use to enhance recreation experiences, promote understanding of people living in harmony with nature, increase understanding of Forest Service management, and help visitors avoid practices that may result in undesirable resource effects.

INTERPRETIVE GUIDELINES

ROS Class	Appropriate Interpretive Methods
P	Interpretation through self-discovery, possibly augmented by books or guides with no site facilities.
SPNM	Interpretation through self-discovery, augmented by books, guides, and maps, but no site facilities.
SPM	Interpretation through simple onsite facilities such as signs or numbered posts, mounted on native-like rustic materials, or printed or other portable media.
RM	Interpretation through very limited onsite facilities, maps, brochures, guides, and other portable media.
RN	Interpretation through signs and other structures such as overlooks, decks, boardwalks, etc. Native-like materials with some refinement in design. Printed and other portable media as well as limited interpretation from Forest Staff.
R	Interpretation through complex facilities and structures using quite refined materials, a variety of interpretive media, some staff contacts in contact stations, guided walks, and amphitheatre programs.

Visual Resource Management

1. The Forest will follow direction given in the Forest Service Visual Management System. The minimum visual quality objective is maximum modification (MR).
2. Design roads, trails, and vegetative manipulation to be consistent with adapted visual quality objectives indicated by the management prescription.
3. Created openings will be shaped and blended, to the extent practicable, with the natural terrain (MR).
4. Areas not meeting their assigned visual quality objectives will be rehabilitated.

Off-highway Vehicle Use

1. Ensure that off-highway vehicle (OHV) use is managed to protect other resources, promote safety of users, and minimize conflicts with other uses (Executive Order EO 11644, as amended by EO 11989). Use OHV prohibitions only where needed to minimize disturbance of wildlife, provide a range of recreation opportunities, or to protect the soil and water resources.
2. Continue and expand programs and agreements with Oregon and Washington for snow, OHV, and ATV trails and facilities.

3. Encourage OHV use to remain on designated routes by using route location, design, and public information programs. Routes should be planned to integrate on-road and off-road travel and disperse use across broad areas
4. If necessary to eliminate OHV use, insofar as possible, provide a substitute area for the OHV opportunity eliminated.
5. In riparian areas, trails for motorized use will be managed to protect water quality and fish and wildlife habitat. Existing motorized use trails should be relocated outside the floodplain or 'hardened' where practical. OHV use will be limited to designated routes.
6. Emphasize permitted activities rather than prohibited ones in signing and information to minimize recreation use conflicts.
7. Review the Forest motorized access and travel management plans annually and revise as necessary (usually biennially).
8. Public information describing the areas and routes where motorized use is permitted, prohibited, or restricted; explaining the conditions of use: and providing reasons for such closures will be provided on a travel map. The map will be reviewed annually and revised as necessary (usually biennially).

Trails

1. Provide and manage the Forest trail system as a recreation resource that complements land management objectives.
2. Provide and manage a trail system to offer the full range of opportunities and difficulty levels: Primitive, mechanized, all-season, barrier-free, short and extended, interpretive, historical, and more. Provide for trail difficulty levels appropriate to recreation opportunity objectives.
3. Annually update the Forest Trail Management Plan to identify the current mix of development, management, and maintenance.
4. Construct, reconstruct, relocate, maintain, and manage trails and associated trailheads to standards appropriate for serving the intended type and level of use and to provide opportunities for satisfying recreation experiences, while minimally affecting soil, water, and vegetative resources, and requiring minimal maintenance.
5. Priority for new trails or trail relocation will be to provide route loops, fill opportunity voids, or resolve user or resource conflicts.
6. Trails located in resource development areas must be included in the implementation strategy analysis and project environmental analysis. Any decision to abandon the trail must be clearly documented. To the extent possible, trails should be protected during project activities. If not practical to preserve an existing trail, the trail should be relocated temporarily or permanently.
7. Trail maintenance activities will be determined by trail type, difficulty level, the appropriate trail guide (FSH 2309.18), and the amount and type of use.
8. Coordinate access road design and maintenance levels with desired objectives for the served trail system.

TRAIL MANAGEMENT GUIDELINES

	Difficulty Level		
General Guidelines	Easy	More Difficult	Most Difficult
Overall Objectives	Make trail convenient, and safe, and protect resources.		

	Difficulty Level		
General Guidelines	Easy	More Difficult	Most Difficult
Safety Considerations	Correct hazards so that inexperienced customers may use trail without danger	Notify customer of unusual or unexpected hazards. Correct hazards which are not easily dealt with by an experienced person.	Notify customer of unusual or unexpected hazards. Correct situation if notification is impractical.
Maintenance Frequency	Annual or more frequent as needed	Every two years, or as needed to protect resource.	Every two to five years or as needed to protect resource and retain investment.
Alignment	Uniform and consistent horizontal and vertical alignment	Alignment usually follows contour of the land, but is designed to prevent soil erosion.	Allow trailbed to meander so long as gullying, excessive soil movement or water siltation does not occur.
Tread Maintenance	Provide even, safe surface.	Provide safe surface and prevent resource damage.	Prevent resource damage.
Drainage Maintenance	Prevent erosion and soft trailbed	Prevent soil movement.	Prevent water siltation.
TRAILWAY MAINTENANCE			
Logging Out	Provide clear passage	Keep traffic on trailbed.	Prevent resource damage.
Brush Cutting	Provide convenient, clear passage.	Retain identity of trail.	Prevent eye injury.
Structures	Maintain for appearance and safety.	Maintain to protect investment and for safety.	Maintain for safety; remove if unsafe.
Signs	Maintain attractive appearance and current design. Provide frequent reassurance.	Maintain to be functional and natural appearing. Provide direction necessary for novice map reader.	Maintain to be functional with a weathered look. Provide minimal direction and reassurance.

CULTURAL RESOURCES

Goal

PROVIDE FOR THE PROTECTION AND PRESERVATION OF CULTURAL RESOURCE VALUES THROUGH A PROGRAM WHICH INTEGRATES INVENTORY, EVALUATION, PROTECTION, AND ENHANCEMENT.

Inventory

1. A professionally supervised Cultural Resource Inventory Program will be conducted in compliance with applicable Federal historic preservation legislation and regulation (National Historic Preservation Act as amended (MR)).
    a. All projects including surface-disturbing projects will be managed to comply with 36 CFR 800 and FSM 2360. All requirements for consultation with the respective State Historic Preservation Offices (SHPOs) before, during, and after a project will be followed. The area of a project's potential environmental impact will be surveyed for cultural resources and areas of Native American religious use. Native American groups will be consulted as appropriate.

b. Parts of the forest without anticipated projects but with likelihood that cultural resources exist will be inventoried in conjunction with annual update training for cultural resource technicians. Highest priority areas for survey include those that. (a) Are relatively unknown due to a lack of surveys in or near the area; and/or (b) are important to understanding the historic or prehistoric occupations of the forest; and/or (c) are expected to have high site densities.

2. Update the Forest Cultural Resources Management Overview as needed. At a minimum, the Overview will be reviewed annually.

3. The Forest Cultural Resource Inventory Plan will be updated, as needed, to reflect advances or changes in the data base, management objectives, legislation, and Regional or Forest research designs. Review of the inventory plan will be accomplished annually.

4. Results of project level cultural resource inventories, or the intent to carry out such inventories, will be documented through environmental analysis for the project (MR).

Evaluation

1. Identified cultural resource properties will be evaluated by a professional cultural resources specialist using the significance criteria of the National Register of Historic Places (NRHP) (36 CFR 60.4) and the guidelines provided by the Lithic-dominated Sites Programmatic Memorandum of Agreement (USDA Forest Service 1983b) and other standard National and Regional criteria (MR). Sites which will be affected during a project will be evaluated before the project proceeds. A schedule will be developed to evaluate all other sites.

    a. In consultation with the SHPOs from Washington and Oregon, identified sites will be evaluated for eligibility for the NRHP. Sites considered eligible will be assigned a priority for nomination to the NRHP.

    b. The NRHP criteria are contained in 36 CFR 60.4. Nominations will be coordinated with the planning activities of the respective SHPOs. Priorities for nomination will be based on a consideration of the SHPO plans and the overall cultural resources program.

Protection

1. The Forest will develop management plans for the various classes of prehistoric and historic resource properties found on the Forest (MR)

    a. All properties identified as eligible for the NRHP will be evaluated in terms of present land allocation for any possible conflict, and site-specific management plans will be developed in consultation with the respective SHPOs (MR).

    b. Management plans shall be prepared for historical properties eligible for the NRHP unless previous data collection has fully documented the characteristics that qualify the site for the NRHP and those under Granger-Thye permit (FSM 5/83 R-6 SUPP 61-2361.21) (MR).

2. Until proper evaluation occurs, all known cultural resource properties will be protected as though they were eligible for the NRHP (MR). Measures for the protection of known cultural resources from vandalism, natural destruction, and project impacts will include patrols and regular site visitation, data recovery plans, site treatment plans, physical protection, signing, integrated resource management programs, public education, area and site closures and, where necessary, electronic site monitoring.

3. Sites listed in or nominated to the NRHP will be inspected periodically, unless previous data recovery has fully documented the characteristics that qualify the site for the NRHP.

All other sites, except those which have been formally determined ineligible for the NRHP, will be inspected on an as needed or opportunity basis. Sites susceptible to rapid deterioration and/or human disturbance will be inspected most frequently.

4. Confidentiality of cultural resource site locations will be maintained (36 CFR 296.18) (MR).
5. To avoid damage to cultural resources, coordination requirements with fire management suppression activities will also be used during fire suppression and rehabilitation activities

Enhancement

1. Cultural resources interpretive opportunities onsite will be pursued as opportunities arise. Other interpretive opportunities which will be pursued as high priority are:
    a. cultural resources displays in the Supervisor's Office and in district offices;
    b. trails and interpretive signs at less frequently visited sites;
    c. interpretive signs along viewsheds and special interest areas;
    d. preparation of popular literature, brochures, and films regarding the Forest cultural resources;
    e. presentation of popular talks regarding the Forest's cultural resources; and
    f. professional cultural resource interpretation for presentation at meetings and/or dissemination through professional publications.
2. The Forest shall foster active programs of research through permits to, and cooperative agreements with, qualified institutions, organizations, and individuals, and by identifying opportunities for research (MR).
3. Management of cultural resources will be coordinated with other agencies including the respective State Historic Preservation Offices and the Advisory Council on Historic Preservation. Management of American Indian traditional religious sites will be coordinated with the Confederated Tribes of the Umatilla Indian Reservation, the Nez Perce Tribe, and the Confederated Tribes of the Warm Springs Indian Reservation of Oregon.

WILDLIFE HABITAT

Goal

MAINTAIN OR DEVELOP EFFECTIVE LEVELS OF WELL-DISTRIBUTED WILDLIFE HABITAT THROUGHOUT THE FOREST TO MAINTAIN VIABLE POPULATIONS OF ALL EXISTING NATIVE AND DESIRED NON-NATIVE VERTEBRATE SPECIES.

Old Growth

1. Maintain (or develop where presently unavailable) old growth tree habitat distributed throughout the Forest in units within suitable and/or capable habitat for the pileated woodpecker, pine marten, and northern three-toed woodpecker as the Forest indicator species as follows (MR):
    a. Pileated woodpecker- maintain coniferous forest habitat units 300 contiguous acres in size in seral stages V or VI as reproduction areas (may be 50-acre minimum sized units no greater than one-quarter mile apart to total 300 acres) distributed throughout the Forest so that generally each 12,000 to 13,000 acre area of capable habitat contains at least one suitable habitat area. Capable

habitat units may be utilized where no suitable habitat is available. An additional 300 acres of feeding habitat in close proximity to habitat units will be provided.

b. Pine marten-maintain coniferous forest habitat units of 160 contiguous acres in size in seral stages V or VI with a crown closure of at least 50 percent distributed throughout the forest in suitable habitats so that there is at least one habitat area every 4,000 to 5,000 acres of capable habitat.

c. Northern three-toed woodpecker-maintain coniferous forest habitat units 75 acres in size in seral stages V or VI distributed throughout the Forest suitable habitats so that there is a least one habitat area for every 2,000 to 2,500 acres of capable habitat.

2. Maintain sufficient amounts of old growth forest stands to provide habitat for all wildlife species that may be dependent on, or make heavy use of, this habitat type including. Northern goshawk, great gray owl, Cooper's and sharp-shinned hawks, Townsends warbler, Hammond's flycatcher, Vaux's swift, white-headed woodpecker, brown creeper, and others.

3. A thorough, field verifiable inventory of existing old growth stands will be conducted and tracked through time during the plan implementation.

4. Boundaries or locations of old growth units may be adjusted or moved when the following conditions are met:

   a. Proposals are based or documented on the general examinations,

   b. unit size criteria, distribution of units and number of acres will be maintained,

   c. old growth characteristics or quality will be maintained, and

   d. changes will be made through the amendment process (see Forest Plan Chapter 5).

Dead and Down Tree Habitat

1. Within all designated old growth forest habitat units, maintain no less than the following minimum average number of hard snags (MR):

   a. Pileated woodpecker-two hard snags per acre, at least 12 inches dbh, within the 300-acre reproductive area (45 of these snags will be at least 20 inches dbh). Maintain an average of two hard snags per acre, at least 10 inches dbh, on an additional 300 acres in close proximity for feeding habitat.

   b. Pine marten-maintain an average of two hard snags per acre, at least 12 inches dbh (24 of these will be at least 20 inches dbh). Also maintain an average of six down logs per acre, at least 12 inches dbh and 20 feet long.

   c. Northern three-toed woodpecker-maintain an average of two hard snags per acre, at least 10 inches dbh within the 75-acre reproductive area (45 of these snags will be at least 12 inches dbh).

2. Unless specified in management area direction, as a minimum, provide the required numbers and sizes of hard snags throughout the Forest to maintain primary cavity excavators at 40 percent of their potential population throughout their present range. Use procedures outlined in “Wildlife Habitats in Managed Forests-The Blue Mountains of Oregon and Washington” (Thomas and others 1979) to determine the number and sizes to be provided. Snags will be distributed so that an appropriate number of dead and down tree habitats (preferably in ‘clumps’ of live and dead trees) is left for each logical harvest size unit (or no larger than 40-acre units). Provisions will also be made for future or replacement dead and down tree habitat.

3. In addition, all standing, soft snags will be left during timber harvest operations, unless they are determined to be safely hazards.

Nongame Wildlife Habitat

1. Nest and roost sites used by raptors will be protected from all management activities and human disturbance around the nest site until nesting and fledging are completed. Levels of protection will vary by the requirements of the raptor species involved, and will be evaluated by the District wildlife biologist and protection measures implemented on the ground. The nest and associated roost tree(s) will also be marked as "Wildlife trees" and protected from all management activities.
2. Large dead and down woody materials at least 16 feet or more in length and at least 12 inches in diameter at the small end will be left at the rate of an average of two down logs per acre. The desired condition is to have uncharred logs; as many uncharred logs as practical should be retained per project area.
3. Introduction of wildlife species will be carefully coordinated with the various state wildlife agencies on a case-by-case basis through the NEPA process. The reintroduction of native species such as peregrine falcon, Rocky Mountain bighorn sheep, and beaver will be encouraged.
4. Cliffs, talus, and caves are recognized as relatively unique habitats of the Forest and all potentially disturbing or altering management activities will be carefully evaluated on the ground during the planning process to insure their protection and proper management.
5. Seeps, springs, bogs, wallows, and other wet areas, generally under 10 acres, are inherently unique and will be evaluated on a project level basis for their value as wildlife habitat and to provide appropriate levels of protection.

Riparian Areas

Riparian areas will be managed to retain dead and down tree habitat to maintain 100 percent of the potential population level for cavity users and will emphasize retention of satisfactory cover.

Big Game

1. Big game habitat effectiveness models will be used in project planning to provide the quality, quantity, and distribution of cover and forage needed to reach management objectives for each planning area. Forage, cover, and road densities are factors that will be considered and monitored on each subwatershed and/or management area identified within the Forest.
2. Forest stands managed for satisfactory cover will be 40 feet or more in height with a canopy closure of at least 70 percent and generally no less than 600 feet wide. The desired cover condition will generally appear as a multi-layered stand capable of obscuring 90 percent of a standing elk at a distance of 200 feet or less. Stands managed for marginal cover will be no less than 10 feet in height with a canopy closure of at least 40 percent and also capable of hiding 90 percent of a standing elk at a distance of 200 feet.
3. Forest stands designed and managed to maintain or enhance elk use should provide cover of 600 feet to 1,800 feet in width. Exceptions may be made by wildlife biologists based upon an on-the-ground assessment of the value of the stand(s) for elk.
4. In evaluating habitat effectiveness for big game (elk and deer) species, roads considered as 'open' to vehicular access are those that receive, on average, more than four trips per month. Timing of use will be measured on a monthly basis.

5. Provide available forage to meet the requirements of desired populations of Rocky Mountain elk, mule and white-tailed deer, and bighorn sheep.
6. For big game evaluations, timber harvest units will be considered as forage areas until the new stands qualify as marginal cover.
7. Key big game use areas and habitats such as migrational corridors, calving/fawning areas, and wallows will be considered in the design and implementation of projects to retain or protect their important characteristics.
8. District access management plans will include provisions that will assist the states in meeting management objectives for bull/buck escapement.

Big Game Winter Range

1. Where available, maintain no less than 10 percent of each identified winter range as satisfactory cover.
2. On designated big game winter ranges, Forest management activities will be restricted during the big game winter use period of December 1 through March 30 or April 15 (as specified for individual winter ranges) to meet big game management objectives

Wildlife Programs

1. Emphasize partnerships in managing and enhancing the Forest wildlife resources. Utilize all types of available opportunities and methods in strengthening existing and developing new partnerships to attract funding and support for wildlife programs and resources.
2. Strengthen the Recreation Outreach Program related to fish and wildlife resources.
3. Survey user and other publics' (customers') concerns and preferences related to wildlife management on the Forest and develop programs and services or adjust management to provide a variety of ways to meet their needs and wants.

RIPARIAN/FISH HABITAT

Goal

PROVIDE AND MAINTAIN A DIVERSE, WELL-DISTRIBUTED PATTERN OF FISH HABITATS TO ASSIST IN DOUBLING ANADROMOUS RUNS IN THE COLUMBIA RIVER BASIN (BY THE YEAR 2000) IN COOPERATION WITH STATES AND OTHER AGENCIES. THE GOAL APPLIES TO ALL AREAS DOMINATED BY RIPARIAN VEGETATION INCLUDING AREAS CONTAINING ANADROMOUS AND RESIDENT FISH HABITAT, PERENNIAL AND INTERMITTENT STREAM COURSES, WETLANDS, AND FLOODPLAINS

General

1. Maintain or restore biological, chemical, and physical qualities of Forest fish habitats (PL 92-500, as amended by PL 95-217, the Clean Water Act of 1977) (U.S. Laws, Statutes, etc. 1977) (MR). (See Forest-wide Standards and Guidelines for Protection of Water Quality Under 'Water Resources.')
2. Steelhead and rainbow trout are used as indicator species for anadromous and resident fish. Provide habitat to maintain steelhead and rainbow by meeting Best Management Practices and Clean Water Act standards (MR) and implementing fish habitat enhancement projects.
3. Areas in which fish habitat or water quality are being adversely impacted will be given high priority for treatment to correct the impacting activity or mitigate or rehabilitate the effects of the impact

4. Meet the direction and processes for management of wetlands and floodplains in accordance with EO 11990 and EO 11998 and FSM 2527 (MR).
5. Seeps, springs, bogs, and other wet areas, generally under 10 acres, are inherently unique and will be evaluated on a project level basis for their wildlife and other values and will be given appropriate levels of protection. Where needed, employ mitigation measures to protect unique vegetation, wildlife, and water related characteristics.
6. Exchange of riparian areas will only be undertaken to improve overall national forest riparian management. Acquiring private inholdings within riparian areas is a high priority.

Best Management Practices (BMP's)

Implement Best Management Practices (BMPs) to meet water quality standards (Clean Water Act of 1977, FSM 2500) (ibid.) and protect streams and adjacent areas to maintain aquatic resources. Refer to the water portion of the Forest-wide Standards and Guidelines and FEIS Appendix E for water quality Best Management Practices.

Class IV Streams

1. Management activities will not deteriorate water quality below existing established water quality goals for downstream Class I and II streams; water quality changes in Class IV may involve some temperature and turbidity increases.
2. BMPs for Class IV stream areas will be concerned primarily with preventing soil and debris movement, including slumps, earth slides, etc., from migrating downstream into higher class streams during periods of runoff.
    a. Woody vegetation and ground cover adjacent to stream channels will be managed to provide a continuous supply of inchannel large woody material to the stream system in order to maintain or enhance streambank stability and to filter sediment generated on adjacent slopes.
    b. Felling, skidding, and road construction across the stream should be avoided. When streams cannot be reasonably avoided, activities should be conducted at times when streams are dry and at locations where streambank and stream channel disturbances are minimized. Skid trail crossings of intermittent stream channels will be predesignated.
    c. Roads and trails shall be located, constructed, and maintained so that the streambank and stream channel receive as little disturbance as possible.
    d. Human-caused woody debris, less than 6 inches in diameter and 4 feet or more in length, that gets into the stream channel shall be carefully removed unless otherwise justified by environmental analysis.
    e. Grazing will be conducted under principles of livestock management systems which will protect soil, vegetation, and water quality.
    f. Within riparian areas, ground-disturbing activities will be limited to the degree necessary to maintain and protect water quality and fish habitat.
3. Assess the potential for improving stream and riparian conditions, and where opportunities exist, improve intermittent streams to perennial flows.
4. Manage roads and trails to protect riparian wildlife values, fish habitat, and water quality. Water quality and/or fish habitat problems caused by roads will be corrected.
5. Discourage cutting of dead and down material for fuelwood within riparian area.

Class III Streams

Class III streams are perennial and care must be taken during all seasons to protect downstream values.

The following practices are in addition to those needed for Class IV streams:

1. In order to prevent damage to streambanks and riparian habitat and to keep undesirable levels of slash out of the stream, avoid felling timber across stream channels.
2. Logging equipment shall not operate in the channel proper. All logs shall be fully suspended over the stream or crossed on temporary structures.
3. Within the riparian areas, limit mineral soil exposure by ground-disturbing activities to 10 percent of the project area.
4. For Class III (and I and II) stream reaches on the Forest which exceed desired maximum stream temperatures, as identified in state water quality standards, management activities within the contributing watershed shall not reduce stream surface shade below ecological potential (except at required crossings). Where ecological potential has not been determined for a reach, assumed ecological potential shall be 80 percent stream surface shade.

   For Class I, II, and III stream reaches which do not exceed desired maximum temperatures, management activities within the contributing watershed shall not reduce stream surface shading more than 20 percent below ecological potential in upstream reaches. Where ecological potential has not been determined for a reach, assumed ecological potential shall be 80 percent stream surface shade.
5. Smolt habitat capability will be increased by improved summer and winter rearing habitat associated with greater amounts of inchannel large wood. Trees within one tree height of the stream channel will be managed to-provide for a continuous supply of naturally occurring large woody material for future instream fish and riparian habitat in adjacent and downstream reaches. Upland areas and lands adjacent to Class IV streams may also be managed to provide large wood when these areas are determined to be critical to the provision of inputs of future large wood to downstream fish-bearing reaches. Inchannel large woody material objectives will be established during the environmental analysis process for projects affecting present or future levels of inchannel large woody material.

Permitted construction activities proposed for instream locations are reviewed by state fish and wildlife agencies and approved on a case by case basis dependent on fish species present at the time of the proposed activity. Permitted activities such as instream bridge or Culvert construction will normally be limited to the following timeframe:

River System	Start	Finish
North Fork John Day River	July 15	August 15
Umatilla River (steelhead habitat)	July 1	October 15
Umatilla River (spring Chinook habitat)	July 1	August 15
Meacham Creek	July 1	August 15
Walla Walla River	July 1	November 15
Snake River		
Tucannon River	July 15	August 31
Asotin Cr.	July 15	August 31
Remainder of Snake R. System	July 15	September 30

6. Riparian forage utilization standards and the range goal found in the Range section are the principal management tools used in achieving desired vegetation conditions.

   Intensive range management, including superior grazing systems, will be practiced to protect and improve riparian vegetation and anadromous fish and wildlife habitats. Range management techniques that control livestock distribution and timing of use will be used to meet riparian goals. Periods of extended rest may be utilized in some situations where necessary to allow re-establishment of desired shrub communities. Grazing systems utilizing riparian pastures may be required to maintain water quality and protect riparian vegetation. Improvements should be located to encourage livestock use away from the riparian areas. Riparian corridor fencing should be considered on a very limited basis for special applications.

   Within 8 years of revision of allotment management plans (AMP's), recovery of hardwood and shrub vegetation will be at least 75 percent of the expected achievement based on riparian classification and inventory.

Class I and II Streams

Management activities will not degrade water quality, fish, or aquatic resources below the water quality goals except for temporary change due to permitted activities (FSM 2526). The following practices are in addition to guidelines for Class III and IV streams and BMPs (not necessarily all inclusive):

1. Allow for the passage of both adult and juvenile fish in the design and construction of bridges, dams, and culverts.
2. Human-caused existing, stable, natural woody debris shall be removed (usually by hand) only in cases where fish migration is blocked, water quality is impaired, erosion is occurring as a result of the debris, or access for recreation purposes is hampered. Existing natural woody debris will not be removed in wilderness.
3. Streambanks should have 80 percent or more of their total lineal distance in a stable condition.
4. Increases in water temperature will seldom be allowed in Class I streams. Exceptions (within state standards) must be based on analysis indicating full maintenance or enhancement of existing beneficial uses of the water and be approved through an environmental assessment. Water temperature increases in Class II streams will be limited to the quantitative criteria in state water quality standards.

Fish Programs

1. Emphasize partnerships in managing and enhancing the Forest fish resources. Utilize all types of available opportunities and methods in strengthening existing partnerships and developing new ones to attract funding and support for fish programs and resources.
2. Strengthen the Recreation Outreach Program related to fish and wildlife resources.
3. Survey user and other publics (customers) concerns and preferences related to fish management on the Forest and develop programs and services or adjust management to provide a variety of ways to meet their needs and wants.

RANGE

Goal

MANAGE THE FORAGE RESOURCES FOR AN UPWARD VEGETATIVE TREND IN AREAS IN LESS THAN 'FAIR' CONDITION AND AN UPWARD OR STABLE TREND FOR AREAS IN

'FAIR' OR BETTER CONDITION, WHILE PROVIDING FOR FORAGE PRODUCTIVITY AND MAKING SUITABLE RANGE AVAILABLE FOR LIVESTOCK GRAZING. INCREASE THE LEVEL OF FORAGE PRODUCTION WHERE COST EFFICIENT AND CONSISTENT WITH OTHER RESOURCE GOALS.

General

1. Protect the productivity and make suitable National Forest System lands available for grazing and browsing use in coordination with other resource uses. There is no minimum output requirement (Federal Land Policy and Management Act, Sec. 402, 36 CFR 222.1(a)) (US. Laws, Statutes, etc. 1976) (MR).
2. Suitable livestock range will be allocated by permit consistent with the management objectives for resources established by the Forest Plan.
3. Grazing allotments will be administered through the Forest Service grazing permit system, using inspections, monitoring, and permittee meetings.

Allotment Management Plans

1. Allotment management plans will be developed, revised, or maintained to implement the management direction of the Forest Plan. The planning process will involve grazing permittees, appropriate out-service agencies and interested publics. Cooperative resource management planning (CRMP), will be used for plan development where applicable. Plans will include:
    a. The objectives for managing the vegetation resource, and activities needed (and a time schedule) to meet forage objectives as defined in the Forest Plan;
    b. the grazing system to be used, season of use, class of livestock, and stocking levels;
    c. range improvements needed to achieve allotment objectives, and an economic efficiency analysis;
    d. forage production and utilization rates; and
    e. the coordination requirements to be used in conjunction with other resources.
2. Allotment management plans will include a strategy for managing riparian areas for a mix of resource uses. A measurable desired future riparian condition will be established based on existing and potential vegetative conditions. When the current riparian condition is less than that desired, objectives will include a schedule for improvement. The plans will identify management actions needed to meet riparian objectives within the specific timeframe. Measurable objectives will be set for key parameters such as stream surface shading, streambank stability, and shrub cover as described in 'Managing Riparian Ecosystems (Zones) for Fish and Wildlife in Eastern Oregon and Eastern Washington' (1979). The plans will address the monitoring needed to determine if the desired rate of improvement is occurring.
3. Plans currently not consistent with this direction will be developed or revised on a priority basis under a schedule established by the Forest Supervisor.
4. Identify allotments with riparian areas in unsatisfactory condition (see Glossary). Areas in such condition might have: (1) suitable range with forage in less than fair condition and less than stable trend, or (2) basic resource damage or other resource damage occurring.

Forage Utilization

1. Forage utilization standards will be incorporated in allotment management plans. Allotment management plans may include utilization standards which are lower or occasionally higher than listed in the following tables. Standards higher than those shown will be accepted only when they are designed to meet specific resource objectives and desired future condition for a given management area. The standards include cumulative annual use by big game and livestock.
2. Utilization for grass and grass-like species is based on the percent of plant weight removed. Utilization for shrub species is based on incidence of use, weight, and/or twig length (e.g , utilization is 50 percent if 50 out of 100 leaders are browsed).
3. Satisfactory condition is determined by allotment classification and/or forage condition. Unsatisfactory condition is anything not meeting satisfactory conditions (refer to definitions found in the Glossary).
    a. Allowable use of available forage ON RIPARIAN AREAS (MAXIMUM percent of annual utilization by big game and livestock) is:

RANGE MANAGEMENT STRATEGY

	B (Minimum)	C (Extensive)	D (Intensive)
Grass & Grass-like Species on areas in			
Satisfactory Condition	40%	45%	50%
Unsatisfactory Condition	0-30%	0-35%	0-40%
Shrub Species on areas in			
Satisfactory Condition	30%	40%	50%
Unsatisfactory Condition	0-25%	0-30%	0-35%

    b. Allowable use of available forage ON UPLAND AREAS (MAXIMUM percent of annual utilization by big game and livestock) is:

RANGE MANAGEMENT STRATEGY

	B (Minimum)	C (Extensive)	D (Intensive)
Forested Areas**			
Satisfactory Condition	40%	45%	50%
Unsatisfactory Condition	0-30%	0-35%	0-40%
Grasslands			
Satisfactory Condition	50%	55%	60%
Unsatisfactory Condition	0-30%	0-35%	0-40%
Shrublands			
Satisfactory Condition	40%	45%	50%
Unsatisfactory Condition	0-25%	0-30%	0-35%

** Applies to areas where timber has not yet been cut, or where it was cut at least 30 years ago

    c. Transitory ranges (where timber has been harvested in the last 30 years) contain increased levels of forage from elther reseeding efforts or natural seeding. The general guideline for utilization of transitory forage is:

- Utilization up to 60 percent for domestic livestock in a given area; and
- not to exceed 80 percent for big game and livestock combined.

Improvements

1. The allotment management plan will implement a cost-effective program, consistent with management objectives. Structural improvements such as fences and water developments, and nonstructural improvements such as burning, seeding, and fertilizing may be used to achieve the management goals. Range improvements will be constructed and maintained with consideration for other resource needs (e.g., wildlife, visuals). Other activities such as predator, noxious weed, and unauthorized livestock controls may be necessary.
2. Encroachment of trees on natural grasslands and meadows, recognized primarily for their forage value and habitat they provide, may be controlled.
3. Forage may be enhanced where no conflict with reforestation goals will result. Transitory range will be managed in conjunction with timber management to achieve higher forage production and the desired level of forage utilization. Forage enhancement may be used to reduce other plants' competition with tree growth.

Operating Plans

Annual operating plans will schedule livestock distribution and use patterns to prevent or resolve local resource conflicts; the allotment management plan will be implemented with specific instructions for each year's planned use.

ECOSYSTEMS & DIVERSITY

Goal

PROVIDE FOR DIVERSITY OF PLANT AND ANIMAL COMMUNITIES AND TREE SPECIES CONSISTENT WITH OVERALL MULTIPLE-USE OBJECTIVES FOR THE FOREST. MAINTAIN OR ENHANCE ECOSYSTEM FUNCTIONS TO PROVIDE FOR LONG-TERM INTEGRITY (STABILITY) AND PRODUCTIVITY OF BIOLOGICAL COMMUNITIES.

1. Maintain native and desirable introduced or historic plant and animal species.
2. Provide or develop an ecologically sound distribution and abundance of plant and animal communities and species on the stand, basin, and forest levels.
3. Provide for all seral stages of terrestrial and aquatic plant associations in a distribution and abundance that meets the goal. Early successional stages may be improved through introduced forage species in order to increase production, protect soil resources, and prevent noxious or other undesirable weed invasion.
4. Meet standard and guideline requirements including:
    a. Vertical, horizontal, and species diversity shown in Timber,
    b. old growth/mature tree, dead and down tree, and big game habitats size, characteristics, and spacial locations described in Wildlife or specific management areas:
    c. riparian vegetation and instream condition and characteristics in Riparian/Fish;
    d. vegetative condition shown in Range; and

e. habitat specifications for plants and wildlife identified in Threatened, Endangered, and Sensitive Species and Management Areas A9 and D2.

5. During project planning, site-specific management prescriptions should be developed and evaluated that meet objectives for biological diversity and ecosystem function. Project planning evaluations should consider use of minimum fragmentation approaches or clustered timber harvest design.
6. Reductions in diversity of plant and animal communities and tree species from that expected in a natural forest, or from that similar to the existing diversity in the planning area, may be prescribed to meet overall multiple-use objectives.
7. The introduction of plants will be assessed and controlled to meet management objectives and to prevent any native species (or plant community) from becoming 'endangered or threatened.'
8. Plant community ecology is sensitive to management changes. The communities will be monitored for diversity relative to successional stages and type conversions.
9. Identify, inventory, and provide for local, traditional Native American food and cultural plants.

TIMBER

Goal

PROVIDE FOR PRODUCTION OF WOOD FIBER CONSISTENT WITH VARIOUS RESOURCE OBJECTIVES, ENVIRONMENTAL CONSTRAINTS, AND CONSIDERING COST EFFICIENCY.

Commercial Forest Lands

Regulated timber harvest will be allowed only on lands classified as tentatively suitable (see Umatilla National Forest Stage 1 Analysis) (USDA Forest Service 1983a) (MR). Also, see Resource Map of Land Tentatively Suitable for Timber Production.

All acres designated as tentatively suitable forest land are capable of being adequately restocked within 5 years. Lands on which regulated timber harvest will be applied will be determined through the Forest planning process and designated as suitable.

Nondeclining Even Flow

1. For base sale schedules, the planned sale for any decade will be equal to or greater than the planned sale and harvest for the preceding decade of the planning period, provided that the planned sale is not greater than the long-term sustained-yield capacity consistent with the management objectives of the alternative (36 CFR 219.1 2(d)(1). Departures will be evaluated when any of the following conditions are indicated:
    a. None of the alternatives considered provides a sale schedule that achieves the assigned goals of the RPA program as provided in 219 4(b);
    b. high mortality losses from any cause can be significantly reduced or prevented, or forest age-class distribution can be improved, thereby facilitating future sustained-yield management; and/or
    c. implementation of the corresponding base sale schedule would cause a substantial adverse impact upon a community in the economic area in which the forest is located (36 CFR 219.16(a)(2)(1)) (MR).

Harvest Level Determinations

The management intensities and utilization standards used in determining harvest levels will be consistent with the current Regional Plan (36 CFR 219.16(4(2)(1).

Silvicultural Systems Selection

1. Selection of the appropriate silvicultural system will be guided by criteria (a-g) and the land management emphasis. Criteria (a) through (g) are identified in the Regional Guide for the Pacific Northwest Region* (USDA Forest Service 1984) and 36 CFR 219.27(b)** and were subsequently combined to eliminate duplication of content and procedure.

    a. Selected method must produce a volume of marketable trees that meet utilization standards and are designated for harvest (Regional Guide*: criterion 1)

    b. Selected method must use available and acceptable logging methods (Regional Guide*. criterion 2; 36 CFR**: criterion 4).

    c. Selected method must be capable of meeting special management and multiple-use objectives (Regional Guide*: criteria 3 and 6; 36 CFR**: criteria 1 and 6).

    d. Selected method must permit control of vegetation to establish desired species composition, density, and rates of growth (Regional Guide*: criterion 4, 36 CFR**: criteria 4 and 6).

    e. Selected method must promote a stand structure and species composition which minimize risks from insects, disease, and wildfire (Regional Guide*: criterion 5).

    f. Selected method must assure that lands can be adequately restocked (36 CFR**: criterion 2).

    g. Selected method must be practical and economical in terms of transportation, harvesting, preparation, and administration of timber sales (36 CFR**: criterion 7).

    h. In addition, no harvest cutting method was selected primarily because it resulted in the greatest dollar return or provided the highest output of timber; and no method was selected which permanently reduced site productivity, or could not assure conservation of the water and soil resources (36 CFR: criteria 3 and 5).

Use of Clearcutting

The National Forest Management Act of 1976, section 6(g)(3)(f)(i), states that clearcutting is to be used only where it is found to be the optimum method. Further direction is contained in the Regional Guide for the Pacific Northwest Region, 36 CFR 219.36, and Forest Service Manual 2471.1. Where even-aged management is appropriate and desired to meet management and resource objectives, clearcutting will be analyzed against both shelterwood and seed tree methods. Determination of the optimum silvicultural method will consider stand condition and structure, insect and disease problems, silvics of the tree species concerned, plant community, logging method feasibility and probability of success, site characteristics, regeneration difficulty, economics, and other factors all in the context of meeting the resource objectives for that management area portrayed in the Forest Plan.

Management Intensities

1. Management intensities will vary with site productivity, timber species, other resource management objectives, and timing of implementation. Each of the following timber management practices is eligible and may be used singularly or in a combination to determine the appropriate management intensity.

    a. Site preparation - chemical, mechanical, biological, manual, animal, and prescribed fire.

b. Tree improvement (genetics) including selected trees and protective measures such as implanting, genetic stock, evaluation plantations, seed production areas, and seed orchard sites.

c. Reforestation by planting, seeding, or natural means.

d. Growing-stock protection from animals, insects, and diseases.

e. Release and weeding - chemical, mechanical, biological, manual, animal, and prescribed fire.

f. Precommercial thinning.

g. Fertilization

h. Pruning

i. Commercial thinning.

j. Sanitation harvest.

k. Salvage harvest.

l. Final harvest - including even-aged management practices of shelterwoods, seed tree units and clearcuts, and uneven-aged practices of individual tree and group selection.

Road Management

Operate and maintain the Forest road system to meet management area emphasis and direction.

Utilization Standards

The following standards shall apply on the Forest for determination of the regulated harvest:

Working Group	Minimum DBH (in.)	Minimum Top DIB (in.)
First Decade		
North Associated	9	6
South Associated	9	6
Ponderosa pine	9	6
Lodgepole pine	7	4
Commercial thinning	7	4
Future Decades		
All Species	7	4

Culmination of Mean Annual Increment

Minimum rotation lengths will be based upon the length of time required to achieve volume production equivalent to at least 95 percent of culmination of mean annual increment. Exceptions are permitted for the use of sound silvicultural practices, for salvage or sanitation harvesting, or for the removal of a particular species of trees after considering the multiple objectives of the area (MR).

Silvicultural Prescriptions

1. Silvicultural prescriptions will be prepared for all activities proposing management of forest vegetation to meet resource objectives. Stand diagnoses will be prepared for alternatives in environmental assessments. Unit prescriptions will be prepared for the

selected alternative and will be recorded in project environmental assessments or analysis files and in stand data records.

2. All prescriptions will be prepared or approved by a certified silviculturist.
3. Elements required in a silvicultural prescription are documented in FSM 2478 and the Silvicultural Examination and Prescription Handbook (FSH 2409.26d). The Silvicultural Prescription Handbook will be used as the guide for all even-aged management prescriptions. Guides to the practice of uneven-aged management appear in the Forest-wide Standards and Guidelines. No standardized format will be required, but all requirements must be addressed in the prescription or through project environmental analysis.
4. Silvicultural prescriptions must address the following:
    a. Designation of number and sizes of snags, green wildlife trees, and downed logs that will meet the habitat requirements for cavity dependent species;
    b. protection, maintenance, and enhancement of hardwood vegetation found in activity areas;
    c. an analysis of the options of shelterwood, natural regeneration, and uneven-aged management as part of the selection of a regeneration harvest method;
    d. an optimum and minimum stocking level where regeneration harvests are applied;
    e. integrated pest management in both the long and short term (pests include insects, diseases, animals, and vegetation); and
    f. the use of prescribed fire as a silvicultural tool in support of returning fire to its natural role in the ecosystem.
5. Stand examinations and/or other data gathering processes will be used to verify or develop silvicultural prescriptions. Data gathering processes will be designed to provide the appropriate detail and accuracy commensurate with the complexity of the silvicultural and resource decisions at hand.

Reforestation

1. The optimum stocking level should be based on the objective of maximum cubic foot volume production, unless other resource objectives are identified and documented during the project planning process. The minimum stocking level should be based on the total number, distribution, and condition of trees needed to carry out the least intensive silvicultural strategy identified in the Forest Plan, or as specified in Regional stocking level curves (FSH 2409.26d) or site specific local curves including mortality predicted at 20 percent over the length of the rotation. A site-specific analysis documented in the silvicultural prescription may justify a change in management intensity or predicted mortality level.
2. When trees are cut to achieve timber production objectives, the cutting shall be planned and implemented to assure and expect adequate restocking of lands within 5 years after final harvest. Research technology, knowledge, and experience shall be the bases for determining whether regeneration practices can be expected to result in adequate restocking. Adequate restocking means that the harvest area will contain the minimum number, size, distribution, and species composition of regeneration. Five years after final harvest means: 5 years after clearcutting, 5 years after final overstory removal in shelterwood cutting, 5 years after the seed tree removal cut in seed tree cutting, or 5 years after selection cutting (36 CFR 219.27(c)(3).
3. Minimum stocking for this planning period will be as follows.

Ponderosa pine working group	100 trees per acre
North Associated	200 trees per acre
South Associated	150 trees per acre
Lodgepole pine	100 trees per acre

The above numbers apply to a plantation at the time of certification, normally the third growing season after planting. In stands prescribed for natural regeneration, certification will occur after the final harvest and postsale activities are completed, and the trees have experienced one additional growing season. In addition, there should be no evidence of significant imminent mortality that would reduce stocking below these levels by more than 20 percent between the time certified and the time the trees reach 4.5 feet in height. Stocking should also be of desirable species capable of being managed to meet management area objectives.

4. As a minimum, planted seedlings will meet SIA seed certification standards. Whenever possible, seedlings will meet SB certification standards. Genetically improved stock will often be interplanted in areas reforested by natural regeneration to increase both species and inter-species diversity. When planting in areas experiencing disease problems such as root rots or dwarf mistletoes, disease resistant species will be favored.
5. The decision to replant, interplant, or apply additional site preparation to naturally regenerate harvested areas which are stocked (above the minimum stocking level but below the optimum stocking level), should be based on a site-specific economic analysis. The economic analysis should weigh the additional costs of replanting, interplanting, or applying supplemental site preparation against the discounted benefit of the additional volume contributed from trees added in the retreatment. Retreatment should not be prescribed with a benefit host ratio of less than 1.0 unless warranted by other management objectives identified and documented in the project planning process.
6. In regeneration units, site preparation (if any) should be completed within 2 years of harvest. Planting (if any) shall occur within 1 year of site preparation. Exceptions can occur, but only to meet resource objectives or because of extenuating circumstances.
7. Regeneration examinations should be made in accordance with FSM 2472.4, including as a minimum, examinations after the first and third growing seasons. Certification of regeneration units must be made based on a site-specific determination; regeneration units must meet minimum stocking guidelines prior to certification as successfully reforested. Staked tree surveys will be conducted on major tree species, nursery lots, and management practices. Measurements will be made the first, third, and fifth seasons after planting in order to monitor seedling survival and growth, to evaluate the effectiveness of management practices, and to gather data for the development of future managed yield tables.

Precommercial Thinning

1. Precommercial thinning is recommended when:
   a. It is consistent with management objectives:
   b. Overstocking will reduce future yields below planned levels;
   c. The expected return from increased future timber production and value exceeds the cost of the thinning: or
   d. Stocking level control is necessary to protect the stand from losses due to insects and diseases.

2. Stands with an average DBH over 6 inches should not normally be precommercially thinned unless not thinning the stand would incur significant losses from insects, diseases, or stagnation.
3. Precommercial thinning requires at least minimum stocking in trees capable of responding to release. Trees should have a minimum of 30 percent live crown ratio and be sufficiently free of disease or damage to make a merchantable product.

Management of Advanced Regeneration

1. Advanced regeneration is defined as conifers of less than merchantable or marketable size which are established in areas proposed for silvicultural activities. Advanced regeneration should be retained and managed as future crop trees if these trees are of desirable species and acceptable condition.
    a. Trees of acceptable condition will generally have the following characteristics:
        1) A minimum live crown ratio of 40 percent, except in the case of true firs, where the minimum crown ratio is 50 percent;
        2) a reasonable probability of remaining undamaged following management activity, fuels treatment, and site preparation;
        3) they must be free of major diseases; be predicted to maintain a minimum of 10 inches of leader growth annually within a 20-year period; and have a reasonable expectation that they will remain disease free until rotation age; and
        4) a reasonable expectation must exist that the trees will increase in height and diameter growth when given increased growing space.
    b. Timber harvest and post-harvest activities (fuels treatment and site preparation) should be tailored to protect advanced regeneration from damage as much as is practical. Where more than 20 percent of the prescribed minimum stocking level can be met through the retention of advanced regeneration, the appropriate timber sale and service contract provisions should be used to insure protection of desirable advanced regeneration.

Natural Regeneration

1. Natural regeneration should be the preferred alternative where economic stand, and site conditions are appropriate and where natural regeneration does not conflict with other resource objectives identified and documented during the project planning process. Species diversity and preference should be important considerations. Natural regeneration prescriptions should identify optimum and minimum stocking level, specified regeneration time period, and first time success, as well as meet standards and guidelines for species preference and species diversity.
2. Appropriate stand and site conditions for natural regeneration include:
    a. Seed trees should display acceptable genetic characteristics including growth, bole form, and branching habit;
    c. past cone production should be in evidence to the extent necessary to meet minimum stocking levels within the specified time period;
    d. there should be a sufficient number of seed trees that can be retained on-site in an acceptable condition following management activities;
    e. there should be no diseased seed trees unless they can be removed or girdled before regeneration reaches a height of 2 feet, or within 10 years after the seed cut; and

f. site preparation should be accomplished while protecting the residual seed trees and advanced regeneration.

3. Lands harvested must be expected to be adequately stocked with natural regeneration or fill-in planting to minimum acceptable stocking levels within 5 years after final harvest.
4. Natural regeneration should be prescribed where the minimum stocking levels will be met during the specified time period with a first time success of 80 percent or greater.
5. Fuels treatment and site preparation should generally be carried out following the regeneration cut so that no fuels treatment is needed following the final removal harvest.

Species Preference

1. In determining which conifer species to favor during the development of silvicultural prescriptions, consideration should be given to the following objectives: (1) Long-term stand health, vigor, and productivity specifically related to insect and disease impacts; (2) economic efficiency based on the costs and values associated with timber management; and (3) the biological diversity needs for wildlife species, visual quality, or other resource needs in accordance with the standards and guidelines for diversity.
    a. Consideration should be given to the growth and yield effects of predicted insects and diseases associated with the preference given to an individual species over another. Preference should generally be given to the healthiest and fastest growing trees where there is reasonable assurance they will continue to meet these objectives until rotation age. Favor should be shown to a species or a mix of species predicted to produce the highest net value over time while meeting needs for diversity and long-term ecological health.
    b. The economic analysis should consider the costs associated with establishing and protecting an individual species, the current market values for those species, current and projected rates of growth, and projected harvest sizes and log grades produced from the management area under consideration.
    c. In the North and South Associated Working Groups, strong consideration should be given to maintenance of stands dominated by early successional species including ponderosa pine, Douglas-fir, western white pine, and western larch since, in these forest types, the potential for insect and disease depredation is high if latter successional species are managed. Economic analysis should clearly recognize the potential for future damage. Management activities should maintain desirable advanced or natural regeneration of lodgepole pine or climax species (including true firs) in future stand composition in order to promote species diversity.
    d. In the Ponderosa Pine Working Group, silvicultural prescriptions will feature ponderosa pine while other associated species will be maintained at low levels to provide for ecological diversity needs.
    e. In the Lodgepole Pine Working Group, plant communities are found in which lodgepole pine is either climatically climax, or successional to sub-alpine fir and Engelmann spruce. Western larch is often a major component depending on the specific site. Management activities should work with the ecological forces at hand and accept a major stocking of lodgepole pine. Whenever possible, diversity should be enhanced by promoting stocking of western larch and Engelmann spruce.

Diversity

Management activities should be tailored to provide the horizontal, vertical, and vegetative species diversity necessary for the maintenance of wildlife species, aesthetics, and recreational objectives as established in the Plan.

Horizontal Diversity (harvest unit size)

1. Even-aged management strategies can have a positive effect on the development of large-scale horizontal diversity. In intermediate or mixed-age stands greater than 40 acres in size, harvest activities such as overstory removal, precommercial thinning, and commercial thinning should be prescribed in unit sizes and tree spacings that complement the eventual development of horizontal diversity. The needs for long term stand health and vigor achievable through stand density control should take precedence over the short term need for horizontal diversity.
2. Strong consideration should also be given to the staggered regeneration of large even-aged areas. Some stands may be regenerated prior to the culmination of mean annual increment while others may be regenerated later to create horizontal diversity in the long run. This will be especially important in the Lodgepole Pine Working Group, given the historic patterns of beetle infestation and wildfires creating large blocks of even-aged, often single species stands.
3. The Forest will conform to the Regional guidelines on created forest openings. Forest openings created by even-aged silviculture should not exceed 40 acres. Exceptions are permitted in the following cases:
    a. When natural catastrophic situations such as fires, windstorms, or insect or disease attacks occur;
    b. on an individual case by case basis after a 60-day public notice and review by the Regional Forester; and
    c. when any one of the criteria in the Regional Plan is met but not exceeded by more than 50 percent without review by the Regional Forester or 60-day public notice.
4. A harvested area will no longer be considered a created opening for timber management when the prescribed crop tree stocking is above minimum acceptable levels and trees are at or above 4 ½ feet in height and free to grow (MR). Where other resource management considerations are limiting, such as wildlife habitat and visual requirements, a created opening will no longer be considered an opening when the vegetation in it meets the management objective.
5. Created openings will be separated by blocks of land or areas generally not classed as created openings. The blocks of land between created openings shall vary in size, contain one or more logical logging units, and be large enough, and of a stand structure to meet resource requirements of the Forest Plan (MR).
6. Openings to be created contiguous to natural openings, should receive attention during the analysis and prescription for treatment. The decision to create openings contiguous to natural openings shall be supported by prescriptions specific to individual natural openings, or to a group of natural openings where their importance is diminished by more frequent occurrence. The created openings should generally not exceed one-third the size and/or be contiguous to no more than one-third the edge of a natural opening where the natural opening exceeds 30 acres in size. Limitations for created openings contiguous to natural openings less than 30 acres in size will be subject to the Interdisciplinary decision making process and review of land management objectives.

Vertical Diversity

1. Vertical structural diversity can best be maintained with uneven-aged management or small even-aged harvest units. Application of a mix of both even and uneven-aged management strategies is desirable to provide benefits from horizontal and vertical diversity.
2. Within forest types where both even and uneven-aged prescriptions are appropriate, each silvicultural strategy should be represented on no less than 10 percent of the area harvested in an allocation zone.

Species Diversity

1. In regeneration units where single species management is not dictated by plant community composition, at least two and preferably more tree species will be managed together over time. Preference may be given to a single species, but as a minimum, 20 percent of the stocking should be made up of other species.
2. Reforestation of 'noncommercial' tree species (hardwoods and conifers such as Pacific yew, Western juniper, etc.), should be considered in meeting management area objectives.
3. Special and unique ecological communities such as aspen and other hardwood stands, seeps, springs, bogs, and other riparian areas should receive special attention and protection from potentially damaging management activities. Silvicultural prescriptions will specifically address measures to protect, maintain, and enhance aspen and other hardwood clones, clumps, and stands.

Uneven-aged Silvicultural Systems

1. Uneven-aged management can be applied using either individual tree or group selection silvicultural systems. The decision to apply either system should be based on actual stand and site conditions. Silvicultural systems described here for uneven-aged management are described in further detail by David M. Smith in *The Practice of Silviculture*, 7th edition, published in 1962.
2. Individual tree selection should be applied where forest stands contain a variety of size classes, usually three or more, which are evenly distributed on nearly every acre throughout the stand and contain preferred species without significant disease problems.
3. Individual tree selection is perhaps most applicable in mature and multi-storied pure ponderosa pine stands in the ponderosa pine community types, and in Douglas-fir climax communities in stands that are free of Douglas-fir dwarf-mistletoe.
4. Group selection should be applied where forest stands are irregular, contain a mosaic of small even-aged groups, where control over species is important, or where significant disease problems are present. Even-aged groups may be as small as one quarter acre and contain two or three mature trees or may be as large as 3 acres. Even-aged groups are usually 2 acres or less in size. From an ecological viewpoint, maximum group size is reached when climatic conditions within the even-aged group are no longer modified by the adjacent stand. Activities will vary within each small even-aged group depending on the size, age, and density of the trees. In group selections, each small group opening will be tended similarly to an even-aged managed opening. When fully managed, a stand mosaic of several size classes interspersed with each other in small-sized groupings will occur with each occupying approximately the same percentage of the stand.
5. The application of uneven-aged management by group selection will be objective oriented and will depend on the number of age classes desired, the percent of land desired in each class, and the desired interval between harvest entries.

6. Uneven-aged management can also be applied in the Associated and Lodgepole Working Groups but with more difficulty, and it would most often be accomplished using group selection methods. Due to serious problems commonly found with shade tolerant species, uneven-aged management practices should strive to ensure stand dominance by more seral disease free species such as ponderosa pine, western larch, lodgepole pine, and western white pine. Dominance in these community types is established when stocking by early successional species can be maintained at or above 50 percent of the minimum stocking level established in the silvicultural prescription on 80 percent of the treated acres.
7. Uneven-aged management will generally be applied on slopes of less than 30 percent. Uneven-aged management will generally not be applied where cable or skyline yarding systems are prescribed due to the costs of such operations and the difficulty of protecting residual growing stock.
8. Uneven-aged management can be applied where the total area impacted by detrimental soil compaction, erosion, or displacement can be restricted to less than 20 percent of the stand.
9. Uneven-aged management is particularly appropriate adjacent to streamside management units and other riparian areas, in visual zones, in areas with recreational emphasis, in creating vertical diversity for wildlife, in protecting the integrity of special areas such as elk wallows or springs or other microsites, or anytime where maintenance of forest cover is an important objective.
10. The silvicultural prescription should be designed to move the stand structure toward an uneven-aged diameter class distribution through an orderly sequence of harvest activities occurring during the next 20 to 100 years. Stand simulation models such as 'Prognosis' should be used as the primary tool to evaluate the optimum levels of growing stock and diameter distributions which best meet management objectives.
11. Timber harvest and post sale activities will normally be planned on a 20-year entry cycle. Other entry cycles may be appropriate to meet resource objectives, or to better create the desired stand structure. Stands should not be harvested at times other than the prescribed entry cycle times except to salvage fire killed trees, or when bark beetle related mortality has occurred at epidemic levels, when extensive mortality has been caused by other catastrophic events, or in case stand performance has fallen below acceptable levels and the stand has become high risk for bark beetles.
12. Each silvicultural prescription should specify stand management criteria including the appropriate “Q” value or relationship between numbers of trees of different diameter classes, the appropriate residual basal area, and the upper diameter limit or rotational size for trees to be harvested. These stand management criteria will vary depending on site quality and management emphasis.
13. All post sale activities necessary for the entry cycle, including fuels treatment, site preparation, planting, precommercial thinning, and conifer release should occur no later than 5 years following the harvest entry. Site preparation will be prescribed so as to favor the preferred species. To ensure dominance by desired species, planting may be necessary. When natural regeneration is desirable, leave trees can be left in the small groups if appropriate. Each small group opening will then be tended similarly to an even-aged managed opening.
14. Extreme care must be exercised in applying uneven-aged management practices to stands infected with dwarf-mistletoes, bole rots, or root rots. In some cases these pests may preclude the prudent use of this prescription. In other situations, nonhost species can be favored to minimize the impacts from the pest agents.

WATER

Goals

MANAGE NATIONAL FOREST RESOURCES TO PROTECT ALL EXISTING BENEFICIAL USES OF WATER AND TO MEET OR EXCEED ALL APPLICABLE STATE AND FEDERAL WATER QUALITY STANDARDS. WITHIN THE FOREST CAPABILITY, MAINTAIN OR ENHANCE WATER QUANTITY, QUAUPI, AND TIMING OF STREAMFLOWS TO MEET NEEDS OF DOWNSTREAM USERS AND OTHER RESOURCES. MAINTAIN INTEGRITY AND EQUILIBRIUM OF ALLSTREAM SYSTEMS, RIPARIAN AREAS, AND WETLANDS ON THE FOREST. MANAGE DESIGNATED MUNICIPAL SUPPLY WATERSHEDS TO PROVJDE WATER WHICH, WITH TREATMENT, WILL RESULT IN A SATISFACTORY AND SAFE SUPPLY.

General

1. Meet (MR) or exceed state requirements in accordance with the Clean Water Act for protection of waters of the State of Oregon (Oregon Administrative Rules, Chapter 340-41), and the State of Washington (Washington Administrative Code, Chapters 173-201 and 202), through planning, application, and monitoring of Best Management Practices (BMP's) in conformance with the Clean Water Act, regulations, and Federal guidance.
2. For all lands within national forest boundaries (including private lands), no more than 30 percent of the forest land within a subwatershed will have timber stand age classes of 0-10 years except where analysis documented in an environmental assessment indicates that watershed condition would not be impaired.
3. In (sub)watersheds where project scoping identifies an issue or concern regarding the cumulative effects of activities on water quality, quantity, or stream channels, a cumulative effects analysis will be performed. The analysis will include land in all ownerships in the (sub)watershed. Activities on national forest lands in the (sub)watersheds should be dispersed over time and space to the extent practicable, and at least to the extent necessary to meet MR's. On intermingled ownerships, coordinate scheduling efforts to the extent practicable.
4. Meet the direction and processes for management of wetlands and floodplains in accordance with EO 11990 and EO 11998 and FSM 2527 (MR).

Protection of Water Quality

1. In cooperation with the States of Oregon and Washington, the Forest will use the following process:
    a. Select and design BMP's based on site-specific conditions, technical, economic, and institutional feasibility, and the water quality standards for potentially impacted waters.
    b. Implement and enforce BMP's.
    c. Monitor to ensure that practices are correctly applied as designed. Monitor to determine the effectiveness of practices in meeting design expectations and in attaining water quality standards
    d. Evaluate monitoring results and mitigate where necessary to minimize impacts from activities where BMP's do not perform as expected.
    e. Adjust BMP design standards and application when monitoring shows that beneficial uses are not being protected and water quality standards are not being achieved to the desired level. Evaluate the appropriateness of water quality criteria for

reasonably assuring protection of beneficial uses. Consider recommending adjustment of water quality standards.

2. Use the existing process agreements to implement state water quality management plans on lands administered by the Forest as described in Memorandum of Understanding between:

    b. The Oregon Department of Environmental Quality and U. S. Department of Agriculture, Forest Service (2/12/79 and 12/7/82), and “Attachments A and B” referred to in this MOU (Implementation Plan for Water Quality Planning on National Forest Lands in the Pacific Northwest 12/78 and Best Management Practices for Range and Grazing Activities on Federal Lands, respectively).

    c. The Washington Department of Ecology and U.S. Department of Agriculture Forest Service (7/79), and 'Attachment A' referred to in this MOU (Implementation Plan for Water Quality Planning on National Forest Lands in the Pacific Northwest 12/78).

    For a more complete explanation of the above, refer to Appendix E in the FEIS, 'Best Management Practices'. Individual, general Best Management Practices are described in *General Water Quality Best Management Practices*, Pacific Northwest Region, 11/88, which provides guidance but is not a direction document. A description is included of the process, limitations, and use of the BMP's.

3. Evaluations of both the ability to implement BMP's and their estimated effectiveness will be made at the project level. Projects may include general BMP's, site-specific BMP's or combinations of both.

4. Management activities will not degrade water quality, fish, or aquatic resources below the water quality goals except in temporary change due to permitted activities (FSM 2526). See Riparian/Fish Forest-wide Standards and Guidelines and Best Management Practices (BMP’s).

5. Provide for the treatment of sewage and other point sources of pollution discharged into streams and waters (MR).

Watershed Improvements

1. Inventory potential watershed rehabilitation sites that are identified during project Scoping. Treat backlog of watershed rehabilitation needs by the year 2010.

2. Areas in which fish habitat or water quality are being adversely impacted will be given high priority for treatment to mitigate or rehabilitate the effects of the impact or correct the impacting activity.

3. Watershed improvements will be designed, constructed, and maintained to conform with the resource objectives and goals of the management area.

5) Rehabilitate abandoned mineral exploration and development sites to meet water quality and management area goals and resource objectives.

Water Rights/Use Management

1. Secure water rights to support resource management and activities. Where diversions, point of use, and water transmission facilities are located on National Forest System lands, special use permits shall be conditioned to achieve resource objectives and management area goals.

2. Minimum instream flows needed to achieve mandated national forest management objectives shall be protected. Needed instream flows will be calculated on a case-by-case basis through critical analyses (via NEPA) of proposed water uses, diversions,

transmission facilities applications, and renewal of permits. Protection of instream flow needs may be achieved through filing protests with states where applications are made that adversely affect national forest resources, asserting claims for this water under Federal or state laws where applicable, making recommendations to FERC for provision of instream flows, coordinating with state water resource planning agencies to identify instream flows on national forest land as protected uses, or reaching formal agreements over use. Purchase of water rights, conservation pools, and impoundments are other means of achieving objectives.

3. For water withdrawal projects which could effect downstream flows, consideration shall be given in the NEPA process to minimum instream flow needs as identified by state water resource planning agencies and local tribal agencies. Coordinate these activities with the Fish and Wildlife Service as provided for in FSM 2610.1-4.

Wilderness

The full natural streamflows within Congressionally designated wilderness will be protected except for that amount of water claimed under valid water rights existing at the time of designation.

Coordination

Provide assistance to other agencies and states in snow surveys, water inventories, and flood forecasting.

SOIL

Goal

MANAGE NATIONAL FOREST LANDS TO MAINTAIN OR ENHANCE SOIL AND LAND PRODUCTIVITY (FSM 2520.2, 6/87).

Soil Productivity

1. Plan and conduct land management activities so that reductions of soil productivity potential caused by detrimental compaction, displacement, puddling, and severe burning are minimized.
2. Nutrient capital on forest and rangelands is to be maintained at acceptable levels (MR). Maintain a minimum of 80 percent of an activity area in a condition of acceptable productivity potential. Examples of an activity area are: A timber sale cutting unit, a grazing allotment pasture, a site preparation or slash disposal project or similar area. Acceptable productivity potential is defined as a less than 20 percent increase in soil bulk density in volcanic-ash derived soils, and a less than 15 percent increase in soil bulk density in other Forest soils; soil displacement of less than 50 percent of the topsoil or humus enriched A1 and/or AC horizons from an area of 100 sq. ft or more which is at least 5 feet in width; molding of soil in vehicle tracks and rutting to a 6-inch depth or more; or as severely burned soils that have the top layer of mineral soil significantly changed in color (usually to red), and the next one-half inch blackened from organic matter charring (FSM 2520.3, Supplement 50, 6/87)(MR)).
3. Plan and conduct land management activities (FSM 2520.3, Supplement 50,6/87 (MR)) so that soil loss from surface erosion and mass wasting, caused by said activities, will not result in an unacceptable reduction in soil productivity or in water quality (MR). Maintain minimum percent effective ground cover after cessation of any soil-disturbing activity as follows:

Erosion Hazard Class	Minimum % Effective Ground Cover	
	1st Year	2nd Year
Low (Very Slight)	20 – 30	30 – 40
Medium (Moderate)	30 – 45	40 – 60
High (Severe)	45 – 60	60 – 75
Very High (Very Severe)	60 –75	75 –90

4. Management activities shall be designed and implemented to retain sufficient ground vegetation and organic matter to maintain long-term soil and site productivity.
5. Active slump and landslide areas will generally be considered to be unavailable for road construction. Areas with known landslide potential and lake sediments will require special transportation planning, design, layout, preconstruction, construction, and maintenance techniques.

Floodplains/Wetlands

Meet direction and processes for management of floodplains and wetlands (MR). Address the presence of, and potential impacts to any floodplains/wetlands within the project area in project environmental assessments.

Best Management Practices

1 Along all perennial streams, adjacent floodplains, and riparian areas take actions to prevent soil movement, including slumps, earth slides, and other debris and material from moving downstream into higher class streams.

2 In floodplains, riparian areas, and aquatic habitats, ground-disturbing activities are limited to the degree necessary to minimize erosion and sedimentation.

Inventory

Inventory the Forest soil resources according to available standards to predict and assess responses to activities.

Soil Improvements

Plan and accomplish rehabilitation projects to meet soil and water objectives and standards.

Coordination

Assist other agencies and states in collection of soil resource data,

MINERALS AND ENERGY

Goal

PROVIDE FOR EXPLORATION, DEVELOPMENT, AND PRODUCTION OF A VARIETY OF MINERALS ON THE FOREST CONSISTENT WITH VARIOUS RESOURCE OBJECTIVES, ENVIRONMENTAL CONSTRAINTS, AND CONSIDERING COST EFFICIENCY.

Energy (Gas, Oil, Coal, and Geothermal)

1. Mineral leases, permits, and licenses will be managed according to FSM 2820 and 36 CFR 228.
2. All lease applications submitted by the Bureau of Land Management will be reviewed in a timely fashion and necessary stipulations to protect surface resources will be required. Recommendations for operating plans for energy minerals requiring mitigation measures to protect surface resources will be provided when requested by the USDI Bureau of Land Management (BLM).
3. Post-leasing activity will involve the review and joint approval by the Forest Service and BLM of detailed operating plans concerning activities in a site-specific area.

Non-Energy Minerals

1. Mineral exploration and mineral removal are permitted throughout the Forest except in withdrawn areas.
2. Under the mining laws, claimants are entitled to access to their mining claims. Access for exploration and development of locatable mineral resources will be analyzed in response to a proposed operating plan. A decision on approval of reasonable access will be made as a result of appropriate environmental analysis.
3. When claimants propose mining activities which involve disturbance of the surface resources, a notice of intent and/or a proposed plan of operation must be submitted. The proposal will be processed in a timely manner in accordance with 36 CFR 228.
4. During development of operating plans or plan modifications. Reasonable alternative mitigation measures and/or operating requirements will be developed to define the appropriate stipulations needed to protect other resources while still meeting the objectives of the mineral operator. The test for operating plan requirements is 'reasonableness.'
5. Reclamation standards will be developed using an interdisciplinary process to insure land restoration to a productive condition to the extent reasonable and practicable. When reasonable, opportunities to enhance other resources will be considered. Concurrent reclamation will be stressed. Reclamation bonds will be based on actual reclamation costs.
6. Claims on which application for patent have been made will be examined and conclusion of validity will be presented to the BLM for final action.

Withdrawals

Withdrawal of lands from appropriation or entry under the mining or mineral leasing laws will be in accordance with the Federal Land Policy and Management Act of 1976 (FLPMA) (US. Laws, Statutes, etc. 1976). Review of existing withdrawals will be made by 1991 to determine whether, and for how long, the continuation of the existing withdrawal would be consistent with the statutory objectives of the programs for which the lands were dedicated.

Common Materials Minerals

Use of currently developed common mineral (sand, gravel, and rock) material sources will be given priority over undeveloped sources. Exceptions will be made when existing sources are unable to economically supply the quality and quantity of material needed, or when conflicts with other resource uses are found to be unacceptable.

LAND ADJUSTMENTS

Goal

PROVIDE AN OPTIMUM PATTERN OF LANDOWNERSHIP WITHIN THE UMATILLA NATIONAL FOREST CONSIDERING RESOURCE GOALS AND EFFICIENCY OF MANAGING THE FOREST.

Land Classification Groups

1. Modifications will be made to the national forest landownership pattern to accomplish the objectives of this Forest Land and Resource Management Plan. Opportunities for improving the pattern will come through land exchanges, purchases, donations, and transfers with other agencies. Acreages within each group are summarized in the Forest Plan.

   The public and private lands in and surrounding the Forest have been classified and prioritized to indicate the optimum landownership pattern. A detailed map of land ownership adjustments is available for review at the Forest Supervisor's Office. All lands have been placed in one of the following groups:

Group I

a. Group I includes lands of which Congress has either directly or indirectly instructed the Forest Service to retain existing Federal ownership, and those remaining non-Federal lands the Forest Service has been directed to acquire for a designated purpose. Acquisition of less than fee title will be considered if direction and land management objectives can be met.

Group II

b. The basic criterion for Group II lands is special management to meet a particular public need or purpose. Such lands include special interest areas and areas allocated to recreation, range, fish and wildlife, visual, watershed (including riparian), soils, and timber values. Landownership direction is to retain national forest ownership and acquire private lands as the opportunity or need occurs. Acquisition of less than fee title will be considered if direction and land management objectives can be met.

Group III

c. Group III encompasses lands where management direction emphasizes commodity production. These lands will be available for land adjustment and usually will include most of the land considered in exchange projects. Areas of mixed private and Federal ownership are included with the objective of rearranging ownership patterns to benefit commodity production goals for both ownerships. Included are some isolated parcels that can be managed best by the Forest Service or other public agency. The assumption for lands in this group is that they will be managed to provide similar types of outputs whether in private or public ownership. Normally, solid national forest ownership will not be available for land exchange.

Group IV

d. Lands include small isolated tracts of national forest, costly to administer and without special resource features. The landownership direction is to generally make these lands available for exchange for private lands in Groups I, II, or III.

Group V

e. These are lands which need more intensive study and planning before landownership decisions can be made. Land acquisition and disposal decisions will be deferred until the needed studies have been completed.

Land Adjustment Priorities

1. Priorities for lands which should be considered for acquisition to meet essential national forest management needs are:

   Priority 1 - Group I lands
   Priorlty 2 - Group II lands
   Priority 3 - Group III lands

2. Priorities of national forest lands available for exchange are:

   Priority 1 - Group IV lands
   Priority 2 - Group III lands

LAND USES

Goal

PROVIDE FOR THE USE AND OCCUPANCY OF THE FOREST BY PRIVATE INDIVIDUALS OR FEDERAL, STATE, AND LOCAL GOVERNMENTS WHEN SUCH USE IS CONSISTENT WITH FOREST MANAGEMENT OBJECTIVES, IS IN THE PUBLIC INTEREST, AND CANNOT BE REASONABLY SERVED BY DEVELOPMENT ON PRIVATE LAND.

General

1. Special use evaluation, permit issuance, fees, and administration will be in accordance with FSM 2700 and 36 CFR 251.
2. In considering special use applications, the needs of the general public will be given priority over the applicant.
3. Land to be used will be suitable for the proposed use and kept as small as is consistent with the intended purpose. National forest land will not be made available for private development when suitable private land is available to support needs.
4. Provisions will be made to protect land and resources of the national forest. The Forest Service will approve location of all developments, designs, and plans for construction of facilities.
5. New permits will be selected through a competitive process if there is a competitive interest. If additional recreation services or facilities are determined to be needed and should be provided by the private sector, the Forest will explore the opportunity of doing this by expanding existing permits or by issuing permits for a new service or facility.

Right-of-way Grants and Acquisition

1. Grant needed easements to state and local governments for existing and relocated roads and highways. Follow 36 CFR 212.8, 9, 10 and 11 in granting access across lands and easements administered by the Forest Service.
2. Acquire road and trail right-of-way across non-national forest land to implement and support land and resource management activities. Coordinate with intermingled and adjacent landowners and state and local government in developing roads, road systems, or trails that serve the needs of all parties.

Landlines

Survey and mark boundaries to accomplish the following priorities: (1) Protect present corners or references when the possibility of disturbance exists, (2) resolve or prevent encroachments, (3) assist Forest users in identifying public lands, and (4) help assure full utilization of National Forest resources.

Communications Sites

1. Applicants for communications sites and facilities will be directed toward use of sites in the following order:
    a. Utilization of residual capacity of existing approved sites.
    b. Utilization of capable new sites determined through and following an environmental analysis. Site plans will normally be prepared prior to installing facilities.

Recreation Residences

1. Authorization for noncommercial recreation residences will continue in existing tracts through year 2003 (unless canceled for breach). Prior to December 31,1993, an analysis (following the NEPA process) of recreation residence continuance will be conducted for all tracts. Nonrenewal will only be considered if the clear weight of the evidence is on the side of the need for a higher public purpose or use.
2. No additional recreation residence tracts will be created.
3. Vacant lots within established tracts may be developed or used as 'in lieu' sites for nonrenewed permit holders as long they are managed or developed according to contemporary national policy.

Utility and Transportation Corridors

1. When applications for rights-of-way for utilities and highways are received, the Forest first priority will be to utilize residual capacity within, or contiguous to existing corridors. The corridors will be planned and located to minimize ground and air disturbance.
2. Additional corridors which may be needed for major utilities or highways will be designated through an interagency environmental analysis, following the procedures set forth in the Regional Guide.
3. New corridors will not be allowed in: Exclusion Areas: Wilderness (B1) and wild sectors of Wild and Scenic Rivers (A7)
4. New corridors may be allowed in avoidance areas only if management area standards and guidelines are met fully. Avoidance areas include: Scenic Areas (A8), Research Natural Areas (D2), scenic and recreation sectors of Wild and Scenic Rivers (A7), Unroaded Areas (A1, A2), Viewsheds (A3), Roaded Natural Areas (A5), Recreation sites (A6), Special Interest Areas (AS) with others to be named by subsequent environmental analyses.

Other Uses

1. Applications for licenses or grants associated with dams and reservoirs may be recommended for approval if they are consistent with management goals and objectives.
2. The Walla Walla Municipal Watershed agreement may be modified as a result of the management direction for the watershed. Other formal or informal agreements may be entered into if needed

TRANSPORTATION SYSTEM

Goal

PROVIDE AND MANAGE A SAFE AND ECONOMICAL ROAD AND TRAIL SYSTEM AND FACILITIES NEEDED TO ACCOMPLISH THE LAND AND RESOURCE MANAGEMENT AND PROTECTION OBJECTIVES ON THE UMATILLA NATIONAL FOREST.

Planning

1. The Forest Transportation System will be planned to serve long-term multiple resource needs using area plans that integrate resource, timber, and transportation requirements. The system will be the minimum necessary to provide access for the activities authorized under Management Area direction. Documentation of the planned system will be found in area or project transportation plans.
2. Annually update the Forest Road Management Plan and Forest Trail Management Plan to evaluate the mix of development, traffic management, and maintenance. As part of the Road Management Plan, prepare and maintain Road Management Objectives (RMOs) for all proposed and existing system roads. Maintain the Forest Transportation Information System (TIS) and the Trails Inventory.

Roads Construction

Roads will be designed, constructed, and reconstructed according to standards appropriate to planned uses and activities, safety, economics, and impacts on lands and resources using criteria in FSM 7700 and 7720.

Operations and Maintenance

1. Road access will be adequate to accomplish commercial, resource, and protection management activities. Operate and maintain all roads according to management area emphasis and direction, maintenance levels established in updated RMOs, and standards defined in FSM 7700, 7732, and FSH 7709.15.
2. During commercial activities, public access may be discouraged or prohibited.
3. Traffic management may be used to control access due to road structural limitations, safety considerations, road standards, or limitations imposed by resource management.
4. Coordinate with county, state, and other Federal agencies on road and traffic management.
5. Prepare and update Forest Sign Plan and accomplish signing according to direction established in the plan.

Cost Share

1. Where appropriate, the Forest will enter into new, and continue existing, cost share agreements.
2. The Forest Cost Share program will be managed according to principles established in FSM 5467 and the deeds.

Road Closures

1. Obliterate all roads not in the Forest Development System or authorized by permit, lease, or easement. Obliterated roads will be revegetated to provide stabilization and to return the area to its intended use. Short term (temporary) roads will be obliterated.
2. Road closures will be based on the following criteria (in accordance with FSM 7730):
    a. Need to protect the facility;

b. need to protect soil and water;

c. expected need or use;

d. safety of expected users:

e. need to protect critical cultural values,

f. need to maintain or improve habitat for wildlife,

g. need to provide planned recreation experience opportunities, and

h. cost of maintenance.

3. Close long-term intermittent roads to motorized use at the termination of sale or post sale activities as appropriate. Maintain these roads at Level I until needed for reentry (FSM 7705).

4. Commercial, public, and administrative traffic may be granted motorized access over designated closed roads by permit only. Permitted use must be based on an analyses of need, benefit, and cost and may be issued individually or under a blanket authorization as in a project EA or contract. In authorizing use, consideration will be given to the management area and road objectives, and the reason and timing of the closure as stated in the Road Management Objective (RMO). Limited single use permits will be rare; if a road is authorized for use, generally it will be open for all uses.

Trails

See Recreation.

FACILITIES

Goal

PROVIDE AND MANAGE ADMINISTRATIVE FACILITIES SUFFICIENT TO ACCOMPLISH LAND AND RESOURCE MANAGEMENT OBJECTIVES OF THE FOREST.

1. Buildings, utility systems, and related facilities will be planned, developed, operated, and maintained for safe use, support of the Forest resource programs, and cost effectiveness.

2. The construction of new buildings and/or related facilities or additions to existing facilities will comply with the approved site development plan.

3. Prepare Forest Facilities Master Plan and individual administrative site development plans for all forest administrative sites. Long-term development and maintenance costs will be considered in facilities planning.

4. Management and maintenance of facilities should be guided by the following priorities for expenditure of funds:

a. Emergencies.

b. public and employee safety and health,

c. handicapped access,

d. immediate management needs,

e. maintenance of present condition/prevention of deterioration,

f. energy conservation, and

g. comfort and appearance.

FIRE AND FUELS

Goal

PROVIDE AND EXECUTE A FIRE PROTECTION AND FIRE USE PROGRAM THAT IS COST EFFICIENT AND RESPONSIVE TO LAND AND RESOURCE MANAGEMENT GOALS AND OBJECTIVES.

Wildfire Response

1. Wildfires that threaten life, property, public safety, improvements, or investments will receive aggressive suppression action using an appropriate suppression strategy.
2. All wildfires will require a timely suppression response with appropriate forces and strategy of either one, or a combination of the alternatives of confinement, containment, or control. Inform public about philosophy of fire management policy.
3. For moderate to high intensity wildfire (flame length over 2 ft.) emphasis should be on the appropriate response (strategy) by management areas as follows:

Management Areas		Suppression Response Emphasis
A6	A3	Control
A9	A8	Control
D2	A7	Control
F1	C1	Control
F2	C2	Control
F3		Control
A1		Control & Contain
A2		Control & Contain
A10/E2/C4/E1 (Plantation first 40 years)		Control & Contain
C5		Control & Contain
C6		Control & Contain
C7		Control & Contain
A4		Control & Contain
A5		Control & Contain
F4		Control & Contain
F5		Control & Contain
C3 (timber)/C8/C3A		All Strategies
A10/E2/C4/E1 (All others)		All Strategies
C3 (grass)		All Strategies
D1		All Strategies
B1		All Strategies

4. In most cases when wildfires do not threaten to exceed the acceptable sizes and intensities of the management area, the lowest cost suppression option is appropriate.
5. Wildfires that escape initial action and threaten to exceed established limits will require that an “escaped fire situation analysis” be prepared. This analysis weighs the cost of suppression against the potential change in resources. Suppression actions should be appropriate for the values threatened.

6. If more than 5 percent of a subwatershed (outside wilderness) has sustained high intensity burns during the preceding 3 years, or visibly accelerated erosion is occurring within a subwatershed due to past burns, emphasize a control strategy on all wildfire in the remainder of the subwatershed to minimize further damage.

Presuppression

1. Utilize the National Fire Management Analysis System to determine the most cost-efficient fire protection organization. As conditions change and better information is developed, the fire organization will be reevaluated with this system.
2. Cost-effective plans for the prevention of human-caused fires will be aimed at specific risks to be determined by ongoing monitoring of current and recent fire reports.
3. The mix of aerial and ground detection activities will be reviewed periodically to maintain the most cost-efficient combination.
4. Provide equipment and training for USDA Forest Service employees outside of the fire management organization to assist in initial attack.

Fuels Management

1. Levels and methods of fuels treatment will be guided by the protection and resource objectives of the management area. Emphasis will be on intensive utilization of wood residues using a marketing strategy to reduce fuel loadings.
2. Prescribed fire will be utilized to meet management objectives and maintain fuel profiles in all ecosystems. Normally, prescribed burning will be a planned ignition. However, unplanned ignitions may be used as prescribed fires if (a) a prescribed fire plan has been prepared and approved, and (b) the fire is burning within prescription.
3. Burning plans will be prepared in advance of ignition and approved by the appropriate line officer for each prescribed fire. A prescribed fire exceeding both prescription and line holding capabilities will be declared a wildfire and appropriate suppression action taken.
4. Emphasize maintenance of air quality when planning prescribed fire use. Practical means of smoke management (reduction, avoidance, and scheduling) will be employed. All burning will be planned and conducted in accordance with state smoke management plans.

AIR QUALITY

Goal

MAINTAIN AIR QUALITY AT A LEVEL ADEQUATE FOR PROTECTION AND USE OF NATIONAL FOREST RESOURCES AND MEET OR EXCEED APPLICABLE FEDERAL AND STATE STANDARDS AND REGULATIONS.

1. The Forest will demonstrate reasonable progress in reducing total emissions from prescribed burning under the Prevention of Significant Deterioration (PSD) program.
2 All prescribed burning will be in accordance with state smoke management plans.
3 Available predictive methods and models and cost efficient technologies will be used to minimize impacts of prescribed burning on smoke sensitive and Class I areas.
4. Smoke management mitigating measures, listed in the Pacific Northwest Regional Guide FEIS (USDA Forest Service 19&4), and Managing Competing and Unwanted Vegetation

FEIS (USDA Forest Service 1988) will be used to reduce emissions from prescribed burning.

5. The Forest will cooperate with the states on possible redesignation of areas to Class I.

PEST MANAGEMENT

Goal

PROTECT FOREST AND RANGE RESOURCES FROM UNACCEPTABLE LOSSES DUE TO DESTRUCTIVE FOREST PESTS.

1. Integrated pest management (IPM), prevention, and suppression strategies will be utilized to manage pests within the constraints of laws and regulations and to meet Forest-wide management objectives. Methods may include management practices (cultural or silvicultural); biological, mechanical, manual, prescribed fire, or chemical treatments; or regulatory measures.
2. All pest management suppression project proposals will be analyzed through the NEPA process to select an appropriate suppression response.
3. Where practical, noxious weeds and invader plants will be controlled to prevent threats to adjacent agricultural lands or to prevent unacceptable loss of forest and range productivity.
4. Plans for control of competing and unwanted vegetation including noxious weeds will be in keeping with *Managing Competing and Unwanted Vegetation (FHS) USDA, Forest Service, 1988*. The five-step process, composed of site analysis, strategy selection, project design, action, and monitoring, will be used in managing competing and unwanted vegetation for site specific projects and will be documented in an environmental analysis.
5. Individual project plans will specify licensing approval and public notification requirements for pesticide use on a case-by-case basis.

THREATENED, ENDANGERED, AND SENSITIVE SPECIES

Goal

MAINTAIN OR IMPROVE HABITATS FOR ALLTHREATENED OR ENDANGERED PLANT AND ANIMAL SPECIES ON THE FOREST, AND MANAGE HABITATS FOR ALL SENSITIVE SPECIES TO PREVENT THEIR BECOMING THREATENED OR ENDANGERED.

1. Legal and biological requirements for the conservation of endangered, threatened and sensitive plants and animals will be met. All proposed projects that involve significant ground disturbance or have the potential to alter habitat of endangered, threatened or sensitive plant and animal species will be evaluated to determine if any of these species are present (FSM 2670 Threatened, Endangered and Sensitive Plants and Animals).
2. Where endangered or threatened species are present, the required biological assessment process will be carried out according to the requirements of the Endangered Species Act (Public Law 93-205); consultation requirements with USDl Fish and Wildlife Service and state agencies will be met. Before the project can be carried out, protection or mitigation requirements shall be specified (36 CFR 219.27(a)(8)). Habitat for existing federally classified threatened and endangered species will be managed and monitored to achieve objectives of recovery plans.
3. When sensitive species are present, a biological evaluation will be prepared. There must be no impacts to sensitive species without an analysis of the significance of adverse effects on its population, habitat, and on the viability of the species as a whole. For sensitive plant species, it may be helpful to consult with local knowledgeable and interested botanical authorities. Habitat for sensitive plants and animals will be managed to ensure that the species do not become threatened or endangered through Forest Service actions. Species management guides will be prepared over the next 5

years and will be used as strategies for ensuring that sensitive species do not become threatened or endangered or result in a loss of species viability.

4. For endangered, threatened and sensitive species, determine and monitor the status of populations and habitats and the strategies implemented for protection. Maintain and update lists of threatened, endangered, and sensitive plants and animals periodically as new information is collected. Submit pertinent forest information to the Regional Office for updating Regional Forester's Sensitive Species lists, and to the appropriate agencies for inclusion in state-wide data bases.
5. The Forest and ranger districts will keep records and inventories of essential and critical habitats and their distribution. Inventories will include careful monitoring of the species and their habitats.
6. Collection of T/E/S plant species will only be allowed under permit. The issuance of permits must be preceded by the same degree of assessment required for other projects.
7. Maintain contacts with Federal, state, and other agencies, groups, and individuals concerned with the management of T/E/S species (USDA Forest Service 1981). The Oregon Department of Fish and Wildlife and the Washington Department of Wildlife will be consulted for technical information in development of species management guides and in determinations of viable population levels of sensitive species. Other contacts regarding sensitive species information will be with the Nature Conservancy's Oregon Natural Heritage Data Base and the Washington Natural Heritage Program in order to maintain or periodically update the Forest T/E/S species list and assist in achieving state goals for conservation of endemic species.

Bald Eagle Habitat (Threatened Species)

1. Bald eagles and their habitat will be protected and managed in accordance with the latest available management guidelines and the Pacific States Bald Eagle Recovery Plan. The target recovery goal is two nesting pairs along the Grande Ronde River and one pair along the Walla Walla River. Occupied bald eagle habitat will be monitored to determine the effectiveness of planned action and recovery efforts.
2. Informal consultation will be initiated with the USDI Fish and Wildlife Service to discuss the question of 'effect' when a project involving site disturbance is within one mile of a bald eagle nest (FSM 2670 Bald Eagle Management and Consultation; Worthington 1980).
3. Within 2 years of Forest Plan implementation, a management plan should be prepared for known nest sites and potential bald eagle habitat on the National Forests. Consult the Bald Eagle Recovery Plan (Brown 1985), the Bald Eagle Management Guidelines for Oregon and Washington (USDI Fish and Wildlife Service 1981) and FSM 2670 for specific management guidelines.
4. Prior to development of the management plan, interim requirements for management of bald eagle habitat will include completion of a nest site management plan which includes the following standards

   a. Nesting Sites

   - Bald eagle nest sites will be protected, including existing and yet-to-be-discovered active and inactive nests sites. Manage each area under the territory zone concept (Brown 1985).
   - Primary zone. Not less than 330 ft. from the nest, with actual size and shape of zone adjusted to include all the area near the nest tree that is actually utilized.

Zone size can vary, reflecting local topography, potential for blowdown, and location of important habitat components. No timber harvesting is permitted in the primary zone unless designed to enhance stand characteristics for the benefit of nesting eagles. Human activities in the primary zone will be controlled year-round to insure that the site remains suitable as nesting habitat.

- Secondary zone. The secondary zone extends from 330 ft. out to a minimum of 660 ft. from the nest; the zone minimizes disturbance and protects the primary zone. Zones need not be circular, but will reflect local physiographic conditions and the tolerance of the nesting pair to disturbance factors (Brown 1985). The width of the zone could be considerably wider, depending on the degree to which vegetation or topography screens the nest from potential disturbance. The zone will contain important roosting sites, perching sites, and alternate nest sites. Timber may be harvested in the secondary zone, provided eagle habitat requirements take precedence. Human activity in the secondary zone will be controlled only during the period when the birds are present, normally between January 1 and August 31.

b. Feeding and Roosting Sites

- Regularly used feeding and roost sites shall be protected. Human activities will be controlled if they adversely affect the eagles use of a feeding area. Only Forest practices that maintain the suitability of the area for eagle roosting will be used The area encompassed will have at least a 330-foot radius, and possibly up to one-fourth mile. Wildfires in the area will be controlled.

c. Maintenance of Potential Nesting Habitat

- Forest land within 1 mile of foraging habitat is potential bald eagle nesting habitat. Habitat provided at potential nest sites must be in mature or old-growth forest and possess characteristics outlined in Brown (1985).

Gray Wolf (Endangered Species)

Investigate and evaluate all reports of gray wolf sightings on the Forest, in cooperation with the Washington Department of Wildlife, Oregon Department of Fish and Wildlife and the USDI Fish and Wildlife Service. If resident wolves are discovered, initiate appropriate actions in consultation with the USDI Fish and Wildlife Service, ODFW, and WDW to insure the protection of the animals. Implement recovery objectives should a plan be completed.

Peregrine Falcon Habitat (Endangered Species)

1. Peregrine falcons are not known to nest on the Forest. Habitat for nesting and feeding, however, does exist. Sufficient existing nesting and feeding habitat will be protected to meet the objectives of the Pacific Coast Recovery Plan for the American Peregrine Falcon (USDI Fish and Wildlife Service 1982). Any nest found will be protected; associated habitat (such as feeding areas) will also be protected, and enhanced if necessary.
2. Within 3 years after implementation of the Forest Plan, an inventory should be completed which catalogues habitat suitable for peregrine falcon. Within 1 year after finishing the inventory, the Forest should complete habitat management or nest site management plans for peregrine falcons.

COMMUNITY DEVELOPMENT AND HUMAN RESOURCES

Goal

PROMOTE HUMAN RESOURCES, CIVIL RIGHTS, AND COMMUNITY DEVELOPMENT WITHIN THE ZONE OF INFLUENCE OF THE UMATILLA NATIONAL FOREST.

1. The Forest will maintain and implement an affirmative action plan in its hiring, supervisory, and contracting procedures.
2. The Forest will actively pursue the employment of the handicapped and ensure that the needs of the handicapped are considered in the design of Forest facilities.
3. The Forest will conduct compliance reviews as required by Title VI of the Civil Rights Act of 1964, within standards established by the Forest Service.
4. The Forest will be managed to minimize physical, social, and administrative barriers to its use.
5. Special efforts will be made to inform the general public, including minorities and the underprivileged, about Forest programs.
6. The ceded land rights and privileges of the Walla Walla, Cayuse, Umatilla, Nez Perce, and Warm Springs Indian Tribes, under the treaties of 1855 (U.S. Laws, Statutes, etc. 1855a, 1855b, 1855c), will be appropriately provided for in Forest activities.
7. The Forest managers will ensure Native Americans access, use, and possession of sacred objects, and their freedom to worship through ceremonial and traditional rights as specified in the American Indian Religious Freedom Act (P.L 95341) (U.S. Laws, Statutes, etc. 1978b). Management of these areas will be coordinated with the leaders of the Nez Perce Tribe, Confederated Tribes of the Umatilla Indian Reservation, and the Confederated Tribes of the Warm Springs Indian Reservation of Oregon as appropriate.
8. Resource planning and development activities will be coordinated with plans and programs of each of the tribes.
9. The Forest will participate in human resource programs that support community and economic development.
10. The Forest will coordinate with local, state, and Federal planning and development agencies. The Forest will support local economic development strategies that enhance community and economic development. Emphasis will be on defining complementary roles and implementing programs that best serve the public.
11. The Forest will promote or assist in promoting developmental, tourism, and recreational activities that help build strong, diversified rural economies and improve the quality of life in rural communities.
12. Increase public awareness of, involvement in, and support for Forest resource management objectives and programs.
13. The Forest will provide courteous and responsive public service in all management activities.

GENERAL PROCEDURES

Goal

MEET IDENTIFIED LAND, RESOURCE, AND SUPPORT ACTIVITY GOALS.

1. Activities affecting Forest system lands and resources will be analyzed, and results documented through the Environmental Analysis (NEPA) and associated planning procedures.
2. Identify, design, and achieve a high level of multiple-use coordination in all resource management activities
3. Economic efficiency will be a consideration in Forest and project level planning and development.
4. The appropriate setting for each Management Area is determined by the area goals, desired conditions, and suitability of the area to achieving these conditions. When an allowable project would result in conditions that do not meet the setting criteria, address the need for changing the designated setting as part of the environmental assessment process. Evaluation includes factors such as activity extent, duration of impact, season of operation, sight or sound impacts, and feasibility of rehabilitation.
5. The concept of time limited management areas or 'sunset' strategy may be used. Specific areas of application and potential changes are identified in the individual management Areas C4 and C8 (in the Forest Plan). Timber harvest and management may be used in designated areas: projects will be tested and evaluated in meeting objectives and public concerns; and area(s) converted to predetermined allocations depending on (acceptability of) results. The NEPA process and public involvement will be used to design, implement, monitor and evaluate the projects. Adjustments in management area allocations apply to areas being tested or designated in individual management area direction.
6. Management of Forest system lands, resources, and activities will be coordinated with appropriate local, state, and Federal agencies, private landowners, Native American tribes, and interest and user groups.

MANAGEMENT AREAS

Introduction

Management areas provide the multiple-use direction for managing specific areas of land. Each management area is described in terms of (1) a goal statement which reflects the expected results for a Forest resource, activity, or land area; (2) a description and location where the management area direction will be applied; (3) a desired future condition statement; and (4) the direction emphasis for the Umatilla National Forest which supplements Forest Service manuals, handbooks, and the Regional Guide for the Pacific Northwest Region. Management areas respond to Forest issues, concerns and opportunities, appropriate laws, regulations, existing direction, land capabilities, and professional judgment.

Management areas together with the map of the Forest Plan identify activities and where each will take place during implementation of the Forest Plan. Table 4-23 displays the acres managed under each management area.

TABLE 4-23. MANAGEMENT AREAS

Umatilla National Forest

		M Acres
A I	NONMOTORIZED DISPERSED RECREATION	27.3
A2	OHV RECREATION	7.5
A3	VIEWSHED 1	43.7
A4	ViEWSHED 2	28.7
A5	ROADED NATURAL	4.7
A6	DEVELOPED RECREATION	4.4
A7	WILD AND SCENIC RIVERS	7.6
A8	SCENIC AREA	31.4
A9	SPECIAL INTEREST AREA	3.2
AI 0	WENAHA-TUCANNON SPECIAL MANAGEMENT AREAS	3.3
B1	WILDERNESS	304.4
C1	DEDICATED OLD GROWTH	41.2
C2	MANAGED OLD GROWTH	3.6
C3	BIG GAME WINTER RANGE	152.8
C3A	SENSITIVE BIG GAME WINTER RANGE	8.2
C4	WILDLIFE H4BITAT	258.9
C5	RIPARIAN AND WILDLIFE	27.2
C7	SPECIAL FISH MANAGEMENT AREA	105.3
C8	GRASS-TREE MOSAIC (GTM)	98.5
D2	RESEARCH NATURAL AREA	1.6
E I	TIMBER AND FORAGE	91.4
E2	TIMBER AND BIG GAME	199.5
F2	MILL CREEK MUNICIPAL WATERSHED - UNDEVELOPED	20.8
F3	HIGH RIDGE EVALUATION AREA	0.9
F4	WALLA WALLA RIVER WATERSHED	35.0

A1 NONMOTORIZED DISPERSED RECREATION

GOAL

PROVIDE NONMOTORIZED RECREATION OPPORTUNITIES IN AN AREA CHARACTERIZED BY A PREDOMINANTLY NATURAL OR NATURAL APPEARING ENVIRONMENT WITH MINIMUM SIGHTS AND SOUNDS OF HUMAN ACTIVITY.

DESCRIPTION

Applies to all or parts of roadless areas and/or other selected Forest areas [2,500 acres and larger] with essentially natural or natural appearing environments and meeting Semi-primitive Recreational Opportunity Spectrum (ROS) settings.

The following areas, or part of areas, are included in the management area:

- Hell's Half-acre (Cutsforth Park) Area (Heppner);
- Upper Tucannon Roadless Area west of Bear Creek (Pomeroy): and
- Wenatchee Creek Roadless Area and area south of Forest Road 4304 (Pomeroy).

DESIRED FUTURE CONDITION

Moderate to large natural or natural appearing areas remain undeveloped (unroaded and unlogged). Recreationists shall be able to enjoy the outdoor opportunities for closeness to nature, self-reliance, and tranquility. Opportunities to enjoy hiking, camping, hunting, and other recreational activities in relatively undisturbed, natural settings, will be made available. Interactions between users will be low, but there will be evidence of other users. Little or no evidence of motorized use, restrictions, and controls will exist. Existing wheel tracks and primitive roads will revert to natural conditions or be used as trails.

MANAGEMENT AREAS STANDARDS AND GUIDELINES

RECREATION

Manage recreation to a semi-primitive setting (ROS Users Guide, USDA Forest Service n.d.) within the area: Roaded Natural settings may occur along the boundaries. Areas will be managed to maintain opportunities for visitors to get away from others and achieve a feeling of remoteness from sights and sounds of humans.

Access will be mostly for remote walk-in or horseback activities in an area generally free of roads. Off-highway vehicle (OHV) use will not be permitted.

EXCEPTION: In the Cutsforth Park area on the Heppner District, provision will be made to allow a snowmobile access route to Kelly Prairie.

Trail and associated facility construction, reconstruction, and maintenance will be permitted. Trail system will be designed and maintained to disperse use and have varying but challenging difficulty levels to achieve the objectives of the area. Motorized equipment may be permitted in trail development and maintenance.

Recreation site modification and facility development should be level 2 or less (see Glossary). Facilities will be limited to meet safety and sanitary needs.

If needed, utilize limits of acceptable change criteria to implement limits on group size, number of animals, and other measures in order to meet social encounter criteria for semi-primitive recreation opportunities. Utilize a minimum of onsite controls and restrictions to protect resources and promote safe use of the area.

VISUAL

Retention is the visual equally objective provided within the area and along area boundaries.

CULTURAL

Meet Forest-wide Standards and Guidelines.

WILDLIFE AND FISH

Habitat improvement projects are acceptable for wildlife and fish, provided they meet the Retention visual quality objective (VQO) and the goal for the Semi-primitive setting.

Provide habitat to support cavity excavators at 80 percent of potential population.

Identified old growth units within the management area will be retained as part of the dedicated old growth system.

RIPARIAN

Meet Forest-wide Standards and Guidelines.

RANGE

Moderate level of grazing is permitted. Improvement maintenance and development are permitted. Improvement development must not detract from the Semi-primitive setting. The full range of range management strategies (B to D) could apply.

TIMBER

Timber harvest will not be scheduled. Salvage may be allowed where the goal of providing a Semi-primitive Nonmotorized setting can be met.

WATER AND SOIL

Meet Forest-wide Standards and Guidelines.

MINERALS AND ENERGY

Meet Forest-wide Standards and Guidelines.

LANDS

Land Classification II (acquisition) will generally be used to meet public needs. Lands may be exchanged in cases of demonstrated positive net public benefit.

Meet Forest-wide Standards and Guidelines for lands and land uses.

TRANSPORTATION

No roads will be developed. Existing wheel tracks will be closed to motor vehicle use and converted to trails.

FIRE

The appropriate wildfire suppression response should emphasize control and/or contain strategies for moderate to high intensity fires. Under appropriate fire prediction conditions, low intensity wildfires (0-2 foot flame length) may be permitted to play a natural role within the setting when resulting in a 1 to 2-year vegetative recovery.

Low impact wildfire suppression methods should be used; rehabilitation may be used to mitigate wildfire impacts in conflict with semi-primitive and visual quality objectives.

FUELS

Prescribed low intensity fire with a 1 to 2-year recovery period is acceptable. A less than I year recovery is most desirable If conditions are suitable.

PESTS

Use integrated pest management (IPM) principles and strategies in meeting management area objectives. Suppress pests when outbreaks threaten recreation objectives or resources in adjacent areas. Favor biological methods when available.

Prescribed fire may be used to help reduce stocking and conditions favorable for bark beetle and dwarf mistletoes. Control of defoliators may also be accomplished by spraying following approval of an environmental analysis. Use of salvage harvest is limited to catastrophic events.

A2 OHV RECREATION

PROVIDE MOTORIZED RECREATION IN A PREDOMINATELY NATURAL OR NATURAL APPEARING ENVIRONMENT WITH A MODERATE DEGREE OF ISOLATION FROM SIGHTS AND SOUNDS OF HUMAN ACTIVITY.

DESCRIPTION

Applies to all or parts of roadless areas and/or other selected Forest areas [2,500 acres and larger] with an essentially natural appearing environment and meeting Semi-primitive (ROS) settings.

The following areas, or parts of areas, are included in the management area:

- Spangler Roadless Area (Pomeroy): and
- Lookingglass Roadless Area (Walla Walla).

DESIRED FUTURE CONDITION

Moderate to large natural appearing areas will remain generally undeveloped (no logging but some constructed four-wheel drive ways). Recreationists will be able to enjoy a variety of challenging off-highway vehicle (OHV) opportunities on trails or drive ways, without standard developed roads and concentrations of people. Opportunities to enjoy hiking, camping, hunting, and other recreational activities in a natural setting will be available. Existing wheel tracks and primitive roads will become OHV trails.

MANAGEMENT AREAS STANDARDS AND GUIDELINES

RECREATION

Manage recreation to a Semi-primitive Motorized setting (ROS Users Guide, USDA Forest Service n.d) within the area; Roaded Natural settings may occur along the boundaries.

Manage the area to keep contacts between users low to moderate. If needed, implement appropriate measures to meet social encounter criteria for Semi-primitive Motorized opportunities, based on limits of acceptable change criteria. Utilize minimum onsite controls and restrictions to protect resources and promote safe use of the area.

Access will be mostly for remote motorcycle or ATV and some walk-in activities. Motorized use will be limited to designated trails and closed roads (not cross-county); snowmobile use will be acceptable on an area basis.

Trail and associated facility construction, reconstruction, and maintenance will be permitted, including trails for OHV use. Trail systems will be designed and maintained to disperse use, provide varying but challenging motorized difficulty levels, and protect soil and water resources. Trail maintenance activities will be determined by amount and type of use, trail type, difficulty level, and appropriate trail guide.

VISUAL

Retention is the Visual Quality Objective (VQO) within the area and along area boundaries.

CULTURAL

Meet Forest-wide Standards and Guidelines

WILDLIFE

Wildlife habitat improvement projects are acceptable provided the projects meet the Retention visual quality objective and the goal for the Semi-primitive Motorized setting.

Provide habitat to support cavity excavators at 80 percent of potential population level.

Identified old growth units within the management area will be retained as part of the dedicated old growth system.

FISH

Fish habitat improvement projects are acceptable and will meet the Retention visual quality objective.

RIPARIAN

Meet Forest-wide Standards and Guidelines.

RANGE

A moderate level of grazing is permitted. Improvement maintenance and development are permitted. Improvement development is not to detract from the Semi-primitive setting. The full range of management strategies (B to D) could apply.

TIMBER

Timber harvest will not be scheduled. Tree removal or cutting may be allowed where the goal of providing a Semi-primitive Motorized setting can be met

WATER AND SOIL

Meet Forest-wide Standards and Guidelines.

MINERALS AND ENERGY

Meet Forest-wide Standards and Guidelines.

LANDS

Land Classification II (acquisition) will generally be used to meet public needs. Lands may be exchanged in cases of demonstrated positive net public benefit.

Meet Forest-wide Standards and Guidelines for lands and land uses.

TRANSPORTATION

Four-wheel drive ways are acceptable; these routes will be designed and managed to 'discourage' highway vehicle use.

FIRE

The appropriate wildfire suppression response should emphasize control and/or contain strategies for moderate to high intensity fires. Under appropriate fire prediction conditions, low intensity wildfires (0-2 foot flame length) may be permitted to play a natural role within the setting when resulting in a 1 to 2-year vegetative recovery.

Low impact wildfire suppression methods should be used; rehabilitation may be used to mitigate wildfire impacts in conflict with semi-primitive and visual quality objectives.

FUELS

Prescribed low intensity fire with a 1 to 2-year recovery is acceptable. A less than 1 year recovery is most desirable if conditions are suitable.

PESTS

Use integrated pest management (IPM) principles and strategies in meeting management area objectives. Suppress pests when outbreaks threaten dispersed recreation objectives or resources in adjacent areas. Favor biological methods when available.

Prescribed fire may be used to help reduce stocking and conditions favorable for bark beetle and dwaif mistletoes. Control of defoliators may also be accomplished by spraying following approval of an environmental analysis. Use of salvage harvest is limited to catastrophic events.

A3 VIEWSHED 1

GOAL

MANAGE THE AREA SEEN FROM A PRIMARY TRAVEL ROUTE, USE AREA, OR WATER BODY, WHERE FOREST VISITORS HAVE A MAJOR CONCERN FOR THE SCENIC QUALITIES (SENSITIVITY LEVEL 1) AS A NATURAL APPEARING LANDSCAPE.

DESCRIPTION

The strategy applies to all or parts of the defined Sensitivity Level 1 travel routes, use areas, or water bodies. Sensitivity levels are defined in the Umatilla National Forest landscape management text, and viewshed boundaries are defined on the Forest Visual Quality Objective (VQO) maps.

The following defined viewsheds, or parts of viewsheds, are included in the management area:

1. Tucannon River Road 4712 and Tucannon river from Junction 4713 to Columbia/Garfield County line) (Pomeroy);
2. Touchet River Road 64 (Forest Boundary to Forest Road 6437) (Walla Walla);
3. Tiger Creek Road 65 (Forest Boundary to Forest Road 6411) (Walla Walla);
4. Forest Road 6403 (Forest Road 64 to Forest Road 6411) (Walla Walla);
5. Skyline Road 64 (Tollgate to Jubilee Lake) (Walla Walla);
6. State Highway 204 (Forest Boundary to Forest Boundary*) (Walla Walla);
7. Bull Prairie Lake Road 2039 (State Hwy. 207 to Forest Boundary*) (Heppner);
8. State Highway 244 (Forest Boundary to Forest Boundary) (North Fork John Day [NFJD]);
9. Ukiah-Granite Road 52 (Bridge Creek to Forest Road 73*) (NFJD);
10. Forest Road 73 (Forest Road 52 to Forest Boundary*) (NFJD);
11. North Fork John Day River Road 55 (Forest Boundary to Big Creek*) (NFJD);
12. State Highway 395 (Dale to Meadow Brook Summit [Forest Boundary]*) (NFJD); and
13. Forest Road 10 (Olive Lake east to Forest Boundary*) (NFJD).

*with enclave(s)

DESIRED FUTURE CONDITION

Viewsheds will be managed primarily to meet the visual quality objectives of retention and partial retention. An attractive, natural appearing landscape will be created or maintained. A maximum of three distance zones for each viewshed, including foreground, middle ground, and background radiating from the viewer position (and a visual quality objective for each zone), have been delineated according to the process defined in the Agriculture Handbook 462, *National Forest Landscape Management*; Vol. 2, Chap. 1, The Visual Management System (USDA Forest Service 1974).

Management activities will be done with the highest sensitivity to people's concern for scenic quality. Vegetative manipulation will be conducted so that Forest management activities are not usually noticeable in the foreground and remain visually subordinate in the middle ground viewing area. All viewsheds will have vegetative management plans. Timber harvest areas will be sized and shaped to be compatible with the natural surroundings, but harvest may be noticeable in the background. Forest stands will occasionally be logged in order to maintain

long-term health and vigor, and to encourage a park-like, natural appearance with big trees in the immediate foreground. Recreational opportunities will be mostly road oriented

MANAGEMENT AREAS STANDARDS AND GUIDELINES

RECREATION

Manage dispersed recreation in the area to a Roaded Natural physical and social setting (ROS Users Guide, USDA Forest Service, n.d.).

Recreation facility development and maintenance and site modification level 1 or 2 are permitted (see Glossary). Recreation facility design, construction, and maintenance, including trails and trailheads, are to meet the visual quality objective assigned to the area and blend with the natural landscape.

Provide the opportunity for mostly road oriented activities.

Off-highway vehicle (OHV) use is allowed. OHV use may be limited to designated roads, trails, and areas.

VISUAL

Visual Quality Objective (VQO) will generally be Retention in the foreground and Partial Retention in the middle ground. Exceptions are defined through the process described in Agriculture Handbook 462. Activities within these viewsheds may only repeat form, line, color, and texture which are frequently found in the characteristic landscape. Changes of landscape should be of such size, amount, intensity, direction, and pattern that they continue to provide a natural appearance, except for short-term changes to meet long-term objectives.

Principles of visual management will be applied so that positive attributes of a managed forest can be enjoyed while negative visual aspects of activities will be minimized.

Landscapes containing negative visual elements will be rehabilitated. Landscapes will be enhanced by opening views to distant peaks, unique rock forms, unusual vegetation, or other features of interest

Viewshed corridor plans will be developed for all Sensitivity Level 1 viewsheds and will guide project activities when completed.

CULTURAL

Meet Forest-wide Standards and Guidelines.

WILDLIFE

Dead and down tree habitat will be managed to provide or maintain 60 percent of the potential population level for all primary cavity excavators.

Wildlife habitat improvement and maintenance projects are permitted provided they meet the visual quality objective of the distance zone in which they occur.

RIPARIAN

For all Class I, II, and III streams and associated riparian areas within the management area, anadromous fish habitat will be managed to produce at least 90 percent of potential smolt habitat capability index (SCHI) by meeting standards (for fish) shown in Management Area C5.

FISH

Fish habitat improvement and maintenance are permitted as long as projects meet the appropriate VQO in the distance zone in which they occur.

RANGE

A moderate level of livestock grazing is permitted. Openings created by management of timber stands should be available for management as transitory range. Development and maintenance of range improvements are permitted. Range utilization standards, management practices, and improvements are to be designed and managed to meet visual quality objectives.

TIMBER

Timber will be managed on a scheduled basis. All timber management practices and intensities shall be permitted consistent with achieving the primary visual quality goals.

EXCEPTION: Timber harvest will not be scheduled (or permitted) in the following viewshed corridor: The Tucannon River Road 4712 and river from Junction 4713 to Columbia/Garfield County line.

Uneven-aged management is the preferred and most commonly used silvicultural system; even-aged management techniques may also be used to meet objectives.

Scheduling of treatments and timber harvest, logging systems, debris disposal, reforestation, and stand improvement practices will be designed and implemented to accomplish visual management objectives.

1. Timber stands which have remained unmanaged in the past because of their visual sensitivity will begin receiving treatment, when desirable, to meet viewshed objectives.
2. Manage the viewshed for an overall mix of size classes of trees. The mix of age classes to be achieved as the overall long-term objective of the viewshed are:

	Foreground Age Classes	
Percent	Retention	Partial Retention
20	0-50	0-36
20	51-100	37-72
20	101-150	73-108
20	151-200	109-145
20	201-250	146-181

3. Emphasis will be on viewing large diameter trees and multi-age stands; both vertical and horizontal diversity are also to be emphasized. The large tree component should be as dispersed as necessary to give the overall character of large trees to the area. The standards in Tables 4-24 and 4-25 will be used in achieving desired visual characteristics.
4. A created opening is defined as an opening developed through management activities where tree heights are less than 20 feet. Created openings will be shaped and blended with the natural terrain.
5. Exceptions to created opening size and maximum percentage in openings at one time are permitted under catastrophic circumstances such as blow down, insect and disease attacks, wildfire, and others. Landscapes will be rehabilitated under these conditions.
6. Thinnings and plantings in the foreground will leave irregularly spaced trees. Mixed conifer stand regeneration in foregrounds and middle grounds will be planned for at least two species with no more than 65 percent in a single species.

TIMBER (Cont.)

Even-aged Management
Visual Resource Standards

TABLE 4-24. EVEN-AGED MANAGEMENT VISUAL RESOURCE STANDARDS

Standards		Ponderosa Pine Working Group North & South Associated		Lodgepole Pine Working Group
Factor		Retention	Part. Retent.	Retention/Part. Ret.
Maximum % Harvest per Decade	Foreground Middleground	4 9	5 10	5 10
Maximum % of Area in Created Openings at One Time [1]	Foreground Middleground	8 15	10 20	10 20
Target Tree Diameter (inches DBH)		30	24	12
Number of Target Trees at Final Removal (Per Ac.)		3-5	3-5	10
Maximum Unit Size (Ac.)	Foreground >500 ft. Middleground	3 5	5 10	5 10

1 Applies to regeneration harvests. Not applicable to intermediate or overstory removal harvests except where an opening is created.

Uneven-aged Management
Visual Resource Standards

TABLE 4-25. UNEVEN-AGED MANAGEMENT VISUAL RESOURCE STANDARDS

Umatilla National Forest

Standards		Ponderosa Pine Working Group North & South Associated		Lodgepole Pine Working Group
Factor		Retention	Part. Retent.	Retention/Part. Ret.
Maximum % of Area in Created Openings at One Time [1]	Foreground Middleground	8 15	10 20	10 20
Target Stand Diameter (inches DBH)		24	20	12
Maximum Unit Size (Ac.)	Immediate Foreground Foreground >500 ft. Middleground	1 2 2	1.5 2 2	2 2 2

1 Applies to group selection harvests. Not applicable to single tree selection or intermediate harvests except where an opening is created

WATER AND SOIL

Meet Forest-wide Standards and Guidelines.

MINERALS AND ENERGY

Meet the visual quality objectives within the intent of the Forest-wide Standards and Guidelines for minerals and energy.

Utilize existing access routes to developments where possible.

Provide for reclamation on completion of all projects within the viewshed corridors.

LANDS

Special use sites will be permitted provided they can be designed and located to blend with the characteristic landscape.

Existing special use sites will be reviewed for meeting visual management requirements at established permit renewal dates. If a special use site fails to meet standards, it will be brought into compliance.

Land Classification II (acquisition) will generally be used to meet special public needs.

Lands may be exchanged in cases of demonstrated positive net public benefit.

Meet other Forest-wide Standards and Guidelines for lands and land uses.

TRANSPORTATION

New roads and trails will be permitted and will be located, designed, and constructed to be mostly unnoticeable from the main travel route. Cut and fill slopes will be revegetated with species less palatable to livestock to minimize adverse visual effects.

Road maintenance activities will be permitted and conducted to minimize adverse visual impact by the retention of the maximum amount of existing vegetation, by encouraging the most rapid revegetation of disturbed areas outside of the surfaced roadway, and by reducing earthwork to a minimum.

Road closures in the foreground, such as gates and berms, should be designed and constructed to blend with the natural characteristics of the landscape while remaining consistent with safety requirements.

Gravel pits, borrow areas, etc., will meet the assigned visual quality objective.

Signs needed for traffic regulation and information should be few in number, be designed and located to meet aesthetic objectives, and be in accord with safety requirements.

FIRE

For moderate to high intensity wildfires, the appropriate suppression response will emphasize a control strategy.

Wildfire suppression efforts should utilize low impact methods. Use of heavy equipment may require restoration efforts to mitigate visual impacts.

FUELS

Prescribed low intensity fire with minimal scorch is acceptable. A 1 year or less recovery period is most desirable in the viewshed, if conditions are suitable.

Acceptable visual quality, including fuel loadings in the foreground, are depicted by the following photos from the Photo Series for Quantifying Forest Residues (Technical Reports PNW-52, PNW-51, PNW-105) (USDA Forest Service 1976a, 19760 1980):

	Ponderosa Pine	Lodgepole Pine	Associated Species
Natural Fuels	1 -PP4	1-LP3	3-PP and Assoc.3 1-PP and Assoc.4
Thinning Fuels	(No acceptable photos)		1-DF-1-TH
Clearcut	2-LP3-PC	2-LP3-PC	2-DF4-CC
Selection Harvest	I-PP4-PC	2-LP-3-PC	7-PP and Assoc.4-PC

Fuel treatments in foreground areas should be planned, timed, and implemented to avoid being highly visible and to minimize adverse visual effects. In the immediate foreground (within 200-300 feet of observers) handpiling, hauling material away, utilizing it for fuelwood, etc., are activities preferable to machine piling and crushing and should be completed prior to the next high human-use period.

In foreground areas, slash and damaged unmerchantable trees will be treated to a higher standard than in the middle ground and background. Fuel loadings meeting reforestation and wildlife standards in middle ground and background areas will normally be compatible with the visual objectives.

PESTS

Use integrated pest management (IPM) principles and strategies to manage insect and disease pests in meeting viewshed objectives. All treatment strategies may be utilized. Emphasize strategies that improve visual quality, aesthetics, and safety. Treatment of bark beetles and root rots is emphasized.

Suppress pests when outbreaks threaten users and/or managed resources. Use suppression methods that minimize site disturbance.

A4 VIEWSHED 2

GOAL

MANAGE THE AREA SEEN FROM A TRAVEL ROUTE, USE AREA, OR WATER BODY WHERE SOME FOREST VISITORS HAVE A MAJOR CONCERN FOR THE SCENIC QUALITIES (SENSITIVITY LEVEL 2) AS A NATURAL APPEARING TO SLIGHTLY ALTERED LANDSCAPE.

DESCRIPTION

The strategy applies to all or parts of the defined Sensitivity Level 2 travel routes, use areas, or water bodies. Sensitivity levels are defined in the Umatilla National Forest landscape management text, and viewshed boundaries are defined on the Forest Visual Quality Objective (VQO) maps.

The following defined viewsheds, or parts of viewsheds, are included in the management area:

1. Pomeroy-Grouse Road 40 (Forest Boundary to Forest Boundary*) (Pomeroy);
2. Forest Road 4608 (Godman Guard Station to Teepee Springs) (Pomeroy);
3. Forest Road 46 (Godman Guard Station to Skyline Road 64) (Pomeroy/Walla Walla);
4. Skyline Road 64 (Forest Road 46 to Forest Road 6415') (Walla Walla);
5. Forest Road 4600300 (Forest Road 64 to Twin Buttes) (Walla Walla);
6. Tiger Creek Road 65 (A4 terminus to with Forest Road 64) (Walla Walla);
7. Forest Road 6415 (Forest Road 64 to Forest Road 6413) (Walla Walla);
8. County Highway 900 (Umatilla Indian Reservation to Forest Boundary) (Walla Walla);
9. Thomas Creek Road 32 (Forest Boundary to Summit Road 31) (Walla Walla):
10. Summit Road 31 (State Highway 204 south to Forest Boundary 13 segments) (Walla Walla);
12. State Highway 207 (Forest Boundary to Forest Boundary) (Heppner);
13. Forest Road 21 (Forest Road 53 to Forest Road 2103*) (Heppner);
14. Forest Road 2103 (Forest Road 21 to Penland Lake*) (Heppner);
15. Forest Road 53 (Forest Road 21 east to Forest Boundary*) (Heppner);
16. Pearson Creek Road 54 (Forest Boundary to State Highway 244); and
17. Desolation Creek Road 10 (Dale to Olive Lake [4 segments]) (North Fork John Day).

* with enclaves

DESIRED FUTURE CONDITION

Viewsheds will be managed primarily to meet the visual quality objectives of partial retention and modification. An attractive, near natural landscape will be maintained or created. A maximum of three distance zones for each viewshed including foreground, middleground, and background radiating from the viewer position (and a visual quality objective for each zone) have been delineated according to the process defined in the Agriculture Handbook 462, 'National Forest Landscape Management;' Vol. 2, Chap. 1, The Visual Management System (USDA Forest Service 1974).

Management activities will be done with sensitivity to people's concern for scenic quality (Level 2), with vegetative manipulation conducted so that Forest management activities remain visually subordinate in foregrounds of selected travel routes and sites. All viewsheds will have approved

vegetative management plans. Management activities will be obvious in the middleground and background viewing area, but designed to compliment their surroundings. Forest stands will occasionally be logged in order to maintain long-term health and vigor, and to encourage a park-like, near natural appearance with big trees in the immediate foreground. Recreation opportunities will be mostly road oriented

MANAGEMENT AREAS STANDARDS AND GUIDELINES

RECREATION

Manage dispersed recreation in the area for a range of physical and social settings from Roaded Natural to Roaded Modified (ROS Users Guide, USDA Forest Service, n.d.).

Recreation facility development and maintenance and site modification level 1 and 2 are permitted (see Glossary). Facilities (including trails and trailheads) designed, constructed, developed, and maintained in the area, are to blend with the natural landscape character and meet visual quality objectives.

Provide the opportunity for mostly road oriented activities.

Off-highway vehicle (OHV) use is allowed. OHV use may be limited to designated roads, trails, and areas.

VISUAL

Visual Quality Objective (VQO) will generally be Partial Retention in the foreground and Modification in the middleground. (Exceptions are defined through the process described in Agriculture Handbook 462.) Activities within these viewsheds may repeat or borrow from form, line, color, and texture which are frequently found in the characteristic landscape. Changes of landscape should be of such size, amount, intensity, direction, and pattern that they continue to provide a natural appearing or slightly altered appearance, except for short-term changes to meet long-term objectives.

Principles of visual management will be applied so that positive attributes of a managed forest can be enjoyed while negative visual aspects of activities will be minimized.

Landscapes containing negative visual elements will be rehabilitated. Landscapes will be enhanced by opening views to distant peaks, unique rock forms, unusual vegetation, or other features of interest.

Viewshed corridor plans will be prepared for all sensitivity level 2 viewsheds and will guide project activities when completed.

CULTURAL

Meet Forest-wide Standards and Guidelines.

WILDLIFE

Dead and down tree habitat will be managed to provide or maintain 60 percent of the potential population level for primary cavity excavators.

Wildlife habitat improvement and maintenance projects are permitted provided they meet the visual quality objective of the distance zone in which they occur.

FISH

Fish habitat improvement and maintenance projects are permitted provided they meet the appropriate VQO in the distance zone in which they occur.

RIPARIAN

For all Class I, II, and III streams and associated riparian areas within the management area, anadromous fish habitat will be managed to produce at least 90 percent of potential smolt habitat capability index (SCHI) by meeting standards (for fish) shown in Management Area C5

RANGE

A moderate level of livestock grazing is permitted. Openings created by management of timber stands should be available for management as transitory range. Development and maintenance of range improvements are permitted. Range utilization standards, management practices, and improvements are to be designed and managed to meet visual quality objectives.

TIMBER

Timber will be managed on a scheduled basis. All timber management practices and intensities shall be permitted consistent with achieving the primary visual quality goals.

Timber harvest will not be scheduled in the following viewshed corridors:

	EXCEPTED PORTIONS
Road 40	Road 44 to Forest Boundary
Road 4600300	Road 64 Easterly to Road 4608
Road 4600301	Road 46 to End
Road 4608	Road 4600300 to End
Road 64	Between Road 46 and W-T Wilderness Boundary
Road 46	Road 65 to Road 46

Uneven-aged management is the preferred and most commonly used silvicultural systems in the foreground; even-aged management techniques may also be used to meet objectives. Both systems are available in the middle and background zones.

Scheduling of treatments and timber harvest, logging systems, debris disposal, reforestation, and stand improvement practices will be designed and implemented to accomplish visual management objectives.

1. Timber stands which have remained unmanaged in the past because of their visual sensitivity will begin receiving treatment, when desirable, to meet viewshed objectives.
2. Manage the viewshed for an overall mix of size classes of trees. The following mix of age classes should be achieved as the overall long-term objective of the viewshed.

	Foreground Age Classes
Percent	Partial Retention
20	0-36
20	37-72
20	73-108
20	109-1 45
20	146-181

3. Emphasis will be on viewing large diameter trees and multi-age stands; both vertical and horizontal diversity will also be emphasized. The large tree component should be dispersed as necessary to give the overall character of large trees to the area. The

standards in Tables 4-26 and 4-27 will be used in achieving desired visual characteristics.

Even-aged Management Visual Resource Standards

TABLE 4-26. EVEN-AGED MANAGEMENT VISUAL RESOURCE STANDARDS

Umatilla National Forest

Standards		Ponderosa Pine Working Group North & South Associated	Lodgepole Pine Working Group
Factor		Partial Retention	Partial Retention
Maximum % Harvest per Decade	Foreground Middleground[2]	5 10	5 10
Maximum % of Area in Created Openings at One Time [1]	Foreground Middleground[2]	10 20	10 20
Target Tree Diameter (inches DBH)		24	12
Number of Target Trees at Final Removal (Per Ac.)		3-5	10
Maximum Unit Size (Ac.)	Foreground >500 ft. Middleground[2]	5 10	5 10

1 Applies to regeneration harvests. Not applicable to intermediate or overstory removal harvests except where an opening is created.
2 Modification will be the general visual standard for middleground; where partial retention is assigned to the middleground, the above standards apply.

Uneven-aged Management Visual Resource

TABLE 4-27. UNEVEN-AGED MANAGEMENT VISUAL RESOURCE STANDARDS

Umatilla National Forest

Standards		Ponderosa Pine Working Group North & South Associated	Lodgepole Pine Working Group
Factor		Partial Retention	Partial Retention
Maximum % of Area in Created Openings at One Time [1]	Foreground Middleground[2]	10 20	10 20
Target Stand Diameter (inches DBH)		20	12
Maximum Unit Size (Ac.) [1]	Immediate foreground Foreground >500 ft. Middleground[2]	1.5 2 2	2 2 2

1 Applies to group selection harvests. Not applicable to single tree or intermediate harvests except where an opening is created.
2 Modification will be the general visual standard for middleground; where partial retention is assigned to the middleground, the above standards apply.

4. A created opening is defined as an opening developed through management activities where the tree heights are less than 20 feet. Created openings will be shaped and blended with the natural terrain.
5. Exceptions to created opening size and maximum percentage in created openings at one time are permitted under conditions of catastrophic occurrence such as blow down, insect and disease attacks, wildfire, and others. Landscapes will be rehabilitated under these conditions.
6. Thinnings and plantings in the foreground will leave irregularly spaced trees. Mixed conifer stand regeneration in foregrounds will be planned for at least two species with no more than 65 percent in a single species.

WATER AND SOIL

Meet Forest-wide Standards and Guidelines.

MINERALS AND ENERGY

Meet the visual quality objectives within the intent of the Forest-wide Standards and Guidelines for minerals and energy.

Utilize existing access routes to developments where possible.

Provide for reclamation upon completion of all projects within the viewshed corridors.

LANDS

Special use sites will be permitted, provided they can be designed and located to blend with the characteristic landscape.

Existing special use sites will be reviewed for meeting visual management requirements at established permit renewal dates. If a special use fails to meet standards, it will be brought into compliance.

Land Classification II (acquisition) will generally be used. Lands may be exchanged in cases of demonstrated positive net public benefit.

Meet Forest-wide Standards and Guidelines for lands and land uses.

TRANSPORTATION

New roads and trails will be permitted and will be designed and constructed to meet the partial retention and modification visual quality objectives. Cut and fill slopes within view will be revegetated species with less palatable to livestock to minimize adverse visual effects.

Road maintenance activities will be permitted and conducted to minimize adverse visual impact by the retention of the maximum amount of existing vegetation, by encouraging the most rapid revegetation of disturbed areas outside of the surfaced roadway, and by reducing earthwork to the minimum.

Road closures in the foreground, such as gates and berms, should be designed and constructed to blend with the natural characteristics of the landscape while remaining consistent with safety requirements.

Gravel pits, borrow areas, etc., will meet the assigned visual quality objective.

Signs needed for traffic regulation and information should be few in number, be designed and located to meet aesthetic objectives, and be in accord with safety requirements.

FIRE

For moderate to high intensity wildfires, the appropriate suppression response will emphasize control and/or contain strategies.

Wildfire suppression efforts should utilize low impact methods. Use of heavy equipment may require restoration efforts to mitigate visual impacts.

FUELS

Prescribed low intensity fire with minimal scorch is acceptable in the partial retention area. In the partial retention area a 1 year or less recovery period is most desirable, if conditions are suitable.

Acceptable visual quality, including fuel loadings in the foreground, are depicted by the following photos from the Photo Series for Quantifying Forest Residues (Technical Reports PNW-52, PNW-51, PNW-105) (USDA Forest Service 1976a, 1976b, 1980):

	Ponderosa Pine	Lodgepole Pine	Associated Species
Natural Fuels	1-PP-4	1-LP-3	3-PP and Assoc.3 1 -PP and Assoc.4
Thinning Fuels	(No acceptable photos)	(No acceptable photos)	1-DF-1-TH
Clear Cut	2-LP3-PC	2-LP-3-PC	2-DF-4-CC
Selection Harvest	1-PP-4-PC	2-LP-3-PC	7-PP and Assoc. 4-PC

Fuel treatments in foreground areas should be planned, timed, and implemented to avoid being highly visible and to minimize adverse visual effects. In the immediate foreground (within 200-300 feet of observers) handpiling, hauling material away, utilizing it for fuelwood, etc., are methods preferable to machine piling and crushing. Treatment should be completed prior to the next high human-use period.

In foreground areas, slash and damaged unmerchantable trees will be treated to a higher standard than in the middleground and background. Fuel loadings meeting reforestation and wildlife standards in middleground and background areas will normally be compatible with the visual objectives.

PESTS

Use integrated pest management (IPM) principles to manage insect and disease pests in meeting viewshed objectives. All treatment strategies may be utilized. Emphasize strategies that improve visual quality, aesthetics, and safety. Treatment of bark beetles and root rots is emphasized.

Suppress pests when outbreaks threaten users and/or managed resources. Use suppression methods that minimize site disturbance.

A5 ROADED NATURAL

GOAL

PROVIDE DISPERSED RECREATION OPPORTUNITIES IN AN ARE CHARACTERIZED BY A PREDOMINANTLY NATURAL TO NEAR NATURAL APPEARING ENVIRONMENT WITH MODERATE EVIDENCES OF THE SIGHTS AND SOUNDS OF MAN. SUCH EVIDENCES USUALLY HARMONIZE WITH THE NATURAL ENVIRONMENT.

DESCRIPTION

The strategy may be applied to all or portions of areas currently inventoried as Semi-primitive or Roaded Natural in the Umatilla National Forest ROS inventory. Areas currently inventoried as Roaded Modified may be allocated if they are identified as needed for this recreation opportunity.

The following areas are included in the management area:

- Relay Station Area (Spout Springs); and
- North Mt. Emily Roadless Area.

DESIRED FUTURE CONDITION

An attractive natural to slightly altered appearing landscape will be created and/or maintained over a large area. Recreation opportunities of all types will be abundant and available throughout the area, with emphasis on motorized use and some trail and cross country opportunities in a natural appearing environment. The natural setting will have modifications which may be noticed within the area, but which will remain unnoticed or visually subordinate from selected travel routes and use areas. Activities will be done with average sensitivity to people's concern for scenic quality (Level 2). The forested area will appear as a mosaic of

different sized trees with many small created openings throughout. Through special design efforts, structural improvements (including range), roads, trails, and created openings will blend with the natural environment. Discordant visual elements shall be rehabilitated. The Forest will be logged regularly so that long-term stand health and vigor can be maintained and growth of big trees be encouraged throughout the area.

MANAGEMENT AREAS STANDARDS AND GUIDELINES

RECREATION

Manage dispersed recreation in the area to a Roaded Natural physical and social setting as described in the ROS User's Guide (USDA Forest Service n.d.). Encourage dispersed activities that meet the goal.

Recreation site modification and facility development should be Level 2 or less (see Glossary), and will be designed to blend with the natural landscape character. Facilities will include those needed to meet safety and sanitary needs.

Emphasize interpretive services to enhance understanding and appreciation of the area and forest management.

Provide for mostly road oriented opportunities and for walk-in or horseback activities in a natural to slightly altered environment.

Trail and associated facility construction, reconstruction, and maintenance shall be permitted including trails for OHV use. The trail system will be designed and maintained to disperse use, provide varying but challenging difficulty levels, and to meet area objectives.

Trailhead facilities will be designed, constructed, and maintained to meet visual quality objectives.

Off-highway vehicle (OHV) use is permitted. Motorized use may be limited to trails and roads: snowmobile use is acceptable on an area-wide basis.

VISUAL

Activities in the area will meet the visual quality objective of Partial Retention as the standard. Activities may repeat or borrow from form, line, color, and texture which are frequently found in the characteristic landscape. Changes of landscape should be of such size, amount, intensity, direction, and pattern that they continue to provide a natural appearing or slightly altered appearance, except for short-term changes to meet long-term objectives.

Principles of visual management will be applied so that positive attributes of a managed forest can be enjoyed while negative visual aspects of activities will be minimized.

Landscapes containing negative visual elements will be rehabilitated. Landscapes will be enhanced by opening views to distant peaks, unique rock forms, unusual vegetation, or other features of interest.

CULTURAL

Meet Forest-wide Standards and Guidelines.

WILDLIFE AND FISH

Dead and down tree habitat will be managed to provide or maintain 60 percent of the potential population level for all primary cavity excavators.

Habitat improvement projects for wildlife and fish are encouraged, provided they meet the foreground partial retention visual quality objective and the goal for the roaded natural setting.

RIPARIAN

For all Class I, II, and III streams and associated riparian areas within the management area, anadromous fish habitat will be managed to produce at least 90 percent of potential smolt habitat capability index (SCHI) by meeting standards (for fish) shown in Management Area C5.

RANGE

Livestock grazing is permitted; all range management strategies are available consistent with visual and recreation goals. Openings created by management of timber stands are available for management as transitory range.

The full range of development and maintenance of structural and nonstructural improvements is permitted while consistent with meeting visual goals. Seeding of forage species is permitted where tree establishment and growth are not restricted.

Permit increased domestic livestock and/or big game grazing to capture increases in transitory range. Utilize available forage at 80 percent or less.

TIMBER

Timber will be managed on a scheduled basis. All timber management practices and intensities shall be permitted consistent with achieving the primary visual quality goals.

Uneven-aged management is the preferred and most commonly used silvicultural system in the foreground; even-aged management techniques may also be used to meet objectives. Both systems are available in the middle and background zones.

Scheduling of treatments and timber harvest, logging systems, debris disposal, reforestation, and stand improvement practices will be designed and implemented to accomplish visual management objectives.

1. Manage the area for an overall mix of age classes of trees. The following mix of age class types should be achieved as the overall long-term objective of the area:

	Foreground Age Classes
Percent	Partial Retention
20	0-36
20	37-72
20	73-1 08
20	109-1 45
20	146-1 81

2. Emphasis will be on viewing large diameter trees and multi-age stands; both vertical and horizontal diversity will also be emphasized. The large tree component should be dispersed as necessary to give the overall character of large trees to the area.
3. The standards in Tables 4-28 and 4-29 will be used in achieving desired visual conditions.
4. A created opening is defined as an opening developed through management activities where the tree heights are less than 20 feet. Created openings will be shaped and blended with the natural terrain. Created openings will normally be limited as shown in the following tables and will be subordinate to the characteristic landscape.
5. Exceptions to created opening size and maximum percentage in openings at one time are permitted under catastrophic occurrences such as blow down, insect and disease attacks, wildfire, and others. Landscapes will be rehabilitated under these conditions.

6. Thinnings and plantings in the area will leave irregularly spaced trees. Mixed conifer stand regeneration will be planned for at least two species with no more than 65 percent in a single species.

Even-aged Management Visual Resource Standards

TABLE 4-28. EVEN-AGED MANAGEMENT VISUAL RESOURCE STANDARDS

Umatilla National Forest

Standards		Ponderosa Pine Working Group North & South Associated	Lodgepole Pine Working Group
Factor		Partial Retention	Partial Retention
Maximum % Harvest per Decade	Foreground Middleground[2]	5 10	5 10
Maximum % of Area in Created Openings at One Time [1]	Foreground Middleground[2]	10 20	10 20
Target Tree Diameter (inches DBH)		24	12
Number of Target Trees at Final Removal (Per Ac.)		3-5	10
Maximum Unit Size (Ac.) [1]	Foreground >500 ft. [3] Middleground[2]	5 10	5 10

1 Applies to regeneration harvests. Not applicable to intermediate or overstory removal harvests except where an opening is created.
2 Modification will be the visual standard for middleground; where partial retention is assigned to the middleground, the above standards apply.
3 Applies to key roads, trails, and use areas.

Uneven-aged Visual Management Resource Standards

TABLE 4-29. UNEVEN-AGED MANAGEMENT VISUAL RESOURCE STANDARDS

Umatilla National Forest

		Ponderosa Pine Working Group North & South Associated	Lodgepole Pine Working Group
Factor		Partial Retention	Partial Retention
Maximum % of Area in Created Openings at One Time [1]	Foreground Middleground[2]	10 20	10 20
Target Stand Diameter (inches DBH)		20	12
Maximum Unit Size (Ac.) [1]	Immediate foreground Foreground >500 ft. [3] Middleground[2]	1.5 2 2	2 2 2

1 Applies to group selection harvests. Not applicable to single tree or intermediate harvests except where an opening is created.
2 Modification will be the visual standard for middleground; where partial retention is assigned to the middleground, the above standards apply.
3 Applies to key roads, trails, and use areas.

WATER AND SOIL

Meet Forest-wide Standards and Guidelines.

MINERALS AND ENERGY

Meet the visual quality objectives within the intent of the Forest-wide Standards and Guidelines for minerals and energy.

Utilize existing access routes to developments where possible.

Provide for reclamation upon completion of all projects within the area.

LANDS

Special use sites will be permitted in these areas, provided they can be designed and located to blend with the characteristic landscape.

Existing special use sites will be reviewed for meeting visual management requirements at established permit renewal dates. If a special use fails to meet standards. it will be brought into compliance.

Land Classification II (acquisition) will generally apply to meet special public needs.

Lands may be exchanged in cases of demonstrated positive net public benefit.

Meet Forest-wide Standards and Guidelines for lands and land uses.

TRANSPORTATION

New roads shall be permitted and will be designed and constructed to blend with the natural characteristics of the landscape. Cut and fill slopes will be revegetated with species less palatable to livestock to minimize visual effects. Maintenance of roads shall be permitted.

Road maintenance activities will be conducted to minimize adverse visual impact by the retention of the maximum amount of existing vegetation, by encouraging the most rapid revegetation of disturbed areas outside of the surfaced roadway, and by reducing earthwork to the minimum.

Road closures in the foreground, such as gates and berms, should be designed and constructed to blend with the natural characteristics of the landscape. Gravel pits, borrow areas, etc., will meet the partial retention visual quality objective.

Signs needed for traffic regulation and information should be designed and located to meet aesthetic objectives and be in accord with safety regulations.

FIRE

For moderate to high intensity wildfires, the appropriate suppression response will emphasize control and/or contain strategies.

Wildfire suppression efforts should utilize low impact methods. Use of heavy equipment may require restoration efforts to mitigate visual impacts.

FUELS

Prescribed low intensity fire with minimal scorch is acceptable. A 1 year or less recovery period is most desirable, if conditions are suitable.

Acceptable visual quality, including fuel loadings, are depicted by the following photos from the Photo Series for Quantifying Forest Residues (Technical Report PNW-52) (USDA Forest Service 1976b):

	Ponderosa Pine	Lodgepole Pine	Associated Species
Natural Fuels	1 -PP4	1 -LP3	3-PP and Assoc.3 1-PP and Assoc.4
Thinning Fuels	(No acceptable photos)	(No acceptable photos)	I -DF-I -TH
Clearcut	2-LP-3-PC	2-LP-3-PC	1-DF-4-CC
Selection Harvest	I -PP4-PC	2-LP-3-PC	7-PP and Assoc. 4-PC

Fuel treatments should be planned, timed, and implemented to avoid being highly visible and to minimize adverse visual effects. Handpiling, hauling material away, utilizing It for fuelwood, etc., are methods preferable to machine piling and crushing. Treatments should be completed prior to the next high human-use period.

PESTS

Use integrated pest management (IPM) principles to manage insect and diseases in meeting management area objectives. All treatment strategies may be utilized. Emphasize strategies that improve visual quality, aesthetics, and safety. Treatment of bark beetles and root rots is emphasized.

Suppress pests when outbreaks threaten users and/or managed resources. Use suppression methods that minimize site disturbance.

A6 DEVELOPED RECREATION

GOAL

PROVIDE RECREATION OPPORTUNITIES THAT RE DEPENDENT ON THE DEVELOPMENT OF STRUCTURAL FACILITIES FOR USER CONVENIENCES WHERE INTERACTION BETWEEN USERS AND EVIDENCE OF OTHERS IS PREVALENT.

DESCRIPTION

Developed recreation opportunities occur on sites designated for development and concentrated use, e.g., campgrounds, picnic grounds, boating sites, ski areas, recreation residences, and organization camps. Only sites classified as development scale 3 or higher are considered in this strategy.

The following recreation sites are included in the management area:

Pomeroy Sites

Teal Spring
Wickiup
Tucannon
Big Springs
Godman
Alder Thicket
Rose Spring
Little Turkey
Slick Ear
Stentz Spring

Heppner Sites

Bull Prairie
Penland Lake
Fairview

Walla Walla Sites

Beaver Marsh
Buck Creek
Umatilla Forks
Jubilee Lake
Woodland
Woodward
Monet
Ski Bluewood
Spout Springs
Tollgate
Target Meadows

North Fork John Day Sites

Lane Creek
Bear Wallow Creek
Frazier
Pearson
Tollbridge
No. Fk. John Day

DESIRED FUTURE CONDITION

Readily accessible, appropriately designed recreation facilities shall provide for concentrated use by people seeking a variety and convenience of developed recreation opportunities and experiences. Recreationists will enjoy outdoor opportunities where social interactions are moderate to high. Controls and regulations will be noticeable to obvious.

Recreation facilities such as roads, buildings, ski lifts, loading/unloading ramps, boat docks, bulletin boards, picnic tables, campsites, and others shall be evident in moderate to heavily modified sites. However, facility design and construction will blend with the color, shapes, and lines of the surrounding natural environment. Created openings or tree removal shall exist to accommodate facilities, provide scenic views, or meet vegetative management goals within, and surrounding, the developed site. Partnerships with members of the hospitality industry will be strong.

MANAGEMENT AREAS STANDARDS AND GUIDELINES

RECREATION

Sites

1. Provide and manage developed recreation primarily to Roaded Natural settings with some Rural settings (ROS Users Guide, USDA Forest Service, n.d.).
2. Provide the opportunity for mostly road oriented or related activities.
3. Facilities will be provided mostly at recreation development scale 3 (Roaded Natural) with some development scale 4 (Rural). Development scale 5 (Urban) sites on National Forest lands will be provided by private or public developers.
4. Developed sites will be administered and maintained to provide visitor safety and sanitation, protect facility and site resources, and provide for visitor recreation needs and convenience.
5. Cleaning, policing, and minor maintenance will be performed regularly and consistently at each fee site to give the overall appearance of being clean and sanitary, free of litter, neat in appearance, and well kept. Other sites will be maintained to assure basic health and safety, appropriate resource effects, and protection of investments.
6. Developed recreation sites are to be appropriate to the forest environment and will be planned, constructed, and maintained to provide facilities only for forest recreation such as fishing, camping, picnicking, skiing, swimming, hiking, and riding.
7. The Forest will consider expansion of its existing high use sites before considering the development of any new sites; long-term desirability of the site for continued use, site suitability, and potential alternative sites will be evaluated prior to expansion.
8. The Jubilee Lake, Bull Prairie, Olive Lake, North Fork John Day River, and Tucannon sites will be modified to make them usable by the disabled. Where the need exists, facilities in other existing recreation sites will be modified to make them usable by the handicapped. Future developments will be planned and designed to make other facilities accessible to the handicapped.
9. The developed site may encompass an area larger than just the area on which developed facilities are located. These areas will be managed as a Roaded Natural setting in which trails may be developed to provide dispersed recreation opportunities. These areas will also provide a transition between the developed site and resource development areas.
10. All recreation sites at development scale 3 and above will be evaluated, and fees will be charged for the use of facilities when it is administratively and economically feasible to administer the fee system.
11. Periodically reevaluate sites to determine the need to eliminate or reduce the development scale of sites that are not cost-effective, not providing the appropriate resource setting, or not needed to meet recreation management objectives.

Special Uses

1. Where recreation services and facilities are determined to be needed, feasible, and appropriate in the forest environment, development, and operation using partnership agreements will be encouraged.
2. Developed sites may be operated on a charge basis by a concessionaire when it would result in better service to the public.
3. The Buck Creek Organization Camp will be kept for public use. Before or at the time of expiration or renewal of the authorization, a 'needs' assessment will be made in consultation with the operator to consider whether the activities, uses, and developments should be continued, expanded, or otherwise changed in order to best serve the public

interest. An operation and maintenance plan will be prepared to specify actions needed to meet health and safety standards, maintenance needs, upgrading and additional requirements, or other structural and operational modifications.

4. As termination dates for recreation residence authorization approach, an analysis of recreation residence continuance will be made for each tract. The uses will be allowed to continue unless a positive higher public use is determined.

Off-highway Vehicle (OHV)

OHV use will be restricted to the roads and trails within the developed sites and managed to minimize conflicts between users.

VISUAL

The Visual Quality Objective is Retention or Partial Retention, depending on the sensitivity level of the site.

Development and maintenance of sites will be accomplished within the standards established for each site. In the cases where this cannot be accomplished due to the size of a structure or facility, then blending into the natural setting by minimizing contrast with the natural form, line, color, and texture will suffice.

A vegetation management plan will be developed and implemented for each site at development scale 3 and above.

CULTURAL

Meet Forest-wide Standards and Guidelines.

WILDLIFE

Wildlife habitats and habitat improvements may be developed, maintained, or enhanced to increase wildlife viewing opportunities, provided habitat and improvements don't conflict with the safety of developed site users, and are consistent with the management of the site.

FISH

Fish habitat improvements are encouraged.

RANGE

Domestic livestock grazing will ordinarily be excluded from developed sites. It will be allowed on certain sites at specified periods (i.e., sheep grazing on ski area slopes in summer) on a controlled basis to reduce the fire hazard, and to maintain or improve the vegetation.

Developed sites that have facilities for recreation pack-and-saddle stock will not provide pastures.

TIMBER

Trees will be managed on a nonscheduled basis to meet recreation objectives and to reduce the risk of public injury from hazardous trees or vegetation.

Logging and slash disposal practices will be selected that least impact the site.

WATER AND SOIL

Meet Forest-wide Standards and Guidelines.

MINERALS AND ENERGY

Subject to analysis of public values, including mineral values, recreation sites may be recommended for withdrawal from mineral entry. Development of energy resource leases within recreation sites will be restricted.

LANDS

Developed sites will be retained in Federal ownership. Other Forest-wide Standards and Guidelines apply.

TRANSPORTATION

A wide spectrum of transportation facilities (ranging from high-standard, double-lane paved roads to low-standard, single-lane dirt roads and trails) to developed sites can be constructed, utilized, operated, and maintained.

Access roads should be managed to encourage passenger car traffic, normally at Traffic Service Level A.

Road maintenance activities will be conducted to minimize adverse visual impact by retaining the maximum amount of existing vegetation, encouraging the most rapid revegetation of disturbed areas outside of the surfaced roadway, and reducing earthwork to the minimum.

FIRE

For all wildfires, the appropriate suppression response is control.

Emphasis will be on protecting life and facilities.

Low impact wildfire suppression methods should be used except where high intensity fire situations may exist.

Fire prevention activities should be emphasized at developed sites. Public contract and a signing program are encouraged.

FUELS

Slash resulting from hazard tree removal will be made available for firewood to campground users.

PESTS

Utilize integrated pest management (IPM) principles and strategies to prevent or control unacceptable vegetative losses due to insects and diseases. Emphasize prevention and early detection measures. Prevent, control, or suppress pest outbreaks with a minimum of disturbance to protect users and/or developments. Favor biological and silvicultural treatments where possible.

Remove hazardous trees as identified in the Vegetative Management Plan. Bark beetles and root disease occurrences which impact safety will be aggressively treated. Control of defoliators is also emphasized to meet visual objectives.

A7 WILD AND SCENIC RIVERS

GOAL

MANAGE CLASSIFIED WILD AND SCENIC RIVER SEGMENTS TO APPROPRIATE STANDARDS AS WILD, SCENIC, OR RECREATIONAL RIVER AREAS, AS DEFINED BY THE WILD AND SCENIC RIVERS ACT, PUBLIC LAW 90-542, OCTOBER 2, 1968 (U.S. LAWS, STATUTES, ETC. 1968), AND EXPANDED BY THE OMNIBUS OREGON WILD AND SCENIC RIVERS ACT OF 1988 (PUBLIC LAWS 100-557).

DESCRIPTION

The following river segments were designated by the Omnibus Oregon Wild and Scenic Rivers Act of 1988 and are managed under this management area:

1. Grande Ronde River: Approximately 17.4 river miles and a one-quarter mile corridor[1] on each side. Total area amounts to 5,200 acres of National Forest System lands, 485 acres in private ownership, and 25 acres of BLM.

   Entire Segment Designation - Wild

2. North Fork John Day River: Approximately 38.7 river miles and a one-quarter mile corridor[1] on each side. Total area amounts to 10,514 acres of National Forest System lands, 712 acres in private ownership and 77 acres of state lands.

Segment 1	Trail Creek to Big Creek. Designation – Wild
Segment 2	Big Creek to Texas Bar Creek. Designation – Scenic
Segment 3	Texas Bar Creek to Umatilla National Forest Boundary. Designation - Recreational

3. Wenaha River: Approximately 18.7 river miles and a one-quarter mile corridor[1] on each side. Total area amounts to 5,484 acres of National Forest System lands and 158 acres in private ownership.

Entire Segment	South Fork-North Fork junction to the Forest Boundary, Designation - Wild

DESIRED FUTURE CONDITION

Each component of the Wild and Scenic River System will be administered to protect and enhance the values for which the rivers were classified and to provide public use and enjoyment of those values. Emphasis will be given to protecting the outstandingly remarkable values for which the river was designated. Anadromous fisheries, wildlife, aesthetic, scenic, historic, archeologic, scientific and other features will be protected. Approved management plans will establish detailed corridor boundary and specify management activities, land acquisition, easements, and other information necessary to protect each segment of the rivers.

WILD RIVERS

Wild rivers or sections of rivers will be free of impoundments and continue to be accessible by trail and/or water, and inaccessible by road. The viewing area and shorelines will be essentially natural appearing. Signs of human activity, including structure or evidence of resource use, will be kept to a minimum or will be inconspicuous. Sectors within the wilderness will be managed as Wilderness. The opportunity to interact with a natural environment, with challenges and minimal sights and sounds of other people will be available. There will generally be no use of

[1] NOTE: The one-quarter mile corridor on each side of the river is an interim boundary. The final boundary will be established upon approval of the management plan for each river.

motorized vehicles. Where a need to regulate use exists, indirect methods will predominate. Outfitters will provide services to people to help then enjoy and interpret the environment.

SCENIC RIVERS

Scenic rivers or sections of rivers will be free of impoundments; shorelines and viewing areas will be largely natural appearing. Some recreation structures, evidence of timber harvest roads, and other evidence of human activity may be present, but will not detract from the near natural appearance and scenic qualities of the immediate environment. A variety of water related recreation opportunities will be available. The rivers will be accessed in places by road. Motorized use on a few trails within the corridor will occur. There will be very few restrictions on recreation use. Frequency of contact with others will be moderate. Ongoing activities such as timber harvest, fish habitat improvement, mining, and others may be permitted if scenic and recreation values are met or enhanced and adverse effects avoided.

RECREATIONAL RIVERS

The recreational sections will be free of impoundments and be readily accessible from roads. Some major public use facilities such as developed campgrounds, administrative buildings, bridges, private residences, and commercial businesses will remain within the corridor. Considerable development and timber harvest may have occurred and be evident near the river, but the area shall be managed to protect recreation and scenic values. A range of recreational opportunities will be available in settings in which interactions are relatively high and visitors are likely to share their recreational experience with other individuals or groups.

MANAGEMENT AREAS STANDARDS AND GUIDELINES

GENERAL

For each designated Wild and Scenic River, development and management plans will be prepared and completed within 3 full fiscal years of designation.

The formal boundary of the designated rivers will be established concurrently with the development and management plans. The management area boundary will conform to the established Wild and Scenic River boundary.

Upon completion and approval of Wild and Scenic Rivers management plans, the Forest Plan will be amended to incorporate them.

INTERIM MANAGEMENT OF STUDY RIVERS

Management direction for each designated river corridors identified in the Omnibus Oregon Wild and Scenic Rivers Act and other rivers identified for study will provide protection in the following ways

1. To the extent the Forest Service is authorized under law to control stream impoundments and diversions, the free flowing characteristics of the identified river cannot be modified.
2. Outstandingly remarkable values of the identified river area must be protected and, to the extent practicable, enhanced.
3. Management and development of the identified river and its corridor cannot be modified to the degree that classification (or eligibility) would be affected (i.e., classification cannot be changed from wild to scenic or scenic to recreational).

Protection may be modified or discontinued for rivers identified in the forest planning process for study in the following cases:

1. For the entire river or segment(s) of the river that are determined to be ineligible for the Wild and Scenic Rivers System.

2. For the entire river, if determined to be unsuitable for the Wild and Scenic Rivers System, following the appropriate review process.
3. For unsuitable segment(s) of a river recommended for Wild and Scenic River designation after the Record of Decision is signed by the Secretary of Agriculture.
4. Following Congressional action for suitable segments of the river that are not included in the Wild and Scenic Rivers System.

WILDERNESS

River sectors located within wilderness will be managed under wilderness or Wild and Scenic River principles and standards and guidelines, whichever is most restrictive.

RECREATION

River-oriented recreation opportunities may be provided, consistent with maintaining and protecting Wild and Scenic River values.

River area recreation will be managed according to the following interim standards:

Wild Classification:

1. Manage areas for Primitive, Semi-primitive Nonmotorized (SPNM).
2. Access will be mostly for floating, walk-in, or horseback opportunities along wild segments.
3. No motorized use is permitted in the Grande Ronde, Wenaha, or the wild segment of the North Fork John Day rivers. Motorized watercraft will not be allowed on wild sections of the rivers.
4. Only rustic recreation facilities and settings may be permitted (development scale 1 or 2).

Scenic Classification:

1. Manage areas for Semi-primitive Nonmotorized (SPNM) to Semi-primitive Motorized (SPM) settings.
2. A mix of access types will be available in scenic section including open roads, roads closed to motorized use, and walk-in or horseback opportunities in a few remote areas.
3. Motorized vehicle, including off-highway vehicle, use may be permitted.
4. Recreation developments are permitted but will not exceed development scale 3.

Recreation Classification:

I. Manage areas for Roaded to Rural settings.
2. Road access will be provided to most areas along the recreation sectors.
3. Maintain accessibility for motorized vehicles; OHV use may be permitted on designated trails.
4. All recreation development scales may be permitted.

Trail and related facility construction, reconstruction, and maintenance are permitted in all classes.

Outfitter and guide services may be permitted under special use permit for all classifications.

VISUAL

Manage visual resources to meet standards for each classification as follows:

River Classification	Visual Quality Objective
Wild	Preservation is the normal
Scenic	Retention may be used for some limited recreation facilities
	Retention foreground
Recreation	Partial Retention middleground
	Partial Retention foreground
	Modification middleground

(See Glossary for description of terms.)

Activities within corridors may only repeat form, line, color, and texture which are frequently found in the characteristic landscape. Changes should be of such size, amount, intensity, direction, and pattern that they are not visually evident in the foreground distance zone and are visually subordinate to the characteristic landscape in the middleground distance zone.

Principles of visual management will be applied so that positive attributes of a managed forest can be enjoyed while negative visual aspects of activities will be minimized.

Landscapes containing negative visual elements will be rehabilitated. Landscapes may be enhanced by opening views to distant peaks, unique rock forms, unusual vegetation, or other features of interest.

River corridor viewshed management direction will be established as part of the river management plans. In the interim, direction will be guided by Forest visual quality mapping, associated visual quality standards, and direction in these standards and guidelines.

CULTURAL

Meet Forest-wide Standards and Guidelines.

WILDLIFE AND FISH

Wildlife and fish habitat improvement, development, and maintenance projects are permitted, provided Wild and Scenic Rivers objectives are met.

Dead and down tree habitat will be managed to provide or maintain 80 percent of the potential population level for all primary cavity excavators.

RANGE

The existing domestic livestock grazing level and management intensity (prior to designation of rivers) is permitted consistent with recreation, visual, and other management objectives.

Development and maintenance of range improvements are permitted. Range utilization standards, management practices, and improvements will be designed and managed to meet wild and scenic and riparian objectives.

TIMBER

In the Wild sections, timber will be managed on a nonscheduled basis to meet Wild and Scenic River goals. Cutting of trees is only permitted where needed to meet primitive recreation, environmental or other Wild and Scenic River objectives.

In the Scenic and Recreation sections, timber harvest is permitted on a scheduled basis. Standard silvicultural practices and intensities consistent with meeting Scenic and Recreation river objectives are permitted.

Uneven-aged management is the preferred and most commonly used silvicultural system; even-aged management techniques may also be used to meet objectives. Scheduling of treatments, timber harvest, logging systems, debris disposal, reforestation, and stand improvement practices will be designed and implemented to accomplish river management objectives.

1. Where timber management is scheduled, manage the river corridors for an overall mix of size classes of trees. The following mix of age classes should be achieved as the overall long-term objective of the viewshed.

	Foreground Age Classes	
Percent	Retention	Partial Retention
20	0-50	0-36
20	51 -1 00	73-1 08
20	101-150	37-72
20	151-200	109-1 45
20	201 -250	146-181

2. Emphasis will be on viewing large diameter trees and multi-age stands, both vertical and horizontal diversity are also to be emphasized. The large tree component should be as dispersed as necessary to give the overall character of large trees to the area. The standards in Tables 4-30 and 4-31 will be used in achieving desired visual characteristics.
3. A created opening is defined as an opening developed through management activities where tree heights are less than 20 feet. Created openings will be shaped and blended with the natural terrain.
4. Exceptions to created opening size and maximum percentage in openings at one time are permitted under catastrophic circumstances such as blow down, insect and disease attacks, wildfire, and others. Landscapes will be rehabilitated under these conditions.
5. Thinnings and plantings in the foreground will leave irregularly spaced trees. Mixed conifer stand regeneration in foregrounds and middle grounds will be planned for at least two species with no more than 65 percent in a single species.

Even-aged Management Visual Resource Standards

TABLE 4-30. EVEN-AGED MANAGEMENT VISUAL RESOURCE STANDARDS

Standards		Ponderosa Pine Working Group North & South Associated		Lodgepole Pine Working Group
Factor		Retention	Part. Retention	Partial Retention
Maximum % Harvest per Decade	Foreground Middleground	4 9	5 10	5 10
Maximum % of Area in Created Openings at One Time [1]	Foreground Middleground	8 15	10 20	10 20
Target Tree Diameter (inches DBH)		30	24	12
Number of Target Trees at Final Removal (Per Ac.)		3-5	3-5	10
Maximum Unit Size (Ac.) [1]	Foreground >500 ft. Middleground	3 5	5 10	5 10

1 Applies to regeneration harvests. Not applicable to intermediate or overstory removal harvests except where an opening is created.

Uneven-aged Management Visual Resource Standards

TABLE 4-31. UNEVEN-AGED MANAGEMENT VISUAL RESOURCE STANDARDS

Standards		Ponderosa Pine Working Group North & South Associated		Lodgepole Pine Working Group
Factor		Retention	Part. Retention	Partial Retention
Maximum % of Area in Created Openings at One Time [1]	Foreground	8	10	10
	Middleground	15	20	20
Target Stand Diameter (inches DBH)		24	20	12
Maximum Unit Size (Ac.) [1]	Immediate foreground	1	1.5	2
	Foreground >500 ft.	2	2	2
	Middleground	2	2	2

1 Applies to group selection harvests. Not applicable to single tree or intermediate harvests except where an opening is created.

Fuelwood cutting may be permitted but will be limited to dead or down material.

WATER AND SOIL

All dams, diversions, levees, and hydroelectric power facilities are prohibited within the management area.

MINERALS AND ENERGY

Subject to valid existing rights, minerals that constitute the bed or bank or are situated within one-quarter mile of the bank of any river designated a Wild river are withdrawn from appropriation. On other river sections, through analysis and consideration of all public values, including minerals values, rivers may be recommended for withdrawal from mineral entry where appropriate and necessary.

Protect river and corridor from common materials mining. Common mineral materials will not be removed pending completion of the river management plans.

LANDS AND LAND USES

Where opportunities exist, private land within a formally designated Wild and Scenic River will be acquired. All Federal land will be retained in public ownership.

Wild sections are 'Exclusive Areas' for development of new utilities (transmission lines, gas lines, etc.). Scenic and Recreation areas are 'Avoidance Areas.' Where no reasonable alternative exists, additional or new facilities should be restricted to existing right-of-way.

Meet Lands and Land Uses Forest-wide Standards and Guidelines.

TRANSPORTATION

Existing roads and trails may be operated and maintained in keeping with overall management and river segment objectives. Reconstruction of roads and trails may be permitted upon approval of a project environmental assessment.

New roads and trails may be permitted, consistent with maintaining and protecting Wild and Scenic River values.

FACILITIES

Maintain existing facilities that support Wild and Scenic River management objectives. Fences, gauging stations, and other management facilities may be permitted if there is no major effect

on the character of the area. Addition of new facilities, including recreation facilities, may be permitted, consistent with maintaining and protecting Wild and Scenic River values.

FIRE

For moderate to high intensity wildfires, the appropriate suppression response will emphasize a control strategy. Emphasis should be on protecting life and facilities.

Wildfire suppression efforts should utilize low impact methods, as use of heavy equipment may require restoration efforts to mitigate visual impacts.

FUELS

Prescribed burning is permitted. Low intensity prescribed fires, producing minimal scorch and rapid recovery, are the most desirable.

PESTS

Use integrated pest management (IPM) principles and methods. Prescribed fire may be used to help reduce stocking and conditions favorable for bark beetle and other insects and diseases.

Suppress pests when outbreaks threaten users and/or managed resources. Use suppression methods that minimize site disturbance.

A8 SCENIC AREA

GOAL

PROTECT OR ENHANCE THE UNIQUE NATURAL CHARACTERISTICS OF DESCRIPTION LANDSCAPES NOTED FOR THEIR SCENIC BEAUTY.

DESCRIPTION

Scenic areas are areas of natural variety where unique physical characteristics give viewing pleasure and dispersed recreation opportunities to the forest user. The strategy applies to all or part of the current scenic areas and other identified selected forest areas with high scenic values.

The following defined areas are included in the management area:

- The Grande Ronde Roadless Area outside of the Wild River corridor (Walla Walla); and
- the Greenhorn Mountain Roadless Area plus Lost Lake, Olive Lake, and north of the Greenhorn Townsite and the Jumpoff Joe Roadless Area.

DESIRED FUTURE CONDITION

Areas of unique natural beauty and high scenic quality will remain mostly unmodified. Opportunities to experience the scenic values, feelings of vastness and isolation from sights and sounds of human activity, sense of independence, closeness to nature, and self-reliance shall be maintained and enhanced. Around the edges or through parts of the area, existing roads are to be retained so that motorized users will have an opportunity to experience the unique beauty and sense of vastness. Trail systems featuring nonmotorized recreation will be fully developed to encourage and disperse use. In a few cases, vegetative manipulation shall be used to enhance the scenic and other resources in the area.

MANAGEMENT AREAS STANDARDS AND GUIDELINES

RECREATION

Semi-primitive Nonmotorized settings (ROS) will be provided within the area, except for intrusions of Semi-primitive Motorized or Roaded Natural settings through edges or parts of the area or to vantage points. Areas will be managed to maintain opportunities for visitors to get away and achieve a feeling of remoteness from sights and sounds of others.

Recreation site modification and facility development should be level 2 or less (see Glossary), with facilities generally being limited to meeting safety and sanitary needs. A minimum of onsite controls and restrictions should be utilized to protect resources and promote safe use of the area.

Emphasize interpretive services to enhance understanding and appreciation of the area's special features In order to do this, use self-discovery, augmented by books, guides, and maps, and a few minimal onsite facilities.

Nonmotorized use will be favored. Access will be mostly for remote walk-in or horseback activities in an area generally absent of roads; designated existing roads will provide motorized opportunities. Snowmobile use may be permitted on designated routes or areas.

Trail and associated facility construction, reconstruction, and maintenance will be permitted. The trail system will be the primary travelway and designed to take advantage of scenic opportunities, encourage and disperse use, provide varying (mostly easy, but some challenging) opportunities, and meet area objectives. Motorized equipment may be permitted in trail development and maintenance. Rustic road and trail signs within the area may be provided with directions, destination distances, feature names, and interpretation.

Based on limits of acceptable change criteria, if needed, implement limits on group size, number of animals, or other measures to meet social encounter criteria for semi-primitive recreation.

VISUAL

Retention is the visual quality objective (VQO) for the area including intrusions of Semi-primitive Motorized (SPM) and Roaded Natural (RN) areas; activities will meet retention VQO standards. The short-term goal of rehabilitation is used to upgrade landscapes as necessary.

Landscapes may be enhanced by opening views to distant scenery, unique landforms, unusual vegetation, or other features of interest.

CULTURAL

Meet Forest-wide Standards and Guidelines.

WILDLIFE AND FISH

Habitat improvement and maintenance projects for wildlife and fish are acceptable, provided they meet the Retention visual quality objective and goals for semi-primitive settings.

Wildlife habitat improvement projects are permitted in the Grande Ronde Scenic Area including Elbow, Bear, and Alder creeks and other drainages.

Dead and down tree habitat will be managed to provide or maintain 80 percent of the potential population level for all primary cavity excavators.

Identified old growth units within the management area will be retained as part of the dedicated old growth system.

RANGE

Light grazing is permitted with a B range management strategy. The emphasis for forage allocation is to wildlife.

Where range improvements are needed, design and implement improvements to be compatible with scenic area objectives.

TIMBER

Timber will be managed on a nonscheduled basis. Trees will only be cut to meet or enhance scenic area objectives (i.e., catastrophic occurrences, trails, vistas, rehabilitation of discordant views, etc.).

WATER AND SOIL

Meet Forest-wide Standards and Guidelines.

MINERALS AND ENERGY

Meet Forest-wide Standards and Guidelines. Operating plans are to include reasonable, operationally feasible requirements to meet scenic area objectives.

Provide access to valid mining claims and private lands.

Access proposals will be analyzed for stage of operations, adequacy of existing routes, and feasibility and reasonableness of alternative routes, with an emphasis on use of existing routes. Roads to be constructed will be done to minimum standard needed for the proposed use, will meet scenic area objectives, and will be obliterated to the extent feasible following completion of activities.

LANDS

National Forest System lands within a designated scenic area will be maintained in public ownership.

Where the opportunity exists, private land within a designated scenic area will be acquired.

The area will be managed as an “Avoidance Area” for utility and transportation corridors.

Other lands and land uses Forest-wide Standards and Guidelines apply.

TRANSPORTATION

Existing roads that contribute to the viewing experience, or that serve as access to valid mining claims, will be retained and maintained. Parking areas within or adjacent to the area will be located and designed to prevent noise and visual disturbances to users.

New roads will not be constructed or roads reconstructed (see Minerals and Energy for exceptions).

Close all roads except those needed as access to private lands, valid mining claims, or which are designated open to meet Scenic area and public use objectives.

FIRE

The appropriate wildfire suppression response will emphasize a control strategy for moderate to high intensity fires. Under appropriate fire prediction conditions, low intensity wildfires (0-2 foot flame length) may be permitted to play a natural role within the setting when resulting in a 1 to 2-year vegetative recovery.

Low impact wildfire suppression methods should be used; rehabilitation may be used to mitigate wildfire impacts in conflict with visual quality objectives.

FUELS

Prescribed fire may be used as a tool to manage ecosystems that are dependent on fire as part of their natural succession, or to enhance thrift and vigor of native vegetation.

Prescribed low intensity fire with a 1 to 2-year recovery period is acceptable. A less than 1 year recovery is most desirable if conditions are suitable.

PESTS

Use integrated pest management (IPM) principles to manage insects and diseases in meeting scenic area objectives. Suppress pests when outbreaks threaten scenic area objectives or resources in adjacent areas. Favor biological methods when available. Control of defoliators may be accomplished by spraying following approval of an environmental analysis. Use of salvage harvest is limited to catastrophic events.

A9 SPECIAL INTEREST AREA

GOAL

MANAGE, PRESERVE, AND INTERPRET AREAS OF SIGNIFICANT CULTURAL, HISTORICAL, GEOLOGICAL, BOTANICAL, OR OTHER SPECIAL CHARACTERISTICS FOR EDUCATIONAL, SCIENTIFIC, AND PUBLIC ENJOYMENT PURPOSES.

DESCRIPTION

Several unique areas (generally small in size) have been identified for their special features. The areas may be classified under 36 CFR 294.9, and managed to protect the special features in their natural condition, and to foster public use and enjoyment of those features. Special features which fall within this description are:

Cultural-Historical Areas - Lands possessing historical sites, buildings, or objects of National Register significance related to a theme group, or those having special cultural association to the Native American Community.

- Greenhorn (NFJD)
- Olive Lake - Fremont Powerhouse (NFJD)
- Target Meadows (Including Burnt Cabin Overlook)(Walla Walla)

Geological Areas - Lands having unique geological features or significance.

- Big Sink (Walla Walla)

Botanical Areas - Lands containing specimens, groups of plant colonies, or plant communities which are significant because of form, color occurrence, habitat location, life history, ecology, variety, or other features.

- Charley Creek (Pomeroy)
- Ruckel Junction (Walla Walla)
- Sheep Creek Falls (Pomeroy)
- Shimmiehorn Canyon (Walla Walla)
- Teal Spring (Pomeroy)
- Woodward Campground (Walla Walla)

Viewpoints - Sites affording opportunities for viewing forest activities and landscape settings.

- Bald Mountain (Overlooking Lookingglass Canyon)(Walla Walla)
- Big Creek Meadow (Overlooking the North Fork of the John Day River)(NFJD)
- Big Hole (Overlooking the Wenaha River)(Walla Walla)
- Bridge Creek (Overlooking Bridge Creek Wildlife Area and the confluence of Camas Creek with the North Fork of the John Day River)(NFJD)
- Gray Rock (Overlooking Mt. Emily and Elgin)(Walla Walla)
- Lookout Mountain (Overlooking Alder Creek and Bear Creek drainages of the Grande Ronde River)(Walla Walla)
- Potamus Point (Overlooking Potamus Creek)(NFJD)
- Table Rock (Overlooking Mill Creek and the Walla Walla River valley) (Walla Walla)

- Umatilla Breaks (Overlooking the North Fork Umatilla Wilderness)(Walla Walla)

Other Areas—Includes lands containing significant flora and fauna or fossils for zoological or paleontological interpretations.

DESIRED FUTURE CONDITION

The special attributes for which the areas are recognized shall provide a variety of unique recreation opportunities for public use and enjoyment. The areas and features will remain in a substantially undisturbed condition. Fences, signs, viewpoints, and other facilities may exist if needed to protect the features or to provide for public use and enjoyment. Evidence of management activities will be subordinate to these special points of interest. Various methods of interpretive services are to he provided to enhance understanding and appreciation of them.

MANAGEMENT AREAS STANDARDS AND GUIDELINES

General

Management plans may be developed for individual areas and may supplement direction provided for the management area. Any such plans will be amended to the Forest Plan.

RECREATION

Manage the special interest features, sites, and areas to provide Semi-primitive or Roaded Natural ROS Settings.

Access will relate to features being managed: activities will be mostly road oriented with some access through walk-in or horseback opportunities in a few areas.

Visitor use and activities will be managed to prevent degradation and enhance features of the Special Interest Area. Onsite controls and restrictions may be used to protect resources and promote use and enjoyment of the area.

Interpretive services will be emphasized.

Site development and facilities will be designed and located to protect or enhance the special features. Facilities may be provided for visitor use, environmental interpretation, safety of visitors, and to protect or enhance resource values. Facilities may be included inside the area where not in conflict with the overall purpose of the special interest area.

Off-highway vehicle (OHV) use will be restricted to designated routes.

Trails may be developed and maintained to meet the objective of the Special Interest classification, especially for onsite interpretation.

VISUAL

Manage for Retention visual quality objective.

CULTURAL

Meet Forest-wide Standards and Guidelines.

WILDLIFE

Wildlife habitat improvement and maintenance are permitted within the objective of the area. Emphasis IS on habitat improvement for viewing wildlife.

FISH

Meet Forest-wide Standards and Guidelines.

RANGE

Domestic livestock may be permitted to utilize existing forage without changing overall natural Characteristics or conflicting with the purpose of the area. Structural improvement,

development, and maintenance is permitted where livestock use is allowed; structural improvements may be used to exclude domestic livestock.

TIMBER

Timber harvest will not be scheduled or programmed. Tree cutting and vegetation management may be permitted in order to maintain or enhance the special features of the interest area, to provide for public safety (in areas of concentrated use), to construct or maintain improvements, or in a catastrophic situation. When tree cutting is employed, systems will be designed to protect the resource and meet SIA goals. Firewood cutting shall not be allowed.

WATER AND SOIL

Meet Forest-wide Standards and Guidelines.

MINERALS

Protection of SIA areas will be required during mineral exploration and development activities.

An area may be recommended from withdrawal for mineral entry in situations where mitigation measures do not adequately protect management area values, and all values (including minerals) have been evaluated.

Removal of common mineral material within the management area will not be permitted.

LANDS

Retain all Special Interest Areas in public ownership. Honor existing private access rights-of-way.

For historic-cultural and other resources, special use authorizations are acceptable, provided management objectives are met, area values are protected, and use is guided by, and conforms with, an approved management plan.

Forest-wide Standards and Guidelines apply to other lands and land uses.

TRANSPORTATION/FACILITIES

Roads are generally not permitted unless they exist prior to classification or they facilitate the recreation use, enjoyment, and interpretation of the area. Facilities may be developed and maintained to meet the objective of the special interest classification. Roads, walkways, gates, signs, and other facilities will meet the Secretary of Interior's Standards for Historic Preservation Projects in Cultural-Historical areas.

FIRE

The wildfire suppression response strategy of confine, contain, and control is consistent with area objectives. Wildfire suppression efforts will utilize low-impact control methods. Use of heavy equipment on cultural resource properties is prohibited.

FUELS

Fuel treatments should emphasize maintenance of the natural character of the area. For cultural/historical areas, fuel treatments will be planned and implemented to avoid negative impacts. Loadings should be reduced to minimize potential of high-intensity fires. Acceptable treatments on cultural-historical areas will include hand piling, hauling material away, etc. Prescribed fire may be used to manage other types of SIA's where it aids in maintenance and protection of the feature.

PESTS

Utilize integrated pest management (IPM) principles and strategies to prevent unacceptable vegetation losses due to pests. Emphasize prevention and early detection measures.

Suppress pest outbreaks with a minimum of disturbance to protect users and/or resources. Favor biological and silvicultural treatments where possible. Remove hazardous trees as identified in vegetative management plans.

A10 WENAHA-TUCANNON SPECIAL MANAGEMENT AREA

GOALS

MANAGE THE WENAHA-TUCANNON SPECIAL MANAGEMENT AREA FOR MULTIPLE-USE PURPOSES AS SET FORTH IN:

The Conference Report of the Endangered American Wilderness Act of 1978 (HA. Report No. 95-861) (US. Laws, Statutes, etc. 1978c) recognized both the Wilderness Act and special conditions in two areas. The report emphasized the traditional big game hunting use and the desire to maintain fish and wildlife populations and habitat.

DESCRIPTION

Two areas are originally identified. In the Forest Plan, the management area applies to that part of the Upper Tucannon Roadless Area east of Bear Creek (Pomeroy) and south of the Tucannon River.

DESIRED FUTURE CONDITION

Elk habitat management is to be emphasized in order to provide the opportunity for traditional hunting. The Forest will be seen as a variety of vegetative patterns creating a mosaic of forage and cover for big game. Although management activities such as timber harvest and road construction will be evident, clearcuts will be absent. Narrow roads that follow the contour of the land will allow access to the area, but shall be closed to motorized use at the conclusion of logging and reforestation activities. High quality water is to be produced from the areas. Dispersed recreation of all types shall be available but access will remain limited.

MANAGEMENT AREAS STANDARDS AND GUIDELINES

RECREATION

A Roaded Modified social and physical setting may result from meeting the goal; Roaded Natural or Semi-primitive settings may occur along boundaries near wilderness. Most dispersed recreation activities are available and emphasized, but hunting and fishing will be featured.

Recreation site modification and facility development levels 1 and 2 (see Glossary) are permitted. Developed recreation is not permitted.

Access will be mostly for walk-in or horseback opportunities on roads and trails closed to motorized use.

Trail and associated facility construction, reconstruction, and maintenance are permitted. Protection and improvement of existing trails is emphasized.

Off-highway vehicle (OHV) use is not permitted.

VISUAL

Visual quality objective emphasis is middleground Partial Retention, but may include some Modification.

CULTURAL

Meet Forest-wide Standards and Guidelines.

WILDLIFE

Manage habitat to maintain or enhance resident and migratory elk populations, as follows:

Elk habitat will be managed to achieve a habitat effectiveness index of no less than 60, including discounts for roads open to motorized vehicular traffic, as described in Wildlife Habitats in Managed Forests (Thomas and others 1979). Marginal cover, satisfactory cover,

and forage areas will be managed to meet size and spacing criteria as described in Habitat Effectiveness for Elk on Blue Mountain Winter Ranges (Thomas and others 1988).

The potential habitat effectiveness standard will be measured on a subwatershed (allocation zone) basis. Potential habitat effectiveness may fall below the 60 percent level on an individual project so long as the subwatershed (allocation zone) objective is met. In such cases, the project objective is long-term (20 years) improvement in cover.

Cover

A minimum range of 15 percent of the area will be managed as satisfactory cover (20 percent is desired). If this is not attainable because of low natural potential, the highest percentage of satisfactory cover potentially attainable will be created or maintained. A minimum of 30 percent of an area will be managed as total cover.

Stands managed for satisfactory cover will meet the following criteria:

- Be at least 40 feet in height, with a canopy closure of at least 70 percent in mixed conifer/lodgepole pine types, and no less than 50 percent in the ponderosa pine type,
- should be 1,200 to 1,850 feet in width (larger cover areas are preferable). Exceptions may be made by wildlife biologists based on an on-the-ground assessment of the stand(s) value for elk; and
- satisfactory cover should generally appear as a multi-layered timber stand.

Marginal cover will be no less than 10 feet in height with a canopy closure of at least 40 percent, and should be 600 to 1,200 feet wide. Exceptions may be made by wildlife biologists based on an on-the-ground assessment of the stand(s) value for elk.

All cover areas will be managed to provide sufficient vegetation to obscure 90 percent of a standing elk at a distance of 200 feet or less.

Forage

Available forage will be allocated to meet big game management objectives. Available excess forage may be allocated to domestic livestock.

Big game forage improvement projects such as seeding, browse planting, and fertilization may be used. Structural improvements may be used to protect these investments. Prescribed burning may be practiced in order to maintain a static or upward trend in fair or better range condition.

Other

Emphasis should be placed on retaining and protecting big game, key use areas, and habitats such as migrational corridors, calving/fawning areas, wallows, springs, seeps, and bogs.

Management activities will not create barriers to impede movement of big game animals.

Dead and down tree habitat will be managed to provide or maintain 80 percent of the potential population level for all primary cavity excavators and maintained for other cavity users

An average of one unburned slash pile for every 2 acres should be retained on even-aged regeneration harvest units for wildlife cover.

Manage to maintain or establish a high level of vegetative diversity at a minimum level of 15 percent in each of the following five seral stages:

Grass/Forb	Young Sawtimber
Shrub/Seedling	Mature/Overmature
Pole/Sapling	

FISH

Fish habitat improvement projects and their maintenance will be permitted.

RANGE

Domestic livestock grazing is permitted at Range Management Strategy B. All available range and livestock management practices consistent with the primary management goal of maintaining or enhancing habitat for big game and other wildlife species may be used. Range improvements may be permitted to the extent they are compatible with the management goal.

TIMBER

Permit timber harvest on a scheduled basis, and road construction and management within the following constraints:

1. The full range of silvicultural practices and intensities, except clearcutting, will be permitted. The selected silvicultural systems applied to timber stands within suitable forest lands will be based on a site-specific examination and analysis, and will be designed to achieve management goals. Harvest practices may include shelterwood, salvage, removal, and commercial thinnings, as well as group or individual tree selection. Other silvicultural practices may include natural and artificial regeneration, planting genetic stock when available, precommercial thinning, release, and insect, disease, and animal damage protection.
2. Logging and road building should be done with conventional practices.
3. Timber harvest activities are not to be permitted in these areas during the months of October and November, or during elk calving season.

WATER

Provide specified erosion control measures. Install the types and quantities of drainage structures associated with these roads, which will continue to function properly for several years without periodic maintenance.

Meet Forest-wide Standards and Guidelines.

SOIL

Special erosion protection measures will be undertaken to protect the resource.

Roads shall be treated during permanent road closure periods so as to minimize the danger of soil erosion. Erosion control measures to be taken may include, but are not limited to:

1. Revegetation of the roadbed with herbaceous species,
2. outsloping,
3. crossditching,
4. covering with logging slash, and
5. hand maintenance of drainage structures

MINERALS

Meet Forest-wide Standards and Guidelines while meeting the intent of the Conference Report (fish, wildlife, soil, and water protection measures).

LANDS

Retain all lands in Federal ownership. Meet Forest-wide Standards and Guidelines for lands and land uses.

TRANSPORTATION

All roads built into these areas for the purpose of timber harvesting are to be designed, built, and maintained to minimize soil disturbance and meet objectives for, and minimize impacts on, fish and wildlife.

Roads shall be constructed and maintained at the minimum widths necessary to safely accommodate logging equipment and trucks. The basic running surface width of these roads shall not exceed 12 feet.

Maintain standards of alignment and grade that allow roads to follow, as nearly as possible, the contours of the land with a minimum of excavation and earth movement to accomplish the construction.

The roads built into timber harvest areas shall be closed to motorized vehicles at the conclusion of logging and reforestation activities. During the closure periods, measures (including steel gates with suitable locks with openings adequate for passage of people and horses) shall be taken to ensure that motorized vehicles cannot enter onto or travel upon these roads, unless needed in emergency situations for the protection of life or property. Suitable measures shall be taken to assure their revegetation.

FIRE

For all wildfires in the management area, all suppression strategies (appropriate responses) may be used. Suppression practices will be designed to protect investments in managed forests and to prevent large acreage losses to wildfire.

FUELS

Fuels should not exceed an average of 12 tons per acre in the 0 to 3-inch size class and an average residue depth of 6 inches, as depicted in the Photo Series for Quantifying Forest Residues (Technical Report PNW 52, 1976) (USDA Forest Service 1976b):

Even-aged Management	3-PP-4-PC	4-PP-I-TH	I-PP&ASSOC-4-PC	2-LP-3-PC
Uneven-aged Management	2-PP-4-PC	12-LP-3-PC	4-PP-I-TH	5-PP&ASSOC-4-PC

All types of prescribed fire may be used to accomplish management objectives.

PESTS

Use integrated pest management principles and strategies in meeting management area objectives. Monitoring and detection of pest conditions and populations will be done so that corrective treatments can be prescribed early.

Consistent with resource objectives, protect forest stands (habitat) by practicing prevention activities. Emphasis will be on the prevention of stand and fuels conditions that increase pest populations above epidemic levels. Suppress insects and disease using cost-efficient strategies when outbreaks threaten resource management objectives.

B1 WILDERNESS

GOAL

MANAGE TO PRESERVE, PROTECT, AND IMPROVE THE RESOURCES AND VALUES OF THE FOREST WILDERNESSES, AS DIRECTED BY THE WILDERNESS ACT OF 1964.

DESCRIPTION

The Umatilla National Forest has three designated wildernesses:

1. Wenaha-Tucannon located in the northern Blue Mountains of northeastern Oregon and southeastern Washington. A total of 177,465 acres lies within the wilderness, in three counties in Washington and one in Oregon.
2. North Fork Umatilla located in the northern Blue Mountains of northeastern Oregon. A total of 20,144 acres is included in the wilderness in two counties in Oregon.
3. North Fork John Day located in the central Blue Mountains of northeastern Oregon. There are 106,787 acres is in the wilderness in two counties in Oregon.

Specific management direction for the Wenaha-Tucannon, North Fork John Day, and North Fork Umatilla wildernesses is summarized in the Forest Plan, Appendix 6.

DESIRED FUTURE CONDITION

Each of the Forest wildernesses will appear to be affected primarily by the forces of nature, with the imprint of human activities substantially unnoticeable. Natural processes, including fires, will continue to be the primary forces affecting the condition of wildernesses. The Limits of Acceptable Change (LAC) process will be fully implemented to provide the framework for establishing acceptable and appropriate resource and social conditions (especially the amount and type of use) in wilderness settings. The areas will be managed so as not to have degraded the wilderness attributes for which they were designated. There will be some evidence of human influence due to the existence of valid mining claims and past use; however, mitigation techniques will be utilized which minimize the impact of these activities. The surrounding area will be managed so as not to adversely affect the wilderness resource. Access roads and trailheads will distribute use adequately. Most trails will provide an element of challenge and some risk.

MANAGEMENT AREAS STANDARDS AND GUIDELINES

WILDERNESS

General:

Wildernesses will be managed as follows:

1. Provide opportunity for solitude, physical and mental challenge, primitive recreation experiences, education, and research.
2. Maintain the wilderness characteristics in such a manner that ecosystems are unaffected by human manipulation and influences, and plants and animals develop and respond to natural forces.
3. Natural ecological succession including natural fire will be allowed to occur without endangering adjacent lands.
4. Emphasis is on preserving, enhancing, and restoring wilderness character and public values. Protection of the wilderness resource will be the primary criterion used to resolve conflict between resource areas.

5. Use of motors and mechanized equipment is prohibited. Exception can be permitted with Forest Supervisor's approval for emergencies involving life, health, and safety. The Regional Forester must approve all other use of motorized equipment.
6. Pacific Northwest Region objectives for wilderness areas will be used as Forest-wide Standards and Guidelines for management of wilderness areas and providing wilderness opportunities for the public.
7. Wildernesses will be managed to prevent degradation. Each wilderness will be kept essentially as wild as it was at the time of classification. Nondegradation will apply to all values of wilderness: social, physical, and biological values. If degradation occurs at specific sites or areas, an equal or greater area will be improved elsewhere to keep overall condition at least as good as it was prior to the new impact. Conditions will be improved in situations where natural processes are not operating freely, or where the values for which the wildernesses were created are impaired. Examples of this situation occur where core areas of the wildernesses do not meet at least Primitive Wilderness Resource Spectrum (WRS) conditions and where popular destination points near the edges of wildernesses (within influence of day-use activities), or heavily-used travel corridors within the core area, do not meet at least Semi-primitive WRS conditions. The impact of mining activities in the North Fork John Day Wilderness is another example of a condition that will be improved.

RECREATION

Use

1. Recreation is an appropriate use of the wildernesses to the extent that it does not degrade values established for wilderness.
2. Management action of limiting and/or distributing visitor use will be based on application of the Limits of Acceptable Change (LAC) process described by Stankey, et al., in The Limits of Acceptable Change (LAC) System for Wilderness Planning (General Technical Report INT-176) (USDA Forest Service 1985b). The lands within the wildernesses will be assigned to one of the wilderness resource spectrum (WRS) classes described for each wilderness. The management emphasis for each opportunity class is stated in the Managerial Setting portion of the description.
3. Manage the traditional hunting use to protect wilderness characteristics and resources
4. Visitor use will be managed at a level compatible with the wilderness resource to prevent loss of solitude or unacceptable depreciation of the wilderness qualities. The primary emphasis will be on maintaining wilderness conditions, according to specified indicators and standards, rather than a specified amount of use. Tentative capacities for the wildernesses are:

   Wenaha-Tucannon - 115,000 RVD/yr.
   North Fork Umatilla - 15,000 RVD/yr.
   North Fork John Day - 85,000 RVD/yr.
5. If indicators do not meet standards established for each wilderness, the following procedures will be used by priority:
   a. Inform/educate users and correct resource damage;
   b. Where there is physical site alteration, make the site less appealing or less acceptable, remove evidence of use, naturalize the site, and scatter debris:
   c. Restrict causative activity by regulations; e.g., party size, length of stay, type of equipment, or pack stock;

d. close site or area to use until it is rehabilitated or restored to wilderness conditions and suggest alternative areas for use; and

e. restrict number of visitors.

6. Information and education contacts will emphasize appropriate wilderness behavior, distribution of use, management goals and objectives, and visitor assistance. Programs will be designed to allow 60-80 percent of the users to read or hear the wilderness message prior to entering the area.

7. Encourage visitors to adopt a 'leave no trace' ethic:

   a. Use self-contained stoves,

   b. remove fire circles and scatter remaining charcoal,

   c. refrain from cutting green trees or limbs,

   d. practice a Pack-It-In, Pack-It-Out policy, and

   e. use biodegradable soap and dispose of human waste and waste water from cooking and washing at least 100 feet from streams and lakes.

Facilities:

1. Construction, installation, and maintenance of permanent improvements will generally be avoided. Rustic facilities (development level 1) may be added or maintained to preserve and/or protect the wilderness resource. Facilities will be designed and placed to minimize their intrusion upon the wilderness setting and will meet use requirements within limits of acceptable change for the WRS class.

Trails:

1. Provide a range of trail difficulty consistent with WROS classes. Trails will generally be managed to provide 'More' and 'Most' difficult opportunities.

2. Trails will be constructed, reconstructed, or maintained at standards appropriate to the WRS setting specified in the Trail Management Plan.

Activities:

1. Activities may be restricted or controlled as necessary to preserve the opportunity for solitude and primitive recreation experiences.

2. Contain permanent loss of ground cover to a maximum of 800 sq. ft. per acre in heavily used areas. Revegetation of impacted areas can occur.

Recreation Opportunity Spectrum:

The wilderness will be managed to provide the setting, activity, and experience in the Recreation Opportunity categories of Primitive and Semi-primitive Nonmotorized.

Core areas of the wildernesses will generally be managed to meet Primitive WRS conditions, except that heavily used travel corridors may meet Semi-primitive Nonmotorized (SPNM) conditions. Popular destination points near the edges of wildernesses (within influence of day use activities) will meet at least SPNM conditions.

Signs:

1. Provide for minimal signing at entrances and key trail intersections. Use standard oak signs for entrances and trail signs.

2. Where activities occur adjacent to the wilderness, the activity will be responsible to locate and post the boundary.

VISUAL

Preservation and retention visual quality objectives will meet the physical and biological goals for the areas. Preservation is the primary VQO for the wilderness. The retention VQO will apply to management activities (e.g., gas and mineral exploration, range improvements, trail construction).

CULTURAL

Meet Forest-wide Standards and Guidelines.

Cultural resource sites and structures will be protected until they are evaluated. Sites or structures not qualifying for the National Register of Historic Places will be removed or allowed to deteriorate naturally unless they are:

1. Necessary to support the values set forth in Section 4(b) of the Wilderness Act of 1964: or
2. Serving administrative purposes as necessary for protection of the wilderness resource (Wilderness Act of 1964 [Section 4(c)]) (U.S. Laws, Statutes, etc. 1964); or
3. Essential to cultural resource management as described in FSM 2323.82.

All structures shall be evaluated for their historical significance. Evaluation should include comparative analysis to determine a property's relative importance.

After evaluation, any decision to maintain, or abandon (but not remove) structures which meet the criteria for the National Register shall be preceded by the process outlined in 36 CFR 800 for comment by the Advisory Council on Historic Preservation. Abandoned structures should be allowed to deteriorate naturally after following procedures outlined in 36 CFR 800, including recording the site to appropriate standards and other mitigative measures described in the concluding Memorandum of Agreement. Any retained or maintained structure shall be managed to have a minimum impact on the wilderness resource.

If it is determined, after historical evaluation, that a structure is not of significance, it shall be removed by a practical method compatible with the goals of this Plan and the site shall be restored to as natural a condition as is practical.

Onsite interpretation will not be done. Interpretation may be done offsite with brochures and audio-visual programs.

WILDLIFE AND FISH

Wildlife viewing, hunting, and fishing are appropriate uses of wilderness.

Wildlife and fish habitat management will be permitted where they conform to the management of the wilderness resource.

Reestablishment of indigenous species is permitted, subject to environmental assessments and Regional Forester approval.

Coordinate with the state wildlife and game agencies to establish user densities that are compatible with the management of the wilderness.

RANGE

Grazing of domestic livestock is permitted at places and approximates levels established prior to the effective date of wilderness classification. A level 'B' or 'C' strategy for range can apply. Sustained livestock grazing may be reduced if damaging to the resource. Existing livestock management improvements may be maintained. Structural range improvements may be built only when necessary to protect the resource (not to increase capacity).

Permittees will be encouraged to install and replace range improvement facilities with native materials where practical.

All grazing areas within the wilderness will be designated as livestock grazing allotments. Objectives for the allotment management will be consistent with resource conditions in the assigned WRS. As a minimum, managers will:

1. Establish recommended grazing dates, based on range readiness checks,
2. Determine capacity, condition, and trend, and
3. Monitor actual use levels.

Use of supplemental feeds for recreation livestock will be encouraged over open grazing. Encourage use of feeds that are free of nonindigenous and noxious weed seed.

TIMBER/VEGETATION

Timber harvest is not permitted.

Natural ecological processes of plant succession will be encouraged to occur, including ecological systems dependent on the natural role of fire.

Live trees may be utilized for administrative purposes.

Fuelwood gathering is restricted to onsite use in conjunction with recreation and authorized activities.

Geological and mineral surveys may be performed by the US. Geologic Survey and Bureau of Mines.

WATER AND SOIL

Protect full natural flow of streams within the wildernesses, except for valid water rights existing at the time of classification.

Water developments may be authorized by the President where such developments are deemed necessary.

Meet Forest-wide Standards and Guidelines for Soil and Water.

MINERALS

The wilderness is closed to mineral entry and mineral leasing, subject to valid existing rights.

Occupancy, structures and use of motorized and mechanized equipment related to mining activities are permitted to the extent allowed by law and regulations. Every reasonable effort should be made through the Operating Plan to minimize their effect on the wilderness resource, compatible with rights of claimants and lessees.

LANDS

Acquisition of private parcels of land within the wilderness boundary is a high priority.

Wildernesses are an 'Exclusion Area' for utility corridors.

Rights-of-way and nonrecreational special uses will be managed in conformance with the Wilderness Act and capacity objectives.

Nonconforming uses established prior to wilderness designation will be administered so as to minimize their impacts. New nonconforming structures (temporary or permanent) and uses are not permitted

TRANSPORTATION

Roads are not permitted except for those with legally established rights.

AIR QUALITY

Forest activities outside the wilderness will be conducted to protect the clarity of the air to maintain visibility standards

Where manageable or negotiable, identify and mitigate outside influences adversely affecting air quality within wildernesses. The air quality related values will be identified when a Prevention of Significant Deterioration (PSD) action that may impact the wilderness is received.

FIRE

Fire will be considered an inherent part of the general wilderness ecosystem. All naturally-occurring ignitions within wilderness are prescribed fire until declared wildfire.

All wildfires will receive an appropriate suppression response. Suppression actions may include surveillance, confinement, containment, or control depending on fire location and burning conditions.

Low impact suppression measures will be applied. Some forms of mechanized equipment may be used if the result is to lessen the long-term physical and social impact on wilderness areas from suppression actions.

Prescribed fires may be used as a tool to manage ecosystems within the wilderness in accordance with management plans for each wilderness (FSM 2324).

PESTS

Monitor the levels and activities of pests normally associated with wilderness and old growth ecosystems. Most insect and disease agents do not normally pose threats to adjacent lands; effects of endemic levels will be accepted as naturally-occurring phenomena.

Suppression activities for insect and disease outbreaks may be permitted with Chief of the Forest Service approval to prevent loss within wilderness and/or unacceptable resource damage to resources in adjacent areas. Favor biological methods when available. Management of insects and diseases will follow direction in FSM 2324.1.

GENERAL PROCEDURES

EMERGENCIES

1. Motorized equipment and mechanical transport may be allowed when an emergency condition exists involving human health and safely (FSM 2326.1).
2. Removal of seriously ill injured, or deceased persons will be considered an emergency justifying landing of an aircraft. For emergency helicopter landings, natural openings will be utilized where possible rather than cutting new openings.
3. Responsibility for search and rescue of lost or injured visitors is held by the county of jurisdiction (County Sheriffs). The Forest Service will provide assistance within its capacity as requested. The Forest Service will provide for other considerations including limiting the impact of operations on wilderness values to a minimum.
4. Public communications from inside wilderness will be restricted to emergencies.

RESEARCH

Research may be conducted when:

1. Necessary to support values set forth in Section 4(b) of the Wilderness Act; or,
2. It cannot be accomplished outside the wilderness; and,
3. It is done in compliance with the protection of the wilderness values and wilderness experience of visitors.

C1 DEDICATED OLD GROWTH

GOAL

PROVIDE AND PROTECT SUFFICIENT SUITABLE HABITAT FOR WILDLIFE SPECIES DEPENDENT UPON MATURE AND/OR OVERMATURE FOREST STANDS, AND PROMOTE A DIVERSITY OF VEGETATIVE CONDITIONS FOR SUCH SPECIES.

DESCRIPTION

Designated mature and old growth forest stands will be located and retained to distribute suitable habitat throughout the Forest for wildlife species dependent upon this habitat type. Forest stands will meet ecological, biological, size and distribution criteria as suitable old growth for survival and reproduction of indicator species. The Forests management indicator species for this habitat group include the pileated woodpecker, pine marten, and northern three-toed woodpecker. Other important dependent species include northern goshawk, Vaux's swift, Townsend warbler, brown creeper, and a variety of cavity users. If an insufficient supply of mature and old growth forest stands is available, stands capable of meeting old growth criteria will be identified and retained as old growth.

The management area applies to the system of dedicated old growth habitat units distributed across the Forest to meet requirements for Forest indicator species. All Districts include a few additional dedicated units to improve overall old growth distribution. Locations of dedicated units are shown on management area and old growth resource maps.

DESIRED FUTURE CONDITION

Old growth areas will be characterized by stands of naturally appearing overmature trees. Stands of mature trees may be included in the old growth category to provide a better distribution of this habitat type throughout the Forest. Trees in these stands are relatively large (with many trees greater than 21 inches d.b.h.), past the point of rapid growth, and some have visible evidence of decay and decline including mycorrhizal fungi and other microorganisms. Other typical characteristics include a multi-layered, deep canopy with trees of two or more age classes and an abundance of both standing dead and down wood material. Stands will be dispersed in quantities and sizes which meet the needs of dependent wildlife species.

The mature and old growth stands will contribute towards the Forest diversity and aesthetic values. Management activities will normally be excluded within designated units except to enhance or perpetuate old growth forest habitat conditions. Management emphasis will be on supporting sustainability of old growth/mature tree habitat characteristics and components. Vehicle use is also normally restricted, but will occur on designated routes (roads and trails) to access other parts of the Forest.

MANAGEMENT AREAS STANDARDS AND GUIDELINES

RECREATION

Dispersed recreational opportunities and settings will range from Primitive to Roaded Natural (ROS Users Guide). Recreational opportunities will be consistent with the maintenance of old growth habitat characteristics.

No developed recreational facilities are permitted.

Access will be mostly for walk-in or horseback opportunities on roads closed to motorized use, with some open road opportunities.

Motorized vehicle use will be restricted to only those designated routes (roads and trails) necessary to cross the area and/or provide for activities occurring in adjacent management areas.

VISUAL

Management will result in a natural appearing (Retention) landscape. Visual quality will be subordinate to old growth habitat goals.

CULTURAL

Meet Forest-wide Standards and Guidelines.

WILDLIFE

In addition to size and distribution criteria described in the Forest-wide Standards and Guidelines, designated old growth habitat units will include the following items:

Twelve to fifteen live trees per acre greater than 21 inches d.b.h. (6 inches d.b.h in lodgepole pine stands).

A minimum average of 225 hard snags 12 inches d.b.h., per 100 acres, in mixed conifer and ponderosa pine stands (15 of these hard snags will be greater than 20 inches d.b.h.); and an average of 180 hard snags, greater than 10 inches d.b.h., per 100 acres, in lodgepole pine stands. Dead and down tree levels will include an appropriate number of the larger diameter classes (12-inch and 20-inch d.b.h. trees) to provide habitat at 100 percent of the potential population level. At least 50 percent of these snags will be 15 feet tall or taller, with the remainder at least 6 feet high.

A minimum of two to four down logs at various stages of decomposition per acre in muted confer and lodgepole pine stands, and at least one to two logs per acre in ponderosa pine stands. The logs should be at least 6 inches in diameter at the large end for lodgepole pine, 17 inches in diameter at the large end for ponderosa pine and mixed conifer, and 20 feet or more in length.

Two or more canopy levels. A single canopy level is acceptable in lodgepole pine stands.

At least 55 percent crown closure with emphasis on stands with 70 percent or more crown canopy closure.

Evidence of moderate to high levels of decadence.

A low level of human disturbance with few if any open roads within the stand.

Maintain snags to provide 100 percent of the potential population level within the designated old growth habitat areas. Maintain a minimum of two hard snags, greater than 10 inches d.b.h., per acre, on an additional 300 acres immediately adjacent to the designated old growth units as feeding habitat for pileated woodpeckers.

Snags and dead and down tree habitat will be created in designated old growth units and adjacent feeding areas that are deficient in these habitat components. Practices may include girdling, topping, or felling of live trees.

In the event of catastrophic loss of existing designated old growth habitats causing a drop below the minimum distribution requirements, replacement units in the most advanced successional stage available will be selected in close proximity to the original location.

Structural and nonstructural habitat improvements (including prescribed burning) and their maintenance may be utilized, but only to maintain or enhance old growth habitat characteristics.

FISH

All fish habitat improvement, development, and maintenance projects are permitted within the constraints of retaining or enhancing old growth habitat characteristics.

Use of mechanical equipment for fish habitat improvement projects is permitted although no roads or permanent trails may be constructed for access.

RANGE

Moderate levels of livestock grazing are permitted; however, forage in general will be limited to that which is normally present under densely forested canopies. Bedding by domestic sheep in dedicated old growth units will not normally be permitted.

Maintain existing range improvement structures. Additional structural improvements are generally not permitted.

TIMBER

Timber management and harvest activities will not be scheduled or permitted.

Fuelwood cutting, salvage harvest, or the removal of any dead or down material will not be permitted, unless the unit(s) is lost as a result of catastrophic conditions.

WATER AND SOIL

Meet Forest-wide Standards and Guidelines

MINERALS AND ENERGY

Meet Forest-wide Standards and Guidelines.

LANDS

Exchange of land involving existing old growth may occur where the quality, size, and spacing requirements of dedicated old growth units are met.

Issuance of any permits or licenses that may adversely impact dedicated old growth units will be discouraged.

TRANSPORTATION

Roads and trails are permitted but will be limited to the number and miles necessary to meet surrounding area objectives, while minimizing impacts to wildlife in the old growth units. Activities may include construction and reconstruction of new roads and trails, and operation and maintenance of open roads and trails. Where feasible and practical, road construction within designated old growth units should be avoided.

Most roads (and areas) in dedicated old growth units should be closed; restrict motorized vehicle use to designated open roads and trails.

FIRE

For moderate to high intensity wildfires, the appropriate suppression response should emphasize control strategies.

Low impact suppression methods should be favored. Use of mechanical equipment to suppress wildfires is acceptable within the objective of minimizing the impact of the suppression effort on the old growth values.

FUELS

Natural fuel treatments are permitted to maintain or enhance old growth habitat characteristics or reduce the potential for a high number of and/or severely burned acres.

Natural fuels should not exceed an average of about 12 tons per acre in the 0 to 3-inch size class and an average residue depth of 6 inches, as depicted in the Photo Series for Quantifying Natural Forest Residues (Technical Report PNW 105) (USDA Forest Service 1980):

2-PP&ASSOC-4 3-LP-3 2-MC-3 6-PP-4

Prescribed burning is the preferred method of fuel treatment.

PESTS

Monitor the levels and activities of pests normally associated with old growth ecosystems. Effects of endemic levels will be accepted as naturally occurring phenomena. No special management practices will be utilized to control losses from insects or diseases at endemic levels.

Suppress or control pests when outbreaks reach epidemic levels and threaten catastrophic loss of dedicated old growth resources or other resources on adjacent lands. Favor biological treatment methods or prescribed burning. IPM methods will not conflict with wildlife objectives.

C2 MANAGED OLD GROWTH

GOALS

PROVIDE AND PROTECT SUFFICIENT SUITABLE HABITAT FOR WILDLIFE SPECIES DEPENDENT UPON MATURE AND OVERMATURE LODGEPOLE PINE FOREST STANDS, AND PROMOTE A DIVERSITY OF VEGETATIVE CONDITIONS FOR SUCH SPECIES.

DESCRIPTION

Designated mature and old growth and replacement forest habitat within the delineated higher elevation lodgepole pine types will be located, distributed, and managed (using silvicultural techniques) for wildlife indicator species. Forest stands will meet ecological, biological, size, and distribution criteria as suitable old growth for survival and reproduction of indicator species. The Forest management indicator species for this habitat group is the northern three-toed woodpecker. Other important dependent species include northern goshawk, Vaux's swift, townsend warbler, brown creeper, and a variety of cavity users. Developing lodgepole pine old growth stands, in various stages of management, will meet size and distribution criteria. Locations of managed units are shown on management area and resource maps.

DESIRED FUTURE CONDITION

In managed old growth stands, activities will often be evident and directed towards development and maintenance of old growth lodgepole forest attributes. Stands will be dispersed in quantities and sizes which meet dependent wildlife species needs. Lodgepole stands managed for old growth will have two stand characteristics, each dependent on the extent of management activities such as timber harvest, planting, thinning, and others. The lodgepole pine units will consist of about equal acreage in two distinct age classes, 0 to 60 and 60 to 120. The areas with stands less than 60 years old will often appear as 'typically' managed forest stands influenced by timber management practices; and the stands over 60 years will display typical signs of old growth, with large diameter trees, abundant dead and down material, vertical diversity, evidence of some decadence, and fading evidence of past timber management practices. Dispersed recreation opportunities will be available in the younger stands but motorized opportunities will be limited in older stands. The mature and old growth stands will contribute towards the Forest diversity and aesthetic values.

MANAGEMENT AREAS STANDARDS AND GUIDELINES

RECREATION

Dispersed recreational opportunities will range from Roaded Natural to Roaded Modified (ROS Users Guide). Recreational opportunities will be consistent with the maintenance of old growth habitat characteristics.

No developed recreational opportunities or facilities are permitted.

Access will be mostly for walk-in or horseback opportunities on roads closed to motorized use, with some open road opportunities.

Motorized vehicle use will be restricted to the designated routes (roads and trails) necessary to cross the area (see Transportation) and/or to provide access for activities occurring in adjacent management areas.

VISUAL

Management activities will result in a natural appearing (Retention) to a modified (Maximum Modification) visual setting. Visual quality will be subordinate to old growth habitat goals.

CULTURAL

Meet Forest-wide Standards and Guidelines.

WILDLIFE

In addition to size and distribution criteria described in Forest-wide Standards and Guidelines, managed old growth habitat units will include the following items in the oldest age classes (60-120 years for lodgepole pine):

1. Twelve to fifteen live trees per acre, greater 6 inches d.b.h. in lodgepole pine stands.
2. an average of two hard snags, greater than 10 inches d.b.h., per acre, in lodgepole pine stands. At least 50 percent of these snags will be 15 feet tall or taller with the remainder at least 6 feet high;
3. a minimum of two to four down logs at various stages of decomposition per acre in lodgepole pine stands, and at least 6 inches in diameter at the large end;
4. although two or more canopy levels is preferred, a single canopy level is acceptable in lodgepole pine stands;
5. at least 55 percent crown closure with emphasis on stands having 70 percent or more crown canopy closure;
6. evidence of moderate to high levels of decadence; and
7. a low level of human disturbance with few, if any, open roads within the stand.

Maintain snags to provide 100 percent of the potential population level within the managed old growth habitat areas.

Snags and dead and down tree habitat will be created in all managed old growth units that are deficient in these habitat components. Practices may include girdling, topping, or felling of live trees.

In the event of catastrophic loss of any existing designated old growth habitats causing a drop below the minimum distribution requirements, replacement units in the most advanced successional stage available will be selected in close proximity to the original location.

Structural and nonstructural habitat improvements and their maintenance may be utilized to maintain or enhance old growth habitat characteristics

FISH

All fish habitat improvement, development, and maintenance projects are permitted within the constraints of retaining or enhancing old growth habitat characteristics.

Use of mechanical equipment for fish habitat improvement projects is permitted although no roads or permanent trails may be constructed for access.

RANGE

Moderate levels of livestock grazing is permitted; however, forage in general will be limited to that which is normally present under densely forested canopies. Bedding by domestic sheep in managed old growth units will not normally be permitted.

Maintain existing range improvement structures. Additional structural improvements are generally not permitted.

TIMBER

Timber harvest is permitted on a scheduled basis to enhance wildlife habitats as follows:

1. Maintain the distribution requirements for an equal number of 75-acre units in the lodgepole pine type in both of the 0 to 60 years and 60 to 120 years age classes, so that existing old growth units would be managed and move geographically through time.

The full range of silvicultural practices and intensities would apply to the 0 to 60-year age class in order to develop the large tree component as soon as possible. Emphasis will be on even-aged management techniques and practices.

2. When these stands assume the characteristics of old growth habitat, timber management activities (including fuelwood cutting, salvage harvest, or the removal of any dead or down material) will not normally be permitted, except for those practices that may be needed to maintain or enhance old growth characteristics.

WATER AND SOIL

Meet Forest-wide Standards and Guidelines.

MINERALS AND ENERGY

Meet Forest-wide Standards and Guidelines.

LANDS

Exchange or acquisition of land may occur where it will not adversely affect existing old growth quality, size, and spacing requirements.

Issuance of any permits or licenses that may adversely impact managed old growth units will be discouraged.

TRANSPORTATION

For areas in the 0 to 80-year category in mixed conifer, and 0 to 60 in lodgepole pine, roads and trails may be constructed, reconstructed, operated, and maintained.

For old growth areas older than 80 years in mixed conifer, and 60 years in lodgepole pine, roads and trails are permitted but will be limited to the number and miles necessary to meet surrounding area objectives and minimize impacts to wildlife in the old growth units. Where feasible and practical, old growth units should be avoided. Activities may include construction and reconstruction of new roads and trails, and operation and maintenance of open roads and trails.

Restrict motorized vehicle use within managed old growth units to open roads and trails in all age classes older than 80 years for the ponderosa pine and mixed conifer types, and older than 60 years for the lodgepole pine type. Most roads in these areas should be closed to motorized use.

FIRE

For moderate to high intensity wildfires, the appropriate suppression response should emphasize control strategies.

Low impact suppression methods should be favored. Use of mechanical equipment to suppress wildfires is acceptable within the objective of minimizing the impact of the suppression effort on the old growth values.

FUELS

Natural fuel treatments are permitted to maintain or enhance old growth habitat characteristics or reduce the potential for severely burning an old growth area.

Natural fuels should not exceed an average of about 12 tons per acre in the 0 to 3-inch size class and an average residue depth of 6 inches, as depicted in the Photo Series for Quantifying Forest Residues (Technical Reports PNW 52) (USDA Forest Service 1976b):

Age Class	Lodgepole Pine	Ponderosa Pine/Mixed Conifer

0-60 0-80	2-LP-3-PC	 3-PP-4-PC 4-PP-1-TH 1-PP&ASSOC-4-PC
60-120 80-160 and 160-240	3-LP-3	 2-PP&ASSOC-4 2-MC-3 6-PP-4

Prescribed burning is the preferred method of fuel treatment.

PESTS

Use integrated pest management (IPM) principles to meet management area objectives. Emphasis will be on the prevention of stand and fuels conditions that increase pest populations above epidemic levels. Natural or endemic levels are acceptable, and no special management practices will be employed to control losses from insects or diseases at these levels.

Suppress or control pests when outbreaks threaten managed old growth resources, the ability of stands to become old growth, or other resources on adjacent lands. Favor biological methods when acceptable. IPM methods will not conflict with wildlife objectives.

C3 BIG GAME WINTER RANGE

GOAL

MANAGE BIG GAME WINTER RANGE TO PROVIDE HIGH LEVELS OF POTENTIAL HABITAT EFFECTIVENESS AND HIGH QUALITY FORAGE FOR BIG GAME SPECIES.

DESCRIPTION

The Big Game Winter Range strategy applies to all or parts of winter ranges delineated in coordination with the Oregon Department of Fish and Wildlife and the Washington Department of Wildlife. Big game winter ranges are generally located on the lower elevation, 'front' country, of the Forest. The designated winter range boundaries encompass areas that provide habitat for 90 percent or more of the wintering elk population during the winter use period 6 years out of 10. Each winter range is assigned a winter use period ranging from 4 to 4 1/2 months. A total of 21 winter range areas are identified on the Umatilla National Forest totaling 277,677 acres.

All or parts of the following defined big game winter ranges are included in the management area:

WINTER RANGE	NO.	STATE
Touchet	I	WA
Tucannon	2	WA
Asotin	3	WA
Wenaha	5	WA/OR
Wenatchee	6	WA
Phillips Creek	10	OR
McKay Creek	11	OR
Birch Creek	12	OR
Albee	13	OR
Cable Creek	14	OR
Bridge Creek	15	OR
Bone Point	16	OR
Desolation	17	OR
Heppner	18	OR
Kahler Basin	19	OR
Monument	20	OR
Mt. Emily	21	OR

DESIRED FUTURE CONDITION

Big game winter ranges will appear primarily as a mosaic of managed forests, brush patches, and large grasslands. Forested areas will contain a mix of harvested even-aged, uneven-aged, and natural stands, creating patterns of cover patches and forage areas for big game. Management activities may be locally apparent: created openings will range up to 25 acres in size. Where natural potential exists, cover areas will be developed and/or maintained to occur as groups of larger trees, 10 acres or more in size, with dense canopies. Use of prescribed fire will be apparent. Areas of early spring green-up and other forage changes due to prescribed fires and other means will occur in a mosaic pattern over the winter ranges; quality forage will be abundant because of management. Most roads and trails will be closed to vehicle traffic during the winter and there will be minimum human disturbance to big game during this period. Livestock use will compliment big game management. As a result of management, quality big game habitat will be achieved and assist in meeting state big game populations and productivity goals, and Forest recreation objectives. During an 'average' winter, most of the wintering big game will remain on public lands keeping impacts to private lands low.

RECREATION

A Roaded Modified social and physical setting Recreational Opportunity Spectrum (ROS), may result in meeting the goal. Dispersed recreation activities that meet the goal are permitted.

Recreation site modification and facility development levels 1 and 2 (see Glossary) are permitted.

Access will be mostly for walk-in or horseback opportunities on trails or closed roads, with some road-oriented activities.

Off-highway vehicle (OHV) use will be permitted on designated routes. OHV use will be curtailed by closures where this use is determined to be detrimental to wintering big game species.

Trail and associated facility construction, reconstruction, and/or maintenance shall be permitted. Trail activities and use will be curtailed by closures where and when determined to be detrimental to wintering big game species.

VISUAL

A range of visual quality objectives from Retention to Maximum Modification will apply.

CULTURAL

Meet Forest-wide Standards and Guidelines.

WILDLIFE

Elk habitat will be managed on designated big game winter ranges to achieve a habitat effectiveness index of no less than 70, including discounts for roads open to motorized vehicular traffic as described in Wildlife Habitats in Managed Forests (Thomas and others 1979). The habitat effectiveness standard will be measured on an individual winter range basis.

Cover

Marginal and Satisfactory cover will be managed to the extent possible to meet optimum size and distribution criteria as described in 'Habitat Effectiveness Index for Elk on Blue Mountain Winter Ranges' (Thomas and others 1988).

Where possible, a minimum of 10 percent of each winter range will be maintained and managed as satisfactory cover (15-20 percent is desirable). If this is not attainable because of low natural potential, the highest possible percentage of satisfactory cover will be created or maintained. Where possible, a minimum of 30 percent of an area will be managed as total cover (satisfactory and marginal).

Stands managed for satisfactory cover will meet the following criteria:

- Provide stand width of 600-1,200 feet. Exceptions may be made according to Forest-wide Standards and Guidelines;
- be at least 40 ft. in height with a canopy closure of at least 70 percent in mixed conifer types and no less than 50 percent in the ponderosa pine types; and
- should be at least 10 acres in size. Larger cover areas are preferred.

The desired cover condition will generally appear as a multi-layered stand and meet elk 'hiding' criteria by obscuring 90 percent of a standing elk at a distance of 200 feet or less.

Marginal cover will include stands no less than 10 feet in height, with a canopy closure of at least 40 percent, and meet elk 'hiding' criteria.

Forest stand harvest and management may be permitted in cover areas to meet long-term, big game cover objectives as determined on each winter range. Forest stands that can only qualify as marginal cover due to site potential (generally ponderosa pine stands) may receive timber harvest and management (see Timber) as long as big game habitat management objectives are met.

Forage

Both the quantity and quality of forage for big game will be enhanced or maintained through improved livestock grazing systems, controlled seasonal use, an active prescribed burning program, and other measures.

Available forage will be allocated to meet big game management objectives. Available forage in excess to wildlife needs may be allocated to domestic livestock.

Big game forage and cover improvement projects such as prescribed burning, seeding and planting, browse planting, release, mechanical ground and vegetative disturbance, fertilization, and others may be employed. Structural improvements may be used to protect these investments.

Other

All management activities will be restricted, where necessary, during the big game winter use period of December 1 through March 30 or April 15.

Management activities will not create barriers to impede movement of big game animals.

Dead and down tree habitat will be managed to provide or maintain 60 percent of the potential population level for all primary cavity excavators as described in Wildlife Habitats in Managed Forests (Thomas and others 1979).

FISH

Fish habitat improvement projects and their maintenance will be permitted.

RANGE

Domestic livestock grazing is permitted at Range Management Strategy C. All available range and livestock management practices consistent with the primary management goal of maintaining or enhancing the big game winter ranges may be used.

Structural range improvements are permitted to the extent they are compatible with big game winter ranges. This may entail the use of let-down fences, etc.

TIMBER

Timber will be managed on a scheduled basis with the exceptions noted below. All timber management practices and intensities consistent with achieving the big game and other wildlife habitat goals will be permitted. The selected silvicultural systems applied to timber stands within suitable forest lands will be based on a site-specific examination and analysis and will be designed to achieve wildlife habitat management goals.

EXCEPTION: Designated big game winter range located between Skookum Creek and Potamus Creek on the Heppner District will have no scheduled timber harvest activity during the first 10 years following approval of this Plan.

Harvest practices will emphasize uneven-aged management including individual tree and group selection, but may also include even-aged management practices of clearcutting, shelterwood, and seed tree. Salvage of mortality is to be permitted, consistent with meeting objectives; commercial thinnings may also be utilized consistent with the need to maintain satisfactory cover. Other permitted cultural practices will include natural and artificial regeneration, planting

genetic stock when available, precommercial thinning, and animal damage control protection. Logging and road building should be done with conventional practices including helicopter.

Fuelwood cutting is permitted consistent with the established goals of enhancing big game habitat and maintaining prescribed levels of dead and down tree habitat.

WATER AND SOIL

Meet Forest-wide Standards and Guidelines.

MINERALS AND ENERGY

Meet Forest-wide Standards and Guidelines.

LANDS

Delineated winter range acres in Federal ownership will generally be retained.

Acquire inholdings within delineated winter range lines where opportunities exist.

Other Forest-wide Standards and Guidelines for lands and land uses apply.

TRANSPORTATION

Roads will be closed to motorized use as needed, and especially during the winter use period, to meet big game habitat effectiveness objectives, unless the roads are needed as through routes or to access private lands.

FIRE

For moderate to high intensity wildfires (average flame lengths over 2 ft.), all wildfire suppression strategies may be emphasized.

Under appropriate fire prediction conditions, wildfires may be permitted to play a natural role on the winter ranges to meet big game habitat objectives.

FUELS

Fuels should not exceed an average of 9 tons per acre in the 0 to 3-inch size class and an average residue depth of 6 inches, as depicted in the Photo Series for Quantifying Forest Residues (Technical Report PNW 52) (USDA Forest Service 1976b):

Even-aged Management	3-PP-4-PC	4-PP-1 -TH	1 -PP&ASSOC-4-PC	2-LP-3-PC
Uneven-aged Management	2-PP4-PC	2-LP-3-PC	4-PP-1 -TH	5-PP&ASSOC4-PC

All types of prescribed fire may be used including broadcast burning, underburning, or range burning.

PESTS

Use integrated pest management (IPM) principles and strategies in managing insects and disease to meet management objectives. Monitoring and detection of pest conditions and populations will be done so that corrective treatments consistent with resource objectives can be prescribed at the earliest opportunity.

Consistent with resource objectives, protect forest stands (habitats) by practicing prevention activities. Emphasis will be on the prevention of stand and fuels conditions that favor pests increases above epidemic levels. Aggressively suppress insects and disease using cost efficient strategies when outbreaks threaten resource objectives.

C3A SENSITIVE BIG GAME WINTER RANGE

GOAL

MANAGE SENSITIVE AREAS OF BIG GAME WINTER RANGE TO PROVIDE HIGH LEVELS OF POTENTIAL HABITAT EFFECTIVENESS (AT OR ABOVE THE CURRENT LEVELS).

DESCRIPTION

The strategy applies to parts of winter ranges delineated in coordination with the Washington Department of Wildlife (and Oregon Department of Fish and Wildlife). The sensitive portions of designated winter ranges are the areas used nearly every year by wintering elk populations because of topography, slope, and current quality of cover and forage. The areas are generally at lower elevations of the designated winter ranges and lie adjacent to private lands.

Parts of (extensions) the Asotin big game winter range (Pomeroy) are included in the management area.

DESIRED FUTURE CONDITION

The area will appear as a mosaic of plant communities, including grassland forage area, brush, and some stands of trees. Use of prescribed fire will be apparent and carried out to maintain or increase the quality and quantity of forage and amount of cover on the area. Areas of early spring forage green-up due to prescribed fire will occur in a mosaic pattern over the winter range. Increased forage and cover will help encourage big game use on public lands and discourage high levels of winter use on the adjacent private lands. Most roads and trails will be closed to vehicle traffic during the winter, and there will be minimum human disturbance to big game during this period.

MANAGEMENT AREAS STANDARDS AND GUIDELINES

RECREATION

A Roaded Modified social and physical setting (ROS) may result in meeting the goal. Dispersed recreation activities that meet the goal are permitted.

Recreation site modification and facility development levels 1 and 2 (see Glossary) are permitted.

Access will be mostly for walk-in or horseback opportunities on trails or closed roads, with some road-oriented activities.

Off-highway vehicle (OHV) use is permitted on designated routes. OHV use will be curtailed by closures where this use is determined to be detrimental to wintering big game species.

Trail and associated facility construction, reconstruction, and maintenance will be permitted. Trail activities and use will be curtailed by closures where and when determined to be detrimental to wintering big game species.

VISUAL

A range of visual quality objectives from Retention to Modification will apply.

CULTURAL

Meet Forest-wide Standards and Guidelines.

WILDLIFE

Elk habitat will be managed on sensitive portions of designated big game winter ranges to achieve a habitat effectiveness index of no less than 70, including discounts for roads open to motorized vehicular traffic, as described in Wildlife Habitats in Managed Forests (Thomas and others 1979). The habitat effectiveness standard will be measured on an individual winter range basis.

Cover

Marginal and satisfactory cover will be managed to the extent possible to meet optimum size and distribution criteria, as described in 'Habitat Effectiveness Index for Elk on Blue Mountain Winter Ranges' (Thomas and others 1988).

Where possible, a minimum of 10 percent of each area will be maintained and managed as satisfactory cover (15-20 percent is desirable). If this is not attainable because of low natural potential, the highest percentage of satisfactory cover possible will be maintained. Where possible, a minimum of 30 percent of an area will be managed as total cover.

Stands managed for satisfactory cover will meet the following criteria:

- Provide stand width of 600-1,200 feet,
- be at least 40 ft. in height with a canopy closure of at least 70 percent in mixed conifer types and no less than 50 percent in the ponderosa pine types; and
- should be at least 10 acres in size. Larger cover areas are preferred.

The desired cover condition will generally appear as a multi-layered stand and meet elk 'hiding' criteria by obscuring 90 percent of a standing elk at a distance of 200 feet or less.

Marginal cover will include stands no less than 10 feet in height with a canopy closure of at least 40 percent and meet above elk 'hiding' criteria.

Forage

Both the quantity and quality of forage for big game will be enhanced or maintained through improved livestock grazing systems, controlled seasonal use, a prescribed burning program, and other measures.

Available forage will be allocated to meet big game management objectives. Available forage excess to wildlife needs may be allocated to domestic livestock.

Big game forage and cover improvement projects such as prescribed burning, seeding and planting, browse planting, release, tree removal, mechanical ground and vegetative disturbance, and fertilization may be employed. Structural improvements may be used to protect these investments.

Other

All management activities will be restricted where necessary during the big game winter use period of December 1 through March 30 or April 15.

Management activities will not create barriers to impede movement of big game animals.

Dead and down tree habitat will be managed to provide or maintain 80 percent of the potential population level for all primary cavity excavators, as described in Wildlife Habitats in Managed Forests (Thomas and others 1979).

FISH

Fish habitat improvement projects and their maintenance will be permitted.

RANGE

Domestic livestock grazing is permitted at Range Management Strategy C. All available range and livestock management practices consistent with the primary management goal of maintaining or enhancing the sensitive portions of big game winter range may be used.

Structural and nonstructural range improvements are permitted to the extent they are compatible with big game winter ranges management.

TIMBER

Timber harvest will not be scheduled. Activities such as harvest and reforestation may be used as management tools to maintain the highest possible cover class over time.

Under catastrophic conditions, timber may be salvaged and cover reestablished.

WATER AND SOIL

Meet Forest-wide Standards and Guidelines.

MINERALS AND ENERGY

Meet Forest-wide Standards and Guidelines.

LANDS

All delineated winter range acres in Federal ownership will generally be retained.

Acquire inholdings within delineated winter range lines where opportunities exist.

Other Forest-wide Standards and Guidelines for lands and land uses apply.

TRANSPORTATION

During the winter use period, close to motorized use roads not needed as through routes or as access to private lands. Roads will be closed to motorized use, as needed, to meet big game habitat effectiveness objectives.

Road construction, reconstruction, and maintenance will be permitted to access other parts of the Forest, except during the winter and spring big game use period.

FIRE

For moderate to high intensity wildfires (average flame lengths over 2 ft.), all wildfire suppression strategies may be emphasized.

Under appropriate fire prediction conditions, wildfires may be permitted to play a natural role on the winter ranges to meet big game habitat objectives.

FUELS

Fuels should not exceed an average of 9 tons per acre in the 0 to 3-inch size class and an average residue depth of 6 inches, as depicted in the Photo Series for Quantifying Forest Residues (Technical Report PNW 52) (USDA Forest Service 1976b):

3-PP-4-PC	4-PP-1 -TH	1 -PP&ASSOC-4-PC	2-LP-3-PC

All types of prescribed fire may be used including broadcast burning, underburning, or range burning.

PESTS

Use integrated pest management (IPM) principles and strategies in managing insects and disease to meet management objectives. Monitoring and detection of pest conditions and populations will be done so that corrective treatments consistent with resource objectives can be prescribed at the earliest opportunity.

Consistent with resource objectives, protect forest stands (habitats) by practicing prevention activities. Emphasis will be on the prevention of stand and fuels conditions that favor pests increases above epidemic levels. Aggressively suppress insects and disease using cost efficient strategies when outbreaks threaten resource objectives.

C4 WILDLIFE HABITAT

GOAL

MANAGE FOREST LANDS TO PROVIDE HIGH LEVELS OF POTENTIAL HABITAT EFFECTIVENESS FOR BIG GAME AND OTHER WILDLIFE SPECIES WITH EMPHASIS ON SIZE AND DISTRIBUTION OF HABITAT COMPONENTS (FORAGE AND COVER AREAS FOR ELK, AND SNAGS AND DEAD AND DOWN MATERIALS FOR ALL CAVITY USERS) UNIQUE WILDLIFE HABITATS AND KEY USE AREAS WILL BE RETAINED OR PROTECTED.

DESCRIPTION

Applicable to all or parts of the forest acres classified as tentatively suitable for timber management and other included acres classified as suitable and transitory range (see Wildlife and Timber sections below for exceptions).

The management area applies to about 32 percent of the suitable lands across the Forest on all districts. Locations are shown on the management area maps.

DESIRED FUTURE CONDITION

The Forest will be a mosaic of even-aged and uneven-aged stands dispersed in a manner to create a pattern of forage, and marginal and satisfactory cover for big game. Management activities including timber harvest, prescribed fire, tree planting, and thinning will be readily apparent. Created openings will range from 1-2 acres up to 40 acres (generally 20 to 30 acres) in size. At least 15 percent of the area will be maintained as satisfactory cover, which will appear as stands of trees larger than 10 acres in size, with crown closures of 70 percent or more. An additional 15 to 25 percent of the area will be maintained as marginal cover with crown closures of 40 to 69 percent, and generally capable of obscuring 90 percent of a standing elk at a distance of 200 feet or less. Stands managed using uneven-aged practices will also be apparent. Through the use of both even-aged and uneven-aged silvicultural treatments, horizontal and vertical diversity of timber stands will be maintained, providing habitat for a wide variety of wildlife species.

A variety of native and seeded grasses, sedges, forbs, and shrubs will be available for big game, other wildlife, and domestic livestock. Range and timber management practices will result in improved range condition and increased amounts of available forage.

Emphasis will be apparent on managing roads, providing security for big game, protecting important calving and fawning areas, and providing for a quality hunting experience. Road closures and other management techniques will result in a noticeable amount of travel restrictions across the area. Dispersed recreation opportunities of all types will be available, but motorized access may be limited. As a result of management, quality big game and other wildlife habitat will assist in meeting state wildlife agency population and productivity goals and Forest recreation objectives.

MANAGEMENT AREAS STANDARDS AND GUIDELINES

RECREATION

A Roaded Modified social and physical setting (ROS) may result from meeting the goal. Dispersed recreation activities that meet the goal are permitted.

Recreation site modifications and facility development levels 1 and 2 (see Glossary) are permitted.

Access should mostly be for walk-in or horseback opportunities on roads, trails, and areas will generally be closed to motorized use, with some motorized use opportunities on open roads and trails.

Trail and associated facility construction, reconstruction, and/or maintenance are permitted as long as consistent with overall objectives of wildlife management.

Off-highway vehicle use is permitted on designated roads and trails where compatible with big game and other wildlife species' habitat effectiveness, recreation, and other resource objectives.

VISUAL

Management activities will result in a range of visual settings from natural appearing to modified. Visual quality will be subordinate to the wildlife habitat goals.

CULTURAL

Meet Forest-wide Standards and Guidelines.

WILDLIFE

Elk habitat will be managed to achieve a habitat effectiveness index of no less than 60, including discounts for roads open to motorized vehicular traffic, as described in Wildlife Habitats in Managed Forests (Thomas and others 1979). Marginal cover, satisfactory cover, and forage areas will be managed to meet size and spacing criteria as described in Habitat Effectiveness Index for Elk on Blue Mountain Winter Ranges (Thomas and others 1988). The habitat effectiveness standard will be measured on a subwatershed (allocation zone) basis.

EXCEPTION: The Rhea Creek watershed area (Allocation Zone HO2), lying to the north and west of the ridgeline running east-west between Madison Butte and Coalmine Hill on the Heppner District, will be managed to achieve a habitat effectiveness index of no less than 90.

Cover

A minimum of 15 percent of the area will be managed as satisfactory cover (20 percent is desirable). If this is not attainable because of low natural potential, the highest percentage of satisfactory cover potentially attainable will be created or maintained. A minimum of 30 percent of an area will be managed as total cover.

Stands managed for satisfactory cover will meet the following criteria:

- Be at least 40 feet in height, with a canopy closure of at least 70 percent in all forest types;
- should be 1,200 to 1,850 feet in width (larger cover areas are preferable) though exceptions may be made by wildlife biologists on an on-the-ground assessment of the stand(s) value for elk; and
- satisfactory cover should generally appear as a multi-layered timber stand.

Marginal cover will be no less than 10 feet in height with a canopy closure of at least 40 percent, and 600 to 1,200 feet wide. Exceptions may be made by wildlife biologists on an on-the-ground assessment of the stand(s) value for elk.

All cover areas will be managed to provide sufficient vegetation to obscure 90 percent of a standing elk at a distance of 200 feet or less.

EXCEPTIONS: Exceptions to the achievement of HEI and cover standards may be made on an individual project basis. Such cases would include situations where past harvesting, large scale insect and disease damage, and/or catastrophic fires have made the possibility of accomplishing the desired future condition (DFC) (long-term potential) marginal within a reasonable period (without applying additional silvicultural treatments such as regeneration harvest, tree planting, release, and other cultural operations).

Where these situations exist, activities may occur that reduce HEI and cover further in the near term only if they are consistent with the ultimate goal of the management area, and if the

activities will clearly result in achieving a higher HEI cover condition and desired future condition (DFC) in a shorter period of time than if the area was left untreated.

All such activities will be supported by a documented NEPA analysis and will include a cumulative effects analysis of big game habitat in the project area over time. The analysis will also describe the anticipated improved condition on a subwatershed or management area basis. All exceptions must be recommended by the District Ranger and approved by the Forest Supervisor for implementation.

Forage

Available forage will be allocated to meet big game management objectives. Available excess forage may be allocated to domestic livestock.

Big game forage improvement projects such as seeding, browse planting, and fertilization may be used. Structural improvements may be used to protect these investments. Prescribed burning may be practiced in order to maintain a static or upward trend in fair or better range condition.

Other

Emphasis should be placed on retaining and/or protecting big game key use areas and habitats such as migrational corridors, calving/fawning areas, wallows, springs, seeps, and bogs.

Management activities will not create barriers to impede movement of big game animals.

Dead and down tree habitat will be managed to provide OT maintain EO percent of the potential population level for all primary cavity excavators and maintained for other cavity users.

An average of one unburned slash pile for every 2 acres should be retained on even-aged regeneration harvest units for wildlife cover.

Manage to maintain or establish a high level of vegetative diversity at a minimum level of 15 percent in each of the following five seral stages:

Grass/Forb	Young Sawtimber
Shrub/Seedling	Mature/Overmature
Pole/Sapling	

FISH

Fish habitat improvement projects and their maintenance will be permitted.

RANGE

Domestic livestock grazing is permitted at Range Management Strategy C. All available range and livestock management practices may be used as long as consistent with the primary management goal of maintaining or enhancing the big game and all other wildlife species' habitat.

Structural range improvements are permitted to the extent they are compatible with the management goal. This may entail the use of let-down fences, etc.

TIMBER

Timber will be managed on a scheduled basis. All timber management practices and intensities consistent with achieving the primary wildlife habitat management goals will be permitted. The selected silvicultural systems applied to timber stands within suitable forest lands will be based on a site-specific examination and analysis, and will be designed to achieve management goals.

Harvest practices may include clearcutting, shelterwood, salvage, removal, and commercial thinnings, as well as group or individual tree selection. Other cultural practices may be used including natural and artificial regeneration, planting genetic stock when available, release,

precommercial thinning, and insect, disease, and animal damage protection. Logging and road building should be done with conventional practices, including helicopter.

Fuelwood cutting is permitted consistent with established goals to enhance big game habitat and to maintain or manage dead and down tree habitat at 80 percent of the potential population level.

EXCEPTION: The concept of a time limited or “sunset” strategy may be used on designated areas within C4 under conditions listed in the Forest-wide Standards and Guidelines. This concept applies to the Jaussaud Corral Roadless Area (about 4,000 acres). Timber harvest volumes will be scheduled for such areas. Areas will revert from C4 to an A2 or other agreed upon designation by the year 2000. Areas may remain in C4 status pending NEPA review and decision.

The area of application in Jaussaud Corral is west of Little Lookingglass Creek running north/south along east boundary of section 2 to Timothy Guard Station on the Walla Walla Ranger District. The designated area will remain in the scheduled cut until the year 2000, at which time, it will follow a 'sunset strategy' and revert to an A2 designation, without scheduled harvest. To remain in the C4 Management Area, the decision would be evaluated through the NEPA process in either a new Forest Plan, amendment, or separate review. In the interim, harvest will proceed via uneven-aged management, using small group selection. One identified stand of old growth, near Timothy Guard Station, will be removed from entry entirely.

WATER AND SOIL

Meet Forest-wide Standards and Guidelines.

MINERALS AND ENERGY

Meet Forest-wide Standards and Guidelines.

LANDS

Land Classification II (acquisition) will generally apply to meet public needs. Lands may be exchanged in cases of demonstrated positive net public benefit.

Meet Forest-wide Standards and Guidelines for lands and land uses.

TRANSPORTATION

Road construction, reconstruction, and maintenance are permitted, consistent with the primary overall objective of wildlife habitat management.

Roads will be limited to minimum standards necessary for timber harvesting.

Roads will be closed to meet big game habitat and/or recreation objectives. Roads will be closed upon completion of harvest activities or when open timber sales are inactive. Exceptions may be made by the District Ranger based on a documented analysis and supporting rationale of the need to keep individual roads open.

FIRE

For all wildfires in the management area, all suppression strategies (appropriate responses) may be used. Suppression practices will be designed to protect investments in managed forests and to prevent large acreage losses to wildfire.

Wildfire prevention activities should be emphasized.

FUELS

Fuels should not exceed an average of 12 tons per acre in the 0 to 3-inch size class and an average residue depth of 6 inches, as depicted in the Photo Series for Quantifying Forest Residues (Technical Report PNW 52) (USDA Forest Service 1976b):

Even-aged Management	3-PP-4-PC	4-PP-1 -TH	1 -PP&ASSOC-4-PC	2-LP-3-PC
Uneven-aged Management	2-PP4-PC	2-LP-3-PC	4-PP-1 -TH	5-PP&ASSOC4-PC

All types of prescribed fire may be used to accomplish management objectives.

PESTS

Use integrated pest management (IPM) principles and strategies in managing insects and disease to meet management objectives. Detection and monitoring of pest conditions and populations will be done so that corrective treatments, consistent with resource objectives can be prescribed at the earliest opportunity.

Within the wildlife habitat objectives, protect forest stands (habitats) by practicing prevention activities. Emphasis will be on the prevention of stand and fuels conditions that favor pests increases above epidemic levels. Aggressively suppress insects and disease using cast efficient strategies when outbreaks threaten resource objectives.

C5 RIPARIAN (FISH AND WILDLIFE)

GOAL

MAINTAIN OR ENHANCE WATER QUALITY, AND PRODUCE A HIGH LEVEL OF POTENTIAL HABITAT CAPABILITY FOR ALL SPECIES OF FISH AND WILDLIFE WITHIN THE DESIGNATED RIPARIAN HABITAT AREAS WHILE PROVIDING FOR A HIGH LEVEL OF HABITAT EFFECTIVENESS FOR BIG GAME.

DESCRIPTION

The management area is applicable to all designated riparian areas associated with Class I, II, and III streams, including adjacent floodplains and wetlands as shown on the management area maps.

DESIRED FUTURE CONDITION

A near natural setting will predominate adjacent to the stream, with a wide variety of plant communities of various species, sizes, and age classes. In forested riparian zones, a continuous high tree canopy layer will be present and the forest will appear denser than in the surrounding land. Upper and mid-level conifer and hardwood canopy structure and lower shrub level will provide desired levels of stream surface shading, streambank stability, and satisfactory cover for big game.

Evidence of uneven-aged timber harvest will be common, but there will be only minimal impact on riparian vegetation and visual quality. Some small openings may occur feathering outward away from the stream. The more common occurrence will be isolated stumps amidst an uneven-aged forest, resulting from single tree and small group selection practices.

Riparian vegetation will be dense and diverse, contributing shade for water temperature control, stable streambanks and controlled sediment, and complex fish habitat along the banks. Large diameter standing dead and live trees will provide a long-term supply of large woody material for instream fish habitat and channel stability. A variety of other habitats including dead and down tree habitat and satisfactory cover for big game will be found within the riparian area. Forest wildlife species will continue to use riparian habitat areas disproportionately more than any other habitat type. Evidence of streambank trampling from livestock will be less common. Dispersed recreation activities of all types will be abundant and available for a variety of users. Quality riparian management will assist in meeting anadromous and resident fish productivity goals.

MANAGEMENT AREAS STANDARDS AND GUIDELINES

RECREATION

A variety of ROS social and physical settings ranging from Roaded Natural to Roaded Modified may occur. Dispersed recreation activities that meet the goal are permitted.

Recreation site modification and facility development levels 1 and 2 are permitted.

Provide for mostly road oriented recreation opportunities and for walk-in or horseback, with some OHV opportunities in isolated areas.

Off-highway vehicle (OHV) use is permitted but limited to designated routes.

Trail and related facility development and maintenance are permitted. Manage trails to protect wildlife and fish habitat, and water quality values. Apply Forest-wide Standards and Guidelines for OHV trail construction and management.

VISUAL

Management activities may result in a natural appearing (Retention) to a modified (Modification) visual setting. Visual quality should be subordinate to riparian habitat objectives.

CULTURAL

Meet Forest-wide Standards and Guidelines.

WILDLIFE

Maintain dead tree (snag) habitat at the 100 percent level for all cavity users as described in 'Wildlife Habitats in Managed Forests-Blue Mountains of Oregon and Washington' (Thomas and others 1979). Emphasis will be given to retaining large diameter trees (20 inches d.b.h. or greater).

Retain large dead and down woody material (20 feet or more in length and 12 to 17 inches in diameter at the small end) at the rate of four Class I or Class II logs per acre, as defined by Thomas and others (ibid.). The desired condition is uncharred logs.

Manage riparian areas to produce satisfactory cover. Satisfactory cover consists of tree stands at least 40 feet in height, with a crown closure of 70 percent or more, and two or more canopy layers.

Structural and nonstructural wildlife habitat improvement projects and their maintenance are permitted. Prescribed burning may be utilized to meet the riparian management objectives.

FISH

Anadromous fish habitat (includes stream and associated riparian area) will be managed to produce at least 90 percent of potential smolt habitat capability index (SHCI). The standard should be achieved by meeting the following:

- Riparian vegetation will be managed to promote floodplain, bank, and channel stability, to provide resiliency to disturbance and promote aquatic diversity.
- Where natural conditions permit, streamside vegetation along the entire length of perennial streams will be managed to maintain an average shading of 80 percent of the entire stream surface shaded. Where existing shading is already below this level, retain all vegetation contributing to stream surface shading.
- Lands and trees adjacent to perennial streams will be managed to provide for a continuous, well distributed supply of naturally occurring, large woody material for instream fish and riparian habitat. At a minimum, these lands will include a zone within one tree height of the stream channel but may be extended to upland areas when the additional areas are determined to be critical to the provision of future large wood to downstream fish bearing reaches.
- Streams will be managed to provide pools that are relatively large, frequent, well distributed, and persistent during low flows.
- Forest-wide Standards and Guidelines for water temperature and instream flows will be met.
- The sediment budget will fall well within the range and frequency adapted to by indigenous aquatic communities.

Fish habitat enhancement, restoration, and maintenance practices (projects) will be used to increase smolt habitat capability.

RANGE

Intensive range management, including superior grazing systems, such as periodic rest, will be practiced to protect and improve riparian vegetation and anadromous fish and wildlife habitats. Periods of extended rest may be utilized in some situations where it is necessary to allow re-establishment of desired shrub communities.

Meet the forage utilization standards for riparian areas, found in the Range portion of Forest-wide Standards and Guidelines.

Range management techniques that control livestock distribution and timing of use will be used to meet riparian habitat goals. Range improvements that maintain or enhance riparian habitat goals will be permitted. Improvements should be located to encourage livestock use away from the riparian areas. Grazing systems utilizing riparian pastures may be required to maintain water quality and protect riparian vegetation. Riparian corridor fencing should be considered on a limited basis for special applications.

TIMBER

Timber will be managed on a scheduled basis.

EXCEPTION: All C5 riparian areas in the headwaters of the Tucannon River system will not have scheduled timber harvest.

A range of silvicultural practices and intensities, including both even-aged and uneven-aged management, is permitted when compatible with water quality and anadromous fish and wildlife habitat objectives. Uneven-aged management strategies are emphasized. Single tree selection is the preferred management tool within 50 feet of the stream channel.

The selected silvicultural systems applied to timber stands within suitable forest lands will be based on a site specific examination and analysis, and will be designed to achieve management goals. Harvest practices may include group or individual tree selection, salvage, removal, and commercial thinnings, as well as clearcutting, shelterwood, and seed tree. Other cultural practices may be used including natural and artificial regeneration, planting genetic stock when available, release, precommercial thinning, and insect, disease, and animal damage protection or control.

Created openings adjacent to live streams may be permitted, provided the stream surface shading, large woody material, and water quality requirements for fisheries are met. If natural shading is below the 80 percent level, meet the Forest-wide Standards and Guidelines for riparian/fish habitat (Class III streams).

Created openings should generally be 1 acre or smaller, but no larger than 2 acres in size. No more than 6 percent of the entire riparian area within a subwatershed will be in created openings (trees less than 10 feet in height) at any time.

All yarding or skidding systems are acceptable. Constraints may be placed on yarding and skidding systems on a site-specific basis to protect riparian vegetation and habitat, and to preclude damage to soil and water resources. Meet tree falling and logging Forest-wide Standards and Guidelines in riparian/fish habitat (Class III streams).

Discourage cutting of dead and down material for fuelwood within riparian area.

Mechanical site preparation or aerial application of fertilizer is not permitted.

WATER

Meet Forest-wide Standards and Guidelines.

SOIL

Within 250 feet of all streams and wet areas associated with streams, limit the mineral soil exposed by ground-disturbing activities to 10 percent of the project area.

MINERALS AND ENERGY

Meet Forest-wide Standards and Guidelines while protecting fish habitat investments.

LANDS

Meet Forest-wide Standards and Guidelines for riparian/fish habitat, lands and land uses.

TRANSPORTATION

Construction, reconstruction, and the maintenance of roads will be permitted when consistent with the riparian management goals. New roads should be located outside the riparian area (except for crossings) unless alternatives are determined to have higher adverse impacts to resources.

Water quality and fisheries habitat problems caused by roads will be corrected.

FIRE

The appropriate wildfire suppression response should emphasize control and/or contain strategies.

Wildfire suppression efforts should utilize low-impact methods. Use of heavy equipment may require restoration and/or mitigation to maintain riparian values.

FUELS

Fuels management activities will be designed and executed to maintain or enhance the anadromous fish and wildlife habitat within the constraints of 10 percent exposed mineral soils and 80 percent stream surface shading.

Fuels should not exceed an average of 9 tons per acre in the 0 to 3-inch size class and an average residue depth of 6 inches, as depicted in the Photo Series for Quantifying Forest Residues (Technical Report PNW 52, 1976) (USDA Forest Service 1976b):

3-PP4-PC 4-PP-1-TH 1 -PP&ASSOC-4-PC 2-LP3-PC

Prescribed fire may be used, consistent with riparian objectives.

PESTS

Use integrated pest management (IPM) principles and strategies in managing insects and disease to meet management objectives. Monitoring and detection of pest conditions and populations will be done so that corrective treatments consistent with resource objectives can be prescribed at the earliest opportunity.

Consistent with resource objectives, protect forest stands (habitats) by practicing prevention activities. Emphasis will be on the prevention of stand and fuels conditions that favor pests increases above epidemic levels.

The use of pesticides must not conflict with riparian/wildlife management objectives.

C7 SPECIAL FISH MANAGEMENT AREA

GOAL

MAINTAIN AND ENHANCE WATER QUALITY AND PRODUCE HIGH LEVELS OF ANADROMOUS FISH HABITAT ON AN AREA-WIDE BASIS.

DESCRIPTION

The special fish management area includes all land within a watershed, subwatershed, or other manageable area. The management area applies to much of the Umatilla National Forest portion of the North Fork John Day drainage (referred to in Senate Report No. 98-465, dated May 18,1984). The management area is located on the North Fork John Day District, as shown on management area maps.

DESIRED FUTURE CONDITION

In riparian areas, a natural to near natural setting and vegetation development will predominate, with a variety of plant communities, sizes, and age classes. A high tree canopy layer will be present, and the forest will appear denser than surrounding areas. Forest canopy of conifers and hardwoods will provide desired levels of stream surface shading and long-term supply of large woody material for instream fish habitat and snags. Vegetation will contribute to stable streambanks and complex fish habitat along the banks. Dispersed recreation opportunities associated with stream and stream sides will be available for all Forest visitors.

In upland areas of the watersheds, the Forests will appear as a mosaic of even-aged and uneven-aged stands with highly dispersed created openings of 1 to 40 acres in size. Management activities of all types will be observable. Horizontal and vertical diversity in vegetation will be apparent; also, a discontinuity in forest age classes (noncontinuous and fewer age classes) will be noticeable within a watershed.

Emphasis placed on careful timber harvest and road construction and maintenance will be reflected in the high quality water being produced. Dispersed recreation opportunities of all types will be available, though some limitations in access may occur. As a result of management, anadromous fish recovery and long-term fish population goals will be met.

MANAGEMENT AREAS STANDARDS AND GUIDELINES

RECREATION

A Roaded Modified and Roaded Natural social and physical setting (ROS) may result from meeting the goal. Dispersed recreation activities that meet the goal are permitted.

Recreation site modifications and facility development levels 1 and 2 (see Glossary) are permitted.

Provide the opportunity for road oriented, walk-in, and horseback activities. Motorized access may be limited to designated roads, trails, and areas.

Trail and associated facility construction, reconstruction, and maintenance are permitted as long as consistent with water quality and anadromous fish habitat objectives.

Off-highway vehicle (OHV) use is permitted and will be managed to meet management area goals and to prevent unacceptable damage to anadromous fish habitat and associated riparian soils and vegetation.

VISUAL

A range of visual quality objectives may apply-from Retention to Maximum Modification.

CULTURAL

Meet Forest-wide Standards and Guidelines.

WILDLIFE

Wildlife habitat improvement and maintenance projects are permitted provided the activities meet the goal.

Dead and down tree habitat will be managed in the riparian areas to provide or maintain 100 percent of the potential population level and, in the upland areas, 60 percent of the potential population level for all primary cavity excavators, and maintained for other wildlife species.

An average of one unburned slash pile for every 2 acres should be retained for wildlife cover on even-aged regeneration harvest units.

Elk habitat will be managed to achieve a habitat effectiveness index of no less than 45, including discounts for open roads (see Thomas and others 1979). A minimum of 10 percent of an area will be managed as satisfactory cover (15-20 percent is desirable). A minimum of 30 percent of an area will be managed as total cover. Management activities will not create barriers to impede movement of big game.

FISH

Anadromous fish habitat (includes streams and associated riparian areas) will be managed to produce at least 90 percent of potential smolt habitat capability index (SHCI). The standard should be achieved by meeting the following:

- Riparian vegetation will be managed to promote floodplain, bank, and channel stability, resiliency to disturbance, and aquatic diversity.
- Where natural conditions permit, streamside vegetation along the entire length of perennial streams will be managed to maintain an average shading of 80 percent of the entire stream surface shaded. Where existing shading is already below this level, retain all vegetation contributing to stream surface shading.
- Lands adjacent to perennial streams will be managed to provide for a continuous, well distributed supply of naturally occurring large woody material for instream fish and riparian habitat. At a minimum, these lands will include a zone within one tree height of the stream channel but may be extended to upland areas when the additional areas are determined to be critical to the provision of future large wood to downstream fish-bearing reaches.
- Streams will be managed to provide pools that are relatively large, frequent, well distributed, and persistent during low flows.
- Forest-wide Standards and Guidelines for water temperature and instream flows will be met.
- The sediment budget will fall well within the range and frequency adapted to by indigenous aquatic communities.

Fish habitat enhancement, restoration, and maintenance practices (projects) will be used to increase smolt habitat capability.

RANGE

Intensive range management including superior grazing systems, such as periodic rest, will be practiced to protect and improve riparian vegetation and anadromous fish habitat.

Grazing practices will normally involve complete or periodic rest.

Range management techniques that control livestock distribution and timing of use will be used to meet riparian goals. Range improvements (and their maintenance) will be permitted, and should be located to encourage livestock use away from the riparian areas.

Meet the Forest-wide Standards and Guidelines for forage utilization in riparian areas and uplands found in the Range portion of Forest-wide Standards and Guidelines.

TIMBER

In the riparian areas, salvage timber harvest may be permitted where anadromous fish habitat can be protected and improved. Other types of scheduled timber harvest will not be permitted.

Outside of riparian areas, timber will be managed on a scheduled basis. For all lands within national forest boundaries, timber harvest will be scheduled so that no more than 25 percent of the forest land within a subwatershed will have timber stand age classes of 0-20 years at any one time, except where analysis documented in an environmental assessment indicates that watershed condition and anadromous fish habitat would not be impaired.

Silvicultural systems and harvest practices within 500 feet of Class I and II streams will emphasize prevention of induced sediment production. In this zone and beyond, a full range of silvicultural practices and intensities including both even-aged and uneven-aged management systems can occur when compatible with water quality and anadromous fish habitat objectives.

All timber management practices and intensities are permitted. The selected silvicultural systems applied to timber stands within suitable forest lands will be based on site-specific examination and analysis, and will be designed to achieve management goals. Harvest practices may include clearcutting, shelterwood, seed tree, salvage, removal, and commercial thinnings, as well as group or individual tree selection. Other cultural practices may be used including natural and artificial regeneration, planting genetic stock when available, release, precommercial thinning, and insect, disease, and animal damage protection or control.

All yarding and skidding systems are acceptable within ground-disturbing constraints.

WATER

Meet Forest -wide Standards and Guidelines.

SOIL

Within 250 feet of all streams and wet areas associated with streams, limit the mineral soil exposed by ground-disturbing activities to 10 percent of the project area.

MINERALS AND ENERGY

Meet Forest-wide Standards and Guidelines while protecting fish habitat investments.

LANDS

Acquiring private inholdings within riparian areas is a high priority for landownership adjustments.

Exchange of riparian areas will be undertaken only to improve overall national forest riparian management.

Meet the Forest-wide Standards and Guidelines for lands and land uses.

TRANSPORTATION

Road construction, reconstruction, and maintenance are permitted as long as consistent with the objectives of water quality and anadromous fish habitat.

Road construction will rarely occur within 500 feet of Class I and II streams, within 250 feet of Class III and IV streams, or on slopes over 60 percent. Road location, design, construction, and maintenance techniques used will focus on minimizing soil loss impacts to water quality and fisheries habitat.

Water quality and fisheries habitat problems caused by roads will be corrected.

Roads may be closed to motorized use to meet water quality, fisheries, recreation, and/or big game objectives.

FIRE

For moderate to high intensity wildfires (average flame lengths over 2 feet), emphasis should be on the appropriate suppression response of control and/or contain.

Wildfire suppression efforts should utilize low-impact methods.

Use of heavy equipment may require restoration and/or other mitigation to maintain fish habitat quality.

FUELS

Fuels management activities will be designed and executed to maintain or enhance anadromous fish habitat.

Within the riparian constraints of 10 percent exposed mineral soils and 80 percent stream surface shading, prescribed burning may be utilized in riparian areas as long as consistent with strategy goals. Within fish and water goals, prescribed fire may be used on the remainder of the management area in order to meet resource objectives.

Fuels should not exceed an average of 9 tons per acre in the 0 to 3-inch size class, and an average residue depth of 6 inches as depicted in the Photo Series for Quantifying Forest Residues (Technical Report PNW 52, 1976) (USDA Forest Service 1976b):

3-PP-4-PC 4-PP-1 -TH 1-PP&ASSOC-4-PC 2-LP-3-PC

PESTS

Use integrated pest management (IPM) principles and strategies in managing insects and disease to meet management objectives. Monitoring and detection of pest conditions and populations will be done so that corrective treatments consistent with resource objectives can be prescribed at the earliest opportunity.

Consistent with resource objectives, protect forest stands (habitats) by practicing prevention activities. Emphasis will be on the prevention of stand and fuels conditions that favor pests increases above epidemic levels. Aggressively suppress insects and disease using the cost efficient strategies when outbreaks threaten resource objectives.

The use of pesticides must not conflict with riparian, fish, and water management objectives.

C8 GRASS-TREE MOSAIC (GTM)

GOAL

ON AREAS KNOWN AS GRASS-TREE MOSAIC (GTM). PROVIDE HIGH LEVELS OF POTENTIAL HABITAT EFFECTIVENESS, HIGH QUALITY FORAGE FOR BIG GAME WILDLIFE SPECIES, VISUAL DIVERSITY, AND PROTECT EROSIVE SOILS.

DESCRIPTION

The strategy applies to all or parts of lands covered primarily with grassland vegetation interspersed with patches or stringers of forest vegetation, often on steep topography with shallow soils. The lands can be further identified as follows:

1. Most of the area is composed of big game winter ranges delineated in coordination with the Oregon Department of Fish and Wildlife and Washington Department of Wildlife.
2. The remainder of the area consists of summer range land contiguous to the identified big game winter ranges.

The combination is known as grass-tree mosaic and is identified on Forest planning maps. The designated winter range portions of the GTM encompass areas that provide habitat for 90 percent or more of the wintering elk populations, during the winter use period, 6 years out of 10. Each winter range is assigned a winter use period ranging from 4 to 4 ½ months. In general, the area contains more than 70 percent herbaceous vegetation.

The C8 Management Area applies to areas on the Pomeroy, Walla Walla, and Heppner ranger districts as shown on the management area maps. The area encompasses about 98,500 acres.

DESIRED FUTURE CONDITION

Generally these areas will remain natural appearing with the predominant view being made up of patches or stringers of timber occurring on open, generally steep hillsides. Many forest stands will appear as mature timber with some having multi-layered canopies. Some stands will be more open as the result of management activities designed to improve big game habitat. Areas of early spring forage green-up will occur in a mosaic pattern over the winter range portion of this area. Forage will be abundant and improved through management. Quality big game habitat will be maintained and enhanced, thereby helping to achieve big game management population and productivity goals. In addition, during an average winter, most of the wintering big game will remain on public lands, helping to keep impacts to private lands low.

Recreation opportunities of all types will be available throughout the area. Through portions of the area, recreationists will be able to enjoy motorized activities. Vehicle access will be restricted on many roads year-round and others seasonally during winter big game use periods, and on important calving areas during the spring and early summer. Additionally, road construction and reconstruction will generally be limited.

The identified roadless areas will remain unroaded and will provide opportunities for recreationists to experience closeness to nature, self-reliance, and tranquility.

MANAGEMENT AREAS STANDARDS AND GUIDELINES

Areas mapped as roadless (1984) within the GTM will remain roadless; the roadless areas will primarily provide Semi-primitive Nonmotorized, with some Semi-primitive Motorized settings (ROS). The remaining area may provide Roaded Natural and Roaded Modified opportunities in meeting the goal.

Recreation site modifications and site development should be level 2 or less (See Glossary). Facilities will generally be limited to meeting safety and sanitary needs. A minimum of onsite controls and restrictions will be utilized to protect resources and promote safe use of the area.

RECREATION

Access will be mostly for walk-in and horseback opportunities.

Off-highway vehicle (OHV) use is permitted and will normally be restricted to designated trails or closed roads. However, such use may be curtailed by closure or other measures where it is determined to be detrimental to big game species. Motorized use will be permitted on designated open roads.

Trail and associated facility construction, reconstruction, and maintenance will be permitted. Trail systems will be designed and maintained to disperse use, provide varying but challenging difficultly levels, and meet area objectives. Trail use may be curtailed by closure where and when determined to be detrimental to wintering big game species and/or other resource values.

If needed, implement limits on group size, number of animals, and/or other measures (based on limits of acceptable change criteria) to meet social encounter criteria for semi-primitive recreation opportunities. Utilize a minimum of onsite controls and restrictions to protect resources and promote safe use of the area.

VISUAL

A range of visual quality objectives will apply—from Retention to Modification.

CULTURAL

Meet Forest-wide Standards and Guidelines.

WILDLIFE

Elk habitat will be managed to maintain a habitat effectiveness index of no less than 70, including discounts for open roads. Marginal and satisfactory cover will be managed to the greatest extent possible in order to meet optimum size and distribution criteria, as described in the draft publication 'Habitat Effectiveness Index for Elk on Blue Mountain Winter Ranges' (Thomas and others 1988). The habitat effectiveness standard will be measured on a subwatershed (allocation zone) basis.

Cover

Where possible, a minimum of 10 percent of the winter and summer range parts of the GTM will be managed as satisfactory cover (15-20 percent is desirable). If this is not attainable because of low natural potential, the highest percentage of satisfactory cover potentially attainable will be created or maintained. Where possible, a minimum of 30 percent of an area will be managed as total cover (satisfactory and marginal).

Stands managed for satisfactory cover will meet the following criteria:

- Provide stand width of 600-1,200 feet. Exceptions can be made according to Forest-wide Standards and Guidelines;
- be at least 40 ft. in height with a canopy closure of at least 70 percent in all forest types and in the ponderosa pine type on big game winter ranges maintain a canopy closure of at least 50 percent; and
- should be at least 10 acres in size. Larger cover areas are preferable.

The desired cover condition will generally appear as a multi-layered stand, and will meet elk 'hiding' criteria by obscuring 90 percent of a standing elk at a distance of 200 feet or less.

Marginal cover will include stands no less than 10 feet in height with a canopy closure of at least 40 percent and will meet above the above elk 'hiding' criteria.

Forage

Available forage will be allocated to meet big game management objectives. Available forage in excess of wildlife needs may be allocated to domestic livestock.

Big game forage and cover enhancement projects are encouraged. Improvement projects such as prescribed burning, seeding and planting, browse planting, release, mechanical ground and vegetative disturbance, fertilization, and others may be employed. Structural improvements may be used to protect these investments.

Other

All management activities will be regulated during the big game winter use period of December 1 through March 30 or April 15.

Management activities will not create barriers to impede movement of big game animals.

Dead and down tree habitat will be managed to provide or maintain 80 percent of the potential population level for all primary cavity excavators and other non-game wildlife species, as described in Wildlife Habitats in Managed Forests (Thomas and others1979).

FISH

Fish habitat improvement projects and their maintenance will be permitted.

RANGE

Domestic livestock grazing is permitted at a level C management strategy. All available range and livestock management practices may be used consistent with the primary management goals of maintaining or enhancing the big game winter and summer ranges, and providing sufficient residual forage for big game species during the winter use period.

Structural range improvements are permitted to the extent that they are compatible with big game management.

TIMBER

Timber harvest will not be scheduled. However, timber management activities (including harvest, reforestation, and others) may be permitted and used only where analysis shows they are needed to achieve the objectives for big game harvest and for other wildlife species. Under catastrophic conditions, timber may be salvaged and cover reestablished.

EXCEPTION: The time limited or 'sunset' strategy concept may be used on designated areas within C8 under conditions listed in Forest-wide Standards and Guidelines. The concept applies to tentatively suitable lands in and adjacent to the Horseshoe Ridge Roadless Area as described below. Timber harvest volume will be scheduled for such areas. If no actions take place, or if results of timber harvest fail to meet specified objectives above, areas will revert automatically to standard C8 direction (no scheduled harvest) and schedules.

The approximately 9,000-acre Horseshoe Ridge area is south of a line from 'Smith Gate' east to Meacham Creek and is described as follows: Starting at the NE corner of section 19, T. 1 N., R. 36 E. bearing southerly and northeasterly along the proposed dedicated old growth (as shown on the management area maps) to Duncan Canyon, thence down Duncan Canyon to Meacham Creek. Thence southerly, westerly and northwesterly along Meacham Creek to the Forest boundary at about the SE corner of section 30, T.1 N., R. 36 E., north along the east boundary of sections 30 and 19 to the point of beginning. Important attributes for the area are cover for big game, 'spiritual' resources, high riparian and fish values, and visual quality. Timber may be harvested on a scheduled basis as directed by C8 Management Area Standards and Guidelines 'Exception' and resource objectives established for each project (timber sale) until the year 2000. By the year 2000, if the objectives above are not met, 'excepted' areas will revert to C8 without the 'Exception' and be removed from the scheduled cut. If objectives are met, the area

may be allocated to a different management strategy through the project review process and a separate NEPA evaluation.

WATER AND SOIL

Meet Forest-wide Standards and Guidelines.

MINERALS AND ENERGY

Meet Forest-wide Standards and Guidelines.

LANDS

All delineated winter range acres and adjacent land in Federal ownership will generally be retained.

Acquire inholdings within delineated winter range lines and adjacent land where opportunities exist.

Other Forest-wide Standards and Guidelines for lands and land uses apply.

TRANSPORTATION

Where no other feasible and economical options exist, roads may be constructed, reconstructed, and maintained through the area to provide access to other management areas, as long as they are consistent with the stated visual, watershed, and wildlife objectives.

Portions of the grass-tree mosaic (GTM) currently identified (mapped) as roadless will be maintained in an unroaded condition.

Roads will be closed to motorized use, as needed, to meet big game habitat effectiveness objectives.

FIRE

For moderate to high intensity wildfires (average flame lengths over 2 S), all wildfire suppression strategies may be emphasized. Under appropriate fire prediction conditions, wildfires may be permitted to play a natural role on the winter ranges to meet big game habitat and other resource objectives.

FUELS

In the forested areas, fuels should not exceed an average of 12 tons per acre in the 0 to 3-inch size class, and an average residue depth of 6 inches as depicted in the Photo Series for Quantifying Forest Residues (Technical Report PNW 52) (USDA Forest Service 1976b)'

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All types of prescribed fire may be used including broadcast burning, underburning, or range burning.

PESTS

Use integrated pest management (IPM) principles and strategies in meeting management area objectives. Aggressively suppress insects and disease using the cost efficient strategies when outbreaks threaten resource objectives or resources on adjacent lands. Favor biological methods in meeting protection and suppression requirements.

Protect forest stands (habitat) consistent with resource objectives by practicing prevention activities. Prescribed fire may be used to help reduce stocking and conditions favorable for bark beetle and dwarf mistletoes. Control of defoliators may also be accomplished by spraying following approval of an environmental analysis. Use of salvage harvest is limited to catastrophic events.

D2 RESEARCH NATURAL AREA

GOALS

PRESERVE NATURALLY OCCURRING PHYSICAL AND BIOLOGICAL UNITS WHERE NATURAL CONDITIONS AND PROCESSES ARE MAINTAINED, INSOFAR AS POSSIBLE, FOR THE PURPOSES OF: 1) COMPARISON WITH THOSE LANDS INFLUENCED BY MAN; 2) PROVISION OF EDUCATIONAL AND RESEARCH AREAS FOR ECOLOGICAL AND ENVIRONMENTAL STUDIES; AND 3) PRESERVATION OF GENE POOLS FOR TYPICAL AND RARE AND ENDANGERED PLANTS AND ANIMALS.

DESCRIPTION

Eight areas have been identified and are managed as research natural areas. Two (Pataha and Rainbow Creek) have been established by Chief's order. The other six candidate areas are: Elk Flats Meadow, Elk Flats-Wenaha Breaks, Kelly Creek Butte, Mill Creek Watershed, Vinegar Hill, and Birch Creek Cove. Establishment reports and management plans for each area may contain more specific constraints or permitted uses.

DESIRED FUTURE CONDITION

The ecological community will continue to evolve through natural processes. Natural physical, and biological conditions will be maintained, insofar as possible, to preserve the vegetation for which the area was created. Use, except for scientific and educational purposes, will be generally discouraged.

MANAGEMENT AREAS STANDARDS AND GUIDELINES

Establishment reports and management plans for each area will contain specific constraints or permitted uses.

RECREATION

Recreation activities and uses, including overnight camping, hunting and trapping, and pack and saddle stock use will be discouraged or prohibited if such use threatens or interferes with the objectives and values of the Research Natural Area.

All recreation OHV use will be prohibited.

There will be no onsite interpretive or demonstrative facilities.

Educational use of an RNA may be approved for any group or purpose.

Publicity that would attract the general public will be avoided.

Existing trails will remain and be maintained as long as the RNA objectives are not compromised. Travel should be restricted to the trails.

New trails will not be constructed, unless needed for research purposes.

WILDERNESS

For an RNA(s) established in wilderness, management direction for wilderness will take precedence.

Research on RNA's in wilderness will be related to wilderness.

VISUAL

Retention is the visual quality objective for RNA's.

CULTURAL

Meet Forest-wide Standards and Guidelines.

WILDLIFE AND FISH

Habitat manipulation and introduction of exotic species of plants, animals, or fish is not permitted.

Snags and down tree habitat will be maintained at naturally occurring levels.

RANGE

Prohibit grazing of domestic livestock unless it is needed to establish or maintain a specific vegetation type.

Improvements are not permitted; boundary fencing may be required to provide protection to the RNA.

TIMBER

Timber management use and practices are excluded. Cutting and removal of vegetation is prohibited, except as part of an approved scientific investigation.

Firewood cutting is not permitted.

WATER AND SOIL

Meet Forest-wide Standards and Guidelines.

For RNA(s) established in municipal watershed(s), management direction for the municipal watershed will take precedence.

In cooperation with the PNW Research Station, rehabilitation plans will be developed and implemented in the event of soil disturbing activities such as fire suppression. Soil stabilization of naturally occurring soil loss or movement should not be permitted unless part of an authorized study.

MINERALS

Valid claims existing prior to Research Natural Area designation may be developed. Valid claims existing prior to any withdrawal from mineral entry shall be required to have an operating plan providing the least amount of impact. Mineral leases will require 'No Surface Occupancy' stipulation. Research Natural Areas may be recommended for withdrawal from mineral entry in situations where mitigation measures do not adequately protect management area values. The mineral potential of the area shall be assessed before withdrawal is recommended.

LANDS

RNA's should generally be retained in public ownership. When possible, inholdings may be acquired when they contribute to RNA objectives.

An Establishment Record will be written for each RNA recommended in the Forest Plan. A management plan should be written for each established RNA. The management plan should include analysis of surrounding lands as related to the integrity of the RNA. The only special use permits issued will be those related to research; all others will be denied. Noncompatible existing special uses will be terminated. RNA's are 'Avoidance' areas for utility corridors.

Rights-of-way easements existing before RNA establishment will be honored. Upgrading easements that would compromise the objectives of the RNA will be discouraged. The Forest should recommend against FERC licenses or permits that compromise the objectives of the RNA.

Meet other lands and land use Forest-wide Standards and Guidelines contributing toward RNA objectives.

TRANSPORTATION/FACILITIES

New transportation facilities are not acceptable.

New facilities shall not be bulk except on valid existing mining claims with approved operating plans, or as required as part of an authorized study.

FIRE

For moderate to high intensity wildfires, the appropriate suppression response should emphasize control strategies. Wildfire should be extinguished by the least disturbing means possible.

FUELS

If authorized in a management plan, low intensity unplanned fire or prescribed burns may be used as a tool to mimic a natural fire to: (1) Perpetuate the sere and thus the cell(s) the RNA represents; (2) return fire to its natural role in the area; and (3) return plant communities to a condition similar to that existing prior to active fire suppression.

PESTS

Action to control insects or diseases will not be taken unless an outbreak will drastically alter the natural processes within the RNA, or if it poses an unacceptable threat to resources adjacent to the RNA. Treatment to control insects and diseases within an RNA will support and promote the basic objective and purposes of establishing the area (FSM 4063.3[8]). Biological methods are preferred.

RESEARCH

Research projects and management will be coordinated with Pacific Northwest Research Station. Research will not be approved that will change vegetative or surface character of the area.

GENERAL

Research Natural Areas inside of wilderness or municipal watershed will be guided by direction for those areas, in situations where conflicts occur.

E I TIMBER AND FORAGE

GOAL

MANAGE FOREST LANDS TO EMPHASIZE PRODUCTION OF WOOD FIBER (TIMBER) AND ENCOURAGE PRODUCTION OF FORAGE.

DESCRIPTION

Applies to all or parts of the forest areas classified as tentatively suitable for timber management and to inclusions of grasslands suitable for livestock grazing. The following areas are managed for timber and forage production under the management area:

- The area west of State Highway 207 on the Heppner Ranger District;
- generally, an area east of State Highway 207, and north of the hydrodivide of Stalling Butte, Tamarack Mtn. and Ant Hill; thence, northerly to Forest Road 22;
- nominally, a band or area south of Forest Roads 21, 2104, and 2105 ranging east from Forest Road 22 to the hydrodivide between Wickiup and Little Potamus Creeks, and
- that portion of the Squaw Roadless Area complementing the Wallowa-Whitman NF laying in the Grande Ronde drainage allocation.

DESIRED FUTURE CONDITION

Intensive management of forests for timber production and other commodity products will be apparent. The Forest will primarily be a diverse mosaic of even-aged stands of many age classes, with trees somewhat uniformly spaced and well stocked. Regenerated stands will generally range from 20-40 acres. Stands managed using uneven-aged principles will also be apparent, particularly in the ponderosa pine types. A diversity of species will be present in plantations, but seral, more pest free species such as ponderosa pine, western larch, and lodgepole pine will be most evident. Larger trees will average 16-18 inches in diameter with the exception of trees left to meet cavity dependent wildlife needs and for the recruitment of large woody debris. Accumulated fuels will generally be light, and large destructive fire will seldom occur; prescribed fire will be an important management tool.

A variety of native and seeded grasses, sedges, forbs, and shrubs will be provided for both domestic livestock and wildlife. More of the forested rangelands will be in good forage condition class as the overstory is removed and understories thinned. Forage use will be high with improvements installed to facilitate stock distribution and the effective use of available forage. Fences and water developments will be evident. Recreational opportunities will be available for hunters, fishermen, off-highway vehicle operators, and other motorists.

MANAGEMENT AREAS STANDARDS AND GUIDELINES

RECREATION

A Roaded Modified social and physical setting may result from meeting the goal. Recreation site modification and facility development levels 1 and 2 (Primitive and Semi-primitive) (see Glossary) are permitted. Dispersed recreation activities that meet the goal are permitted.

Provide the opportunity for mostly road-oriented recreation activities. Motorized access may be limited to designated roads, trails, and areas.

Trail and associated facilities construction, reconstruction, and maintenance are permitted.

Off-highway vehicle (OHV) use is permitted. OHV use may be restricted where damage to soil and water resources is occurring and/or public safety is threatened.

VISUAL

Manage areas to meet at least the Maximum Modification visual quality objective.

Provide for rehabilitation where needed to meet the visual quality objective.

CULTURAL RESOURCES

Meet Forest-wide Standards and Guidelines

WILDLIFE

Elk habitat will be managed to achieve a habitat effectiveness index of at least 30, including discounts for roads open to motorized vehicular traffic, as described in Wildlife Habitats in Managed Forests (Thomas and others 1979). The habitat effectiveness standard will be measured on a subwatershed (allocation zone) basis.

Dead and down tree habitat will be maintained at 40 percent of the potential population level for all primary excavators and maintained for other cavity users.

Structural and nonstructural improvement, development, and maintenance for wildlife are permitted.

FISH

Meet Forest-wide Standards and Guidelines. Fish habitat improvement and maintenance projects are permitted.

RANGE

Manage range and livestock through Range Management Strategies C and D with improved management systems. The full range of development and maintenance of structural and nonstructural improvements is permitted.

Seeding of forage species is permitted where tree establishment and growth are not restricted.

Permit increased domestic livestock and big game grazing to capture forage increases on transitory range.

Timber will be managed on a scheduled basis. All timber management practices and intensities will be permitted. Even-aged silviculture will be the most commonly used silvicultural system in the mixed conifer, associated species, and lodgepole pine plant communities. Uneven-aged management would be the preferred silvicultural system in ponderosa pine and mixed pine-Douglas-fir plant communities. Uneven-aged management may also be used where necessary to meet management goals.

The following practices may be employed:

TIMBER

1. Site preparation - by chemical, mechanical, biological, manual means, or prescribed fire,
2. tree improvement - improved growing stock, genetic evaluation plantations, and seed production and seed orchard sites;
3. reforestation - natural or artificial;
4. protection of growing stock from animals, insects, and disease;
5. release and weeding;
6. precommercial thinning;
7. fertilization/pruning - may be permitted on a case-by-case basis;
8. commercial thinning;
9. salvage of mortality as needed: and

10. final harvest - including even-aged management practices of shelterwood, seed trees, and clearcut, and uneven-aged management practices of individual trees and group selection

All types of logging systems are permitted in order to meet resource objectives.

Maintain a blend of tree species with a preference for ponderosa pine, western larch, Douglas-fir, and lodgepole pine across the Forest. Shade tolerant species such as grand/white fir, Engelmann spruce, and sub-alpine fir should be maintained as minor stand components. Plant diversity should be enhanced or maintained.

Fuelwood and other miscellaneous forest products should be available for public use.

WATER AND SOIL

Meet Forest-wide Standards and Guidelines.

MINERALS AND ENERGY

Meet Forest-wide Standards and Guidelines.

LANDS

Land Classification Group III (available for land adjustment) is applicable.

Meet other Forest-wide Standards and Guidelines for lands and land uses.

TRANSPORTATION

Meet Forest-wide Standards and Guidelines for roads and trails.

Roads may be closed to motorized use in order to meet resource objectives and/or to reduce maintenance costs.

FIRE

For all wildfires in the management area, all suppression strategies (appropriate responses) may be used. Suppression practices should be designed to protect investments in managed tree stands and prevent losses of large acreages to wildfire.

Wildfire prevention activities should be emphasized.

FUELS

Fuels should not exceed an average of 9 tons per acre in the 0 to 3-inch size class and an average residue depth of 6 inches.

Desired fuel loadings are depicted by the following (Technical Reports PNW 51, 52):

Treatment/Working Class	Ponderosa Pine	Mixed Conifer	Lodgepole Pine
Precommercial Thinning	1-PP-1-TH 4-PP-1-TH	3-DF-1-TH 4-DF-1-TH	1-PP-1-TH
Clearcut	1-PP-4-CC	2-DF-4-CC 3-DF-4-CC	1-LP-3-LL
Shelterwood	3-PP-4-PC	1-DF-4-PC 3-DF-4-PC	--
Commercial Thinning/Removals	2-PP-4-PC	2-DF-3-PC	2-LP-3-PC
Selection	2-PP-4-PC 4-PP-1-TH	5-PP&ASSOC-4-PC	2-LP-3-PC

	4-PP-1-TH		

All methods of fuel treatment are appropriate. Utilization of wood residues should be encouraged in order to reduce fuel loadings. When treatment is needed to meet resource objectives, prescribed fire is preferred in fire-dependent ecosystems. In ecosystems where fire is not a useful tool, direct fuel treatment methods should be used in reducing fuel accumulations to meet resource management objectives.

Prescribed burning may be used to accomplish a variety of timber and forage production objectives. Care will be used when using prescribed fire due to high resource values and risk of escape fire.

PESTS

Use integrated pest management (IPM) principles and strategies in managing insects and diseases to meet management objectives. Monitoring and detection of pest conditions and populations will be done so that corrective treatments consistent with resource objectives can be prescribed at the earliest opportunity.

Protect growing stock consistent with the level of investment by practicing high intensity prevention activities. Emphasis will be on the prevention of stand and fuels conditions that favor pests increases above epidemic levels. Aggressively suppress insects and diseases using the most cost-effective suppression strategies when outbreaks threaten resource management objectives. Use a variety of methods in meeting protection and suppression requirements.

E2 TIMBER AND BIG GAME

GOAL

MANAGE FOREST LANDS TO EMPHASIZE PRODUCTION OF WOOD FIBER (TIMBER), ENCOURAGE FORAGE PRODUCTION, AND MAINTAIN A MODERATE LEVEL OF BIG GAME AND OTHER WILDLIFE HABITAT.

DESCRIPTION

Applies to all or parts of the Forest area classified as tentatively suitable for timber management and other included acres classified as suitable and transitory range.

The management area applies to about 25 percent of the suitable lands across the Forest on all Districts. The following areas are managed for timber and forage production under Management Area E2 (Locations are shown on management area maps):

- On Pomeroy Ranger District, the general forest area surrounding the north end of Road 40 from the Tucannon River and upper end of North Fork Asotin Creek north to the Forest Boundary;
- the High Ridge-Horseshoe Prairie, the Middle Ridge-Ruckel Junction, and the Griffin Peak-Chase Mountain areas on the Walla Walla Ranger District;
- Generally, an area ranging in a band from Alder Creek on the Heppner Ranger District east to the Forest Boundary; and
- generally, areas range southeasterly between Forest Roads 5412, 5427, astride State Highway 244 and north of Hidaway Creek on the North Fork John Day Ranger District.

DESIRED FUTURE CONDITION

Management of forests for timber production, domestic livestock, big game, and other wildlife habitat will be apparent. Forests will contain a mosaic of even-aged and uneven-aged stands dispersed in a manner creating patterns of tree cover for big game and openings providing forage. Created openings will range from 1-3 acres up to 40 acres, but will often be 20-30 acres in size. Horizontal and vertical diversity will be apparent; tree species will be diverse, but seral, more pest-free species such as ponderosa pine, western larch, and lodgepole pine will predominate. Accumulated fuels will be generally light, and large destructive fires will seldom occur. Prescribe fire will continue to be an important management tool.

A variety of native and seeded grasses, sedges, forbs, and shrubs will be available for big game, other wildlife, and domestic livestock. Range and timber management practices will result in improved range condition and increased amounts of available forage for both big game and domestic livestock. Dispersed recreation opportunities of all types will be available for a variety of users. However, management of roads will result in a noticeable amount of travel restrictions in some areas.

MANAGEMENT AREAS STANDARDS AND GUIDELINES

RECREATION

A Roaded Modified social and physical setting (ROS) may result from meeting the goal. Dispersed recreation activities that meet the goal are permitted.

Recreation site modifications and facility development levels 1 and 2 (see Glossary) are permitted.

Provide the opportunity for road oriented, walk-in, and horseback activities. Motorized access may be limited to designated roads, trails, and areas.

Trail and associated facilities construction, reconstruction, and maintenance are permitted.

Off-highway vehicle (OHV) use is permitted on designated roads, trails, and areas where compatible with big game habitat effectiveness, recreation, and other resource objectives.

VISUAL

Manage areas to meet Modification visual quality objective.

Provide for rehabilitation where needed to meet the visual quality objective.

CULTURAL RESOURCES

Meet Forest-wide Standards and Guidelines.

WILDLIFE

Elk habitat will be managed to achieve a habitat effectiveness index of no less than 45, including discounts for roads open to motorized vehicular traffic, as described in *Wildlife Habitats in Managed Forests* (Thomas and others 1979). Marginal and satisfactory cover and forage areas will be managed to meet or exceed the habitat effectiveness standard, using processes described in *Habitat Effectiveness Index for Elk on Blue Mountain Winter Ranges* (Thomas and others 1988). The habitat effectiveness standard will be measured on a subwatershed (allocation zone) basis.

A minimum of 10 percent of the area will be managed as satisfactory cover (15 to 20 percent is desired). If this is not attainable because of low natural potential, the highest percentage of satisfactory cover potentially attainable will be created or maintained. A minimum of 30 percent of an area will be managed as total cover.

Stands managed for satisfactory cover will meet the following criteria:

- Be at least 40 feet in height, with a canopy closure of at least 70 percent in mixed conifer/lodgepole pine types, and no less than 50 percent in the ponderosa pine type;
- should be 1,200 to 1,850 feet in width (larger cover areas are preferable) though exceptions may be made by wildlife biologists based on an on-the-ground assessment of the stand(s) value for elk: and
- should generally appear as a multi-layered timber stand.

EXCEPTIONS: Exceptions to the achievement of HEI and cover standards may be made on an individual project basis. Such cases would include situations where past harvesting, large scale insect and disease damage, and/or catastrophic fires have made the possibility of accomplishing the desired future condition (DFC) (long-term potential) marginal within a reasonable period (without applying additional silvicultural treatments such as regeneration harvest, tree planting, release, and other cultural operations).

Where these situations exist, activities may occur that reduce HEI and cover further in the near term only if they are consistent with the ultimate goal of the management area, and if the activities will clearly result in achieving a higher HEI cover condition and desired future condition (DFC) in a shorter period of time than if the area was left untreated.

All such activities will be supported by a documented NEPA analysis and will include a cumulative effects analysis of big game habitat in the project area over time. The analysis will also describe the anticipated improved condition on a subwatershed or management area basis. All exceptions must be recommended by the District Ranger and approved by the Forest Supervisor for implementation.

Available forage will be allocated on an approximately equal basis between big game and domestic livestock.

Dead and down tree habitat will be managed to provide or maintain 60 percent of the potential population level for all primary cavity excavators, and maintained for other cavity users.

Structural and nonstructural improvement, development, and maintenance for wildlife are permitted.

Management activities will not create barriers to impede movement of big game animals.

An average of one unburned slash pile for every 2 acres should be retained for wildlife cover on even-aged regeneration harvest units.

Manage to maintain or establish a high level of vegetative diversity at a minimum level of 10 percent in each of the following five seral stages:

Grass/Forb	Young Sawtimber
Shrub/Seedling	Mature/Overmature
Pole/Sapling	

FISH

Meet Forest-wide Standards and Guidelines. Fish habitat improvement projects and their maintenance are permitted.

RANGE

Manage range and livestock at Range Management Strategies C and D with improved management systems. The full range of development and maintenance of structural and nonstructural improvements is permitted.

Seeding of forage species is permitted where tree establishment and growth are not restricted. Prescribed burning may be practiced to improve range forage conditions and trend.

Permit increased domestic livestock and big game grazing to capture forage increases on transitory range.

TIMBER

Timber will be managed on a scheduled basis. All timber management practices and intensities will be permitted. Even-aged silviculture will be the most commonly used silvicultural system in the mixed conifer, associated species, and lodgepole pine plant communities. Uneven-aged management would be the preferred silvicultural system in ponderosa pine and mixed pine-Douglas-fir plant communities. Uneven-aged management may also be used where necessary to meet management goals.

The following practices may be employed:

1. Site preparation - by chemical, mechanical, biological, or manual means, or prescribed fire;
2. tree improvement - improved growing stock, genetic evaluation plantations, and seed production and seed orchard sites;
3. reforestation - natural or artificial;
4. protection of growing stock from animals, insects, and disease;
5. release and weeding;
6. precommercial thinning;
7. fertilization/pruning - may be permitted on a case-by-case basis;
8. commercial thinning;
9. salvage of mortality as needed and

10. final harvest - including even-aged management practices of shelterwood, seed trees, and clearcut, or uneven-aged management practices of individual tree and group selection.

All types of logging systems are permitted in order to meet resource objectives.

Maintain a blend of tree species with a preference for ponderosa pine, western larch, Douglas-fir and lodgepole pine across the Forest. Shade tolerant species such as grand/white fir, Engelmann spruce, and sub-alpine fir should be maintained as a minor stand component. Vegetative diversity should be enhanced or maintained.

Fuelwood and other miscellaneous forest products should be available for public use.

WATER AND SOIL

Meet Forest-wide Standards and Guidelines.

MINERALS AND ENERGY

Meet Forest-wide Standards and Guidelines.

LANDS

Land Classification Group III (available for land adjustment) is applicable. Meet other Forest-wide Standards and Guidelines for lands and land uses.

TRANSPORTATION

Meet Forest-wide Standards and Guidelines for roads.

Roads may be closed to motorized use in order to meet big game habitat objectives, meet recreation and other resource objectives, and/or reduce maintenance costs.

FIRE

For all wildfires in the management area, all suppression strategies (appropriate responses) may be used. Suppression practices will be designed to protect investments in managed tree stands and prevent losses of large acreages to wildfire.

Wildfire prevention activities should be emphasized.

FUELS

Fuels should not exceed an average of 9 tons per acre in the 0 to 3-inch size class and an average residue depth of 6 inches.

Desired fuel loadings are depicted by the following (Technical Reports PNW 51, 52):

Treatment/Working Class	Ponderosa Pine	Mixed Conifer	Lodgepole Pine
Precommercial Thinning	1-PP-1-TH 4-PP-1-TH	3-DF-1-TH 4-DF-1-TH	1-PP-1-TH
Clearcut	1-PP-4-CC	2-DF-4-CC 3-DF-4-CC	1-LP-3-LL
Shelterwood	3-PP-4-PC	1-DF-4-PC 3-DF-4-PC	--
Commercial Thinning/Removals	2-PP-4-PC	2-DF-3-PC	2-LP-3-PC
Selection	2-PP-4-PC 4-PP-1-TH	5-PP&ASSOC-4-PC	2-LP-3-PC

All methods of fuel treatment are appropriate. Utilization of wood residues should be encouraged in order to reduce fuel loadings. When treatment is needed to meet resource objectives, prescribed fire is preferred in fire-dependent ecosystems. In ecosystems where fire is not a useful tool, direct fuel treatments methods should be used in reducing fuel accumulations to meet resource management objectives.

Prescribed fire may be used to accomplish a variety of timber and forage production objectives. Care will be used when using prescribed fire due to high resource values and risk of escape fire.

PESTS

Use integrated pest management (IPM) principles and strategies in managing insects and diseases to meet management objectives. Monitoring and detection of pest conditions and populations will be done so that corrective treatments consistent with resource objectives can be prescribed at the earliest opportunity. Protect growing stock consistent with the level of investment by practicing high intensity prevention activities.

Emphasis will be on the prevention of stand and fuels conditions that favor pest increases above epidemic levels. Aggressively suppress insects and diseases using the most cost-effective suppression strategies when outbreaks threaten resource management objectives. Use a variety of methods in meeting protection and suppression requirements.

F2 MILL CREEK MUNICIPAL WATERSHED - UNDEVELOPED

GOALS

PROVIDE WATER AT A LEVEL OF QUALITY AND QUANTITY WHICH, WITH PRIMARY TREATMENT BY THE MUNICIPALITY, WILL RESULT IN A SATISFACTORY AND SAFE POTABLE WATER SUPPLY.

DESCRIPTION

The management area applies to all land in the Mill Creek Municipal Watershed above the intake, located in Section 12, Township 6 North, Range 37 East, W.M. The area was established as a municipal watershed by a cooperative agreement between the City of Walla Walla and the Secretary of Agriculture on June 26,1918 (USDA Secretary 191 8). The watershed, comprising 21,740 acres, is located in Oregon and Washington.

DESIRED FUTURE CONDITION

Natural vegetative conditions will occur throughout the watershed. Riparian areas will be in natural condition except where activities associated with culinary water supply development occur. The watershed will not be grazed by domestic livestock. Administrative and recreation access will continue to be restricted to meet water quality goals. The quantity and quality of surface waters shall be maintained or enhanced and will be suitable for culinary use by the City of Walla Walla after treatment

MANAGEMENT AREAS STANDARDS AND GUIDELINES

RECREATION

Special big game hunts are allowed by permit for the purpose of protecting water quality. Other recreation activity is not allowed. Off-highway vehicle use is prohibited.

VISUAL

Meet Partial Retention visual quality objectives.

CULTURAL

Meet Forest-wide Standards and Guidelines.

WILDLIFE

Meet Forest-wide Standards and Guidelines.

Dead and down tree habitat will be managed to provide or maintain 80 percent of the potential population level for all primary cavity excavators and maintained for other cavity users.

FISH

Meet Forest-wide Standards and Guidelines.

RANGE

Livestock grazing is not permitted

TIMBER

No scheduled timber harvest activities are permitted. Firewood cutting is not permitted.

WATER

Provide water at a level of quality which meets Federal and state standards, and which, with primary treatment by the municipality, will result in a satisfactory and safe potable water supply.

Water resource management shall be conducted as follows:

1. Administer cooperative agreement with the City of Walla Walla;
2. monitor water quantity and quality;
3. administer area closure and provide a watershed rider;
4. administer permit system to control entry;
5. cooperate with Oregon Department of Fish and Wildlife and Washington Department of Wildlife on permit system:
6. coordinate with the Washington Department of Health; and
7. sanitary regulations will be observed by persons who occupy or are employed in the watershed.

SOIL

Meet Forest-wide Standards and Guidelines.

MINERALS

Lands within the watershed are withdrawn from all forms of location, entry, and patent under mining laws, and from disposition under laws pertaining to mineral leasing.

LANDS

As opportunities arise and as needed, acquire watershed lands to improve overall watershed management.

Meet Forest-wide Standards and Guidelines for lands and land uses.

TRANSPORTATION

Construction of transportation facilities is not permitted. Maintain existing trails.

FIRE

The area is high priority for control of wildfires. The appropriate wildfire suppression response should emphasize control strategies.

If retardant is needed for any reason, only water will be used. Tractor use will not be permitted on slopes of over 50 percent or within riparian areas. Fire suppression activities may require restoration and/or other mitigation to maintain water quality and quantity.

If catastrophic conditions occur, rehabilitation practices may be used all rehabilitation activities will be directed toward protecting or improving water quality, quantity, and timing. Projects will be coordinated with the City of Walla Walla.

FUELS

Use of prescribed fire is permitted outside the riparian influence zone where needed to improve watershed conditions or reduce significant risk of watershed damaging wildfire. Prescribed burns are designed, located and scheduled to minimize risk of short term degradation of water quality.

PESTS

Use integrated pest management (IPM) principals and strategies in managing insects and diseases to meet management objectives. Management of insects and diseases (including suppression activities) is permitted, in coordination with the City of Walla Walla, to prevent unacceptable damage in the watershed. The preferred method is use of biological controls.

GENERAL

If conflicts occur between direction in Management Area D2, Research Natural Area, and direction for the Mill Creek Municipal Watershed, Management Area F2 requirements will prevail in order to meet municipal watershed objectives.

F3 HIGH RIDGE EVALUATION AREA

GOAL

TO PROVIDE AN ADMINISTRATIVE STUDY AREA TO EVALUATE THE EFFECTS OF TIMBER HARVESTING ACTIVITIES ON WATER QUALITY AND STREAMFLOW REGIMES.

DESCRIPTION

The F3 Management Area applies to the High Ridge Evaluation Area which is approximately 560 acres in size. It is the part of the Umatilla National Forest Barometer Watershed that has been the study site for timber operations and watershed response testing.

Hydrologic data collection was initiated in 1965. Data currently being collected are measures of streamflow, water and air temperature, precipitation, and suspended sediment. Three smaller watersheds, located at the headwaters of Buck Creek, were silviculturally treated in 1976. The fourth watershed was untreated and serves as the control watershed. Additional timber harvest is planned. The hydrologic response to the treated watersheds is compared against that of the control in order to assess changes in flow regimes as a result of timber harvest. Of primary interest are changes in peakflow timing, peakflow volumes, peakflow durations, annual hydrograph distribution, streambank stability, and water quality.

DESIRED FUTURE CONDITION

The barometer watershed study will continue through the next IO-year period. The watershed will be characterized by a variety of vegetative conditions ranging from natural to highly modified. Modifications in timber canopy will result from a variety of standard timber harvest techniques and strategies, and will be studied for their impacts on water quality and streamflow regimes. Other development activities inconsistent with study objectives will be absent or show minimal impact. Changes in possible allocation will be reviewed at the next Forest Plan development.

MANAGEMENT AREAS STANDARDS AND GUIDELINES

RECREATION

Dispersed recreation uses are permitted. Developed recreation is not permitted.

VISUAL

A Maximum Modification visual quality objective is permitted.

CULTURAL

Meet Forest-wide Standards and Guidelines.

WILDLIFE

Meet Forest-wide Standards and Guidelines.

FISH

Meet Forest-wide Standards and Guidelines. No fish habitat is within the area.

RANGE

Livestock grazing will be permitted after timber operations are completed as long as grazing meets the objectives of the study.

TIMBER

Timber harvest and management entries are permitted based on outcome of present study. The full range of timber management practices and intensities is available.

Maintain the control watershed in a natural or unharvested condition.

WATER

Monitor water quality and quantity to determine effects of timber and other forest management operations on water resources. Periodically report results of the barometer watershed monitoring.

SOIL

Meet Forest-wide Standards and Guidelines.

MINERALS AND ENERGY

Meet Forest-wide Standards and Guidelines.

LANDS

Meet Forest-wide Standards and Guidelines for lands and land uses.

TRANSPORTATION

Maintain the existing road system and keep the existing roads open. Roads may be constructed based on the requirements of the study.

FACILITIES

Maintain and protect existing weather and water measuring stations. Other monitoring facilities may be added, as study needs arise.

FIRE

The area has a high priority for protection from wildfire. The appropriate wildfire suppression should emphasize control strategies. Standard fire suppression techniques should be used.

Based on the objectives and requirements of the study, standard rehabilitation practices may generally be used where intense wildfire or suppression activities create a need for protecting or rehabilitating soil and water resources.

Fuel hazards may be treated to standards found in areas with intensive timber practices, or to levels determined from study requirements. Typical fuel treatment practices should be used.

FUELS

Prescribed burning from planned ignitions will be used to accomplish a variety of timber and forage production objectives. Prescribed fire from unplanned ignitions will not be used due to high resource values and risk of escape fires.

PESTS

Use integrated pest management (IPM) principles and strategies in managing insects and diseases to meet management objectives. Monitoring and detection of pest conditions and populations will be done so that corrective treatments consistent with resource objectives can be prescribed at the earliest opportunity. Protect growing stock consistent with the level of investment by practicing high intensity prevention activities.

Emphasis will be on the prevention of stand and fuels conditions that favor pests increases above epidemic levels. Aggressively suppress insects and diseases using the most cost-effective suppression strategies when outbreaks threaten resource management objectives. Use a variety of methods in meeting protection and suppression requirements.

F4 WALLA WALLA RIVER WATERSHED

GOAL

PROVIDE HIGH QUANTITY AND QUALITY OF WATER AND ELK HABITAT EFFECTIVENESS WHILE SUSTAINING OR ENHANCING OTHER RESOURCE VALUES. MANAGEMENT ACTIVITIES WILL NOT SUBSTANTIALLY CHANGE THE LEVEL OF WATER DISCHARGE FROM THE NATIONAL FOREST DURING THE MAY 1 THROUGH SEPTEMBER 30 PERIOD.

DESCRIPTION

The management area applies to all National Forest land within the north and south forks of the Walla Walla watershed-except for the Target Meadows area on the south edge of the watershed and areas between both the Skyline Road (64) and the Tiger Canyon Road (65), and the watershed boundary. Aside from some forest management activities in the northwest portion of the area, most of the area is a natural appearing environment and is undeveloped.

DESIRED FUTURE CONDITION

The headwaters of the north and south forks of the Walla Walla River will remain as large, natural appearing, primarily undeveloped area. The area will continue to provide high quantities of quality water, undisturbed big game and other wildlife habitat, and recreation opportunities featuring closeness to nature and self-reliance. Some additional logging and timber management will be evident only in areas where past harvest has occurred.

Riparian areas will be in a natural state. Surface runoff in streams will be of high quality and show no reduction in average annual yield or low flows. On the average, spring snowmelt peaks will not change significantly in magnitude. Quality big game habitat will be maintained and, in some cases, improved through prescribed fire, thereby helping to achieve big game management and Forest recreation goals. Forage will be abundant and improved through management.

Recreationists will be able to enjoy a variety of challenging off-highway vehicle (OHV) and other dispersed opportunities on trails, drive ways, or closed roads. Opportunities to enjoy hiking, camping, hunting, and other recreational activities in a natural setting will be available. Existing wheel tracks and primitive roads will become OHV trails. Emphasis will be on providing a quality hunting experience in an undisturbed environment. Road closures and other management techniques will result in a noticeable amount of travel restrictions across the area.

MANAGEMENT AREAS STANDARDS AND GUIDELINES

RECREATION

Manage dispersed recreation for Semi-primitive Motorized physical and social settings (SPM - ROS Users Guide) on the area by maintaining opportunities to get away from others and experience feelings of remoteness. A Roaded Modified physical and social setting may result from meeting the goal on a small part of the developed area.

Recreation site modification and facility development levels 1 and 2 (see Glossary) are permitted.

Access will be primarily for remote off-highway vehicle (OHV), and walk-in or horseback opportunities on the undeveloped and parts of the developed areas, and for a small amount of motorized opportunities on the developed areas.

Trail and associated facility construction, reconstruction and maintenance are permitted, as long as consistent with overall area objectives.

Off-highway vehicle (OHV) use is permitted on roads, trails, and areas. Use may be limited to designated roads, trails, and areas to meet water quality and quantity, habitat effectiveness, and recreation objectives.

VISUAL

Management activities will result in a range of visual quality objectives primarily Retention (R) and Partial Retention (PR) to some Modification (M).

Provide for rehabilitation needed to meet visual quality objectives where visual standards have not been met.

CULTURAL RESOURCES

Meet Forest-wide Standards and Guidelines.

WILDLIFE

Areas with Timber Management

Elk habitat will be managed to achieve a habitat effectiveness index of no less than 60, including discounts for roads open to motorized vehicular traffic, as described in Wildlife Habitats in Managed forests (Thomas and others 1979). Marginal cover, satisfactory cover, and forage areas will be managed to meet size and spacing criteria as described in Habitat Effectiveness Index for Elk Habitat on Blue Mountain Winter Ranges (Thomas and others 1988).

A minimum of 10 percent of the winter range and 15 percent of the summer range area will be managed as satisfactory cower (20 percent is desirable on each area). If this is not attainable because of low natural potential, the highest percentage of satisfactory cover potentially attainable will be created or maintained. A minimum of 30 percent of the areas will be managed as total cover.

Stands managed for satisfactory cover will meet the following criteria:

- Be at least 40 feet in height, with a canopy closure of at least 70 percent in all forest types except that canopy closure will be no less than 50 percent on winter range ponderosa pine types;
- cover on summer ranges should be 1,200 to 1,850 feet in width (larger cover areas are preferable) though exceptions may be made by wildlife biologists based on an on-the-ground assessment of the stand(s) value for elk;
- width of cover on winter ranges should be 600-1,200 feet. Exceptions may be made according to Forest-wide Standards and Guidelines;
- on winter ranges, stands should be at least 10 acres in size (larger cover areas are preferred). Exceptions may be made, as shown above: and
- Satisfactory cover should generally appear as a multi-layered timber stand.

Marginal cover will be no less than 10 feet in height, with a canopy closure of at least 40 percent, and 600 to 1,200 feet wide. Exceptions may be made by wildlife biologists based on an on-the-ground assessment of the stand(s) value for elk.

All cover areas will be managed to provide sufficient vegetation to obscure 90 percent of a standing elk at a distance of 200 feet or less.

An average of one unburned slash pile for every 2 acres should be retained on even-aged regeneration harvest units for wildlife cover.

All Areas

Habitat effectiveness index of 60 and cover standards apply to all other areas within the management area.

Big game forage improvement projects such as seedling, browse planting, and fertilization may be used. Structural improvements may be used to protect these investments. Prescribed burning may be practiced in order to maintain or enhance rangeland forage conditions.

Available forage will be allocated to meet big game management objectives. Available excess forage may be allocated to domestic livestock. Manage to maintain or establish a high level of vegetative diversity.

Emphasis should be placed on retaining and/or protecting big game key use areas and habitats such as migrational corridors, calving/fawning areas, wallows, springs, seeps, and bogs.

Management activities will not create barriers to impede movement of big game animals.

Dead and down tree habitat will be managed to provide or maintain 80 percent of the potential population level for all primary cavity excavators, and maintained for other cavity users.

FISH

Meet Forest-wide Standards and Guidelines for riparian/fish habitat.

Fish habitat enhancement, restoration, and maintenance practices (projects) may be used to increase smolt habitat capability.

RIPARIAN

For all Class I, II, and III streams and associated riparian areas within the management area, anadromous fish habitat will be managed to produce at least 90 percent of potential smolt habitat index (SCHI) by meeting standards for Fish shown in Management Area C5.

RANGE

Domestic livestock grazing is permitted at Range Management Strategy C. All available range and livestock management practices may be used where consistent with the primary management goal of maintaining or enhancing water quality and quantity and big game and other species' habitats.

Meet the forage utilization standards for riparian and upland areas, as found in the Range portion of Forest-wide Standards and Guidelines.

Structural range improvements are permitted to the extent they are compatible with the management goal.

TIMBER

Within the north and south forks, Walla Walla River drainages, timber will be managed on a scheduled basis only on designated lands, as mapped. The area encompasses a total of 34,950 acres, of which 3,382 acres are suitable for timber management.

Where timber is managed on a scheduled basis, all timber management practices and intensities consistent with achieving the primary management goals will be permitted. The selected silvicultural system applied to timber stands within the suitable forest lands will be based on a site-specific examination and analysis, and will be designed to meet management goals. Harvest practices may include clearcutting, shelterwood, salvage, removal, and commercial thinning, as well as group or individual tree selection. Other cultural practices may be used including natural and artificial regeneration, planting genetic stock when available, precommercial thinning, release, and insect, disease, and animal damage protection.

Harvest of trees adjacent to existing harvested units will be scheduled only under the following conditions; no further harvest may occur until the conditions (items 1 and 2, below) are met:

1. Big game habitat, water quality and yield, and visual resource objectives can be met; and
2. units are determined to be established by using criteria in No. 1 (by acceptable stocking and appropriate species) and free to grow.

If catastrophic conditions occur, salvage may be employed where consistent with meeting water quality, quantity, and elk habitat objectives.

Timber harvest will not be scheduled or allowed in riparian areas of Class I, II, and III streams.

Logging and road building may be done with conventional practices. All yarding and skidding systems may be used, if within the ground-disturbing criteria (see Soil).

Fuelwood cutting may be permitted consistent with established goals and wildlife criteria.

WATER

In addition to meeting Forest-wide Standards and Guidelines, the following water resource management measures shall be conducted:

1. Provide for: (a) Protection of riparian areas, (b) retention of snowpack, and (c) minimal loss of soil productivity and transport of eroded materials to surface waters. Created openings will generally be less than 10 acres in size. Shape, location, and orientation of harvest units (created openings) will be designed to increase snow redistribution into created openings, reduce evapo-transpiration losses, and provide maximum shading of induced snowpacks and adjacent tree boles.
2. Monitor water quality, quantity, and timing of yields.
3. Coordinate all resource activities to maintain or enhance existing water yields for irrigation during the period of May 1 to September 30.

SOIL

Limit ground-disturbing activities within 250 feet horizontal distance of all streams, and wet areas associated with streams, to no more than 10 percent of exposed mineral soil per unit or project area.

Meet all other Forest-wide Standards and Guidelines for soils.

MINERALS AND ENERGY

Meet Forest-wide Standards and Guidelines.

LANDS

Meet Forest-wide Standards and Guidelines.

TRANSPORTATION

Site-specific examinations and analysis will be conducted to determine the needs for additional roads or reconstruction. If additional or rebuiit roads are needed, they will meet the following standards and guidelines.

- All roads built into these areas for the purpose of timber harvest are to be built to minimize soil disturbance and adverse effects on water, fish, and wildlife populations. No construction will be permitted within 500 feet horizontal distance of Class I and II streams except at needed crossings.
- Roads shall be constructed and maintained at the minimum widths necessary to safely accommodate logging trucks and yarding equipment.

- Maintain standards of alignment and grade that will allow roads to follow, as nearly as possible, the contours of the land. Utilize a minimum of excavation and earth movement to accomplish the construction.

Roads will be maintained and shall be treated to minimize soil erosion. Erosion control measures to be taken might include, but need not be limited to:

1. Revegetation of the roadbed with herbaceous species,

2. Outsloping,

3. Crossditching,

4. Covering with logging slash, and

5. Hand maintenance of the drainage structures.

All existing and future roads will be closed at the conclusion of project activities except for:

1. Yellow Jacket Road No. 6500040,

2. Table Springs Road No. 6512000, and

3. Road No. 6500294 to Trail No. 3225.

Suitable measures shall be taken to assure revegetation and continued closure to motorized vehicle use, unless needed in emergency situations for the protection of life or property. During closure periods, measures shall be taken to ensure that motorized vehicles cannot enter onto or travel upon these roads.

FIRE

The appropriate wildfire suppression response should emphasize control and/or contain strategies for moderate to high intensity fires.

Low impact suppression methods should be used; rehabilitation and other measures may be used to mitigate wildfire and suppression impacts in conflict with water and soil objectives.

FUELS

Where timber is harvested and managed, fuels should not exceed an average of 12 tons per acre in the 0 to 3-inch size class and an average residue depth of 6 inches, as depicted in the Photo Series for Quantifying Forest Residues (Technical Report PNW 52) (USDA Forest Service 1976b):

Even-aged Management	3-PP-4-PC	4-PP-1-TH	1-PP&ASSOC+PC	2-LP3-PC
Uneven-aged Management	2-PP-4-PC	2-LP3-PC	4-PP-1-TH	5-PP&ASSOC-4-PC

All methods of fuel treatment are appropriate; hand treatment methods are preferred in riparian areas.

All types of prescribed fire may be used where consistent with meeting water quality goals.

PESTS

Use integrated pest management (IPM) principles and strategies to manage insects and diseases in meeting management area objectives. Monitoring and detection of pest conditions and populations will be done so that corrective treatments consistent with resource objectives can be prescribed at the earliest opportunity.

1. Protect forest stands (habitat) where consistent with resource objectives by practicing prevention activities. Emphasis will be on the prevention of stand and fuels conditions that favor pests increases above epidemic levels.
2. Suppress pests using cost efficient strategies when outbreaks threaten dispersed recreation, water and/or wildlife habitat objectives or resources in adjacent areas. Favor biological methods when available.
3. The use of pesticides will not conflict with water and habitat objectives.