

Desired Future Condition of the Forest

This prediction is stated in the present tense, as if it had already occurred.

The current condition of the Forest is indicated in Chapter 2 of this document, Analysis of the Management Situation, and Chapter 3 of the FEIS, Affected Environment. As the Forest Plan is implemented, the Forest will change. This section describes how the major resources on the Forest will be managed, what they will look like, and how they are expected to be utilized as a result of direction contained in this Plan

Community Relations

The Forest has continued to be an integral part of peoples lives, whether they are neighbors or visitors to the Forest. There is increasing interest in Central Oregon by people attracted by its quality of life

A dynamic, new partnership of trust and mutual respect among all owners of the National Forest has been the objective. Dialogues have been opened when misunderstandings about the direction of Forest management materialize. The public actively participates through nontraditional partnerships in project planning and implementation. Adaptability to change has been a key to the success of these partnerships and in performing traditional Forest Service activities and programs

Pacific Northwest Strategy

The Forest in 10 Years

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 interdepen-

ency 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.

The Forest in 50 Years

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.

Recreation

The Deschutes National Forest is famous for its open park-like stands of large Ponderosa pine. That appearance has been retained by limiting tree removal in key areas. This includes the foreground along all State and most County highways as well as many Forest Service roads, primarily those leading to major trailheads. Most major buttes and recreation areas are also included.

Lodgepole pine stands that were killed by the mountain pine beetle have been regenerated and this has markedly improved the appearance of that portion of the Forest. Views of distant peaks, unique rock forms, unusual vegetation, and other features of interest have been enhanced by visual management.

Mt. Bachelor has continued to grow as an international destination for both alpine and nordic skiing. Recreationists have more to do on the mountain, which is now a year round resort. The construction of additional regional or destination alpine areas awaits the development of Mt. Bachelor to near the capacity indicated in the Master Plan. Nordic and local alpine areas, however, have been added elsewhere on the Forest to meet increasing demand.

People visiting the five Wildernesses on the Forest and the Oregon Cascade Recreation Area (OCRA) have become increasingly numerous. Management plans for these areas are summarized in Appendix 4.

Unusual geological, biological, and cultural sites and areas have been preserved and managed for education, research, and to protect their unique character. Facilities and opportunities for public interpretation and enjoyment of the unique values of these sites and areas have been provided. The primary benefiting use of these areas is for developed and dispersed recreation, research, and educational opportunities.

Developed recreation sites have become increasingly popular. New campgrounds have been built and existing sites expanded to meet this demand but the emphasis has been on rehabilitating and extensively maintaining existing sites. The objective has been to keep occupancy rates, when measured on a Forest-wide basis, at approximately the 43 percent level.

The private sector has continued to operate some existing campgrounds and has constructed new ones. Some existing resorts operating under special-use permits have contributed new camping facilities.

The number of resorts that provide overnight accommodations has not increased, except at Skyliner Lodge and a nordic hut system between Mt. Bachelor and the Hoodoo Ski Area. Compatibility between the forest environment and the various types of recreation has been maintained. To meet the increasing needs of year round recreation, several resorts now operate during the winter as well as summer.

Day use facilities such as boat ramps, picnic areas, and interpretive sites are more numerous. The kinds of facilities have changed over time to reflect changes in the popularity of different kinds of recreation

More visitors participate in activities which are not associated with developed sites. Activities which disperse recreation throughout the Forest include nordic skiing, river rafting, mountain bicycling, and off-highway vehicle use. These sports have been accommodate by additional trails and trailhead facilities.

There are also more winter trails, trailhead facilities such as snow parks and shelters for snowmobilers. The Forest also offers additional opportunities for all-terrain vehicles and motorcycles.

Vegetation

In 10 Years

The Forest's commitment to multiple-use management has resulted in two major decisions that will continue to have a major effect on vegetation. First, no area of the Forest is devoted *solely* to the production of timber for use as a commodity. Second, uneven-aged management is practiced wherever it is silviculturally sound to meet high public demand for visual quality, fewer clearcuts, and perpetuation of big trees. Even-aged management is generally practiced in lodgepole pine and mountain hemlock stands, and uneven-aged management is preferred in Ponderosa pine stands and in mixed conifer stands when short and long-term objectives can be met using this system.

Most of the Forest's lodgepole pine stands were decimated by the mountain pine beetle epidemic of the 1970's and 1980's. The regeneration of these stands has replaced many of the older, dying stands with younger, vigorous stands of trees. Silvicultural treatments tailored to meet visual and wildlife habitat objectives are beginning to contribute to overall stand diversity. The thinning schedule has been delayed in some stands, and thinning spacing has been varied in other stands to provide deer hiding areas over time.

All of the Forest's mountain hemlock is in areas which preclude timber management activity. These stands have been left to mature, decay, and regenerate as they have for centuries.

The forest still possesses an abundance of large diameter trees. Changes in diversity are subtle, and for the most part, unnoticeable. Old-growth habitats have been decreased by timber harvest, but much of the old-growth has been included in management areas where there is either a reduced harvest or no programmed harvest.

In 50 Years and Beyond

Stands of trees are managed to achieve many resource management objectives including, but not limited to: the production of usable wood fiber for a variety of uses, the maintenance and enhancement of visual quality, recreational oppor-

tunities, wildlife habitat, and livestock grazing opportunities.

The forest is "fully regulated," which means that it produces an approximately equal annual yield of desired timber size and quality. There is a progression of size and age classes consistently growing at such rates that an equal number of harvestable trees are regularly available. This long-range goal was accomplished by: species composition and stocking level controls; protection from animal, insect, and disease damage; regeneration of stands no longer capable of optimum growth or other desired characteristics; regeneration of some stands with genetically improved trees; and management of forest resources to maintain long-term site productivity.

Emphasis on uneven-aged management has been an important factor in producing the current age and size diversity of vegetation in the forest. Stands managed with this system show a variety of age classes ranging from immature, small trees to mature, large diameter (24"+) trees. Road systems to facilitate managing uneven-aged stands are in place. Large diameter, old-growth trees still exist in uneven-aged stands, as well as in management areas with no programmed timber harvest, or with reduced harvests and longer rotations. More than 21% of the forested land on the Deschutes has no allowable harvest or no programmed harvest, and will remain or grow into an old growth condition over time. In these areas it is possible that over time, old growth could be replaced again by younger stands as a result of fire or other natural "catastrophic" stand replacement events.

In stands managed by the uneven-aged system, trees of many sizes are intermixed singly and in groups and clumps. The goal has been a complete range of age and size classes, including seedlings, saplings, poles, and large trees within each stand.

Most of the insect-infested lodgepole stands regenerated or thinned in the first two decades are 40 to 60 years old. The purposeful staggering of thinning timing and spacing has helped to increase overall size diversity and to create a mixture of vegetation capable of serving as deer hiding areas and forage areas over time.

Even-aged management has also been practiced in most mountain hemlock stands, and in some stands of Ponderosa pine and mixed conifer where the occurrence or risk of insect or disease damage made it unlikely that an uneven-aged management system could meet long-term management objectives.

With both even and uneven-aged management being practiced, size and age diversity is present on a landscape level, created by a mosaic of even-aged stands, as well as on a stand level, created by uneven-aged management practices within many Ponderosa pine and mixed conifer stands. Species and genetic diversity has also been encouraged by prescriptions for natural regeneration and by planting some genetically improved trees in even and uneven-aged stands.

Forest Health

In 10 Years

Insect and disease considerations are fully incorporated into the resource management process. Undesirable impacts from forest pests on resource objectives are greatly reduced. Where they occur, they are a result of scoping, analysis and a decision framework that considers the desirable and undesirable roles of pests in the context of integrated resource management objectives. Out-of-control situations and nonattainment of resource objectives because of misperceptions of pest behavior does not occur.

50 Years and Beyond

The Forest is in an overall state of health, vigor and diversity where-by it can fulfill the full complement of resource management goals both in the long and short-term. Forest pest impacts are still present in the Forest but as desirable agents of a healthy functioning ecosystem. Resistance to devastating epidemics is high. This resistance is maintained proactively with vigilance, planning and sound silvicultural techniques. The need for all large scale direct suppression projects and most small scale projects is eliminated.

Wildlife/Fisheries

The management of habitat for bald eagles, northern spotted owls, and osprey has been emphasized. Nesting habitat and foraging areas have been protected and enhanced. Old growth stands with large trees have been retained for bald eagles and northern spotted owls. Osprey habitat contains numerous trees and snags suitable for nesting. Stands are managed so that suitable nesting sites are available on a continuing basis and spaced to minimize territorial competition. Efforts are made to reduce human disturbance during the nesting season.

Important deer winter and transition ranges are managed to achieve a desirable arrangement of cover and forage. Cover, usually not exceeding 40 percent, is provided by stands which vary in size. These stands have intermingled openings with a variety of grasses, forbs, and shrubs available for forage. This forage is maintained by prescribed burning. Elsewhere on the Forest, cover and forage is the result of activities called for in the various management area prescriptions.

In addition to mature and old growth provided to meet the habitat needs of certain species, other old-growth areas are scattered throughout the Forest.

Habitats for species utilizing dead and or downed trees are provided. Snags and trees for replacing snags are left in harvest areas, either as uniformly distributed single trees or in small clusters. Dead logs are left on the ground for species which use them as habitat and to provide nutrient recycling.

Fish habitat has been maintained and improved to meet fish production targets. Streams, rivers, and lakes were inventoried to prepare for the habitat improvement program. Riparian zones are managed to enhance water quality and fisheries. Land management projects are modified if harmful increases in sedimentation of fish habitat or detrimental effects on stream channel structure are detected. Fish habitat management includes a quality objective to insure the availability of diverse fishing experiences. It takes into account

demand, fish production capability, and environmental quality.

Range

Quality forage is available on range lands. Livestock grazing in riparian areas is intermittent and carefully monitored. Allotments are managed under a grazing system that protects plant vigor, minimizes conflicts with other resources, and calls for cost effective range improvements.

Energy

A stable supply of fuelwood is available for household use. It is accessible and reasonably priced. Slash from logging and thinning is also available as a fuel. The Forest has worked with the developers of new markets for wood as an energy source.

Large areas of the Forest have become prime targets for the exploration and development of geothermal energy. If the supply of electricity in the western states slips from surplus to deficit, geothermal energy development will become increasingly attractive.

Geothermal leases and permits have been issued in a timely way. Drill pads, pipelines, power plants, and electrical transmission lines, to the extent possible, are designed and located to minimize impacts on other resources, particularly visual quality.

Minerals

Volcanic cinders, sand and gravel, crushable road rock, and common fill and clay continue to be provided for use on the Forest, by other government agencies, and by the public.

Lands remain open to exploration, location and development of locatable minerals except in areas which have been withdrawn from mineral entry, or have been restricted by management area prescriptions.

Soils

Long-term soil productivity is unchanged. Land disturbing activities are designed to:

1. Preserve the litter, duff and topsoil layers;
2. Maintain and replace organic matter;
3. Protect soil biology;
4. Maintain soil porosity, structure and aeration.

Management activities that change any of these elements are considered critical. This includes the removal of topsoil during tree planting, compacting soil with logging machinery, or changing the nutrient status by harming soil organisms or removing large woody debris. Monitoring and remedial measures have maintained long-term soil productivity.

Water

Water quality has remained high. It is constantly monitored to maintain quality levels required by benefiting resources.

The Bend Municipal Watershed is managed to protect the community's domestic water supply. Access for administrative purposes and dispersed recreational activities is allowed at a level which is compatible with the water quality goals of the management area.

Air

Measures to protect air quality have been refined and regularly employed. The Forest must comply with the Clean Air Act, the Oregon Clean Air Implementation Plan, and local air quality regulations.

Riparian

Riparian areas are managed to protect fish habitat, water quality and conditions required by wildlife species which depend upon or utilize them.

Transportation

Access to and within the Forest is well balanced between travel needs and the environment. The planned increase or decrease in recreation activities are coordinated with road and trail construction, reconstruction, and management. Roads and trails are maintained in a safe condition consistent with the expected user; the signing is accurate and informative.

Roads to most recreation sites are paved or gravel surfaced in a condition suitable for passenger cars. Many of these roads are also constructed with adequate alignment, grades, and structural capacity to safely allow the hauling of commercial products. The quality of scenic views has been maintained through timber management and road maintenance operations. The Cascade Lakes Highway continues to be maintained and improved to the standards of a National Scenic Byway.

Some of the road system has been closed for the protection of wildlife habitat or to reduce erosion; however, the majority of the mileage remains open for ongoing timber management activities or for general public access such as hunting, fishing, pleasure driving, and fuelwood gathering. These lower standard roads are available for use by the more experienced drivers. Maps, signing and primitive conditions at the beginning of the roads managed for high clearance vehicles give travelers advice on what to expect. Unexpected road conditions are adequately signed.

Other Resources

Natural processes are dominant in Research Natural Areas for scientific purposes. This program provides for:

Baseline areas against which effects of human activities can be measured;

Sites for study of natural processes in undisturbed ecosystems;

Gene pool preserves for all types of organisms.

The Pringle Falls Experimental Forest is within the Forest boundary and is administered by the Pacific

Northwest Forest and Range Experiment Station. The Experimental Forest serves as a field laboratory for research. Studies evaluate the effects of silvicultural practices on growth and yield of Ponderosa and lodgepole pine. The effects of harvesting on soil moisture and other resources are also evaluated and the role of fire in natural ecosystems is investigated.

Forest Management Objectives

This section is about "how much and when". It includes an estimation of levels of production for Forest resources.

Many of the levels of production predicted for Forest resources are based on assumptions. One sort of assumption underlies predictions about supply and demand, another about the adequacy of resource protection measures. Some outputs may also be affected by the level of funding the Forest Service receives from Congress.

The monitoring program will test assumptions. If they are not supported by the actual results of activities on the ground, a formal procedure to change practices or amend the Forest Plan will be initiated. This process, which includes public involvement, is described in Chapter 5.

Projected Outputs

Table 4-1 displays the outputs and activities expected with full implementation of the Forest Plan.

The projected average annual outputs and activities may not always be accomplished in any given year. In addition to budgets, personnel ceilings could affect accomplishment of outputs and activities. Adjustments in outputs and activities could vary by as much as 10 percent from the average annual outputs planned. Should appropriated budgets or personnel vary significantly from the planned needs, the necessary adjustments in outputs and activities will be evaluated to determine whether amendment of the Plan is necessary.