



# Oregon

Kate Brown, Governor

## Department of Forestry

Tillamook District  
5005 3<sup>rd</sup> Street  
Tillamook, OR 97141  
(503) 842-2545  
Fax (503) 842-3143



"STEWARDSHIP IN FORESTRY"

July 16, 2021

To: Andy White, Area Director  
From: Kate Skinner, Tillamook District Forester  
  
CC: Liz Dent, State Forests Division Chief  
Ron Zilli, State Forests Deputy Division Chief  
Colleen Kiser, State Forests Planning Manager

Re: Information Item – Approved Annual Operations Plan for FY 2022

The FY 2022 State Forests Annual Operations Plan (AOP) for the Tillamook District has been completed. During my review of this plan, I have found that it conforms to the Oregon Forest Practices Act and is consistent with the 2010 Northwest Oregon State Forest Management Plan, the 2011 District Implementation Plan, the 2022 Annual Operation Planning Standards, and the FY 2022 State Forests budget instructions.

During its preparation, this plan was reviewed by technical specialists from within the department, biologists from the Oregon Department of Fish and Wildlife and archeologists from the Oregon Department of Transportation. Information on the consultations with other agencies can be found in Appendix C. The draft AOP also underwent a 45-day public comment period. All comments were carefully considered and incorporated where appropriate. All changes that have occurred since the public comment period ended are summarized in Appendix D of the AOP.

Also included in the AOP is a minor modification the District IP. Appendix G summarizes the changes made to the District Landscape Design. Changes of up to 240 acres annually are considered minor changes and can be approved by the District Forester concurrently with the AOP. The signing of this letter will approve these proposed changes.

As prepared, this AOP consists of 48.2 MMBF of harvest volume. This volume will be achieved through 17 acres of partial cut harvest and 2,118 acres of regeneration harvest. There are 10 primary operations and 3 alternate operations within this plan. The operations are estimated to generate gross revenues of approximately \$14,738,862 and net revenues of \$11,605,158 within Tillamook and Clatsop Counties. The volume is just over the IP target of 47 MMBF. The reason for this higher volume is due to lower than anticipated volumes in previous fiscal years. This volume will achieve the goal of averaging of the Annual Harvest Objective (AHO) over the expected duration for the IP.

Reforestation and young stand management activities and investments are aligned with FMP objectives and budget considerations. Recreation facilities and trails are managed and maintained for safety, positive experiences and protecting other resources like water quality and are consistent with the FY 2022 budget level.

Approval of this plan does not constitute final approval of individual project details. Individual operations 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. 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. Harvest operations and the associated project work provide an accurate picture of what will be designed and prepared for contract in FY 2022. Due to the time lag with contract duration, most of the actual harvest operations with associated revenues will not occur for a period of one to two years beyond the end of the fiscal year. Forest management activities such as reforestation and recreation projects will occur in FY 2022

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

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

Approved:



Kate Skinner  
Tillamook District Forester

# Tillamook District

## 2022 ANNUAL OPERATIONS PLAN



# Tillamook DISTRICT

## FY 2022 ANNUAL OPERATIONS PLAN

### OVERVIEW

This plan describes the activities and outcomes that Oregonians can expect to see on the Tillamook District for FY 2022. 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 public forest has its challenges. In addition to the challenges of providing the opportunities described above, the forest is expected to be financially self-supporting. About two-thirds of the revenues from state forest timber sales go to local counties and other taxing districts, including schools. Oregon Department of Forestry (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 habitat improvement. We are striving to continue to provide the current opportunities and are considering a few opportunities for change.

Every year in the 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 and the plan has undergone a 45-day public comment period.

This Annual Operations Plan (AOP) will be reviewed by 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, motorized and non-motorized recreation users, hunters, fishermen, and wildlife advocates, as well as Oregonians in general.

The activities shown in the Summary Document and appendixes are estimates based on plans, information, and conditions as known at this point in time. The type, amount, and specific activities will be further adjusted based on field work conducted and on updated assessments that occur during the 2022 fiscal year.

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

- Planting 1,077,800 trees on 2,600 acres and conducting vegetation and animal management activities on an additional 8,507 acres to ensure the survival and growth of these plantations.
- Conducting density and operational surveys for northern spotted owls and marbled murrelets covering the majority of the district and surveying approximately 2 miles of streams for the presence of fish habitat.
- Protecting streams and water resources through a series of buffers and seasonal restrictions.
- Stream improvement projects. An initial screen by ODF's Aquatic and Riparian Specialist suggests that there may be potential opportunities for stream enhancement in some of the planned sale areas. Further field reconnaissance will be completed by District and Division Staff, along with ODFW, to determine possible locations.
- 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 300 miles of road and improving approximately 75 miles of road to ensure ditch water is dispersed and filtered, keeping runoff from entering streams. These roads provide access to timber harvest as well as various recreational opportunities.
- Reviewing District roads to develop plans to block or vacate roads to help manage trash dumping and target shooting.
- Beginning the planning cycle to harvest approximately 48 million board feet of timber volume, through modified clearcuts and partial cuts, generating revenue of an estimated \$11.6 Million net value. This harvest level is in 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:
  - 4 campgrounds
  - 2 OHV campgrounds
  - 6 day-use picnic areas
  - 82 designated dispersed campsites
  - 2 highway wayside interpretive sites
  - 12 trailhead facilities

- 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 307 miles of motorized and 20 miles of non-motorized trails, 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 forest management including the following programs:
  - Camp Hosts, Adopt a Trail and Forest Observer
  - SOLVE Beach & Riverside Cleanup
  - Trail Maintenance and Construction Work Parties
  - OHV Trail Equipment Volunteer Operator
- Facilitating the pre-planned 12 to 16 organized motorized trail use events and writing and administering 2 to 4 special use permits for non-motorized trail use events. Evaluate new event proposals for fit with forest goals
- Providing a firewood cutting program and miscellaneous forest products permits (salal, mushrooms, etc.) as done in 2020.
- Supporting ongoing research on the district, in partnership with research cooperatives and universities.

# TABLES OF CONTENTS

.....	3
<b>INTRODUCTION .....</b>	<b>8</b>
<b>INTEGRATED FOREST MANAGEMENT OPERATIONS .....</b>	<b>9</b>
<b>Timber Harvest Operations .....</b>	<b>9</b>
Overview of Timber Harvest Operations.....	9
Harvest Operations within Terrestrial Anchor Sites and Aquatic Anchors	11
Summary of Timber Harvest Operations by Basin .....	14
<b>Forest Roads Management .....</b>	<b>19</b>
Overview .....	19
Road Construction .....	19
Road Improvement.....	20
Road Access Management .....	20
Road Maintenance .....	21
Management of Rock Source/Supply .....	21
Land Surveying .....	21
<b>Young Stand Management.....</b>	<b>22</b>
Seedlings / Nurseries .....	22
Site Preparation .....	22
Planting .....	23
Tree Protection .....	24
Vegetation Management – Release Treatments .....	24
Pre-Commercial Thinning (PCT).....	25
Pruning.....	25
Stocking Surveys.....	25
Invasive Species .....	25

Roadside Spraying.....	26
<b>Recreation Management.....</b>	<b>26</b>
Overview of Recreation Management .....	26
Facilities (Campgrounds, Viewpoints, Trailheads, etc.) .....	27
Motorized (OHV) Trails .....	28
Non-motorized Trails .....	28
Volunteer Program and Partnerships.....	29
Event Management.....	29
<b>Other Integrated Forest Management Projects.....</b>	<b>30</b>
Aquatic & Riparian Management .....	30
Land Exchange .....	31
Law Enforcement and Public Safety .....	31
Firewood Cutting Program.....	32
Non-Timber Forest Products .....	32
<b>Planning .....</b>	<b>32</b>
Forest Inventory.....	32
Wildlife Surveys .....	32
Research and Monitoring.....	33
Recreation, Education, and Interpretation (REI) Program Planning – REI Program Wide	33
<b>Public Information and Education .....</b>	<b>33</b>
<b>Administration .....</b>	<b>34</b>
<b>APPENDICES .....</b>	<b>37</b>
<b>A. Summary Tables.....</b>	<b>38</b>
<b>B. Maps.....</b>	<b>49</b>
<b>C. Consultation with Other Agencies.....</b>	<b>51</b>
<b>D. Public Involvement.....</b>	<b>52</b>
<b>E. Pre-Operations Reports.....</b>	<b>53</b>



**F. Land Management Classification System .....54**  
**G. Landscape Design Minor Modification.....55**

# **INTRODUCTION**

This annual operation plan (AOP) outlines operations on state-owned forestland managed by the Tillamook District for Fiscal Year 2022 (FY22), which begins July 1, 2021 and ends June 30, 2022. 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 2009 Implementation Plan (IP)*. Please refer to the district IP's for more specific information on physical characteristics and other district resource information.

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 is listed within this introduction. In addition to describing forest management activities for FY22, Appendix F describes any modifications to the Forest Land Management Classification System. Appendix G describes any modifications to the Tillamook District Landscape Design.

The proposed harvest operations and activities are planned to be designed, engineered, and submitted for processing during the FY22 time period. Actual on-the-ground operations will likely not occur during FY22 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 FY22.

A 45-day public comment period was held from May 7, 2021, through June 21, 2021. No specific comments for the Tillamook District were received, but there were several comments that applied to all the proposed district AOP's. A summary of these can be found in Appendix D. The District Forester reviewed and considered all comments received before approving this plan.

As the Division works on implementing its new organization under Work Force Futuring, many of the positions are not filled yet so districts are understaffed and have several employees in new positions. In the short term some work will not be accomplished especially in Recreation and Reforestation. Training at the district level will be occurring throughout FY22. This should improve over the course of this fiscal year and into the next.

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* and the *Common School Forest Lands Annual Report*. These reports are available through the local district office or online.\*\*

\*Minor/major modifications and the procedures for making these changes are described in Tillamook District IP.

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

# **INTEGRATED FOREST MANAGEMENT**

## **OPERATIONS**

### **Timber Harvest Operations**

#### **Overview of Timber Harvest Operations**

All of the Primary and Alternate harvest operations and many of the other forest management activities have been reviewed by ODF's wildlife biologists, aquatic specialist, geotechnical engineer, road engineer, and planning manager, as well as fish and wildlife biologists from the Oregon Department of Fish and Wildlife, and archeologists from Oregon Department of Transportation. Occasionally, operations may contain a resource or activity where review with another state agency, such as the Department of Agriculture is warranted. Written comments from the external resource specialists and the resolution of those comments can be found in Appendix C.

The FY22 AOP is estimated to produce 48.2 million board feet in volume, generate gross revenues of approximately \$14,738,862 and net revenues of \$11,605,158. The goal is to achieve the average of the Annual Harvest Objective (AHO) of 47 MMBF over the expected duration for the IP. In order to achieve this average, the Tillamook District will harvest 48 million board feet in volume for FY22 and 50 million board feet or more for FY23. Under normal circumstances, the volume proposed in an AOP will be near the AHO target. However, some events may result in an AOP volume that is farther from the AHO target. These events may consist of, but are not limited to, storm damage, insect and/or disease outbreaks, timber market conditions or other significant events. Alternate timber sales included in the AOP may be sold as primary operations in response to any of these circumstances.

Additional operations may produce timber volume for the district during the 2022 fiscal year but are not included in this AOP. These are generally small areas, produce little volume, and/or are time sensitive in nature. These sales do not require significant effort to develop and execute and will comply with all policies, the district IP, and the FMP. Examples of these sales include salvage, pulp sales, removal of hazard trees, pole sales, etc.

Refer to the attached Tillamook District Financial Summary Table (Appendix A, Table A-1) and vicinity map (Appendix B) for more detail.

**Table 1. Annual Operations Plan objectives compared to annual objectives identified in the Tillamook District 2009 Implementation Plan. Harvest values are acres, Volume is in MMBF.**

Annual Harvest Objectives	IP Annual Objective		2022 AOP
	Low	High	
Volume (MMBF)	47		48.2
Partial Cut Harvest	0	3,450	17
Regeneration Harvest	800	3,150	2,118

Table 1 shows the proposed acres by harvest type. The 2,118 acres of regeneration harvest planned for FY22 represents less than 1 percent of the district. All of the regeneration harvest acres will be designed as modified clearcuts. The anticipated harvest acres, volume, and revenue for each proposed operation in this AOP are listed in the “Harvest Operations – Financial Summary” Table A-1 in Appendix A.

**Table 2. Accomplishment of AOP Harvest Volume Compared to IP Annual Objective (MMBF)**

Fiscal Year	IP Annual Objective	AOP Planned Volume	AOP Sold Volume	Cumulative Difference from Objective <sup>1</sup>
FY 10	47	47	34.9	-12.1
FY 11	47	47.2	47.5	-11.6
FY 12	47	47.3	51.0	-7.7
FY 13	47	47.3	43.4	-11.3
FY 14	47	50.2	47.4	-10.9
FY 15	47	47	48.8	-9.1
FY 16	47	47.6	48.0	-8.2
FY 17	47	47.1	50.9	-4.3
FY 18	47	47.1	53.2	1.9
FY 19	47	47	47.5	2.4
FY 20	47	47	45.8	1.2
FY 21	47	46	42.3	-3.5
FY 22	47	48.2	--	--

1. IP Harvest Objective versus Sold Volume.

### Overview of Structural Components

The guidelines for managing structural habitat components listed under Landscape Management Strategy 3 in the NWO State Forests Management Plan (pg. 4-52) will be followed for the FY22 Annual Operations Plan. Structural components may be retained at higher levels in some units and at lower levels in other units. The intent is to achieve the targets outlined in the Forest Management Plan strategies in a given annual operations plan.

The green tree retention target for regeneration harvest units is an average of five trees per acre in the NW FMP. Green tree arrangements for this AOP may include; scattered individual trees, clumps of trees, and trees concentrated in and adjacent to riparian management areas, inner gorge areas, headwalls and Green Tree Retention areas that may be very difficult to harvest. The scattered individual upland leaves trees strategies include but are not limited to; minor tree species where available, trees with defect or decay, trees to be used as future tailholds, leaving trees around snags, and large trees that are not desired at the mill. Additional trees may be left in areas with a DFC of complex or additional SOC requirements. The final decision on the location and arrangement of the green trees is made while the sale is being laid out to incorporate information on potential minor tree species, unique stand features, steep slopes, visual considerations, reforestation considerations, etc. To promote diversity on the landscape a variety of green tree placement strategies will be used.

The NW FMP strategy for hard snags is to manage for at least two per acre on average across the landscape. The FMP strategy for Down Woody Debris is to retain an average of 600 to 900 cubic feet of hard conifer logs (class 1 & 2) per acre during regeneration harvest. Strategies for retaining snags and down wood are determined using a current condition assessment from forest inventory data or timber cruising data. The need for snag creation in each unit is evaluated based on cruise or inventory information that documents snags in decay class 1 and 2 in the sale and surrounding landscape. Areas with less than 2 hard snags per acre will be evaluated and an appropriate snag prescription will be developed as needed. Snag strategies include retaining legacy structure, bear damaged trees will count towards the snag requirement, creation of snags in groups of 4-7 for purple martin habitat and if there are significant scattered upland green trees no snag creation will be required. Down Wood will continue to be created through bucking practices, leaving felled snags in the unit and tops on ground yarding areas.

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

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

- Terrestrial Anchor Sites (TAS) areas 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 habitat. All areas that were designated as TAS 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 emphasized. 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 clustered around streams important to fish in the AA.

The Species of Concern Strategies provide long term goals for TAS and AA. The management activities within those areas are 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.

Terrestrial Anchor Sites

Since the adoption of the TAS in July 2011, the district has been proceeding with operations in these areas. Great care has been given in selecting stands for harvest and developing prescriptions in these areas to ensure that these harvest activities achieve the goals of the TAS. These sales were reviewed with ODF and ODFW Resource Specialists. Table 3 shows the cumulative operations in TAS since the strategy was adopted (AOPs 2012 - 2022).

**Table 3. Summary of Harvest Operations within TAS (Acres and Percent)**

<b>Terrestrial Anchor Site (TAS) Basins</b>				
<b>Bastard Creek (5,021 ac)</b>	0	0	0	0
% of Acres	0%	0%	0%	0%
<b>Ripple Creek (3,831 ac)</b>	0	0	0	559
% of Acres	0%	0%	0%	14.6%
<b>Miami (6,396 ac)</b>	0	0	0	0
% of Acres	0%	0%	0%	0%
<b>Hembre (2,981 ac)</b>	0	0	0	0
% of Acres	0%	0%	0%	0%
<b>Boundary (2,138 ac)</b>	0	0	0	0
% of Acres	0%	0%	0%	0%
<b>All TAS (20,367 ac)</b>	0	0	0	559
% of Acres	0%	0%	0%	2.7%

Aquatic Anchors

The AAs became effective July 1, 2013 and replaced the Salmon Anchor Habitat Strategy that expired June 30, 2013. Increased water protection measures will be implemented on regeneration harvest operations planned within the AA's as specified in the Species of Concern strategy. Table 4 shows the current harvest and the cumulative total from FY 2014.

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

<b>Aquatic Anchor (AA) Basins</b>				
<b>Ben Smith Creek (3,602 ac)</b>	33	0	638	0
% of Acres	0.9%	0%	17.7%	0%
<b>Cedar Creek (7,214 ac)</b>	185	0	1,059	0
% of Acres	2.5%	0%	14.6%	0%
<b>Coal Creek (1,237 ac)</b>	0	0	0	0
% of Acres	0%	0%	0%	0%
<b>Cook Creek (18,286 ac)</b>	0	0	845	322.5
% of Acres	0%	0%	4.6%	1.7%
<b>East Fork S Fork Trask (15,627 ac)</b>	6	0	2,548	290.4
% of Acres	0.01%	0%	16.3%	0.7%
<b>Elkhorn (3,860 ac)</b>	0	0	692	0
% of Acres	0%	0%	17.9%	0%
<b>Foley Creek (4,403 ac)</b>	0	0	146	0
% of Acres	0%	0%	3.3%	0%
<b>Little N Fork Wilson (10,310 ac)</b>	0	0	1,117	0
% of Acres	0%	0%	10.8%	0%
<b>Miami (13,910 ac)</b>	118.2	0	297	0
% of Acres	0.8%	0%	2.1%	0%
<b>Middle Kilchis (14,155 ac)</b>	0	0	323	0
% of Acres	0%	0%	2.2%	0%
<b>S Fork Salmonberry (2,813 ac)</b>	0	0	0	567.6
% of Acres	0%	0%	0%	20.1%
<b>All Aquatic Anchors (95,417 ac)</b>	<b>342</b>	<b>0</b>	<b>7,665</b>	<b>1,181</b>
<b>% of Acres</b>	<b>0.4%</b>	<b>0%</b>	<b>8%</b>	<b>1.2%</b>

## Summary of Timber Harvest Operations by Basin

In the following section, the harvest operations planned for FY22 will be summarized in the context of the 11 management basins on the Tillamook District. Since the Forest Management Plan strategies provide standards for structural components such as green trees, snags, down wood as well as riparian protection, these are not discussed in the summary. Road strategies and standards are discussed in the Forest Roads Management section. Additional information regarding the harvest operations may be found within Table A-2, the Forest Resources Summary in Appendix A.

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

Basin	2022 AOP	
	Partial Cut	Clearcut
N. Fork Nehalem	0	0
Lower Nehalem	0	630
Short Sands	0	0
Miami	0	118
Kilchis	0	0
Tillamook Bay	0	0
Wilson	0	977
Tillamook River	0	0
Trask	0	174
Nestucca	17	219
Little Nestucca	0	0
<b>Totals</b>	<b>17</b>	<b>2,118</b>

### North Fork Nehalem Basin

There are no harvest operations planned in this basin for FY22.

### Lower Nehalem Basin

Enright Station (Primary): This sale includes two modified clearcut units (Units 502 and 503) totaling 229 acres. The main species in these stands are Douglas-fir, western hemlock, and red alder. Stand age for Unit 502 is 56 and Unit 503 is 94. All stands have a desired future condition of general stewardship (GEN). Current condition for both units is Understory (UDS).

Portions of both units were commercially thinned in 2003 (“Claymore”), and portions of the northern half of Unit 502 were thinned in 2012 (“Clay Tunnel”).

Following the completion of harvest, the unit will be planted with a mixture of seedlings to be determined closer to the time of reforestation. Efforts will be made to ensure that the residual green trees are generally comprised of the oldest available. To help facilitate this, foresters will mark individual leave trees in the field prior to harvest to reserve the oldest trees and/or largest diameters.

There will be about 1 mile of new road construction and about 3 miles of road improvement.



Four DB Cronin (Primary): This sale includes four modified clearcut units (Units 222, 224, 772, and 784) totaling 401 acres. The main species in these stands are Douglas-fir and red alder. Stand ages range from 50 – 81. All stands have a desired future condition of general stewardship (GEN) and current condition of UDS.

With the exception of approximately 14 acres of Unit 772, which were commercially thinned in 2003 (“North Cronin”), the remaining acres have had no previous management.

Following the completion of harvest, the unit will be planted with a mixture of seedlings to be determined closer to the time of reforestation.

There will be about 1.5 miles of new road construction and about 4 miles of road improvement.

### **Short Sands**

There are no harvest operations planned in this basin for FY22.

### **Miami**

South Minich (Primary): This sale includes one modified clearcut unit (Unit 764) totaling 118 acres. There are two stand types that make up this sale. The western ½ of the unit is a 36 year old Douglas-fir plantation that has Swiss Needle Cast (SNC). The eastern ½ of the unit is a 65-85 year old dense Douglas-fir/western hemlock stand. This sale is in general stewardship (GEN) and current condition is UDS.

Approximately 30 acres of the harvest unit were commercially thinned in 1998 (“Minich Thin”) and roughly another 5 acres were thinned in 2010 (“Minich Ridge”).

Following the completion of harvest, the unit will be planted with a mixture of seedlings to be determined closer to the time of reforestation.

This sale is located in the Miami Aquatic Anchor.

A possible domestic water source was identified during sale planning and will be verified and buffered appropriately during sale layout if necessary.

### **Kilchis**

There are no harvest operations planned in this basin for FY22.

### **Tillamook Bay**

There are no harvest operations planned in this basin for FY22.

### **Wilson**

Buckskins (Primary): This sale includes two modified clearcut units (Units 610 and 615) totaling 184 acres. The main species in these stands are Douglas-fir and red alder. Stand ages range from 60 – 69. All stands have a desired future condition of general stewardship (GEN).

Approximately 15 acres of Unit 615 were commercially thinned in 1999 (“Buck Sargent”). The remaining acres in both units have had no previous management.

Current condition for both stands is UDS, except for 23 acres of Closed Single-Canopy (CSC) in Unit 615.

Following the completion of harvest, the unit will be planted with a mixture of seedlings to be determined closer to the time of reforestation.

There will be about 1 mile of new road construction and about 1 mile of road improvement.

Fox Ridge (Primary): This sale includes two modified clearcut units (Units 20 and 840) totaling 217 acres. The main species in these stands are Douglas-fir and red alder. Stand ages range from 60 – 73.

Less than 5 acres of Unit 20 were commercially thinned in 2008 (“Roger Fox”). The remaining acres in both units have had no previous management.

All stands have a desired future condition of general stewardship (GEN) and current condition of UDS.

Following the completion of harvest, the unit will be planted with a mixture of seedlings to be determined closer to the time of reforestation.

There will be about 2 miles of new road construction and about 5 miles of road improvement.

Helpin’ Hanns (Primary): This sale includes three modified clearcut units (Units 322, 398, and 408) totaling 301 acres. The main species in these stands are Douglas-fir and red alder. Stand ages range from 61 – 70.

Portions of the sale area were pre-commercially thinned in 1972 and all three units have subsequently been commercially thinned. Unit 322 was thinned both in 1993 and 1994 (“Phipps Thinning” and “Moore Thin”). Unit 398 was thinned in both 1998 and 2003 (“East Jordan Thin” and “Phelps”). A portion of Unit 408 was thinned in both 1996 and 2003 (“Ben Thin” and “Phelps”). The southern half of the unit (40 acres) has had no previous management.

All stands have a desired future condition of general stewardship (GEN) and current condition of UDS.

Following the completion of harvest, the unit will be planted with a mixture of seedlings to be determined closer to the time of reforestation.

A portion of Unit 322 lies within the Ben Smith Aquatic Anchor.

There will be about 2 miles of new road construction and about 2 miles of road improvement.

Lobo Canyon (Primary): This sale includes two modified clearcut units (Units 435 and 551) totaling 186 acres. The main species in these stands are Douglas-fir and red alder. Stand ages range from 62 – 70.

These stands have had no previous management.

All stands have a desired future condition of general stewardship (GEN), except for 1 acre of LYR in Unit 551. This acre will be changed to GEN in this AOP. Current condition for all stands is UDS.

Following the completion of harvest, the unit will be planted with a mixture of seedlings to be determined closer to the time of reforestation.

This sale is in the Cedar Creek Aquatic Anchor.

There will be about 1 mile of new road construction and about 4 miles of road improvement.

Yankee Branch (Primary): This sale includes three harvest units (Units 167, 926, and 927) totaling 89 acres. Harvest type is a combination of salvage and modified clearcut and is in response to windthrow damage from recent storm events. The main species in these stands are western hemlock, Douglas-fir, and Sitka spruce. Stand ages range from 42 – 55.

These stands were harvested and replanted in the 1960's and 70's. Unit 926 was pre-commercially thinned in 1999. The stands have not been commercially thinned.

All stands have a desired future condition of general stewardship (GEN) and current condition of UDS.

The primary focus of this sale is windthrow salvage, resulting from recent heavy wind events. Timber adjacent to blowdown patches will be harvested to create feasible operational boundaries for the remaining stands.

Following the completion of harvest, the unit will be planted with a mixture of seedlings to be determined closer to the time of reforestation.

No new road construction is planned for this sale.

### **Tillamook River**

There are no harvest operations planned in this basin for FY22.

### **Trask**

Coast Bill (Alternate): This sale includes three modified clearcut units (Units 94, 96, and 104) totaling 327 acres. These areas are predominately Douglas-fir stands showing symptoms of SNC with a mixture of red alder mostly in the riparian areas. Stand ages range from 54 – 58.

Units 94 and 96 were pre-commercially thinned in 1990. Unit 104 has had no previous management.

All stands have a desired future condition of general stewardship (GEN) and current condition of UDS.

Following the completion of harvest, the unit will be planted with a mixture of seedlings to be determined closer to the time of reforestation.

There will be about 3 miles of new road construction and about 10 miles of road improvement.

Coast Range South (Alternate): This sale includes three modified clearcut units (Units 349, 881, and 882) totaling 242 acres, and three partial cut units (Units 883, 884, and 885) totaling 225 acres. The main species in these stands are Douglas-fir and red alder. Stand ages range from 51 – 64. The majority of the sale area was pre-commercially thinned in 1989, except Unit 881, which has had no previous management.

All stands have a desired future condition of general stewardship (GEN). Current condition of all stands is UDS, except for 2 acres of LYR in Unit 885 (PC).

The sale area is located within the Moon Creek East owl circle. Residual basal area for partial cut units should not go below 140ft<sup>2</sup>, with the goal being to maintain a minimum of at least 40% canopy cover.

Following the completion of harvest, the modified clearcut units will be planted with a mixture of seedlings to be determined closer to the time of reforestation.

There will be about 5 miles of new road construction and about 3 miles of road improvement.

Hollywood Hills (Primary): This sale includes two modified clearcut units (Units 91 and 110) totaling 174 acres. The main species in these stands are Douglas-fir and red alder. Stand ages range from 51 – 60.

Approximately 50 acres of Unit 110 were both pre-commercially thinned (1992) and commercially thinned (“Bushong Thin” 2001). The remaining acres in both units have had no previous management.

All stands have a desired future condition of general stewardship (GEN) and current condition of UDS.

Following the completion of harvest, the unit will be planted with a mixture of seedlings to be determined closer to the time of reforestation.

There will be about 1 mile of new road construction and about 3 miles of road improvement.

Schmeagle Hill (Alternate): This sale includes three modified clearcut units (Units 14, 923, and 924) totaling 142 acres. The main species in these stands are Douglas-fir and red alder. Stand ages range from 57 – 66.

Approximately 10 acres of Unit 14 were both pre-commercially thinned (1990) and commercially thinned (“Off Toll Thin” 2001). The remaining acres in all units have had no previous management.

All stands have a desired future condition of general stewardship (GEN) and current condition of UDS.

Following the completion of harvest, the unit will be planted with a mixture of seedlings to be determined closer to the time of reforestation.

Unit 14 lies within the East Fork of the South Fork Trask River Aquatic Anchor.

There will be about 2 miles of new road construction and about 4 miles of road improvement.

## **Nestucca**

**Wooden Corners (Primary):** This sale includes five modified clearcut units (Units 282, 818, 888, 889, and 890) totaling 219 acres, and one partial cut unit (281) totaling 17 acres. The main species in these stands are Douglas-fir, western hemlock, and red alder. Stand ages range from 42 – 68 for the modified clearcut units. Stand age for Unit 281 (PC) is 28.

Units 282 and 818 were harvested and replanted in the early 1970's, and Unit 281 was harvested and replanted in the early 1990's. Unit 281 was pre-commercially thinned in 2007, Unit 282 in 1993, and Unit 889 in 1972. Unit 888 was commercially thinned in 2008 ("Farest"), Units 889 and 890 were thinned in 1998 ("Far East Thin").

All stands have a desired future condition of general stewardship (GEN) and current condition of UDS.

Following the completion of harvest, the modified clearcut units will be planted with a mixture of seedlings to be determined closer to the time of reforestation. The partial cut unit will be thinned to a basal area target of 120-140 and will be re-assessed in approximately 15-20 years to determine a final harvest target date.

There will be about 2 miles of road improvement. No new construction is planned.

## **Little Nestucca**

There are no harvest operations planned in this basin for FY22.

## **Forest Roads Management**

### **Overview**

The State Forest road network provides access for forest management activities, fire suppression, and recreation. Visions, guiding principles, and goals for managing the road network are discussed in the Northwest Oregon State Forests Management Plan (April 2010) and the State Forest Roads Manual (July 2000). The State Forest Roads Manual also provides standards and guidance for all road management activities and definitions, road classifications and other terms. Board of Forestry performance measure #5 sets targets for road network hydrologic connectivity and road related fish passage improvements.

Proposed work order contracts continue to address FEMA projects and priority fish passage improvement projects. This section describes the types of road management activities that will occur in FY22 and the attached Forest Roads Summary Table (Appendix A, Table A-3) describes the anticipated total amounts.

### **Road Construction**

Road construction and improvement identified in this plan will be primarily achieved through project work connected with timber sales. New LiDAR based slope information is helpful in locating roads away from locally steep slopes.

## **Road Improvement**

Road improvement projects will use ODF road inventory protocols to assess existing road drainage, stability, surfacing and vegetation conditions, and to aid in the development of transportation system improvement plans. The majority of this improvement work will be performed on collector and spur roads and will consist of installing new cross drains and disconnect culverts, replacing culverts, ditchline improvements, and new surfacing.

## **Road Access Management**

Access to the State Forest is generally not restricted. However, roads that pose a high risk of damage to water quality are candidates for closure. Closing and vacating roads reduces the district's maintenance cost and helps to minimize impacts to the environment from roads. We retain the option of closing roads if vandalism, neighbor concerns, or excessive road damage from public use becomes a problem in particular areas.

Tillamook District is engaged in evaluations with Federal, County, and Private Industrial partners about access closure of Mills Bridge Road. Multiple landowners are experiencing damage to resources from dumping, target shooting, long-term non-recreational campers causing sanitation and trash issues. All landowners are reviewing access needs and requirements, and consideration of installing a gate at Highway 6 for seasonal closure.

Tillamook District is considering the installation of gates on dead end spurs within harvest units scheduled for site prep activities. The gates would be closed prior to application of herbicides and then reopened a few days after the activity. Utilization of temporary gates will improve security for equipment and reduce conflicts between operations and forest users. In addition, the physical barrier reduces the number of employees needed on site each day. Temporary closure would not be more than a week at a location.

### 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 on the district 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 1st through November 30th each year. Gate 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**

Roads will be maintained as necessary to protect water quality and the road system asset value. Road maintenance activities will follow the maintenance guidance in Chapter 7 of the Forest Roads Manual and the Forest Practices rules. Road maintenance is accomplished under timber sale contracts for roads used for hauling forest products, using the State Forest road crew or work order contracts. Maintenance is focused on ensuring proper drainage to prevent sediment entering streams. Collector roads and roads in active sale areas need and get the most maintenance. District personnel respond to heavy storms and thaw periods by performing road inspections, additional maintenance, and where necessary, stopping heavy truck use during periods when roads cannot handle traffic without damage to water quality or the road asset.

## **Management of Rock Source/Supply**

The District provides durable rock for in-sale spurs and haul routes, which allows for year-round harvest opportunities. Rock quarry development, rock crushing, and/or purchasing rock is necessary to provide sufficient quantities of the road rock for planned road construction, road improvement, and road maintenance activities.

Quarry developments are planned for the following operations; however, these plans are subject to change as timber sale project work is laid out:

- Coast Range South
- Enright Station
- Four DB Cronin
- Helpin' Hanns
- Hollywood Hills
- Lobo Canyon

Annually, the District requires between 7,000 to 12,000 cubic yards of crushed rock stockpiles for appraised road maintenance work. The District will continue to explore new rock sources and further development of existing rock pits in FY22.

## **Land Surveying**

Every year surveying needs are analyzed and planned to be kept at a minimum level while ensuring property lines and corners are clearly marked. Survey work may be accomplished through service contracts with licensed professional land surveyors, cost sharing with adjacent landowners or utilizing the licensed surveyor on staff with ODF. Land surveying may be necessary on the following sales:

- Coast Range South – ½ mile
- Wooden Corners – ½ mile
- Yankee Branch - ½ mile

## **Young Stand Management**

The State Forest strategy is to use a range of silvicultural tools to establish and maintain diverse stands of well-adapted natural species throughout the landscape to meet the objectives and goals in the Forest Management Plan and District Implementation Plan. These tools include site preparation, planting, tree protection, vegetation management, pre-commercial thinning, early commercial thinning and interplanting or replanting. Each practice must be considered and prescribed for individual stands on a site-specific basis.

This section describes the types of reforestation and young stand management activities that will occur in FY22 and the attached Young Stand Management Table (Appendix A, Table A-4) describes the anticipated total amounts. 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 harvest units are completed and on updated assessments and surveys that will occur during and after the 2021 growing season.

The majority of the on the ground reforestation activities will be completed by using experienced contractors. A portion of the activities will be completed by utilizing district staff and crews from South Fork Camp. The South Fork crews work on activities such as tree packing and tree protection.

Due to the reorganization of the State Forest Districts leveling the workforce between districts and the unexpected market conditions of timber sale purchaser's moving quickly on sales created a high workload in Tillamook. The Forest Grove reforestation staff will be assisting with the management of 1,058 acres in the Tillamook District.

### **Seedlings / Nurseries**

In order to meet the goals of the Forest Management Plan, the State Forests Program requires tree seedlings that are physiologically healthy and best suited for the planting sites. A wide variety of seedlings is grown at forest nurseries throughout the Pacific Northwest to meet the reforestation needs. Seedlings are grown in three different stock types: 1) plug seedlings or one-year-old container grown seedlings, 2) plug ones which are grown one year in a container followed by a second year in a bare root bed, and 3) straight bare root seedlings grown from seed in a bare root bed the first year and then transplanted the second year to a lower stocking bare root bed. The budget accounts for a string of growing costs over several years rather than just those costs of the trees being grown and planted in the winter. The budget for seedlings includes portions of the costs for growing seedlings for three planting years. Additionally, there are costs associated with the seed that is used for growing the seedlings, estimated transportation costs and various costs associated with packaging and freezer and/or cooler storage. The individual species mixture and stock type used for a particular reforestation unit is determined from an extensive post-harvest survey. Final planting plans are then finalized in the fall after inventories from seedling nurseries are received.

### **Site Preparation**

Site preparation is any planned measure to prepare a site to allow for favorable growing conditions for newly planted seedlings. More than one of these techniques may be used for



any given site based on the attributes and reforestation prescription for the site. The three main site preparation techniques are mechanical, chemical and slash burning.

- 1) Slash Burning: Slash burning can be accomplished by broadcast burning the entire unit or burning piles that result from mechanical site preparation.
- 2) Mechanical: Mechanical site preparation is the use of mechanized equipment to rearrange or alter forest slash and/or disturb the forest surface layer and vegetation to create seedbeds or planting spots. Planting spots are created in a fairly even distribution. Dense slash concentrations created during timber harvest may be mechanically piled as part of the timber sale contract.
- 3) Chemical: Chemical site preparation involves the application of herbicides to control competing vegetation before planting or natural regeneration and during the early stages of seedling establishment. Applications occur by two primary methods: aerially by helicopter or ground based with the use of backpack application equipment. The objective is to control brush species to allow stand establishment and maintain 2-3 years free of significant competing vegetation. The actual site preparation plan will be prepared in late spring when harvest unit availability and brush development is better known.

## Planting

Tree planting operations are conducted for various reasons. These include meeting Forest Practices Laws, quickly establishing a new stand of trees after timber harvesting and increasing species diversity in the area and across the landscape. Planting is comprised of matching the appropriate species and stock type to the planting site. Forest health strategies are addressed on a site-specific basis when the planting plan is developed. Site specific prescriptions consider target species, aspect, elevation, soil types, Swiss Needle Cast risk where applicable, *Phellinus weirii* (laminated root rot) presence, required stocking guidelines, natural advanced regeneration, and the desired future condition of the stand. To accomplish this, a mixture of species is planted to provide for a healthy, productive, and sustainable forest ecosystem over time and to be more resilient to climate change. The following are different types of planting.

- 1) Initial Planting (Regeneration harvest units): Planting activities establish the desired species and stocking levels to meet the goals in the Forest Management Plan and Forest Practices Laws. Planted seedlings will be well suited and adapted to the reforestation site and where appropriate, a mixture of species may be planted to increase diversity on the landscape. Initial plant species will consist of western hemlock, noble fir, western red cedar, 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. South Fork Crews will assist with planting operations by providing daily tree packing crews.

- 2) Interplanting: Interplanting may occur when stocking levels fall below or are at risk of falling below FPA minimums. In certain instances, interplanting will occur to increase stocking on high quality sites to fully capture the site. In other areas, lower stocking will be acceptable, as it will provide high quality early seral habitat while still meeting FPA requirements. Actual plans will be made after stocking surveys have been completed in the fall.
- 3) Underplanting: This type of planting is occasionally conducted after thinning in order to introduce both species diversity and an additional future layer of structure into a stand.
- 4) Natural Regeneration: Units or portions of units are assessed prior to planting. Natural regeneration is considered primarily in western hemlock stands that have been salvaged from windstorms, where small gaps and holes less than 2 acres have been created in partial cut units, and in unit rock outcrops or cliffs. Natural regeneration of red alder and other minor species is used to provide diversity in all harvest units.

### **Tree Protection**

Animal damage on newly planted seedlings reduces their overall size, health, and vigor. Extensive damage can lead to interplanting, may extend the time to achieve free to grow status as defined by the Forest Practices Act and prevent meeting Forest Management Plan goals. Deer and elk, as well as mountain beaver, can heavily damage young seedlings. Various tree protection strategies are applied to help re-establish trees in areas with high concentrations of these species. Most commonly, various types of physical barriers (bud caps, vexar tubes, etc.) help prevent damage from big game. Direct control includes trapping mountain beaver in highly populated areas prior to planting helps prevent damage to newly planted trees.

Bud Caps: Bud caps are installed on Douglas-fir seedlings in 0-2 year old plantations with heavy elk/deer browse pressure. A combination of contract and South Fork Camp crews will be responsible for the accomplishment of these acres.

Direct Control: Trapping mountain beaver prior to planting a harvest unit significantly reduces damage from these animals. Follow-up trapping may also be needed in 1-3 year old plantations where small populations have rebounded and are causing damage on young seedlings.

### **Vegetation Management – Release Treatments**

Vegetation management is done to reduce light, moisture, or nutrient competition from undesirable vegetation in a young stand of trees to improve survival and growth. It can also be used to alter tree species composition under pressure from insect and disease and favor species that are tolerant or resistant to the threat. Vegetation management may be required to meet forest practices reforestation stocking requirements, the NW Oregon State Forests Management Plan and the District Implementation Plans. There are two types of vegetation management, chemical and manual release treatments. They are described below.

Chemical Release: Chemical release treatments involve the application of herbicides to control undesirable vegetation. Typical application methods are broadcast, directed spray, and hack and squirt. Broadcast application treatments are sprayed over the top of seedlings and

undesirable vegetation using either aerial or backpack methods. Directed spray applications are made with a backpack and target individual plants. This method is often used to remove invasive species such as Scotch broom from young stands. Hack and squirt involves basal or stem injection of chemicals. This method is typically applied to hardwoods as a way to release conifers from hardwood competition. The actual plan will be developed in late spring or early summer when competing brush, red alder, and big leaf maple is more developed and actual needs can be assessed. Contract crews will be responsible for accomplishing of these acres.

**Manual Release:** Manual release can include cutting down of noxious weeds or hardwoods. Hardwood release is used when ingrowth of hardwoods, mainly red alder in the northwest, threaten to change the stand from conifer dominated to hardwood dominated. In this treatment, the majority of hardwoods are removed using chainsaws leaving all of the conifer trees. This differs from PCT (described below) in the fact that conifer spacing, and species are not manipulated. While hardwoods are important on the landscape and some are retained, long-term conifer production is the goal for many stands across the district. The actual plan will be developed in early spring when brush and red alder is more developed and actual needs can be assessed. Both contract and South Fork Camp crews will be responsible for the completion of these acres.

### **Pre-Commercial Thinning (PCT)**

PCT is a silviculture activity used to manipulate the density, structure or species composition of overstocked young forest stands. Generally, the purpose of a PCT operation is to release the biggest and best growing trees so they can maintain their growth. PCT is normally conducted in a stand between the ages of 10 and 20 years old. In areas of disease such as Swiss Needle Cast or *Phellinus weirii*, PCT can be used to favor species other than impacted Douglas-fir trees in the residual stand. The actual plan will be developed early in the AOP year after potential stands have been surveyed and accessed for PCT need.

### **Pruning**

No pruning activities are planned for this AOP.

### **Stocking Surveys**

The Reforestation Unit has the responsibility of ensuring that the goals of the Forest Management Plan are met. Stocking surveys is one tool to ensure the stands are on track for the desired future condition. The surveys are done in order to check initial plantation survival at a time when the seedlings are vulnerable and there is still time to remedy problems, by using interplanting and animal damage control measures as examples. In addition, stocking surveys are conducted in order to assess free-to-grow status and to get baseline data on the stand for future management planning, for example evaluating release treatments and pre-commercial thinning candidates.

### **Invasive Species**

Most noxious weeds or invasive plants are found along roads and have spread into plantations. The main sources for the weed introduction into the forest are vehicle tires, equipment moved into and out of district, and where soil disturbance occurs. 100% weed-

free grass seed and certified weed-free straw used for mulch is required for project work on roads. Equipment washing is required in timber sale contracts to prevent the introduction of weed seed from other sites. It is also required that weed-free hay is used for feeding stock on State Forest Lands.

Reforestation continues to work with Marketing, Forest Roads, and Recreation personnel to identify appropriate steps each unit can take to prevent the introduction and spread of invasive plants. Knotweed and Scotch broom are the primary species known to exist in the District. Active control measures are being planned and prioritized for roadside, in-unit, and trail treatment.

### **Roadside Spraying**

Reforestation works with the Forest Roads personnel on the management of vegetation alongside forest roads. Vegetation management protects the investment by preventing damage from unchecked vegetation growth, helps to maintain a safe driving environment by maintaining clear sight distance, controls noxious weeds, and reduces fire hazards. 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. During the spring of 2021, roadside vegetation surveys will be conducted to determine roadside chemical treatment needs for FY22. The project will be done by utilizing experienced contractors.

## **Recreation Management**

### **Overview of Recreation Management**

Recreation use includes hunting, fishing, target shooting, OHV riding, mountain biking, hiking, equestrian use, mineral collection, mushroom picking, sight-seeing, and camping. 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 are being reduced.

At present there are 4 fee campgrounds, 2 OHV fee campground, 3 OHV staging areas, 6 day-use sites, 82 designated dispersed sites, 3 boat launch facilities, 20.1 miles of non-motorized trail, 307 miles of designated OHV trails, plus multiple rustic trailhead facilities that provide access to motorized and non-motorized trail network. In addition to the 4 fee campgrounds, fees for overnight use are also charged at Diamond Mill OHV Staging Area, Jordan Creek OHV Staging area, Cedar Creek OHV Staging Area/Designated Campsites, and the North Fork Wilson Designated Campsites.

Recreation management activities planned for FY22 reflect some unknowns in the operations season due to continuing limitations from Covid and expected personnel changes due to continued reorganization of the recreation program. The 2020 fire impacts to the Santiam State Forest have also pulled resources and staff to respond to the recovery/restoration of recreational opportunities.

The impacts in FY21 due to the pandemic and limited staffing, resulted in maintenance and projects not being completed and many have rolled over into this plan. There is an expectation that Oregonians will once again have a high demand to get to the forest and recreational opportunities as restrictions and closures continue. The plan focuses on maintaining current trails, facilities, and opportunities by maintaining the existing infrastructure, provide for public safety and sanitation, and mitigate damage to natural resources.

### **Facilities (Campgrounds, Viewpoints, Trailheads, etc.)**

Opening and operations of campgrounds is planned for summer of 2021, but the timeframe and level of operation is uncertain as stated above. Regular facility maintenance includes protecting assets, infrastructure, and providing for safety 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 rocking, and updating information boards. As a service to our campground visitors, firewood is available for purchase at Jones Creek and Nehalem Falls Campground. Facility maintenance work is accomplished with recreation staff, South Fork inmate crews, volunteers, and contracted services such as trash and vault pumping. All facilities, sites, and trailheads will receive some level of maintenance throughout the year.

**Table 6. Developed Facility and Dispersed Campsite Projects**

<b>Project Type</b>	<b>Project Name</b>	<b>Work Resources</b>	<b>Project Description</b>
Facility Maintenance	Picnic Table Replacement	Recreation staff, South Fork crew	Replace lumber for 15 picnic tables at Diamond Mill OHV Staging Area (charged to ATV transfer fund).
Fence Replacement	Jones Creek Pole Barn Fence Replacement	Recreation staff, South Fork crew	Replace fence around Jones Creek pole barn.
Parking area expansion	Jones Creek Tent Site Parking Expansion	Recreation staff, OHV Equipment Operators/Dump Truck	Expand parking area in Jones Creek Tent Site to accommodate for all tent site vehicles.
Campground loop rocking	Nehalem Falls Campground Loop re-rocking	Recreation staff, Marketing unit staff, contractors	Re-rock Nehalem Falls campground loop with Enright Station Timber Sale (see Pre-Op report comments)
Split rail fence installation	Cedar Creek OHV Staging Area fence installation	Recreation staff, South Fork crew	Install split rail fence at Cedar Creek OHV Staging Area around newly installed CXT vault toilet.
User created campsite closure	Foss Road Undesignated Campsite Closure	Recreation staff/Timber Sale Contractors	Decommission and rehab undesignated campsites along Foss Rd

## Trail Maintenance (Motorized and Non-motorized)

### Motorized (OHV) Trails

ODF continues to receive All Terrain Vehicle (ATV) Transfer fund dollars administered by Oregon State Parks to support personnel and associated service and supply costs.

OHV Specialists will continue work on long term trail system planning. This project will develop a snapshot of the desired future condition of the OHV trail system, providing guidance for future AOP projects, and help coordinate on the ground projects with potential timber sale impacts. Having a detailed outline of future projects will also promote continuity through personnel and policy changes.

OHV Specialists will continue with ongoing trail projects associated with active timber sale operations. Work will be done with a focus on long term trail system implementation plan, resource protection, sustainability, and public safety. This work will include maintenance on an average of 50 miles of trail and reroutes. This work will range from brush control to trail tread work.

**Table 7. Motorized Trail Projects**

Project Type	Project Name	Work Resources	Project Description
OHV Site Management Planning	Diamond Mill OHV Staging Area	OHV Specialist, Recreation Staff, volunteers	Develop conceptual plan for converting designated campsites to drive-in campsites. Meet with clubs, users and law enforcement to find solutions to current management issues at Diamond Mill related to large groups, parking lot riding, and safety issues.
OHV Trail Reroute	Piggyback OHV Trail	OHV Specialist and OHV Equipment Operators	Reroute Piggyback OHV Trail post timber sale.
OHV Trail Reroute	Duane's OHV Trail	OHV Specialist and OHV Equipment Operators	Reroute lower section of Duane's OHV Trail post timber sale.
OHV Trail Reroute	Denny Hill OHV Trail	OHV Specialist and OHV Equipment Operators	Reroute Denny Hill OHV Trail post timber sale activity.
OHV Trail Brushing	Various OHV trails throughout the greater system	OHV Specialist, South Fork work crews, volunteers	Prioritize and perform routine brushing maintenance on trails currently being overrun with salmonberry and other vegetation.

### Non-motorized Trails

Approximately 20.1 miles of non-motorized trails will be maintained. 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.

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 Equestrian Trailhead to Elk Creek

Campground. Staging for equestrian use can be done at Equestrian Trailhead and users will be responsible for providing water for their stock and packing out manure.

**Table 8. Non-Motorized Trail Projects**

<b>Project Type</b>	<b>Project Name</b>	<b>Work Resources</b>	<b>Project Description</b>
Wilson River Trail Maintenance	Cedar Butte Road to Footbridge Trailhead	Northwest Youth Corps	Contract with Northwest Youth Corps for one week to maintain and rehab a difficult 5 miles section of the Wilson River Trail from Cedar Butte Road to Footbridge Trailhead.
Trail Reroute Planning	Coal Creek Trail Reroute planning	Recreation staff	Determine field alignment of Coal Creek Trail reroute. (Carryover from FY19)

### **Volunteer Program and Partnerships**

Volunteer activities could include the below list if safety and Covid protocols can be met.

- Motorized trail work parties and the 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 campgrounds

Recreation staff will seek to develop a volunteer program that will assist recreation staff in locating and addressing trail needs. The intent is to encourage active trail users to report trail conditions, provide general information to other trail users and to document volunteer hours they spend on the trail. These volunteers would be the eyes & ears of the trail system.

Additionally, staff will explore volunteer opportunities from individuals and groups such as Tillamook High School Senior Projects and Eagle Scouts when staff are available. This may fill a need for hands on experience for the student and much needed trail work for the district.

### **Event Management**

Recreation staff will review and/or administer permits for 16 motorized events on the Tillamook State Forest. Events include motorcycle races, 4WD events, dual sport events, and observed motorcycle trials. These events may change in scope, scale, or number as Covid protocols are further refined for group events.

Recreation and District staff will process and administer a limited amount of 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 25K, 50k and marathon distance running event, a cross country running camp and hunting guides are planned for renewal in FY22.

### **Planning and Partnerships**

ODF will continue to partner with local recreation providers such as Visit Tillamook Coast, the North Coast Trails Coalition, federal, state and County agencies. The long-term partnership

with Tillamook County Sheriff's office will continue in FY22 with three full time Forest Deputies.

The Recreational, Educational, and Interpretive (REI) program will be led through internal planning work for visioning of the future program. In the fall of 2021, there will be focused Strategic Planning leading to more detailed goals for REI as a whole.

## **Other Integrated Forest Management Projects**

### **Aquatic & Riparian Management**

All fish bearing streams found in State Forests are subject to the Management Standards for Aquatic and Riparian Areas as outlined in Appendix J found in the Northwest Oregon State Forests Management Plan (2010). An objective of State Forests' aquatic resources is to maintain, enhance, and restore quality fish habitat. This is achieved primarily through riparian buffer strategies specific to the aquatic resource characteristics such as presence of fish, size, and flow duration. The goal of all riparian management prescriptions is to obtain mature forest conditions (e.g., development of the natural community appropriate for that site) as expediently as possible. Aquatic Anchors (AA) have been established on watersheds in the District in which additional aquatic conservation measures are applied when regeneration harvesting. Small, perennial, non-fish bearing streams will be protected with 50 foot no harvest buffers and all fish bearing streams and large and medium non-fish bearing streams will be protected with 100 foot no harvest buffers as per AA Species of Concern strategies.

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 large wood to improve fish habitat. Best management practices for road construction, reconstruction, and maintenance minimize impacts to water quality.

Threatened and Endangered Fish Species: Federally Threatened Salmon and Steelhead listed species with Critical Habitat Designations found within the District include Oregon Coast Coho Salmon.

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. Many streams in the past have been surveyed with electro-fishing techniques that established the upper extent of fish use. However, many small streams have not yet been surveyed for fish presence. Streams needing classification in the AOP will be evaluated with a Physical Habitat Survey. The physical methodology was developed in conjunction with Oregon Department of Fish and Wildlife. The seasonal/perennial break in the streams will be evaluated during fish distribution surveys or during sale layout.

Restoration Goals and Identification Process: The overarching principles for fish habitat restoration are described in the Forest Management Plan. There are potential stream enhancement opportunities identified in association with the sales in this AOP. Before determining if these potential projects will go into a full planning process, more field review is needed. The ODF Aquatic and Riparian Specialist will be consulted to help identify these candidates and may consult with ODFW fish biologists as needed.



Potential Stream Projects are associated with the following Timber Sales:

- Buckskins, Coast Bill, Coast Range South, Enright Station, Fox Ridge, Four DB Cronin, Lobo Canyon, Schmeagle Hill, South Minich, and Wooden Corners – Potential opportunities may exist. District will work with the Aquatic and Riparian Specialist, in consultation with ODFW, to determine if opportunities are present.

Other Planned Projects to improve aquatic areas within the FY22 AOP:

- 75 miles of road improvement, including installing additional cross drain culverts to hydrologically disconnect the roads from streams as possible.
- Installing a bridge at milepost 1.5 on the Kilchis Forest Road to enhance fish passage.
- Engineering designs for a future fish passage project on Buck Mountain Road.
- Reroute a portion of Cook Creek Road out of the river channel.

Restoration accomplishments are reported to Oregon Watershed Enhancement Board using the Oregon Watershed Restoration Inventory electronic filing process and reported by ODF annually in our report to the counties, board of forestry, and Division of State Lands.

Watershed Council & other Partnerships: Tillamook District participates in multiple Watershed Councils. The main councils are Lower Nehalem and Nestucca/Neskowin. The Tillamook Estuaries Partnership (TEP) is also active within the district boundaries. District staff attends meetings throughout the year at Lower Nehalem Watershed Council, provides presentations when requested and participates in workgroups and committees when appropriate. The District ownership is very small in the Nestucca Basin and there have not been recent opportunities to partner on projects. District staff occasionally attends meetings with the Nestucca/Neskowin Watershed Council and provides presentations and information when requested.

The District participates in the Salmon Super Highway (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.

## **Land Exchange**

None Planned.

## **Law Enforcement and Public Safety**

ODF and the Tillamook County Sheriff's Office (TCSO) partner to maintain three full time forest deputies that are funded through ATV grants (\$150,000) and ODF (\$225,000). 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, county, and forest recreation laws with an emphasis on ATV enforcement as they patrol the forest in both the Tillamook and Forest Grove Districts. Deputies 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.

## **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 permit fee for personal firewood cutting is \$20 for two cords. Permits are issued for a period of three weeks. Firewood cutting is allowed all year except for the months of July and August. The District typically sells 475-525 woodcutting permits each year.

## **Non-Timber Forest Products**

Special Forest Products are available on the district commercially and for personal use. Commercial permits vary in price and cover harvest of poles, beargrass, ferns, moss, salal, tree seedlings from ditches or cut-banks, and vine maple.

Collection for Personal Use is allowed without a permit for a variety of products but in small quantities limited per person. The public can get information at the district office of specific use volumes, permit costs, and availability.

## **Planning**

Below are the significant district-level planning projects currently scheduled for commencement, completion, or both in FY22.

### **Forest Inventory**

The State Forests Division is developing a lidar-based inventory that will replace SLI when completed. Lidar data was collected in 2020 for most ODF lands in the Northwest Oregon Area. Contract crews collected USFS FIA plot data on the majority of the proposed plots. The remaining plots will be sampled in 2021. The State Forest Division's Inventory Program is in the process of developing a raster-based estimate of forest biometrics across most of its ownership in Astoria, Tillamook, Forest Grove, North Cascade, and West Oregon Districts.

### **Wildlife Surveys**

#### **Northern Spotted Owl Surveys**

For the FY22 AOP, the District will continue the northern spotted owl (NSO) survey program, in order to comply with federal and state Endangered Species Acts and to contribute to Forest

Management Plan (FMP) goals. Survey requirements are determined in accordance with *ODF Northern Spotted Owl Operational Policies*, November 2017.

#### Marbled Murrelet Surveys

In FY22, the District will continue its 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, and survey protocols.

#### T&E Plants

The District will continue to screen harvest operations against the Oregon Biodiversity Information Center (ORBIC) database and other known locations on the District to identify potential conflicts with plant species listed in the District IP.

#### Species of Concern Wildlife

The District will continue to screen harvest operations against several wildlife databases to identify potential conflicts with wildlife of concern listed in the District IP.

### **Research and Monitoring**

Districts will assist in a variety of research and monitoring projects in FY22. Examples include:

#### 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.

### **Recreation, Education, and Interpretation (REI) Program Planning – REI Program Wide**

In FY22, REI program staff will be working on the following planning efforts.

- Development of a strategic plan that will guide and shape broad direction for the program over the next 5 to 7 years.
- Support the State Forest Division's forest management plan work and HCP work and District AOP development and implementation.

## **Public Information and Education**

### **Public Information and Involvement**

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 FY22 Annual Operations Plan and on a minor modification to the Desired Future Condition found in the 2009 Implementation 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 at the district office, at meetings or in the field. The district is developing tour opportunities to engage with interested stakeholders on the forest.

The Tillamook Forest Center is located at mile post 22 on the Wilson River Highway. Typical activities on-site during FY22 will include: routine maintenance of the building and grounds; guided and self-guided public use of the trails including many school groups; access to the river by interpretive trails. The Center hosts more than 50,000 people per year. The Smith Homestead Day Use Area, located ½ mile east of the Center, hosts many school groups, family activities, and other visitors. The Tillamook Forest Center is closed from the Monday after Thanksgiving in November 2021 through the end of February 2022 and on Mondays and Tuesdays throughout the rest of year because of the limited operational budget.

## **Administration**

During FY22 the district will be transitioning to a new organization. There will be 24 permanent positions whose full-time function is to manage State Forest land on the District and 5 permanent positions who work part-time on management of State Forest land. In addition, the District will be supported by the NWOA REI Team and the NWOA Operations Team as well as the Division Planning and Coordination Team. All are responsible for implementing the 2021 Annual Operations Plan. The district positions are divided into 4 functional groups: Forest Management, Forest Roads, Reforestation, and Administration. See the attached organizational chart.

There is a Marketing Unit which responsible for all aspects of timber marketing. These activities include participating in the planning process, unit layout, assisting with road layout and design, timber cruising, timber sale appraisal, contract writing, contract administration, and coordinating with the REI, Planning, and Operations Teams.

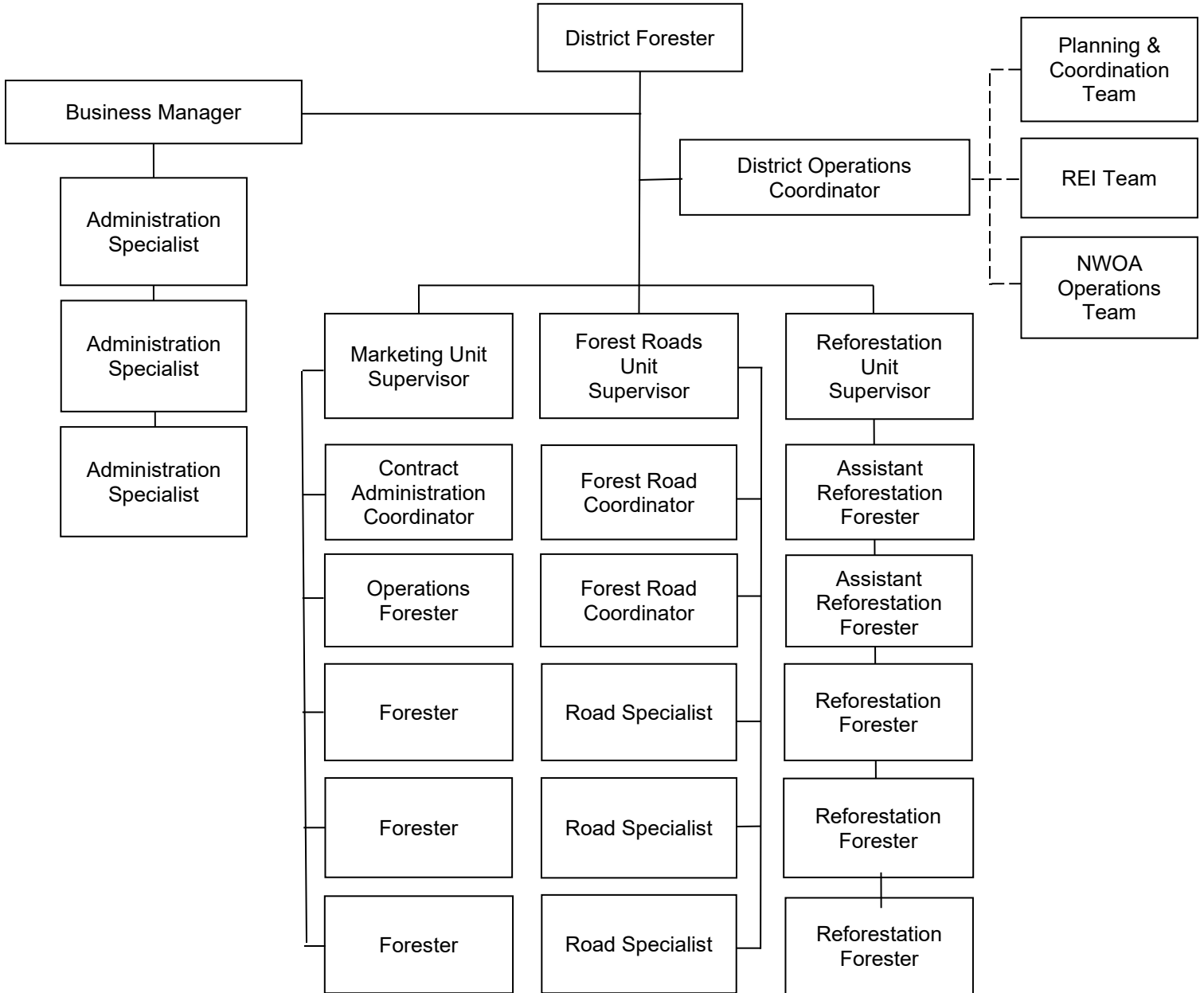
The Forest Roads unit is responsible for all aspects of road management and land surveying. These activities include road design and layout, rock pit development, road maintenance, property line location, road construction and improvement appraisals, contract preparation, and road contract administration. The Forest Roads unit works with the Operations, REI, and Planning & Coordination Team in developing the AOP.

The Reforestation unit is responsible for all activities in forest plantations from the time the harvesting is complete until the new stand produces commercial timber. 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.

Administration consists of the District Forester, District Operations Coordinator, District Business Manager, and three Administrative Specialists. The District Forester and District Operations Coordinator provide policy direction, budget development, and oversight to the field units. The Office Manager and three Administrative 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, issuing permits for firewood cutting and special forest products; and issuing log-load ticket books and branding hammers. The district administration staff will support all employees working on the district which includes members of REI Team, Operations Team, and Planning Coordination Team with Duty Station in Tillamook.

Each of these units and teams are 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 and with the NWOA and Division Teams 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



# **APPENDICES**

## **A. Summary Tables**

1. Harvest Operations – Financial Summary
2. Harvest Operations – Forest Resource Summary
3. Forest Road Management Summary
4. Reforestation and Young Stand Management Summary
5. Recreation Site Management Summary
6. Recreation Trail Management Summary
7. Recreation Grant Management Summary

## **B. Maps**

1. 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, Oregon Department of Transportation and other agencies as appropriate.

## **D. Public Involvement**

This appendix will describe the results of the public involvement process of this AOP.

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

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

## **F. Forest Land Management Classification**

## **G. District Implementation Plan Minor Modification – Landscape Design**

# Appendix A

---

## Summary Tables

- **Table A-1: Commercial Forest Management Operations - Financial Summary**
- **Table A-2: Commercial Forest Management Operations – Forest Resource Summary**
- **Table A-3: Forest Roads Summary**
- **Table A-4: Reforestation and Young Stand Management Summary**
- **Table A-5: Recreation Site Management – Financial Summary**
- **Table A-6: Recreation Trail Management – Financial Summary**



Table A-1: Financial Summary

<b>TIMBER HARVEST OPERATIONS - FINANCIAL SUMMARY</b>													
District: Tillamook			Fiscal Year: 2022				Date: 06/29/2021						
Primary Operation	Fund %		County	Sale Quarter	Net Acres		Volume (MMBF)			Value			
	BOF	CSL			Partial Cut	Clear-cut	Conifer	Hardwoods	Total	Gross	Projects	Net	
Buckskins	100%	0%	Tillamook	4	0	184	4.0	0.8	4.8	\$1,674,400	\$140,337	\$1,534,063	
Enright Station	100%	0%	Tillamook	1	0	229	6.5	1.2	7.7	\$2,336,425	\$401,911	\$1,934,514	
Four DB Cronin	100%	0%	Till (50) Clatsop (50)	4	0	401	6.5	1.5	8.0	\$1,953,720	\$374,596	\$1,579,124	
Fox Ridge	100%	0%	Tillamook	1	0	217	4.7	0.7	5.4	\$1,627,500	\$627,226	\$1,000,274	
Helpin' Hanns	100%	0%	Tillamook	1	0	301	7.0	0.8	7.8	\$2,730,000	\$297,588	\$2,432,412	
Hollywood Hills	100%	0%	Tillamook	3	0	174	2.0	0.4	2.4	\$730,800	\$75,069	\$655,731	
Lobo Canyon	100%	0%	Tillamook	2	0	186	4.0	0.5	4.5	\$1,355,367	\$398,661	\$956,706	
South Minich	100%	0%	Tillamook	4	0	118	2.0	0.4	2.4	\$732,900	\$87,500	\$645,400	
Wooden Corners	40%	60%	Tillamook	3	17	219	4.1	0.4	4.5	\$1,384,150	\$60,000	\$1,324,150	
Yankee Branch	100%	0%	Tillamook	1	0	89	0.6	0.1	0.7	\$213,600	\$0	\$213,600	
<b>Sub-total:</b>						17	2,118	41.4	6.8	48.2	\$14,738,862	\$2,462,888	\$12,275,974
<b>Project WOC Sub-total:</b>						0	0	0.0	0.0	0.0	\$0	\$670,816	\$670,816
<b>Total:</b>						17	2,118	41.4	6.8	48.2	\$14,738,862	\$3,133,704	\$11,605,158
<b>Alternate Operations</b>													
Coast Bill	100%	0%	Tillamook		0	327	7.0	0.9	7.9	\$2,781,450	\$438,000	\$2,343,450	
Coast Range South	100%	0%	Tillamook		225	242	6.2	1.4	7.6	\$2,282,400	\$758,422	\$1,523,978	
Schmeagle Hill	100%	0%	Tillamook		0	142	2.0	0.7	2.7	\$815,100	\$142,310	\$672,790	
<b>Total:</b>						225	711	15.2	3.0	18.2	\$5,878,950	\$1,338,732	\$4,540,218

Table A-2: Forest Resource Summary

PRIMARY HARVEST OPERATIONS - FOREST RESOURCE SUMMARY																					
District: Tillamook			Fiscal Year 2022					Date: 04/07/2021													
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 (BA Required)	Operating within a MMMA (BA Required)	Murrelet Timber Sale Screening Process Required (MM Policy 2.27)	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
Buckskins		-	-	-	-	-	-	-	X	-	-	-	-	-	X	-	X	X	-	X	
Enright Station		-	-	-	-	X	-	X	X	-	-	-	-	-	X	X	X	-	-	-	
Four DB Cronin		-	-	-	-	X	-	-	X	-	-	-	-	-	X	X	X	-	X	-	
Fox Ridge		-	-	-	-	-	-	-	X	-	-	-	-	-	X	X	X	X	X	X	
Helpin' Hanns		-	-	-	-	-	-	-	-	X	-	-	-	-	X	-	X	X	-	-	
Hollywood Hills		-	-	-	-	-	-	-	-	X	-	-	-	-	X		X	X	-	-	Transmission line adjacent to Unit 110
Lobo Canyon		-	-	-	X	-	-	-	X	X	-	-	-	-	X	-	X	X	-	X	1 acre of DFC LYR; Will be changed to GEN.
South Minich		-	-	-	-	X	-	X	X	X	-	-	-	-	X	-	X	-	-	-	Possible domestic water source, not verified.
Wooden Corners		-	-	-	-	-	-	-	X	-	-	-	-	-	X	-	X	-	-	-	
Yankee Branch		-	-	-	-	-	-	-	-	-	-	-	-	-	X	X	X	-	-	X	

<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' indicates that the operation contains areas that have been designated for the development of complex forest stands (LYR/OFS)

<sup>4</sup> The final decision on these projects will occur during sale preparation and in consultation 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.

Table A-2: Forest Resource Summary

**ALTERNATE HARVEST OPERATIONS - FOREST RESOURCE SUMMARY**

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

Alternate Harvest Operation	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	Operating within a MMMA (BA Required)	Murrelet Timber Sale Screening Process Required (MM Policy 2.27)	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
Coast Bill		-	-	-	-	-	-	-	X	-	-	-	-	-	X	-	X	X	-	-	"County Land Resolution" (Fund 54) lands in sale area.
Coast Range South		-	-	X	-	X	-	-	X	-	-	X	-	-	X	-	X	-	X	-	2 acres of current condition LYR in (PC) Unit 885.
Schmeagle Hill		-	-	-	-	X	-	X	X	X	-	-	-	-	X	-	X	X	X	-	

<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 (LYR/OFS)

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

Table A-3: Forest Roads Summary

<b>FOREST ROADS SUMMARY</b>									
District: Tillamook			Fiscal Year: 2022				Date: 05/25/2021		
Primary Operations	Construction		Improvement		Other Projects	Total Project Costs	Gross Value of Operation	Total Cost as a percent of Gross Value	Comments
	Miles	Cost	Miles	Cost					
Buckskins	0.62	\$96,123	0.64	\$5,909	\$38,306	\$140,337	\$1,674,400	8.4%	
Enright Station	0.99	\$50,289	4.05	\$169,853	\$181,769	\$401,911	\$2,336,425	17.2%	
Four DB Cronin	1.41	\$147,980	3.77	\$226,616	\$0	\$374,596	\$1,953,720	19.2%	
Fox Ridge	2.19	\$218,710	5.00	\$331,604	\$76,912	\$627,226	\$1,627,500	38.5%	
Helpin' Hanns	2.31	\$186,383	1.77	\$111,205	\$0	\$297,588	\$2,730,000	10.9%	
Hollywood Hills	0.56	\$28,622	3.19	\$46,447	\$0	\$75,069	\$730,800	10.3%	
Lobo Canyon	1.40	\$205,180	4.41	\$193,482	\$0	\$398,661	\$1,355,367	29.4%	
South Minich	0.23	\$18,029	2.60	\$14,413	\$55,058	\$87,500	\$732,900	11.9%	
Wooden Corners	0.00	\$0	2.30	\$60,000	\$0	\$60,000	\$1,384,150	4.3%	
Yankee Branch	0.00	\$0	0.00	\$0	\$0	\$0	\$213,600	0.0%	
<b>Sub-total</b>	<b>9.7</b>	<b>\$951,315</b>	<b>27.7</b>	<b>\$1,159,528</b>	<b>\$352,045</b>	<b>\$2,462,887</b>	<b>\$14,738,862</b>	<b>16.7%</b>	
<b>Sub-total WOC (see below)</b>	<b>0.0</b>	<b>\$0</b>	<b>0.0</b>	<b>\$0</b>	<b>\$670,816</b>	<b>\$670,816</b>	<b>\$0</b>		
<b>Totals</b>	<b>9.7</b>	<b>\$951,315</b>	<b>27.7</b>	<b>\$1,159,528</b>	<b>\$1,022,861</b>	<b>\$3,133,703</b>	<b>\$14,738,862</b>	<b>21.3%</b>	
<b>Alternate Operations</b>									
Coast Bill	2.77	\$283,000	10.03	\$155,000	\$0	\$438,000	\$2,781,450	15.7%	
Coast Range South	4.77	\$356,380	3.13	\$215,730	\$186,312	\$758,422	\$2,282,400	33.2%	
Schmeagle Hill	2.09	\$98,473	4.08	\$21,140	\$22,697	\$142,310	\$815,100	17.5%	
<b>Total</b>	<b>9.6</b>	<b>\$737,853</b>	<b>17.2</b>	<b>\$391,870</b>	<b>\$209,009</b>	<b>\$1,338,732</b>	<b>\$5,878,950</b>	<b>22.8%</b>	
<b>Road Projects Not Associated with Harvest Operations in this AOP:</b>					<b>None</b>				

Table A-3: Forest Roads Summary (Cont.)

Road Projects to be Completed as a Work Order Contract

Operation	Construction		Improvement		Other Projects	Total Project Costs	Funding Source	Comments
	Miles	Cost	Miles	Cost				
Kilchis Bridge WOC					\$300,816	\$300,816	FDF	Bridge Construction
Cook Ceek FEMA WOC					\$175,000	\$175,000	FDF	FEMA Cost Share
Tillamook Culverts #2 WOC					\$65,000	\$65,000	FDF	
Pullback WOC					\$40,000	\$40,000	FDF	
FEMA Debris WOC					\$20,000	\$20,000	FDF	FEMA Cost Share
Hatchery Creek Engineering #1					\$25,000	\$25,000	FDF	Fish Crossing Design
2022 Land Survey WOC					\$20,000	\$20,000	FDF	
2022 Tillamook Brushing					\$25,000	\$25,000	FDF	
<b>Total</b>	<b>0.00</b>	<b>\$0</b>	<b>0.00</b>	<b>\$0</b>	<b>\$670,816</b>	<b>\$670,816</b>		

Table A-4: Reforestation and Young Stand Management Summary

**REFORESTATION AND YOUNG STAND MANAGEMENT SUMMARY**

District: Tillamook

Fiscal Year: 2022

Date: 03/11/2021

Projects Conducted by ODF Staff or Contractors	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
Seedling / Nursery Costs	2,600	\$215.00	\$559,000.00		\$215.00	\$0.00	2,600	\$559,000.00
Site Prep - Broadcast Burning			\$0.00			\$0.00	0	\$0.00
Site Prep - Piling Burning	2,700	\$4.00	\$10,800.00			\$0.00	2,700	\$10,800.00
Site Prep - Mechanical			\$0.00			\$0.00	0	\$0.00
Site Prep - Chemical - Aerial	2,100	\$60.00	\$126,000.00			\$0.00	2,100	\$126,000.00
Site Prep - Chemical - Ground	200	\$120.00	\$24,000.00			\$0.00	200	\$24,000.00
Initial Planting	2,300	\$234.00	\$538,200.00			\$0.00	2,300	\$538,200.00
Interplanting	300	\$200.00	\$60,000.00			\$0.00	300	\$60,000.00
Underplanting			\$0.00			\$0.00	0	\$0.00
Tree Protection - Barriers	2,550	\$78.00	\$198,900.00	23	\$78.00	\$1,794.00	2,573	\$200,694.00
Tree Protection - Direct Control	2,757	\$105.00	\$289,485.00			\$0.00	2,757	\$289,485.00
Release - Chemical - Aerial			\$0.00			\$0.00	0	\$0.00
Release - Chemical - Ground	400	\$100.00	\$40,000.00			\$0.00	400	\$40,000.00
Release - Manual	500	\$125.00	\$62,500.00			\$0.00	500	\$62,500.00
Precommercial Thinning	750	\$150.00	\$112,500.00			\$0.00	750	\$112,500.00
Pruning			\$0.00			\$0.00	0	\$0.00
Stocking Surveys	5,369		\$0.00	23		\$0.00	5,392	\$0.00
Invasive Species	200	\$100.00	\$20,000.00			\$0.00	200	\$20,000.00
Roadside Vegetation Mngt	230	\$105.00	\$24,150.00			\$0.00	230	\$24,150.00
Other	5,600	\$12.00	\$67,200.00			\$0.00	5,600	\$67,200.00
<b>Totals</b>	<b>28,556</b>	<b>--</b>	<b>\$2,132,735.00</b>	<b>46</b>	<b>--</b>	<b>\$1,794.00</b>	<b>28,602</b>	<b>\$2,134,529.00</b>

\* Work to be completed by ODF staff; cost are for materials only

Table A-4: Reforestation and Young Stand Management Summary (Cont.)

Projects Conducted by South Fork (or Mill Creek) Crews	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
Site Prep - Broadcast Burning			\$0.00			\$0.00	0	\$0.00
Site Prep - Piling Burning			\$0.00			\$0.00	0	\$0.00
Site Prep - Mechanical			\$0.00			\$0.00	0	\$0.00
Initial Planting			\$0.00			\$0.00	0	\$0.00
Interplanting			\$0.00			\$0.00	0	\$0.00
Underplanting			\$0.00			\$0.00	0	\$0.00
Tree Protection - Barriers	35	\$1,141.23	\$39,943.05			\$0.00	35	\$39,943.05
Tree Protection - Direct Control			\$0.00			\$0.00	0	\$0.00
Release - Manual			\$0.00			\$0.00	0	\$0.00
Precommercial Thinning			\$0.00			\$0.00	0	\$0.00
Pruning			\$0.00			\$0.00	0	\$0.00
Invasive Species			\$0.00			\$0.00	0	\$0.00
Other	1	\$960.00	\$960.00			\$0.00	1	\$960.00
<b>Totals</b>	<b>36</b>	<b>--</b>	<b>\$40,903.05</b>	<b>0</b>	<b>--</b>	<b>\$0.00</b>	<b>36</b>	<b>\$40,903.05</b>

Grant Funded Activities	Board of Forestry			Common School Forest Lands			District	
	Acres Planned	Average Cost*/Acre	Cost	Acres Planned	Average Cost*/Acre	Cost	Total Acres	Total Cost
Project			\$0.00			\$0.00	0	\$0.00
			\$0.00			\$0.00	0	\$0.00
			\$0.00			\$0.00	0	\$0.00
			\$0.00			\$0.00	0	\$0.00

Table A-5: Recreation Site Management  
**RECREATION SITE MANAGEMENT SUMMARY**

District: Tillamook

Fiscal Year: 2022

Date : 03/16/2021

Project	Construction Cost (Funding)		Improvement Cost (Funding)		Operations/Maint. (Funding)		Total Costs	Comments
	ODF (\$)	Other (\$)	ODF (\$)	Other (\$)	ODF (\$)	Other (\$)		
<b>Campgrounds</b>								
Diamond Mill						\$4,157	\$4,157	trash, septic pumping (ATV Transfer Fund)
Jones Creek					\$17,992		\$17,992	trash, septic pumping, electricity
Keenig					\$4,048		\$4,048	trash, septic pumping
Jordan Creek						\$2,924	\$2,924	trash, septic pumping (ATV Transfer Fund)
Nehalem Falls					\$4,498		\$4,498	trash, septic pumping, phone, electricity
Morrison Eddy					\$1,349		\$1,349	trash, septic pumping
<b>Designated Dispersed Campsites</b>								
North Fork Wilson					\$2,361		\$2,361	portable toilet
Cedar Creek					\$3,965		\$3,965	trash, 2 portable toilets
Jordan Creek					\$117		\$117	signs, posts, fire grate maintenance
North Fork Trask					\$59		\$59	signs, posts, fire grate maintenance
East Fork Trask					\$117		\$117	signs, posts, fire grate maintenance
South Fork Trask					\$2,361		\$2,361	portable toilet, signs, posts
Cook Creek					\$117		\$117	signs, posts, fire grate maintenance
<b>Day Use Areas</b>								
Stones Road Boat Launch					\$59		\$59	sign maintenance
Beaverslide Boat Launch					\$59		\$59	sign maintenance
Jones Creek Day Use Area					\$4,386		\$4,386	trash, septic pumping
<b>Trailheads</b>								
Cedar Creek OHV Staging Area						\$5,622	\$5,622	trash, septic pumping (ATV Transfer Fund)
Footbridge Trailhead					\$3,486		\$3,486	trash, Septic pumping
Hollywood OHV Staging Area					\$59		\$59	signs, posts, fire grate maintenance
Equestrian Trailhead					\$117		\$117	signs maintenance
Penninsula Trailhead & Boat Launch					\$117		\$117	posts, signs, table maintenance
<b>Interpretive Sites</b>								
Sprague Wayside					\$2,473		\$2,473	septic pumping, electricity
<b>Other Operations</b>								
Dust Abatement					\$5,059		\$5,059	Jones Creek, Nehalem Falls



Table A-5: Recreation Site Management (Cont.)

Field Services & Supplies					\$29,238	\$29,238	lumber, concrete, hardware, paint, signs, camp host propane & fuel, garbage bags, well pump service, crushed rock, office supplies, contracted work for resource protection/blocking, all field related services.	
Replacement Picnic Tables						\$3,442	\$3,442	10 picnic tables @ \$675 each (ATV Transfer Fund)
Garbage Service at District					\$3,935		\$3,935	
Fee Envelopes					\$1,789		\$1,789	
Water Testing					\$2,029		\$2,029	Quarterly water tests, annual nitrite test, required sanitation surveys and annual well fee of \$150 for wells at Jones Creek, Keenig & Nehalem Falls Campground.
Field Supplies OHV						\$1,453	\$1,453	hoses, parts, tires (ATV Transfer Fund)
Bridge Inspections					\$2,371		\$2,371	Yearly contract for bridge inspections
Spray Contract					\$3,570		\$3,570	Contracted spraying at recreation sites
					District Total		\$95,731	
					Other Total		\$17,598	
					<b>TOTAL</b>		<b>\$113,329</b>	

\*A portion of the motorized recreation costs are funded through OPRD transfer funds.

\*\* All Maintenance Work to be performed by South Fork and ODF Staff

Table A-6: Recreation Trail Management

RECREATION TRAIL MANAGEMENT SUMMARY											
District: Tillamook			Fiscal Year: 2022			Date : 03/16/2021					
Project	Construction Projects			Improvement Projects			Operations & Maintenance Projects			Total Costs	Comments
	Miles	ODF (\$)	Other (\$)	Miles	ODF (\$)	Other (\$)	Miles	ODF (\$)	Other (\$)		
<b>Non-Motorized</b>											
Wilson River Trail							5.0	\$9,000		\$9,000	Contract with Northwest Youth Corps for one week to maintain and rehab a difficult 5 mile section of the Wilson River Trail from Cedar Butte Road to Footbridge Trailhead.
Coal Creek Trail							1.5	\$3,842		\$3,842	4 South Fork crew days at \$960.60 per day. Trail alignment and brushing.
<b>Motorized</b>											
OHV Trail Brushing							10.0	\$7,685		\$7,685	8 South Fork crew days at \$960.60 per
										District Total	\$20,527
										Other Total	\$0
										<b>TOTAL</b>	<b>\$20,527</b>

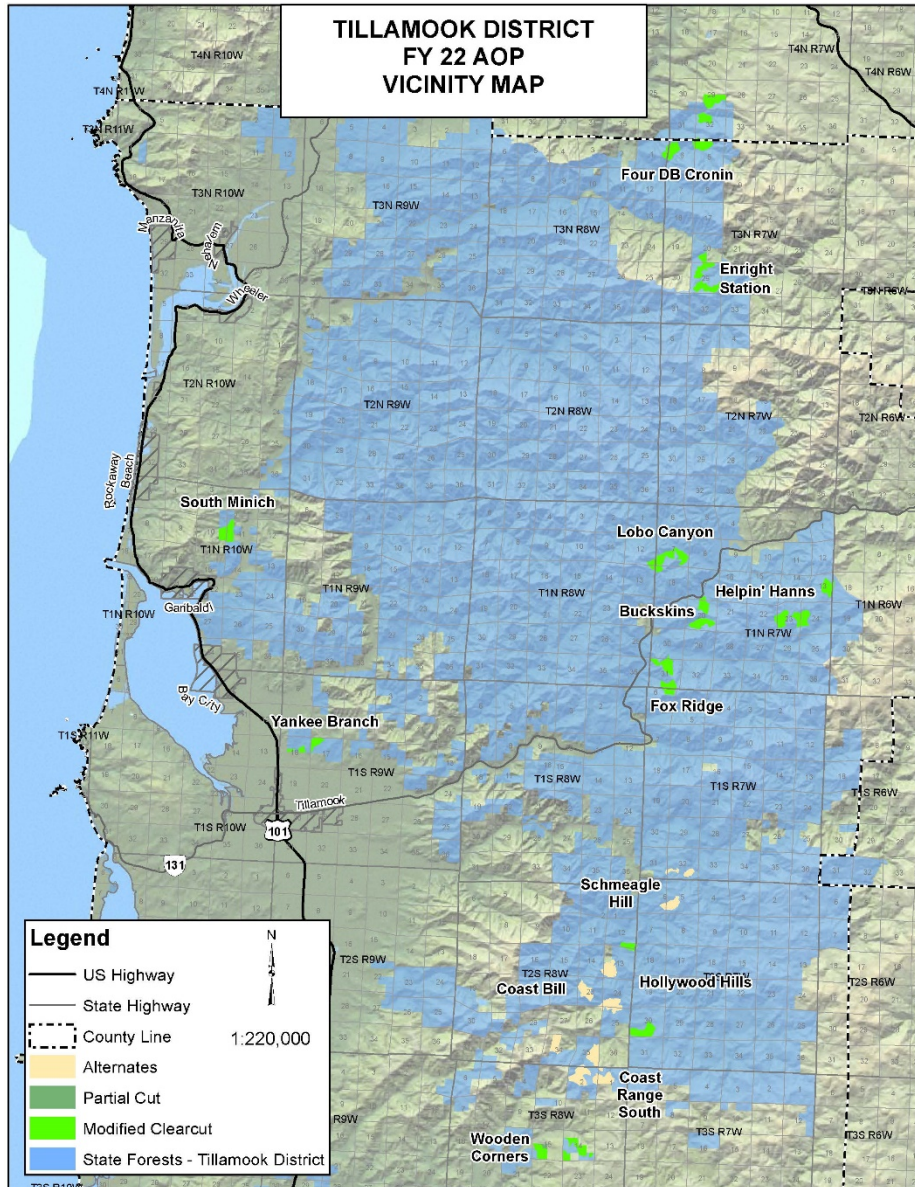
\*A portion of the motorized recreation costs are funded through OPRD transfer funds.

# Appendix B

---

## Vicinity Maps

- **Harvest Operations Vicinity Map**



# Appendix C

---

## **Consultations with Other State Agencies**

### **Oregon Department of Fish and Wildlife (ODFW):**

ODFW biologists attended a FY22 AOP review meeting for resource specialists, and were provided the Summary and Pre-Operations Reports for review. ODFW identified several stream enhancement opportunities associated with sales in the FY22 AOP and some stream culverts that should be evaluated for fish passage if they have not been assessed already. Before determining if these potential enhancement projects will go into a full planning process, more field review is needed. The ODF Aquatic and Riparian Specialist will be consulted to help review these candidates to make sure that the streams will benefit from the proposed projects and may consult with ODFW fish biologists as needed. All culverts along haul routes for the proposed sales will be evaluated during sale preparation to ensure that they meet standards set in the ODF Roads Manual including fish passage.

### **Oregon Department of Transportation – Archaeologists:**

Archaeologists from the Oregon Department of Transportation (ODOT) have reviewed the proposed timber harvests, road construction and recreation projects for 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 operations that could have led to the presence of cultural artifacts today.

The following areas (listed by historic activity) will be reviewed on the ground to determine if any cultural artifacts are present:

- Trail: Coast Range South
- Trail: Four DB Cronin
- Trail: Fox Ridge Quarry Development
- Toll Road: Schmeagle Hill

# Appendix D

---

## **PUBLIC COMMENT PROCESS FOR THE FY22 ANNUAL OPERATIONS PLAN**

The Oregon Department of Forestry issued a Press Release in March 2021, announcing a formal public comment period for the FY22 Annual Operations Plans from May 7 through June 21, 2021. The purpose of the Public Comment Period is to provide an opportunity for the public to review the AOP, ask questions, make recommendations, 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.

The following changes have been made to the Tillamook District FY22 AOP since the Public Comment Period:

- As noted in the draft Pre-Operations reports for the following sales, a small number of additional acres were buffered, resulting from more recent Geotechnical Specialist reviews. Buckskins (Unit 615), Fox Ridge (Unit 20), and Helpin' Hanns (all units) all received minor, additional buffering.
- Buckskins (Unit 610) increased by approximately 20 acres. It was previously anticipated that these acres would be harvested in the subsequent harvest entry in the future. However, it was determined that these were the only remaining viable harvest acres along this ridge system, so will be harvested with this entry.
- Four DB Cronin was moved from a 2<sup>nd</sup> quarter sale to a 4<sup>th</sup> quarter sale to allow for the possibility of achieving the annual harvest objective without needing to sell this timber sale. Fox Ridge was moved from 4<sup>th</sup> quarter up to 1<sup>st</sup> quarter to help balance the shift.
- Enright Station (Unit 502) received an additional buffer on a perennial stream.
- Additional harvest prescription language was added to the Pre-Op reports for the Partial Cut units in Wooden Corners and Coast Range South.

Below is a link to a summary of all comments received for the Astoria, Forest Grove, Klamath-Lake, West Oregon, Western Lane and Tillamook district FY22 AOPs and ODF's responses to those comments.

<https://www.oregon.gov/odf/working/documents/aop-public-comments-astoria-forestgrove-klamathlake-tillamook-westoregon-westernlane-fy22.pdf>

# Appendix E

---

## **Pre-Operations Report**

**Pre-Operations Reports are available from the District by request.**

# APPENDIX F

---

## **Forest Land Management Classification System (FLMCS) Modification Notification**

No modifications are proposed for the FY22 AOP.



# Appendix G

## Landscape Design – Tillamook District Implementation Plan Minor Modification Notice

As described in the 2009 District IP, the district has mapped a Landscape Design that designates 40% 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 Tillamook District’s landscape design. The DFC landscape design for the Tillamook district was done using a “broad brush” method incorporating a variety of landscape design principles and strategies. The original Landscape Design mapping process used stand types instead of geographical breaks to define the future complex stand boundaries with the intent that the boundaries could be fine-tuned during the planning process. Actual boundaries between complex and general DFC’s are determined on the ground during the sale planning and preparation process. Minor changes in the DFC landscape design may occur on an annual basis due to a variety of reasons. These reasons may include; refinement of the DFC boundary on the ground, forest health issues, and 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. 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 process.

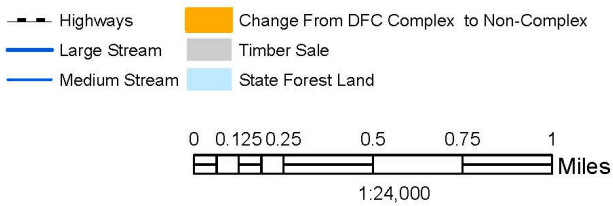
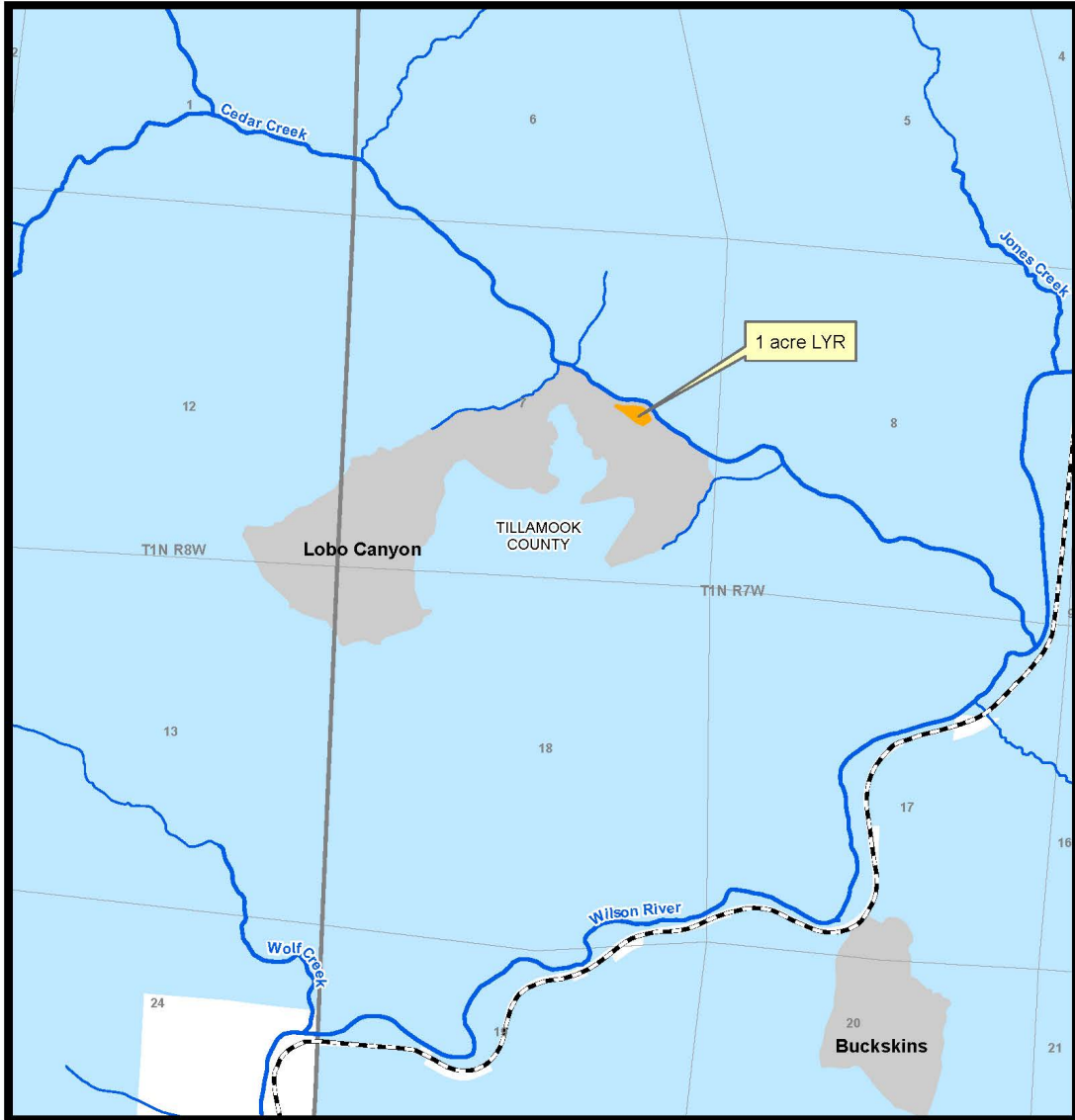
Description of change: The district is proposing to change 1 acre that has a current DFC of Layered. The 1 acre patch is being removed to accommodate an operational timber sale boundary for FY22. The area was reviewed by the Area Biologist and the District’s Operations Coordinator (See map below).

The designation of DFC complex on the Tillamook District remains at 40%.

Summary of Minor Landscape Design Modification			
Acres Removed		Acres Added	
Desired Future Condition	Acres	Desired Future Condition	Acres
LYR	1	LYR	0
OFS	0	OFS	0
Total Acres Removed	1	Total Acres Added	0

# Tillamook District

## Landscape Design - Desired Future Condition Revision



This product is for informational purposes, and may not be suitable for legal, engineering or surveying purposes. This information or data is provided with the understanding that conclusions drawn from such information are the responsibility of the user.

01/08/2021