

# ***Northwest and Southwest Oregon State Forests Management Plans***

## **IMPLEMENTATION PLAN**

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# Purpose of NW and SW FMP Implementation Plans

The *Northwest Oregon* and *Southwest Oregon State Forests Management Plans* (FMPs) were adopted by the Board of Forestry in January 2001. Each plan included direction for the development of “implementation plans that describe the management approaches and activities each district in the planning area will pursue in order to carry out” the two management plans. Implementation of the strategies and standards in the two plans began in July of 2001, as per Board direction. Initial implementation activities were carried out in accordance with objectives and activities described in draft district implementation plans (IPs) developed following Board adoption of the two plans.

Also included in this document are specific plans for other key strategies, projects and efforts associated with implementation of the two FMPs. These include watershed analysis, monitoring, forest inventory, salmon anchor habitats, and enhancements to timber harvest schedule modeling.

The implementation plans contained in this document are intended to describe these activities, projects and efforts for the ten-year period from July 1, 2001, through June 30, 2011. Specific circumstances may arise or information may become available that will call for updates or revisions to one or more of these IPs prior to 2011. In fact, several of the projects described in the supplemental chapters are designed to acquire better data or analytical information that is likely to result in changes to the IPs. Improved and updated timber harvest schedule modeling, with the benefit of new forest inventory information, is expected to result in revisions to the harvest levels described in these IPs. Similarly, completion of watershed analyses in specific basins is expected to result in revisions to management practices in those basins. Such updates or revisions will be considered and reviewed in accordance with the standards for adaptive management described in the FMPs and the thresholds identified in Modifications to Implementation Plans section described at the end of this chapter.

## State Forester Approval of Implementation Plans

The FMPs require that: “The State Forester shall approve, modify, or deny the recommended implementation plans. If the State Forester modifies a recommended plan, the modifications will be incorporated into the original plan and appropriate revisions made to land management classifications. If the State Forester denies the recommended plan, the District Forester shall prepare a revised or new implementation plan and/or revised or new land management classifications as appropriate.”

The IPs included in this document represent the final plans developed following extensive public review and comment on the initial May 2001 drafts that has taken place over the past 18 months, and include modifications as directed by the State Forester.

# Organization of District Implementation Plans

The seven IPs have been prepared using a standard format for organization, section headings, tables and charts. This section will describe the organization of the IPs, so that readers will have a better understanding of the plans and will be able to find the information that they are interested in more easily.

Each IP is composed of six main sections: **District Overview**, **Management Activities**, **Landscape Design Overview**, **Management Basins**, **Expected Outputs and Habitat Achievements**, and **Appendix 'A' (Determining Levels of Harvest and Other Silvicultural Activities)**.

The **District Overview** section is intended to provide a context and background information for the rest of the IP. In this section, the land ownership and history of the state forest lands are described. The results of the application of the Land Management Classification System is summarized. In addition, the physical and biological elements (such as geology, climate, vegetation, and wildlife) that make up the environment within which the forest is managed are described. The current uses of the state forest lands on the district is described in terms of forest management, roads, recreation and scenic values. Finally, the current condition of the forest is summarized by stand structure (as defined in the *Northwest and Southwest State Forests Management Plans*) and by stand age.

The **Management Activities** section provides an overview of the management activities that will occur on the district during the IP period (July 1, 2001, through June 30, 2011). This section starts with an analysis of the current condition of the stand structures, followed by a description of the types of silvicultural activities that will occur in each of the stand structures. Finally, this section describes and, where appropriate, quantifies management activities that will occur related to a variety of resources, including silvicultural activities, roads, recreation, stream enhancement projects, cultural resources, plants and other resources.

The **Landscape Design Overview** section describes the major factors that affect the district's landscape design. It also describes the specific strategies used on the district to implement the landscape design concepts described in the FMPs.

The **Management Basins** section is the largest section in most of the IPs. In this section, each management basin on the district is described in terms of location, key resources, the current and the desired future stand structures, harvesting, roads and other management activities.

The **Expected Outputs and Habitat Achievements** section summarizes the expected outputs from the various management activities during the IP period. The outputs may include estimates of stand structures development, acres and volume of timber to be harvested, trails to be built, and stream enhancement projects to be conducted.

The **Appendix ‘A’** for each of the IPs is titled **Determining Levels of Harvest and Other Silvicultural Activities for Northwest (or Southwest) State Forests**. This section details how factors specific to each district were used to calculate the harvest level for the IP. In addition, this section describes how the goals for other silvicultural activities were determined.

## Legal Mandates

Oregon Revised Statute (ORS) 530 sets the overarching direction for Board of Forestry lands as “the greatest permanent value of such lands to the state.” The Oregon Constitution (Article VIII, Section 5) authorizes and directs the State Land Board to “...manage lands [Common School Lands] under its jurisdiction with the object of obtaining the greatest benefit for the people of this state, consistent with the conservation of this resource under sound techniques of land management.” Common School Lands are used for schools and the production of income for the Common School Fund.

The Oregon Forest Practices Act sets baseline standards for carrying out forestry operations. State and federal Endangered Species Acts (ESAs) protect threatened and endangered species — for example, through “4(d)” rules or habitat conservation plans. The Department of Forestry is currently drafting a *Western Oregon State Forests Habitat Conservation Plan* to provide for listed species and species of concern on northwest and southwest Oregon state forests.

State forest lands managed by the Oregon Department of Forestry are managed in a manner consistent with Oregon Administrative Rule (OAR) Chapter 629, Division 35. This rule defines “greatest permanent value” as “healthy, productive, and sustainable forest ecosystems that over time and across the landscape provide a full range of social, economic, and environmental benefits to the people of Oregon.”

The greatest permanent value will be secured by actively managing forest lands acquired under ORS 530 “...in a sound environmental manner to provide sustainable timber harvest and revenues to the state, counties, and local taxing districts. This management focus is not exclusive of other forest resources, but must be pursued within a broader management context that: results in a high probability of maintaining and restoring properly functioning aquatic habitats for salmonids, and other native fish and aquatic life; protects, maintains, and enhances native wildlife habitats; protects soil, air, and water; and provides outdoor recreation opportunities. Management practices must: pursue compatibility of forest uses over time; integrate and achieve a variety of forest resource management goals; achieve, over time, site-specific goals for forest resources; consider the landscape context; be based on the best science available; and, incorporate an adaptive management approach that applies new management practices and techniques as new scientific information and results of monitoring become available.”

State forests are managed under forest management plans approved by the Board of Forestry and the State Land Board, and adopted as administrative rules. Forest management plans are implemented through more specific, small-scale or time-limited plans that are consistent with the forest management plan — such as these district implementation plans.

# Relationship to Other Plans

The IPs are one step in a much larger planning process for state forest lands. The scale of the planning ranges from the very broad Board of Forestry policy documents, such as *The Forestry Program for Oregon*, to strategic plans such as the forest management plans developed for each state forest planning area, to the very specific Annual Operations Plans (AOPs). The IPs provide a link between the broad strategic policy and plans, and the specific AOPs.

Figure 1 on page 7 shows the relationship of the IPs to other plans involving state forests. Starting with broadest policies and plans at the top of the chart, they become progressively more focused in strategies, location and timeframe as they move down the chart.

- *The Forestry Program for Oregon* is a long term policy document that addresses all forestry issues in Oregon.
- The *Greatest Permanent Value Rule* describes the long term purpose and goal for management of Board of Forestry lands.
- The *Northwest and Southwest Oregon State Forests Management Plans* and the proposed *Western Oregon Habitat Conservation Plan* are long-term strategic plans that are applied to state forest districts contained in this implementation plan.
- The *Oregon Plan for Salmon and Watersheds* is a long-term cooperative effort involving state and federal agencies, private landowners, and volunteers with the objective of restoring salmon populations and watershed health. This is a broad scale plan that applies to the entire state, but is focused on a specific resource.
- The seven IPs are 10-year plans that are specific to state forest lands on individual districts.
- The AOPs describe state forest management activities that will occur on a specific district in a given fiscal year.
- The Forest Land Management Classification System, though not technically a plan, is developed in close association with the IPs. (See page 13 for a detailed description of this system.)
- Budgets occur in two forms, Biennial and Fiscal Year. They provide the financial framework for accomplishing the tasks described in the various plans. They include the costs for personnel, equipment, offices, contracts and the other financial resources needed to manage the state forests.
- Plans for specific resources or activities also exist or are under development. Several of these are included as chapters in this document.

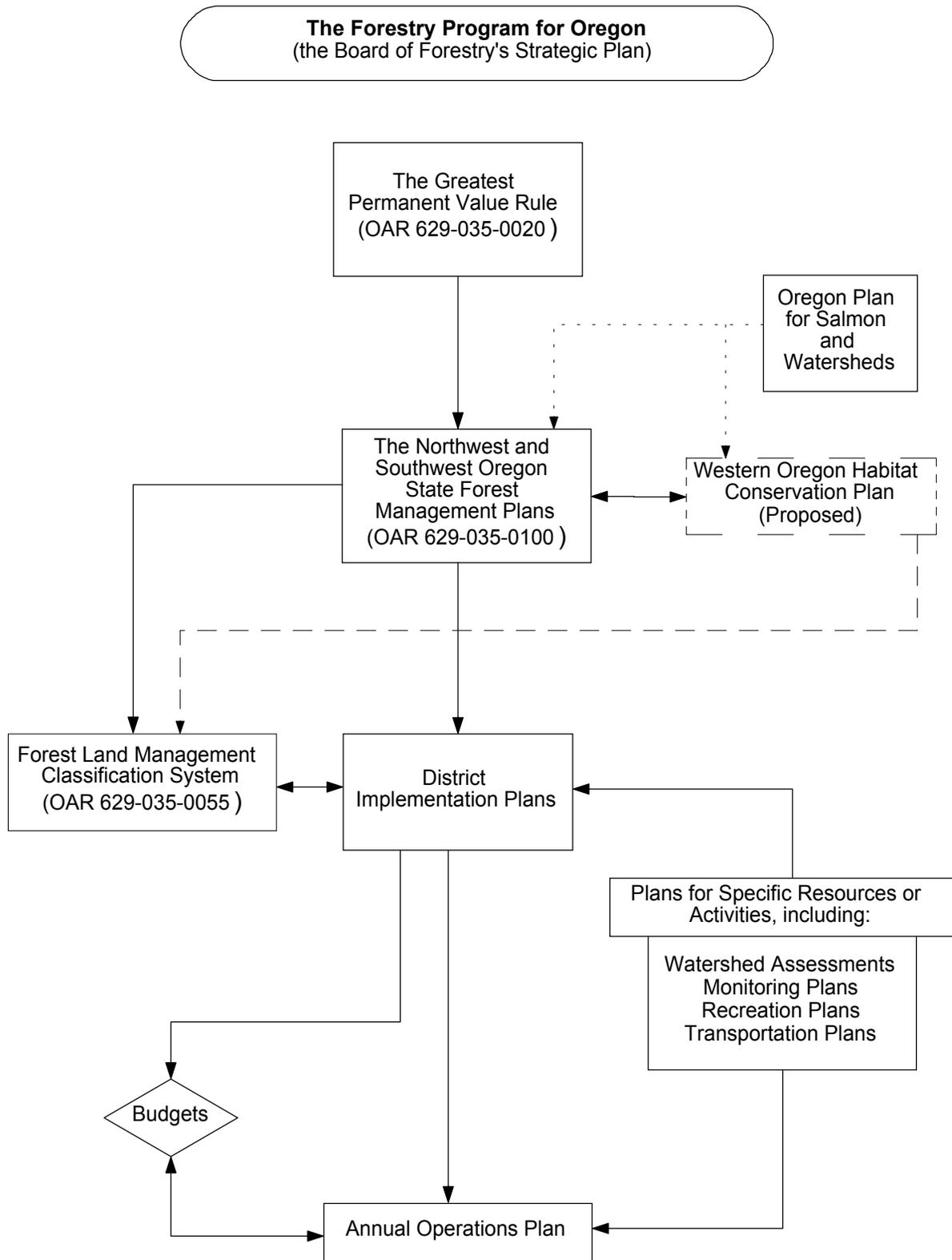
## The Forestry Program For Oregon

The *Forestry Program for Oregon* (FPFO) is the strategic policy document for the Oregon Board of Forestry. The FPFO guides the actions of both the Board of Forestry

and the Oregon Department of Forestry in developing and implementing sound policy for public and private forest lands in Oregon.

Although not directly linked to implementation plans, the FPFO guided the Board as it developed the *Greatest Permanent Value Rule* (GPV) (OAR 629-035-0020) which defined the purpose for which state forests are managed. The FPFO also guided the department in developing the strategies contained in the FMPs.

**Figure 1. State Forest Planning Flow Chart**



## **The Northwest and Southwest Oregon State Forests Management Plans**

The Northwest and Southwest FMPs provide the Guiding Principles, Vision, and Goals for managing state forest lands. The FMPs also contain integrated forest management strategies, and strategies for the management of specific resources. These FMPs were developed according to the provisions of OAR 629-035-0030, *Forest Management Planning*. In approving these plans and adopting them as administrative rule, the Board of Forestry made the determination these plans meet the obligation to secure the greatest permanent value to the state (as defined in the *Greatest Permanent Value Rule*).

The IPs are directly linked to the FMPs through the administrative rule on forest management planning (which requires the State Forester to implement the FMP “through more specific, small scale or time limited plans...”). The purpose and content of the IPs are described within the FMPs (for details, see the Northwest Oregon FMP pages: 4-46, 4-49, 4-56, 5-4, and 5-37).

The FMPs provide the link between the IPs and the GPV Rule. By following the strategies in the FMPs, the implementation plans meet the obligations of the GPV Rule, since the Board of Forestry has found that those strategies meet the GPV Rule.

## **The Western Oregon Habitat Conservation Plan**

The Department of Forestry is currently pursuing a habitat conservation plan (HCP) with the U.S. Fish and Wildlife Service and NOAA Fisheries for state forest lands covered by the Northwest and Southwest Oregon FMPs. Obtaining the HCP will allow full implementation of the strategies in the FMPs and provide for greater certainty in the management of state forests. It is anticipated that the HCP will also result in a net benefit to the state and counties over a plan that is based on the “take avoidance” strategies for listed species. Final adoption of a HCP by the Board of Forestry will be contingent upon an updated analysis of the costs and benefits associated with an HCP versus those associated with a “take avoidance” strategy. A change in status of any currently listed species would also affect this cost/benefit analysis.

An approved HCP will ultimately provide a set of strategies for the management of several endangered, threatened, and candidate species (under the federal Endangered Species Act). These strategies will provide a contribution to the recovery of these species through the development of habitat, while providing sustainable timber harvest and revenue to the state, counties and local taxing districts through active management. Once adopted, the HCP will provide the specific strategies for managing threatened and endangered species within the framework of the FMP.

Since the Department of Forestry has not yet obtained an HCP, the IPs have been prepared using both the “take avoidance” strategies for the listed species and the strategies from the FMPs, which will contribute to the recovery of these species through habitat development.

## The Oregon Plan for Salmon and Watersheds

The *Oregon Plan for Salmon and Watersheds* (OPSW) is a long-term cooperative effort involving state and federal agencies, private landowners, and volunteers, with the objective of restoring salmon populations and watershed health. The Board of Forestry adopted the *Oregon Department of Forestry and State and Private Forestry Community Oregon Plan Statewide Work Program* in June of 2000, which outlines the actions the department will take to support the OPSW.

The specific actions that the state forest program will take in support of the OPSW are outlined on pages 63 through 72 of the work plan. These actions apply principally to strategies in the FMPs and to be included in the HCP. Therefore, the IPs are linked to the *Oregon Plan for Salmon and Watersheds* through the strategies in the FMP and HCP.

### District Implementation Plans

The IPs are 10-year plans which apply the strategies of the FMPs to specific districts. These plans set the annual objectives, usually specified as a range, for the management activities that will occur on the district.

The IPs also incorporate information from other plans for specific resources or activities. For example, an IP may include a goal for developing a campground, as identified in the district recreation plan; however the IP would not include all of the detail or rationale for the campground that is contained in the recreation plan.

### Annual Operations Plans

The Annual Operations Plans (AOPs) must achieve the goals set in the IPs and be prepared within the constraints of the fiscal budget guidance. The AOPs are specific to an individual district and cover forest management operations that will occur in a given fiscal year. The AOPs undergo a public comment period and are approved by the District Forester.

Many of the operations described in AOPs (such as precommercial thinning, road maintenance, trail development) are completed during the fiscal year for which the AOPs are prepared. However, harvest operations are different. The objective for harvest operations is to complete field work, and prepare the contract and auction it during the AOP period. The harvest itself and associated project work will actually be accomplished in the forest within three years of the auction. For this reason, there are a number of harvest operations that were prepared under AOPs adopted prior to this implementation plan, that will be accomplished during this implementation plan period.

The AOPs are linked to the *Greatest Permanent Value Rule* through the approved IPs and the adopted FMPs. By meeting the goals specified in the IPs, which in turn meet the goals of the FMP, the AOPs will, over time, meet the goals of the GPV Rule.

## **Budgets**

Budgeting is accomplished at two levels: fiscal year and biennial (two-year). Biennial budgets are prepared every two years and submitted to the Legislature, through the Governor's Office, for legislative approval. Biennial budgets are designed to provide sufficient spending authorization to implement the strategies in the FMPs and the specific goals set in IPs.

Fiscal year budgets are prepared annually, and are a detailed assessment of the actual resources needed to accomplish the annual operations plans. Since the state lands program operates entirely on a fixed percentage of the revenue received from management of the lands, periodic revenue estimates are used to project the level of expenditure that can be supported for a given fiscal year. Therefore, budgets for some activities will fluctuate from year to year, based on the revenue projections.

Fiscal budgets are prepared through an administrative process and approved by the State Forester.

## **Plans for Specific Resources and Activities**

Several plans have been developed (or are in the process of being developed) for specific resources or activities. Generally, the purpose of these plans is to provide greater detail and analysis of the subject than is appropriate for a IP. Some subjects covered by these plans include watershed analysis, monitoring, recreation, and transportation. Chapters in this document contain plans for Watershed Analysis, Monitoring (the Monitoring Strategic Plan), and Stand Level Inventory.

These plans vary in time frame from a few years (for Stand Level Inventory) to a decade (for Recreation Plans). The scope of these plans is limited to one resource or activity, but the geographic scope can vary considerably. Some of the plans, such as Recreation Plans, will be specific to an individual district. Other plans will include all of the districts covered by the FMPs (Monitoring) or all state forest lands (Stand Level Inventory).

The development of these plans is an ongoing process and does not necessarily coincide with the development of or revisions to IPs. Generally, the results of these plans will be incorporated into the next scheduled revision of the IPs, unless the results meet one of the thresholds identified in the Modifications to Implementation Plans section described at the end of this chapter.

## **Policies for Threatened and Endangered Species**

Policies for the protection of threatened and endangered species include "take avoidance" strategies, selected strategies from the proposed HCP, and the integrated forest management strategies from the FMPs. "Take avoidance" strategies are designed to avoid take of species listed as endangered or threatened under the federal Endangered Species Act (ESA). "Take" means "to harass, harm, pursue, hunt, shoot, wound, kill, trap,

capture, or collect, or to attempt to engage in any such conduct.” Further, “harm” is defined by regulation to include significant habitat modification or degradation when it actually kills or injures listed species by significantly impairing essential behavioral patterns, including breeding, feeding, sheltering, and, for fish, spawning, rearing, and migrating.

“Take avoidance” strategies will be in effect until completion and approval of the draft *Western Oregon State Forests Habitat Conservation Plan*. The proposed HCP will further refine the policies and standards laid out here.

## **Salmonids**

Six threatened salmon population groups use habitats on Oregon state forests for part or all of their life history, or use habitats downstream from state forests that may be influenced by state forest management. The Department of Forestry’s 2001 *State Forests Salmon Protection Policy* (January 25, 2002) pulls together the state forest statutory, regulatory, planning, and voluntary salmon take avoidance measures. It is anticipated that the policies and standards identified in current forest management plans applied in conjunction with the other approaches described in the *State Forests Salmon Protection Policy* will meet and generally far exceed the 4(d) Rule requirements (by NOAA Fisheries).

In addition to the *State Forests Salmon Protection Policy*, a more specific anchor habitat strategy has been developed for three districts in the Northwest Oregon planning area. This strategy is designed to lower the short-term risk of adverse effects in basins with key salmonid populations or habitat conditions. This strategy and the associated processes and standards are described in the Salmon Anchor Habitat strategy chapter found later in this document.

## **Marbled Murrelets**

No formal guidelines have been provided by the U.S. Fish and Wildlife Service on how to carry out forest management activities while avoiding take of marbled murrelets. Until approval of the HCP, the Department of Forestry protects marbled murrelets on state forests according to its 1996 revised *Marbled Murrelet Management Plan for State Forest Lands*. This interim plan describes habitat, disturbance, surveys, and protection measures.

Marbled Murrelet Management Areas (MMMA) are designated on a site-specific basis for occupied stands. In these areas, management focuses on providing a degree of forest interior conditions in an attempt to minimize edge effects such as increased predation. No operations involving detrimental habitat modification will be carried out in an identified MMMA. Seasonal restrictions on operations are used to minimize disturbance.

## **Northern Spotted Owls**

Northern spotted owl sites on state forests are protected in accordance with processes and standards described in the policy documents titled *Northern Spotted Owl Management Measures (October 2000)* and the *Agreement for the Conservation of Northern Spotted Owls* (between the Oregon Department of Forestry and the U.S. Fish and Wildlife

Service, August 2001). In all cases, take of spotted owls will be avoided by applying the standards in a document titled “*Procedures Leading to Endangered Species Act Compliance for the Northern Spotted Owl*” (USFWS 1990), subsequently rescinded. These measures remain the best available information for avoiding take. These guidelines call for surveys of suitable habitat, protection of core areas, and maintaining suitable habitat within owl circles.

In addition, the current measures incorporate strategies developed in the forest management plans as well as the draft *Western Oregon State Forests Habitat Conservation Plan*. Three North Coast districts (Astoria, Forest Grove, and Tillamook) will apply strategies protecting identified spotted owl clusters and a spotted owl habitat emphasis area (Forest Grove). These areas total approximately 38,000 acres and encompass the majority of existing viable owl sites on state forest lands within the North Coast area.

## **Bald Eagles**

Strategies for bald eagles protect nesting, roosting, and foraging areas, and maintain or develop additional habitat over time. This will be done by developing management plans for nesting territories in cooperation with the Oregon Department of Fish and Wildlife, adjacent landowners, and the U.S. Fish and Wildlife Service. Management plans will also be developed for winter roost sites or staging areas discovered on state lands, for both resident and wintering migrant eagles.

## **Peregrine Falcons**

Peregrine falcons were removed from the federal threatened and endangered species list in 1999, but are still on the state list of endangered species. During implementation planning, districts identify cliffs that offer potential nesting habitat and provide protection measures to maintain nesting potential in the future. This may include exploring opportunities for enhancing potential nesting habitat on cliffs where nest ledges appear to be absent or insufficient.

Site management plans will be developed for any occupied nest areas, in cooperation with the Oregon Department of Fish and Wildlife and the U.S. Fish and Wildlife Service. The nest site plans will address site protection, buffers, and seasonal protection from disturbance. The department will also cooperate with adjacent landowners in protecting any peregrine nesting areas located within one mile of western Oregon state forests.

# **Forest Land Management Classification System**

The forest land management classification system (FLMCS) has been implemented in accordance with OAR 629-035-0050, an administrative rule on state forest management adopted by the Board of Forestry in 1998. The district’s initial draft of the land classification was completed and subject to public review concurrent with public review of the IPs. Districts maps have incorporated public comment where appropriate and

produced final FLMCS maps. The maps represent the final forest land management classifications being submitted to the State Forester.

The forest land management classification system is a method of describing the management emphasis for parcels of state forest land. The management emphasis identifies the extent to which a parcel of land can be managed for a variety of forest resources. It also identifies when a particular forest resource may need a more focused approach in its management, or possibly an exclusive priority in its management.

The framework of the forest land management classification system places all state forest land within one of three land management classifications. The classifications are: (1) General Stewardship, (2) Focused Stewardship, and (3) Special Stewardship. Subclasses are assigned for the specific forest resources that require a Focused Stewardship or Special Stewardship Classification.

On General Stewardship lands, all forest resources are actively managed using integrated management strategies, techniques, and practices to meet forest management planning goals. Strategies, techniques, and practices that are used may vary spatially and temporally.

On Focused Stewardship lands, it is necessary to carry out supplemental planning, modified management practices, or compliance with legal or contractual requirements above those required on lands classified as General Stewardship.

One or more of the following characteristics exist on lands classified as Special Stewardship:

1. A legal or contractual constraint dominates the management of the lands and precludes the integrated management of all resources
2. One or more forest resources are present which require a level of protection that precludes the integrated management of all forest resources
3. Lands are committed to a specific use and management activities are limited to those that are compatible with the specific use.

The FLMCS includes some overlapping classifications, defined as areas where two or more classifications occur on the same parcel of land. Overlap may occur within classifications or between classifications. Where overlaps occur between classifications, the resource requiring the highest level of protection will determine the management approach. Also, overlapping classifications cause the double counting of acres.

**Table 1-1. Summary of Forest Land Management Classification Acres, by District and Stewardship Class** (Total Acres does not equal the sum of the Stewardship Classes due to overlapping classifications.)

<b>District</b>	<b>General</b>	<b>Focused</b>	<b>Special</b>	<b>Total Acres</b>
Astoria	44,374	100,141	50,784	136,140
Cascade	23,074	28,366	6,672	47,714
Forest Grove	36,325	104,027	20,677	117,342
Tillamook	66,526	234,690	57,450	250,511
Western Lane	4,120	38,061	4,662	26,002
West Oregon	22,309	14,074	3,979	37,672
<b>NW FMP Total</b>	<b>196,728</b>	<b>519,359</b>	<b>144,224</b>	<b>615,381</b>
Southwest Oregon (SW FMP Total)	2,034	25,196	2,998	18,091
<b>NW and SW FMP Total</b>	<b>198,762</b>	<b>544,555</b>	<b>147,222</b>	<b>633,472</b>

**Table 1 - 2. Summary of Forest Land Management Classification Acres for all Districts, by Focused and Special Stewardship Subclasses**

	<b>Focused</b>	<b>Special</b>
Administrative Sites	N.A.	137
Agriculture, Grazing, or Wildlife Forage	0	9
Aquatic and Riparian Habitat	166,616	56,057
County or Local Comprehensive Plans	N.A.	0
Cultural Resources	125	74
Deeds	3,997	1,885
Domestic Water Use	6,820	0
Easements	1,845	124
Energy and Minerals	0	373
Operationally Limited	N.A.	29,267
Plants	1,400	127
Recreation	30,047	4,692
Research/Monitoring	6,015	258
Transmission	158	1,364
Visual	49,904	560
Wildlife Habitat	277,627	57,695

# Public Involvement

Public involvement provides local forest managers with additional information and ideas as they develop implementation plans to achieve the goals of the forest management plan. The goals of public involvement are:

- To seek insight, opinion, and data on planned management actions.
- To build understanding, acceptance, and support for the forest management planning process and decisions.
- To offer information to the public about forest systems and forest stewardship.
- To provide the public with meaningful opportunities to comment and affect planning decisions, at a time when public involvement can contribute positively to the planning decisions under consideration.

Public participation in district implementation planning was coordinated with public comment on the associated land management classification maps. These maps offer a useful visual perspective to clarify the landscape design component of forest management.

In 2001 the department provided several avenues for public participation in plan implementation, including three local focus groups (for Astoria, Tillamook and Forest Grove districts), an ongoing advisory committee, and public workshops in seven communities around the state. Draft IPs and land management classifications were available for a 90-day comment period from June 12 to September 14, 2001.

District Foresters continued to revise the draft IPs during 2002.

The District IPs included in this document have, where applicable, incorporated public comments. They constitute the final IPs to be carried out for the implementation period unless modified or revised through the processes for adaptive management described in the FMPs.

## Modifications to Implementation Plans

The Northwest Oregon and Southwest Oregon Forest Management Plans state that districts will develop implementation plans that describe the management approaches and activities each district in the planning area will pursue in order to carry out the FMP. Each IP, or the supplemental chapters within this document, includes information that describes:

- Current condition of stand types and their distribution on the district.
- Desired future condition array for each management basin in the district.
- The projected timeline for reaching the desired future condition.

- How the landscape design guidelines were used to arrange the desired future condition array across the landscape.
- The extent and location of anchor habitat for key species of concern.
- Proposed management activities for the ten-year period that will be necessary to move toward the desired future condition.
- The forest land management classifications that have been applied in accordance with OAR 629-035-0050 to 629-035-0060 to reflect management strategies of the FMP.
- Management activity levels, outputs, and achievements anticipated for the ten-year period.

The information in the implementation plans will be improved and refined during the first few years of implementation. Watershed analysis and forest inventory projects will generate additional valuable information during this time period. As new information becomes available, districts will incorporate it into their implementation planning framework and develop a revised set of IPs in accordance with the adaptive management processes described in the FMPs.

## Major Modifications

Implementation plans that undergo major revisions will be available for public review and comment for a 30-day period prior to consideration for approval by the State Forester. The FMPs state that the following items will be considered major revisions:

- Revisions that result in proposed major changes to the Forest Land Management Classifications as defined in OAR 629-035-0060.
- Revisions that propose changes to the annual harvest level ranges of more than 25% (based on combined acreage of regeneration and partial harvests).

## Guidance

All other modifications will be considered minor modifications. Minor modifications will be approved by the District Forester and do not require a public review and comment period. Modifications to the other components of implementation plans may occur under the following guidance:

### ***Current Stand Structure Condition***

The current condition of stand structures is displayed through maps in the IP. The maps are a snapshot in time and provide part of the context in which the district IP and the landscape design were developed. Current condition of stand types and their distribution will be updated regularly based on the results of Stand Level Inventory and management activities. Subsequent IPs will include updated current condition maps and will help demonstrate the development of stand structure over time.

All changes to current stand structure are considered minor modifications. Catastrophic events, such as large wildfires, may have a significant effect on the current stand

condition, but they may not initiate a revision to a district IP. In some cases, a catastrophic event may be large enough to affect harvest levels or the landscape design, so that a revision to the IP is necessary.

### ***Desired Future Condition***

The desired future condition for each district landscape is displayed through maps in the IPs. These maps show where the district intends to develop Layered and Older Forest Structures over time.

**Major modification** — Major changes to the desired future condition may result from catastrophic events, land exchanges, or changes to proposed HCP strategies.

**Minor modification** — Changes may be made to reconcile the differences between real stand type breaks determined on the ground and mapping discrepancies.

### ***Forest Land Management Classification***

OAR 629-035-0060 outlines the process for both major and minor modifications.

## **Individual Approval of IPs**

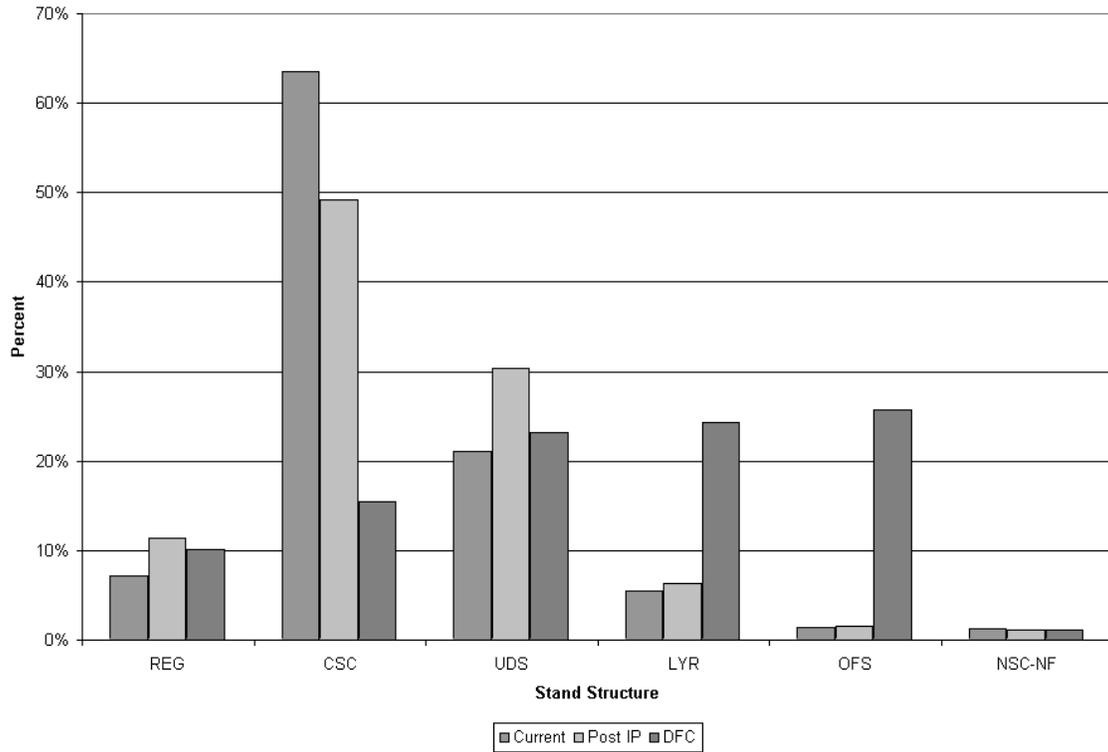
The district implementation plans included in this document are individually approved by the State Forester, upon approval of this document. As such, revisions to individual IPs will not require review and re-approval of other IPs included in this package. For example, if a change in landscape design or another factor calls for a major revision in the IP for one district, only that IP will be subject to the required review and approval process.

## **Key Information Summary**

The purpose of this section is to provide a summary of key outputs from the district implementation plans. These outputs include stand structure development, harvesting, and roads. There are other important outputs from the implementation plans, such as the protection of wildlife habitat and clean water, but they are not easily quantified. In addition, recreation activities have not been summarized here because the types of activities are highly variable between the districts.

Figure 1-2 shows the expected stand structure development over time across all seven districts, including the current stand structures (Current), the stand structures at the end of the implementation plan period (Post IP) and the desired future condition (DFC) of the stands. The percentages for the individual districts are shown in Table 1-3. The Post IP structures are very broad estimates of the condition of the forest in 2011, based on the clearcut and partial cut operations that are expected to be completed during this period. The DFC is based on the district's landscape design. It is anticipated that the DFC will be met in 60 to 100 years, depending on the situation on each district.

**Figure 1-2. Summary of Stand Structures for the Districts Covered by the Northwest and Southwest State Forest Management Plans.**



**Table 1-3. Current, Post-IP, and Desired Future Stand Structures by District (in percent).**

District Acres	Stand Structure <sup>1</sup>	REG <sup>2</sup>	CSC	UDS	LYR	OFS	NSC/NF
Astoria 136,140	Current	10	61	15	11	1	1
	Post IP	10	48	28	12	1	1
	DFC	13	18	20	22	26	1
Cascade 47,714	Current	8	52	36	1	1	2
	Post IP	8	43	45	1	1	2
	DFC	10	16	19	29	24	2
Forest Grove 117,342	Current	6	56	31	4	0	3
	Post IP	6	35	47	8	1	3
	DFC	8	10	23	26	30	3
Tillamook 250,511	Current	3	80	14	2	1	0
	Post IP	17	62	18	2	1	0
	DFC	10	15	25	25	25	0
West Oregon 37,672	Current	28	40	18	11	2	1
	Post IP	9	42	36	11	2	1
	DFC	10	17	27	22	23	1
Western Lane 26,002	Current	8	34	46	3	8	0
	Post IP	6	35	47	3	9	0
	DFC	10	20	30	20	20	0
Northwest FMP <sup>3</sup> 615,381	Current	7	65	21	5	1	1
	Post IP	12	50	30	6	1	1
	DFC	10	15	23	24	26	1
Southwest FMP <sup>4</sup> 18,091	Current	11	18	33	23	8	7
	Post IP	2	24	36	23	8	7
	DFC	5	28	15	20	25	7

1. Stand Structure – Current summarizes the stand structures percentages at the beginning of the IP period; Post IP summarizes the estimated stand structure percentages at the end of the IP period; DFC summarizes the Desired Future Condition (DFC) stand structure goals as identified in each district IP. (These goals are generally expected to be reached in 60 to 80 years.)
2. The stand structures are described in the Northwest and Southwest Oregon State Forest Management Plans. REG = Regeneration, CSC = Closed Single Canopy, UDS = Understory, LYR = Layered, OFS = Older Forest Structure, NSC/NF = Non-Silviculturally Capable or Non-Forest.
3. The Northwest Oregon State Forest Management Plan covers six districts: Astoria, Cascade, Forest Grove, Tillamook, West Oregon, and Western Lane.
4. The Southwest Oregon State Forest Management Plan only covers the Southwest Oregon District.

During the implementation plan period, the amount of the Regeneration (REG) stand structure type is anticipated to increase to 11 percent, largely resulting from clearcuts of Closed Single Canopy (CSC) stands that are moderately to severely infected by Swiss needle cast. The amount of CSC stands is anticipated to drop from the current 64 percent down to 49 percent. This change is a result of both the clearcuts treating Swiss needle cast and partial cuts producing Understory (UDS) stands. The amount of UDS across

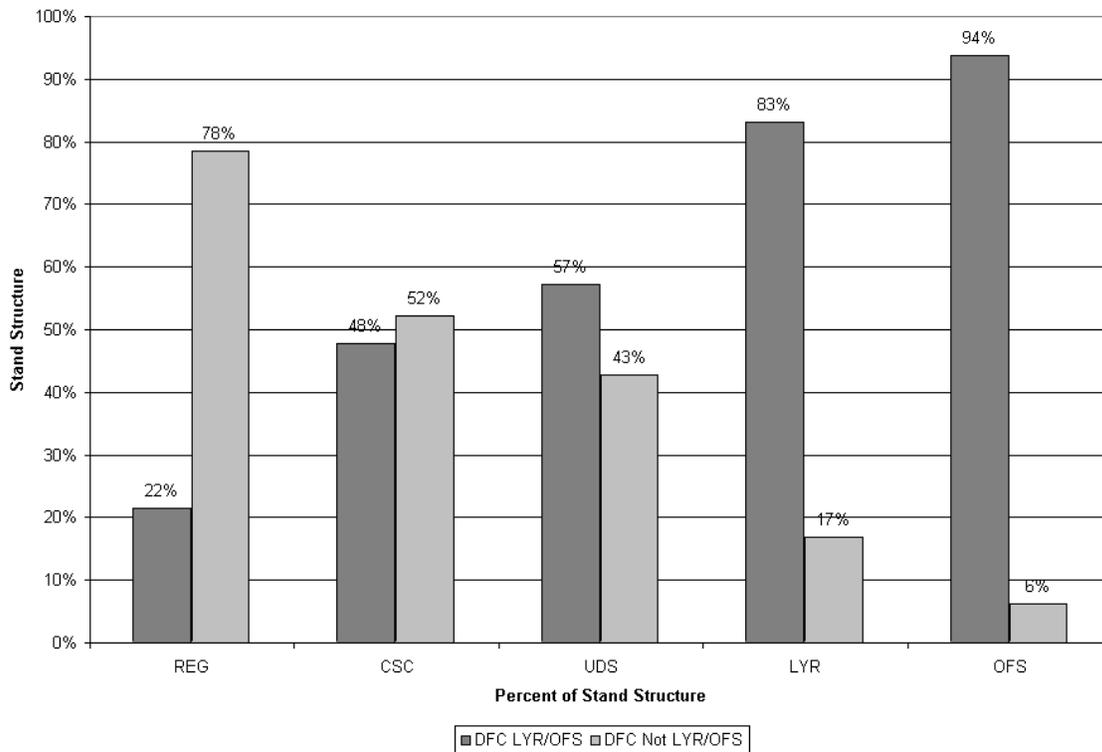
these districts will increase from 21 to 30 percent as a result of the partial cuts carried out under the implementation plans.

Figure 1-2 shows only a very small increase in Layered (LYR) and Older Forest Structure (OFS) stands during the implementation plan period, perhaps one percent each; this is because these two structures take a relatively long time to develop. Where a CSC stand can develop into an UDS stand in less than three years after being partial cut, it may take the stand another 20 years to developed into a LYR stand.

Figure 1-3 shows how the current stand structures are affected by the DFC using a pair of bars for each stand structure. Using UDS as an example, the left hand bar shows that 57 percent of the UDS stands have been identified (in the district implementation plans) for the development of LYR and OFS stands, while the right hand bar shows 43 percent of these stands are not planned for development of complex structures.

Figure 1-3 shows that 94 percent of all stands currently identified as OFS are planned for the development of complex structures (OFS in almost all cases). This is significant because the Forest Management Plan (see NW FMP page 4-53) prohibits the clearcutting of OFS stands that are in areas designated as OFS in the desired future condition in the district implementation plan, until the DFC has been achieved.

**Figure 1-3. Current Stand Structures and their Desired Future Condition**



In addition, 83 percent of all LYR stands have been identified for the development of complex structures. Although not specifically protected by the FMP, like OFS, these stands are not likely to be clearcut in the short term, except in special circumstances.

Tables 1-4, 1-5, and 1-6 identify the timber harvest outputs for the implementation plan period, while Figures 1-4 and 1-5 show the long term trends from 1982 through 2011. Table 1-4 summarizes the annual harvest objectives in acres for each district and it is expected that the partial cut and clearcut harvest operations in each district's Annual Operations Plan will be within these ranges. Table 1-5 is an estimate of the volume (in millions of board feet) that will typically be harvest each year by the districts. The volume estimate is based on the mid-point of the acreage goals identified in Table 1-4, but the volumes can vary significantly each year, depending on the total acres in the Annual Operations Plan, the types of stands harvested, and the prescriptions applied to the stands.

**Table 1-4. Annual Objective<sup>1</sup> for Timber Harvest (in acres)**

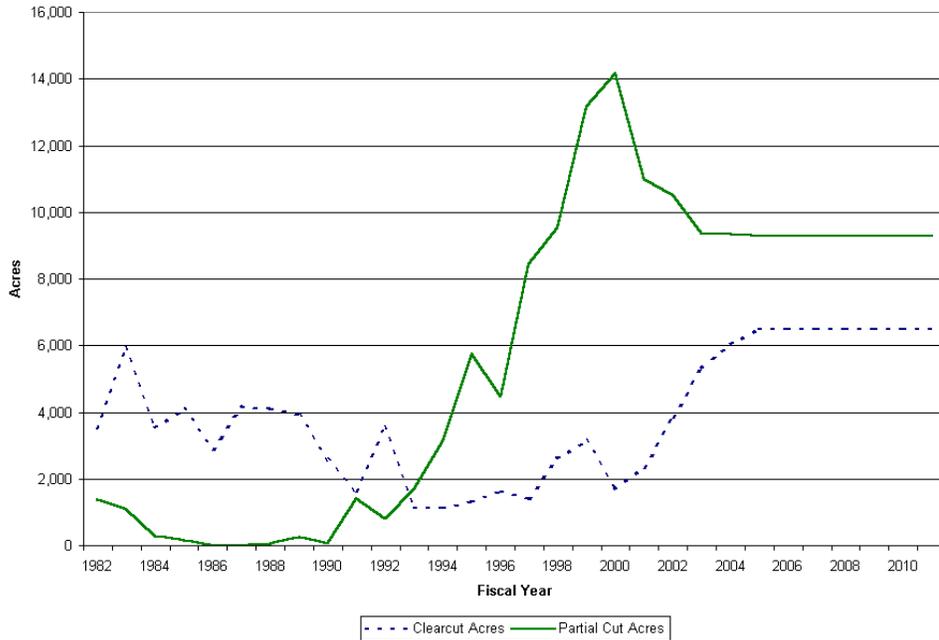
District	Partial Cut	Clearcut	Total
Astoria	2,100-3,400	400-1,100	2,500-4,500
Cascade	800-1,200	180-270	980-1,225
Forest Grove	2,365-3,547	338-506	2,703-4,053
Tillamook	1,000-1,400	3,500-6,200	4,500-7,600
West Oregon	700-1,100	70-110	770-1,210
Western Lane	0-500	0-280	0-780
<b>Northwest FMP</b>	6,965-11,147	4,488-8,466	11,453-19,613
<b>Southwest FMP</b>	180-270	0	180-270

These objectives are expressed as a range. The harvest proposed in each district's Annual Operations Plan is expected to be within this range.

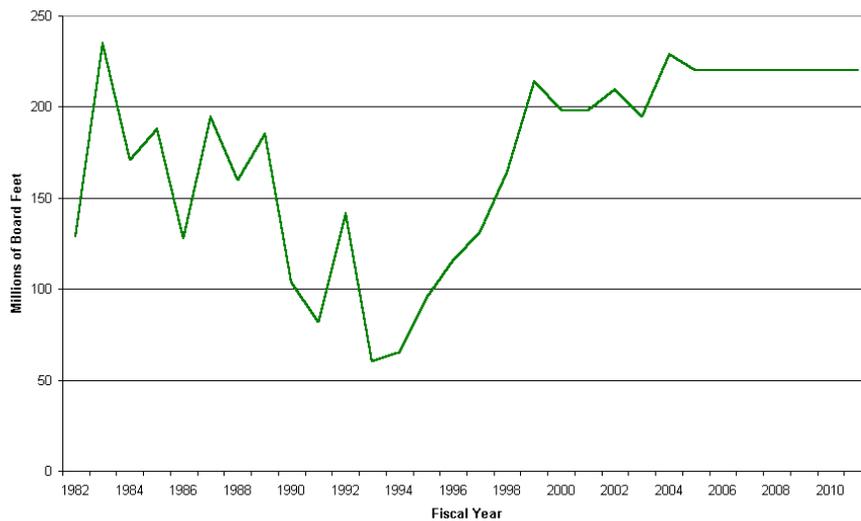
Figure 1-4 shows the acres planned for harvest during the past twenty years and the harvest goals for the implementation plan period. Two significant trends can be seen in this figure. The first is the dramatic increase in partial cutting that occurred between 1990 and 2000. The increase in partial cut harvesting can be attributed to forest in the Tillamook burn reaching a merchantable size and the shift in goals to structure based management.

The treatment of Swiss needle cast (SNC) results in a second trend in Figure 1-4, which is the simultaneous drop in partial cut harvest and increase in clearcut harvest that occurred in 2000. The "Strategic Plan for Managing State Forests in Northwest Oregon Affected By Swiss Needle Cast" was adopted in January of 2000. This strategic plan is based on the best available science for treating SNC, which recommends clearcutting moderately to severely infected stands and replanting to disease-resistant species.

**Figure 1-4. Past and Future Harvest Levels, 1982 through 2010, on Districts Covered by the NW and SW FMP (Acres). The data in the chart is from three sources: Timber Revenue Accounting System (1982-2000), Annual Operations Plans (2001-2004), and mid-point of Implementation Plan harvest levels (2005-2011).**



**Figure 1-5. Estimated Volume Harvest Over Time (1982 through 2010) on Districts Covered by the NW and SW FMP (in millions of board feet). The data in the chart is from three sources: Timber Revenue Accounting System (1982-2000), Annual Operations Plans (2001-2004), and mid-point of Implementation Plan harvest levels (2005-2011).**



**Table 1-5. Estimated Volume Outputs<sup>1</sup> from Timber Harvest (in MMBF<sup>2</sup>) by District**

District	Partial Cut	Clearcut	Total
Astoria	38.5	21.8	60.3
Cascade	13.0	7.9	20.9
Forest Grove	41.4	14.8	56.2
Tillamook	8.4	51.5	59.9
West Oregon	8.0	2.1	10.1
Western Lane	3.0	4.2	7.2
<b>Northwest FMP</b>	112.3	102.3	214.6

<b>Southwest FMP<sup>3</sup></b>	1.8	0	1.8
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1. These estimates are based on the mid-point of harvest objectives and an average volume per acre for each type of operation.
2. MMBF = Million Board Feet.
3. The Southwest Oregon State Forest Management Plan only covers the Southwest Oregon District.

Table 1-6 shows the rate of harvest for the current district implementation plans. The harvest rates in this table are for the current decade and based on current conditions; they should not be extrapolated to future decades.

For example, the Tillamook District currently has a relatively high rate of harvest compared to the other districts, which is based on Board of Forestry direction to treat the moderately to severely infected Swiss needle cast stands in the next two decades. After the SNC problem is treated, clearcut harvest on the Tillamook District are likely to drop.

**Table 1-6. Annual Timber Harvest as a percentage<sup>1</sup> of the land base.**

District	Partial Cut	Clearcut	Total
Astoria	2.0%	0.6%	2.6%
Cascade	2.1%	0.5%	2.6%
Forest Grove	2.5%	0.4%	2.9%
Tillamook	0.5%	1.8%	2.3%
West Oregon	2.4%	0.2%	2.6%
Western Lane	0.9%	0.5%	1.5%
<b>Northwest FMP</b>	1.5%	1.0%	2.5%

<b>Southwest FMP</b>	1.2%	0	1.2%
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These percentages are based on the mid-point of the harvest objectives (in acres) listed in Table 1-4.

Conversely, the rate of clearcut harvest on the West Oregon District is relatively low. This lower rate of harvest is due to a large portion of the district being composed of young plantations. As these plantations age over the next few decades, the rate of harvest

will increase in order to meet and maintain the Regeneration stand structure target in the district's desired future condition (as identified in the district implementation plan).

Tables 1-7 and 1-8 summarize the development of the transportation systems on each district during the implementation plan period. Table 1-7 shows the miles of road construction, improvement, and closure that is anticipated to occur on each district annually. These figures are not goals in themselves, rather they reflect the level of activity necessary to meet the other goals stated in the district implementation plans, including: harvesting, reforestation, fire protection and recreation.

**Table 1-7. Summary of Annual Road Activities (Miles).**

District	Construction	Improvement	Closure
Astoria	18 - 23	24 - 40	2 - 6
Cascade	4 - 6	9 - 11	5 - 7
Forest Grove	9 - 13	14 - 17	7 - 9
Tillamook	5 - 7	45 - 75	5 - 10
West Oregon	4 - 7	6 - 8	4 - 7
Western Lane	2 - 4	1 - 2	0 - 1
<b>Northwest FMP</b>	41-59	100-157	26-44
<b>Southwest FMP</b>	2 - 5	4 - 7	3 - 5

Table 1-8 compares the current miles of roads to the estimated miles of roads at the end of the implementation period. The total miles of active roads on the Cascade, Forest Grove, and Southwest Oregon districts will remain essentially the same through the period. The Tillamook District will significantly increase its total active road system. However most of this activity will involve the modernization of old roads that are currently inactive.

**Table 1-8. Active Roads (Miles)**

District	Current	Post IP <sup>1</sup>	Percent Change
Astoria	840	1,001	19%
Cascade	285	274	-4%
Forest Grove	520	550	6%
Tillamook	1,224	1,807	48%
West Oregon	262	314	20%
Western Lane	58	83	42%
<b>Northwest FMP</b>	3,189	4,028	25%
<b>Southwest FMP</b>	103	98	-5%

The miles of active roads at the end of the IP period are estimated from the mid-points of the proposed road construction and road closure.

All of the tables in this section were developed from information in each district's implementation plan. For further information on these figures, refer to the district implementation plans.