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FOREST GROVE DISTRICT

2006 ANNUAL OPERATIONS PLAN

INTRODUCTION

The scope of this annual operations plan (AOP) covers State forest land within the Forest Grove District for the time period of July 1, 2005 to June 30, 2006 (FY06). This document summarizes the activities and projects in FY06 that are designed to achieve the goals, strategies and objectives of the NW Oregon State Forests Management Plan, the Tillamook State Forest Recreation Action Plan, the Forest Grove District Implementation Plan, and portions of the (DRAFT) Western Oregon Habitat Conservation Plan.

The summary document of the AOP is divided into five major categories: Integrated Forest Management, Planning and Information Systems, Public Information and Education, Administration, and Appendices. Appendix A contains summary tables for commercial forest management (financial summary, stand structure summary, and roads), young stand management, recreation, and salmon anchor habitats. Appendix B is the largest component of the AOP and contains pre-operations reports and maps for individual harvest operations. A summary concerning the results of the public involvement process will be added to the final plan.

The management activities planned for FY06 are based on the range of objectives established in the Implementation Plan (Table 1 below). The objectives and specific plans for timber harvesting and the associated roadwork provide an accurate picture of what will be designed and prepared for contract in FY06. Due to the time lag associated with contract duration, most of the actual on-the-ground logging and road operations will not happen until a one to three year time period beyond the end of the fiscal year.

In contrast to the timber harvest and road plans, the reforestation, young stand management, recreation management, road maintenance, planning and information activities detailed in this plan will actually occur within the FY06 time period. The planned amount and location of these management activities are based on the latest site-specific assessments and estimates of operational, growth, and seasonal variables. These management activity levels will be adjusted and modified to account for any significant changes to the variables.

Table 1. Annual Operations Plan objectives compared to annual objectives identified in the Forest Grove District Implementation Plan (Table A-1). All values are net acres.

Silvicultural Activity	IP Annual Objective		2006 AOP Objective
	Low	High	
Conifer Partial Cut	2,365	3,547	3,095
Conifer Regeneration Cut	338	506	506
Hardwood Partial Cut	0	0	0
Hardwood Clearcut	0	0	0
Rehabilitation	0	0	0
Reforestation (Initial Planting)	250	650	313
Precommercial Thinning	100	300	300
Fertilization	3,000	6,000	5,000
Pruning	100	400	55

INTEGRATED FOREST MANAGEMENT

OPERATIONS

Timber Harvest Operations

Overview of Timber Harvest Operations

The following planned commercial forest management activities are within the guidelines and objectives outlined in the Forest Grove District's draft Implementation Plan. Tabular summaries and detailed pre-operations reports for each planned timber sale are attached.

As described in the draft Implementation Plan, the FY06 timber sale plan emphasizes partial cuts due to the high percentage of Closed Single Canopy (CSC) and Understory (UDS) stand structures existing within the Forest Grove district. CSC and many UDS stand structures are characterized by the closed crowns of the overstory trees, which limits the amount of sunlight reaching the forest floor. This low light level precludes the introduction of both brush and shade tolerant conifer species in the understory, thus leaving the forest floor sparsely vegetated. Of all the structure types, CSC is the least used by wildlife species, especially those that require more complex habitats. Stands of CSC structure, (that are not "over-dense"¹), and even most Understory (UDS) stands respond well to partial cutting. While all these partial cut prescriptions will increase tree growth in the overstory, response in the understory will vary depending on several factors. Some of these factors include, but are not limited to: density of residual overstory, available seed source of shade tolerant tree species, existing ground cover, and site preparation. With the right combination of these factors initiation of a shade tolerant conifer understory is very likely. In other cases shade tolerant trees may have to be planted if a layered stand structure is desired. Then again, some partial cuts may be followed by clearcut at the next active management entry. In these cases establishment of an understory stand is not a priority.

Overall, this sale plan will reduce the district percentage of CSC and UDS moving most of it towards the eventual development of more complex stand structures. Layered stands (LYR) are in a more developed stage of UDS, and a stand reaches Older Forest Structure (OFS) when a layered stand attains several structural characteristics that are normally associated with older forest conditions. Throughout this plan the term general management (GEN) will be used to describe the desired future condition (DFC) of stands that are not planned for OFS or LYR.

¹ Over-dense stands can be characterized by trees growing so close together that virtually all sunlight is blocked from direct contact with the forest floor. These trees will have very high height to diameter ratios, (tall and skinny), and have very low live crown to bole ratios. These stands are usually growing at a very slow rate and may not respond well, (or at all), to partial cut prescriptions.

The process of producing an array of forest stand structures across the landscape is a gradual one. A variety of sound silvicultural practices will be used to actively move the forest towards the desired range of stand structures outlined in the Implementation Plan.

The “non-thinnable” areas, which often show up within partial cut sales, are made up of either well-stocked red alder, sparsely stocked conifer, a mix of both conifer and alder, or non-merchantable conifer trees. These areas usually range in size from 1 acre to 20 acres. Leaving these areas unharvested helps contribute to the biological diversity across the landscape.

The stands targeted for regeneration harvest in this sale plan fit into one or more of the following categories: over-stocked dense stands, under-stocked sparse stands, diseased stands, stands that are surplus to the complex structure targets in the desired future condition landscape design, highly marketable stands in areas where regeneration harvest would result in minimal resource impacts, and stands in areas that would provide an opening in the landscape to temporarily serve as big game foraging habitat. The 506 acres of regeneration harvest planned for FY06 represents 0.4% of the district. During the year 2005 approximately 503 acres will move out of the Regeneration (REG) stand type, resulting in no net change in the district percentage of the REG stand type. Of the 506 acres planned for regeneration harvest 100% will be designed as modified clearcuts. Of the 3,095 acres of partial cut, approximately 91% are planned for moderate partial cut and 9% are planned for heavy partial cut. Complete harvest type definitions can be found at the following site:

www.odf.state.or.us/DIVISIONS/management/state_forests/aop.asp.

Structural habitat components such as snags and down wood may be considered for all harvest prescriptions; however, the emphasis will be placed on partial cuts and regeneration harvest units with larger diameter trees. In the case of regeneration harvests it is essential to incorporate structural habitat component into the management prescription to ensure they are retained. In larger tree diameter partial cuts one tree per acre will be topped as an immediate contribution to the hard snag component of the stand. Obviously, numerous green trees are retained on each acre of a partial cut allowing for additional snag and down wood recruitment through natural processes over time. In the Forest Grove district Laminated root rot is prevalent throughout the forest. In severe cases of root rot we attempt to retard the spread of the disease by cutting out the infected trees. And in minor cases we do not attempt to cut out the infected trees allowing it to spread at approximately one foot per year. In both cases we know from experience that additional trees will be infected creating snags and eventually down wood, particularly in the second case. These structural components may be retained at higher levels in some units and at lower levels in other units, with the intent to achieve the targets outlined in the Forest Management Plan strategies in a given annual operations plan. The estimates used in the pre-operation reports for existing snags and down wood, and the estimates of post harvest expectations are based on ocular estimates, and past experience, which includes some survey work for both pre-harvest and post harvest conditions. Stand Level Inventories (SLI) will be conducted on all FY06 sales. This will

provide better data of snag and down wood amounts than presently exists. This plan will create approximately 2,900 hard snags and approximately 600,000 cubic feet of hard down wood.

Table 2. Stand Structure Development – This table summarizes how the Timber Harvest Operations in this AOP will contribute to achieving the district’s desired future condition. All values are net acres.

Stand Structure	REG	CSC	UDS	LYR	OFS	GEN¹
Current	0	533	3,056	12	0	0
Post Harvest²	506	0	3,083	12	0	0
Desired Future	0	0	0	559	692	2,350

¹ General (GEN) is not a stand structure, but identifies those stands that are not targeted for Layered or Older Forest Structure in the district landscape design. These stands may develop into any of the five stand structures.

² The Post Harvest stand structure is an estimate of how the stands will develop in five to ten years after the operations are completed. Post-harvest condition will exist for approximately 5 to 15 years. Desired Future Condition stand structures will be attained approximately 40 to 80 years in the future.

The FY06 sale plan is estimated to generate gross revenues of approximately \$26,070,000 and net revenues of \$23,957,000. Refer to the attached Financial Summary Table (Appendix A, Table A-1) and/or presale reports for more detail.

Summary of Operations by Basin

In the following section, the commercial forest management operations planned for FY06 will be summarized in the context of the eleven management basins on the Forest Grove District. Several resource specialists reviewed the FY06 sale plan and provided input. The “Special Concerns” section within each basin summary reflects significant concerns identified by the management unit of the Forest Grove District and/or the resource specialists. Individual pre-operation reports include information regarding riparian protection and structural components such as snags, down wood, and green tree retention. Since the Forest Management Plan strategies provide standards for these components, they are not discussed under “Special Concerns”. Road concerns and standards are discussed in the Roads and Engineering section.

Table 3. Summary of Timber Harvest Operations by basin. All values are net acres.

Basin	Total Acres	2006 AOP		Cumulative Operations ¹ (FY 02, 03, 04, 05, 06)	
		Partial Cut	Regen	Partial Cut	Regen
Bell Mountain	1,728	0	0	133	0
Isolated Tracts	554	0	0	0	0
Gales Creek	10,166	306	0	942	454
Larch Mountain	13,157	0	0	1,523	157
McGregor	10,618	203	191	2,643	591
Rogers	20,844	677	142	2,843	374
Scoggins Creek	3,018	0	0	340	43
Sunday Creek	15,287	791	0	2,979	42
Upper Salmonberry	18,879	586	111	3,207	259
Wheeler	16,142	344	62	2,025	340
Wilark	4,596	188	0	486	170
	14,989	3,095	506		

¹The Cumulative Operations include all Timber Harvest Operations, prepared and proposed, under the current implementation plan period (July 1, 2001 through June 30, 2011). Operations or units that were proposed, but have been subsequently dropped, are not included in the total.

Acreage for each sale is net acres. The gross acres were first derived using GIS. Roads, stream buffers, non-thinnable areas, and green tree retention areas were then subtracted from the gross acres to calculate net acres.

Bell Mountain Basin

There are no harvest operations planned in this basin for FY06.

East District Isolated Tracts

There are no harvest operations planned in this basin for FY06.

Gales Creek Basin

There is one harvest operation planned in this basin for FY06.

Topo Bell: This is a 306 acre moderate partial cut. Of special concern is the Gales Creek hiking trail, which is located adjacent to a portion of the timber sale boundary. A minimal buffer will be left to reduce or eliminate logging slash from entering the trail. For safety reasons this segment of the trail may have to be temporarily closed.

Larch Mountain Basin

There are no harvest operations planned in the Larch Mountain basin for FY06.

McGregor Basin

There are two harvest operations planned in this basin for FY06. In addition there is one alternate harvest operation located in this basin.

SoMoNoFo: This is a 115 acre modified clearcut. Of special concern is the old railroad grade which is eroding away at a couple of stream crossings. Since this grade is needed for sale access these old culverts and eroding fills will be repaired.

Zeus's Boots: This is a combination of a 76 acre modified clearcut (in two areas) and 203 acres of moderate partial cut (in 5 areas). The clearcut areas are severely infected with *Phellinus weirii* root rot and will be converted to more resistant tree species. Of special concern is the proximity of this sale to the North Fork Wolf Creek, a Coho salmon stream. Seasonal restrictions on road building and ground based yarding will be imposed. Also, portion of the clearcut will be visible from the Sunset highway. Green tree retention and the area boundaries will be designed in a manner that will soften the visual impact.

Gregorian Cant: This is an alternate harvest unit. It is a 118 acre heavy partial cut. Due to the presence of numerous shade tolerant conifer tree species in the overstory this prescription should promote rapid development of complex stand structure. This operation is within a Salmon Anchor Habitat area (SAH). Stream buffers shall be designed in accordance with the SAH guidelines.

Rogers Basin

There are three planned harvest operations in this basin for FY06.

East Rogers: This is a 71 acre modified clearcut. Of special concern are the motorcycle trails within the operation area. Although most of this trail will be posted outside the operation area, temporary trail closures and post harvest trail cleaning will be part of this operation. Within the vicinity but outside the operation is an old railroad grade in need of repair to halt erosion problems. This work will be done with this sale.

Seven C's: This is a combination of a 71 acre modified clearcut and a 348 acre moderate partial cut. These operation areas were part of the FY05 AOP as two alternate sales, now combined into one sale for this AOP.

Helibates: This is a 329 acre moderate partial cut. A portion of it will be helicopter logged to avoid building some very difficult roads. Motorcycle trails will be impacted. The district will work closely with the recreation staff to find the best solutions to minimize these impacts. Of special concern is the lack of suitable log structures for salmon habitat in portions of Elliot Creek as identified by the local ODF&W fish biologist. A stream enhancement project will be designed to place logs in Elliot Creek by helicopter.

Scoggins Creek Basin

There are no planned harvest operations in the Scoggins Creek basin for FY06.

Sunday Creek Basin

There are two planned harvest operations in this basin for FY06.

Three Blind Mice: This is a 303 acre moderate partial cut. Of special concern is the Tualatin River, which runs adjacent to the sale area. A no harvest buffer will be left between the river and the harvest operations, and all road building will be well up slope from the river.

Sunday Drive : This is a 488 acre moderate partial cut.

Upper Salmonberry Basin

There are four planned harvest operations in the Upper Salmonberry basin for FY06. In addition there is one alternate harvest operation in this basin.

Mystree Thin: This is a 181 acre moderate partial cut. Approximately 61 acres is located within the Kinney Grade spotted owl circle. A preliminary Biological Assessment has been completed by the NWOA biologist determining that this harvest operation would be in compliance with the "Agreement for the Conservation of Northern Spotted Owls."

Das Butte: This is a 111 acre modified clearcut in two separate areas. This sale will require a temporary access agreement from the adjacent landowner Hampton Tree Farms.

Howdy Doty: This is a 261 acre partial cut. Approximately 203 acres is moderate partial cut and 58 acres is heavy partial cut.

Moo Goo Pon Gon: This is a 144 acre moderate partial cut.

Toucan Sam: This is an alternate harvest unit consisting of 98 acres of modified clearcut.

Wheeler Basin

There are two planned harvest operations in the Wheeler basin for FY06. In addition there is one alternate harvest operation within this basin.

CC Rider: This is a 62 acre modified clearcut within a Salmon Anchor Habitat area (SAH). The additional stream buffer requirements outlined in the SAH guidelines will be applied.

Nehalem Crossing: This is a 344 acre partial cut. Approximately 179 acres is heavy partial cut and 165 acres is moderate partial cut. This operation is within a Salmon Anchor Habitat area (SAH) and will include stream buffers as outlined in the SAH guidelines. A temporary bridge will need to be installed across Derby Creek for the

duration of this operation only. A new permanent bridge will be constructed over the Nehalem River just west of the 5 mile marker on the Cochran Road. This bridge will replace the current bridge at this location. Of special concern is the historic location of the surveyed route of the Military Road. The route is currently marked and these markings shall be protected during harvest operations.

Park Place: This is an alternate harvest unit consisting of a 238 acre moderate partial cut. Of special concern is the new ODF campground located directly across the Cochran County Road from this harvest operation. A no harvest buffer approximately 50 feet wide is being considered to minimize both the visual and operational impacts. This operation is within a Salmon Anchor Habitat area (SAH). Stream buffers will be designed in accordance with the SAH guidelines.

Wilark Basin

There is one harvest operation planned in this basin for FY06.

Chazmo: This is a 188 acre partial cut. Approximately 127 acres of moderate partial cut and 61 acres of heavy partial cut.

Forest Roads Management

Overview

Roads are a valuable and necessary asset, providing access to the forest for all forms of activities including forest management activities, fire protection, and recreation. Roads can also be a source of sediment and can impact wildlife, and require significant work and investment to construct and maintain.

In order to provide access to the forest and minimize impacts to the environment, an environmentally sound yet economically efficient road management program is in place on the District. Visions, guiding principles, and techniques that are the backbone of the District's road management program are discussed in detail in the Implementation Plan and the Forest Roads Manual (2000), and govern the planning and implementation of the activities discussed in this section. Planning of the road-related activities is Level III planning, as discussed in the Forest Road Manual.

Road Management Activities under this plan are broken into four categories: Road Construction, Road Improvement, Road Closure/Vacation, and Road Maintenance. Activities are further categorized according to road classification. Refer to the attached Roads Financial Summary Table (Appendix A, Table A-3) and/or presale reports for more detail.

Under this Plan, 20.8 miles of road will be constructed, 1.5 miles of old road will be improved and added to the road system, and an estimated twelve (12) miles will be vacated, for a net gain of approximately ten (10) miles of road to the District's active road system.

Table 4. Summary of Road Management Activities. All values are in miles.

	Mainline (High Use)		Collector (Medium Use)		Spur (Low Use)	
	AOP	IP¹	AOP	IP¹	AOP	IP¹
Road Construction	0	0	0	3-4	20.8	6-9
Road Improvement	0	8-9	8.3	6-7	15.3	1
Road Closure/Vacation⁴	0	0	0	0	33.4	7-9
Road Maintenance – District²	0	-	160	-	60	-
Road Maintenance – Active Operations³	0	-	120	-	10	-

¹ These are annual estimates derived from Table 4-7 (Potential Road Activities FY 2001-2011) of the 2001 District Implementation Plan. The values here were derived by dividing the values in the Potential Road Activities table by 10.

² The road maintenance estimates include only the work to be completed during Fiscal Year 2006 by the district road crew or service contract. Estimates of road maintenance were not made in the Implementation Plan.

³ This is a broad estimate of the road maintenance that may be accomplished during the fiscal year, through active commercial operations. However, the exact amount can not be predicted at this time.

⁴ This is the amount of road that will be assessed for possible closure or vacating. The actual number may be less.

Road Management Considerations

High Landslide Hazard Locations (High Risk Sites)

Roads proposed for construction under this plan will be located on ridge tops or stable side slopes. Geotechnical review indicates steep slopes in close proximity to some of the proposed road locations in the following sales: Mystree Thin, Nehalem Crossing, and Gregorian Cant (alternate). Preliminary reconnaissance indicates that no High Landslide Hazard Locations will be crossed with new road construction in these sales. If locations that have HLHL characteristics are encountered during final reconnaissance or road location on these sales or any others, the NWOA Geotechnical Specialist will be consulted to assess risk and provide design guidance.

Fish Bearing Streams

Two known Type F streams will be crossed with new road construction, and one known Type F stream is crossed by an existing road. Fish-passage structures will be installed at each of these crossings.

In addition, current fish presence data indicates that there may be several small Type F streams that will be crossed with new construction. These streams will be field verified during sale preparation. If fish presence is verified, fish-passage structures will be installed at each of these crossings.

If other streams that appear to have fish-bearing characteristics are encountered during final reconnaissance or road location, they will be assessed by ODFW fish biologists to determine fish presence and the appropriate crossing structures will be designed.

All Type F crossings will be accomplished using bridges, culverts, or other drainage structures that will be designed to ensure fish passage through the structure, according to the current fish-passage guidelines.

Disconnecting the Drainage System

Water from road drainage ditches can add sediment to a stream. A strategy to reduce the amount of sediment entering a stream from ditches has been adopted, in which extra cross drains are installed, as close to the stream crossings as possible. Water from these culverts has an opportunity to filter through natural vegetation, filtering out sediments before the water enters the stream. In this manner, the ditches are "disconnected" from the stream system.

All roads to be constructed or improved under this plan will have culverts installed to disconnect the ditches from streams. In addition, ditch lines will be disconnected on approximately two (2) miles of existing collector roads that will be used to access the timber sales.

Road Surfacing

Road surfacing is an important component of any road-related activity. Quality surfacing supports all-weather use while reducing road-related impacts to water quality and wildlife habitat.

Approximately 105,500 cubic yards of rock will be mined to surface the roads planned for construction and improvement. Rock required for maintenance will be taken from existing stockpiles.

Of the rock required for construction and improvement, 27,000 cubic yards will be mined as 6"-0 pit run, and 78,500 cubic yards will be mined for crushed rock. The rock will be mined from eleven existing rock pits. Each of the pits will be expanded, but no new pits will be developed.

One rock pit will provide rock for three timber sales, and another pit will provide rock for two sales. Sufficient rock is available at the pits, but the situation might arise that multiple operators will need to use the pit at the same time. In order to avoid this type of conflict, District personnel will work with purchasers to schedule the work.

Water Quality

All road-related work will be done in a manner that minimizes water quality impacts associated with roads. The following steps will be taken to maintain or enhance water quality in all basins, and apply to all road construction, improvement, closure, and maintenance activities:

Soil disturbance will be kept to a minimum. The normal operating period for project work is set in the Timber Sale Contract as that period between April 1 and October 31. Within that time frame, project work will be permitted only when soil conditions allow the work to be accomplished with a minimum amount of sedimentation. Erosion control structures such as silt barriers or hay bales will be used to minimize the movement of sediments.

All work in live streams will be restricted to the in-stream work periods suggested by ODFW (guidelines dated June 2000). The suggested periods vary by basin, and the memorandum will be consulted to ensure that the proper dates are assigned for planned work. On occasion, emergency maintenance will require activities that may produce sediment, such as cleaning a plugged culvert. The risk of sedimentation from the activity being done will be weighed against the risk of sedimentation if a failure occurs as a result of no action.

All drainage structures on Type N streams will be designed to pass the 50-year flow, as a minimum. Drainage structures on Type F streams will be designed to pass the 100-year flow, and will be designed to allow passage of adult and juvenile fish.

Water quality is an important concern in all basins, but the Gales Creek and Sunday Creek basins will receive additional emphasis. The Gales Creek and Sunday Creek basins are tributary to the Tualatin River, a municipal water source.

Slope Stability

During road improvement and maintenance activities, opportunities will be looked for to mitigate excess sidecast material on older existing roads. The current road inventory indicates no risk of sidecast failure in any of the sale areas, but additional reconnaissance will be done during sale layout. If any areas of unstable sidecast are encountered, the unstable material will be pulled back and deposited in stable locations.

Stream Enhancement

ODFW has identified the opportunity for a stream enhancement project to be accomplished as project work associated with one FY06 sale (Helibates). ODFW will be responsible for planning and designing the project, and will obtain all necessary permits. ODF will be responsible for incorporating the projects into the contract for Helibates. ODFW will administer the projects to ensure design compliance and ODF will administer the projects to ensure contract compliance.

Other Program Support

Other District programs will require support, usually in the form of heavy equipment, as described below:

Public use damage repair - involves repairing damage to roads and adjacent areas due to inappropriate public use, such as motorcycle riding on cut banks or mud holes created by 4-wheel drive vehicles.

Recreation – involves repair or improvement of existing recreation facilities and assistance in the development of new facilities. In addition, assistance will be provided in the form of design consultation and construction administration during the development of planned recreational facilities.

Reforestation - involves opening spur roads to access units requiring some form of management activity, minor amounts of slash piling to facilitate planting, and the maintenance of heliports. Heliports are strategically located around the District, and provide helicopter access in the event of fire, emergency evacuation of injured people and for fertilization or spray projects.

Road Construction

The road construction activities discussed below are based on the information found in Pre-Operations Reports for FY06. Refer to these reports for maps showing proposed road locations and cost estimates.

Approximately 20.8 miles of roads will be constructed as designated project work for timber sales in the FY06 sale plan. The activity will be in the following basins:

Gales Creek Basin	Topo Bell	2.1 miles
McGregor Basin	SoMoNoFo	0.8 miles
	Zeus's Boots	3.1 miles
Rogers Basin	East Rogers	1.1 miles
	Seven C's	0.2 miles
Sunday Creek Basin	Sunday Drive	2.7 miles
	3 Blind Mice	2.6 miles
Upper Salmonberry Basin	Das Butte	0.6 miles
	Howdy Doty	1.1 miles
	Mystree Thin	1.2 miles
Wheeler Basin	Moo Goo Pon Gon	1.5 miles
	Nehalem Crossing	2.7 miles
Wilark Basin	Chazmo	1.1 miles

All of the roads to be constructed are spurs, which are connected to collector roads or other spur roads. These spurs provide access to segments of harvest areas, and will only be used for current harvesting and future management activities in the immediate area. Most of the spurs range between 0.1 and 0.5 miles in length, with one or two spurs between 1.0 and 1.5 miles. These spurs will be constructed to the minimum width necessary to allow operations, and will be evaluated for closure or vacation at the completion of harvest or subsequent reforestation operations.

No collector or mainline roads will be constructed during this planning period.

Road Improvement

Approximately 23.6 miles of roads will be improved as designated project work for timber sales in the FY06 sale plan. The activity will be in the following basins:

Gales Creek Basin	Topo Bell	1.2 miles
McGregor Basin	SoMoNoFo	0.7 miles
Rogers Basin	East Rogers	0.8 miles
	Helibates	3.5 miles
	Seven C's	3.5 miles
Sunday Creek Basin	Sunday Drive	5.0 miles
Upper Salmonberry Basin	Howdy Doty	5.2 miles
	Mystree Thin	0.6 miles
Wheeler Basin	Moo Goo Pon Gon	0.6 miles
	Nehalem Crossing	2.5 miles

Approximately two (2) miles of roads are existing, older roads that are not currently part of the active road network. These roads provide access to harvest units proposed in this plan. Improvement will consist of removing vegetation, excavating material as necessary to improve alignment, establishing drainage, and adding surfacing. These roads will be improved to the Forest Roads Manual low use standard, and will be considered for closure or vacation at the completion harvest operations.

Approximately five (5) miles of roads are old existing roads that are part of the road system but need to be brought up to Forest Roads Manual low use standards. Improvement will consist of removing vegetation, excavating material as necessary to improve alignment, establishing drainage, and adding surfacing. These roads will be considered for closure or vacation at the completion harvest operations.

Approximately eight (8) miles of existing spur roads will be upgraded to the collector classification. These roads provide access to harvest units proposed in this plan and future units as well. Improvement will consist of removing vegetation, excavating material as necessary to improve alignment, improving drainage, and adding surfacing. These roads will be improved to the Forest Roads Manual medium use standard, and will remain part of the active road system.

Approximately eight (8) miles of existing collector roads will be improved. These roads provide access to harvest units proposed in this plan and future units as well. Improvement will consist of improving drainage and adding surfacing as necessary to maintain their current status. These roads will be improved to the Forest Roads Manual high use standard, and will remain part of the active road system.

No mainline roads will be improved during this planning period.

Road Access Management

Restricting traffic on certain identified roads will reduce maintenance costs and sediment loads, as well as reduce the amount of garbage dumping, vandalism, target shooting, and unauthorized off-road OHV use. For this plan, 33 miles of road have been identified as candidates for closure. These roads are generally spur roads from previous sales that are in the area adjacent to planned timber sales.

Actual roads to be closed will be selected after a District review identifies those that are no longer needed for short-term management activities. Closure will be accomplished through a combination of timber sale project work and State road maintenance equipment. Individual roads selected for access management will be treated in one of the three following ways:

Road closure – involves blocking the road to traffic, and is accomplished by placing a semi-permanent barricade at the start of the road. This barricade can be a gate, stumps and logs, or a trench. This strategy does not significantly alter the nature of the road, and the obligation to maintain the road remains. Road maintenance needs and sediment loads are reduced due to the elimination of traffic-related wear, but the road is available for future management activities with a relatively small amount of work.

Partial vacation – involves barricading the road and some minor drainage work, which might include the construction of waterbars or rolling drains. This strategy is best suited for a ridge top road, where drainage and sediment issues are negligible. The nature of the road is somewhat altered, and the obligation to maintain the road remains. Sediment loads are reduced due to the elimination of traffic-related wear, and road maintenance needs are greatly reduced. The road can be prepared for future management activities with a moderate amount of work.

Full vacation – involves removing all culverts, constructing waterbars or rolling drains, pulling back any side cast material, and barricading the road. The road is effectively “put to bed”. All vehicle access is prevented, and there is no maintenance obligation. The road can be used again, but will require a significant amount of work to reconstruct it to proper standards.

Road Maintenance

The goals for maintaining roads are to protect the State’s investment in the road system, to ensure continued access for all forms of use, and to minimize adverse impacts to water quality and wildlife habitat.

Road maintenance is accomplished by timber sale purchasers and State personnel. Timber sale purchasers are responsible for normal maintenance activities on the roads used to access the sales, and State crews maintain all other roads. On occasion, State crews are required to perform non-normal maintenance on timber sale access roads.

Road maintenance activities will be performed on approximately 350 miles of roads within the District, in all basins. Timber sale purchasers will be responsible for maintenance on approximately 130 miles of road, and State crews will maintain an additional 220 miles. Planned levels of activity are summarized in Table 4.

The basic road maintenance activities are summarized below:

Drainage maintenance – required to ensure that the drainage system is functioning properly. Involves cleaning ditches and culvert inlets, and may involve replacing aged or damaged culverts and installing additional culverts to enhance the drainage system. Approximately 75 to 100 miles of road will be treated for drainage maintenance.

Grading – required to maintain a smooth, stable running surface, and to retain the original surface drainage. Involves grading the road surface to eliminate chuckholes and crown the surface to facilitate drainage. Approximately 175 to 200 miles will be graded.

Rock replacement – required to restore the road surface to its original condition, usually to repair damaged or contaminated surfacing, or surfacing lost to normal wear and tear. Involves placing and processing of rock usually at specific “spots” or on short segments. Approximately 2 to 3 miles of road will be rocked.

Vegetation Management – required to keep vegetation from encroaching into the road surface, to control the spread of noxious or non-native plants and to enhance visibility for drivers on the road. It is accomplished by mechanical brushing, manual brushing, or the application of herbicides. Approximately five to ten miles will be manually brushed and 30 to 40 miles will be treated with herbicide.

Land Surveying

Property surveys are required to establish property corners and mark the lines defining State ownership. One (1) mile of property line will be surveyed and marked for sales planned for FY06 and an additional four (4) miles of property line will be surveyed and marked for sales planned for FY06 and beyond. Five (5) miles of property line marked in prior surveys will be retraced and refreshed, if required, for sales planned for FY07 and FY08. This work will be accomplished by either Service Contracts or State personnel.

Twenty (20) existing corners will be maintained in order to preserve their position. This activity requires checking the condition of the monument and its accessories, and establishing new ones if necessary. This work will be accomplished by either Service Contracts or State personnel.

Non-Commercial Forest Management Operations

A full range of silvicultural tools will be employed to achieve the long-term goals of structure-based management and integrated resource management as outlined in the Forest Management Plan. The district's strategy is to use silvicultural tools to establish and maintain diverse stands of well-adapted natural species throughout the landscape to meet these goals. These tools include rehabilitation, site preparation, planting, vegetation management, tree protection, precommercial thinning, fertilization and pruning.

This section describes the types and anticipated amounts of reforestation and stand management activities that will occur in FY06. Also refer to the attached Young Stand Management Table (Appendix A, Table A-4) for further details. The location and amount (acres) of these activities are estimates based on plans, information and conditions as known at this point in time. The type, amount, and specific stand management prescriptions will be further adjusted based on when existing sold harvest units are completed and on updated assessments and surveys that will occur during and after the 2005 growing season.

Rehabilitation

None planned

Site Preparation

These activities prepare the planting sites so new stands can be effectively established. Treatments include slash burning, slash piling, and chemical treatments.

- 1) Slash Burning: Pre and post harvest evaluations of harvest units indicate that two harvest units may require slash burning during FY06. On these units, slash burning is thought to be the most cost-effective method of increasing the number of planting spots and reducing the level of competition to meet the goals of the FMP and the IP.

Post harvest assessments will determine the actual necessity to burn.

Basin	Acres	Unit Name – Burn Type
• McGregor	60	Mac Attack – broadcast burn
• Wilark	59	Xantippe – pile burn
	<u>119</u>	

Special concerns: Air quality, soil damage, and escaped fire are concerns with the use of prescribed fire. Prescribed burning will only be used on these areas when environmental conditions are such that there are no substantial impacts to air quality, soil productivity or substantial risk of escape.

- 2) Slash Piling: There are five units that are anticipated to need some amount of slash piling during the fiscal year. These sales have relatively gentle terrain that can be accessed by equipment to do piling without causing substantial soil compaction.

Slash piling is done to create planting spots and to allow the establishment of the desired number of seedlings. Slash piling is utilized where slash prevents establishment of the desired number of trees per acre and slopes are less than 35%; where burning of slash is unsafe due to poor control boundaries; where piling is less costly than other methods; or where the location is in an area where it is difficult to meet smoke management restrictions. Areas anticipated to need some piling following harvest operations are located in the following basins.

Basin	Acres	Unit Name
• Wheeler	60	Raven Ridge, Five Peaks
• Rogers	10	Universal
• Sunday Basin	10	Stein logger
• Larch Mountain	31	Adrift Again
	<hr/>	
	111	

Special concerns: Soil compaction can be a concern when heavy machinery is used on forest soils. Use of machinery for piling on these sites must be restricted to periods of time when soils are dry and not readily compacted.

- 3) Chemical Site Preparation: This method of site preparation is used when it is found to be the most cost effective method to control vegetation that would severely impact the survival and growth of newly planted seedlings. Three units may need treatment before planting. One of these will be treated prior to harvest to reduce the vine maple competition; others will be treated with broadcast applications. Herbicides will only be applied if necessary to insure satisfactory stand establishment and to meet the goals in the FMP and the IP.

Basin	Acres	Unit Name
• Wilark	59	Xantippe
• McGregor	108	Pit Bull
• McGregor	60	Mac Attack
	<hr/>	
	227	

Special concerns: None yet identified.

Tree Planting

Planting activities establish the desired species and stock types to meet the goals in the Forest Management Plan. Seedlings are planted in modified clearcuts, in areas that have had *Phellinus weirii* treatment, in young stands where current stocking does

not meet the Forest Management Plan goals, and in maturing stands where there are insufficient shade tolerant trees to meet stands goals.

- 1) Initial Planting (Clearcut Units): There are an estimated four modified clear-cut units that may be planted during FY06. All of these sites will be planted to allow for the establishment of stands that can be managed for structural diversity. Douglas-fir stock will compose 75%-85% of planting stock on these sites. Other native species will be selected and either mixed with the Douglas-fir or planted on microsites for which they are best suited. These species include noble fir, grand fir, western hemlock, western redcedar, and western white pine. The objective of planting a variety of species is to create a healthy and diverse stand by placing tree species on sites for which they are well adapted and they will experience a high rate of survival and growth. This approach should result in stands that have a naturally occurring level of species diversity and distribution and can be managed for structural diversity.

Basin	Acres	Unit Name
• Wheeler	45	Raven Ridge
• Upper Salmonberry	80	Boulder Falls
• McGregor	82	Mac Attack
• Scoggins Creek	43	Scoggins Combo
	250	

- 2) Initial Planting (*Phellinus weirii* treatment areas): There are two sales projected to be ready for planting that have *Phellinus weirii* infections. These areas will be planted with native tree species suited to the site that are either resistant or immune to *Phellinus*. These species are western redcedar, western white pine, red alder and western hemlock. *Phellinus* treatment in thinnings improves wildlife habitat by increasing stand structure diversity, reduces the spread of *Phellinus weirii*, and establishes a merchantable tree species in understocked areas.

Basin	Acres	Unit Name
• Wilark	59	Xantippe
• Larch Mountain	10	Adrift Again
	69	

- 3) Interplanting: Stands are interplanted when the existing stocking is insufficient to meet the goals in the Forest Management Plan. Surveys are conducted two years after initial planting to determine interplanting needs. Where necessary, interplanting is done the following winter. During the fall of 2005 surveys will be conducted to determine interplanting needs for the 2006 planting season. Based on the recent number of acres planted and historic trends, the current estimate is that about 50 acres will need to be interplanted.

- 4) Underplanting: Underplanting is done to develop a second cohort in stands where complex structures are planned and insufficient seed source exists for shade tolerant conifers. The additional canopy layers are a necessary component in structurally complex stands. Three sale areas meet these criteria. These sale areas will be planted with shade tolerant conifers at approximately 200 trees per acre.

Basin	Acres	Unit Name
• Sunday Creek	45	Stein Logger
• Larch Mountain	31	Adrift Again
• McGregor	29	Six Way
	105	

Vegetation Management

These activities are done to reduce light or moisture competition with a young stand of trees to improve survival and growth of these trees. It can also reduce the amount of larger woody plant species, allowing longer retention of herbaceous species which serve as deer and elk forage. Vegetation management may be required to meet Forest practices reforestation stocking requirements, the NW Oregon State Forests Management Plan and the Forest Grove District Implementation Plan.

Vegetation management may also be done to prevent the spread of noxious non-native plant species. Two particular species that will receive treatment are Scotch broom and Japanese knotweed. Scotch broom spreads from uncontrolled roadside areas into recently thinned stands. Japanese knotweed has been identified and treated along the Wilson River.

Plantations will be evaluated during the spring and summer of 2005 to determine treatment needs for FY 2006. Below is a preliminary plan for FY 2006.

Noxious weed treatment will continue throughout the district. Much of this treatment can be considered roadside treatment, however effort will also be made to control the scotch broom where it is spreading from the roadside into the thinned stands. Treatments for knotweed will continue along the Wilson River and in any other areas it is identified.

The three methods of vegetation management can be categorized as manual cutting, aerial application of herbicides and ground-based application of herbicides. Each method is tailored to the location and vegetation control needs and all three are valuable tools used to manage vegetation in young stands. For noxious weed control, ground based application of herbicides will be the most effective and common treatment, although manual cutting is also used in some circumstances. It is not anticipated to use aerial applications for control of noxious weeds.

1) Manual Cutting

Basin

- Scoggins Creek

Acres	Unit Name
25	Upper Scoggins

2) Aerial Application

Basin

- McGregor
- Wilark
- Wheeler

Acres	Unit Name
126	Cherry Lane, Norwolf
79	Wilark Trilogy
266	Coffee Bean, Norse Lou, Shields 10.
<hr/>	
471	

3) Ground-based Application

Basin

- McGregor

Acres	Unit Name
10	Rocky Combo

Tree Protection

Tree protection protects young stands from big game damage. Site specific prescriptions are used to match protection tools with specific sites and problems. Big game repellent and various kinds and sizes of physical barriers are the most common kinds of tree protection used in Forest Grove.

- 1) Big game repellent: This activity provides short-term reduction in browse damage to young seedlings from deer and elk. This allows small seedlings time to develop sufficient size to withstand browse damage. A commercially produced mixture containing animal proteins is sprayed onto the foliage of seedlings using backpack sprayers.

At this time no treatments are planned.

- 2) Physical barriers: Physical barriers are applied to prevent the browsing of seedlings by deer and elk. These barriers are man-made materials that are secured around newly planted trees to prevent big game animals from browsing on them. Cedar trees are a favored browse species and require constant protection for several years to prevent high levels of mortality and growth loss. Although this method is relatively expensive, the value of having cedar in the stand for economic and habitat reasons is sufficient to justify the additional cost.

Trees will be protected with barriers in the following basins:

Basin	Acres	Unit Name
• Wheeler	45	Raven Ridge
• McGregor	82	Mac Attack
• Scoggins Creek	43	Scoggins Combo
	170	

Precommercial Thinning (Density Management)

This activity is done to prevent young non-merchantable stands from experiencing growth stagnation due to overstocking, prolong the time the stand provides forage and open habitat and improve the stand quality by removing less desirable trees. Stands that have been thinned retain more understory vegetation for wildlife forage and develop more rapidly into stands containing large trees. Therefore, there are both habitat and economic reasons for precommercial thinning. Stocking records indicate that these units are heavily overstocked and should be ready for precommercial thinning in FY 2006. Stand exams will determine the highest need from these and other similar aged stands. Approximately 300 acres of the highest priority areas will be chosen for FY2006.

Basin	Acres	Unit Name
• Upper Salmonberry/Wheeler	87	Rocky Ridge
• Wheeler	83	Ten Two
• Wheeler	62	Derby Creek
• Wilark	106	Shamu
• Bell Mtn	97	Holy Moly
• Wilark	55	Rudy's Ranch
• Rogers	78	BC
• Wheeler	78	Rock Creek Strip
• Gales Creek	76	Pythagorus Area 1
	722	

Fertilization

Forest fertilization is done to stands to increase the growth rate and productivity of these stands. Target stands to fertilize must be well stocked but not overly dense and dominated by Douglas-fir trees, aged 25 to 50 years, that are not at risk from disease and are growing on moderately productive sites. Available soil nitrogen is usually the limiting growth factor on these sites. The greatest growth increase per dollar invested is achieved by the aerial application of nitrogen as a pellet at 435 pounds per acre to selected stands. Growth rates are increased following fertilization for 10-12 years and produce an average of 1000 additional board feet per acre.

Fertilization of these stands provides the double benefit of producing more wood volume in less time and moves stands more quickly to the size required for complex stand types. In addition, nitrogen fertilizer increases vigor on many other types of vegetation. This

increased vigor to vegetation can benefit a range of wildlife species by providing additional forage and shelter.

Current plans call for the fertilization of 3000-5000 acres. These stands will be selected from the pool of acres available for harvest between FY2011 to FY 2021.

Pruning

Pruning of stands may be done to improve wood quality, reduce tree mortality from bear damage or prevent fungal infection in western white pine.

The value of Douglas-fir and red alder logs is increased by the removal of branches from the bottom to 18 feet of tree bole and allowing the tree to develop clear wood in the lower bole.

It has also been found that removal of these branches reduces the desirability of Douglas-fir trees for feeding by black bears and results in less damage to the stand from bears. The current strategy is to control branch size by maintaining stand density at a high enough level to cause “self pruning” of trees. But, if bear damage is found to be causing significant losses, additional stands may be included to the pruning treatment later as needed.

Pruning is also done on western white pine to reduce infection from the blister rust fungus on this species. Blister rust is inevitably fatal to younger trees if no preventative actions are taken. Planting and pruning of this species allows this naturally occurring and ecologically valuable species to be retained in these stands.

Pruning in general has the additional benefit of reducing the forest canopy and allowing longer retention of understory vegetation. Pruning thereby reduces the time stands will spend in the “closed canopy” stage and increases the time the stand is in the “understory” stage. Understory stands are more useful for wildlife habitat than are closed canopy stands. Pruning is normally done in 2-3 “lifts” over multiple years as the tree growth allows. Following is a list of planned acres by type of pruning and basin and species.

1) White pine pruning to prevent infection

Basin	Acres	Unit Name
• Rogers	100	Firebreak Thin #1
• Rogers	2	Quacker State
• Wheeler	5	Camp Five Thin
• Larch Mtn.	9	BLT Deluxe Area 5
• Wilark	21	Right On Karth, Leftover Larson, Frost Pocket, LC East
	<hr/>	
	137	

2) Pruning to reduce bear damage

Site assessments from damage reports under way.

3) Pruning to improve wood quality

Douglas-fir - None planned.

Red Alder – Assessments of alder plantations are under way. One unit is planned to have multiple tops and deformed trees pruned to the best single stem.

Basin

- Larch Mountain

Acres Unit Name

70 BLT Deluxe – top pruning

Recreation Management

Overview of Recreation Management

Recreation use on the Forest Grove District continues to grow. Camping, fishing, hunting, sight seeing and trail use are the more popular activities on the district. Developed facilities on the district include five campgrounds, two day use picnic areas and eleven trailheads that provide access to a growing network of trails. Mountain biking, hiking, horseback riding and motorcycle, quad and four-wheel drive trail use take place year round. There are currently 58 miles of Off-Highway Vehicle (OHV) and 48 miles of non-motorized trails on the district.

The recreational management activities identified below cover the following four broad categories and identify how the network of developed facilities and trails will be maintained and expanded in FY06. (1) new development and improvement of recreational trails and facilities, (2) management of existing trails and facilities, (3) development of new programs, and (4) management of current programs and uses. These actions and activities are based on the goals, objectives, and action priorities established in the NW Oregon State Forests Management Plan and the Tillamook State Forest Recreation Action Plan Update (2001).

The recreation management activities planned for FY06 are based on the assumptions that fiscal budget levels will remain at current levels and that most facility development will be accomplished with contract, district and South Fork resources, volunteers, and with grant dollars.

Facilities Development (Campgrounds, View Points, Trail Heads, Staging Areas, etc.)

In Fiscal Year (FY) 2006, the Forest Grove District will be in varying stages of planning and development for the following campground and trailhead facility.

Lyda Camp OHV Campground and Staging Area (Rogers Basin)

Lyda Camp is one of the larger dispersed camping and undeveloped OHV staging areas on the Forest Grove District.

FY 06 work will include:

- Completion of site plan and construction drawings.
- Obtaining permits from Tillamook County.
- Submitting of ATV Fund grant application.
- Preparation of construction contract.

Considerations

The South Fork of the Wilson and a smaller tributary to the South Fork Wilson border the site. Issues related to water quality will need to be addressed during the planning and design of the facility and during construction.

The area is split by a mainline access and haul road. The truck and public road traffic needs to be addressed during the construction phase.

In 1995/1996 several buried barrels containing chemical herbicide residue were excavated when crews were preparing to install temporary vault toilet facilities. There is the potential for other barrels to exist in the area.

Resource Specialist or Project Cooperators

District Engineer and Management Unit Forester: To help define and address issues related to other forest operation plans in the area.

District Engineer: To assist with contract construction review.

Developed Facility Upgrades

- Well maintenance and well pad replacement at Browns Camp and Elk Creek Campgrounds.
- Rock and grade the Gales Creek Campground loop roads.
- Replace old picnic tables at Gales Creek Campground
- Construct rail fence in Gales Creek Campground between the B-loop and Rogers Road.
- Construct picnic shelter at Reehers Camp

Facilities Operations (Campgrounds, View Points, Trail Heads, Staging Areas, etc.)

The Forest Grove District is responsible for operations and public use management at five fee campgrounds with day-use areas, seven developed and designated trailheads, and one interpretive site/overlook. These developed facilities and the public use that occurs at them requires a high level of management and maintenance presence in order to meet operations standards.

Activities associated with facility operations include:

- Campground host recruitment and supervision.
- Coordination of daily maintenance activity by South Fork inmate and seasonal recreation crews.
- Well water testing.
- Scheduling of garbage and recycling service, vault toilet pumping, and well maintenance.
- Completion weekly facility condition assessments and coordination of facility repairs.

- Vegetation management.
- Sign and information board signing management.
- Fee Collection.
- Public contact/use management.
- Public use monitoring.

Resource Specialist or Project Cooperators

- Tillamook County Sheriffs Office
- Private companies responsible for maintenance and repair services.
- Admin Unit/Office Manager
- District Engineer
- Public/user group clubs and organizations

Undeveloped Facility Operations and Dispersed Site Management

The district has several undeveloped facilities and dozens of dispersed campsite areas that require a maintenance and operations presence. The dispersed sites are scattered throughout the forest. Most are used year round, with some of them receiving the heaviest use during hunting season.

Activities associated with undeveloped facility operations and dispersed site management include:

- Coordination of maintenance activity by South Fork inmate and seasonal recreation crews. South Fork crews complete site cleanup at each of the undeveloped sites on a weekly basis. Dispersed sites are cleaned up at least twice a month during the high use season.
- Inventory and site condition assessments.
- Site closure and rehabilitation
- Resource enhancement
- Vegetation management.
- Regulatory sign and information board sign management.
- Public contact and monitoring.

Basins proposed for dispersed site inventory and assessment in FY06

- Wheeler Basin

Dispersed sites proposed for restoration and improvement

- Sunday Creek site #1

Resource Specialist or Project Cooperators

- South Fork
- Tillamook County Sheriffs Office
- Unit Forester and District Engineer

- Public/user group clubs and organizations
- Volunteer Trail Patrol

Trail Development

New trail projects that will be active in various stages during FY06 include:

OHV Trails (Rogers Basin)

Location and Design Projects

- Julies Trail reroute (MC, Quad)
- Airplane Trail reroute (MC, Quad & 4WD)
- Firebreak One Trail, BlockBuster to Marks segment *(MC, Quad)
- Gummyworm Trail, Gummy Worm to Chute Trail segment * (MC, Quad)

Construction Projects

Airplane Trail reroute (MC, Quad & 4WD)

- Complete construction of a ½ mile segment of trail.

Hogsback Trail reroute (MC, Quad & 4WD)

- Complete construction of a ½ mile segment of trail.

Firebreak Five reroute (MC, Quad & 4WD)

- Complete construction of a ½ mile segment of trail.

Sidewinder Trail, Sidewinder to Military Trail segment (MC, Quad)

- Complete construction of a ½ mile segment of new trail.

Elmers Trail reroute (MC, Quad)

- Complete construction of a 1/8 mile segment of trail.

Toman's Knob Trail reroute (MC)

- Complete construction of ¼ mile segment of trail.

Non-motorized Trails

Reehers Camp Trails (Wheeler Basin)

- Complete the Reehers Camp area trail plan.

Gravelle Brothers Trail (Rogers Basin)

- Trailbridge Construction

Wilson River Wagon Road Trail (Rogers Basin)

- Trailbridge Construction (replacement of existing structure)

Wilson River Trail (Story Burn Trail to Elk Creek Campground) *

- Feasibility Study

***Maps of these trail projects are included in Appendix C.**

Considerations

Water quality, slope stability, and wildlife issues will need to be identified and addressed during the planning, location and design, and construction phases of each of the projects.

Resource Specialist or Project Cooperators

- South Fork Camp
- Management, Engineering and Reforestation units for integration with other planned management activities.
- Area Geotech
- ODF&W
- Public/user group clubs and organizations

Trail Assessments and Upgrades

Inventory and Assessment

- Complete inventory and assessment of non-designated OHV routes in the Rogers Basin

In FY06 trail upgrade plans will be developed for the following trails:

- Bates Road Trail (MC, quad, 4WD) 3.8 miles
- Marianna Trench Trail (MC, quad) 0.5 miles

In FY06 trail upgrade work, including grading, drainage, surface hardening and new trail segment construction will occur on the following trails:

- Crooked Bridge Trail upgrade project - Drainage, grading and surface hardening -1 mile
- Sidewinder Trail upgrade project - Drainage, grading and surface hardening – 3.8 miles
- Julie's Trail upgrade project - Drainage, grading and surface hardening – 0.7 miles

Trail Maintenance

Trail use has been steadily increasing on both the OHV trail system and the Non-motorized trail system. The increased use is affecting trail condition and increasing the need for a consistent high level of maintenance in order to minimize impact to the trail resource and impacts to water quality.

There are 58 miles of designated OHV trails and 48 miles of designated Non-motorized trails on the district. The majority of the trails are in the Rogers Basin. Trail maintenance

activity includes the completion of trail condition assessments on a regular basis (quarterly), development of maintenance strategies, and completion of maintenance work. Trail maintenance work typically involves cleaning waterbars, cleaning out culverts, basic trail tread work, repairing trailbridges, clearing downed trees, brushing, and sign replacement. Trail maintenance work will be accomplished using volunteers, South Fork crews, youth corps crews, and district staff and equipment.

The table below summarizes the maintenance work planned for FY2006.

PROJECT WORK	QUANTITY	COMMENTS
Trail Condition Assessments	- 48 miles of non-motorized trail - 40 miles of OHV trail	Non-motorized trail assessments completed quarterly. OHV trail maintenance assessments are ongoing. Utilize volunteers for trail condition assessments
Trail Maintenance	- 35 to 40 miles of non-motorized trail. - 25 miles of OHV trail	Utilize South Fork crews, youth corps, crews, volunteer crews, contract crews and district staff and equipment to complete work

Considerations

Trail assessments and the resulting maintenance plans will focus on drainage, water quality and safety issues.

Resource Specialist or Project Cooperators

- South Fork
- Integration with other Units
- ODF&W
- Public/user group clubs and organizations

Volunteer Program

The recruitment and use of volunteers is critical to the overall success of the recreation program. The district currently manages a Volunteer Program that includes the following recreation oriented sub-programs.

- Camp Host
- Trail System Planning
- Adopt a Trail
- Event Steward Program
- Trail Maintenance and Construction
- Trail Patrol
- SWECO Volunteer Operator

Activities associated with the volunteer program will include the recruitment, hiring, and management of campground hosts; planning and management of trail maintenance, trail

development, and special volunteer projects; management of the SWECO trail dozer volunteer operator program; facilitation and management of trail planning efforts; implementation of the Adopt a Trail program; and management of the Tillamook State Forest Volunteer Trail Patrol program. The Recreation Program anticipates facilitating between 5000 and 6000 hours of volunteer contribution in FY2006.

Specialist needs/Cooperators

Integration with other Units

Public/user group clubs and organizations

Administrative Unit support

Event Management

The Forest Grove district permits organized trail club sponsored trail use events. Both motorized and non-motorized trail events are held on the district. The events consist of poker runs (fun runs), competitive timed motorcycle races, trials motorcycle competitions, four-wheel drive rallies, and Rally car races. Other events, such as equestrian poker rides, mountain bike races, running races, and archery events are scheduled less frequently. In FY 2006 the district expects to review, permit and administer 6 to 10 events.

Land Exchange

There are no active land exchange projects for this AOP.

Other Integrated Forest Management Operations

The district administers an active public woodcutting program issuing between 400 and 600 permits annually, generating \$4,000 to \$6,000 in gross revenue. Approximately 200 miscellaneous forest products permits are sold each year, mostly for salal and mushrooms, generating approximately \$20,000 in revenue. In addition the district sells a small number of negotiated timber sales. These sales may be necessary for recovery of windthrown trees, fire killed trees, or when an adjacent landowner needs to purchase right-of-way timber from the state in the event they have been granted permission to construct an access road across state ownership. These special sales generate revenues usually between \$40,000 and \$80,000 annually.

PLANNING (AND INFORMATION SERVICES)

Below are the significant district-level planning projects currently scheduled for commencement, completion, or both in FY06.

Stand Level Inventory and Other Vegetation Inventories

Stand Level Inventory (SLI) will be completed on approximately 170 stands in the Forest Grove District during FY06. The total acreage of these stands is approximately 17,000 acres (7% of the district). Work will be completed under the statewide SLI contract. FY06 proposed timber sale areas will be a top priority. No FY06 modified clearcut or heavy partial cut timber sale will be submitted to Salem until SLI plots have been completed for that sale. By the end of FY06, over half of the District will have updated SLI data. The stand level inventory will be used for prescription development, AOP implementation, monitoring, and other planning purposes.

The district will also be conducting stocking and survival surveys in young stands and plantations. The surveys are used to determine stocking levels, needs for tree planting, release, or pre-commercial thinning.

Fish and Wildlife Surveys

Northern Spotted Owl Surveys

For FY06 sales, Forest Grove District will continue its northern spotted owl survey program, in order to effectively comply with federal and state Endangered Species Acts and to contribute to Forest Management Plan (FMP) goals. Survey requirements for each sale are determined in accordance with November, 2002 ODF Policy Guidance: *Northern Spotted Owl Surveying on State Forest Lands*. The survey methodology utilized by ODF is the *Protocol for Surveying Proposed Management Activities That May Impact Northern Spotted Owls*. This protocol, originally dated March 1991 and revised March 1992, is endorsed by the USFWS.

Seventeen of the 18 sales in the FY06 sale plan (including alternate sales) are being surveyed for northern spotted owls, due to the presence of potentially suitable spotted owl habitat within or adjacent to the sale areas. A two-year survey (minimum of three visits per year) will be completed for each of these sales. The first year of survey was conducted in 2004 for 14 of the 17 sales that were identified as potentially suitable spotted owl habitat. The second year of survey will be completed for these sales in 2005. The first year of survey for three of the 17 sales that were identified as potentially suitable spotted owl habitat will be conducted in 2005, and the second year of survey will be completed in 2006. Spotted owl surveys are not required for one of the 18 sales in the FY06 sale plan, due to: 1.) the absence of potentially suitable habitat within or adjacent to

the sale area (determination made by the ODF wildlife biologist for the NW Oregon Area), **and/or** 2.) the sale area is within the Tillamook Burn (see November, 2002 ODF Policy Guidance: *Northern Spotted Owl Surveying on State Forest Lands*). Survey requirements for each of the FY06 sales are summarized in the table below. In addition to the spotted owl survey program associated with planned timber sales, monitoring surveys of known spotted owl sites will continue in FY06, in order to determine site occupancy and the pair, nesting, and reproductive status of resident owls.

Marbled Murrelet Surveys

For FY06 sales, Forest Grove District will also continue its marbled murrelet survey program, in order to comply with federal and state Endangered Species Acts and to contribute to Forest Management Plan (FMP) goals. Survey requirements for each sale are determined in accordance with November, 2004 ODF Policy Guidance: *Marbled Murrelet Operational Policy, 2004 Revision*. The survey methodology and standards utilized by ODF are based on the protocol developed by the Pacific Seabird Group (2003 revision).

Three of the 18 sales in the FY06 sale plan will be surveyed for marbled murrelets, due to the presence of potentially suitable murrelet habitat within or adjacent to the sale areas. Each of the three sales will be surveyed for two years, with a minimum of five visits per year. For two of these three sales, the first year of survey was conducted in 2004, and the second year of survey will be completed in 2005. The first year of survey for one of the three sales that were identified as potentially suitable marbled murrelet habitat will be conducted in 2005, and the second year of survey will be completed in 2006. Marbled murrelet surveys are not required for 14 of the 17 sales in the FY06 sale plan, due to the absence of potentially suitable habitat within or adjacent to the sale areas. The ODF wildlife biologist for the NW Oregon Area made the determination that these sale areas are not suitable habitat for marbled murrelets. Survey requirements for each of the FY06 sales are summarized in the table below. The presence of marbled murrelets has never been detected on the Forest Grove District during the past 12 years of survey. Therefore, there are no known occupied murrelet sites and no monitoring surveys will be conducted.

Table 5. Summary of status of T&E surveys.

Operation	Species NSO/MM*	Status
C.C. Rider	NSO	The first year of survey was conducted in 2004, and the second year of survey will be completed in 2005.
Chazmo	NSO/MM	The first year of survey was conducted in 2004, and the second year of survey will be completed in 2005.
Das Butte	NSO	The first year of survey was conducted in 2004, and the second year of survey will be completed in 2005.
East Rogers	NSO	The first year of survey was conducted in 2004, and the second year of survey will be completed in 2005.
Gregorian Cant	NSO	The first year of survey was conducted in 2004, and the second year of survey will be completed in 2005.
Helibates	NSO	The first year of survey was conducted in 2004, and the second year of survey will be completed in 2005.
Howdy Doty	NSO	The first year of survey was conducted in 2004, and the second year of survey will be completed in 2005.
Moo Goo Pon Gon	NSO	The first year of survey will be conducted in 2005, and the second year of survey will be completed in 2006.
Mystree Thin	NSO	The first year of survey was conducted in 2004, and the second year of survey will be completed in 2005.
Nehalem Crossing	NSO	The first year of survey was conducted in 2004, and the second year of survey will be completed in 2005.
Park Place	NSO/MM	The first year of survey will be conducted in 2005, and the second year of survey will be completed in 2006.
Seven C's	---	Spotted owl surveys are not required, due to: 1.) The absence of potentially suitable habitat within or adjacent to the sale area (determination made by Clint Smith, ODF wildlife biologist for the NW Oregon Area) and/or 2.) The sale area is within the Tillamook Burn (see November, 2002 ODF Policy Guidance: Northern Spotted Owl Surveying on State Forest Lands).
SoMoNoFo	NSO	The first year of survey was conducted in 2004, and the second year of survey will be completed in 2005.
Sunday Drive	NSO	The first year of survey was conducted in 2004, and the second year of survey will be completed in 2005.
Three Blind Mice	NSO	The first year of survey was conducted in 2004, and the second year of survey will be completed in 2005.
Topo Bell	NSO	The first year of survey was conducted in 2004, and the second year of survey will be completed in 2005.
Toucan Sam	NSO	The first year of survey will be conducted in 2005, and the second year of survey will be completed in 2006.
Zeus's Boots	NSO/MM	The first year of survey was conducted in 2004, and the second year of survey will be completed in 2005.

* If marbled murrelets ("MM") are not listed under the species column, then murrelet surveys are not required due to the absence of potentially suitable habitat.

Plants

ODF protects listed plant species in accordance with the state and federal Endangered Species Acts (ESA), Oregon Revised Statutes (ORS), and Oregon Administrative Rules (OAR). The overall policy context and procedures for ODF's management of plants is described in the August 1, 1995 document *Procedures for Complying With Federal and State ESA's for Plants*. This policy framework is supplemented by specific strategies for plants in the Forest Management Plan.

The proposed harvest activities in the FY06 sale plan were reviewed to identify potential conflicts with listed plant species. The sales in the FY06 sale plan do not conflict with any known protected plant locations.

Fish Presence Surveys

In order to determine the proper stream classification and extent of fish use in selected streams, fish presence surveys will be conducted by Oregon Department of Fish and Wildlife (ODFW) for four FY06 sales: Chazmo, Moo Goo Pon Gon, Nehalem Crossing, and Howdy Doty.

Watershed Assessments

ODF is committed to perform watershed analysis on key watersheds on state forest lands. Watershed analysis will be used to gain insights into the interaction between ecological resources and forest management. This, in turn, will provide information for future Implementation Plans and Annual Operation Plans. A watershed assessment and analysis is scheduled for two basins during FY06: The Upper Nehalem Basin and the Wilson River Basin. The assessment and analysis work for the Upper Nehalem Basin is scheduled to be completed by December of 2005. Project design for the Wilson River Basin will be initiated during the fall of 2005. A contract will be awarded for the project and work will begin for this basin during the winter of FY06.

Research and Monitoring

The Forest Grove District will be involved in a variety of research and monitoring projects in FY06. Examples include:

- ◆ Red alder research areas.
- ◆ White Pine Blister Rust resistance studies.
- ◆ CFER research areas (commercial thinning and wildlife studies).
- ◆ Commercial thinning and *Phellinus weirii* research areas.
- ◆ Commercial thinning and Swiss Needle Cast study areas.
- ◆ Riparian zone functions study areas.
- ◆ Green tree retention and seedling growth demonstration areas.
- ◆ Headwater amphibian research project.

District personnel have been and may continue to participate in many of these projects.

Other Planning Operations

Other planning activities will include completion of comprehensive trail plans, Lyda Camp development plans, grant project proposals, road inventory updates, and road closure opportunity plans. Forest Grove District will also devote a significant amount of time to the development of the Harvest and Habitat Model.

PUBLIC INFORMATION AND EDUCATION

Public Information and Involvement

Public information and involvement activities will include review and input regarding the FY06 Annual Operations Plan. In addition, public involvement activities concerning the Recreation program will include planning and facilitating monthly OHV trail planning meetings, quarterly Non-motorized trail planning meetings, quarterly Tillamook Recreation Advisory Committee (TRAC) meetings, Volunteer Trail Patrol meetings, user group club meetings, and involving individuals or clubs in various district projects.

Public Education

The district is involved in a variety of projects focused on informing and educating the public and interpreting the natural and cultural history of the Tillamook State Forest. Activities will include:

- ◆ Maintenance of the Tillamook State Forest web page and recreation information phone line.
- ◆ Development of information board messages.
- ◆ Modifications to and reprints of the OHV and Non-motorized trail guides.
- ◆ Writing articles for user group newsletters and the Tillamook Times newsletter.
- ◆ Further development of traveling field displays used to inform and educate OHV users about responsible use and to recruit volunteers for specific projects and programs.
- ◆ Support for local OHV user group education programs.
- ◆ Support and participation in NWOA Forestry education and interpretive programs.

ADMINISTRATION

There are currently 19 full time and 9 part time positions on the Forest Grove district funded for the management of State Forest lands that equate to 24 Full Time Equivalent (FTE) positions. This staffing level represents about fifty percent of the total district State forest budget necessary to accomplish the operational objectives outlined in this AOP;

however, the staffing level is not adequate to accomplish the increased level of planning required for recreation development, timber sale selection and other related management activities. Additional staffing resources will be requested as part of a 05-07 Biennial Budget Program Options Package.

The Forest Grove district State Forest staffing organization is divided into the following functional groups.

- ◆ **Administration** includes the District Forester, Assistant District Forester, Office Manager and clerical staff. The administrative function provides policy and planning direction, budgeting, coordination between units and programs, oversight to the field units, public contact and clerical support. The office staff is also responsible for assisting with special forest products permits and firewood permits. (4.43 FTE)
- ◆ The **Engineering Unit** is responsible for the planning and maintenance of the district State forest road network, the design and administration of all timber sale road development and the establishment and maintenance of State forest property lines. (7 FTE)
- ◆ The **Forest Management / Marketing Unit** is responsible for the planning, preparation and administration of all State forest timber sales on the district, including planning and administering threatened and endangered (T&E) species surveys and developing and maintaining the district Geographic Information Systems (GIS) data. (6.25 FTE)
- ◆ The **Recreation Unit** is responsible for the planning and development of new trails and facilities, management of existing trails and facilities (campgrounds, day-use sites trailheads, staging areas), development and management of volunteer programs, public contact and information, and monitoring and assessment of overall recreational use patterns. (3.75 FTE)
- ◆ The **Reforestation / Young Stand Management Unit** is responsible for all the planning, prescription determination and administration of all reforestation and young stand management activities on State forest land, including all the associated monitoring and record keeping. (2.66 FTE)

APPENDICES

A. Summary Tables

B. Pre-Operations Reports

C. Recreation Exhibits

D. Public Comments