

# Memo

**To:** Andy White, NWOA Director

**From:** Kate Skinner, Tillamook District Forester

**CC:** Liz Dent, State Forest Division Chief  
Brian Pew, State Forest Deputy Division Chief  
Ron Zilli, Field Operations and Policy Manager

**Date:** June 27, 2016

**Re:** Information Item – Approved Annual Operations Plan for Fiscal Year 2017

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The 2017 State Forests Annual Operations Plan (AOP) for the Tillamook District is attached for your information. During my review of this plan, I have found that it conforms to the Oregon Forest Practices Act and is consistent with the Northwest Oregon State Forest Management Plan, the current District Implementation Plan, and the 2017 Annual Operations Planning Standards and Guidance memorandum. Consistent with the Divisions 2017 AOP guidance, the District included a number of alternate sales, which were subjected to the same process of review and public comment as the regular sales.

The AOP guidance directs the districts to target a harvest volume level (47 MMBF) consistent with the current Tillamook District Implementation Plan.

Other considerations for approving the 2017 AOP include ensuring that: Road management will provide efficient access and roads are being managed with water quality considerations in mind; Public Safety and Landslide reviews are conducted by the Geotechnical Specialist; Reforestation and young stand management activities and investments are aligned with FMP objectives and budget considerations; and that Recreation facilities and trails are managed and maintained for safety, positive experience and protecting other resources like water quality.

Partnerships with other organizations or agencies meet multiple objectives for the Division. During its preparation, this plan was reviewed by technical specialists from within the department and biologists from Oregon Department of Fish and Wildlife. Their written comments are included in Appendix 'C'. The draft Annual Operations Plan also underwent a 45-day public comment period. The public involvement process is summarized in Appendix 'D' and summarized changes since the Public Comment Draft.

Approval of this plan does not constitute final approval of individual project details. Individual operations and projects are subject to additional review processes at the District and Division staff level before implementation.

The planned amount and location of all management activities are based on the latest site-specific assessments and estimates of operational, T&E surveys and market variables. Management activity levels may be adjusted and modified to account for any significant changes to these variables. Modifications to these operations will conform to the process included in the Annual Operations Planning Directive. The alternate sales in this Annual Operations Plan may be used to replace the primary sales that cannot be completed as planned. Actual revenue realized from this AOP could change due to market fluctuations.

The official copy of this Annual Operations Plan will be on file at the district office. Additional copies are available at the State Forests Division office in Salem, and are also available on the ODF web site at:

<http://www.oregon.gov/ODF/Working/Pages/StateForests.aspx>

APPROVED:

  
Kate Skinner, Tillamook District Forester

6/30/16  
Date

# TILLAMOOK DISTRICT



## 2017 ANNUAL OPERATIONS PLAN

# TILLAMOOK DISTRICT

## 2017 ANNUAL OPERATIONS PLAN



### OVERVIEW

This plan describes the activities and outcomes that Oregonians can expect to see on the western side of the Tillamook State Forest for 2017. We welcome your comments, and will use them to improve this plan within the scope of the Department's authority, in alignment with the longer term overarching plans, and bounded by budgets and staff resources. The Tillamook State Forest is an actively managed forest, valued by many Oregonians for its mixture of environmental, economic, and social benefits. This plan supports this mixture and provides a balance of these benefits as required by Oregon Administrative Rule (OAR 629-035-0020). We strive to manage the forest sustainably, so that the benefits from the forest can be delivered into perpetuity. The forest harvesting is planned at a sustainable level; a level that our computer models suggest can be harvested year after year without reduction.

Forest habitat is expected to develop so the forest has a mixture of habitat types for all of Oregon's native wildlife. Recreational opportunities are diverse and high quality, allowing for off-highway vehicles, bicycling, hiking, hunting, horseback riding, and more, striving to minimize user and environmental conflicts in the context of a working forest.

Managing a large public forest has its challenges. Two-thirds of the revenues from state forest timber sales is distributed through local counties to taxing districts including schools, recreation districts, and rural fire departments. ODF uses the remaining third of the revenue to manage the forests and keep them healthy, through activities including fire protection, tree planting, thinning, research and monitoring, recreation services, road maintenance, and stream improvement. Financial constraints are currently limiting many activities and you will see this theme throughout the year's plan. We are striving to continue to provide the current opportunities, and are considering a few opportunities for change.

Every year in the Tillamook State Forest, we learn new things and find new challenges and opportunities. In preparing this plan, we have consulted with geotechnical specialists, wildlife biologists, fish biologists, aquatic specialists, engineers, adjacent landowners, and a variety of interest groups.

Over the next two months, ODF will request review and comments on our plan from others, including Tillamook County Commissioners, the Forest Trust Land Advisory Committee (representing the counties that deeded land to ODF), the State Forests Advisory Committee (SFAC - composed of Oregonians representing many interests), Oregon Department of Fish and Wildlife, the US Fish and Wildlife Service, motorized and non-motorized recreation users, hunters, fishermen, and wildlife advocates, as well as Oregonians in general.

During this time, we want to hear your feedback, suggested revisions. In addition, any *thank you* messages to staff and volunteers are welcomed and appreciated. Thanks in advance for your review and engagement.

## A short summary of activities planned for the coming year:

- Planting approximately 940,000 seedlings on 2,600 acres and conducting vegetation and animal management activities on an additional 2,250 acres to ensure the survival and growth of these plantations.
- Conduct individual surveys for northern spotted owls over more than 35,000 acres.
- Evaluate over 30 miles of streams to determine flow duration and approximately 2 miles for the presence of fish habitat.
- Protecting streams and water resources through a series of buffers and seasonal restrictions activities.
- Stream improvement projects: An initial screen suggests that 4 streams near planned harvest units in the Wilson and Trask basins could benefit from large wood additions to the stream system. These streams will be evaluated by ODFW Fish Biologist and/or ODF Aquatic Specialist for potential projects during sale layout.
- Habitat development projects such as creating snags, retaining green trees in clearcut areas, and leaving down wood, all for wildlife benefits in harvest areas and future forests.
- Maintaining a 1,089 mile road network that provides access to timber harvest as well as various recreational opportunities, forest patrol and protection.
- Improving and maintaining roads to ensure ditch water is dispersed and filtered as much as possible, keeping sediment from entering streams.
- Review District roads to develop plans to block or vacate roads not needed for the district transportation plan.
- Beginning the planning cycle to harvest approximately 47 million board feet of timber volume, through modified clearcut and partial cut harvest, generating gross revenue estimated at \$11.2 million. This harvest level is alignment with longer term plans and modeling to ensure it is sustainable and promotes the development of a mixture of habitat types across the landscape.
- Operating and maintaining the following developed facilities in a safe, clean, and responsible manner:
  - 3 fee campgrounds
  - 2 fee OHV campgrounds
  - 5 day use areas,
  - 1 highway wayside interpretive site
  - 3 trailhead facilities
  - 4 OHV staging areas
  - 89 designated dispersed campsites
- Providing a safe and clean environment for the myriad of dispersed activities that occur across the forest – hunting, camping, angling, sight-seeing, target shooting, swimming, mushroom picking, etc.
- Maintaining, managing, and patrolling the motorized and non-motorized trail networks, striving to protect the trail investments, provide for user safety, address developing trail issues, and protect water quality.
- Supporting the important volunteer network that assists in recreation management
- Supporting the pre-planned 20 organized motorized events and providing support for 1 non-motorized event.
- Providing a firewood cutting program and miscellaneous forest products permits (salal, mushrooms, etc.) as done in 2016.
- Supporting ongoing research on the district, in partnership with research cooperatives and universities.

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# TILLAMOOK DISTRICT

## 2017 ANNUAL OPERATIONS PLAN

### INTRODUCTION

This annual operations plan (AOP) outlines activities planned on state-owned forestland managed by the Tillamook District for Fiscal Year 2017 (FY17), which begins July 1, 2016 and ends June 30, 2017. 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*, and the *Tillamook District Implementation Plan (IP)*. Please refer to the district IP for more specific information on physical characteristics and other district resource information.

This AOP, as prepared, aligns with the proposed Implementation Plan major modification (Appendix F). This proposed modification requires a 30 day public comment period which will be held in conjunction with the Districts 2017 AOP public comment period. This AOP is also consistent with a proposed minor modification to the harvest acre ranges identified in the District Implementation Plan; this revision is described in Appendix G.

The AOP document is divided into five major categories: Integrated Forest Management; Planning and Information Systems; Public Information and Education; Administration and Appendices. A short summary of proposed activities are listed within this introduction.

The proposed harvest operations are planned to be designed, engineered, and submitted for processing during the FY17 time period. Actual on-the-ground operations will likely not occur during FY17 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 FY2017.

A 45-day public comment period runs from April 4, 2016 through May 18, 2016. The District Forester will consider the comments received during this period and make any changes or modifications that determined necessary, prior to approving the AOP. Appendix E, found in the final AOP, will outline the changes made after the public comment period.

Accomplishments of forest management activities that occurred under previous AOPs can be found in several reports, including the *State Forester's Annual Report for the Association of Oregon Counties*, the *Common School Forest Lands Annual Report*, and individual district annual reports (these reports also cover the accomplishments of the

Fire Protection and Private Forests Programs). These reports are available through the local district office or online.<sup>1</sup>

## 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 the Desired Future Condition and contribute revenue to the counties with the overall objective of **47 MMBF**.

In accordance with the guidance on the 2017 harvest levels<sup>2</sup>, the district has included 47.1 MMBF of timber harvest in this Annual Operations Plan (Table A-1).

The FY17 sale plan is estimated to generate gross revenues of approximately \$11,171,250 and net revenues of \$9,088,911. It is estimated that active management will result in producing approximately 44 million board feet of conifer volume, 3 million board feet of hardwood volume. In addition to the above revenue and volume, some sales are expected to have pulp removed from sale areas. 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 for more detail on volumes and values.

Table 1 compares the proposed acres by harvest type<sup>3</sup> in this AOP to the harvest acre ranges specified in the IP. Total planned acres in this AOP are 2,751 net acres (approximately 1.1% of the district's total acreage) which achieves the annual volume objective. Harvest activities in this AOP consist of 11% partial cuts and 89% regeneration harvest, by acres. The anticipated harvest acres, volume, and revenue for each proposed operation in this AOP are listed in the "Harvest Operations – Financial Summary" table in Appendix A-1, while a vicinity map of these harvest operations can be found in Appendix B.

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, other buffers and green tree retention areas.

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<sup>1</sup> The State Forests' individual district annual reports are available on the Oregon Dept. of Forestry website under "Publications." You can access here: <http://www.oregon.gov/ODF/Pages/Reports.aspx>

<sup>2</sup> Oregon State Forests Guidance 2017 Annual Operations Planning Guidance dated July 1, 2015.

<sup>3</sup> The definitions of the harvest types used to describe timber harvesting on State Forests can be found on the [State Forests website](#) under Forest Management and Planning. Briefly, a Modified Clearcut is the most common of three type of Regeneration Harvest (or clearcut) that may occur on State Forests. The defining characteristics of Modified Clearcuts are that they meet the structural component standards of the FMP (green tree, snag, and down wood).

The district has included one alternate timber sale (3 areas) and 10 alternate sale areas in this Annual Operations Plan for public review. These alternate operations may be used to replace regular sales that cannot be completed as planned. In order to make the sale layout and project work preparation process more efficient several sales have both primary and alternate sale areas. These sales are planned for the 3<sup>rd</sup> and 4<sup>th</sup> quarters and will be used to adjust any volume shortages or overruns that may be encountered in order to meet the 47 MMBF target. If the volume is under-running then alternate areas will be added as needed. If the volume is over-running then areas will be removed as needed.

Table 1. Annual Operations Plan objectives compared to annual objectives identified in the Tillamook District Implementation Plan. All values are acres, except for Volume.

Silvicultural Activity	IP Annual Objective*		2017 AOP Objective
	Low	High	
Partial Cut Harvest	850	3,450	315
Regeneration Harvest	800	3,150	2,436
Reforestation (Initial Planting)			1,600

\* See Appendix G regarding the modification to the IP harvest acre ranges.

The number of partial cut acres is below the minimum set in the Tillamook District IP for an acreage range for partial cut and will be addressed in a minor modification revision to the Tillamook District IP. See Appendix G for modification details.

Regeneration harvests can be used to realize volume growth from conifer and hardwood stands, or to improve forest health by harvesting Douglas-fir stands with severe impacts of Swiss needle cast (SNC), or to harvest stands with low growth either from poor stocking or overly dense stands with high stocking and poor live crown ratios. Each stand is evaluated on its current growth compared to anticipated growth, the benefits of density management (if available), and the Desired Future Condition (DFC) of the stand.

Growth analysis measurements have been taken on Douglas-fir stands across the district to evaluate the SNC impact on volume growth. This stand growth information has been used to evaluate the growth of the adjacent like stands and determine the appropriate harvest prescription.

Some smaller additional operations targeting infrastructure maintenance will also produce timber volume for the district may be included in this AOP. These sales will be less than \$100,000 in value and comply with all policies and plans.

## **Structural Habitat Components**

### 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 Pre-Operations Reports discuss specific strategies for each operation and harvest unit. A harvest unit includes the sale area(s) and the adjacent buffers and green tree retention areas, with unit boundaries extending to the streams.

The landscape goals will be evaluated by basins (5<sup>th</sup> field watershed) and sub-basins (6<sup>th</sup> field watershed – In the hydrologic unit hierarchy, this is the smallest delineation) across the district. Some of the harvests, treating slow-growth from SNC and off-site seed, are in stands of younger age classes and may require deferring snag and down wood creation in order to achieve the required size classes.

The timber sales in the 2017 AOP will be developed in alignment with Policy Bulletin SFB 13-02, “Improving Cost Efficient and Effective Implementation of State Forest Management Plans”, to create efficient harvest units. Leave trees for snags and green trees will be grouped in riparian areas in many sales as allowed by FMP strategies. Where stands have larger average diameters, snags will be created. The configuration of leave trees in other regeneration harvests within a sub-basin or drainage will be taken into consideration when determining the leave tree arrangement within a sale, with the intention of having various configurations of leave trees within a basin.

Down Wood will continue to be created through bucking practices, leaving felled snags in the unit and tops on ground yarding sides. The 2010 Implementation monitoring report shows the Tillamook District clearcuts average 700ft<sup>3</sup> of down wood in decay class 1 and 2 through normal cable harvesting operations and bucking practices.

## **Landscape Design**

The landscape design is a long term vision of the Desired Future Condition (DFC) for an array of stand structures across the district which will be achieved through a variety of silviculture prescriptions across diverse stands types.

The District’s vision for future development of complex and general stands on the landscape was revised in the 2009 Tillamook District Implementation Plan. The Landscape Design is composed of stands occupying 40% of the district and the stands are to be managed for DFC – Complex structure, either Layered (LYR) or Older Forest Structure (OFS).

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. Stands with a DFC of complex, which presently contain dominate trees and other structure that allows them to be managed to a complex structure will be managed in

that direction. These silvicultural prescriptions will generally be partial cuts, designed to increase the structural complexity of the existing stand. In areas where the present stand is unable to be managed toward complex structure in a timely manner (hardwood stand, SNC Douglas-fir stands, and very dense conifer stands) the stand will be harvested and a new mixed species stand established to create a future complex stand.

This AOP contains one primary sale, Red Buzzard, where part of a sale area contains an area with a DFC of LYR/ OFS and a prescription for modified clearcut. These sales are currently in a UDS structure and are primarily mixed hardwood and Douglas-fir stands, where the Douglas-fir has moderate SNC. After reviews by foresters and resource specialists, it was determined that a regeneration harvest would be the most effective management prescription to move the stand toward the designated DFC. A component of large Douglas-fir and other conifer species will be reserved, if they are present in the area being managed for complex structure and a new fully stocked mixed conifer stand will be established at these sites.

The development of the landscape design during implementation planning was generally conducted at stand level or higher using the best available information at the time, with the recognition that some minor changes will be necessary during operational planning.

This year the district is proposing a Major Modification to the Landscape Design of approximately 6,956 acres. This proposed modification requires a 30 day public comment period which will be held in conjunction with the Districts 2017 AOP public comment period. See Appendix F for more information.

## **Harvest Operations within Terrestrial Anchor Sites and Aquatic Anchor**

The Tillamook District implemented the State Forests' Species of Concern Strategies that specifically identifies fish and wildlife species of concern on the Tillamook State Forest. Two of these strategies are Terrestrial Anchor Sites (TAS) and Aquatic Anchor (AA) sites.

- Terrestrial Anchor Sites (TAS) are intended to benefit terrestrial wildlife species of concern, especially those associated with older forest or interior habitat conditions, sensitive to forest fragmentation, or do not readily disperse across younger forest conditions. Management within TAS is intended to be limited, to emulate natural small-scale disturbance patterns, and to minimize short-term negative impacts to complex habitat and to promote long-term improvements to habitat conditions through management. Management within TAS is also to move stands toward the attainment of complex structure more quickly than would occur without management. All areas that were designated as TAS were designated in areas where most of the stands were designated for the development of complex structure in the Landscape Design.

- Aquatic Anchor (AA) sites are watersheds where salmon and aquatic amphibian conservation is of concern. Riparian management strategies beyond those described in the FMP will be applied within AAs. In addition, areas designated for the development of complex structure in the Landscape Design are located around streams important to fish in most of the AA basins.

The Species of Concern Strategies provide long term goals for TAS and AA, with the management activities within those areas designed to achieve those goals. These strategies have not identified specific limits to the total area that can be harvested within these areas; however, the district and resource specialist will be tracking the harvest trends within these areas to ensure the harvest prescriptions and rate is consistent with the goals of these strategies.

Since the creation of the TAS in 2011 with the 2012 AOP, the Tillamook District has managed in the Ripple Creek TAS with the 2014 AOP. There are no sales planned in TASs for the 2017 AOP.

Table 3. Summary of Harvest Operation within TAS

Terrestrial Anchor Site (TAS)	Current AOP (FY 2017) Planned Harvest		Cumulative Harvest (FY 2012 AOP to Present)	
	Clearcut	Partial Cut	Clearcut	Partial Cut
Entire District (AOP) (252,345 acres)	2436	315	9513	2446
% of Acres	0.97%	0.13%	3.77%	0.97%
Bastard Creek (5,021 acres) % of Acres	0	0	0	0
Ripple Creek (3,831 acres) % of Acres	0	0	0	559
Miami (6,396 acres) % of Acres	0	0	0	14.6%
Hembre (2,981 acres) % of Acres	0	0	0	0
Boundary (2,138 acres) % of Acres	0	0	0	0
All TAS (20,367 acres)	0	0	0	559
% of Acres	0.0%	0.0%	0.0%	2.7%

The Aquatic Anchor (AA) strategies in the Species of Concern policy replaced the Salmon Anchor Habitat (SAH) basin strategy in the 2014 AOP. The harvest rate for each basin is shown below along with the harvest rate for the entire district (see Table 4). As a result of the deferral of operations in what was the SAH basins and now are the AA basins,

there are significant opportunities for harvest in these areas that will achieve multiple FMP goals. As timber sales are sold and harvested there will be acreage updates to the Cumulative Harvest column from the acres reported in the AOP to the actual acres harvested.

Table 4. Summary of Harvest Operations within AA (acres and percent)

<b>Aquatic Anchors (AA)</b>	<b>Current AOP (FY 2017) Planned Harvest</b>		<b>Cumulative Planned Harvest 2014 AOP to Present</b>	
	<b>Clearcut</b>	<b>Partial Cut</b>	<b>Clearcut</b>	<b>Partial Cut</b>
<b>Entire District (AOP)</b>	<b>2436</b>	<b>315</b>	<b>9513</b>	<b>2446</b>
(250,470 acres) % of Acres	0.97%	0.13%	3.77%	0.97%
<b>Ben Smith Creek</b>	<b>0</b>	<b>0</b>	<b>198</b>	<b>56</b>
(3,602 acres) % of Acres	0.00%	0.00%	5.50%	1.55%
<b>Cedar Creek</b>	<b>47</b>	<b>0</b>	<b>1026</b>	<b>0</b>
(7,214 acres) % of Acres	0.65%	0.00%	14.22%	0.00%
<b>Coal Creek</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
(1,237 acres) % of Acres	0.00%	0.00%	0.00%	0.00%
<b>Cook Creek</b>	<b>0</b>	<b>0</b>	<b>1225</b>	<b>249</b>
(18,286 acres) % of Acres	0.00%	0.00%	6.70%	1.36%
<b>East Fork S Fork Trask</b>	<b>371</b>	<b>315</b>	<b>1290</b>	<b>415</b>
(15,627 acres) % of Acres	2.37%	2.02%	8.25%	2.66%
<b>Elkhorn</b>	<b>0</b>	<b>0</b>	<b>330</b>	<b>0</b>
(3,860 acres) % of Acres	0.00%	0.00%	8.55%	0.00%
<b>Foley Creek</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
(4,403 acres) % of Acres	0.00%	0.00%	0.00%	0.00%
<b>Little N Fork Wilson</b>	<b>193</b>	<b>0</b>	<b>541</b>	<b>0</b>
(10,310 acres) % of Acres	1.87%	0.00%	5.25%	0.00%
<b>Miami</b>	<b>0</b>	<b>0</b>	<b>181</b>	<b>0</b>
(13,910 acres) % of Acres	0.00%	0.00%	1.30%	0.00%
<b>Middle Kilchis</b>	<b>0</b>	<b>0</b>	<b>313</b>	<b>0</b>
(14,155 acres) % of Acres	0.00%	0.00%	2.21%	0.00%
<b>S Fork Salmonberry</b>	<b>0</b>	<b>0</b>	<b>559</b>	<b>559</b>
(2,813 acres) % of Acres	0.00%	0.00%	19.87%	19.87%
<b>All Aquatic Anchors</b>	<b>611</b>	<b>315</b>	<b>5104</b>	<b>1410</b>
(95,417 acres) % of Acres	0.64%	0.33%	5.35%	1.48%

### Summary of Timber Harvest Operations by Basin

In the following section, the commercial forest management operations planned for FY17 will be summarized in the context of the 11 management basins on the Tillamook District. ODF and ODFW resource specialists reviewed the FY17 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 maps for more detail of each operation.

Table 5. Summary of Timber Harvest Operations in each basin. All values are in net acres.

Basin	2017 AOP	
	Partial Cut	Clearcut
N. Fork Nehalem	0	0
Lower Nehalem	0	1
Short Sands	0	0
Miami	0	0
Kilchis	0	0
Tillamook Bay	0	0
Wilson	0	1265
Tillamook River	0	0
Trask	315	1170
Nestucca	0	0
Little Nestucca	0	0

**North Fork Nehalem Basin**

There are no harvest operations planned in this basin for FY17.

Lower Nehalem Basin

**High Standards** - There is approximately 1 acre of this timber sale in the Lower Nehalem Basin. Please refer to the Wilson River Basin for information concerning this sale.

**Short Sands Basin**

There are no harvest operations planned in this basin for FY17.

Miami Basin

There are no harvest operations planned in this basin for FY17.

Kilchis Basin

There are no harvest operations planned in this basin for FY17.

Tillamook Bay Basin

There are no harvest operations planned in this basin for FY17.

## Wilson River Basin

**High Standards** (Primary/Alternate) –This sale consists of two primary sale areas (Unit 604 and 700) that total 218 acres and two alternate sale areas (Unit 600 and 601) that total 198 acres of modified clearcut. Approximately 1 acres is in the Lower Nehalem River Basin and the remaining area is located in the Wilson River Basin. All of the stands are approximately 55 year old Douglas-fir, with minor components of red alder, western hemlock, and noble fir. Large portions of this sale were commercially thinned between 2001 and 2003 (West Standard). The DFC for all of the sale units is GEN.

A review of historic maps indicate that there was a trail, trail shelter, and cabins in the vicinity of this operation. During sale layout, foresters will conduct a specific search for potential artifacts.

According to the Oregon Biodiversity Information Center database, Saddle Mt. Saxifrage (*Saxifraga Hitchcockiana*) was observed in 1978 in the vicinity of the sale area. Habitat for this species includes “grassy balds,” thin rocky soils, rock crevices and ledges on mountain tops and ridges. As such, it is unlikely that any (potential) habitat will be disturbed as there is likely no merchantable timber in these areas (i.e. no harvest area). This species is listed as a federal species of concern and a candidate for state listing but is not currently listed as threatened or endangered (state or federal) so no additional protection is required.

There are no designated OHV trails in this sale area. District layers show a non-designated motorcycle trail along the western portion of Units 600 and 604. OHV specialists will be involved with rerouting or protecting these trails.

**Odin’s Blade** (Primary) – This is a primary sale which has six areas that total 540 acres of modified clearcut. The sale is approximately 55 year old Douglas-fir with scattered red alder. Portions of Units 595, 667, and 669 were thinned between 2000 and 2001 with the “Elk Wallow Thin” commercial thinning operation. Units 122, 483, and 722 have had no previous harvest activities. Much of this sale is suffering from poor crown ratios and low stocking. The prescription of modified clearcut will produce volume and establish a healthy mixed conifer stand in these areas.

The majority of the sale is in GEN stewardship and will be managed in the future with an emphasis on high quality merchantable timber production. Approximately 15 acres of Unit 722 adjacent to the riparian areas are designated as Layered (LYR) for the Desired Future Condition (DFC). The current stand is a simple Douglas-fir and red alder stand that is showing symptoms of SNC and cannot be managed into a layered condition. The portion of this stands that has a DFC of LYR will be changed to DFC to GEN which will better align the DFC boundary to coincide with the riparian buffer and move the LYR to a more suitable location.

A review of historic maps indicate that there were two houses, two cabins, and two trails in the vicinity of this operation. During sale layout, foresters will conduct a specific search for potential artifacts from this activity.

Unit 722 is located in the Cedar Creek Aquatic Anchor. All streams have been verified for perennial/seasonal locations on July 2015.

All the sale areas contain some portion of OHV use. The District OHV specialist will be consulted prior to sale prep to establish which trails will be rerouted and which will be protected.

**Red Buzzard** (Primary) – This is a primary sale that consists of three sale areas totaling 315 acres of modified clearcut. The stands in this sale are predominately 65 year old Douglas-fir with a component of red alder. All of Unit 674 and the top 1/3 to 1/2 of the slopes in Units 10 and 676 were thinned in 2002.

All of Unit 674 and a small portion of Unit 10 have a DFC designation of GEN. The remaining portion of Unit 10 and all of Unit 676 currently have a mixture of OFS/LYR desired future condition. Due to the current stand composition of Douglas-fir and alder the portion of these stands that are mapped as OFS will be changed to a DFC of LYR. These areas will be exchanged for areas that are currently have a DFC of LYR and the current stand will be able to move into an OFS condition. The vision for these stands are to establish a healthy, multi-species conifer stand that will contain the necessary components to eventually develop into a layered forest structure. Legacy structures retained will be present.

This area has a high level of OHV usage. Several trails will either be rerouted or turned into roads. Tillamook OHV specialist will be involved to help with these decisions.

**Knot Berry** (Primary) – This is a primary sale that consists of two areas totaling 193 acres of modified clearcut. These stands are 52 years old and the majority have not been previously managed. Growth ring samples show that these stands have minimal growth in the last 5 years.

The majority of the stands have a DFC designation of GEN. Small portions of Units 673 and 627 have a DFC of LYR (15 acres) or OFS (1 acre), that are located adjacent to the riparian areas and are made of simple Douglas-Fir and red alder and that cannot be managed into a complex condition. The vision for the portion of these stands that have a DFC of LYR/OFS is to change this DFC to GEN which will better align the DFC boundary to coincide with the riparian buffer and move the DFC LYR to a more suitable location.

The database shows Queen-of-the-forest could be in the area. Queen-of-the-Forest is usually found in riparian areas, especially shaded moist stream banks and NW FMP buffers will incorporate most if not all of the plant's habitat.

Both sale areas are in the Little North Fork Wilson Aquatic Anchor.

**Power Range** (Alternate) – This sale is an alternate sale that consists of three areas of modified clearcut totaling 196 acres. The stands in this timber sale are between 55 and 65 years old, consisting of primarily red alder mixed with minor components of Douglas-fir, western hemlock, and Sitka spruce. These stands were planted after the Saddle Mountain Fire and have not been managed since. Most of the red alder in these areas is healthy and vigorous, only 31 acres in Unit 512 were sprayed during the 1970's alder spray project.

All of the areas in this timber sale are GEN for DFC. The vision for this sale is to establish a multi-species conifer stand. The future conifer stand will provide a multitude of benefits including timber production for future generations. Legacy structures will be preserved where operationally feasible.

Property lines and deed restrictions surround this timber sale. No surveys should be needed to establish these lines. Portions of all three areas are in the ODF visual classification of 1, due to the proximity to HWY 6. In-unit buffers and deed restricted land will mitigate the visual concerns surrounding this sale.

The database shows Queen-of-the-forest could be in the area. Queen-of-the-Forest is usually found in riparian areas, especially shaded moist stream banks and NW FMP buffers will incorporate most if not all of the plant's habitat.

### Tillamook River Basin

There are no harvest operations planned in this basin for FY17.

### Trask Basin

**Brimstone** (Primary/Alternate) – This sale consists of two primary areas (228 acres) and two alternate areas (96 acres) of modified clearcut. Primary Units 548 and 701 are almost 50 years old and alternates Units 731 and 572 are 35 years old. Units 548 and 701 are primarily Douglas-fir stands (site index of 120) with mixed hardwoods. These areas were commercially thinned in 2003 and are ready for a final harvest. Units 731 and 572 are primarily Douglas-fir and are being harvested due to their severe symptoms of Swiss Needle Cast. These areas have very poor needle retention and slow growth. They were both pre-commercially thinned in 1997, but this has had little effect on their growth.

The vision is to replant with a mixed species of conifer. All of these areas have a DFC of GEN.

Access into this sale will be relatively simple and require very little new construction. Large portions of Units 548 and 701 will be ground yarded.. OHV usage is high in and around this timber sale. Tillamook's OHV specialist will be consulted during sale prep.

Tillamook GIS layers indicate that Frigid shootingstar (*Dodecatheon austrofrigidum*) has been observed within 300-400 feet to the east of Unit 731. Presence of this species is anticipated to occur only in riparian areas, if at all, so standard riparian buffers should protect any likely habitat.

**Doghouse** (Primary/Alternate) – Doghouse contains six primary areas (Units 38, 333, 634, 638, 640, and 646) that total 571 acres of modified clearcut and two alternate areas (Units 643 and 682) that total 172 acres of modified clearcut. These sale areas range in age from 47 to 61 years old. The stands that are being harvested with this sale are dominated by Douglas-fir and have minor components of red alder. Most of the areas were thinned in 2002. These stands are relatively open and have medium sized diameters at breast height (15-19"). There are small pockets of *Phellinus* in the area and some evidence of Swiss Needle Cast.

These areas are all currently in the understory development stage and have a DFC of GEN. These stands are very homogenous. They will be replaced with a mixed conifer stand to promote diversity in the area. This stand and future stands in these areas will provide multiple benefits, with an emphasis on timber production. Legacy structures will be retained to promote a diverse landscape.

Units 38, 634, 638, and 646 fall within the East Fork of the South Fork Trask River Aquatic Anchor.

A review of historic maps indicate that there was a toll road in the vicinity of this operation. During sale layout, foresters will conduct a specific search for potential artifacts from this activity.

This area has a high level of OHV usage. Several trails will either be rerouted or turned into roads. Tillamook OHV specialist will be involved to help with these decisions.

**Little Bumps** (Primary) – This is a primary sale that consists of one modified clearcut sale area (Unit 590) totaling 73 acres. This sale area is located between Spur 26 and Pothole Road in the Trask River Basin. This sale is within the East Fork of the South Fork Trask Aquatic Anchor.

Unit 590 is made up of 55 year old Douglas-fir and red alder. This stand was commercial thinning in 2001, and is fairly dense. The DFC of this area is General Stewardship. This modified clearcut will be reforested with a new mixed conifer stand.

Access to Unit 590 will be from Pothole road, and two new spurs on the east side of the unit that will be built with the sale.

This sale area will be used for scientific research. The ODF aquatic specialist and other scientists will study the effects of this harvest on the fish bearing “Pothole” creek. This study will utilize information collected during the Trask Watershed Study. (See Aquatic and Riparian Resources)

**Rocky Road** (Primary/Alternate) – This sale consists of six primary areas that include 315 acres of partial cut (Units 574, 575, and 582) and 298 acres of modified clearcut (Units 573, 577, and 578). This sale also includes four alternate areas that includes 186 acres of partial cut (Units 586 and 588) and 170 acres of modified clearcut (Units 585 and 587).

All the stands in this sale are very homogenous, 45 year old Douglas-fir with scattered red alder. All areas are in the DFC of GEN except for primary Unit 578. Unit 578 has approximately five acres of LYR designation. These five acres will be changed to GEN in exchange for seven acres in a more suitable location that will promote to LYR more quickly.

This sale will require a 5.5 miles of new construction in order to access both current and future harvest units. Most of these new roads will be rocked and kept on the landscape for young stand management and the next rotation of harvest activities.

All the areas in this timber sale are in the East Fork of the South Fork Trask River Aquatic Anchor. Sale layout foresters have been instructed to consult with planning foresters and the ODF Riparian Specialist for wood placement opportunities. Headquarters Camp Creek has been identified as a possible wood placement project, but can only be completed if the culvert at the junction of Headquarters Camp Creek and Stretch Creek has been replaced. The current condition of this culvert is not conducive to wood placement projects above it.

This area has a high level of designated and non-designated OHV usage. Several trails will either be rerouted or turned into roads. Tillamook OHV specialist will be involved to help with these decisions.

A review of historic maps indicate that there was a cabin, donkey stack, and camp in the vicinity of this operation. During sale layout, foresters will conduct a specific search for potential artifacts.

### North Fork Nehalem Basin

There are no harvest operations planned in this basin for FY17.

## Forest Roads Management

### **Overview**

The Tillamook District road system consists of approximately 1,015 miles of rocked roads, 74 miles of unsurfaced spur roads, and 292 miles of blocked roads in a self-maintaining state.

Roads constructed and improved in this AOP will provide access for silvicultural activities, recreation users, and fire protection. Guidance for Level III Transportation Plans developed under this AOP will include the ODF *Forest Roads Manual (July 2000)* and *the Northwest Oregon State Forests Management Plan (April 2010)*.

The FY 2017 AOP includes approximately 15 miles of new road construction or and abandoned road reconstruction and 38 miles of road improvement. Refer to summary tables in Appendix A (Table A-4, Forest Roads Summary) for more information.

A majority of the 2017 AOP timber sales will occur in the upper Wilson and Trask River Basins. Stockpiles in the Wilson basin will continue to be replenished to allow for adequate road maintenance rock. The North Fork of the West Fork Road, Firebreak 8, Toll Road, and East Fork Trask Road will be targeted for alignment improvements and rocking. Also, the Odin's Blade timber sales will explore new rock source opportunities in the North Fork of the Wilson River basin.

## **Road Construction**

The majority of roadwork in this AOP is new road construction. Approximately 15 miles of new roads will be constructed or re-constructed. Most new construction roads are classified as spur roads. These roads are often short terminal roads to access ridge tops and facilitate harvesting operations. Road construction on steep slopes or through high landslide hazard locations will be reviewed by the Area Geotechnical Specialist. Roads will be designed to the minimum width necessary to accommodate the planned management activity. Improvement of abandoned roads from the Tillamook Burn salvage operations will be considered new construction when there are trees larger than 5 inches in diameter growing in the road bed.

## **Road Improvement**

Road improvement may consist of road surfacing, road widening, side cast pullback, and drainage structures upgrades. Road improvement on the Tillamook District includes approximately 38 miles of improvement of existing roads and improvement of abandoned roads. Existing roads have been improved and maintained over the years through timber sales or the district road crew. Work on abandoned roads from the Tillamook Burn salvage operations will be considered road improvement when a defined roadbed is present and overgrown with 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.

All roads are reviewed during sale reconnaissance and preparation for road drainage upgrades. Work for drainage structure improvements are added to contract requirements and appraisals. This work might include measurements for larger culverts, replacing failing

culverts or adding culverts (cross drains) to the road to disconnect ditch water from entering live streams. The cross drains will direct water onto the forest floor away from live streams. Where cross drains cannot be installed due to landslide hazards, unstable slopes, or rocky cutbanks settling ponds are utilized or outsloped roads with ditch-outs to move water off road surface.

### **Road Blocking and Vacating**

Unsurfaced roads will be waterbarred during wet season and will be reviewed for blocking or vacating at the end of the sale. Road blocking will be accomplished by pulling culverts, waterbarring, blocking access, and leaving the road in a self-maintaining state. Road vacating will remove culverts, provide dispersed drainage, lessen erosion potential, and remove unstable sidecast. The *Forest Roads Manual* guidance for road vacating will be followed for this work. Abandoned roads from the Tillamook Burn salvage operations in the vicinity of timber sales will be evaluated for road vacating.

### **Road Access Management**

At the end of timber sales, all roads will be re-evaluated to ensure alignment with district's overall transportation system needs for future sales, reforestation and young stand management, resource considerations, and other use such as firefighting. Roads may be retained, blocked, or vacated based on this evaluation. Road may be left open for a longer period of time to provide access for tree planting operations. After a plantation is free to grow, roads may be closed by the district road crew or through timber sale project work.

### **North Coast Travel Management Area**

The North Coast Travel Management Area (TMA) on the Tillamook State Forest is located on the north end of the forest in the God's Valley area. The TMA regulates vehicle travel on spur roads during archery and the general deer and elk seasons to provide "walk in" hunting opportunities, increase bull/buck escapement, and reduce road damage. Sign maintenance and public contact in the TMA is performed by volunteer and district staff. Enforcement of the TMA is provided by Oregon State Police and County Deputies on a limited basis. Maps of TMA areas are available at ODF and ODFW offices. Tillamook District has partnered with Oregon Department of Fish and Wildlife on this project since 2002.

### **Oregon Hunters Association Gate Program**

Every September through November, during hunting season, road closures occur in the Trask and Wilson basins to provide the public with "walk-in" hunting and help with bull/buck escapement. The program uses locked metal gates to restrict vehicle access to selected spur road systems from September 1<sup>st</sup> through November 30<sup>th</sup> each year. Gates locations are reviewed each year and moved to new locations as harvest units grow up and are able to provide cover. ODF has partnered with the Oregon Hunters Association (Tillamook Chapter) and ODFW to implement the OHA Gate Program since 2005.

## **Road Maintenance**

Timber sale purchasers maintain timber sale access roads and haul routes. The Tillamook District Road Crew maintains roads not covered under timber sale contracts. 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 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, riprap, dissipaters, sediment fencing, straw bales, bio-bags, sediment ponds and bio-filtration swales will be maintained or repaired as necessary to ensure their proper function.

Roadside vegetation will be controlled manually, mechanically or chemically where necessary. The method used will depend on the characteristics of the vegetation and its location. The district anticipates chemically treating 150 miles of roadside vegetation to remove brush and retain grasses. Roadside brushing will be included in timber sale project work where vegetation is too large for effective chemical control.

## **Storm Damage**

The district transportation system sustained major damage in the Wilson, Kilchis, Miami, and Nehalem drainages from a storm system in early December 2015. Many main roads had area flooding, debris blockages, and debris flow impacts.

On February 17, 2016 the storm was declared a disaster and federal disaster aid was made available to supplement local recovery efforts. In fiscal year 2017 the district road crew will continue to work on debris removal and road repairs associated with the storm damage and some work will be completed by timber sale contract modifications. Cook Creek Road and West Fork Road washed out during the storm and will remain closed while repair or rerouting alternatives are being developed.

## **Land Surveying**

As needed the District will re-witness, maintain, and restore property corners and survey property lines. Surveying work will be accomplished through service contracts with licensed professional land surveyors. No survey work is anticipated for 2017. Opportunities for cost share surveys and boundary agreements with adjoining federal and private landowners will be pursued where the state will have a current or future need.

## Young Stand Management

A range of silvicultural tools will be employed to achieve the long-term goals of structure-based management and integrated resource management as outlined in the Forest Management Plan. The district's strategy is to use silvicultural tools – aligned with the current restricted budget, to establish and maintain diverse stands of well-adapted natural species throughout the landscape to meet these goals. These tools include site preparation, planting, animal damage control, vegetation management, tree protection, and pre-commercial thinning. Majority of the tools listed above are completed with contract labor. South Fork work camp provides annual production estimates to the district so additional labor can be scheduled and completed by contractors.

The types and anticipated amounts of reforestation and stand management activities that will occur in FY17 are described below and shown in the Young Stand Management Table (Appendix A, Table A-5). The location and amount (acres) of these activities are estimates based on plans, information and conditions as known at this point in time. The type, amount, and specific stand management prescriptions will be further adjusted based on when existing sold harvest units are completed and on updated assessments and surveys that will occur during and after the 2016 growing season. Current budget constraints limit young stand management mostly to those activities that are essential to the establishment of new stands.

The district will also conduct stocking and survival surveys in young stands and plantations on approximately 11,000 acres using both district staff and contractors. The surveys are used to determine stocking levels, needs for tree planting, release or pre-commercial thinning. Low-level photo flights in late summer are also used to evaluate upcoming planting units.

### **Site Preparation**

Prescribed Fire (Slash Burning): All burning on the Tillamook District is within accordance to the State Forest Prescribed Burn Policy in order to ensure the safety of employees engaged in burn activities; minimize risk for the Department, its assets, and adjacent landowners; protect environmental resources; and provide a “realistic” scenario for conducting annual fire crew training.

As part of the Northwest Oregon Forest Protection Association, the Tillamook District is using prescribed burns to burn large landing piles in the fall, which helps reduce fuel loading and down slope hazards, and to open ground for planting. There are no broadcast burns planned for FY 2017.

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

1,600 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 436 trees per acre on all clearcut areas, both modified clearcuts and retention cuts. Initial plant species will consist of western hemlock, 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 1,600 acres of initial planting (over 700,000 seedlings) using contract crews.

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 200 trees per acre and the State Forest Division goal of establishment and maintenance of healthy, well stocked stands. The current estimate is 1000 acres of inter planting (over 240,000 seedlings) using contract crews. Actual plans will be made after stocking surveys in the fall.

Natural Regeneration: Units or portions of units will be assessed prior to planting. Natural regeneration will be considered primarily in western hemlock stands that have been salvaged from wind storms, where small gaps and holes less than 2 acres have been created in partial cut units, and on in unit rock outcrops or cliffs. Natural regeneration of red alder, Sitka spruce and other minor species is used to provide diversity in all harvest units.

## **Vegetation Management**

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

Manual (Chainsaw slashing): The current estimate is 400 acres. The actual plan will be developed in early spring when brush is more developed and actual needs can be assessed. South Fork work camp will be responsible for accomplishing these acres.

Chemical (Hack & Squirt): The current estimate is 300 acres. The actual plan will be developed in late spring or early summer when competing Red Alder is more developed and actual needs can be assessed. South Fork work camp will be responsible for accomplishing these acres.

## **Tree Protection**

The objective is to reduce browse by elk, deer, and rodents allowing trees to attain full height growth potential.

Bud Caps: The current estimate is 2,500 acres. Bud caps are planned to be installed on Douglas-fir seedlings in 0-2 year old plantations. These will be installed on areas of known heavy browse pressure. South Fork work camp will be responsible for accomplishing this work.

Direct Control: Trapping mountain beaver prior to planting a harvest unit significantly reduces damage from these animals. The current estimate for trapping in FY17 is 2,250 acres. South Fork work camp will be responsible for trapping 250 acres.

Controlled Hunts: The district continues to experience heavy elk browse on many of the plantations, at significant cost and loss of growth. ODF will continue to do outreach to successful controlled hunt applicants in hopes of directing hunters to plantations where heavy elk browse has occurred. The goal of these hunts is to reduce damage to seedlings and move the large herds out of the new plantations during the critical winter months, with an additional benefit of providing some additional hunting opportunities to the hunting community.

## **Pre-commercial Thinning**

None Planned

## Recreation Management

### **Overview of Recreation Management**

Recreation use includes hunting, fishing, target shooting, OHV riding, mountain biking, hiking, equestrian use, mineral collection, and sight-seeing. River access for day use, white water kayaking and white water canoeing continues to grow while anglers increasingly use walk-in access for remote bank fishing opportunities. Anglers also launch drift boats and pontoon boats from developed sites like Stones Road Boat Ramp, Peninsula, or other Oregon Department of Fish and Wildlife boat ramps. Use levels for all activities continue to increase while resources and budget remain flat.

At present the district manages 3 fee campgrounds, 4 OHV staging areas 2 of which charge for overnight use, 6 day-use sites, 89 designated dispersed sites, 20.1 miles of non-motorized trail, 326 miles of designated OHV trails, plus multiple rustic trailhead facilities that provide access to motorized and non-motorized trail network.

Currently direction for management is directed by the State Forest Division Bulletin, *“Near Term Direction for Recreation Management and Investment on State Forests”*, September 2011. The recreation management activities planned for FY 2017 are based on a flat budget consistent with 2016 levels. Tillamook District will work to protect the existing infrastructure, provide for public safety and sanitation, and mitigate damage to natural resources while facing the challenge of increased visitation levels.

ODF continues to receive All Terrain Vehicle (ATV) fund dollars administered by Oregon State Parks because of legislative action on a biennial basis. The purpose of the fund transfer is to assist ODF with the management of the off highway vehicle programs on the Clatsop and Tillamook State Forests. On the Tillamook District, the Oregon State Parks ATV funds support 1 NRS1 OHV Coordinator and associated Service and Supply such as vehicle costs, the ST240 Single Track Trail machine, trail maintenance, staging facility maintenance, and OHV event administration.

### **Recreation Planned Activities**

FY 2017 planned work includes:

- Review FY 2018 proposed timber sale shape and provide comments and recommendations to avoid or mitigate impacts on recreation trails and facilities.
- Participation in the ODF Volunteer Program Update, updating the agency’s Volunteer Directive, volunteer manual, and all volunteer forms to provide consistency agency wide.
- Develop educational handouts to advise and educate forest recreation users on the new recreation OAR’s and positive ways to participate in forest activities without causing resource damage.
- Upon Board of Forestry approval, implement new fee structure in campgrounds and designated dispersed sites.
- Due to recent flood events, formulate a plan to address blocked access to recreation areas and facility damage: Facility Damage: C Loop Road in Jones Creek Campground, Footbridge Trailhead, Wilson River Trail, Deer Fence Trail, Outback Trail, Mongos Trail and Jordan Creek Trail.
- Development of OHV trail plan for Diamond Mill OHV Area.
- Explore the expansion of the Trail Patrol volunteer program.

- Work with community members and the BLM on the planning of non-motorized trails for hiking and mountain biking on Tillamook Ridge. Work with local volunteers to develop a non-motorized mountain bike/hiking trail on ODF land in Tillamook Ridge area.
- Work with the Tillamook Forest Center on updating the Tillamook State Forest Recreation Guide and the Recreation Map.
- Complete site planning for rehabilitation of damaged dispersed sites on Nehalem River Corridor between Nehalem Falls and Morrison Eddy.
- Coordinating with the Oregon Hunter Association on projects that include regular mowing of the field at Smith Homestead and the Nehalem Guard Station.

## **Grants**

Recreation is planning to apply for the following grants in FY 2017 to support Recreation Operations.

- Apply for a Yamaha and ATV Grant for a double vault toilet at Cedar Creek OHV Staging Area.
- Work with Invasive Species Specialist to draft an Oregon Weed Advisory Board grant for signing, education materials and enforcement of weed free feed rules.
- Apply for a Land & Water Conservation Development Fund Grant for vault toilets at Jones Creek Campground and Jones Creek Day Use Area. An additional vault toilet is needed at each location due to increased visitation.

## **Facilities (Campgrounds, Day Use Areas, Trailheads, etc.)**

### Facilities Improvements

Diamond OHV Campground & Staging Area

- Update signage and maps to reflect new locations of parking, loading blocks and kids' learner loop.
- Install gate and information board on the Diamond Mill OHV Staging Area access road.

### Facilities Maintenance

Regular facility maintenance includes protecting assets, infrastructure, and providing for and sanitation. Activities include fence repair, sign replacement, fire grate and picnic table repairs, painting, wood preservation, janitorial work, graffiti and moss removal, dust abatement, trash pickup, septic pumping, hazard tree removal, parking lot gravel, and updating information boards.

All facilities, sites, and trailheads will receive some level of maintenance throughout the year.

### **Designated Dispersed Camping Sites**

The district has 89 designated dispersed campsites. Designated sites are signed and have a metal fire grate for campfires. Campfires are allowed during fire season in designated sites only.

The following is work to be completed in designated dispersed sites FY 2017.

- Complete site planning for rehabilitation of damaged dispersed sites on Nehalem River Corridor between Nehalem Falls and Morrison Eddy. The district will work to manage the anticipated user-created sites since the Cook Creek dispersed sites are inaccessible. Some existing sites may be improved to provide fire-safe camp sites. Installation of fee stations and fee boxes in conjunction with the new OAR's and fee increases.

Dispersed Site Closure/Modification (work to be accomplished utilizing a combination of private contractor, road crew, and timber sale project work)

- Convert North Fork Trask site #2 into day use area
- West Muesial – close
- Cable Hole – close
- Crawdad Hole (North Fork Trask rock pit) – close road access

### **OHV Trail Inventory**

In FY 2017 the Trask trail inventory will be updated and trail signing will begin to prepare for publication on trail maps at a later date. Additional inventory will be conducted as needed and as time and priorities allow on trails that have been re-routed and user created trails that have been reported by staff.

### **Trails (Non-Motorized and Motorized)**

Through FY 2017, the Tillamook District will maintain designated motorized and non-motorized trails to the highest standard possible. In addition to regular maintenance,

winter storm events cause damage that requires more extensive trail repair including bridge damage, slides, slumps, sloughs, and large tree blow down.

Equestrian use of the Wilson River trail will continue to be accommodated on a seasonal basis from July 1 to September 30 from Jones Creek Trailhead to Elk Creek Campground. The equestrian staging area will be open and users will be responsible for providing water for their stock and packing out manure.

### Non-Motorized Trail Maintenance

The district will seek to maintain 20.1 miles of non-motorized trails in FY 2017. Annual trail work includes bridge inspection, brushing, grade repair, and removal of wind throw. Trail maintenance may be accomplished through a variety of resources including volunteers, and South Fork inmate crews depending on staffing and availability.

### Non-Motorized Trail Improvement Projects

- Bridge Creek Falls Trail will be upgraded with the installation of retaining walls, drainage features and gravel to harden the trail tread.
- Installation of a new information board at the Cedar Butte Trailhead.
- Repair of storm damage from the December 2015 flood event.

### Motorized Trails Maintenance

For FY 2017 the priority will remain on

- Designated trail maintenance
- Natural resource protection
- Bridge maintenance
- Trail signing (focus on ODF or volunteer improved trails in Trask Basin)

Work may include rocking, rolling grade reversals, bridge repair, bridge construction and culvert installation. Seasonal closure of specific trails is may be necessary to preserve the sustainability of the trail during the wet season. Temporary closure of trails will occur due to forest operations and timber sales. These closures are for the safety of the recreating public. For trail or road closure information refer to the Tillamook District website.

### Motorized Trail Reconstruction

Motorized trail construction in FY 2017 on the Tillamook District will be limited to re-routes and repairs needed to mitigate resource problems or public safety issues. Trail re-routes in FY 2017 will include the following trails.

- Outback Trail – reroute
- Steampot Trail – reroute

- Cedar Ridge Trail – reroute
- Additional re-routes will be completed as timber sale activities are concluded

Below are few examples of why re-routes may occur:

- address erosion where heavy use has created trenching in the trail tread
- create more curves to trails to reduce speeds and increase rider safety
- move use away from main roads to reduce conflicts between riders and vehicles
- address resource impacts

### Motorized Trail Improvement Projects

- Mongo’s Bridge - bridge repair to add riprap to the bridge footings
- OHV parking area improvements at Ginger Creek Road and Jordan Creek Road at Highway 6.

### **Hunting and Fishing**

Tillamook District is within the Trask and Wilson Wildlife Management Units for hunting opportunities. The main activity is deer and elk hunting with both rifle and bow. Other hunting occurs for upland game bird (grouse and quail), bear, cougar, bobcat, furbearers, and predators such as coyotes, and rabbits. The Recreation Unit will continue to monitor hunt camps and impacts to popular hunting areas. In 2014 and 2015, hunts were limited in the Trask Unit pushing many hunters into the Wilson Unit. This had a large impact on the number of users in the Cook Creek area. In 2016, antlerless hunts will be curtailed in the Wilson and Saddle Mountain Units. This may reduce hunting pressure in these units.

The Tillamook District will partner with OHA on seasonal gate closures. See the Forest Roads and Access Management sections for more information on Travel Management Areas and Gate Closures (walk-in opportunities).

Angling is also very popular on the large rivers such as Wilson, Trask, Nehalem, and Kilchis. Angling for fall and spring Chinook, winter and summer steelhead, Coho salmon, chum salmon, and coastal cutthroat trout occurs in all river basins. Rainbow trout are found in mountain lakes.

The forest provides many opportunities for fishing at both walk-in areas as well as to drive to popular sites. The work in this AOP will focus on mitigating impacts to the Wilson River from steep, raveling, user created trails.

## **Other Management Activities**

### Special Use Permit Administration

The Tillamook District Recreation Unit will process and administer permits for recreation related special uses of State Forest Lands. Special uses include commercial and non-commercial activities such as guide services, filming for advertisements, and trail running events. Special use permits for a 15 mile and 50k running event and two guides (hunting and eco-tourism/fly fishing) are planned for renewal in FY 2017.

Additionally, the Tillamook District will work cooperatively with the Forest Grove District on special use permit administration of the Jeep Jamboree. This national Jeep owner's event was held for the first time in the Tillamook State Forest in June 2015. With the success of the event, they have applied for and secured a permit for 2016. It is anticipated that this will become an annual OHV event.

### Organized Event Administration

For FY 2017 Tillamook District will administer or review permits for 20 motorized events on the Tillamook State Forest. Events include poker runs, races, 4WD runs, dual sport runs, and observed motorcycle trials.

### Tillamook District Volunteer Activities

In FY 2017 the Tillamook District will administer a wide variety of volunteer activities including

- Motorized trail work parties and the first annual Single Track OHV Trail Day
- SOLVE Beach & Riverside Cleanup Event
- Trail work parties on non-motorized trails
- Camp Host Program at Jones Creek, Nehalem Falls, & Keeing Creek Campground
- Alternative Spring Break with University of Idaho with college students participating in trail building and maintenance projects

The Tillamook District will seek to renew community interest the Forest Observers volunteer program. The intent is for Forest Observers to patrol forest roads and report trash dumps, abandon property, and suspicious activity to ODF staff and Tillamook County Deputies.

Additionally, the Tillamook District will explore participating in Volunteer Vacations through the American Hiking Society and look for other volunteer opportunities from individuals and groups such as Tillamook High School Senior Projects and Eagle Scouts

when available. This may fill a need for hands on experience for the student and much needed trail work for the district.

## **Law Enforcement**

ODF and the Tillamook County Sheriff's Office (TCSO partner to maintain 3 full time forest deputies that are funded through ATV grants and ODF dollars. Tillamook District staff work closely with the forest deputies and the Forest Grove District staff to facilitate law enforcement activity on the district.

The forest deputies enforce state, federal, and forest recreation laws with an emphasis on ATV enforcement as they patrol the forest in both the Tillamook and Forest Grove Districts. Deputies also provide search and rescue services as needed. Fire laws pertinent to recreation use are enforced by county deputies, fire protection, and recreation staff. The forest deputies are essential to the success and overall management of the forest and their presence benefits all forest users.

## **Other Tillamook District Recreation Unit Business**

- Coordinate removal of abandoned vehicles and property, clean up dumpsites, and respond to other social impacts on forest resources.
- Provide support for interpretive and educational programs at Tillamook Forest Center and local schools.
- Act as 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, Tillamook Bay Watershed Council and nonprofit organizations such as Stop Oregon Litter and Vandalism).

## Land Exchange

The district continues to work on a land exchange in FY17 with Tillamook County that is mutually beneficial for management of lands and recreational facilities.

The land exchange would entail exchanging a 73 acre parcel of BOF lands which is currently managed by the County as a campground/park (Trask River Campground/Park for an 80 acre parcel of Tillamook County lands which ODF currently operates and maintains as the Sprague Memorial Wayside for a day use site and rest area. An exchange of these parcels would better facilitate management and be beneficial for both parties.

The district does not have an approved long-range acquisition and exchange plan. However, this is an opportunity with the County that benefits both parties and creates more efficient

management of lands and facilities. In 2011, ODF and the county entered an Intergovernmental Agreement (IGA) that allowed the county to manage the park for recreational purposes and allowed ODF to manage a facility on county land. This was agreed upon with the provision that the two parties would work together to complete land exchange, acceptable to both parties, at some point in the future.

The District will pursue this exchange and enter into a Preliminary Agreement with Tillamook County in FY 17.

To move this concept forward, both ODF and County will obligate staff time and finances to complete the necessary specialist reviews, title reports, SHPO Notice, biological assessment, appraisal and public hearing/comment process.

The district will continue to work on identifying parcels to acquire and exchange.

## Other Integrated Forest Management Operations

### **Noxious Weeds and Invasive Plants**

The district has been developing a plan for identifying and tracking invasive plants and noxious weeds. The district is a member of the North Coast Cooperative Weed Management Area along with other landowners, managers, and conservation groups (federal, state, and county). The Oregon Department of Agriculture (ODA) has facilitated the establishment of weed management cooperatives for the purpose of coordinating efforts to address invasive weeds on a large scale. The district contributes to the database kept in Salem and annually staff shares information with ODA for contribution to the WeedMapper. WeedMapper is a database which includes information about weeds and locations of noxious weeds throughout Oregon as collected by other contributing federal, state, and local agencies. The district is also a member of the local county partnership PRISM (Partnership for Regional Invasive Species Management).

The district is currently tracking and treating knotweed, Scotch broom and false brome. There are also common invasive species, such as tansy ragwort, Scotch broom, Himalaya blackberry, and Canada thistle, along road sides and haul routes or in small concentrated patches throughout the forest. The location of these species has not been tracked and documented in the past.

Most noxious weeds or invasive plants are along roads and have spread into plantations. The main sources for the weeds are car tires, equipment moved in and out of district, and where soil disturbance occurs. The district specifies 100% weed-free grass seed be used and the use of certified weed-free straw for mulch instead of hay for project work on roads and requires equipment washing in the timber sale contracts. Equestrian users will be encouraged to use weed-free hay for feeding stock on State Forest Land.

## **Firewood**

The District has an ongoing firewood cutting program, which includes both commercial and individual wood cutting permits.

### **Personal Firewood Cutting Program**

The primary objective of the District Firewood Cutting Program is to provide a source of firewood from State Forests to the public for personal use.

The Tillamook District issues personal firewood cutting permits for the entire district **except** for areas shown on maps attached to permits. The individual woodcutting permits are sold by area, with the district divided into four (4) unique areas, which excludes active and sold timber sales, recreation sites, and planned operations. There is no guarantee that units or travel routes will be posted in the field. Property lines are frequently unmarked and ODF firewood permits are only valid on State Forests land.

**Commercial woodcutting** sales are for more specific areas and are also used to remove trees adjacent to roads, clean up landings, and salvage windthrow in concentrated areas where down wood levels are above FMP targets.

### **Miscellaneous Forest Products**

Commercial permits will 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 (ArcMap, SuperACE, GPS programs, etc), inventories (Road Inventories and Stand Level Inventories (SLI), surveys (T&E, fish habitat, perennial streams), 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 FY17, the district will be undertaking the following projects in order to update existing data and acquire new information.

### **District Management Boundary**

During FY 17 the district will update management boundary data to reflect new and updated ownership information and the termination of the county land management agreement. These changes will be reflected in the 2018 AOP and a future LMCS and Implementation plan revision.

## **District Harvest Modeling**

The district will continue to update and improve information which identifies resources and physical features on the district. This information is important to decision making and for future modeling runs. The district will continue reviewing model runs and evaluating the process.

## **Stand Level Inventory and Other Vegetation Inventories**

There are currently 6,010 SLI stands on the Tillamook district, totaling 252,345 acres. Currently the district has 1740 inventory stands measured on the Tillamook District, which represents 28% of district stands. The measured stands represent approximately 109,000 acres or 43% of State Forest land in the Tillamook District. New SLI data collection is anticipated for FY17. The contract for inventory measurement will be managed through the Salem office.

## **Wildlife Surveys**

### Marbled Murrelet Surveys

The district normally conducts a marbled murrelet survey program in order to comply with federal and state Endangered Species Acts and to contribute to Forest Management Plan goals. Survey requirements are determined in accordance with ODF Policy & Guidance. Different strategies are being applied to two different zones in the north coast. Operational surveys, as described in the October 2012 ODF Policy Guidance are being applied to sales within the Operational Survey Zone. The Operational Survey Zone is referred to as the North Coast Survey Zone in the current policy and is the zone closest to the coast where all known occupied sites are located. East of the Operational Survey Zone is the Systematic Survey Zone, where high quality potential murrelet habitat is being surveyed systematically and operational surveys are not being conducted. All surveys are conducted according to the Pacific Seabird Group protocol (2003).

No sales in the 2017 AOP contained suitable habitat or were adjacent to suitable habitat for marbled murrelets, therefore no marbled murrelet surveys will be conducted in this fiscal year for 2017 AOP timber sales.

### Northern Spotted Owl Surveys

In FY17 the district will continue its northern spotted owl survey program in order 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 and was most recently revised in January 2012 and endorsed by the USFWS. The district determines survey requirement for planned timber sales with potential habitat according to the ODF Policy Guidance: Northern Spotted Owl Surveying on State Forest Lands.

See the table below for a summary of required timber sale surveys for northern spotted owls and marbled murrelets for FY17 sales. There will be 46 sales surveyed for northern spotted owls in FY17, for current, previous and future sale plans, to complete protocol surveys. There will also be additional surveys for spot checks for 12 active timber sales and for district monitoring purposes on 10 northern spotted owl activity centers.

Table 7. Summary of Surveys for Threatened and Endangered Species

Operation	Species <sup>1</sup> (NSO/MM)	Survey Years <sup>2</sup>	BA <sup>3</sup> Required	Special Considerations
Brimstone	NSO	2015/2016		
Doghouse	NSO	2015/2016		
High Standards	NSO	2015/2016		
Knot Berry	NSO	2015/2016	Yes	Potential road re-alignment outside of sale area
Little Bumps	NSO	2015/2016		
Odin's Blade	NSO	2015/2016		
Power Range	NSO	2015/2016		
Red Buzzard	NSO	2015/2016		
Rocky Road	NSO	2015/2016		

<sup>1</sup> Surveys are conducted according to accepted protocols when habitat for the specific species is determined to be present. NSO – northern spotted owl, MM – marbled murrelet.

<sup>2</sup> Years that surveys have been completed or are planned.

<sup>3</sup> A Biologic Assessment is required for this operation due to the presence of NSO or MM in the vicinity of the operation.

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.

### T&E Plants

The proposed harvest operations were screened against the database from the Oregon Biodiversity Information Center - OBIC (previously known as the Oregon Natural Heritage Database) and other known locations on the district to identify potential conflicts with plant species listed in the district IP as requiring protection measures. These include Threatened or Endangered plants along with Candidate and Special Concern plants identified in the district IP.

No Threatened or Endangered plant species were identified in the vicinity of the FY17 timber sales.

Queen-of-the-Forest (*Filipendula occidentalis*) a Candidate plant, was identified in 1979 in the vicinity of the lower Wilson drainage. A range was established for the plant and the Knot Berry and Power Range sales fall inside the range identified. No plants have been found on the sale areas. Queen-of-the-Forest is usually found in riparian areas, especially shaded moist stream banks and NW FMP buffers will incorporate most if not all of the plant's habitat.

Frigid shootingstar (*Dodecatheon austrofrigidum*) has been observed within 300-400 feet to the east of the Brimstone Unit 731. Presence of this species is anticipated to occur only in riparian areas, if at all, so standard riparian buffers should protect any likely habitat. This species is listed as federal species of concern and is State-listed (Oregon) as rare but not threatened or endangered so no additional protection is required.

Saddle Mt. Saxifrage (*Saxifraga Hitchcockiana*) was observed in 1978 in the vicinity of the High Standards timber sale. Habitat for this species includes "grassy balds," thin rocky soils, rock crevices and ledges on mountain tops and ridges. As such, it is unlikely that any (potential) habitat will be disturbed as there is likely no merchantable timber in these areas (i.e. no harvest area). This species is listed as a federal species of concern and a candidate for state listing but is not currently listed as threatened or endangered (state or federal) so no additional protection is required.

## **Aquatic and Riparian Resources**

*Aquatic and Riparian Conditions:* Major streams that drain these forest lands on the Tillamook District are: the Nehalem, North Fork Nehalem, Miami, Kilchis, Wilson, Trask, Tillamook, Nestucca and Little Nestucca Rivers, which flow directly into the Pacific Ocean. These major watershed basins define the basin planning areas in the section entitled "Summary of Timber Harvest Operations by Basin".

There are also several shallow lakes on state forest lands, the largest of which is Lake Tahoe (Approximately 2.5 acres). Beaver ponds and other wetlands are scattered throughout the district. The Tillamook Water Commission (City of Tillamook) and the Beaver Water District are in the southwest corner of the district encompassing about 3,600 acres of state forest land.

Several strategies, described in the Forest Management Plan dictate protection measures designed to protect, maintain, and restore aquatic and riparian functions. These strategies are employed during harvest activities and include but are not limited to leave trees adjacent to streams to protect stream temperature, provide nutrients, protect stream banks, and eventually provide wood to improve fish habitat. Best management practices for road construction, reconstruction, and maintenance minimize impacts to water quality. Aquatic Anchors have been established in 11 watersheds in which additional aquatic conservation measures are applied. The Aquatic Anchors include: Coal Creek, Cook Creek, South Fork

Salmonberry, Foley Creek, Miami River, Middle Kilchis River, Little North Fork Wilson River, Cedar Creek, Ben Smith, Elkhorn Creek, and East Fork of the South Fork Trask River.

*Restoration Goals and Identification Process:* The overarching principles for fish habitat restoration are described in the Forest Management Plan. Landscape and site-specific strategies will improve levels of aquatic function in the short term to meet the immediate habitat needs of depressed species and place aquatic habitats on a trajectory toward desired conditions. At the same time actions are carried out to restore the ecological processes and functions that create and maintain self-sustaining habitats over the long term. Restoration strategies include completing assessments to identify limiting factors and identify, design, and implement projects to remedy identified problems. Projects should mimic natural process, use multidisciplinary approach, and consider site-specific as well as watershed scale processes and disturbance regimes. Projects will be designed to re-establish natural physical and biological processes. The overarching approach to habitat restoration is described in the NW FMP (page 4-67 through 4-68) and summarized below:

- Eliminate human-induced conditions on the forest that may contribute to aquatic habitat deficiencies, or that may limit the timely recovery of desired aquatic habitat conditions.
- Promote aquatic habitat conditions that will support the short-term survival needs of depressed salmonids, in order to reduce the potential for further declines in these populations.
- Attain properly functioning aquatic habitat conditions in a timely manner.
- Encourage forest conditions that will support the ecological processes necessary to naturally create and maintain complex aquatic habitats on a self-sustaining basis.

The types of projects in order of priority are: (1) Fish Passage, (2) Road Decommission or Hydrologic Disconnection, (3) In-stream Habitat Projects, (4) Alternative Plans to Manage Riparian Areas, and (5) Beaver Relocation.

Projects can be implemented opportunistically (when operating near streams that would benefit from restoration efforts) or with a more complex and typically larger scale approach both of which will be evaluated for ecological benefits. For the Tillamook District the goals are to:

- Implement 2-5 larger scale projects over a 10-year period if resources and partners are available.
- Implement 2-3 opportunistic projects per year if resources and partners are available.
- Contribute to fish passage improvement and hydrologic disconnection.

Watershed Analyses have been complete for the Trask, Miami, and Wilson basins along with watershed analysis recommendations and Action Plans developed from the analysis to identify areas recommended for improvement. The program is taking the opportunity to review the work completed to this point on State Forests before beginning new watershed analysis projects. In addition the Oregon Department of Fish and Wildlife completed Fish Habitat Assessments and summarized the findings by district (ODFW 2005-2006).

Limiting factors have largely been identified in the ODFW conservation strategy, the 2005 State of Oregon Coastal Coho Assessment (OCCA) (State of Oregon 2005), and ODF watershed analyses. Common limiting factors include: a lack of large wood in streams, increased fine sediment in riffles, a lack of complex pool habitat, and a need for more off-channel habitat. The task during this AOP is to identify, design, and implement projects to address the limiting factors either through opportunistic projects (e.g. harvest units adjacent to streams that meet certain criteria) or through larger, multi-collaborator, diversely funded projects .

There are potential stream enhancement projects identified by the Aquatic Specialist that could be done in association with sales in this sale plan.

- Doghouse - A potential cable placement stream enhancement project on Mesabi Creek might be possible. Foresters will work with the staff hydrologist during sale layout to evaluate project options.
- Knot Berry - A potential cable placement stream enhancement project on Berry Creek might be possible. Foresters will work with the staff hydrologist during sale layout to evaluate project options.
- Odin's Blade - A potential cable placement stream enhancement project on Jones Creek might be possible. Foresters will work with the staff hydrologist during sale layout to evaluate project options.
- Rocky Road - Consult with planning unit and riparian specialist for wood placement opportunities in Headquarters Camp Creek that can be done with Rocky Road foresters will work with staff hydrologist during sale layout.

ODFW has a 50-year lease with ODF for a fish hatchery on the East Fork of the South Fork Trask River, which includes a dam, fish ladder, and acclimation pond. ODFW has revised their hatchery program and is decommissioning the hatchery in partnership with ODOT by removing the dam and fish ladder. The dam removal is scheduled to occur in the summer of 2016 during the instream work period (FY 2017) and will restore fish access to 20 miles of habitat. ODF district personnel and the staff Aquatic and Riparian Specialist are working with ODFW on the dam removal project and longer term site management for potential future fish rearing.

*Watershed Council Partnerships:* Tillamook District participates in multiple Watershed Councils. The main councils are Lower Nehalem, Tillamook Bay, and Nestucca/Neskowin. District staff attends meetings throughout the year at Lower Nehalem Watershed Council, provides presentations when requested and participates in workgroups and committees when appropriate.

During FY 2017, the Tillamook District will partner with Tillamook Estuaries Partnership (TEP) on the project development to replace three culverts on Patterson Creek (Bay City) that are currently barriers to fish passage.

District staff are participating in the Tillamook-Nestucca Fish Passage. The group has set a goal of establishing fish passage on 95% of the historic available habitat in the Tillamook-Nestucca Sub-basin across multiple landowners. Staff serve on both the executive and technical teams associated with this project.

District staff also participates in monthly meetings and presents information to council members as requested or is appropriate.

District staff occasionally attends meetings with the Nestucca/Neskowin Watershed Council. The district ownership is very small in the Nestucca Basin and there have not been any recent opportunities to partner on projects.

*Fish Distribution Surveys:* Streams are classified in part as supporting fish (Type F) or not supporting fish (Type N). Riparian protection measures depend in part on the presence of fish. Fish distribution information varies across the district. Many streams have been surveyed with electro fishing techniques that established the upper extent of fish use. However many very small streams have not yet been surveyed for fish presence. These streams will be evaluated with either an electro-fishing method (through contractual arrangements with private consultants or support from ODFW) or with a Physical Habitat Survey (ODF State Forests Policy Bulletin, February 10, 2009. Determining the Upper Extent of Fish Use and Managing Related Data.) The physical methodology was developed in conjunction with Oregon Department of Fish and Wildlife.

## **Research and Monitoring**

The Tillamook District will be involved in a variety of research and monitoring projects in FY17. Study sites and plots will be maintained on the district. District employees may participate in these projects. The following sections provide brief summaries of current research.

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

- Monitoring of SNC disease conditions through periodic measurements.

- Installation of new monitoring plot network to take place of aging Growth Impact Study Plot network in stands 10 to 20 years old.

#### Trask River Paired Watershed Study: (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.

#### Post-Trask Study: (ODF, USGS FRESC)

The Trask Watershed Study (2006 - 2016) was designed in part to assess the downstream effects on fish communities from forest harvest adjacent to non-fish bearing streams in the headwaters. ODF State Forests Monitoring Program is working on a Post-Trask study that assesses the direct impact of a State Forest harvest on the fish community. The new study will continue the monitoring at two of sites used in the Trask Watershed study. The treatment will be the Pothole habitat reach, which will be harvest (Little Bumps timber sale) and Rock Creek habitat reach will continue to serve as the reference. The overall objective of this study is to assess the impacts of a State Forests modified clear-cut, FY17 Little Bumps timber sale, on a fish-bearing stream (fish, temperature, shade, turbidity) utilizing the 12 years of previous data that was collected with the Trask WSS.

#### T&E Surveys: (ODF, Contractors)

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

#### Northern Spotted Owls On-going Monitoring: (ODF, Contractors)

On-going monitoring is occurring of known sites of Northern spotted owls. The objective of these surveys is to determine continued occupancy of the site and movement within designated owl over time.

### Marbled Murrelet Systematic Surveys: (ODF, Contractors)

Systematic surveys on the highest potential habitat sites in the area identified as the Systematic Survey Zone may be conducted in the district during FY15. The objective of these surveys is to survey areas which have not been previously surveyed to determine if marbled murrelets have started to use the potential habitat further inland. The Systematic Survey Zone<sup>4</sup> is defined as “all of the Forest Grove District and portions of the Astoria and Tillamook Districts that are east of the North Coast Survey Zone.” Surveys in these areas over the last two decades have resulted in no detections.

### **Other Planning Operations**

#### Wood Accounting and Log Tracking (WALT)

In FY17 State Forest will continue development of the new business Enterprise System to track timber sale volume and value from the beginning of the planning process through the end of the timber sale. The Tillamook District has assisted with the design and testing of all phases of the project. In FY17 Tillamook District personnel will continue to work on the design, review, and testing of Contractor, the contract creation feature of the program. 2017 AOP timber sales have been created in the Geo-Planner function of the program.

#### Board of Forestry

The Board of Forestry has directed the State Forest Division to do the following in FY 17:

- Align Implementation Plans with resource protection policies
- Improve inventory, growth, and yield information
- Develop programmatic ESA compliance tool
- Develop business improvement plan

## 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 FY17 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

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<sup>4</sup> ODF Marbled Murrelet Operations Policy, August 28, 2013, 1.1.6.20  
TILLAMOOK DISTRICT 2017 ANNUAL OPERATIONS PLAN  
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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. The Tillamook Forest Center will be closed from the Monday after Thanksgiving in November 2016 through the end of February 2017 because of the limited operational budget.

## Administration

There are 31 permanent positions whose full-time function is to manage State Forest land on the Tillamook District and five (5) permanent positions who work part-time on management of State Forest land. All are responsible for implementing the 2016 Annual Operations Plan. These positions are divided into five functional groups: Forest Management, Forest Roads, 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 Contracts Unit also manages commercial firewood sales and special low volume timber sales.

The Forest Roads unit is responsible for all aspects of road management 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 Forest Roads 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* 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 planned timber sales and provides input into the Pre-Operations Reports on individual timber sales and works closely with the forest management units for trail protection during road and harvest operations or trail rehabilitation after operations.

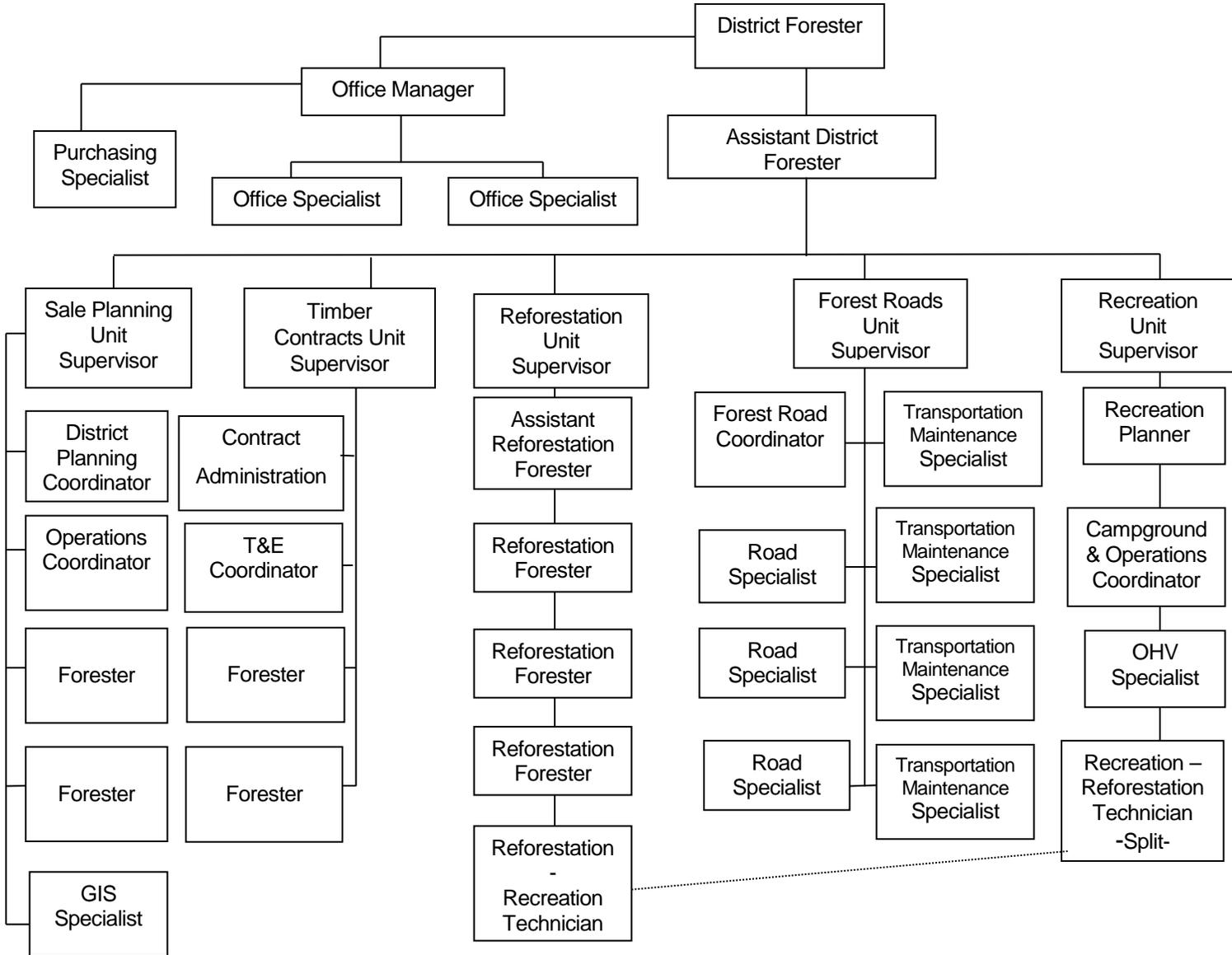
Administration consists of the District Forester, Assistant District Forester, Office Manager, Purchasing Specialist, and two Office Specialists. The District Forester and Assistant District Forester provide policy direction, budget development, and oversight to the field units.

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



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# APPENDIXES for the 2017 AOP

## **A. Summary Tables**

- a. Harvest Operations – Financial Summary
- b. Harvest Operations – Forest Resource Summary
- c. Harvest Operations – Stand Structure Summary
- d. Forest Road Management Summary
- e. Reforestation and Young Stand Management Summary
- f. Recreation Management Summary

## **B. Maps**

Harvest Operations Vicinity Map

## **C. Consultations with Other State Agencies**

This appendix summarizes the results of consultations with the Oregon Department of Fish and Wildlife and other agencies, as appropriate. This appendix contains any written comments that we received from state agencies.

## **D. Public Involvement**

This appendix describes the results of the public involvement process of this AOP and will be added prior to its approval.

## **E. Pre-Operations Reports**

Pre-Operations Reports are available from the district upon request.

## **F. Landscape Design Modification (major)**

## **G. Harvest Acre Range Modification (minor)**

# Appendix A

## TIMBER HARVEST OPERATIONS - FINANCIAL SUMMARY

District: Tillamook

Fiscal Year: 2017

Date: 02/08/2016

Primary Operation	Fund %		County	Sale Quarter	Net Acres		Volume (MMBF)			Value		
	BOF	CSL			Partial Cut	Clear-cut	Conifer	Hardwoods	Total	Gross	Projects	Net
Brimstone	100%	0%	Tillamook	3rd	0	228	2.7	0.3	3.0	\$735,650	\$117,771	\$617,879
Doghouse	100%	0%	Tillamook	4th	0	571	9.3	0.3	9.6	\$2,294,975	\$257,919	\$2,037,056
High Standards	100%	0%	Tillamook	4th	0	218	3.8	0.1	3.9	\$895,200	\$148,093	\$747,107
Knot Berry	100%	0%	Tillamook	2nd	0	193	2.6	0.6	3.2	\$671,625	\$128,880	\$542,745
Little Bumps	100%	0%	Tillamook	1st	0	73	1.5	0.1	1.6	\$399,100	\$29,620	\$369,480
Odin's Blade	100%	0%	Tillamook	1st	0	540	10.1	0.8	10.9	\$2,568,975	\$312,870	\$2,256,105
Red Buzzard	100%	0%	Tillamook	2nd	0	315	6.1	0.2	6.3	\$1,544,025	\$527,220	\$1,016,805
Rocky Road	100%	0%	Tillamook	3rd	315	298	8.2	0.4	8.6	\$2,061,700	\$559,966	\$1,501,734
<b>Total:</b>					<b>315</b>	<b>2,436</b>	<b>44.3</b>	<b>2.8</b>	<b>47.1</b>	<b>11,171,250</b>	<b>2,082,339</b>	<b>9,088,911</b>

### Alternate Operations

Power Range - Alt Sale	100%	0%	Tillamook	--	0	196	1.4	1.9	3.3	\$669,600	\$276,925	\$392,675
Rocky Road - Alt Areas	100%	0%	Tillamook	--	186	170	4.5	1.2	5.7	\$1,338,150	\$214,722	\$1,123,428
Doghouse - Alt Areas	100%	0%	Tillamook	--	0	172	1.4	0.9	2.3	\$455,475	\$117,083	\$338,392
High Standards - Alt Areas	100%	0%	Tillamook	--	0	198	2.1	0.1	2.2	\$534,150	\$182,127	\$352,023
Brimstone - Alt Areas	100%	0%	Tillamook	--	0	96	0.8	0.1	0.9	\$194,400	\$67,788	\$126,612
<b>Total:</b>					<b>186</b>	<b>832</b>	<b>10.2</b>	<b>4.2</b>	<b>14.4</b>	<b>3,191,775</b>	<b>858,645</b>	<b>2,333,130</b>

**PRIMARY HARVEST OPERATIONS - FOREST RESOURCE SUMMARY**

District:

Tillamook

Fiscal Year 2017

Date: 02/08/2016

This table lists Forest Resources and other issues addressed within Pre-Operations Report due to their presence within or near harvest operations

Primary Harvest Operations	Unit (Optional)	Forest Health Issues <sup>1</sup>	Invasive Species	LYR/OFS Structures <sup>2</sup>	Landscape Design LYR/OFS <sup>3</sup>	Install/Replace Culverts on Fish Bearing / Perennial Streams	Harvesting within 100' of Fish Bearing Stream	Domestic Water Source	Potential Stream Habitat Improvement <sup>4</sup>	Within Aquatic Anchor	Within Terrestrial Anchor	Operating within a NSO Provincial Circle	Within 1/4 mile of MMMA T&E Fish Adjacent to Harvest Unit / Haul Route <sup>5</sup>	T&E Plants	Geotechnical Issues Needing Field Review	Recreation Sites	Cultural Resources	Scenic Resources	Other Resources or Issues
Brimstone		-	x	-	-	-	-	-	-	-	-	-	x	x	x	x	-	-	
Doghouse		-	x	-	-	x	-	-	x	x	-	-	x	-	x	x	x	-	
High Standards		-	x	-	x	x	-	-	-	-	x	-	x	x	x	x	x	-	TAS - Waste Area, Landing, Spur
Knot Berry		-	x	-	x	x	-	-	x	x	-	-	x	x	x	-	-	-	
Little Bumps		-	-	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-	Trask Watershed Study
Odin's Blade		-	-	-	x	x	-	-	x	x	-	-	x	x	x	x	x	-	
Red Buzzard		-	-	-	x	x	-	-	-	-	-	-	x	-	x	x	-	-	
Rocky Road		-	-	-	x	x	-	-	x	-	-	-	x	-	x	x	x	-	Powerline, Property Line

<sup>1</sup> A 'x' (in any column) indicates yes the resource or other issue occurs within or near the harvest operation and is addressed by the Pre-Operations Report

<sup>2</sup> A 'x' indicates the harvest operation contains stands that are currently in a Layered or Older Forest Stand Structure

<sup>3</sup> A 'x' indicate that the operation contains areas that have been designated for the development of complex forest stands

<sup>4</sup> The final decision on these projects will occur during sale preparation and inconultation with ODFW.

<sup>5</sup> This table lists harvest operations (units or log haul routes) that are adjacent to streams that are known to contain T&E fish. The Pre-Operation Report identifies whether T&E fish are present in the basin.



## TIMBER HARVEST OPERATIONS - FOREST STRUCTURE SUMMARY

District: Tillamook

Fiscal Year 2017

Date: Feb. 8, 2016

Current Structure	
	Total
REG	0
CSC	0
UDS	2,751
LYR	0
OFS	0
<b>Total</b>	<b>2,751</b>

Post Harvest Structure				
REG	CSC	UDS	LYR	OFS
0	0	0	0	0
0	0	0	0	0
2,436	0	315	0	0
0	0	0	0	0
0	0	0	0	0
<b>2,436</b>	<b>0</b>	<b>315</b>	<b>0</b>	<b>0</b>

Desired Future Condition		
GEN	LYR	OFS
0	0	0
0	0	0
2,521	164	66
0	0	0
0	0	0
<b>2,521</b>	<b>164</b>	<b>66</b>

### FOREST ROADS SUMMARY

District:

Fiscal Year: 200#

Date:

Operation	Construction		Improvement		Other Projects	Total Project Costs	Gross Value of Operation	Total Cost as a percent of Gross Value	Comments
	Miles	Cost	Miles	Cost					
Brimstone	0.98	\$42,248	3.16	\$75,523	\$ -	\$117,771	\$735,650	16.0%	
Doghouse	2.16	\$147,100	4.80	\$110,819	\$ -	\$257,919	\$2,294,975	11.2%	
High Standards	1.96	\$115,828	3.53	\$32,265	\$ -	\$148,093	\$918,700	16.1%	
Knot Berry	1.67	\$62,028	2.60	\$66,852	\$ -	\$128,880	\$671,625	19.2%	
Little Bumps	0.50	\$29,620	0.00	\$0	\$ -	\$29,620	\$303,150	9.8%	
Odin's Blade	0.64	\$62,545	10.55	\$173,225	\$77,100	\$312,870	\$2,568,975	12.2%	Stockpile, Brushing
Red Buzzard	0.85	\$91,497	10.50	\$338,583	\$97,140	\$527,220	\$1,544,025	34.1%	Stockpile, Bridge
Rocky Road	6.25	\$475,623	2.85	\$84,343	\$ -	\$559,966	\$2,061,700	27.2%	

<b>Total</b>	15.0	\$1,026,489	38.0	\$881,610	\$174,240	\$2,082,339	\$11,098,800	18.8%	
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#### Alternate Operations

Power Range - Alt Sale	2.58	\$ 92,252	5.05	\$ 176,703	\$ 7,970	\$276,925	\$ 669,600	41.4%	Stockpile
Rocky Road - Alt Areas	2.44	\$ 162,000	1.02	\$ 52,722	\$ -	\$214,722	\$ 1,338,150	16.0%	
Doghouse - Alt Areas	1.1	\$ 98,885	0.3	\$ 18,198	\$ -	\$117,083	\$ 455,475	25.7%	
High Standards - Alt Areas	1.67	\$ 109,903	1.54	\$ 72,224	\$ -	\$182,127	\$ 534,150	34.1%	
Brimstone - Alt Areas	0.07	\$ 17,022	2.86	\$ 50,766	\$ -	\$67,788	\$ 194,400	34.9%	

#### Road Projects Not Funded by Harvest Operations

Operation	Construction		Improvement		Other Projects	Total Project Costs	Funding	Comments
	Miles	Cost	Miles	Cost				
Bridge Inspections					\$ 27,330	\$27,330	FD	Periodic Bridge Inspections
Roadside Spraying					\$ 23,000	\$23,000	FD	Approximately 150 miles
						\$0		

## REFORESTATION AND YOUNG STAND MANAGEMENT SUMMARY

District: Tillamook

Fiscal Year: 2017

Date: 06/21/2016

ODF Funded Activities 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 (Contractor)	1,600	\$360.00	\$576,000			\$0.00	1,600	576,000
Interplanting (Contractor)	1,000	\$180.00	\$180,000			\$0.00	1,000	180,000
Underplanting			\$0			\$0.00	0	0
Tree Protection-Barriers (SFK)	2,500	\$66.00	\$165,000			\$0.00	2,500	165,000
Tree Protection-Direct Control (Contractor)	2,000	\$75.00	\$150,000			\$0.00	2,000	150,000
Tree Protection-Direct Control (SFK)	250	\$190.00	\$47,500			\$0.00	250	47,500
Site Prep-Chemical- Aerial (Contractor)**	1,600	\$50.00	\$80,000			\$0.00	1,600	80,000
Site Prep-Chemical- Hand			\$0			\$0.00	0	0
Site Prep -Slash Burning			\$0			\$0.00	0	0
Site Prep -Mechanical			\$0			\$0.00	0	0
Fertilization			\$0			\$0.00	0	0
Noxious weeds			\$0			\$0.00	0	0
Release-Chemical- Aerial			\$0			\$0.00	0	0
Release,-Chemical-Hand (SFK)	300	\$113.00	\$33,900			\$0.00	300	33,900
Release-Mechanical-Hand (SFK)	400	\$690.00	\$276,000			\$0.00	400	276,000
Precommercial Thinning			\$0			\$0.00	0	0
Pruning			\$0			\$0.00	0	0
Stocking Surveys (Contractor)	1,250	\$18.00	\$22,500			\$0.00	1,250	22,500
<b>Totals</b>	<b>10,900</b>	<b>--</b>	<b>\$1,530,900</b>	<b>0</b>	<b>--</b>	<b>\$0.00</b>	<b>10,900</b>	<b>1,530,900</b>

\*Planting costs include all costs including seedlings

\*Contractor = Contracted Labor

\*SFK = South Fork Inmate Labor

\*\*Aerial Site Prep includes herbicide costs'

**RECREATION MANAGEMENT SUMMARY**

District: Tillamook

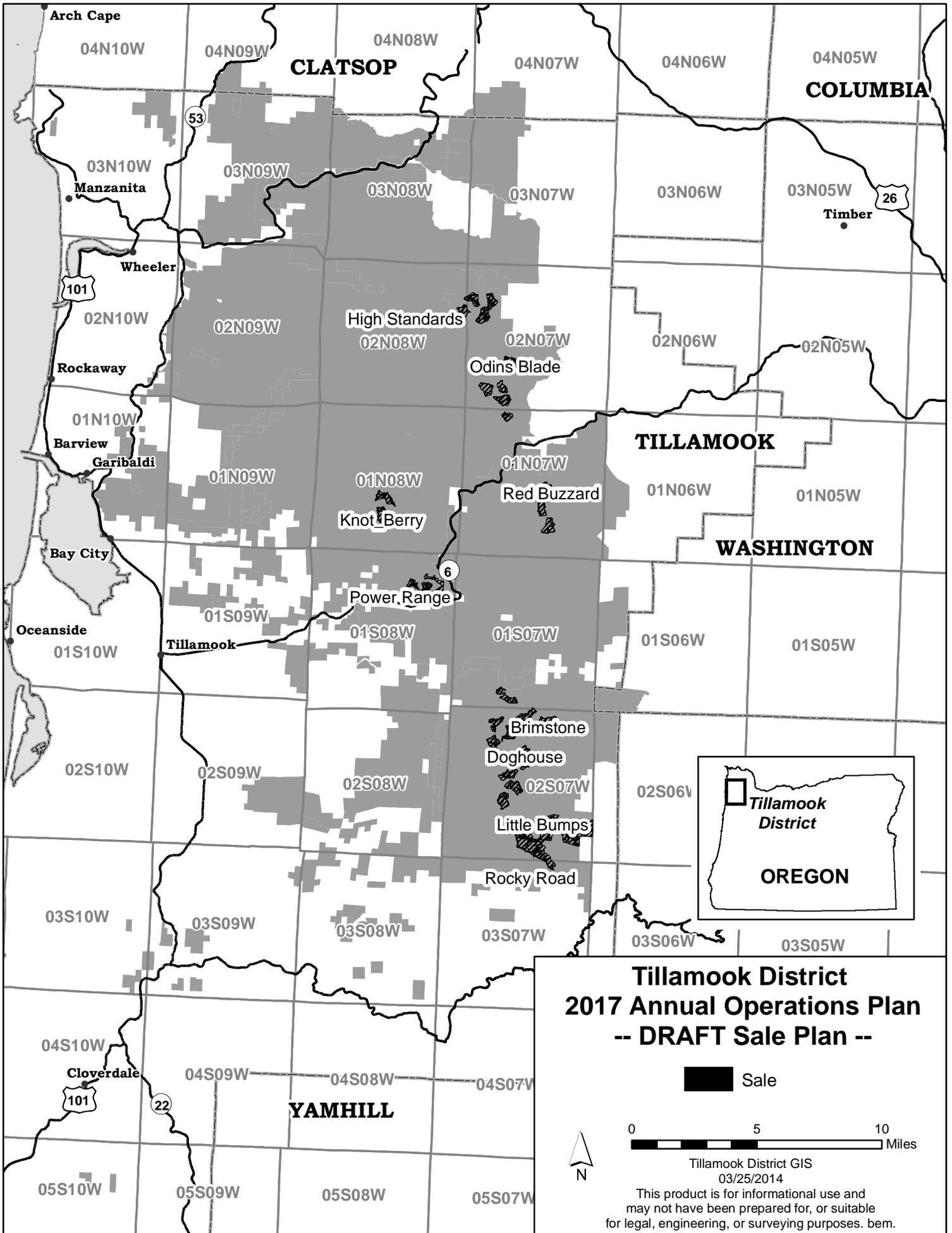
Fiscal Year: 2017

Date :

06/22/2016

Operation	Construction Projects	Construction		Improvement Projects	Improvement		Operations and Maintenance	Operations/Maint.		Total Costs	J+A1
		ODF	Other		ODF	Other		ODF	Other		
<b>Facilities</b>											
<b>Campgrounds</b>											
Jones Creek Campground & Day Use Area	Relocation of C Loop road	\$ 1,545	\$4,635				PUD, septic pumping, trash service, golf cart	\$15,850.00		\$22,030	FEMA project est 75% FEMA 25% ODF (storm damage) estimate from Roads Unit assessment of repair
Keenig Creek Campground							septic pumping, trash service	\$2,500		\$2,500	do not have data for entire year for vault toilet pumping cost is an estimate for one year
Nehalem Falls Campground							PUD, septic pumping, trash service	\$3,300		\$3,300	
<b>Designated Dispersed Campsites (total - 89 sites)</b>											
Cedar Creek (24 sites)							2 - porta - potties	\$2,800		\$2,800	FDF share for 2 porta potties not located in staging area
North Fork Wilson (7 sites)							maintenance, & portable toilet service	\$1,700		\$1,700	
Jordan Creek (15 sites)							signs & posts, supplemental plant materials	\$100		\$100	
North Fork Trask (3 sites)							signs, posts, firegrate repair	\$100		\$100	
East Fork Trask (9 sites)							signs, posts, firegrate repair	\$100		\$100	
South Fork Trask (7 sites)							signs, posts, firegrate repair	\$200		\$200	
Cook Creek (3 sites)							signs	\$200		\$200	Flood damage has closed main access toad to 14 sites. No dumpster or porta-pottie deployment anticipated this year.
Morrison Eddy (6 sites)							portapottie, gen maint.	\$1,500		\$1,500	
<b>Day Use Areas</b>											
Sprague Wayside							power, septic pumping, maint supplies, line painting	\$2,100		\$2,100	
Footbridge Day Use/Trailhead	Retaining walls - Bridge Cr. Falls Trail & asphalt road way - construction materials approx. 200 blocks at \$3.77 ea	\$754					septic pumping, trash service, maint supplies			\$754	
<b>Trailheads</b>											
Keenig Creek											
Cedar Butte											
Peninsula							gen maint.	\$100		\$100	
<b>Boat Launches</b>											
Stones Road							signs, posts	\$100		\$100	
Peninsula							signs, posts	\$100		\$100	no porta-pottie deployment for this site in 2016
Beaver Slide										\$0	
<b>OHV Staging Areas/Campgrounds</b>											
Diamond Mill OHV Staging Area							septic pumping, trash service maint supplies	\$3,400.00		\$3,400	ATV Transfer Fund - dumpster service & pumping.
Jordan Creek OHV Staging Area							septic pumping, trash service, maint supplies	\$2,400		\$2,400	ATV Transfer Fund
Cedar Creek OHV Staging Area							porta potties, trash, maint. Supplies	\$4,400		\$4,400	ATV Transfer Fund - dumpster service & 1 portable
Hollywood OHV Staging Area							maintenance supplies	\$100		\$100	
Ginger Creek OHV Staging Area							sign board				

Operation	Construction Projects	Construction		Improvement Projects	Improvement		Operations and Maintenance	Operations/Maint.		Total Costs	J+A1
		ODF	Other		ODF	Other		ODF	Other		
<b>Trails</b>											
Non-Motorized								\$1,000		\$1,000	maintenance materials including lumber, rebar, rock
Motorized										\$0	
<b>Service &amp; Supplies</b>											
Dust Abatement								\$6,862		\$6,862	In Jones Creek we will test durability of magnesium chloride dust abatement. Product may be more cost efficient than lignin sulphate 1 tote covers 1/2 mile of road. 1/2mile of 18' gravel road = 47,520 square feet. .032
Dumpsite Cleanup							dump fees	\$400		\$400	
Vault Toilet Supplies/hardware							door hardware, vandal seal, paint, caulk, vent caps	\$750		\$750	
Janitorial Supplies							TP & garbage bags	\$2,400		\$2,400	
Misc. Field supplies Rosenbergs								\$4,100		\$4,100	
Misc field supplies							lumber, hardware, South Fork resupply, Sharps containers, waterproof totes, Master Locks	\$2,100		\$2,100	
NW Outdoor Restoration Project							native trees & shrubs for rehabilitation planting	\$252		\$252	
Camp Host							shirts, hats, propane, recruitment advertising	\$960		\$960	
Memberships, dues, subscriptions							American Hiking Society signs, U channel posts, 4x4	\$200		\$200	
Signs							crushed rock for projects	\$800		\$800	figure reflects what was spent in 2015
Crushed Rock								\$485		\$485	cost is primarily truck time-could be reduced if Road Crew did delivery
Water Buffalo Tires								\$1,000		\$1,000	anticipating new fee structure & all new envelopes
Fee Envelopes								\$260		\$260	
Uniforms, business cards, name badges											
Tillamook Transfer Station/Don Averill Recycling							dump fees, tire recycling	\$450		\$450	
Welding Services								\$250		\$250	
Well & hand pump service								\$200		\$200	Steves Pump Service
Printing & lamination services								\$770		\$770	reflects in part cost accrued when plotter broke
Hazard Tree Removal							arborist services	\$1,500		\$1,500	
Archaeological Survey Contract								\$6,000		\$6,000	no cost estimate obtained place holder amount
South Fork Crew Lunch							appreciation luncheon for Recreation Crews	\$100		\$100	
Compost for tree planting in damaged areas								\$300		\$300	
Water Testing								\$356		\$356	ATV Transfer Fund documenting trail issues and generating media feeds for social media
Generator for Keenig Host											curtail purchase and borrow from Astoria Dist. again
Single panel information boards & log site signs								\$1,200		\$1,200	log sign frames & boards fabricated by South Fork shop
Fee Boxes								\$1,772		\$1,772	4 fee boxes fm. OCE at \$443 ea
									District Total	\$70,089	
									Other Total	\$15,862	
									<b>TOTAL</b>	<b>\$85,951</b>	



# Appendix C

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## Consultations with Other Agencies

This appendix summarizes the results of consultations with the Oregon Department of Transportation, the Oregon Department of Fish and Wildlife and the US Fish and Wildlife Service.

### ODOT

- Archaeologists from the Oregon Department of Transportation (ODOT) have reviewed the proposed timber harvests, road construction and recreation projects to review potential impacts to cultural resources. No known historical or archaeological sites were found during this review. However, ODOT's review of historic maps and other information indicates there was human activity near some of our planned operation that could have led to the presence of cultural artifacts today.

The following sales (listed by the historic activity) will be reviewed on the ground prior to sale or project layout to determine if any cultural artifacts are present:

- Potential trail and/or trail shelter: High Standards, Odin's Blade
- Potential toll road: Doghouse
- Potential house and/or cabin: High Standards, Odin's Blade, Rocky Road
- Potential donkey stack and camp: Rocky Road

### ODFW

- Biologist from Oregon Department of Fish and Wildlife have reviewed the proposed timber harvest and road projects. General ODFW Comments (that relate to sales only):

#### **Green Trees**

It's good to see that most regeneration harvest areas have scattered or clumped green tree (GT) distributions in them. These are optimal GT placements for wildlife, especially for GTs left in lieu of created down wood or snags, as many wildlife species utilizing these structure are territorial in nature. A few pre-op reports specify that GTs are to be left adjacent to RMAs and/or within green tree areas (GTAs). RMA prescriptions for GTs should stand alone in their adequacy, and not need additional GTs for augmentation. Green trees in GTAs offer minimal value to wildlife unless protecting sensitive wildlife sites (e.g. nests) from wind-throw or edge effects.

#### **Snags**

Specific strategies for addressing snag standards in the FMP are generally not mentioned in the AOP, except that the District's guidelines for snag management

will be followed. Again, the optimal distribution of GTs left in lieu of created snags is scattered and clumped.

### **Down Wood**

Strategies for meeting down wood standards in the FMP are generally not mentioned in the AOP, except that the District's guidelines for down wood management will be followed. Again, the optimal distribution of GTs left in lieu of created down wood is scattered and clumped.

### **Roads**

Nearly all of the rocked and dirt spurs in this AOP are slated for physical closure after use, which is an excellent prescription! To summarize, ODFW recommends physical closure for dirt and rocked spurs, especially if they have no immediate need in further management and/or maintenance (e.g. culverts). If new rocked spur roads have immediate further needs, consider closing them physically in later AOPs to keep open road densities down.

### USFWS

- The US Fish and Wildlife Service has reviewed the proposed the Firebreak 11 road construction project that consists of 0.16 miles of new road construction about one mile from the Schmitz Ridge spotted owl activity center. See attached letter for USFWS comments.

**APPENDIX 'D'**  
**PUBLIC COMMENTS ON THE TILLAMOOK DISTRICT**  
**2017 ANNUAL OPERATIONS PLAN**

**Introduction**

The Tillamook District 2017 Annual Operations Plan (AOP) was included in the formal 45-day public comment period held from April 4<sup>th</sup> through May 20<sup>th</sup>, 2016 by the Oregon Department of Forestry. The purpose of the public comment period was to provide a time for the districts to share their plans with the public and for the public to ask questions and offer comments. . As a public agency, ODF strives to operate in the best interest of Oregonians. We provide opportunities for public participation to assist us in securing the greatest permanent value from state forests for all Oregonians. After the public comment process was completed, the AOPs were revised if needed, then reviewed, and approved by the District Forester.

**Evaluation Process**

The following process to evaluate and resolve the statements related to the AOP:

1. Review each document to identify and evaluate individual statements;
2. Address each statement to 1) briefly show how the district intends to change the AOP based on the statement, or 2) why the statement does not warrant a change to the AOP.
3. Respond to the statement(s) in a letter to the commenter if a return address was provided. The response is either a very brief synopsis of how the district intends to change the AOP based on the statement, or an explanation of how the planned activity is consistent with the FMP, IP, and other policy or regulation;
4. The public comment documents and the department's responses will be placed on the web site as Appendix D. Commenters who supplied return addresses were sent a personal response and were given the opportunity notify ODF if they did not want to have their public comment document posted on the web site.

Past experience has shown that public comments have the potential to improve plans, so the objective was not only to inform the public, but to receive feedback that would help to clarify the AOPs, improve their consistency with the long range FMPs and IPs, and to become aware of any new information that could affect a planned operation or improve its efficiency or effectiveness.

The Tillamook District did not receive any comments regarding specific sales within the 2017 AOP. The public comments that applied to multiple districts and the Program's responses are available upon request.

**The following changes to the Tillamook District FY 2016 AOP since the Public Comment Period:**

- The Recreation Management Summary table in Appendix A was updated to reflect a change in the FEMA funding split from 90% FEMA to 75% FEMA.
- The Reforestation and Young Stand Management Summary table and section in the Annual Operations Plan were updated to include an additional 500 acres of interplanting.

6/27/2016

- The Recreation section of the Annual Operations Plan was updated to remove the projects that were planned for the upper Cook Creek recreational sites due to additional information about storm damage repair that needs to occur before access to this area is restored.

# Appendix E

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“Draft” Pre-Operations Reports are available upon request.



# United States Department of the Interior



FISH AND WILDLIFE SERVICE

Oregon Fish and Wildlife Office

2600 SE 98<sup>th</sup> Avenue, Suite 100

Portland, Oregon 97266

Phone: (503) 231-6179 FAX: (503) 231-6195

Reply To: 8503.2002(16)  
TS Number: 16-425

Brian Pew  
State Forests Deputy Division Chief  
Oregon Department of Forestry  
State Forester's Office  
2600 State Street  
Salem, OR 97310-1336

JUN 15 2016

Dear Mr. Pew:

This responds to your April 14, 2016, letter requesting review of 11 timber sales proposed to be included in the Fiscal Year 2017 Annual Operations Plans. The following eight proposed timber sales have been identified as having potential impacts to the federally-listed northern spotted owl (*Strix occidentalis caurina*)(spotted owl): Moving Music, Higher Rock, Firebreak 11, Little Mac, Southwest Kerby, Third Rock, Sweet Lass, and By Gally. The three proposed timber sales that may have potential impacts to the federally-listed marbled murrelet (*Brachyramphus marmoratus*) are Rector Quad, Cabin Fever, and Thin Women. Attached with your letter were the pre-operations reports and preliminary biological assessments for the proposed timber sales, portions of which are briefly summarized below. Our comments are based upon the information provided.

## Spotted Owl related timber sales

The Moving Music timber sale in the Oregon Department of Forestry's (ODF) Forest Grove District is not within a known spotted owl home range, but the associated 530 feet of road construction will impact a total of 0.7 acres of suitable habitat 1.45 miles from the South Fork Rock Creek spotted owl activity center. Due to the distance from the activity center, and the small amount of habitat removal, we consider this timber sale to have a low risk of incidental take of spotted owls.

The Higher Rock timber sale in the North Cascade District is a 265 acre partial cut with approximately 15 acres within the 1.2 mile Under Rock spotted owl activity circle. The stand averages 64 years old and primarily consists of Douglas-fir, western hemlock, and red alder with an average dbh of 17 inches. The stand would be thinned from the current 120, down to 100 trees per acre with the intent to promote older forest structure. Currently, about 2,841 acres of state-managed lands within 1.2 miles of the activity center are considered suitable spotted owl habitat. We previously consulted on the 1100 Tom timber sale that would thin about 153 acres within this 1.2 mile radius and concluded that it would have a low risk of incidental take of spotted owls. With the thinning of an additional 15 acres, there would still be greater than 40 percent habitat remaining within the activity circle. We consider this timber sale to have a low risk of incidental take of spotted owls.

The Firebreak 11 road construction project in the Tillamook District consists of 0.16 miles of new road construction about one mile from the Schmitz Ridge spotted owl activity center that will remove approximately 0.7 acres of low quality spotted owl foraging habitat. ODF estimates that over 90 percent of the owl site contains suitable habitat. Based upon the existing amount of habitat, the distance from the activity center, and the amount and quality of habitat to be removed, we consider the Firebreak 11 road construction project to have a low risk of incidental take of spotted owls.

The proposed Little Mac timber sale is located in the Southwest District and is within the home range of the Smoky Mt., West McCullough and Fir Point spotted owl sites. The Little Mac timber sale consists of 179 acres in six sale areas and is primarily composed of 70-94 year-old stands of Douglas-fir with scattered incense cedar, ponderosa pine, sugar pine, and madrone. Sale areas 1 and 3-6 will be partial cut that will retain about 110-115 trees per acre. Area 2 will be a clearcut harvest of 38 acres. The Little Mac timber sale will partial cut 26 acres within the 0.7 mile circle, and cut 154 acres within the 1.3 mile circle of the Smoky Mt. spotted owl site. Post-harvest, 548 acres (56 percent) and 1,740 acres (51 percent) will remain in the 0.7 mile and 1.3 mile circles. This timber sale will partial cut 28 acres within the 0.7 mile circle, and cut 173 acres within the 1.3 mile circle of the West McCullough spotted owl site. Post-harvest, 545 acres (55 percent) and 1,856 acres (55 percent) will remain in the 0.7 mile and 1.3 mile circles. This timber sale will also cut 54 acres 1.1 miles from the Fir Point spotted owl activity center. Post-harvest, 1,821 acres (54 percent) will remain within the 1.3 mile circle. We consider this timber sale to have a low risk of incidental take of the Smoky Mt., West McCullough and Fir Point spotted owls because the majority of the timber sale involves a partial cut intended to retain suitable habitat elements and sufficient habitat will remain post-harvest within their respective home range radii.

The Southwest Kirby timber sale is located in the Southwest District and is within the home range of the Kerby Peak and Bare Nelson spotted owl sites. The clearcut prescription would occur within two sale areas. Area 1 consists of 13 acres that is not considered to function as spotted owl habitat due to numerous corridors and an open canopy that was a result of a previous thinning. Area 2 consists of 21 acres considered to be suitable spotted owl habitat. The sale area contains 95 year-old Douglas-fir with some incense cedar, ponderosa pine, sugar pine, madrone, manzanita, and oak species. The average dbh is 14-15 inches with 187-206 trees per acre. This timber sale will remove 21 acres within the 1.3 mile circles of the Kirby Peak and Bare Nelson spotted owl sites that will result in 2,412 acres (71 percent) and 2,708 acres (80 percent) of suitable spotted owl habitat remaining. Based upon the amount of remaining habitat, we consider the Southwest Kirby timber sale to have a low risk of incidental take of the Kerby Peak and Bare Nelson spotted owl sites.

The proposed Third Rock timber sale is located in the Southwest District consists of a partial cut of 125 acres and is within the home range of the Bear Windy, Windy Fortune, and JBL spotted owl sites. The sale area consists of 82 year-old Douglas-fir with scattered incense cedar, ponderosa pine, sugar pine, and madrone. The average dbh is 15 inches with 168 trees per acre. Post-harvest there will be about 110-115 trees per acre. This timber sale will partial cut seven acres and 27 acres within the Bear Windy and Windy Fortune 1.3 mile circles, respectively. The previously planned Rockpit 2015 timber sale will remove 46 and five acres from these same two spotted owl 1.3 mile circles. Post-harvest with both timber sales, there will be 2,234 acres (66 percent) and 2,054 acres (60 percent) suitable spotted owl habitat remaining within the Bear Windy and Windy Fortune spotted owl 1.3 mile circles, respectively. The Third Rock timber sale will also result in the partial cut of 15 acres within the 1.3 mile circle of the JBL spotted owl site that will result in 2,296 acres (68 percent) remaining. The Third Rock timber sale acres are equal or greater than 1.1 miles from the three spotted owl activity centers. Based upon the remaining acres of suitable habitat post-harvest and the relative distance from the three noted activity

centers, we consider the Third Rock timber sale to have a low risk of take of the Bear Windy, Windy Fortune, and JBL spotted owl sites.

The Sweet Lass timber sale is located in the West Oregon District and consists of a 38 acre clearcut harvest about one mile from the Lasky Creek spotted owl site center. The sale area is a 38 year-old Douglas-fir and red alder stand that was severely damaged by an ice storm in 2014 and is not considered suitable spotted owl habitat. Since this sale does not removed suitable spotted owl habitat, we consider the Sweet Lass timber sale to have a low risk of take of the Lasky Creek spotted owl site.

The By Gally timber sale is located in the Western Lane District and consists of clearcut harvest of 89 acres of 75 year-old Douglas fir with small pockets of western hemlock and big-leaf maple within the 1.5 mile circle of the Pataha Creek spotted owl site. The stand has an average dbh of 17 inches and an average 71 trees per acre and is located about 0.9 miles from the site center. An approved 2016 timber sale, Aha Pataha, will also remove 138 acres within the 1.5 mile circle. Post-harvest with both of these timber sales there will be 2,204 acres (49 percent) of suitable habitat remaining within 1.5 miles of the Pataha Creek activity center. Based upon the remaining amount of suitable spotted owl habitat post-harvest within the 1.5 mile circle, we consider the By Gally timber sale to have a low risk of incidental take of the Pataha Creek spotted owl site.

In reviewing these timber sales, we noted that there can be multiple sales that occur within a given spotted owl site or multiple over-lapping sites. While the proposed timber sales may pose a low risk of incidental take, we strongly encourage ODF to consider reducing the number of active timber sales within any given spotted owl site, especially when over-lapping sites occur. Fewer, concurrent active timber sales are less likely to result in cumulative impacts to the landscape that may discourage use of the area by spotted owls due to gross available forest cover and potential for disturbance.

#### Marbled Murrelet related timber sales

Rector Quad is a proposed timber sale associated with a road construction project in the Astoria District. Work will be performed on Lost Creek and Rector Lookout Roads which are partially located within the Niche 11 and Sweet Home Marbled Murrelet Management Areas (MMAs). Project operations will affect the buffer of the designated occupied habitat of the two MMAs. None of the trees to be removed have developed nest platform structures or provide cover to trees with platforms.

Approximately 1.4 acres of new road construction and 1.35 acres of road vacating will occur. The proposed timber sale will be conducted under several protection and avoidance measures described in the biological assessment. These include seasonal timing restrictions for harvest-related operations to avoid the breeding season, trash removal requirements, and road and landing construction restrictions. By conducting harvest activities outside of the breeding season, not removing potentially suitable marbled murrelet nest trees, and using caution to protect potential platform trees during harvest, we concur with your assessment that the proposed harvest activities associated with the Rector Road timber sale and road construction project should have a low risk of incidental take of marbled murrelets.

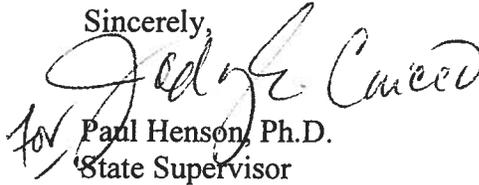
The Cabin Fever timber sale is located in the West Oregon District and consists of a modified clearcut in Area 1 and a first-entry commercial thinning in Area 2 of 17 acres. Approximately two acres of Area 2 lie within the buffer of the Wolf Creek MMMA. Current stand characteristics of Area 2 include 28 year-old trees with 225 trees per acre. Canopy cover is over 95 percent. The thinning would lower the density to about 140 trees per acre and maintain at least 60 percent canopy cover.

The Thin Women timber sale is also located in the West Oregon District and consists of a first-entry commercial thinning of young conifer stands. Sale Area 1 totals 68 acres and includes 1.2 acres and 6.7 acres located within the buffers of the Thin Woman and Beaver's Rock MMMA's, respectively. This sale area is composed of 30 year-old trees with about 207 trees per acre. The thinning would reduce the density to about 122 trees per acre and would maintain a canopy cover of at least 60 percent. Sale Area 3 totals 68 acres and includes 25.5 acres located with the buffer of the Upper Fall Creek MMMA. This sale area is composed of 27 year-old trees and the thinning would reduce the density from about 320 trees per acre to 168 trees per acre and would maintain a canopy cover of at least 60 percent.

By conducting harvest activities outside of the breeding season, not removing potentially suitable marbled murrelet habitat, using caution to protect potential platform trees when setting tailholds and guylines, and retaining canopy cover of at least 60 percent, we concur with your assessment that the proposed harvest activities associated with the Cabin Fever and Thin Women timber sales should have a low risk of incidental take of marbled murrelets. We suggest that post-harvest assessments be made to validate the harvest prescription and canopy retention targets and that any variances that may affect the quality or quantity of habitat in the MMMA be reported back to us for future consultations.

If you have any questions about this response, please contact Richard Szlemp at 503-231-6179. We appreciate your efforts to avoid negative impacts to federally-listed species such as the northern spotted owl and marbled murrelets, and look forward to continued coordination in this regard.

Sincerely,

A handwritten signature in cursive script, appearing to read "Paul Henson". The signature is written in dark ink and is positioned above the typed name and title.

for Paul Henson, Ph.D.  
State Supervisor



# Oregon

Kate Brown, Governor

## Department of Forestry

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FAX 503-945-7212  
[www.oregon.gov/ODF](http://www.oregon.gov/ODF)

To: Doug Decker, State Forester

From: Andy White, Northwest Oregon Area Director

Date: June 21, 2016

Subject: Approval of Modifications to Astoria, Forest Grove and Tillamook District Implementation Plans and Astoria District Forest Land Management Classifications.



"STEWARDSHIP  
IN FORESTRY"

## Introduction

This memo conveys approval of modifications to the Implementation Plans (IPs) for the Astoria, Forest Grove and Tillamook Districts and the Astoria District Forest Land Management Classifications (FLMC). Since the approval of the IPs for Astoria and Forest Grove Districts in 2011 and Tillamook District in 2009, and Astoria District's FLMC in 2012, changes have occurred on these districts that necessitate updating the desired future condition landscape design component of the IPs. Additionally, Astoria District made corresponding updates to the FLMC based on these changes.

## Implementation Plan Changes

The landscape design for the Astoria and Forest Grove Districts consists of 30 percent of the land base which is designated to achieve a Desired Future Condition (DFC) of either Layered or Older Forest Structure. On the Tillamook District the designation is 40 percent. The purpose of the landscape design is to communicate where on the landscape older forest conditions will be developed to achieve the objectives set forth in the Northwest Forest Management Plan (FMP).

In order to adapt to new information such as: updated forest inventory, new threatened and endangered species sites, forest land management classification updates, landscape changes due to storm damage, insect and/or disease or other significant events; the landscape design was anticipated to change over time. Changes of up to 240 acres annually are considered minor changes and can be approved by the District Forester concurrent with the Annual Operation Planning (AOP) process. Changes that are greater than 240 acres are considered major and require a public comment period and are approved by the State Forester. The current changes are relatively small (less than one percent of each districts acreage) but are greater than the 240 acre administrative threshold qualifying them as a major change.

These revisions in the landscape designs are being proposed for four reasons: 1) discovering areas where DFC complex would provide more resource protection in a different location such as within new northern spotted owl site, along streams containing listed Coho salmon, recreation areas, scenic resources and areas which tie into stands currently designated as complex or provide connectivity between patches of land designated for complex; 2) fitting a stand to a more appropriate or realistic pathway based on additional data obtained from updated inventory and field observations during the AOP planning process; 3) refinement of the DFC boundary on-the-ground for more

efficient operational implementation; and 4) GIS “housekeeping” to remove gaps and align the designations to our ownership layer.

### Forest Land Management Classification Changes

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

The Astoria FLMC was last updated in June of 2014. Since that time, the district has been in the process of reclassifying many of their Marbled Murrelet Management Areas (MMMA), as well as continuing to conduct fish presence surveys on streams with unknown fish use. This FLMC update incorporates the new MMMA acres and stream classification acres – no other changes were made to the FLMC. These changes meet the definition of a major modification. A major modification is defined as one that cumulatively exceeds 500 acres within one year requiring State Forester approval.

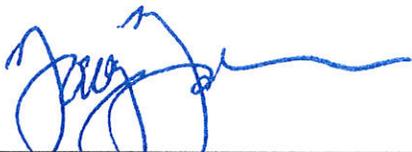
### Public Comment

Both the major modifications to the IPs and updates to Astoria’s FLMC required a public comment period. The public comment period occurred between April 4, and May 20, 2016 concurrent with the Annual Operations Plan public comment period. In response to the public comment period, two comments were received regarding the modifications to the IPs and no comments were received regarding Astoria’s changes to the FLMC.

The two comments received regarding the IP modifications (attached) were from the North Coast State Forests Coalition and a citizen of Clatsop County, Tom Scoggins, who had one specific comment on Astoria’s proposed changes. The Astoria District responded to the comment from Tom Scoggins. Ron Zilli responded to the comment from the North Cost State Forests Coalition via a phone conversation with Chris Smith on June 9, 2016 and answered his questions regarding the basis for the landscape design changes.

After reviewing the described changes in Appendixes F and G of the respective districts Annual Operation Plans, corresponding maps/data, the public input, the recommendations from the District Foresters and Area Directors, and consistent with OARs 629-035-0030, 629-035-0060(3) and 629-035-0105(1)(a); I am approving the Implementation Plan modifications for Astoria, Forest Grove and Tillamook, and the Forest Land Management Classification changes for Astoria.

Approved by:



Doug Decker, Oregon State Forester

6.21.16

Date

### Attachments:

- (1) Appendixes F and H - Astoria FY2017 Annual Operations Plan
- (2) Appendix F - Forest Grove FY2017 Annual Operations Plans
- (3) Appendixes F - Tillamook FY2017 Annual Operations Plan
- (4) Public comment from North Coast State Forest Coalition
- (5) Public Comment from Tom Scoggins

## **Appendix F - Changes to Landscape Design – Major Modification to the Astoria District Implementation Plan**

The Landscape Design for the Astoria District consists of 30 percent of the land base which is designated to achieve a Desired Future Condition (DFC) of either Layered (LYR) or Older Forest Structure (OFS). The 30 percent landscape design was adopted in July of 2011 as part of the revised Astoria District Implementation Plan (IP). The IP describes the purpose of the landscape design is to achieve landscape objectives set forth in the Northwest Forest Management Plan (FMP).

In order to adapt to new information such as: updated forest inventory, new threatened and endangered species sites, forest land management classification updates, landscape changes due to storm damage, insect and/or disease or other significant events; the landscape design was anticipated to change over time. Changes of up to 240 acres annually are considered minor changes and can be approved by the District Forester concurrent with the Annual Operation Planning (AOP) process. Changes that are greater than 240 acres are considered major and require a public comment period and are approved by the State Forester.

The proposed changes are driven by four factors: 1) new threatened and endangered species sites; 2) updated inventory information of stands that have recently grown into OFS or are approaching OFS; 3) forest land management classification updates (See Appendix A of the FY17 AOP); and 4) GIS "housekeeping" to removing gaps and snapping the DFC layer to our ownership layer.

The currently proposed changes consist of adding 1,645 acres and removing 1,725 acres. The resulting total district acreage within the mapped DFC landscape design is 41,118 acres (30.05%). A summary of the current forest condition of the proposed changes is shown in Figure 1. A summary of the current stand age of the proposed changes is shown in Figure 2. The spatial location of the changes is shown in Figure 3.

Summary of the basis for stands added to the mapped DFC landscape design:

- Threatened and Endangered Species Sites: The Astoria District has been revising existing MMMA boundaries to meet new policy standards. In 2011 all the district MMMA's were placed into the landscape design. As the district has been revising boundaries to the MMMA's, many of the newly designated MMMA's were not within the district DFC. Approximately 722 acres of MMMA not within the district DFC and has now been added.
- Threatened and Endangered Species Sites: Stands with recent NSO activity
- Update Inventory – Stands currently OFS or nearly at that condition after field review
- GIS housekeeping – snapping boundaries to ownership, removing gaps, etc.

Summary of the basis for stands removed from the mapped DFC landscape design:

- Stands not adjacent or within a Threatened and Endangered Species Site
- Stands not currently OFS
- Stands not expected to reach the DFC goal due to silvicultural limitations.
- Stands meeting the criteria above that also have high revenue generating potential.
- GIS housekeeping – snapping boundaries to ownership, removing overlaps, etc.

This proposed major modifications to the IP requires a 30 day public comment period which will be held in conjunction with the Districts 2017 AOP public comment period. At the close of the public comment period, the Department will consider the public comments and make final decisions on the proposed changes.

Figure 1.

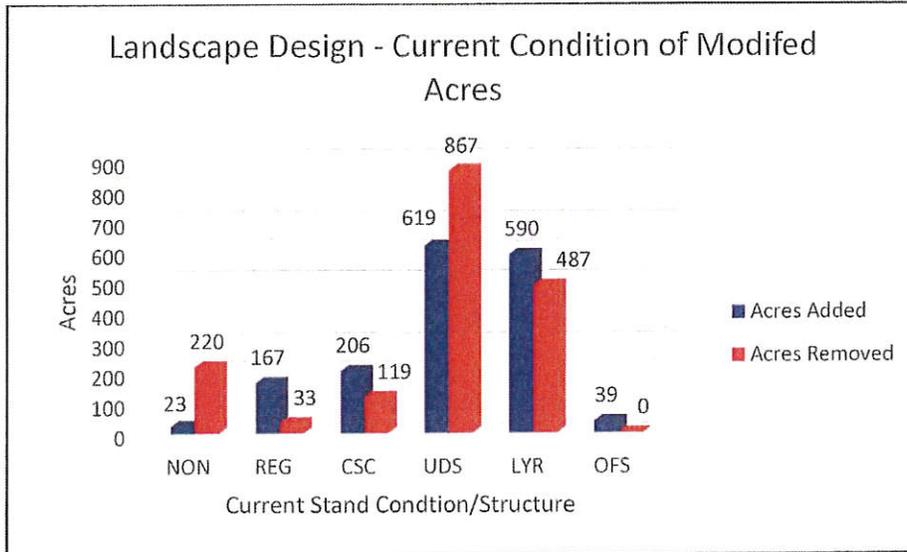


Figure 2.

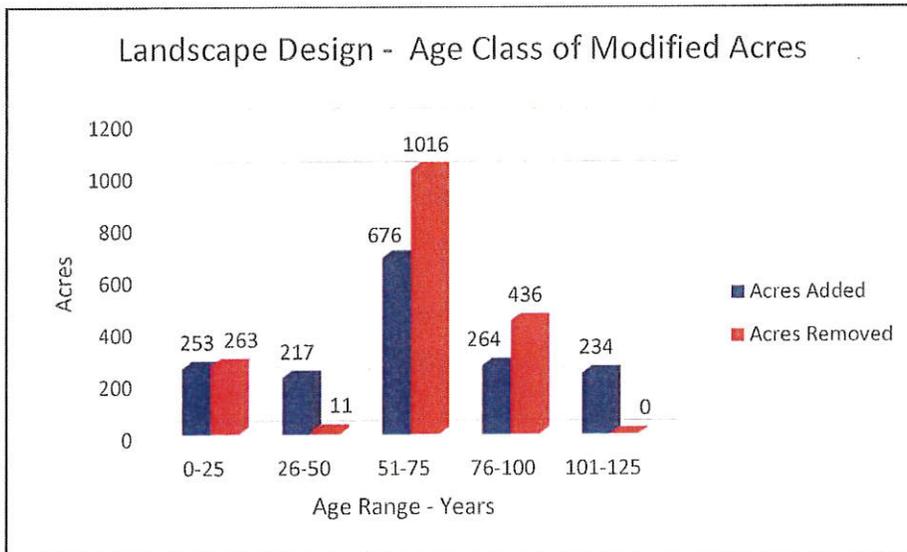
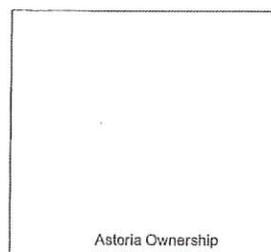
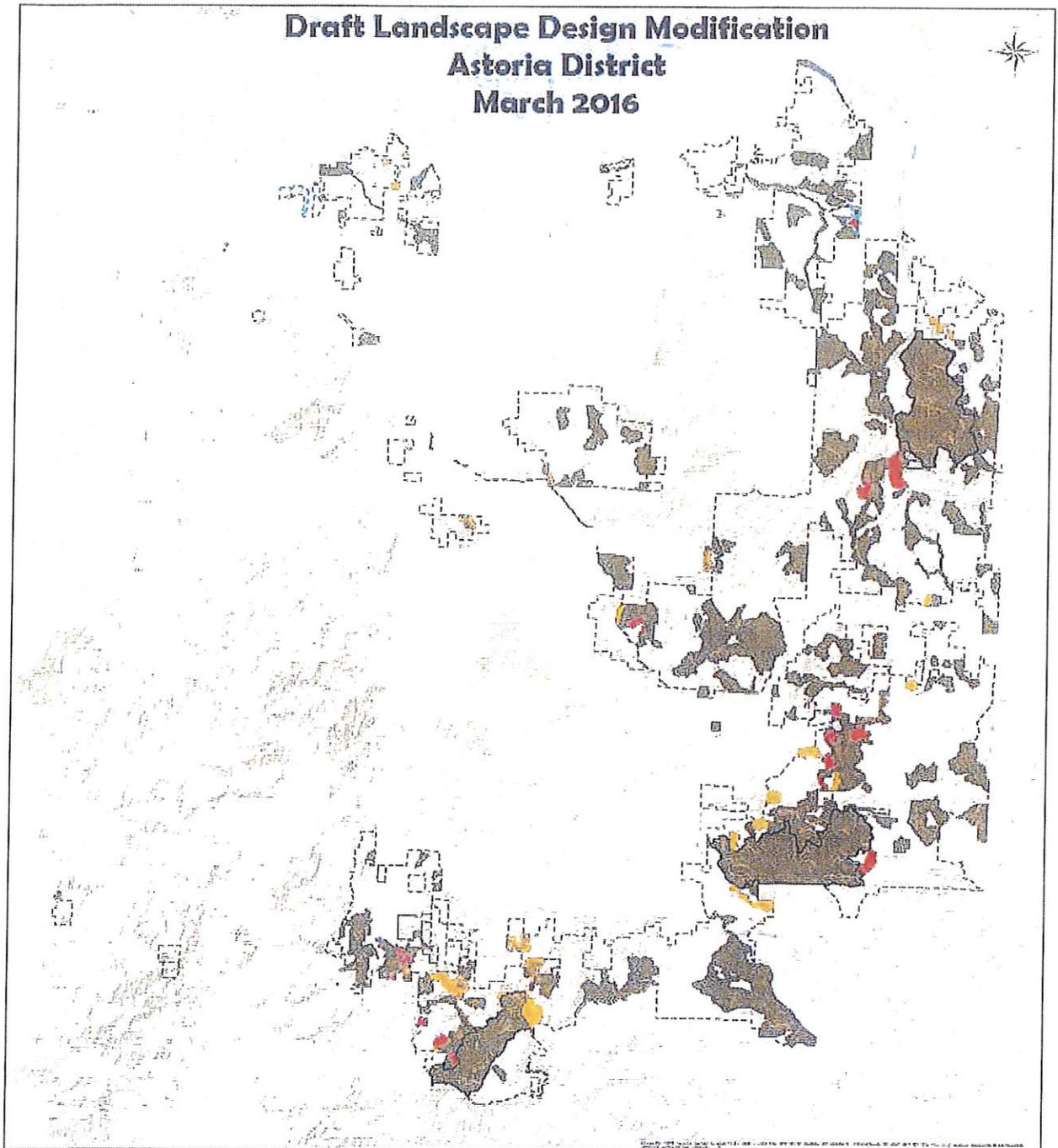


Figure 3.



## Appendix H – Changes to Forest Land Management Classification

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

The framework of the FLMC places all state forest land within one of four land management classifications. The classifications are: 1 - General Stewardship, 2 – Focused Stewardship, 3 – Special Use, and 4 – High Value Conservation Area. Subclasses are assigned for the specific forest resources that require a Focused Stewardship, Special Use, or High Value Conservation Area Classification.

This Appendix describes changes to the Astoria District FLMC. These changes meet the definition of a major modification. A major modification is defined as one that cumulatively exceeds 500 acres within one year. Major modifications require a 30 day public comment period which will be held in conjunction with the Districts 2017 AOP comment period. At the close of the public comment period, the Department will consider the public comments and make final decisions on the proposed changes. The District Forester will forward the draft final changes along with any public comments to the Northwest Oregon Area Director and the State Forester for review and final approval.

The Astoria District FLMC was last updated in June of 2014. Since that time, the District has been in the process of reclassifying many of their Marbled Murrelet Management Areas (MMMA), as well as continuing to conduct fish presence surveys on streams with unknown fish use. These two processes affect the acres of both Focused Stewardship and High Value Conservation in the Wildlife Habitat and Aquatic & Riparian Subclasses. This FLMC update incorporates the new MMMA acres and stream classification acres – no other changes were made to the FLMC. All acres are listed in the tables below.

Tables 2 and 3, originating in the District Implementation Plan have been updated to reflect these changes. As defined in OAR 629-035-0060, major modifications require State Forester approval. Updated FLMC maps are also included in this Appendix.

Table 2. Astoria District Acres, by Stewardship Class and Fund

Classification	BOF	CSL	Total Acres
High Value Conservation	24,380	250	24,629
Focused Stewardship	62,624	1,379	64,003
Special Use	1,264	64	1,328
General Stewardship	46,554	312	46,866

Table 3. (Includes overlapping Acres) Forest Land Management Classifications for Astoria District – Focused and Special Subclasses (Acres)

	Focused	Special Use	High Value Conservation
Administrative Sites	0	76	0
Agriculture, Grazing	0	11	0
Aquatic & Riparian	48,589 47,642	0	43,058 13,713
Cultural Resource	8	10	0
Domestic Water Use	81	0	0
Energy & Minerals	0	255	0
Operationally Limited	0	790	0
Plants	0	0	55
Recreation	1,098	140	0
Research/Monitoring	250 249	91	0
Transmission	0	214	0
Visual	9,237 9,236	33	0
Wildlife Habitat	37,088 37,532	0	12,027 12,132

# APPENDIX F

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## Changes to the Landscape Design – Major Modification to the Forest Grove Implementation Plan

As described in the 2011 Forest Grove Implementation Plan, the district has mapped a Landscape Design that designates 30% of the district acres in a future complex condition, either Layered (LYR) or Older Forest Structure (OFS). The term General management (GEN) or non-complex will be used to describe the desired future condition (DFC) of stands that are not planned for OFS or LYR in the Forest Grove District's landscape design.

In order to adapt to new information such as: updated forest inventory, new threatened and endangered species sites, forest land management classification updates, landscape changes due to storm damage, insect and/or disease or other significant events; the landscape design was anticipated to change over time. Changes of up to 240 acres annually are considered minor changes and can be approved by the District Forest concurrent with the Annual Operation Planning (AOP) process. Changes that are greater than 240 acres are considered major and require a public comment period and are approved by the State Forester.

Major revisions in the DFC landscape design are being proposed for a 3 reasons: 1) discovering areas where DFC complex would provide more resource protection in a different location such as within new northern spotted owl site, along streams containing listed Coho salmon, recreation areas, scenic resources and which tie into stands currently designated as complex or provide connectivity between patches of land designated for complex; 2) fitting a stand to a more appropriate or realistic pathway based on additional data collected through Stand Level Inventory (SLI) and field observations during the AOP planning process; and 3) refinement of the DFC boundary on the ground.

The proposed changes consist of adding 4,536 acres and removing 3,641 acres. The resulting total district acreage within the mapped Landscape Design is 35,076 acres (30.5%). A summary of the current forest condition of the proposed changes is shown in Figure 1. A summary of the current stand age of the proposed changes is shown in Figure 2. The spatial location of the changes is shown in Figure 3.

Summary of the basis for stands added to the DFC Landscape Design:

- Areas where DFC complex would provide more resource protection such as new northern spotted owl site, streams which contain Coho salmon, recreation and scenic areas.
- Areas that provide connectivity between larger areas of DFC complex
- GIS refinement of the DFC boundary after field review.

Summary of the basis for stands removed from the DFC Landscape Design:

- Stands not currently within a threatened and endangered species site
- Stands not expected to reach DFC complex due to silvicultural limitations
- Stands meeting the criteria above that also have high revenue generation potential
- GIS refinement of the DFC boundary after field review.

This proposed major modification went through a public comment period from April 4 through May 20, 2016. There were no comments received that were opposed to the modification.

Figure 1. Current Condition of Revised Acres

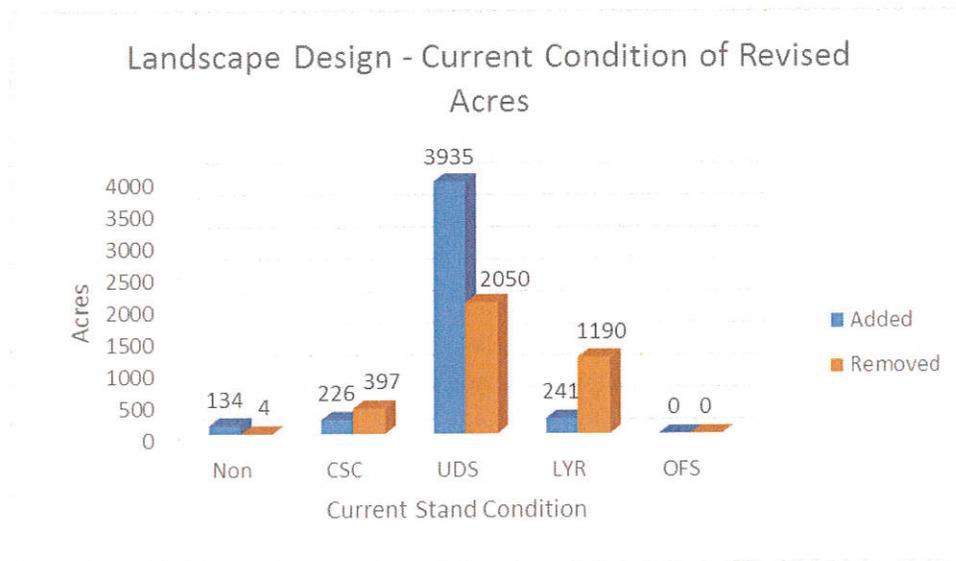
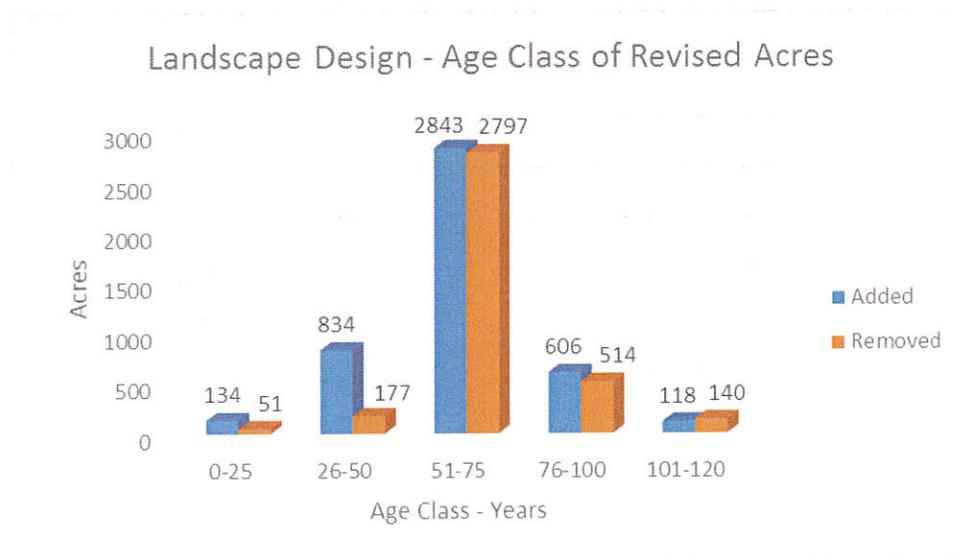
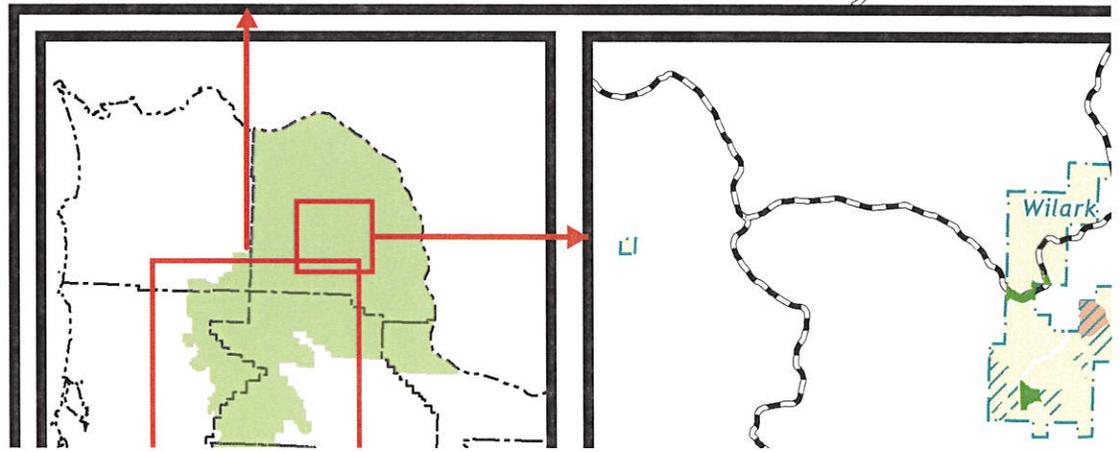
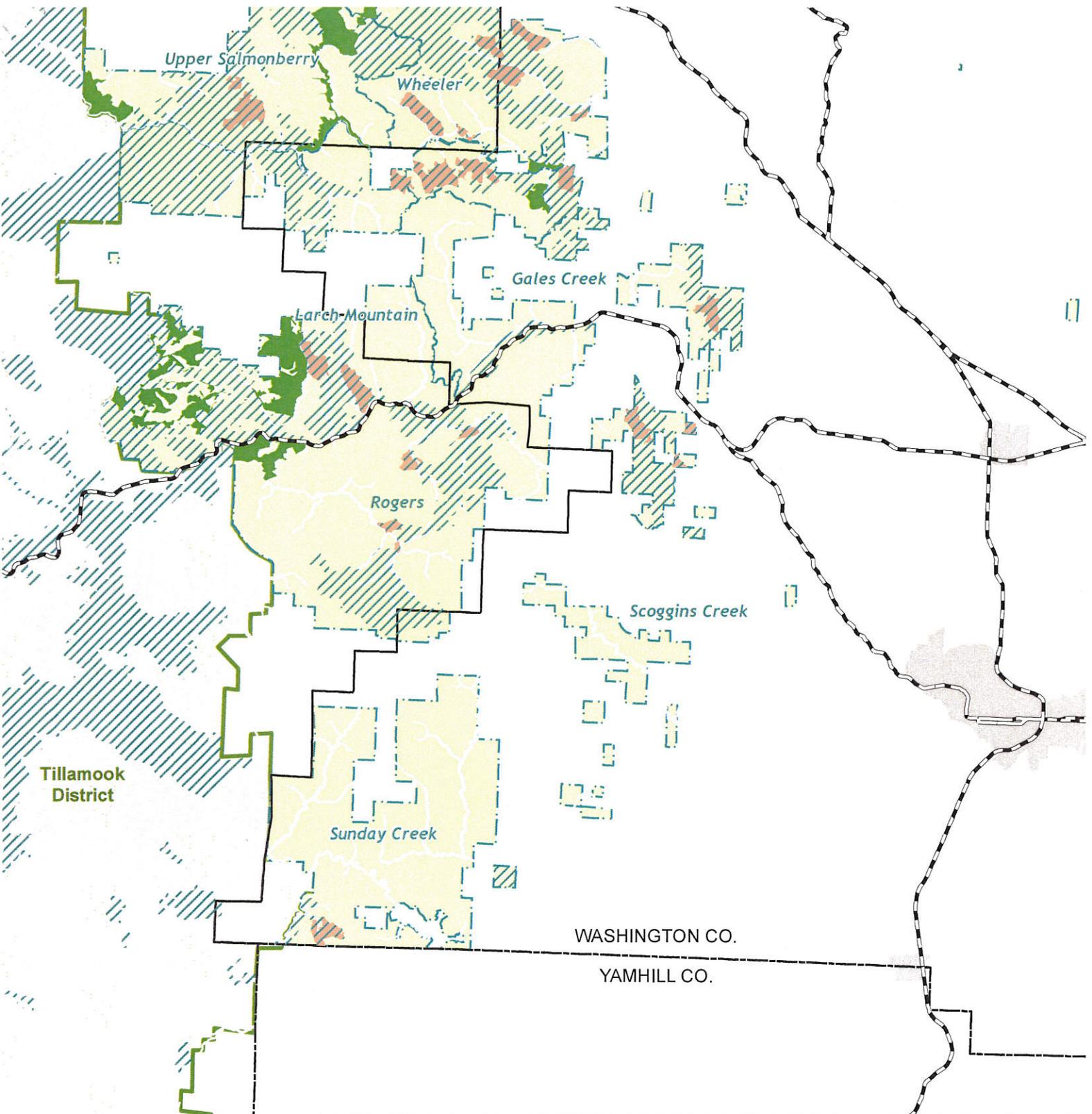


Figure 2. Age Class of Revised Acres





# Appendix F

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## Changes to Landscape Design – Major Modification to the Tillamook District Implementation Plan

The Landscape Design for the Tillamook District consists of 40 percent of the land base which is designated to achieve a Desired Future Condition (DFC) of either Layered (LYR) or Older Forest Structure (OFS). The landscape design is a long term vision of the Desired Future Condition (DFC) for an array of stand structures across the district which will be achieved through a variety of silviculture prescriptions across diverse stands types.

The Landscape Design was revised in the 2009 Tillamook District Implementation Plan. The IP describes the purpose of the landscape design is to achieve landscape objectives set forth in the Northwest Forest Management Plan (FMP).

In order to adapt to new information such as: new and updated threatened and endangered species sites, landscape changes due to storm damage, insect and/or disease or other significant events; the landscape design was anticipated to change over time. Changes of up to 240 acres annually are considered minor changes and are approved by the District Forester concurrent with the Annual Operation Planning (AOP) process. Changes that are greater than 240 acres are considered major and require a public comment period and are approved by the State Forester.

The proposed changes are driven by four factors: 1) threatened and endangered species sites updates; 2) Terrestrial Anchor Site (TAS) desired future condition updates; 3) updated inventory information of stands that have recently grown into complex structure (LYR or OFS) or are approaching complex; and 4) changes to the desired future condition from OFS to LYR due to field review of stands.

The currently proposed changes consist of adding 4,365 acres to the DFC complex structure categories, removing 2,644 acres from the DFC complex structure categories, and changing 131 acres from OFS to LYR. The resulting total district acreage changes within the mapped DFC landscape design is 7,140 acres (2.8%). A summary of the current forest condition of the proposed changes is shown in Figure 1. A summary of the current stand age of the proposed changes is shown in Figure 2. The spatial location of the changes is shown in Figure 3.

Summary of the basis for stands added to the mapped DFC complex landscape design:

- Threatened and Endangered Species Sites: The Tillamook District has begun work on revising existing MMMA boundaries and drafting new MMMA boundaries to meet new policy standards. Approximately 1,987 acres of MMMA, not currently in DFC complex will be added.
- Terrestrial Anchor Sites (TAS): The Tillamook District TASs were created after the last Landscape Design update for the district (2009). Approximately 2,154 acres in the TASs are not designated as DFC complex and now will be added.
- Update Inventory – Stands currently LYR, OFS, or nearly at that condition after field review. Approximately 224 acres has now been added to DFC complex.
- Approximately 131 Acres will be changed from a DFC of OFS to LYR due to current stand conditions.

Summary of the basis for stands removed from the mapped DFC complex landscape design:

- Stands not within a known Threatened and Endangered Species Site
- Stands not currently in OFS or LYR structures
- Stands not expected to reach the DFC complex goal due to silvicultural limitations.

This proposed major modifications to the IP requires a 30 day public comment period which will be held in conjunction with the Districts 2017 AOP public comment period. At the close of the public comment period, the Department will consider the public comments and make final decisions on the proposed changes.

Figure 1.

### DFC - Current Condition of Modified Acres

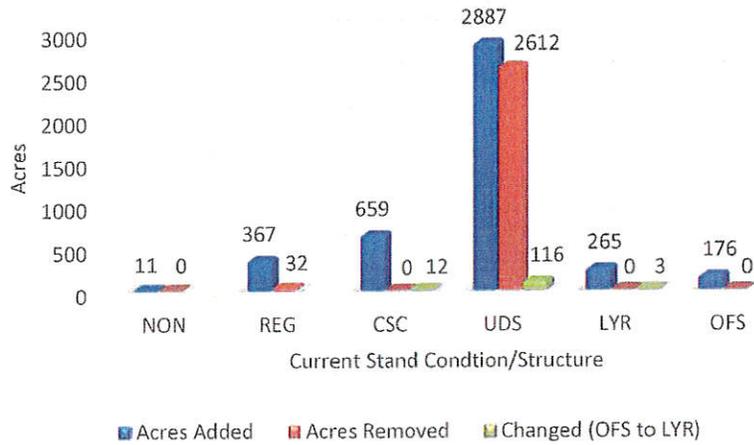


Figure 2.

### DFC - Age Class of Modified Acres

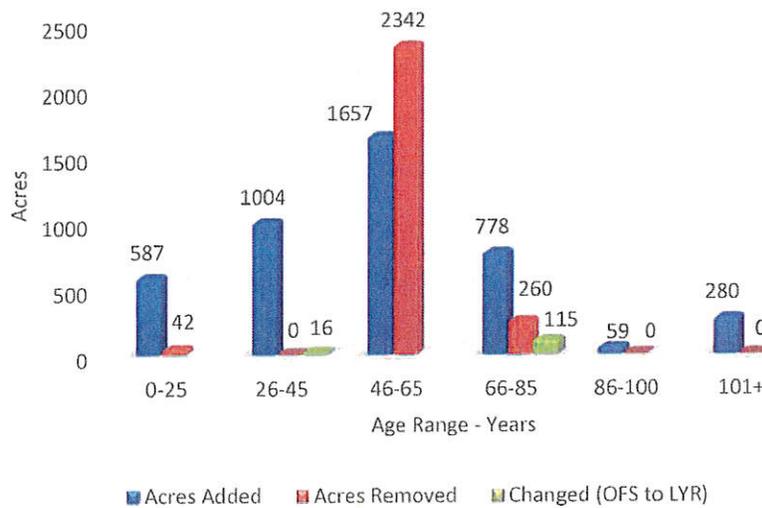
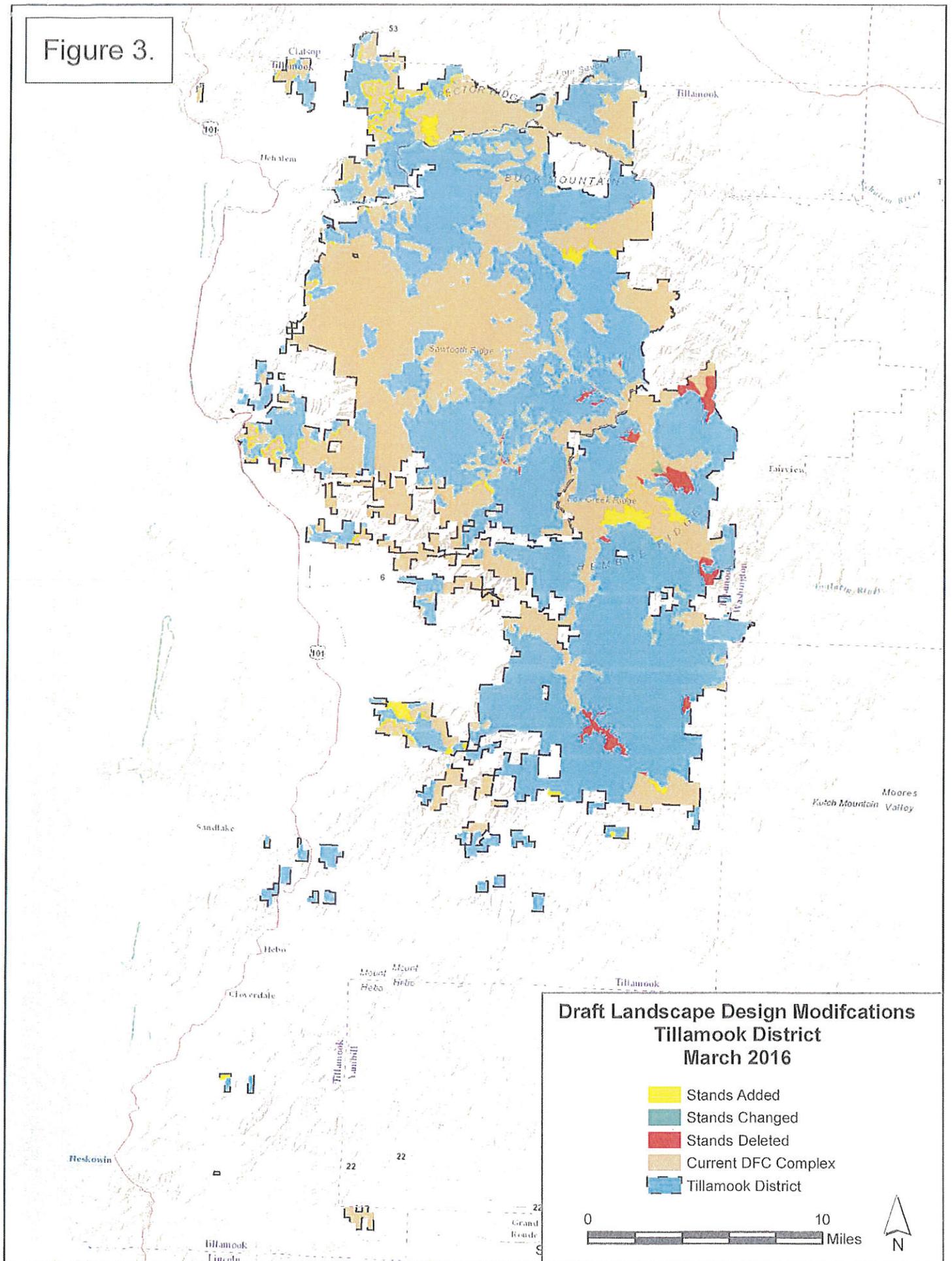


Figure 3.





North Coast State Forest Coalition

## North Coast State Forest Coalition

C/o Northwest Steelheaders  
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[www.forestlegacy.org](http://www.forestlegacy.org)

To the Oregon Department of Forestry,

Thank you for considering the North Coast State Forest Coalition's comments on FY2017 Annual Operations Plans for the Tillamook, Astoria, and Forest Grove Districts. We appreciate the time and care that went into these AOPs and would encourage Salem and district staff to engage us regarding any of our remarks below. Several remarks are similar or identical to those made by our Coalition regarding previous AOPs and reflect ongoing themes in the yearly plans that we would like to see addressed.

### General comments regarding all three districts:

- Our primary concern with these AOPs is the **significant increase in clearcut acreage** on all three districts. Meanwhile partial cut ranges have been decreased on all three districts (to a low of 0 acres in the Forest Grove and Tillamook Districts and 100 acres in the Astoria District). Clearcutting and associated activities are often detrimental to fish & wildlife habitat, clean drinking water, public health, and slope stability. This move from a balance between thinning and clearcutting has been explained in Appendix G of all three AOPs, but signals a lack of available acres for partial cuts and calls to question the overall sustainability of harvest levels and the ability to grow various forest structures across the landscape. State forest clearcutting contributes minimal habitat value on the north coast, while thinning has the potential to contribute to harvest levels and habitat value simultaneously.

If this move is primarily driven by a lack of thinning opportunities, it would be desirable to know when those opportunities will reemerge. If this is a long term concern, harvest levels should be lowered.

If this move is driven by the economics of clearcutting vs. thinning, we would urge you to not only consider the environmental and social impacts of clearcutting, but also review a recent publication by the USDA which indicates the habitat *and* timber value increases associated with thinning in the coast range: *Effect of Habitat-Improvement Thinnings on Lumber Products from Coastal Douglas-fir* by Dennis P. Dykstra, Patricia K. Lebow, Stephen Pilkerton, R. James Barbour, Susan Stevens Hummel, and Stuart R. Johnston, April 2016 ([http://www.fs.fed.us/pnw/pubs/pnw\\_rp605.pdf](http://www.fs.fed.us/pnw/pubs/pnw_rp605.pdf)).

- We are glad to see that district staff is contributing its time and expertise to help with **inventory questions** which are critical to any long term planning. Accurate inventory and growth data is obviously a priority.
- The amount of **aerial pesticide application** is troubling. Pesticide drift can cause public health problems and pesticides that find their way into waterways degrade water quality for humans and aquatic wildlife. These AOPs indicate that site preparation and vegetation management will require nearly 5,000 acres to be sprayed, much of it aerially. For public lands, this is unacceptable.

A coalition of conservation and fishing groups working together for a balanced plan to protect the  
Tillamook and Clatsop State Forests' natural legacy

Association of NW Steelheaders ~ Oregon Chapter Sierra Club ~ Oregon Council Trout Unlimited ~ Pacific Rivers Council  
Northwest Guides and Anglers Association ~ Wild Salmon Center ~ Native Fish Society

- The massive **road network** across all three districts continues to grow. The AOPs indicate a net increase of 24.5 miles to the already dense road network. While road improvement is welcome, we believe that the road network should be reduced to improve watershed health. The density on private land holdings in these watersheds is also very high and ODF holdings should mitigate for the private road network. Furthermore, an ever increasing road network footprint decreases land for marketable timber.
- It is disappointing that the FY2017 AOPs only support base level maintenance of existing **recreational infrastructure** due to budget constraints. We will continue to advocate for supplemental financial support and alternative revenue sources for important recreation programs and we urge the Department to do the same. We are excited for an updated version of the Tillamook State Forest Recreation Map and would be keen to support the Department in this venture.
- It is welcome to see no planned clearcuts in **Terrestrial Anchor Sites**.
- There are high clearcut levels in several **Aquatic Anchors**, including Buster Creek, Upper North Fork Nehalem, Lousignont Creek/Upper Nehalem (nearly 1000 clearcut acres), East Fork South Trask, and Little North Fork Wilson. These areas are obviously critical for a variety of fish species. While slightly improved buffers are welcome in AAs, we would recommend focusing harvest away from these anchors.
- All three districts note extensive plans for **mountain beaver** trapping. We understand the importance of protecting young trees. The Forest Grove District remarks that mountain beaver populations are increasing and are historically high. It may be beneficial to examine the causes of this rather than only focus on trapping.
- We encourage the Department to support the **Salmonberry Trail project**, but we would request that the Salmonberry conservation commitments and their promotion be a priority.
- We urge you to take seriously and follow the recommendations in the **ODFW Biologist Review**.
- **Policy Bulletin SFB 13-02** runs counter to the ODFW recommendations that “GTs should be avoided in or adjacent to RMAs and GTAs as their functions as structural components are minimized.” The proper scientific function of green trees and snags should certainly take priority over “efficient harvest units.” *The Policy Bulletin is only referenced in the Tillamook AOP, but the ODFW recommendations are found across all three Districts.*
- We encourage the Department to be aggressive in seeking **restoration project opportunities**. To our mind, it is unfortunate that these important projects are only done opportunistically. Watershed restoration should be a priority.

#### **Comments specific to Astoria District operations:**

- We are keen to better understand the **Major Modification to the IP** as described in Appendix F and would like to meet with ODF staff to discuss the modification. The amount of 76-100 year old acres being replaced by 26-50 year old acres in the DFC Complex allotment is concerning.

- Area 1 of **Rector Quad** appears to offer uncommon habitat type as a mixed age stand with older trees. We would be keen to view this sale with ODF staff to understand the forest structure and prescription better. This sale also includes management activity within ¼ mile of a marbled murrelet management area.
- The Astoria District AOP is unique in that it explicitly omits **right-of-way acres** for new road construction in harvest acreage (page 4). This seems counterintuitive as those acres are typically logged before road construction and no longer offer conservation value. We would like to know if this practice is the same for the Tillamook and Forest Grove District AOPs.

#### **Comments specific to Tillamook District operations:**

- We are keen to better understand the **Major Modification to the IP** as described in Appendix F and would like to meet with ODF staff to discuss the modification.

#### **Comments specific to Forest Grove District operations:**

- We are keen to better understand the **Major Modification to the IP** as described in Appendix F and would like to meet with ODF staff to discuss the modification. It would be helpful to have the type of information that the Tillamook and Clatsop District AOPs articulates in Figures 1 and 2 of Appendix F.
- **My Mulligan, Mega Lou Mania, and Step Over** are all located near Lousignont Creek, a spawning stream for coastal coho salmon. These sales also include clearcutting relatively old forest stands. We are interested in learning more about these operations. It is concerning to see expansive clearcutting of old stands in this Aquatic Anchor.

Sincerely,

Rhett Lawrence, Oregon Chapter Sierra Club  
Tom Wolf, Oregon Council of Trout Unlimited  
Bob Rees, Northwest Guides & Anglers Association  
Ian Fergusson, Association of Northwest Steelheaders  
Bob Van Dyk, Wild Salmon Center  
Greg Haller, Pacific Rivers Council  
Conrad Gowell, Native Fish Society

## NALL Rob \* ODF

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**From:** ZILLI Ron F \* ODF  
**Sent:** Thursday, April 14, 2016 2:09 PM  
**To:** TILLOTSON John E \* ODF  
**Cc:** CHOATE John W \* ODF; GOODY Dan B \* ODF; WILLIAMS Ty \* ODF; LERTORA Frank T \* ODF; MOYER Charley \* ODF; NALL Rob \* ODF  
**Subject:** FW: Astoria District 2017 AOP

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

FYI – AOP comments from Tom Scoggins.

Ron

**From:** Thomas Scoggins [mailto:tvscoggins733@gmail.com]  
**Sent:** Thursday, April 14, 2016 1:59 PM  
**To:** ZILLI Ron F \* ODF <Ron.F.ZILLI@oregon.gov>  
**Subject:** Astoria District 2017 AOP

Hi Ron-

Thanks for making the Pre-Operations Reports for the 2017 AOP available to me. I have reviewed them and have the following comments:

1. By and large, I find the plan agreeable, especially realizing the mandate to increase volume sold, particularly in the form of clearcuts (MC). It does look like the planned harvesting will be spread fairly equitably across the district, ensuring that no parts of the forest are "forgotten" for long.
2. The only planned sale I have any problems with would be "Harkin Larkin," planned as an Alternate for 2017. Most of Area 1 and all of Area 2 were thinned for the second time in the mid-90's, with the effect of producing "layered" stands that were well on their way to OFS, particularly in Area 2. In fact, portions of Area 2 were a special stop for many tours in which we were showing what could be done in the FMP to move stands rapidly toward OFS. However, the "current condition" shown in Table IV, shows most of Area 1 and all of Area 2 as "CSC." I have a hard time believing these thinned stands are in a CSC condition. Actually, I believe Area 2 should have a DFC of OFS. perhaps in place of some other nearby stands which are not so far along in their development.
3. Other than that, I did notice a number of typos and misspellings, which someone might want to check.
4. I found many of the maps a bit hard to follow, mostly because very few roads and streams were labeled. In fact, one map, for "Rector Quad," did not even show section lines! (There may have been others also). Perhaps this lack of labeling is by design, to make it harder for reviewers to accurately locate these planned operations, but I doubt it.

Thank you for the opportunity to comment on this plan.

Tom Scoggins

# Memo

**To:** Andy White, NWO Area Director  
Liz Dent, State Forest Division Chief  
Brian Pew, State Forest Deputy Division Chief

**From:** Kate Skinner, Tillamook District Forester

**CC:** Barb Moore, Tillamook Assistant District Forester  
Ron Zilli, Field Operations and Policy Manager

**Date:** June 27, 2016

**Re:** Minor Modification to the Tillamook District Implementation Plan

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## **Tillamook District Implementation Plan – Minor Modification of Partial Cut Acreage Range**

The Tillamook District Implementation Plan (IP) under the Northwest Oregon State Forests Management Plan was approved as revised in 2009. The plan provides for minor modifications as approved by the District Forester. Minor modifications are any modification that does not meet the definition of major modification included in the IP document. (Major modifications are those revisions that result in major changes to the Forest Land Management Classifications as defined in OAR 629-053-0060; or those that result in changes to the annual harvest level ranges of more than 25% based on the combined acreage of regeneration and partial cut harvests.)

### **Background:**

The district plans a minor modification to the range of partial cut acres based on several considerations.

- The State Forest Murrelet Operational Policy was revised in 2013, after the approval of the Tillamook District IP. The protection measures and strategies in the revised policy are not reflected in the IP document.
- The district has improve stand data on mixed hardwood/conifer stands.

- Swiss Needle Cast (SNC) and impacts to stand growth and health limits partial cut opportunities.
- During the implementation of the FMP (2001) the district has partial cut approximately 17,000 acres to create stand complexity and structure. The opportunity and need to continue partial cuts at the same rate has decreased.

As a result, the district has prepared a minor modification to the acres ranges in Table 6, Annual Silvicultural Activities for Fiscal Years 2010 to 2019 and in Table 11, Annual Harvest Objective, Volume and Acres in the District IP.

**Tillamook District Minor IP Modification:**

The Tillamook District Partial Cut range in the Tillamook Implementation Plan is 850 – 3,450 acres as shown in Table 6 and in Table 11 of the IP. The proposed change is considered a minor modification and will lower the partial cut harvest goal to 0 acres in order to provide flexibility and the ability to apply appropriate silviculture prescriptions on the landscape. This change in acres totals 17.2%, under the 25% allowed for a minor modification. The district does not currently anticipate operating at the high end of the partial cut range.

Table 11. Annual Harvest Objective, Volume and Acres

Volume (MMBF)	Clearcut (Regeneration Harvest) Acres	Partial Cut Harvest Acres
(2009 I.P.) 47	800 - 3,150	850 - 3,450
(2016 Modification) 47	800 - 3,150	0 - 3,450

APPROVED:

  
 \_\_\_\_\_  
 Kate Skinner, Tillamook District Forester

6/30/16

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 Date