

TABLE OF CONTENTS

INTRODUCTION.....	3
INTEGRATED FOREST MANAGEMENT OPERATIONS.....	4
Timber Harvest Operations.....	4
Overview of Timber Harvest Operations	4
Landscape Design	6
Green Tree, Snag and Down Wood Strategies.....	7
Aquatic Resource Protection Strategies.....	9
Stand Structure Development.....	9
Summary of Operations by Basin.....	10
Forest Roads Management.....	18
Overview.....	18
Road Construction	19
Road Improvement	19
Road Access Management	19
Road Maintenance.....	20
Land Surveying	20
Young Stand Management.....	21
Rehabilitation.....	21
Site Preparation.....	21
Planting.....	21
Vegetation Management.....	22
Tree Protection.....	22
Precommercial Thinning (density management).....	23
Fertilization	23
Pruning	23
Recreation Management	23
Overview of Recreation Management.....	23
Facilities Improvement	24
Planning and Design.....	24
Other Business.....	24
Facilities Maintenance.....	25
Other Management Activities.....	28
Land Exchange	29

Other Integrated Forest Management Operations	29
Planning (and Information Systems)	29
Stand Level Inventory and Other Vegetation Inventories.....	29
Fish and Wildlife Surveys.....	30
Plants.....	31
Watershed Analysis	32
Transportation Planning.....	32
Research and Monitoring.....	32
Public Information and Education.....	36
Administration.....	36
A. Summary Tables	39
B. Pre-Operations Reports	39
C. Public Involvement	39

TILLAMOOK DISTRICT

2009 ANNUAL OPERATIONS PLAN

INTRODUCTION

This annual operations plan (AOP) covers the State Forest Land managed by Tillamook District for Fiscal Year 2009 (FY09), which begins July 1, 2008 and ends June 30, 2009. This document describes how the activities and projects undertaken by the district will achieve the goals, strategies, and objectives of the NW Oregon Forest Management Plan (FMP), Tillamook State Forest Recreation Action Plan, Tillamook District Implementation Plan (IP), and portions of the (DRAFT) Western Oregon Habitat Conservation Plan (HCP). Refer to the district IP for more specific information on physical characteristics and other resource information on the district.

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 timber harvest operations-financial, timber harvest operations-forest structure, forest roads, young stand management, recreation management, and salmon anchor habitat (SAH). Appendix B is the bulk of the AOP and contains the Pre-Operations Reports and maps for individual harvest operations. A summary of the results of public involvement will be added to the final plan.

Note that the acres detailed throughout the report express net acres, unless otherwise stated. Net acres are based on orthophotos and GIS and exclude roads, non-required thinning areas, stream buffers (special stewardship in LMCS), other stream buffers and green tree retention areas.

In accordance with the guidance on the 2009 harvest levels¹, the district has included 60.4 MMBF of timber harvest in this Annual Operations Plan (Table A-1).

The district has included 3 Alternate Operations in this Annual Operations Plan. These alternate operations may be used to replace regular sales that cannot be completed as planned.

¹ Oregon State Forests Guidance 2009 Annual Operations Planning Guidance dated September 10, 2007

The proposed timber sales are planned to be designed, engineered, and submitted for processing during the FY09 time period. Due to a backlog of past sales, current workloads and markets, some timber sales may not be processed and auctioned until the FY2010. The actual on-the-ground operations may not occur during FY09 due to the time lag associated with contract duration, which could be one to three years after auction. In contrast, reforestation, young stand management, recreation management, and planning activities will be carried out during the FY09 time period.

Table 1. Annual Operations Plan objectives compared to annual objectives identified in the 2003 Tillamook District Implementation Plan (Table A-1). All values are acres.

Silvicultural Activity	IP Annual Objective		2009 AOP Objective ¹
	Low	High	
Conifer Partial Cut	1,000	3,000	1,279
Conifer Regeneration Harvest	2,000	5,100	2,906
Hardwood Partial Cut ²	N/A	N/A	
Hardwood Regeneration Harvest ²	0	1,100	40
Rehabilitation	0	0	0
Reforestation (Initial Planting)	1,500	3,500	2,600
Precommercial Thinning	0	500	400
Fertilization	0	0	0
Pruning	0	0	0

1. Acreages do not include alternate sales.
2. Hardwood stands designated as 1H in SLI.

INTEGRATED FOREST MANAGEMENT OPERATIONS

Timber Harvest Operations

Overview of Timber Harvest Operations

The planned timber harvest operations are within the total acres objective in the Tillamook District IP. Activities in the AOP will allow for stands to be moved toward complex structure and contribute to the overall objective of **60.4 MMbf**.

The IP harvest levels are based on total acres which range from 4,500 – 7,600 acres. Total planned acres in this AOP are 4,225 the volume target. Harvest activities in this AOP are partial cutting (31%) and regeneration (69%) which is within the IP range. The total harvest acres are slightly below the acreage range but still meets the volume harvest levels. Refer to the following definitions for additional information:

http://www.odf.state.or.us/stateforests/aop/docs/HarvestDefinitions_Text.asp.

Partial Cut Harvest (PC): The intent of a partial cut harvest is to manage the growth and density of an existing stand. A prescription for a partial cut may be designed to increase the structural complexity of a stand, maximize volume growth, or capture tree mortality. A stand may be partial cut several times throughout its life. Partial cuts leave 80 or more square feet of basal area per acre on Sites Class I, II, or III. The partial cuts in this plan will reduce stand density to a SDI of 15 to 40.

Partial cutting operations are planned to move stands from CSC to UDS or to maintain complex stand structure components. These operations thin conifer to maintain vigorous tree growth, retain deeper crowns and allow light onto the forest floor to initiate understory vegetation establishment and growth.

Regeneration Harvest: Two types of regeneration harvest will be referred to in this AOP:

Retention Cut (RC): These operations leave 33 to 79 square feet of basal area/acre on Site Class I, II, or III. The residual trees can either be well distributed across the harvest unit or scattered and clumped creating a variable density distribution across the unit. Openings of ½ to 5 acres can occur in these units but are difficult to identify with current inventory data. These operations leave at least 15 trees and snags per acre with preference given to the biggest and best green trees in addition to the trees in riparian areas.

Modified Clearcut (MC): These operations leave less than 33 square feet of basal area on Site Class I, II, or III. Modified clearcut harvest will leave an average of 5 to 7 green trees per acre and an additional 3 to 8 trees or snags per acre to provide a future source for snags and down wood. The leave trees may be scattered across the unit (0-15 on any acre) or clumped (>15 on any acre). Areas of green tree retention are included in most of the modified clearcut harvest areas and are located along the riparian areas and/or on steep slopes above streams on the edge of a harvest unit.

Some regeneration harvests are planned in closed single canopy stands (CSC) or understory stands (UDS) stands dominated by alder. These operations create predominately regeneration (REG) structure. Many hardwood stands were aerially sprayed in the 1970's resulting in short boles with multiple tops. Other hardwood stands not sprayed have slowed diameter and height growth due to stand age and will be harvested to allow for regeneration of multiple species conifer stands. Not all hardwoods are removed in these types of operations and a component will be retained in a variety of locations (on high landslide hazard locations, in riparian areas, and/or throughout the unit).

The IP emphasizes harvest operations to address the severe impacts of Swiss needle cast (SNC) on Douglas-fir in the district. Most of the conifer regeneration harvest operations are

focused on CSC or UDS stands with poor live crown ratios and slowed growth. Many of the stands are located in what is referred to as the SNC zone (approximately the coast to 15 miles inland), and have been impacted by SNC with low needle retention. Some may have been identified as having SNC symptoms during the annual aerial surveys,

In 2004 a report was written titled *Oregon Department of Forestry State Forests Program Swiss Needle Cast and Commercial Thinning, Review of recent research results and potential application to ODF Management, (5/17/05)*. The conclusions of this report are addressed through the AOP in the selection of timber sales included as well as prescription planned at this time. The prescriptions planned for SNC stands discussed in this plan are based on stand growth and the most recent information available to the district.

As part of the 2009 AOP planning process a cruise contract (service contract) was used to collect stand data on many sale areas. Stands dominated by Douglas-fir had growth analysis measurements taken to compare stand growth to modeled stands on same site class. The data is still being analyzed at this time but will be used to inform stand prescriptions during sale layout if any changes are needed from the plans.

Regeneration harvest operations are also planned in conifer stands with poor live crown ratios and/or poor height to diameter ratios. Stands dominated by hemlock may be densely stocked and have tall trees with small live crowns and diameters causing the trees to be unstable (height to diameter ratios greater than 80) and poor candidates for partial cutting. These stands may be harvested using a diameter limit prescription leaving the largest diameter trees scattered across the unit or in clumps. These types of stands are CSC or UDS and will create REG or UDS structure after harvest.

Refer to the individual PreOp Reports and attached summary tables for the current stand structure and Desired Future Conditions.

Landscape Design

The landscape design is a long term vision of the desired future condition for the array of stand structures over the district. To achieve the design a variety of silviculture prescriptions will be applied to diverse stands types.

The District's vision for future development of complex and general stands on the landscape is shown on the IP display titled Desired Future Conditions (in the map section). The stands shown as complex structure were identified as having the potential to move most quickly toward complex structure. Due to SNC, the homogenous nature of the age class structure across the landscape, hardwood stand conditions, and other factors (access and topography for example) stand designations are being re-assessed and will be formally modified with an IP revision. In the interim the district will implement silvicultural treatments that are consistent with the mapped DFC, which take into account stand health and the ability of the present stand to achieve the DFC designation. If DFC complex stands are targeted for a regeneration harvest their designation will be reviewed and possibly replaced with other stands during the IP revision.

Green Tree, Snag and Down Wood Strategies

The Forest Management Plan discusses goals for green tree, snag, and down wood at a landscape level and per AOP. The PreOperations Reports discuss specific strategies for each operation and sale area. The following sections describe guidelines and strategies the district is implementing to achieve structural components while working in stands with younger age classes. These strategies have been evolving since the FMP adoption and will continue to change as more data is collected by Stand Level Inventory, Implementation Monitoring, and the DFC designations are reviewed and analyzed.

GREEN TREES

Arrangement: Upon completion of harvest, green trees will be left in variety of patterns within the harvest unit. The patterns may be scattered or clumped within the sale areas or located in green tree retention areas or larger riparian buffers outside the operations area but within the harvest unit. It is preferable to leave trees to be left in a combination of arrangements within the harvest unit. District guidelines are for a minimum of two combinations to be used for each sale. See the illustrations below for examples of leave tree arrangement.

Type: The majority of green trees retained in harvest units will be conifer species. In harvest units with hardwoods, some hardwoods may be retained in the sale area but they are likely non-merchantable trees or trees or clustered in riparian areas and/or High Landslide Hazard Locations.

Numbers: To meet the FMP requirements 5 trees per acre in all regeneration harvests, trees are left in or adjacent to sale area within a harvest unit. As discussed under the *Arrangement* section, the 5 trees may not be found scattered evenly across the unit.

Size: Green trees can be in a variety of sizes. Depending on the type of prescription applied, most green trees will have a diameter of 11" DBH or greater. Many of the harvest units will have residual green trees at least 15" DBH.

Mortality of some of these green trees is expected due to wind, or snow damage or disease. Overall, the goal of green tree retention is to have multiple species, in multiple arrangements and be large diameter trees in future stands.

SNAGS

District Guidance: Stand Level Inventory and cruise data is used to determine the number and decay class of existing snags in each harvest unit. The data is also reviewed at a sub-basin (6th field) level to meet the FMP goal of 2 hard snags per acre on the landscape.

- If the data shows less than 2 snags/acre in decay class 1 and 2 and the stand average DBH is greater than 15", then snags will be created.
- If a stand is less than 15" DBH on average, then 2-3 additional green trees per acre will be reserved for future snags. These additional green trees will grow into larger diameter class and are expected to become snags through natural processes or created during future management entries. Therefore, not all harvest units will have snags created at the end of the operation.

- If SLI and/or cruise data evaluated at the sub-basin (6th field) level show the sub-basin is deficient in hard snags (Class 1 and 2), additional snags may be created or additional trees retained in the sales with a DFC of complex structure.

Arrangement:

- Existing Snags – Snags currently present in the stand, will be reserved from felling as long as the snags are not a safety issue. If existing snags are cut, they will be left to contribute to down wood goals.
- Created Snags - When green trees are girdled or topped as part of the operation, they will have arrangements similar to the green tree retention described above. The snags may be scattered across the harvest unit, created in clumps, created in riparian areas or even outside a sale area.

Type: Conifer will be targeted for snag creation

Numbers: Snags will be created to average 2/acre but as described above, some areas of a unit may have more and some areas may have less.

Size: A conifer tree will be greater than 15" DBH for snag creation. Created snags should be at least 20" DBH in order to optimize the number of wildlife species who can use the snag.

DOWN WOOD

District Guidance: Stand Level Inventory data is used to determine the amount and decay class of down wood in each unit. For all AOP sales, all existing down wood will be retained. For all AOP sales, all existing down wood will be retained. For regeneration harvests, evaluate the need for down wood creation or deferral by using the following criteria:

- If the data shows less than 600-900 cubic feet/acre in decay class 1 and 2 and the stand average DBH is greater than 18", then down wood will be created.
- If a stand is less than 18" DBH on average, then 2-4 additional green trees per acre will be reserved. These additional green trees will grow into larger diameter class and are expected to become down wood through natural processes or created during future management entries. Therefore, not all harvest units will have down wood created at the end of the operation.

Arrangement: During harvest operations, felled snags will be left in the unit for down wood.

- Existing: Down wood currently present in the harvest unit will be reserved from yarding.
- Created Down Wood - When green trees are felled as part of the operation, they will have arrangements similar to the green tree retention described above. The felled trees may be scattered across the unit, created in clumps, created in riparian areas or even outside a harvest unit. Tops are also reserved on ground yarding areas and will be left in concentrations or scattered on gentler slopes.

Type: Conifer will be targeted for down wood creation

Numbers: The number of trees felled for an operation will depend on the size to meet the target cubic feet per acre in regeneration harvest units. Implementation monitoring has shown an average of 200 cubic feet is created with no down wood creation in a harvest unit. Additional 400 to 700 cubic feet would need to be created.

Size: Trees 18" DBH and greater will be targeted for down wood creation when available.

Aquatic Resource Protection Strategies

In order to protect water quality during project work and active operations, a variety of methods will be used to prevent sediment from entering live streams. These methods include (but are not limited to) maintaining culverts and other road drainage structures, using sediment control devices in road ditches when necessary, and monitoring logging and hauling operations. Culvert installment and replacement in live streams will be conducted between July 1 and September 15. Operations outside of this period will be reviewed with ODFW.

There are 11 sub-basins (6th field) which have been designated as Salmon Anchor Habitat areas (SAH) within the Tillamook District. Six of the sub-basins had basin plans developed in June 2005 as part of the SAH strategy. These plans will be referenced when a sale is within a SAH basin with a developed plan. The total acres available to manage and the acreage managed in each SAH basin is tracked in the attached Salmon Anchor Summary Table in Appendix A.

The following sales are located within SAH Basins:

- Cedar Creek Basin – Lehman Heights, 153 acres
- Cook Creek Basin – Lost Buck and McKenney Flats, 665 acres
- Miami Basin – Sharp Ridge, 59 acres
- Middle Kilchis Basin – Peak Out, 119 acres

ODF has opportunities to work with the watershed councils and the county public works department to improve water quality and fish passage through joint projects which may be funded by grants. The road and stream improvements are work which the district plans on doing whether or not partnered with the other agencies. By working with the watershed councils as a partner in these projects, the work ODF does on streams within the district can be used toward matching funds when done in conjunction with work on private or county land.

There are three sales (Coast Ford, Tillison Ridge, and Fall Again) that have domestic water rights downstream of the sale. All domestic water rights will be protected as required by FMP and Forest Practices Act. The individual water rights holders were contacted during Public Comment process and planning activities. The District will continue to work with the landowners during sale layout, harvest, and reforestation to assure protection of the water sources.

Stand Structure Development

The process of producing an array of forest stand structures across the landscape is a gradual one. A variety of silvicultural practices will be used to actively move the forest towards the desired range of stand structures outlined in the IP (see Table 2 below). The Tillamook district will be operating on approximately 2.0% (acres) of the district with these

planned harvest operations. The rate (acres/year) of partial cut harvest in this AOP is 0.5% and the rate of regeneration harvest is 1.1%

All regeneration harvest operations will be reforested with mixed conifer species. A component of hardwoods will be reserved and will provide a seed source for the future stands. Reforestation decisions are based on the health of past stands, elevation, and aspect to create an appropriate species mix for the site.

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 in acres.

Stand Structure	REG	CSC	UDS	LYR	OFS	GEN ¹
Current	-	2486	1676	63	-	
Post Harvest ²	2903	-	1259	63	-	
Desired Future				1066	1146	2013

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 (except for REG structure) is an estimate of how the stands will develop in five to ten years after the operations are completed.

Acreages do not include alternative sales.

The FY09 sale plan is estimated to generate gross revenues of approximately \$11,318,415 and net revenues of \$8,293,718. It is estimated that active management will result in producing approximately 46.4 million board feet of conifer volume, 14.0 million board feet of hardwood volume, for a total of 60.4 million board feet. In addition to the above revenue and volume, some sales are expected to have pulp removed from sale area. The amount and value of pulp is difficult to predict during planning process but will likely occur in areas of regeneration harvest on steep slopes and whole tree yarding systems. Refer to the attached Financial Summary table and/or PreOp Reports for more detail on volumes and values.

Summary of Operations by Basin

In the following section, the commercial forest management operations planned for FY09 will be summarized in the context of the 11 management basins (5th field) on the Tillamook District. ODF and ODFW resource specialists reviewed the FY09 operations plan and provided input. This section is a summary of the operations by basin (North to South) and is not meant to completely describe the planned operation. Refer to Appendix B for more detail of each operation.

Table 3. Summary of Timber Harvest Operations in each basin. All values are in acres.

Basin	2009 AOP ²		Cumulative Operations ^{1,2} (FY 02-09)	
	Partial Cut	Regeneration Harvest	Partial Cut	Regeneration Harvest
N. Fork Nehalem	149	0	1060	260
Lower Nehalem	829	649	6949	5914
Short Sands	0	0	0	0
Miami	63	0	883	901
Kilchis	0	653	449	1437
Tillamook Bay	0	0	322	176
Wilson	238	1218	2086	10,531
Tillamook River	0	0	503	67
Trask	0	426	2080	9020
Nestucca	0	0	220	287
Little Nestucca	0	0	0	0

1. The Cumulative Operations include all Timber Harvest Operations under the current implementation plan period (July1, 2001 through June 30, 2011). The acres refer to **planned** acres and not harvested or accomplishment acres.

2. These totals do not include alternative sales.

North Fork Nehalem Basin

Four Acres – The sale consists of one area encompassing 104 acres. The stand is comprised of dense mixed species dominated by western hemlock. Scattered throughout the stand are large diameter conifer left from the previous stand.

The sale is a planned partial cut by removing merchantable hemlock and spruce to a basal area range of 140-160 square feet. All other conifer and hardwoods will be reserved.

Special Concerns: None

Hansen Falls – The sale encompasses two areas of partial cutting and totals 45 acres. Two of the areas are located in older large diameter conifer stands within a Marbled Murrelet Management Area (MMMA). The other areas of the sale are located in younger Douglas-fir plantation.

Areas 1 and 2 are 95 year old stands that will partial cut dense pockets Douglas-fir, hemlock, and spruce. The target basal area is 200-220 square feet. Minor conifer species and hardwoods will be reserved in the sale areas. There will be lower and upper end diameter limits to retain two cohorts in the stand. Trees with limbs 5” and greater diameter will be marked and reserved from harvest to protect murrelet habitat.

Special Concerns: The sale areas occur within a MMMA and a Biological Assessment has been completed. The sale layout and administration will occur with input and assistance from the Northwest Area Biologist to assure protection of habitat in the stand.

Lower Nehalem Basin

Big 3 Jct – The sale has five areas and totals 312 acres of partial cut, group selections, and modified clearcuts. Areas 1 and 3 are conifer stands with some alder mixed throughout stands and in riparian areas. Areas 2 and 4 are predominantly alder stands that have small poorly stocked pockets of Douglas-fir. There are also pockets of large remnant hemlock, cedar and Douglas-fir (less than 1 per acre) in draws and lower portion of the slopes.

Areas 1 and 3 will be partial cut hemlock, Douglas-fir and alder. The thinning target is 120-140 square feet. In Area 1, merchantable alder will be harvested in 4 small modified clearcut areas (4-6 acres). All other species (conifer and hardwood) will be reserved.

Area 2 and 4 will both be a modified clearcuts. Area 2 will remove merchantable alder and Douglas-fir. Area 4 will harvest merchantable alder, Douglas-fir, and hemlock. In both areas minor species will be reserved in the stand and an upper diameter limit will reserve legacy trees in the stand.

Area 5 is designated as a down wood and snag creation area only. Due to logging constraints and stand conditions the area will be maintained as Green Tree Retention Area to the adjacent modified clearcuts.

Special Concerns: Adjacent private ownership that will require an access agreement.

Lost Buck – The sale consists of 7 areas and totals 778 acres. Areas 1, 2, 3 and 7 are partial cut. Areas 4, 5 and 6 are modified clearcuts. All sale areas are between 40 and 55 years old.

Area 1 is a conifer dense conifer stand with poor live crown ratios and slowed diameter growth. There some small pockets (1 to 2 acres) of alder throughout the sale area. Area 2, 3 and 4 are dense Douglas-fir stands with stringers and small pockets of alder (less than 1 acre). Alder in Area 2 was aurally sprayed in the 1970's resulting in short boles with many tops.

Area 4 is a Douglas-fir and alder mixed stand with the pockets of alder are larger than 10 acres in size. Some spruce and hemlock are found in younger cohort in small areas of the stand. Areas 5 and 6 are dominated by alder with large pockets of hemlock, Douglas-fir, and scattered spruce throughout the sale area. The alder is high quality in these areas and conifer pockets are dense.

Areas 1, 2 and 7 will be partial cut. The prescription will thin Douglas-fir, hemlock, and alder to a basal area range of 120 to 140 square feet. All other conifer and hardwood species will be reserved.

Area 3 will be partial cut and remove merchantable alder and thin the Douglas-fir and hemlock to a basal area range of 100 to 120 square feet. All other species (conifer and hardwood) will be reserved.

Areas 4, 5 and 6 will harvest merchantable alder. A diameter limit will be used to harvest the Douglas-fir and hemlock. All other conifer and hardwood species will be reserved.

Special Concerns: None

McKenney Flats – The sale totals 388 acres in 4 areas of 50 year old stands. Areas 1, 2, and 2 are Douglas-fir and alder stands. The red alder was sprayed in the 1970's resulting in short boles and many tops. Area 4 is a partial cut of mixed species stand.

Areas 1 and 2 will be modified clearcuts with small pockets of conifer within the boundaries being thinned. The clearcuts will harvest merchantable alder and think 2 to 5 acres pockets of conifer to a basal area of 120 to 140 square feet. All other hardwood and conifer species will be reserved.

Area 3 will be a modified clearcut by harvesting t all merchantable alder, Douglas-fir and hemlock. All other conifer and hardwood species will be reserved.

Area 4 will partial cut Douglas-fir, hemlock, and alder to a basal area range of 120 to 140 square feet. All other conifer and hardwood species will be reserved.

Special Concerns: Possible T&E plant was discovered on Area 4. Consult with ODA to verify plant identity and determine if restrictions are needed.

Short Sands Basin

There are no harvest operations planned in this basin for FY09.

Miami Basin

Sharp Ridge – The sale consists of partial cutting one area totaling 63 acres. The stand is approximately 100 years old located on Common School Land. The stand is mixed conifer species (red cedar, hemlock, Douglas-fir, spruce) and small clumps of alder. There has been no previous management within the stand.

The planned operation will partial cut across all species and diameter class. The residual target basal area is 200-220 square feet and 60 trees per acre. In addition down wood and snags will be created in the sale area during harvest.

Special Concerns: Residual stand wind firmness.

Kilchis Basin

Fitch Creek – This sale is comprised of 7 areas totaling 534 acres. Each of the sale areas are planned for modified clearcut prescriptions. All sale areas are comprised of Douglas-fir and alder in various arrangements and densities. Minor conifer species of hemlock and spruce are scattered in the stands totaling 5 trees per acre.

All merchantable Douglas-fir and alder will be harvested. All other species will be reserved within the sale areas. Green tree retention will also be designated outside the timber sale boundaries adjacent to the sale due to inaccessible areas and High Landslide Hazard Locations.

Special Concerns: None

Peak Out – The sale consists of one area of 119 acres that will be modified clearcut. The sale area has patchy pockets of conifer species but overall is an alder dominated stand. The primary conifer species is hemlock with minor species of spruce and Douglas-fir. The average age of the stand is 37 years old.

The prescription is a modified clearcut that will remove merchantable alder. The dense pockets of conifer will be thinned to 60-80 square feet with Douglas-fir being reserved.

Special Concerns: None

Tillamook Bay Basin

There are no harvest operations planned in this basin for FY09.

Wilson Basin

Coast Ford – The sale is comprised of 4 areas totaling 278 net acres. Area 1 is retention cut, Areas 2 and 3 are modified clearcuts and Area 4 is a partial cut.

Areas 1, 2 and 3 are mixed species stand dominated by Douglas-fir and alder. There are hemlock and spruce found in clumps in the stand. The areas have various density and arrangements throughout.

Area 4 is predominantly Douglas-fir with symptoms of Swiss needle cast. Areas 1 and 4 have good live crown ratios in the dominant and co-dominant trees.

Area 1 is planned for a retention cut by removing all merchantable alder and thinning clumps of conifer to a basal area of 120 to 140 square feet.

Areas 2 and 3 will have a modified clearcut applied to the stand by removing merchantable alder and Douglas-fir. Approximately 5-7 of the largest diameter Douglas-fir and minor conifer species will be retained in the stand.

Area 4 will be partial cut to a basal area range of 100 to 120 square feet. Where the opportunity exists hemlock will be selected over Douglas-fir to create more species diversity in the stand. Hardwoods and other conifer will be reserved.

Special Concerns: Obtaining access from private landowner and downstream water rights holders. The NWOA Geotechnical Specialist has reviewed the sale areas to identify all HLHLs that could deliver to Highway 6. Further field review will be needed as the sale boundaries are identified on the ground.

Jones Flat – The sale consists of 6 sale areas and totals 34 acres. Area 1 and 4 focused on retention cut prescriptions with Area 2 planned for modified clearcut and Areas 3, 5, 6 planned for partial cut.

Areas 1 and 4 are comprised primarily of densely stocked Douglas-fir, alder and scattered hemlock and maple. Area 2 is comprised of primarily dense mature alder and scattered Douglas-fir, maple and hemlock. Areas 3, 5, and 6 are comprised of dense Douglas-fir.

Areas 1 and 4 will harvest merchantable Douglas-fir and alder. Diameter limit will be used to leave the largest Douglas-fir trees averaging 30 trees per acre.

Area 2 is planned for modified clearcut by harvesting merchantable alder and Douglas-fir.

Areas 3, 5, and 6 are all planned partial cuts. The Douglas-fir will be thinned to a basal area of 80-100 square feet.

On all sale areas, minor species other than Douglas-fir and alder will be reserved.

Special Concerns: This sale is planned as an interpretive and education opportunity in conjunction with the Tillamook Forest Center. The sale was developed and reviewed by the Forest Center in partnership with sale planning.

Lehman Heights – The sale consists of modified clearcuts in two areas with a third area for snag and down wood creation. The total sale is 240 acres. Areas 1 and 2 are Douglas-fir stands 50 years old with alder dominated draws and small pockets of alder scattered throughout. The Douglas-fir shows signs of Swiss needle cast and small live crown ratio.

Area 3 is a mix of alder and Douglas-fir in various densities and arrangements.

Area 1 and 2 will harvest all merchantable Douglas-fir and alder. All other species will be reserved.

Area 3 will not harvest any trees. Instead the Area 3 will girdle two conifer trees greater than 15" DBH and fell two conifer trees per acre 18" DBH and larger. Area 3 has deed restrictions that limit harvest opportunities but stand density can still be done to meet long term structure goals.

Special Concerns: Management for snags and down wood along Wilson River Hiking Trail.

NW Combo – The sale is comprised of 7 areas and totals 534 acres. All areas except Area 6 are regeneration harvests. All areas average 47 years old with Areas 1-6 dominated by Douglas-fir with hemlock and noble fir in higher elevations. Area 7 is an alder dominated stand. The stands are overstocked with small live crown ratios resulting in slowed growth. Bear damage is also found throughout the stands.

Area 1 prescription is a retention cut. Merchantable Douglas-fir and alder will be removed and all other species reserved. The largest diameter Douglas-fir will be left and average 13 trees per acre of 21" DBH.

Areas 1-5 and 7 are planned for modified clearcut prescription. Merchantable Douglas-fir and alder will be removed. All other species (hardwood and conifer) will be reserved. Area 6 prescription calls for partial cutting. The conifer will be thinned to a basal area of 110 to 130 square feet. Alder and other hardwoods will be reserved.

Special Concerns: None

Steam Donkey – The sale has two areas of modified clearcut prescription totaling 240 acres. The average age of the stands is 53 years old dominated by Douglas-fir on ridges with alder scattered or found in pockets of 5 – 10 acres in size. There are scattered spruce and hemlock throughout the sale.

Area 1 and 2 will be modified clearcut prescriptions. The merchantable Douglas-fir and alder will be removed. All other species will be reserved.

Special Concerns: None

Tillison Ridge – The sale is comprised of 3 partial cut areas of 130 acres and one area of 12 acres for down wood creation. Areas 1 and 2 are stands with mixed conifer (Douglas-fir, spruce, hemlock) and large pockets of alder. Area 3 is an older conifer stand of Douglas-fir, hemlock and spruce.

Area 1 is planned for a partial cut prescription. The hemlock and spruce will be thinned to a basal area of 120 to 140 square feet. Douglas-fir will be reserved from harvesting since much of it originated from natural seed source. Alder will be thinned in the stand through a diameter limit of greater than 14" DBH and less than 18" DBH. The prescription for alder will result in 8 alder trees per acre being left.

Area 2 will harvest merchantable alder creating gaps 1-2 acres in size and partial cutting conifer to a basal area of 80-100 square feet. The majority of the harvested conifer will be hemlock.

Area 3 will partial cut conifer 140 to 160 square feet of basal area. The small amount of alder in the stand will be reserved from harvest. Again, hemlock will be the majority of trees removed from the stand.

Area 4 will not remove any trees for harvest. The area will only fell 24 trees over the 12 acres to create down wood in decay class 1 and 2 and move the stand into OFS structure.

Special Concerns: Downstream water rights holders.

Tillamook River Basin

There are no harvest operations planned in this basin for FY09.

Trask Basin

Sheridan Butte – The sale is comprised of four areas of modified clearcut totaling 426 acres. There is a Green Tree Retention of 71 acres. The sale areas are primarily Douglas-fir with several large pockets of alder (5-20 acres) scattered throughout the area. The Douglas-fir in this area has moderate to severe symptoms of Swiss needle cast and poor live crown ratios. The alder was aerially sprayed in the 1970's to release the planted conifer resulting in short boles and many tops.

All sale areas will harvest alder and Douglas-fir. All other species will be reserved within the sale area boundary.

Special Concerns: None

Tillison Ridge – see Wilson Basin

Nestucca Basin

There are no harvest operations planned in this basin for FY09.

Little Nestucca Basin

There are no harvest operations planned in this basin for FY09.

Forest Roads Management

Overview

The FY09 AOP includes approximately 27 miles of new road construction (predominately low use spurs) and 15.21 miles of road improvement. In addition, 12.25 miles of road will be vacated or closed in the Tillamook District. Refer to summary tables in Appendix A for more information.

The constructed and improved roads will provide improved access for recreation opportunities, fire protection, and hauling forest products from the sale areas. Since most of the mainline roads are already in place to access these sales, the new roads will be mostly short, spur roads. The amount of surfacing and road width will depend on the amount of volume that will be hauled on each road segment and the potential long-term use of the road after timber sale completion. These projects may include culvert replacement, side-cast pullback and vacating roads. Guidance for transportation management activities will come from the ODF *Forest Roads Manual*. Specifics within this AOP represent Level III Transportation Planning.

In-stream activity will be restricted to the ODFW guidelines to limit impacts to aquatic habitat and any exceptions will be reviewed with ODFW for site specific approval. End-hauling is required when constructing roads on side slopes greater than 55% and location of waste areas will be reviewed with ODF geotechnical specialist as needed.

Most noxious or invasive weeds are along roads and have spread into plantations. The main sources for the weeds are car tires and equipment moved in and out of district and where soil disturbance occurs. The Reforestation Unit currently has the lead on noxious weed control however road management has responsibilities toward the problem as well. The district specifies 100% weed-free grass seed be used and the use of straw for mulch instead of hay.

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

	Mainline (High Use)		Collector (Medium Use)		Spur (Low Use)	
	AOP	IP ¹	AOP	IP ¹	AOP	IP ¹
Road Construction	0	0.5-1	0	2-3	27.13	2-3
Road Improvement	0	10-20	2.5	15-25	12.71	20-30
Road Closure/Vacation	0	0	0.8	2.5-5	11.55	2.5-5
Road Maintenance – District ²	5	-	90	-	75	-
Road Maintenance – Active Operations ³	6.5	-	62.65	-	0.4	-

1. These are annual estimates from Table 3-6, pg 27) 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 2009 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.
- Acreages do not include alternative sales.**

Road Construction

Most of the new construction roads are classified as spur roads. These roads are often short dead-end spurs to access ridge tops and facilitate harvesting operations. Roads will not be located on steep slopes or high landslide hazard locations where risk analysis by the geotechnical specialists determines the probability of failure is high and the risk of resource damage is high. Roads will be designed to the minimum width necessary to accommodate the planned management activity. Abandoned roads are roads built during the Tillamook Burn salvage operations and then abandoned. Improvement of Abandoned roads may be considered new construction if there are trees larger than 5 inches in diameter growing in the road bed. See Road Access Management section below for discussion on road closure and vacation.

Road Improvement

The majority of roadwork in this AOP is road improvement. Road improvement may consist of surfacing, widening, side cast pullback, and improving drainage structures. Road improvement on the Tillamook District is discussed in two ways: 1) Improvement of existing roads and 2) Improvement of Abandoned roads. Existing roads have been improved and maintained over the years through timber sales or the district road crew. Abandoned roads are roads built during the Tillamook Burn salvage operations and then abandoned. For work on an abandoned road to be considered road improvement the abandoned road must have a defined roadbed but may be overgrown with shrubs and trees less than 5 inches in diameter. Abandoned roads often require sidecast pullback, culvert installation, and resurfacing but the roadbed is defined and minimal equipment work is needed.

Road Access Management

All surfaced roads are categorized as active use roads. Unsurfaced roads will be water barred during wet season and will be reviewed for partial or full vacation at the end of the sale. Road closure will be accomplished by pulling culverts and blocking access. Road vacation will pull culverts, recontour the cut banks and obliterate roadbeds. In this AOP, approximately 1 mile of road is planned for full vacation as project work associated with a timber sale. The *Forest Roads Manual* guidance for road vacation will be followed for this work.

At the end of timber sales, all roads are evaluated for access to future sales, resource considerations, and other use such as fire fighting needs. Roads may be retained, partially vacated, or fully vacated based on this evaluation. At the completion of regeneration

harvests, access is needed for tree planting operations and a road may be left open for a longer period of time. After a plantation is free to grow, roads will be closed by the district road crew or added to future timber sales as project work.

Since FY 05 temporary road closures occur in the Trask and Wilson basins during the October to November hunting seasons. This project is completed in partnership with ODFW and Oregon Hunter's Association (Tillamook Chapter) to install and close gates. This project has continued and expanded in each of the last three fiscal years. This project continues to be reviewed each year in consultation with ODFW and Oregon Hunter's Association (Tillamook Chapter) to determine any changes, expansion or reduction.

Road Maintenance

Timber sale purchasers will maintain timber sale access roads. ODF will maintain other roads. Road maintenance activities are divided into five basic categories; drainage, surface maintenance, cut and fill slopes, erosion control and vegetation control. Culverts, catch basins and ditches will be cleaned as necessary to ensure proper drainage. Road surfaces will be graded only when needed to maintain a smooth, stable running surface and surface drainage. Cut slope ravel will be removed from ditches and unstable fill slope material will be removed to prevent failure. Erosion and sediment control structures, such as culvert downspouts, sediment fencing, straw bales, bio-bags, sediment ponds and bio-filtration swales will be maintained or repaired as necessary to ensure their proper function. Vegetation will be controlled manually, mechanically or chemically where necessary. The method used will depend on the characteristics of the vegetation and its location. Precautions will be used to avoid harm to non-target plants and to prevent any of the herbicide from contaminating water.

Some Level III planning projects (*refer to the Forest Roads Manual*) include removing fish passage barriers, vacating/closing lower elevation roads near streams, constructing roads on higher elevation ridges and the redevelopment of large capacity rock pits suitable for crushing to reduce turbid runoff from the road system.

Land Surveying

Property surveys are required to establish property corners and mark the lines defining State ownership. Sale boundaries are adjacent to other ownership along 7.7 miles of property line for seven sales planned for FY09. Property lines which have been identified and marked in prior surveys will be retraced and refreshed, if required, and others will be surveyed or other means will be used to assure the sale boundary is on ODF property. This work will be accomplished by both State personnel and cost share survey agreements with adjacent landowners. An additional 1.1 miles of property line have been established with a boundary line agreement adjacent to the Sheridan Butte sale area.

Twenty-five existing corners are either within or adjacent to sales and 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 both State personnel and cost share survey agreements with adjacent landowners.

Young Stand Management

This section describes the types and anticipated amounts of reforestation and stand management activities that will occur in FY09. 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.

Reforestation and young stand management requires various combinations of site preparation, planting, animal damage control, vegetation management, and interplanting or replanting. These practices must be considered and prescribed for individual stands on a site-specific basis.

Rehabilitation

None Planned

Site Preparation

Prescribed Fire (Slash Burning): None Planned

Mechanical (Slash Piling): None Planned

Chemical Site Preparation: The site preparation objective is to control brush species to allow stand establishment and maintain 2-3 years of free to grow status. The current estimate is 2600 acres. The actual site preparation plan will be prepared in late spring when harvest units and brush development is better known. Most chemical site preparation is completed by helicopter spraying.

Planting

Initial Planting: The planting objective is to establish mixed conifer stands at 500 trees per acre on all clearcut areas, both modified clearcuts and retention cuts. Initial plant species will consist of western hemlock, western red cedar, noble fir, and Douglas-fir. Douglas-fir will be included in planting units outside of the areas of severe Swiss needle cast. The target at age 10 is a mixed conifer stand with a minor hardwood component. These stands generally have the most potential to develop into complex stands, are the most resistant to pest and environmental impacts and retain the most future options. The current estimate is 2520 acres of initial planting (over 900,000 seedlings).

Interplanting: The interplanting objective is to raise conifer stocking in young plantations that are below acceptable levels or below Forest Practices Requirements to a minimum of 250 trees per acre. The current estimate is 350 acres. Actual plans will be made after stocking surveys in the fall.

Underplanting: Candidate stands will be underplanted if surplus trees are available. Candidate stands are generally those stands where natural seed-in of tolerant species is not anticipated and the residual stand density is relatively low. Underplanting is planned for stands to introduce species diversity and to accelerate the establishment of a second cohort.

Natural Regeneration: None planned at this time. Units or portions of units will be assessed prior to planting. Natural regeneration will be considered primarily where small gaps and holes less than 2 acres have been created in partial cut units.

Vegetation Management

The release objective is to attain or maintain free to grow status for current hemlock or mixed conifer plantations by controlling brush species, primarily salmonberry. Release assists with accelerating stand establishment and tree growth for development of complex structures.

Manual: The current estimate is 350 acres. The actual plan will be developed in early spring when brush is more developed and actual needs can be assessed.

Chemical: The current estimate is 50 acres. The actual plan will be developed in late spring or early summer when brush is more developed and actual needs can be assessed.

Noxious Weeds: Reforestation is working with the Tillamook Estuary Project and other partners to map and begin control efforts on knotweed. Other species such as Himalayan blackberry and Scotch broom are targeted for control totaling approximately 20 acres during the fiscal year.

Tree Protection

The objective is to reduce browse by elk, deer, and rodents allowing trees to attain full height growth potential. Tree protection also reduces cost of long-term vegetation management once plantations reach a free to grow stage.

Tube & Pin: The current estimate is 240 acres. This will be in block planted cedar and areas of known heavy browse pressure.

Trapping: The current estimate is 5000 acres.

Precommercial Thinning (density management)

The PCT objective is to reduce the density in overstocked conifer stands to maintain good individual tree growth rates with good live crown ratios. In mixed species stands with Douglas-fir heavily impacted by Swiss needle cast, species other than Douglas-fir will be favored. The current estimate is 400 acres.

Fertilization

None planned due to the impacts of Swiss needle cast. Past research has found that fertilizing accelerates the impact of Swiss needle cast. Future mixed species plantations may be considered for fertilization.

Pruning

None planned due to impacts of Swiss needle cast. The loss of needle retention in many Douglas-fir plantations does not make pruning a viable tool. By pruning the trees, the crown length is further reduced which in-turn reduces overall tree growth.

Recreation Management

Overview of Recreation Management

For Fiscal Year 2009 the Tillamook District Recreation Program will operate and maintain existing facilities at the current high standards. Focus will be given to maintaining existing facilities, completing development work that began in FY08 and making some improvements to existing facility and infrastructure. A special emphasis will be given to assessing and repairing sections of the Off Highway Vehicle (OHV) trail system that are currently closed or in need of maintenance. This work will be accomplished by district recreation staff, volunteers, two OHV equipment operators, South Fork Inmate Crews, Tillamook District Road Crew, and contracts.

ODF is currently in the process of creating a comprehensive strategic plan for recreation development and operations in the Tillamook State Forest. Any plans to construct new facilities will be on hold until after the comprehensive strategic plan is complete. The time frame for implementation of the new recreation strategic plan has not been established and a suspension of new facility construction will continue through fiscal year 2009.

The Recreation Unit in the Tillamook District has recently undergone almost a complete change in staffing. A Recreation Unit Manager position is filled as a permanent status. There is also a Recreation Planner position being utilized to identify and complete long-term planning as well as integrate recreation into the overall forest management. In addition, the Recreation Unit has recently hired Campground and OHV program

coordinator and two forest management technicians to help carry out the maintenance and improvement of existing facilities.

Facilities Improvement

Hollywood, Jordan Creek and Diamond Mill OHV Staging Areas

- The installation of a permanent loading and off loading ramp for OHV use. To be completed by Spring 2009.

Keenig Creek Day Use Area

- Picnic tables will be installed and access to toilets improved to better facilitate day use activities. The parking area will be defined by boulder placement and signs improved on Highway 6 to direct the public to the site.

Planning and Design

Wilson River Corridor Vehicle Access Management Plan

- Develop Vehicle Access Plan addressing resource damage & access for public and utilities - Ongoing

Non Designated dispersed camping sites

Continue GPS inventory of all non-designated dispersed sites in the district and evaluate their impact on resources. Consideration will be given to site feasibility as a safe and appropriate place to camp. The purpose for doing this is to determine whether or not these sites should be elevated to "Designated" status and maintained, or closed off to use.

Other Business

- Liaison with other natural resource agencies (Oregon Parks & Recreation Department, Oregon Department of Fish & Wildlife, Tillamook County Parks, Bureau of Land Management, Tillamook Estuaries Partnership, and non profit organizations such as Stop Oregon Litter and Vandalism, and NW Steelheaders).
- Review planned district operations and provide input and recommendations on impacts to recreation program and infrastructure.
- Coordinate removal of abandoned vehicles and property and clean up of dumpsites.

- Provide support for interpretive and educational programs at Tillamook Forest Center, local schools, and at other ODF districts.

Facilities Maintenance

The following is a list of the facilities to be maintained during the FY 2009 operation period.

- Diamond Mill OHV Campground - Open year round.
- Jones Creek Campground - Open Memorial Day Weekend through September.
- Footbridge Trailhead – Day Use Area – Open year round
- Cedar Butte Trailhead - Open year round
- Keenig Creek Campground – Open year round.
- Sprague Wayside – Open year round
- Nehalem Falls Campground – Open Memorial Day Weekend through September.
- Jordan Creek Off Highway Vehicle Staging Area - Open April through October.
- Hollywood OHV Staging Area - Open year round
- Edwards Creek OHV Learners Area
- Peninsula Day Use Area & Boat Launch – Open year round
- Stones Road Boat Ramp – Open year round
- 53 designated dispersed campsites through-out forest
- Smith Homestead – Open year round (shared responsibility with Tillamook Forest Center)

Non-Motorized Trail Construction

- Coal Creek Trails – tie trail from ridge down to Coal Creek Trailhead (approximately ½ mile new trail construction)
- Section of Wilson River Trail from Keenig Day Use west to Muesial Creek (approximately 1.4 mile)

Non-Motorized Trail Maintenance

A total of 14.3 miles of trail maintenance is planned. The storm event of December 2007 caused damage that requires more labor than the usual, annual trail maintenance. Work includes bridge maintenance, brushing, bridge replacement, slough removal, grade repair, and removal of wind throw. The Area Geo-technical Specialist will be needed to examine over 200 feet of trail cracking that is occurring within the Footbridge to Cedar Butte section of the Wilson river trail.

- Wilson River Trail–Diamond Mill to Keenig Creek Trailhead section – 10.5 miles
- Cedar Butte Trail – 0.75 mile

- Peninsula Trail – 0.8 mile
- Nehalem Falls Trail – 0.5 mile
 - Outback Trail 0.3 mile
 - Coal Creek Trail 1.4 miles

Motorized Trail Construction

- Link Pothole Cr. Trail to Murphy Camp - project will facilitate access to stream monitoring site for Watershed Analysis Project on East Fork Trask River.

Motorized Trails Maintenance and improvement

Maintenance and upgrade of OHV trails will be a priority throughout FY 2009. Work includes rocking, rolling grade dips, bridge construction, installation of lower gradient re-routes, and seasonal closure of trails to protect the trail and reduce impacts.

Ongoing survey of established OHV trails and inventory of undocumented district OHV trails with special emphasis on the Trask Basin. In addition, the process of signing designated trails within the Trask area will be ongoing through FY 2009. This will be done to protect natural resources and enhance County Deputies' ability to enforce laws regarding OHV activities on state lands.

Overall Motorized Trail Priorities on the Tillamook District

Trail Name	Mileage	Resource to Accomplish Work	Work to be done/Material Support
Trask Area			
Ginsberg Pt. Trail 5.6 miles, 4WD Trail	5.6	TRC, Volunteers	Rock staging and Grading-TRC, Handwork by Adopt-a-Trail
Kristie's Shuttle 1.3 miles	1.3	Contractor, OHV TC, Volunteers	Install 65' bridge, grade trail, construct additional 0.2 miles of trail to connect to Murphy Camp Rd.
Leroy's Log Jam	0.95	OHV TC	grade top to bottom
Poe Wade	0.6	OHV TC	Grade top to bottom, haul rock as needed
Helipad 5	1.5	OHV TC	Grade top to bottom, haul rock as needed
Jordan Cr. Area			
Spaur Creek	1.5	FEMA Contract	Install new 30' OHV bridge, reroute trail to new bridge site.

Buzzards Point	1.3	FEMA Project, South Fork Inmate Crews Trailsmen M/C	Install new engineered (approx. 60' bridge. Repair lower portion of trail, continue reinforcing existing drainage on upper trail, and install additional one way filters.
Jordan Creek Trail (High Use Trail)	1.9	OHV TC	Grade, rock OHV dips as needed and clean out OHV dips, install additional OHV dips as needed.
Ben Smith Loop	0.5	S.F., Volunteers	Add on ½ mi. of new trail to avoid road riding and connect to Archers FB
Morrel's Maze	1.1	S. F,	OHV dips, brushing, install culvert, minor reroutes
Jordan Creek Road Washed out in flood	1.5	OHV TC	Re shape abandoned road bed into OHV trail
Diamond Mill Area			
Mongo's Canyon		FEMA Project, SF	1 FEMA bridge, 1 bridge by S.F., grade lower trail, rebuild rolling dips (mini excavator from top) Widen trail to accommodate quad use.
3. Elk Wallow (.6)		OHV T.C.	OHV dips, grade, rock low lying sections
4. Old Cedar Creek (lower end) (2.7)		FEMA	Replace 6 culverts blown out by 06 storm

TRC: Tillamook District Road Crew

OHV T.C.: OHV Trail Crew

Volunteers: Either work parties or Adopt-a-Trail program

S.F.: South Fork Work Crew

FEMA – Federal Emergency Management Agency contract funded by disaster relief dollars

Contract: Contracted outside of the department.

Other Management Activities

Tillamook District Volunteer Activities

Activity	# of Volunteers	Estimate Hours
Camp Host	Up to 12 volunteers for 4 month camping season	Hosts volunteer for one to two month stays and are on duty 5 days/week for approximately 12 hours/day for 4 months Estimate 1920 volunteer hours
Non-motorized trails	Estimate 10 – 15 people per work day	Non motorized trail workdays occur 3 rd Saturday of March, May, July, September and last 6 hours. Estimate 480 hours
Motorized trails	Estimate 10 people per day	Motorized Trail Work Days – 2 rd Saturday of month, March – October. Estimate 400 hours per year
North Coast Travel Management Area	1 volunteer	Est. 500 hours per year
Down by The Riverside Clean Up - SOLV	5 – 10 volunteers	Est. – 40 hours

Organized Event Administration

For FY 2009 Tillamook District will assist the OHV Coordinator administering motorized event permits on the Tillamook State Forest. Events include poker runs, races, 4WD runs, dual sport runs, a possible car rally, and observed motorcycle trials. There are 16 planned motorized events in the 2008/2009 season and at least one non-motorized event.

Law Enforcement

ODF will contract with Tillamook County Sheriffs Office for 3 full-time deputies at an approximate cost of \$288,000. Tillamook County Sheriff's Office funds 45% of the program cost with grant funds from the Oregon ATV Fund. The remaining 55% is provided by Oregon Dept. of Forestry. ODF will also bring on an additional forest deputy from May through September to enhance public safety during the high use season.

North Coast Travel Management Area

For the last eight years the district has participated in the Oregon Department of Fish and Wildlife (ODFW), North Coast Travel Management Area (TMA). The TMA regulates vehicle travel during the general deer and elk seasons to reduce road damage, increase bull/buck escapement and provide non-motorized hunting opportunities. Tillamook District will continue this partnership with ODFW. Sign maintenance and public contact in the TMA is performed by a volunteer and recreation staff. Enforcement of the TMA is provided by Oregon State Police on a limited basis.

Land Exchange

No land exchanges are planned during the FY09, however the district is beginning work on future exchange priorities. The overall goal is to develop exchange plans for the Common School Lands and any high priority parcels Tillamook District would like to acquire. High priority would be parcels that have implications for access to other lands.

Other Integrated Forest Management Operations

The District will set up and administer commercial and individual wood cutting areas. These areas are used to daylight roads, clean up landings, and salvage windthrow adjacent to roads and concentrated areas where down wood levels are above FMP targets. Commercial permits will also be issued for moss, bear grass, salal, ferns, vine maple, and alder saplings.

Planning (and Information Systems)

The Tillamook District will use a variety of tools, data sources, and other information for the continuing planning and implementation of the AOP. These consist of computer programs (ArcView, SuperACE, GPS programs, etc), inventories (OSCUR, Road Inventories and Stand Inventories), surveys (T&E, fish presence), and field reconnaissance. These will also be used to assist in setting resource goals for the district, and to monitor progress in achieving those goals. During the FY09, the district will be undertaking the following projects in order to update existing data and acquire new information.

Stand Level Inventory and Other Vegetation Inventories

Tillamook District continues to be inventoried using the Stand Level Inventory (SLI) protocol and is administered by Salem staff. Currently 620 stands have had SLI measurements equating to approximately 12% of the district. It is estimated that by the end of FY09, approximately 1200 stands will be complete resulting in 20-25% of the district area being measured. There are currently 5759 SLI stands in Tillamook, amounting to 252,337 acres. About 5150 stands and 242,057 acres are suited for SLI cruising.

Permanent plot remeasurement will begin in FY08 and continue into FY09 on the district as well. There are a total of 133 plots in Tillamook District and the remeasurements will be completed by service contract. Like the SLI, this contract is administered by Salem staff.

A timber cruise contract will be let in FY08 and continue into FY09 for the district. This contract will focus on cruising timber stands planned for the FY10 and 11. The cruisers will collect data to assist in planning and sale prep decisions such as tree height, diameters, defects, segment grading, snags, and growth analysis.

The district will also conduct 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

Fish Surveys

Requests will be submitted to ODFW for stream surveys to determine fish presence annually, prior to sale layout. Stream surveys are conducted between March and June of each year. If the surveys are not completed by the time of sale preparation, streams will be treated as fish bearing (Type F). Streams of “unknown status” or “assumed fish status” will be treated as Type F streams until their status is determined. All attempts will be made to verify fish use by time of auction or when sale activities begin.

Marbled Murrelet Surveys

The Tillamook District will continue its marbled murrelet survey program, in order to comply with federal and state Endangered Species Acts. To date, the USFWS has not issued formal guidelines regarding what constitutes a “take” for murrelets. In the absence of such guidance, ODF will follow *the State Forest Operational Policy, Marbled Murrelet Operational Policies* (January 1, 2005). All marbled murrelet surveys will be conducted in accordance with the Pacific Seabird Group (PSG) most current survey protocol.

ODF completes surveys of potential habitat within or adjacent to planned timber sales. Additional monitoring surveys are planned in Marbled Murrelet Management Areas (MMMA).

Northern Spotted Owl Surveys

In FY09 the district will continue its northern spotted owl survey program, in order to effectively comply with the *Agreement for the Conservation of Northern Spotted Owls* (September 2001) and to comply with ODF’s responsibilities under the state Endangered Species Act. The survey method utilized by ODF is the *Protocol for Surveying Proposed Management Activities That May Impact Northern Spotted Owls*. This protocol was originally dated March 1991 was revised March 1992 and is endorsed by the USFWS. The district determines survey requirements for planned timber sales with potential habitat

according to the November, 2002 ODF Policy Guidance: *Northern Spotted Owl Surveying on State Forest Lands*.

Contractors complete all surveys and develop final reports for ODF. For both marbled murrelets and northern spotted owls, end of year (survey season) reviews will be done to discuss survey results. This end of season meeting is an opportunity to meet with surveyors to discuss findings and determine future survey needs and/or needed modifications to proposed operations.

See the table below for a summary of on-going timber sale surveys for marbled murrelet and northern spotted owls.

Table 7. Summary of status of T&E surveys

Operation	Species (NSO/MM)*	Status
Big 3 Jct.	NSO/MM	2007/2008
Coast Ford	NSO/MM	2007/2008
Fitch Creek	None Req.	
Four Aces	NSO/MM	2007/2008
Hansen Falls	NSO/MM	2007/2008
Jones Flat	None Req.	
Lehman Heights	None Req.	
Lost Buck	NSO/TBD	2007/2008
McKenney Flats	None Req.	
NW Combo	None Req.	
Peak Out	MM	2007/2008
Sharp Ridge	NSO/MM	2007/2008/2009
Sheridan Butte	None Req.	
Steam Donkey	None Req.	
Tillison Ridge	NSO/MM	2007/2008
Downtown (alternate)	None Req.	
Fall Again (alternate)	None Req.	
West Mill (alternate)	None Req.	

*NSO is Northern Spotted Owls

*MM is Marbled Murrelet or TBD (to be determined)

*None Req. is "No surveys are required" either because there was no habitat identified within or adjacent to the sale or the NSO habitat is designated as low quality and within the Tillamook Burn Monitoring Survey area.

Plants

The proposed harvest operations were screened against the Oregon Natural Heritage Database and known locations on the district to identify potential conflicts with listed plant species. No known locations were identified but field observations did identify a possible listed plant. See the specific pre-op report for McKenney Flats for more information. The district will work with Department of Agriculture to determine distribution and appropriate protection.

Watershed Analysis

Watershed Analyses are complete for the Trask, Miami, and Wilson basins. The program is taking the opportunity to review the work completed to this point on State Forests before beginning new projects.

Transportation Planning

FY 09 will begin to implement the template for Transportation Planning developed during FY08 pilot project in the Wilson Basin. The transportation plan will show existing roads and their conditions, identify future plans for access onto State Forest land, and the work required to accomplish the plan. Stand inventories will also be used to evaluate access needs. Road costing tables are being developed to assist with road building and project work priorities.

Research and Monitoring

The Tillamook District will be involved in a variety of research and monitoring projects in FY09. Study sites and plots will be established and/or maintained on the district. District employees may participate in these projects. The following sections provide brief summaries of current research as well as planned research.

Swiss Needle Cast Cooperative Studies: (ODF Districts and SNCC)

- Pre-commercial thinning plot measurements and disease assessments
- Permanent plot measurements and disease assessment
- Sulfur plot measurements, nutrient sampling, disease assessments
- Bravo plot disease assessments

Swiss Needle Cast and Commercial Thinning: (OSU, ODF Districts)

Proposed research will address 1) growth trends following thinning of older stands with varying levels of Swiss needle cast damage, 2) interactive effects of Swiss needle cast with intensity of thinning, and 3) possible interactions between thinning, disease severity, and seed source (where data is available). The approach includes a combination of a retrospective study of stand growth since thinning with permanent monitoring plots to track future growth. The study will require a minimum of 10-year duration to establish trends in stand development after thinning.

Stand Structure Development/Coarse Filter Monitoring

The objective of this study is to examine how stand structure conditions are changing as a result of management prescriptions and to determine whether post-harvest stand structure conditions are developing as anticipated. The stand structure pathways we will be monitoring are stands in the Northwest Oregon Area districts projected to become Understory (UDS), Layered (LYR) and Older Forest Structures (OFS). Currently, only stands in the 2002 to 2004 Annual Operations Plans will be measured. Each stand that will be measured must have a completed harvest. The resulting residual stand

characteristics will be the baseline for all future stand development that we will be monitoring. This study will be accomplished for the 10-year review in the year 2011 as required by the FMP and OAR 629-035-0030. It will also continue as a long-term study beyond this 10-year review for decades afterward in order to better describe the process of stand structure development.

Information from this study will also be used as part of the Coarse Filter Monitoring project aimed at defining relationships between stand structure characteristics and native wildlife habitat. The Coarse Filter Monitoring project assesses whether the biological needs of structure dependent species are being met in relation to habitat structure elements recorded during a stand structure survey.

Evaluation of Crown Length: Sapwood Area: (ODF)

Studies thus far have focused on correlating recent tree volume growth with relatively easy-to-obtain field measurements such as foliage retention, discoloration and crown length to sapwood area ratios (CL:SA). Recent work on commercial thinning plots shows CL:SA is a reasonable predictor of volume growth, and the combination of CL:SA and foliage retention is even better (Mainwaring and Maguire). The objective of this evaluation is to estimate recent periodic volume increment, which when adjusted for site index and correlated with SNC damage indices, should provide a reasonable indicator of how well the stand is growing compared to a stand without SNC damage.

Stream Temperature and Riparian Function: (ODF Forest Practices Monitoring Program (FPMP), ODF State Forests Monitoring Program (SFMP), ODF Districts, Forest Industry)

ODF SFMP and FPMP are coordinating a study to evaluate stream temperature and riparian condition before and after harvesting. Sites are located on both privately-owned and state-owned forestland. The objective of the study is to provide a coordinated monitoring effort with which to evaluate effectiveness of forest practices rules, and standards on private lands as well as the effectiveness of the aquatic and riparian strategies described in the FMP on state-owned forestland.

Influence of Mineral Nutrition on Susceptibility and Recovery of Planted Seedlings to Animal Browse: (ODF and Purdue University)

The purpose of this study is to assess the response of Douglas-fir, western hemlock, and western red cedar to manipulation of plant nutrient content. Seedlings will be consistently monitored over a five-year period for growth, foliar nutrient and monoterpene levels, and susceptibility and recovery from animal browse. Relationships between browse susceptibility, recovery, and fertilization treatments will be thoroughly quantified.

Animal Damage in Plantations: (ODF)

The formal study compares various stock as they relate to controlling/preventing animal damage. The study will look at various stock types and sizes for economic investments and returns (tree survival and growth) in plantations.

East Fork Trask Fish Traps: (ODF and ODFW)

A Salmonid Life Cycle Monitoring site was established in cooperation with ODFW during fall 2004 at East Fork Trask hatchery facility (no longer in use). Life Cycle Monitoring collects information on returning adults and out-migrating smolts to provide information on basin productivity and population dynamics. This site augments ODFW's larger Life Cycle Monitoring project covering the Oregon coast. ODF refurbished the facilities and conducts all trapping and stream survey activities. ODFW provides technical oversight and processes, analyzes and interprets data. This project will continue in FY09 and future years.

Intensive Watershed Monitoring: (ODF, Weyco, OSU, BLM)

ODF State Forests Monitoring Program is working on a project in the Trask River to evaluate if upland, riparian, and aquatic management strategies are effectively achieving goals for riparian and aquatic resources. The goal of the Trask River Watershed Study is to understand how aquatic systems, particularly small headwater stream, respond to harvest and if harvest effects are transferred to downstream fish bearing reaches. The overall objectives are to determine:

- The effects forest harvest have on the physical, chemical and biological characteristics of small headwater streams;
- The extent to which alterations in stream conditions caused by harvest along headwater channels influence the physical, chemical and biological characteristics of downstream fish bearing streams.

T&E Surveys: (ODF, Contractors)

See the above section on fish and wildlife for more detail of surveys for spotted owls and marbled murrelets.

Implementation Monitoring (ODF):

Implementation monitoring tests the consistency between Forest Management Plan (FMP) management strategies and district operational activities. Further, it seeks to answer if resource objectives, such as green tree and snag retention, are achieved on a district-by-district basis. Currently, 20% of all partial cuts and 20% of all regeneration harvests will be sampled using a combination of field-based sampling and document review methods.

Northern Spotted Owls and Marbled Murrelet On-going Monitoring: (ODF, Contractors)

On-going monitoring is occurring of known sites of Northern spotted owls and marbled murrelets. The objective of these surveys is to determine continued occupancy of the site and movement within designated owl circles or marbled murrelet management areas (MMMA) over time.

Northern Spotted Owl Surveys of the Tillamook Burn

Approximately 157,000 acres of the Tillamook State Forest was burned in multiple fires ending in the 1950s. This area has been determined by ODF to constitute a very large expanse of unsuitable and marginal quality habitat for northern spotted owls.

ODF has been conducting monitoring surveys for northern spotted owls in order to determine if any resident spotted owl activity centers exist within this area. ODF has partitioned this landscape into 15 discrete sampling units that will be surveyed in a random order over the next 10 years. Three units will be surveyed for 2 years each, until all 15 of the units have been surveyed. The first year of surveys for the project were implemented 2003. (November, 2002 ODF Policy Guidance: *Northern Spotted Owl Surveying on State Forest Lands, Attachment "B": Monitoring Surveys for Northern Spotted Owls in the Tillamook Burn*)

Marbled Murrelet Effectiveness Monitoring: (ODF State Forests Program) The marbled murrelet (*Brachyramphus marmoratus*) is a small seabird that forages in the ocean but nests in conifer forests with older forest structure up to 55mi inland. Due to declining populations, it was federally listed as a threatened species in Washington, Oregon and California in 1992. Both known and potential nesting habitat occurs within state forests managed by ODF. ODF currently has no Habitat Conservation Plan (HCP) for lands in northwest Oregon and thus manages these lands under a take avoidance strategy. Management activities consistent with this strategy are described in the State Forest Program Marbled Murrelet Operational Policies (ODF, 2005) and Marbled Murrelet Guidance Document (ODF, 2004). These documents describe surveying requirements, the establishment of Marbled Murrelet Management Areas (MMMA) in areas in which murrelets have been detected, and allowable operational practices within MMMA once established.

Some MMMA have potential murrelet nesting habitat within them that is not yet suitable because further growth of potential nest trees is necessary. ODF has undertaken selective thinning regimes to encourage this growth to occur more rapidly than would be expected if the stands remained unthinned.

The effectiveness of strategies to maintain currently occupied habitat and improve unoccupied habitat have not definitively been measured. The goal of this project is to do so.

Other Planning Operations:

During the Fiscal Year 2009, the Planning Unit will complete more specific sub-basin (6th order watersheds) short term and long term planning. The number of measured Stand Level Inventory stands is increasing and the district is able to analyze stand information, structural components (down wood and snags) with more certainty. The district is also able to review the data in conjunction with on-going transportation planning, watershed analysis data, and updated stream survey information.

The overall goals of the sub-basin planning are multiple in scale and detail. The highest priority is to develop a pool of candidate stands for management. Second goal is to identify areas that are not available for management and determine if the limitation is site, access costs, or general topography. Another goal is use the sub-basin plans and information to review and suggest changes to the district Desired Future Condition and Landscape Design.

The planning effort will inform day to day decisions as well as prepare information for Implementation Plan review.

Public Information and Education

The district will maintain supporting information for the Implementation Plan, Land Management Classification System, and Annual Operations Plans for public review. Public involvement will include public review and input on the FY09 Annual Operations Plan. District personnel will participate in public education opportunities such as assisting the Tillamook Forest Education and Interpretation program, watershed council meetings, recreation planning meetings, school field trips and other public events as the opportunity arises. The district will continue to meet with concerned citizens or groups when they have specific questions.

The Tillamook Forest Center is in operation at its location on Cedar Creek Flat, near mile post 22 on the Wilson River Highway. Typical activities on-site during this time will include: routine maintenance of the building and grounds; guided and self-guided public use of the trails including many school groups; access to the river by interpretive trails; continued but minor management activities in the demonstration forest. The Center is expected to host more than 50,000 people per year, generating a large amount of automobile traffic at the site. The Smith Homestead Day Use Area, located ½ mile east of the Center, will also host many school groups, family activities, and other visitors.

Administration

There are currently 46 permanent positions on the Tillamook District responsible for implementing the 2009 Annual Operations Plan. These positions are divided into five functional groups: Forest Management, Engineering, Reforestation, Recreation, and Administration. See the attached organizational chart.

There are two forest management units (Planning and Timber Contracts) responsible for all aspects of timber marketing. These activities include planning, unit layout, assisting with road layout and design, timber cruising, timber sale appraisal, contract writing, and contract administration. The Planning unit prepares the Annual Operations Plan and the Pre-Operations Reports for the individual sales in the AOP and administers contracts for T&E surveys and cruising. The Planning unit is also responsible for identifying candidates for future sale plans five to ten years into the future and other planning efforts like land exchange and transportation planning. The Timber Contracts unit completes field work and contract preparation as well as administers all of the timber sale contracts for the district. The unit also manages firewood sales and special sales.

The engineering unit is responsible for all aspects of road engineering and land surveying. These activities include road design and layout, rock pit development, road maintenance, property line location, road construction and improvement appraisals, contract preparation,

and road contract administration. The engineering unit works with the planning unit in developing the AOP.

The reforestation unit is responsible for all activities in forest plantations from the time the harvesting is complete through pre-commercial thinning. The activities of this unit include site preparation, trapping, tree planting, vegetation management, tree improvement, and pre-commercial thinning. The reforestation unit also coordinates South Fork crews and administers contracts to complete these tasks.

The recreation unit is responsible for implementation of the *Tillamook State Forest Recreation Action Plan 2000* and operation of the overall recreation program including facility maintenance. Program elements include the operation and maintenance of campgrounds, day use areas, trailheads, staging areas, motorized and non-motorized trails, boat ramps, event management, South Fork crew coordination, law enforcement coordination, volunteer recruitment and management, and contract administration. The recreation unit also reviews AOP documents and works closely with the forest management units for trail protection during operations or trail rehabilitation after operations.

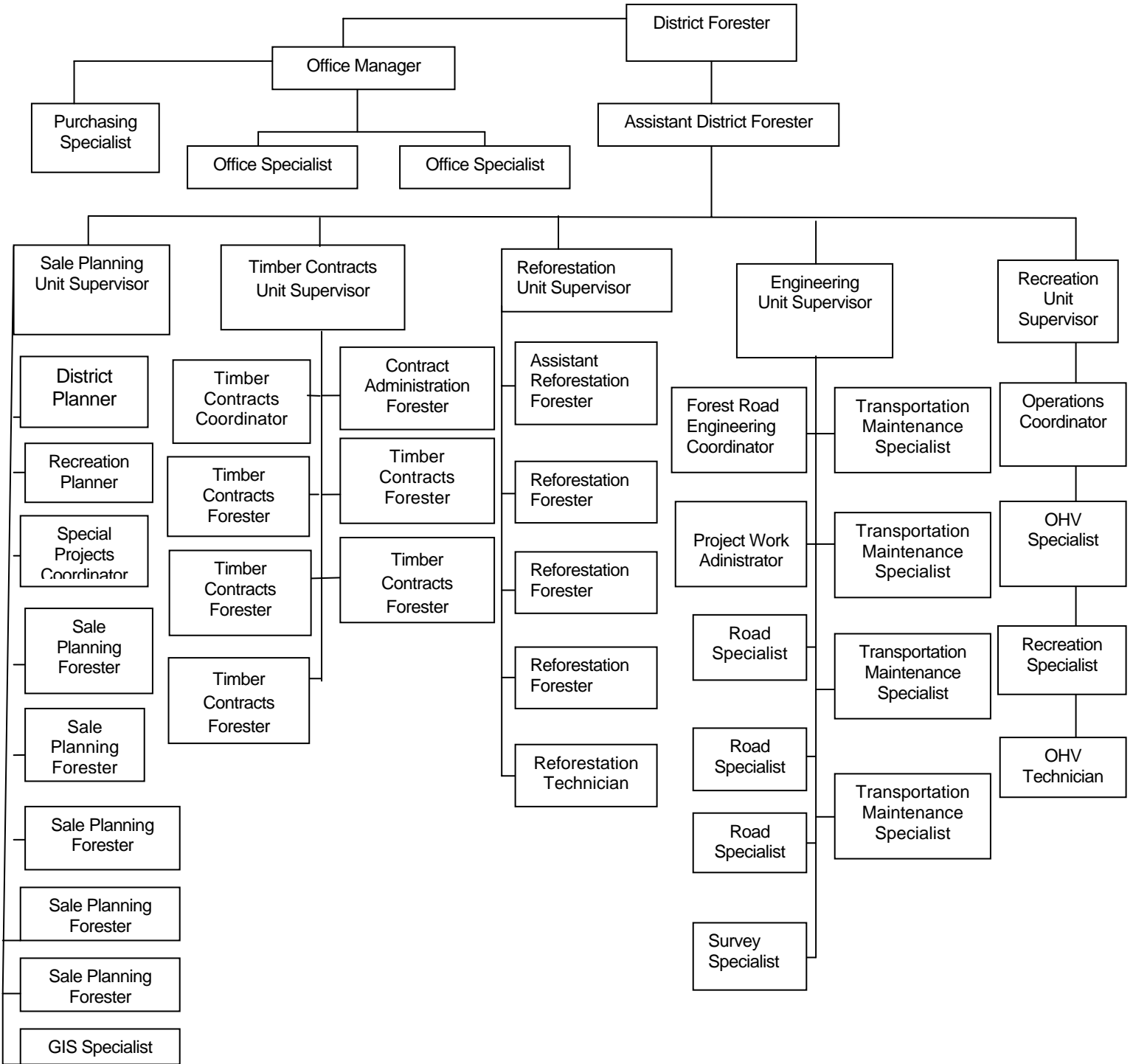
Administration consists of the District Forester, Assistant District Forester, Office Manager, Purchasing Specialist, and two Office Specialists. The District Forester and Assistant District Forester provide policy direction, budget development, and oversight to the field units.

The Office Manager, Purchasing Specialist, and Office Specialists provide clerical support to State Forest Management. These positions are responsible for initial public contact, distribution and filing of documents, and providing assistance at timber sale auctions. The Office Specialist is also responsible for issuing permits for firewood cutting, and special forest products.

The GIS Specialist works with all of the above units but is managed through the planning unit. The GIS Specialist assists the units with creating GIS displays for timber sale layout, contracts, and planning documents. The GIS manager also completes maintenance and timely updates to the GIS database and provides overall IT support.

Each of these units is responsible for ensuring the management approaches, activities, and projects are designed to meet the goals, strategies, and objectives of the FMP, Implementation Plan, AOP, and Recreation Plan. The sales and projects are coordinated across the district from the development of the AOP to the final sale administration for consistency within and between units to meet common goals.

Tillamook District Organization Chart



APPENDIXES

A. Summary Tables

- A-1 Timber Harvest Operations – Fiscal Summary
- A-2 Timber Harvest Operations – Integrated Strategies Summary
- A-3 Forest Roads Management Fiscal Summary
- A-4 Young Stand Management Fiscal Summary
- A-5 Recreation Management Fiscal Summary
- A-6 SAH

B. Pre-Operations Reports

- Vicinity Map (1; showing all Commercial Operations) relative to the district ownership.
- Pre-Operations Reports (including maps and Biologic Assessments [for those operations requiring them]).

C. Public Involvement

TIMBER HARVEST OPERATIONS - FINANCIAL SUMMARY

District: Tillamook

Fiscal Year: 2009

Date: 7/2/2008

Operation	Payment Type	Fund %		County	Sale Quarter	Net Acres		Volume (MMBF)			Value		
		BOF	CSL			Partial Cut	Clear-cut	Con-ifer	Hard-woods	Total	Gross	Projects	Net
Big 3 Jct	R	100%	0%	Clatsop	1	159	153	2.7	1.4	4.1	\$543,458	\$135,945	\$407,513
Coast Ford	R	100%	0%	Till	4	19	259	1.0	2.6	3.6	\$675,725	\$266,000	\$409,725
Fitch Creek	R	100%	0%	Till	3	0	534	5.4	1.7	7.1	\$1,549,650	\$688,900	\$860,750
Four Aces	R	100%	0%	Till	2	104	0	1.2	0.0	1.2	\$90,675	\$23,500	\$67,175
Hansen Falls	R	100%	0%	Till	2	45	0	1.1	0.0	1.1	\$111,400	\$31,790	\$79,610
Jones Flat	R	100%	0%	Till	1	9	25	0.4	0.3	0.7	\$120,000	\$15,000	\$105,000
Lehman Heights	R	100%	0%	Till	3	0	240	3.5	0.6	4.1	\$904,000	\$299,000	\$605,000
Lost Buck	R	100%	0%	Till	3	531	247	5.9	2.3	8.2	\$1,417,365	\$360,600	\$1,056,765
McKenny Flats	R	100%	0%	Till	1	139	249	4.7	1.4	6.1	\$1,139,275	\$191,910	\$947,365
NW Combo	R	100%	0%	Till	2	80	454	8.1	0.8	8.9	\$1,870,500	\$379,500	\$1,491,000
Peak Out	R	100%	0%	Till	1	0	119	0.3	1.2	1.5	\$255,050	\$74,587	\$180,463
Sharp Ridge	R	0%	100%	Till	4	63	0	2.0	0.0	2.0	\$265,867	\$54,505	\$211,362
Sheridan Butte	R	100%	0%	Till	4	0	426	4.1	0.9	5.0	\$1,115,750	\$365,690	\$750,060
Steam Donkey	R	100%	0%	Till	3	0	240	4.1	0.6	4.7	\$1,043,250	\$105,600	\$937,650
Tillison Ridge	R	100%	0%	Till	3	130	0	1.9	0.3	2.2	\$216,450	\$32,170	\$184,280
Total:						1,279	2,946	46.4	14.0	60.4	\$11,318,415	\$3,024,697	\$8,293,718

Alternate Operations

Downtown	R	100%	0%	Till		220	120	1.5	0.4	1.9	\$337,600	\$61,900	\$275,700
Fall Again	R	100%	0%	Till		0	120	0.30	1.0	1.3	\$260,400	\$26,000	\$234,400
West Mill	R	100%	0%	Till		0	224	2.7	0.5	3.2	\$720,600	\$187,720	\$532,880
Total						220	464	4.50	1.91	6.4	\$1,318,600	\$275,620	\$1,042,980

TIMBER HARVEST OPERATIONS - FOREST STRUCTURE SUMMARY

District: Tillamook Fiscal Year 2009 Date: Jun-08

Operation	Area	Net Acres			Stand Structure Development Pathway			Structural Components	Comments
		Clearcut	Partial Cut	Total	Current	Post-Harvest	Desired	Green Trees	
North Fork Nehalem									
Four Aces	1	0	104	104	CSC	UDS	GEN	na	
Hansen Falls	1	0	42	42	UDS	UDS	OFS	na	
	2	0	3	3	UDS	UDS	OFS	na	
Lower Nehalem									
Big 3 Jct.	1	20	65	85	UDS	UDS	38% GEN 62% LYR	na	
	2	84	0	84	UDS	REG	19% GEN 81% LYR	11	
	3	0	94	94	UDS	UDS	29% LYR 71% OFS	na	
	4	49	0	49	UDS	REG	14% LYR 86% OFS	11	
	5	0	0	0	UDS	UDS	LYR	na	15 acres no harvest
Lost Buck	1	0	167	167	CSC	UDS	10% GEN 90% LYR	na	
	2	0	148	148	CSC	UDS	1% GEN 99% LYR	na	
	3	0	125	125	CSC	UDS	52% GEN 48% OFS	na	
	4	76	0	76	CSC	REG	1% GEN 99% LYR	5	
	5	113	0	113	CSC	REG	GEN	5	
	6	58	0	58	CSC	REG	10% GEN 90% LYR	5	
	7	0	91	91	CSC	UDS	21% GEN 79% LYR	na	
McKenney Flats	1	106	0	106	CSC	REG	GEN	11	
	2	60	0	60	CSC	REG	GEN	11	
	3	83	0	83	CSC	REG	GEN	11	
	4	0	139	139	CSC	UDS	83% OFS 17% LYR	na	
Miami									
				0					
Sharp Ridge	1	0	63	63	LYR	LYR	10% LYR 90% OFS	na	

TIMBER HARVEST OPERATIONS - FOREST STRUCTURE SUMMARY

District: Tillamook Fiscal Year 2009 Date: Jun-08

Operation	Area	Net Acres			Stand Structure Development Pathway			Structural Components	Comments
		Clearcut	Partial Cut	Total	Current	Post-Harvest	Desired	Green Trees	
Kilchis									
Fitch Creek	1	113	0	113	CSC	REG	96% GEN 4% OFS	12	
	2	85	0	85	CSC	REG	99% GEN 1% OFS	12	
	3	38	0	38	CSC	REG	87% GEN 13% OFS	12	
	4	97	0	97	CSC	REG	99% GEN 1% LYR	12	
	5	68	0	68	CSC	REG	88% GEN 12% LYR	12	
	6	111	0	111	CSC	REG	99% GEN 1% LYR	12	
	7	22	0	22	CSC	REG	GEN	12	
Peak Out	1	119	0	119	UDS	REG	LYR	14	
Wilson									
				0					
Coast Ford	1	80	0	80	UDS	REG	97% OFS 3% GEN	12	
	2	116	0	116	CSC	REG	24% GEN 76% OFS	7	
	3	63	0	63	CSC	REG	46% GEN 54% OFS	7	
	4	0	19	19	CSC	UDS	GEN	na	
Jones Flat	1	3	0	3	CSC	UDS	LYR	na	
	2	2	0	2	CSC	REG	LYR	6	
	3	0	2	2	CSC	UDS	LYR	na	
	4	20	0	20	CSC	UDS	LYR	na	
	5	0	6	6	CSC	UDS	LYR	na	
	6	0	1	1	CSC	UDS	LYR	na	
Lehman Heights	1	120	0	120	CSC	REG	GEN	8	
	2	120	0	120	CSC	REG	LYR	8	
	3	0	0	0	CSC	UDS	LYR	na	183 acres no harvest
NW Combo	1	42	0	42	UDS	REG	OFS	15	
	2	110	0	110	UDS	REG	28% LYR	10	
	3	90	0	90	UDS	REG	72% OFS	10	
	4	112	0	112	UDS	REG	99% GEN 1% LYR	10	
	5	81	0	81	CSC	REG	OFS	10	
	6	0	80	80	CSC	UDS	OFS	na	
	7	19	0	19	CSC	REG	OFS	10	
Steam Donkey	1	120	0	120	UDS	REG	18% GEN 82% OFS	8	
	2	120	0	120	UDS	REG	OFS	8	
Tillison Ridge	1	0	65	65	UDS	UDS	LYR	na	
	2	0	35	35	UDS	UDS	LYR	na	
	3	0	30	30	CSC	UDS	OFS	na	
	4	0	0	0	OFS	OFS	LYR	na	12 acres no harvest

TIMBER HARVEST OPERATIONS - FOREST STRUCTURE SUMMARY

District: Tillamook Fiscal Year 2009 Date: Jun-08

Operation	Area	Net Acres			Stand Structure Development Pathway			Structural Components	Comments
		Clearcut	Partial Cut	Total	Current	Post-Harvest	Desired	Green Trees	
Trask									
Sheridan Butte	1	96	0	96	UDS	REG	GEN	12	located in GTR
	2	106	0	106	UDS	REG	GEN	12	located in GTR
	3	116	0	116	UDS	REG	GEN	12	located in GTR
	4	108	0	108	UDS	REG	GEN	12	located in GTR
Total		2946	1279	4225					

Reforestation and Young Stand Management Report

District: Tillamook

Fiscal Year: 2009

Date: June 2008

Management Activity	Board of Forestry			Common School Forest Lands			District	
	Acres Planned	Average Cost*/Acre	BOF Cost	Acres Planned	Average Cost*/Acre	CSL Cost	Total Acres	Total Cost
Initial Planting*	2,520	\$315.00	\$793,800.00	80	\$315.00	\$25,200.00	2,600	\$819,000.00
Interplanting*	350	\$250.00	\$87,500.00	50	\$250.00	\$12,500.00	400	\$100,000.00
Underplanting	0		\$0.00			\$0.00	0	\$0.00
Tree Protection-Barriers**	240	\$280.00	\$67,200.00	10	\$280.00	\$2,800.00	250	\$70,000.00
Tree Protection-Direct Control	5,000	\$65.00	\$325,000.00	300	\$65.00	\$19,500.00	5,300	\$344,500.00
Site Prep-Chemical- Aerial	2,520	\$70.00	\$176,400.00	80	\$70.00	\$5,600.00	2,600	\$182,000.00
Site Prep-Chemical- Hand	0		\$0.00			\$0.00	0	\$0.00
Site Prep -Slash Burning	0		\$0.00			\$0.00	0	\$0.00
Site Prep -Mechanical	0		\$0.00			\$0.00	0	\$0.00
Fertilization	0		\$0.00			\$0.00	0	\$0.00
Noxious weeds***	20		\$0.00			\$0.00	20	\$0.00
Release-Chemical- Aerial	0	\$60.00	\$0.00	80	\$60.00	\$4,800.00	80	\$4,800.00
Release,-Chemical-Hand	50	\$115.00	\$5,750.00		\$115.00	\$0.00	50	\$5,750.00
Release-Mechanical-Hand	350	\$115.00	\$40,250.00		\$115.00	\$0.00	350	\$40,250.00
Precommercial Thinning	400	\$200.00	\$80,000.00		\$200.00	\$0.00	400	\$80,000.00
Pruning	0		\$0.00			\$0.00	0	\$0.00
Other: Stocking Surveys		\$10.00	\$0.00		\$10.00	\$0.00	0	\$0.00
Totals	11,450	--	\$1,575,900.00	600	--	\$70,400.00	12,050	\$1,646,300.00

*Planting costs include all costs including seedlings

**Tree Protection-Barriers costs include all labor and material costs

***Noxious Weed work is being completed through cooperative agreement with Tillamook Estuary Partnership.

RECREATION MANAGEMENT SUMMARY

District: Tillamook

Fiscal Year: 2009

Date: June 2008

Operation	Unit of Measure	Current	Construction Projects	Construction Cost (Funding)		Improvement Projects	Improvement Cost (Funding)		Total Cost	Comments
				ODF	Other		ODF	Other		
Facilities										
Campsites	Sites	68				Storm Cleanup/general maintenance	\$ 3,500		\$3,500	
Desig.Disp.Campsites		50				Cleanup and Inventory	\$ 4,500		\$4,500	
Day Use Areas		7	Keenig Day Use	\$ 4,700		Storm Cleanup/general maintenance	\$ 2,500		\$7,200	
Trailheads		5							\$0	
Interpretive Sites		2	Double panel info board at Trask Park	\$ 4,200	\$2,500				\$6,700	
OHV staging areas	Sites	3				Loading ramps	\$ 3,000		\$3,000	
Trails										
Non-Motorized	Miles	12.8	Coal Cr.Trail+1bridge/Keenig-Muesial (1.5 miles)	\$ 14,800		12.8 miles maintenance/Storm cleanup	\$ 9,600		\$24,400	
Motorized	Miles	120				Trask/DiamondMill/Jordan (23miles trailwork)	\$ 16,795		\$16,795	

Total: \$66,095

SALMON ANCHOR HABITAT HARVEST SUMMARY

District: Tillamook

Fiscal Year: 2009

Date: June 2008

SAH Basin Name ³	Total Acres in Basin	Total Harvest (Partial Cut & Regeneration)				Regeneration			
		Allowable Percent ¹	Allowable Acres	Acres in AOP 09	Acres to Date ²	Allowable Percent ¹	Allowable Acres	Acres in AOP 09	Acres to Date ²
Ben Smith Creek	3,977	15	596	0	422	10	397		326
Cedar Creek	7,214	NA	--	184	1729	25	1,803	176	1,469
Coal Creek	1,052	NA	--	0	220	25	263	0	141
Cook Creek	18,862	NA	--	665	4087	25	4,715	249	1,323
E Fork S Fork Trask	15,627	NA	--	0	2734	25	3,906	0	2,135
Elkhorn ^{4, 5}	4,240	15	636	0	449	10	424	0	0
Foley Creek	4,403	15	660	0	231	10	440	0	176
Little N Fork Wilson	10,310	NA	--	5	1771	16	1,649	5	1,654
Miami	13,910	NA	--	59	1351	12	1,669	0	547
Middle Kilchis	14,155	15	2,123	122	610	10	1,415	119	568
S Fork Salmonberry ⁴	3,536	15	530	0	489	10	353	0	0

1. These columns list the regeneration and partial cut limits identified in the Salmon Anchor Habitat Strategy; not all basins have limits identified for partial cuts.
2. These columns summarize the operations planned and conducted during the period beginning July 1, 2001 through the current planned fiscal year. Does not include alternate sales
3. Basin Plans have been developed for Cedar, Coal, and Cook Creeks, and in the East Fork South Fork Trask, Little North Fork Wilson, and Miami Rivers.
4. These SAH basins fall in both the Forest Grove and Tillamook Districts. The "Total Acres in Basin" column in the table above are district specific acres. The total management within the shared basins are in alignment with the Salmon Anchor Habitat Strategies.
5. 75 acres of partial cut where in the Tillamook District but were part of the Forest Grove Sale Reimer Reason.