



Oregon

Kate Brown, Governor

Department of Forestry

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"STEWARDSHIP IN FORESTRY"

June 30, 2022

To: Andy White, Area Director
From: Kate Skinner, Tillamook District Forester

CC: Michael Wilson, 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 2023

The FY 2023 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 2009 Tillamook District Implementation Plan (IP), the 2023 Annual Operation Planning Standards, and the FY 2023 State Forests budget instructions.

During its preparation, this plan was reviewed by technical specialists from within the department and biologists from the Oregon Department of Fish and Wildlife. 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 of 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 45.7 MMBF of harvest volume. This volume will be achieved through 2,143 acres of regeneration harvest. There are 9 primary operations and 7 alternate operations within this plan. The operations are estimated to generate gross revenues of approximately \$14,852,054 and net revenues of \$10,353,729 (100% within Tillamook County). The volume is just under the IP target of 47 MMBF. The reason for the lower volume is due to higher than anticipated volume in the previous fiscal year. 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 2023 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 2023. 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 2023

The AOP is available on the ODF website at: <https://www.oregon.gov/odf/working/pages/stateforests.aspx>

Approved:

A handwritten signature in black ink, appearing to read 'Kate Skinner', is written over a horizontal line.

Kate Skinner
Tillamook District Forester

Tillamook District

2023 ANNUAL OPERATIONS PLAN



Tillamook DISTRICT

FY 2023 ANNUAL OPERATIONS PLAN

OVERVIEW

This plan describes the activities and outcomes that Oregonians can expect to see on the Tillamook District for FY 2023. 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 has undergone a 45-day public comment period.

This Annual Operations Plan (AOP) has been 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 2023 fiscal year.

A short summary of activities planned for the coming year :

- Planting 1,215,800 trees on 2,700 acres and conducting vegetation and animal management activities on an additional 8,600 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 14.9 miles of road to ensure ditch water is dispersed and filtered, keeping runoff from entering streams. Constructing 15.8 miles of new roads. 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 45.7 million board feet of timber volume, through modified clearcuts and partial cuts, generating revenue of an estimated \$10.4 million in 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 developed facilities in a safe, clean, and responsible manner.

- 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 317 miles of motorized and 21 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 and Adopt a Trail
 - Trail Maintenance and Construction Work Parties
- 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 2021.
- Supporting ongoing research on the district, in partnership with research cooperatives and universities.

TABLES OF CONTENTS

.....	2
INTRODUCTION	7
INTEGRATED FOREST MANAGEMENT OPERATIONS	8
Timber Harvest Operations	8
Overview of Timber Harvest Operations.....	8
Harvest Operations within Terrestrial Anchor Sites and Aquatic Anchors	10
Summary of Timber Harvest Operations by Basin	13
Forest Roads Management	20
Overview	20
Road Construction	20
Road Improvement	20
Road Access Management	20
Road Maintenance	21
Management of Rock Source/Supply	21
Land Surveying	22
Young Stand Management.....	22
Seedlings / Nurseries	23
Site Preparation.....	23
Planting	24
Tree Protection	24
Vegetation Management – Release Treatments	25
Pre-Commercial Thinning (PCT).....	26
Pruning.....	26
Stocking Surveys.....	26
Invasive Species	26

Roadside Spraying.....	26
Recreation Management.....	27
Overview of Recreation Management	27
Facilities (Campgrounds, Viewpoints, Trailheads, etc.)	27
Motorized (OHV) Trails	29
Non-motorized Trails	29
Volunteer Program	30
Event Management.....	30
Partnerships.....	31
Other Integrated Forest Management Projects.....	31
Aquatic & Riparian Management	31
Land Exchange	33
Law Enforcement and Public Safety	33
Firewood Cutting Program.....	33
Non-Timber Forest Products	33
Planning.....	33
Archaeological, Historical and Cultural Resources	33
Forest Inventory.....	34
Wildlife Surveys	34
Research and Monitoring.....	35
Recreation, Education, and Interpretation (REI) Program Planning – REI Program Wide	35
Public Information and Education	35
Administration	36
APPENDICES	38
A. Summary Tables.....	39
B. Maps.....	51
C. Consultation with Other Agencies.....	55

D. Public Involvement.....	56
E. Pre-Operations Reports.....	57
F. Land Management Classification System	58
G. Landscape Design Minor Modification.....	59

INTRODUCTION

This annual operation plan (AOP) outlines operations on state-owned forestland managed by the Tillamook District for Fiscal Year 2023 (FY23), which begins July 1, 2022 and ends June 30, 2023. 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 FY23, 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 FY23 time period. Actual on-the-ground operations will likely not occur during FY23 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 FY23.

A 45-day public comment period was held from March 21, 2022 through May 5, 2022. The District Forester has reviewed and considered all comments received before approving this plan and a summary of any comments received was placed in Appendix D in the finalized document. 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 FY23. 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. All of the operations will be reviewed against the State Historic Preservation Office and General Land Office databases for potential impact to cultural resources. 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 FY23 AOP is estimated to produce 45.7 million board feet in volume, generate gross revenues of approximately \$14,852,054 and net revenues of \$10,353,729. The goal is to achieve the average of the Annual Harvest Objective (AHO) of 47 MMBF over the expected duration for the IP (See Table 2). In order to achieve this average, the Tillamook District will sell 45.7 million board feet in volume 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 2023 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		2023 AOP
	Low	High	
Volume (MMBF)	47		45.7
Partial Cut Harvest	0	3,450	0
Regeneration Harvest	800	3,150	2,143

Table 1 shows the proposed acres by harvest type. The 2,143 acres of regeneration harvest planned for FY23 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 ¹
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	46.3	42.0	-3.8
FY 22	47	48.2	52.1	1.3
FY 23	47	45.7	--	--

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 FY23 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 - 2023).

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

Acres within TAS	Current AOP (FY 2023)		Cumulative Harvest (Since FY 2012)	
	Clearcut	Partial Cut	Clearcut	Partial Cut
Terrestrial Anchor Site (TAS) Basin				
Bastard Creek (5,021 ac)	0	0	0	0
% of Acres	0%	0%	0%	0%
Ripple Creek (3,831 ac)	0	0	0	559
% of Acres	0%	0%	0%	14.6%
Miami (6,396 ac)	0	0	0	0
% of Acres	0%	0%	0%	0%
Hembre (2,981 ac)	0	0	0	0
% of Acres	0%	0%	0%	0%
Boundary (2,138 ac)	0	0	0	0
% of Acres	0%	0%	0%	0%
All TAS (10,958 ac)	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)

Acreages	Current AOP (FY 2023)		Cumulative Harvest (since FY 2014)	
	Clearcut	Partial Cut	Clearcut	Partial Cut
Aquatic Anchor (AA) Basins				
Ben Smith Creek (3,602 ac)	0	0	638	0
% of Acres	0%	0%	17.7%	0%
Cedar Creek (7,214 ac)	0	0	1,059	0
% of Acres	0%	0%	14.7%	0%
Coal Creek (1,237 ac)	0	0	0	0
% of Acres	0%	0%	0%	0%
Cook Creek (18,286 ac)	858	0	1,703	322.5
% of Acres	4.7%	0%	9.3%	1.7%
East Fork S Fork Trask (15,627 ac)	709	0	3,257	290.4
% of Acres	4.5%	0%	20.8%	0.7%
Elkhorn (3,860 ac)	0	0	692	0
% of Acres	0%	0%	17.9%	0%
Foley Creek (4,403 ac)	0	0	146	0
% of Acres	0%	0%	3.3%	0%
Little N Fork Wilson (10,310 ac)	0	0	1,117	0
% of Acres	0%	0%	10.8%	0%
Miami (13,910 ac)	251	0	548	0
% of Acres	1.8%	0%	3.9%	0%
Middle Kilchis (14,155 ac)	0	0	0	0
% of Acres	0%	0%	0%	0%
S Fork Salmonberry (2,813 ac)	0	0	0	567.6
% of Acres	0%	0%	0%	20.1%
All Aquatic Anchors (95,417 ac)	1,827	0	9,169	1,181
% of Acres	1.9%	0%	9.6%	1.2%

Summary of Timber Harvest Operations by Basin

In the following section, the harvest operations planned for FY23 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	2023 AOP	
	Partial Cut	Clearcut
N. Fork Nehalem	0	0
Lower Nehalem	0	851
Short Sands	0	0
Miami	0	251
Kilchis	0	0
Tillamook Bay	0	0
Wilson	0	0
Tillamook River	0	0
Trask	0	966
Nestucca	0	75
Little Nestucca	0	0
Totals	0	2,143

North Fork Nehalem Basin

There are no harvest operations planned in this basin for FY23.

Lower Nehalem Basin

Cook Creek Overlook (Primary): This sale includes two modified clearcut units (Units 661 and 900) totaling 230 acres. The main species in these stands are red alder, Douglas-fir, and western hemlock. Stand ages range from 49–73. The current condition for all stands is understory or closed single canopy and have a desired future condition of general stewardship.

Following the completion of harvest, the units will be planted with a mix of species to be determined closer to the time of reforestation.

This sale is located within the Cook Creek/Lower Nehalem River Aquatic Anchor.

There will be 1.84 miles of new road construction and 2.06 miles of road improvement.

No recreation resources exist within the sale boundaries. Designated campsites are near the northern boundary of Sale Area 900. The Marketing Unit will work closely with the Recreation Unit during sale layout and contract writing to put provisions in place to minimize impact to the

recreational sites and mitigate public use safety concerns. Opportunities will be looked at for facility improvements that could be performed during or post timber sale operations.

Dry Creek (Alt): This sale includes three modified clear units (Units 82, 761, and 743) totaling 233 acres. The main species in these stands are Douglas-fir and red alder. Stand ages range from 51–70. The current condition for all stands is understory and have a desired future condition of general stewardship.

Following the completion of harvest, the units will be planted with a mix of species to be determined closer to the time of reforestation.

This sale is located within the Cook Creek/Lower Nehalem River Aquatic Anchor.

There will be 1.33 miles of new road construction and 0.88 miles of road improvement.

East Cook Creek (Primary): This sale includes three modified clearcut units (Units 740, 742, and 743) totaling 208 acres. The main species in these stands are Douglas-fir, red alder, and western hemlock. Stand ages range from 61–67. The current condition for all stands is understory or closed single canopy and have a desired future condition of general stewardship.

Following the completion of harvest, the units will be planted with a mix of species to be determined closer to the time of reforestation.

This sale is located within the Cook Creek/Lower Nehalem River Aquatic Anchor.

There will be 0.23 miles of new road construction and 0.8 miles of road improvement.

Tin Pants (Primary): This sale includes four modified clearcut units (Units 202, 211, 425, and 510) totaling 415 acres. The main species in these stands are Douglas-fir, western hemlock, and red alder. Stand ages range from 53–71. Current condition for all stands is understory. All stands have a desired future condition of general stewardship except for 21 acres of layered in Unit 202. These acres have been reviewed by the Area Biologist and will be changed to general stewardship as part of a minor modification, in order to facilitate a logical harvest boundary (see Appendix G).

Following the completion of harvest, the units will be planted with a mix of species to be determined closer to the time of reforestation.

This sale is located within the Cook Creek/Lower Nehalem River Aquatic Anchor.

There will be 2.02 miles of new road construction and 3.6 miles of road improvement.

Short Sands

There are no harvest operations planned in this basin for FY23.

Miami

North Miami (Primary): This sale includes three modified clearcut units (Units 373, 606, and 833) totaling 251 acres. The main species in these stands are red alder and Douglas-fir. Stand ages range from 67–91. Current condition for all stands is understory or closed single canopy and have a desired future condition of general stewardship.

Following the completion of harvest, the units will be planted with a mix of species 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.

This sale is located within the Miami River Aquatic Anchor.

There will be 0.86 miles of new road construction and 2.33 miles of road improvement.

Kilchis

Kilchis Company (Alternate): This sale includes three modified clearcut units (Units 847, 919, and 921) totaling 273 acres. The main species in these stands are Douglas-fir and red alder. Stand ages range from 50–59. All stands have a desired future condition of general stewardship. Current condition for all stands is understory.

Following the completion of harvest, the units will be planted with a mix of species to be determined closer to the time of reforestation.

Approximately 19 acres of Unit 919 are located within the Middle Kilchis River Aquatic Anchor.

There will be 3.14 miles of new road construction and 4.90 miles of road improvement.

Tillamook Bay

There are no harvest operations planned in this basin for FY23.

Wilson

Muesial Chairs (Alternate): This sale includes four modified clearcut units (Units 60, 263, 264, and 786) totaling 364 acres. The main species in these stands are Douglas-fir and red alder. Stand ages range from 57–71. The current condition for all stands is understory or closed single canopy and have a desired future condition of general stewardship.

Following the completion of harvest, the units will be planted with a mix of species to be determined closer to the time of reforestation.

There will be 2.81 miles of new road construction.

Motorized trails exist within Units 263, 264, and 786. Sale Area 264 borders the southern edge of Keening Campground. The Marketing Unit and Roads Unit will work closely with the Recreation Unit during sale layout and contract writing to put provisions in place to minimize impact to the recreational trails and facilities and mitigate public use safety concerns. Opportunities will be looked at for facility improvements that could be performed during or post timber sale operations.

A portion of the sale area may be visible from Highway 6.

Tillamook River

There are no harvest operations planned in this basin for FY23.

Trask

Bob Hembre (Primary): This sale includes one modified clearcut unit (Unit 332) totaling 120 acres. The main species in this stand are Douglas-fir and red alder. Stand ages range from 44–59. The current condition for all stands is understory and has a desired future condition of general stewardship.

Following the completion of harvest, the units will be planted with a mix of species to be determined closer to the time of reforestation.

There will be 0.54 miles of new road construction and 0.4 miles of road improvement.

Motorized trails exist within Unit 332. The Marketing Unit and Roads Unit will work closely with the Recreation Unit during sale layout and contract writing to put provisions in place to minimize impact to the recreational trails and mitigate public use safety concerns. Opportunities will be looked at for facility improvements that could be performed during or post timber sale operations.

Breaking Boundary (Primary): This sale includes two modified clearcut units (Units 144 and 177) totaling 213 acres. The main species in this stand are Douglas-fir and red alder. Stand ages range from 54–57. The current condition for all stands is understory or closed single canopy and these stands have a desired future condition of general stewardship.

Following the completion of harvest, the units will be planted with a mix of species to be determined closer to the time of reforestation.

Unit 144 and the NE portion of Unit 177 are located within the East Fork of the South Fork Trask River Aquatic Anchor.

There will be 2.68 miles of new road construction and 2.82 miles of road improvement.

Motorized trails exist within Sale Area 177 and 144. The Marketing Unit and Roads Unit will work closely with the Recreation Unit during sale layout and contract writing to put provisions in place to minimize impact to the recreational trails and mitigate public use safety concerns.

Opportunities will be looked at for facility improvements that could be performed during or post timber sale operations.

Clear Creek (Alternate): This sale includes two modified clearcut units (Units 45 and 46) totaling 128 acres. The main species in these stands are Douglas-fir and red alder. Stand ages range from 51–54. All stands have a current condition of understory and a desired future condition of general stewardship.

Following the completion of harvest, the units will be planted with a mix of species to be determined closer to the time of reforestation.

There will be 0.77 miles of new road construction and 0.2 miles of road improvement.

A motorized trail exists within Sale Area 45. The Marketing Unit and Roads Unit will work closely with the Recreation Unit during sale layout and contract writing to put provisions in place to minimize impact to the recreational trails and mitigate public use safety concerns. Opportunities will be looked at for facility improvements that could be performed during or post timber sale operations.

Coast Range South (Alternate): This sale includes 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 54 – 65.

All stands have a desired future condition of general stewardship. Current condition of all stands is understory, except for 2 acres of layered in Unit 885.

The sale area is located within the Moon Creek East owl circle. A preliminary biological assessment is being developed for this sale. Residual basal area for partial cut units should not go below 140ft², with the goal being to maintain a minimum of at least 40% canopy cover.

There will be 2.2 miles of new road construction and 3.13 miles of road improvement.

This sale is within a Draft Habitat Conservation Area. The thinning prescription for this stand will be developed to create more complex structure and improve habitat.

Edward's Butte (Alternate): This sale includes five modified clearcut units (Units 348, 350, 351, 805, and 830) totaling 338 acres. The main species in these stands are Douglas-fir and red alder. Current condition for all stands is understory or closed single canopy. Stand ages range from 54–64. All stands have a desired future condition of general stewardship except for 24 acres of older forest structure in Unit 348. These acres have been reviewed by the Area Biologist and will be changed to general stewardship as part of a minor modification, in order to facilitate a logical harvest boundary (see Appendix G). This is an isolated patch of older forest structure located immediately underneath transmission lines. The acres will be relocated to a more appropriate location adjacent to a larger existing block of layered and older forest structure stands.

Following the completion of harvest, the units will be planted with a mix of species to be determined closer to the time of reforestation.

There will be 2.41 miles of new road construction and 0.69 miles of road improvement.

A motorized trail exists within Sale Area 805. The Marketing Unit and Roads Unit will work closely with the Recreation Unit during sale layout and contract writing to put provisions in place to minimize impact to the recreational trail and mitigate public use safety concerns. Opportunities will be looked at for facility improvements that could be performed during or post timber sale operations.

There are BPA transmission lines within the harvest boundaries of Units 348 and 830.

Ed Sheeridan (Alternate): This sale includes one modified clearcut unit (Unit 47) totaling 112 acres. The main species in this stand are Douglas-fir and red alder. This stand is 55 years old and has a current condition of understory. This stand has a desired future condition of general stewardship.

Following the completion of harvest, the units will be planted with a mix of species to be determined closer to the time of reforestation.

There will be 0.17 miles of new road construction and 0.29 miles of road improvement.

Groom Creek (Primary): This sale includes one modified clearcut unit (Unit 463) totaling 82 acres. The main species in this stand are Douglas-fir and red alder. Stand ages range from 56–61. Current condition for this stand is understory and has a desired future condition of general stewardship.

Following the completion of harvest, the units will be planted with a mix of species to be determined closer to the time of reforestation.

This sale is located within the East Fork of the South Fork Trask River Aquatic Anchor.

There will be 1.05 miles of new road construction.

A motorized trail exists within Sale Area 463. The Marketing Unit and Roads Unit will work closely with the Recreation Unit during sale layout and contract writing to put provisions in place to minimize impact to the recreational trails and mitigate public use safety concerns. Opportunities will be looked at for facility improvements that could be performed during or post timber sale operations.

Pothole Murphy (Primary): This sale includes three modified clearcut units (Units 451, 531, and 829) totaling 280 acres. The main species in these stands are Douglas-fir and red alder. Stand ages range from 61–64. All stands have a current condition of understory and a desired future condition of general stewardship.

Following the completion of harvest, the units will be planted with a mix of species to be determined closer to the time of reforestation.

This sale is located within the East Fork of the South Fork Trask River Aquatic Anchor.

There will be 2.14 miles of new road construction and 2.12 miles of road improvement.

Motorized trails exist within Sale Areas 451, 531, and 829. The Marketing Unit and Roads Unit will work closely with the Recreation Unit during sale layout and contract writing to put provisions in place to minimize impact to the recreational trails and mitigate public use safety concerns. Opportunities will be looked at for facility improvements that could be performed during or post timber sale operations.

Schmeagle Hill (Primary): This sale includes five modified clearcut units (Units 14, 630, 683, 685, and 923) totaling 345 acres. The main species in these stands are Douglas-fir and red alder. Stand ages range from 58 – 65. All stands have a current condition of understory or closed single canopy and a desired future condition of general stewardship except for 22 acres of layered in Unit 630. These acres have been reviewed by the Area Biologist and will be changed to general stewardship as part of a minor modification, in order to facilitate a logical harvest boundary (see Appendix G). The layered acres will be shifted south into a more appropriate location adjacent to a large block of existing layered and older forest structure stands.

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

Units 14 and 630 are located within the East Fork of the South Fork Trask River Aquatic Anchor.

There will be 4.12 miles of new road construction and 0.75 miles of road improvement.

Motorized trails exist within Units 14, 630, 683, and 923. The Marketing Unit and Roads Unit will work closely with the Recreation Unit during sale layout and contract writing to put provisions in place to minimize impact to the recreational trails and mitigate public use safety concerns. Opportunities will be looked at for facility improvements that could be performed during or post timber sale operations.

Nestucca

A portion of Unit 177 (Breaking Boundary) lies within the Nestucca basin. See sale description under Trask Basin.

Little Nestucca

There are no harvest operations planned in this basin for FY23.

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 FY23 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.

Additional opportunities for road improvement associated with timber sales will be explored and considered during sale layout to further increase protection of resources and improve economic viability.

Road Access Management

State Forests are managed to support public access while providing for community safety, environmental benefits, protection of state and private assets, and wildfire prevention. Following timber harvest, roads are evaluated for their public access benefits and costs. Some roads are closed and vacated to reduce the maintenance costs and to minimize impacts to the environment. These areas remain open for walk-in use. The Department retains the option of gating roads if vandalism, neighbor concerns, or excessive road damage from public use becomes a problem in particular areas. The public may still access these areas on foot, bicycle or horseback.

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 normally not be more than a week at a location.

Cook Creek Road Construction

The Oregon Department of Forestry is planning a project to relocate the damaged portion of Cook Creek Road in Tillamook County restoring access to the basin. The planned project will be partially funded by the Federal Emergency Management Agency (FEMA) and includes an environmental assessment under the National Environmental Policy Act (NEPA). The Department invited the public to provide comments on the information and analysis provided in the draft Environmental Assessment. This comment period ended on June 15, 2023.

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:

- Cook Creek Overlook
- East Cook Creek
- Pothole Murphy
- Tin Pants

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 FY23.

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

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 FY23 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 2022 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.

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: aurally 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 dominate to hardwood dominate. 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

The Forest Roads Team will be responsible for 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 2022,

roadside vegetation surveys will be conducted to determine roadside chemical treatment needs for FY23. The project will be done by utilizing experienced contractors.

Recreation Management

Overview of Recreation Management

Recreation use has been taking place on the Tillamook State Forest for more than 70 years and has been managed in varying degrees. Currently the direction for management of the Recreation program flows from the Northwest Oregon State Forest Management Plan (2010).

Recreation use includes hunting, fishing, target shooting, OHV riding, mountain biking, hiking, equestrian use, mushroom picking, sight-seeing, picnicking, boating, swimming, and camping. Recreation use takes place in developed sites and in dispersed sites across state forest land. Use levels for all activities are expected to increase.

Dispersed site activities are expected to continue in FY23 and will require varying degrees of Recreation program and district staff attention. Designated dispersed use sites will be monitored, maintained, and improved as resources allow to meet safety, sanitation, and resource protection objectives.

The FY23 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.

Due to facility and trail maintenance needs, winter weather limitations, timber sale activity, fire season restrictions, and staffing vacancies some project work from FY22 will extend into FY23. Covid-19 has had a direct influence on the delivery of project work, recreation opportunities and services on state forest land and will continue to influence operational opportunity in FY23.

Facilities (Campgrounds, Viewpoints, Trailheads, etc.)

The Recreation program plans to operate and maintain the following developed facilities on the Tillamook District:

- 6 Campgrounds
- 1 OHV Event Staging Area
- 1 OHV Staging Area
- 8 Day-use areas/ Trailheads
- 2 Interpretive sites
- 82 designated dispersed campsites
- 3 boat launch facilities

All developed facilities will be operated and maintained in good working order and will be kept clean and safe for public use. They will be managed to minimize user conflict and to avoid adversely impacting the resource.

FY23 Facility projects on the Tillamook District are identified and described in the following table (Table 6).

Table 6. Developed Facility and Dispersed Campsite Projects

Project Type	Project Name	Work Resources	Project Description
Facility Maintenance	Designated Dispersed Site Camp Site Sign Replacements	Recreation Staff, South Fork AIC Crews	Replace missing or damaged camp site signs at designated dispersed sites in the Trask, Jordan Creek, Cedar Creek, and Cook Creek drainages.
Facility Improvement	Campground and Trailhead Directional Signage	Recreation Staff, South Fork AIC Crews, Contractor	Planning, Fabrication, and Installation – Develop standardized signage procedures and designs. Install and replace missing signage across the forest's campgrounds and trailheads.
Facility Maintenance	Sprague Wayside Maintenance	Recreation Staff, South Fork AIC Crews, Contractor	Replace damaged information panels at the site's kiosk and complete asphalt maintenance and repainting of the parking spaces.
Facility Maintenance	Jones Creek Day-Use Area Table Replacements	Recreation Staff, South Fork AIC Crews	Replace six failing picnic tables within the Jones Creek Day-Use Area
Facility Improvement	Peninsula Park Maintenance	Recreation Staff, South Fork AIC Crews, NWOA Roads Team	Replace wooden bollards delineating the parking area with riprap boulders and replace existing information board.
Facility Improvement	Outback Trailhead improvement	Contractor	Delineate the trailhead's footprint with boulders and vegetation management.
Facility Maintenance	CXT Restroom Painting	Recreation Staff, South Fork AIC Crews	Repaint CXT bathrooms at Nehalem Falls Campground, Sprague Wayside, and Jones Creek Campground
Facility Improvement	Jones Creek Campground Pole Barn Fence Replacement	Recreation Staff, South Fork AIC Crews	Replace the existing cedar fence surrounding the campground's pole barn to protect materials and operating supplies.
Facility Maintenance- (Planning)	Site Sign Maintenance and Replacement	Recreation Staff	Planning - Evaluate current design standards and develop plan for future construction of site signs at recreation sites across the district.
Facility Maintenance- (Planning)	Information Board Maintenance and Replacements	Recreation Staff	Planning – Evaluate current design standards and develop plan for future construction of information boards at recreation sites across the district.
Facility Improvement- (Planning)	Nehalem Falls Campground Bollard Replacement	Recreation Staff, South Fork AIC Crews, NWOA Roads Team	Planning – Work with ODF District Roads team and NWOA Roads team to understand the availability of boulders for campsite delineation at Nehalem Falls Campground.

Projects delineated as “planning” will be evaluated with public and/or specialist review over the next fiscal year. The “planning” projects will not be implemented during this fiscal year. Components of the projects may occur as specifically noted in Table A5.

Motorized (OHV) Trails

The Recreation program will continue to place emphasis on trail system planning, maintenance, and upgrade of existing trails. Project work will continue to focus on upgrading and improving the designated OHV trail network in an effort to better connect the trail system, protect forest resources, minimize conflict with other forest management activities, re-establish trails after timber harvest, move trail users off the mainline haul and public use roads, reduce trail congestion and the potential for conflict between trail users, improve user safety, improve maintenance efficiency, and reduce infrastructure investments and maintenance workload.

To support OHV program management, ODF receives All Terrain Vehicle (ATV) Fund dollars from Oregon Parks and Recreation Department to support personnel and associated service and supply costs.

FY23 Motorized trail projects on the Tillamook District are identified and described in the following table (Table 7).

Table 7. Motorized Trail Projects

Project Type	Project Name	Work Resources	Project Description
OHV Trail Bridge Replacement	Yellowjacket Trail Bridge Replacement	OHV Program	Trail Bridge Replacement
OHV Trail System (Planning)	Tillamook State Forest OHV Trail System Management Plan Development	OHV Program	OHV trail system management plan development

Projects delineated as “planning” will be evaluated with public and/or specialist review over the next fiscal year. The “planning” projects will not be implemented during this fiscal year. Components of the projects may occur as specifically noted in Table A6.

Non-motorized Trails

The Recreation program will continue to place emphasis on trail system planning, maintenance, and upgrade of existing trails. The Recreation program will continue to place emphasis on improving trail system connectivity and diversity, reducing user conflict, addressing user safety, protecting resources and investment, improving sustainability, and reducing maintenance need.

FY23 non-motorized trail projects on the Tillamook District are identified and described in the following table (Table 8).

Table 8. Non-Motorized Trail Projects

Project Type	Project Name	Work Resources	Project Description
Trail Signage Maintenance and Replacement	Trail Signage Maintenance and Replacement	Recreation staff	Planning and Construction - Replace and construct trail signs across the district.

Trail Maintenance (Motorized and Non-motorized)

Maintenance of existing trails remains the Recreation programs highest trail program priority. Trails will be maintained as necessary to protect investment, address developing resource and safety issues, and to protect water quality. Trail maintenance activity includes the completion of trail condition assessments on all trails, development of maintenance strategies, and completion of maintenance work. Basic trail maintenance work typically involves cleaning water bars and rolling dips, cleaning out culverts, trail tread work, cleaning trail bridges, clearing downed trees, brushing, and sign replacement. Heavy trail maintenance work, which typically results from winter storms, includes repairing trail bridges, re-establishing trail tread in slide or washout areas, rebuilding stream ford crossings, clearing and logout work associated with heavy concentrations of downed trees, and rerouting trails due to slides, washouts, or safety issues.

The Recreation program expects to complete condition assessments and trail clearing maintenance on all trails on the Tillamook District (317 miles OHV and 21 miles non-motorized). Trail user safety, investment protection, and resource protection maintenance will be completed as needed. Other basic trail maintenance work is completed on most trails every two or three years. Approximately 35% to 45% of the network on the Tillamook District will receive basic trail maintenance attention in FY23. Recreation Program staff will work with the state forest engineer to conduct trail bridge inspections that will help inform trail bridge maintenance needs.

Volunteer Program

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

- Camp Host Program at Jones Creek, & Nehalem Falls Campgrounds
- Trail Maintenance and Construction Work Parties
- Adopt a Trail
- SOLVE Beach & Riverside Cleanup Event

Covid-19 has influenced our ability to offer the same level of volunteer opportunity and engagement as has been offered in the past. Covid 19 will continue to have influence on delivery of this component of the Recreation Program. To the extent possible, within the bounds of Covid safety protocols, in FY23, activities associated with the volunteer program will include the recruitment, selection, and management of campground hosts; planning and management of trail maintenance, trail development, and special volunteer projects; and facilitation of Adopt a Trail program activities.

The Recreation program will continue to look for opportunities to develop new partnerships and to enhance existing partnerships that will increase our collective capacity to meet program and project goals and objectives.

Event Management

Recreation staff will review and/or administer permits for 15 motorized events on the Tillamook State Forest. Events include motorcycle races, 4WD events, dual sport events, and observed motorcycle trials. These events many 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 number 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 FY23.

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 FY23 with three full time Forest Deputies.

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:

- Breaking Boundary, Clear Creek, Cook Creek Overlook, Edward's Butte, Groom Creek, North Miami, and Tin Pants – 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 FY23 AOP:

- 12 miles of road improvement, including installing additional cross drain culverts to hydrologically disconnect the roads from streams as possible.
- Installing a bridge on Whitney Creek a tributary off the Kilchis River to enhance fish passage.
- Engineering designs for a future fish passage project on Buck Mountain Road.
- Reroute Cook Creek Road away from 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 (\$250,000). 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 sold over 600 woodcutting permits last fiscal 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 FY23.

Archaeological, Historical and Cultural Resources

Prior to the FY23 AOP, Archaeologists from the Oregon Department of Transportation (ODOT) were the source of archeological review for State Forest operations. Several projects in the Tillamook FY23 AOP were previously presented as alternate operations in FY22 and were reviewed at that time by ODOT for potential impacts to cultural resources. No known historical or archaeological sites were found during that review.

Projects that were not covered prior to FY23 have been contracted out to a certified private contractor. This third party has reviewed the remaining projects for potential impacts to cultural or historic resources.

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

- Trail: Breaking Boundary
- Trail: Coast Range South
- Trail/Cabin: East Cook Creek
- Trail: Edward's Butte
- Trail: Muesial Chairs
- Trail: Schmeagle Hill
- Trail: Tin Pants

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. Contract crews collected USFS FIA plots 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.

Wildlife Surveys

Northern Spotted Owl Surveys

For the FY23 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 FY23, 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 FY23. 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 FY23, REI program staff will be working on the following planning efforts.

- Support the State Forest Division's Forest Management Plan work, HCP work and District AOP development and implementation.
- Reservation Feasibility Study- Study the potential to move Nehalem Falls, Jones Creek, Keenig Creek, and Jordan Creek Campgrounds to a campsite reservation system for the 2023 operations season.
- Recreation Standards Development- REI to work with a consultant to develop a recreation program standards manual for recreation facility infrastructure (ex. fire pits, information boards, picnic tables, site signs...etc.)
- Volunteer Program Manual- The REI program is undergoing an extensive re-evaluation of the volunteer program including onboarding, communication, and recruitment components. The deliverable of this process will be development of a volunteer manual that will be applied across all forests and programs

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 FY23 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 and serves as a hub for public education, forest information, and information on recreational opportunities.

The Tillamook Forest Center hosts more than 50,000 visitors per year. The Smith Homestead Day Use Area is located ½ mile east of the Tillamook Forest Center and hosts many school groups, family activities, and other visitors.

Administration

There will be 19 permanent positions and 3 seasonal positions whose full-time function is to manage State Forest land on the District, and 7 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 2023 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.

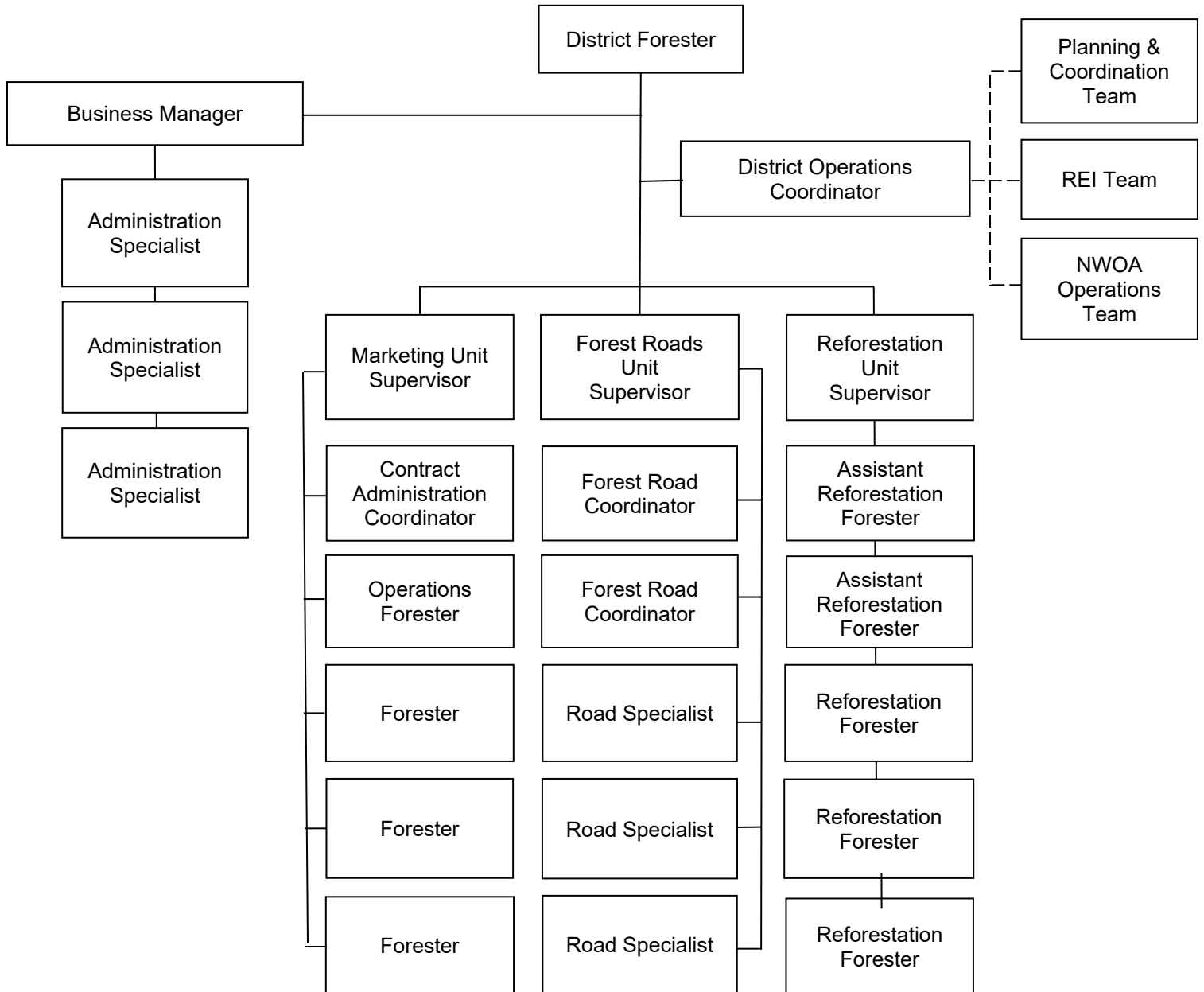
The Forest Roads unit is responsible for all aspects of road management and land surveying. These activities include road design and layout, rock pit development, road maintenance, property line location, road construction and improvement appraisals, contract preparation, and road contract administration.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

TIMBER HARVEST OPERATIONS - FINANCIAL SUMMARY

District: Tillamook

Fiscal Year: 2023

Date: 06/17/2022

Primary Operation	Fund %		County	Sale Quarter	Net Acres		Volume (MMBF)			Value		
	BOF	CSL			Partial Cut	Clear-cut	Con-ifer	Hard-woods	Total	Gross	Projects	Net
Bob Hembre	100%	0%	Tillamook	2	0	119	1.2	0.7	1.9	\$571,200	\$106,845	\$464,355
Breaking Boundary	100%	0%	Tillamook	1	0	213	5.4	0.1	5.5	\$2,093,364	\$317,395	\$1,775,969
Cook Creek Overlook	100%	0%	Tillamook	3	0	230	3.1	0.6	3.7	\$1,063,520	\$378,960	\$684,560
East Cook Creek	100%	0%	Tillamook	4	0	208	4.0	0.4	4.4	\$1,472,016	\$175,365	\$1,296,651
Groom Creek	100%	0%	Tillamook	1	0	82	2.2	0.1	2.3	\$973,504	\$66,990	\$906,514
North Miami	100%	0%	Tillamook	4	0	251	4.1	0.2	4.3	\$1,109,420	\$313,045	\$796,375
Pothole Murphy	100%	0%	Tillamook	4	0	280	6.6	0.4	7.0	\$2,100,000	\$372,110	\$1,727,890
Schmeagle Hill	100%	0%	Tillamook	2	0	345	5.5	1.7	7.2	\$2,470,608	\$343,575	\$2,127,033
Tin Pants	100%	0%	Tillamook	4	0	415	8.0	1.4	9.4	\$2,998,422	\$854,040	\$2,144,382
Sub-total:					0	2,143	40.1	5.6	45.7	\$14,852,054	\$2,928,325	\$11,923,729
Project WOC Sub-total:					0	0	0.0	0.0	0.0	\$0	\$1,570,000	\$1,570,000
Total:					0	2,143	40.1	5.6	45.7	\$14,852,054	\$4,498,325	\$10,353,729

Alternate Operations

Clear Creek	100%	0%	Tillamook		0	128	2.5	0.3	2.8	\$844,800	\$195,655	\$649,145
Coast Range South	100%	0%	Tillamook		225	0	1.5	0.3	1.8	\$540,000	\$300,567	\$239,433
Dry Creek	100%	0%	Tillamook		0	233	3.7	1.0	4.7	\$1,519,160	\$243,705	\$1,275,455
Ed Sheeridan	100%	0%	Tillamook		0	112	1.6	0.4	2.0	\$604,800	\$15,685	\$589,115
Edward's Butte	100%	0%	Tillamook		0	338	5.8	0.3	6.1	\$1,825,200	\$390,000	\$1,435,200
Kilchis Company	100%	0%	Tillamook		0	273	3.7	0.4	4.1	\$1,113,840	\$710,000	\$403,840
Muesial Chairs	100%	0%	Tillamook		0	364	5.0	0.5	5.5	\$1,642,500	\$299,470	\$1,343,030
Total:					225	1,448	23.8	3.2	27.0	\$8,090,300	\$2,155,082	\$5,935,218

PRIMARY HARVEST OPERATIONS - FOREST RESOURCE SUMMARY

District: Tillamook

Fiscal Year 2023

Date: 06/13/2022

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 ¹	Invasive Species	LYR/OFS Structures ²	Landscape Design LYR/OFS ³	Install/Replace Culverts on Fish Bearing / Perennial Streams	Harvesting within 100' of Fish Bearing Stream	Domestic Water Source	Potential Stream Habitat Improvement ⁴	Within Aquatic Anchor	Within Terrestrial Anchor	Operating within a NSO Provincial Circle (BA Required)	Operating within a MMEA (BA Required)	Murrelet Timber Sale Screening Process Required (MM Policy 2.27)	T&E Fish Adjacent to Harvest Unit / Haul Route ⁵	T&E Plants	Geotechnical Issues Needing Field Review	Recreation Sites	Cultural Resources	Scenic Resources	Other Resources or Issues
Bob Hembre		-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	X	-	-	
Breaking Boundary		-	-	-	-	-	-	-	X	X	-	-	-	-	X	-	-	X	-	-	
Cook Creek Overlook		-	-	-	-	-	-	-	X	X	-	-	-	-	X	-	-	-	-	-	
East Cook Creek		-	-	-	-	-	-	-	-	X	-	-	-	-	X	X	-	X	-	-	
Groom Creek		-	-	-	-	-	-	-	X	X	-	-	-	-	X	-	-	X	-	-	
North Miami		-	-	-	-	-	-	-	X	X	-	-	-	-	X	-	-	-	-	-	
Pothole Murphy		-	-	-	-	-	-	-	-	X	-	-	-	-	X	-	-	X	-	-	
Schmeagle Hill		-	-	-	X	-	-	-	-	X	-	-	-	-	X	-	-	X	-	-	22 ac. of DFC LYR. Dom. water sources within 1/4 mile (630).
Tin Pants		-	-	-	X	-	-	-	X	X	-	-	-	-	X	X	-	-	-	-	21 ac. of DFC LYR

¹ 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

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

³ A 'x' indicates that the operation contains areas that have been designated for the development of complex forest stands (LYR/OFS)

⁴ The final decision on these projects will occur during sale preparation and in consultation with ODFW.

⁵ This table lists harvest operations (units or log haul routes) that are adjacent to streams that are known to contain T&E fish.

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 Operations	Unit (Optional)	Forest Health Issues ¹	Invasive Species	LYR/OFS Structures ²	Landscape Design LYR/OFS ³	Install/Replace Culverts on Fish Bearing / Perennial Streams	Harvesting within 100' of Fish Bearing Stream	Domestic Water Source	Potential Stream Habitat Improvement ⁴	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 ⁵	T&E Plants	Geotechnical Issues Needing Field Review	Recreation Sites	Cultural Resources	Scenic Resources	Other Resources or Issues
Clear Creek		-	-	-	-	-	-	-	X	-	-	-	-	-	X	-	-	X	-	-	
Coast Range South		-	-	X	-	-	-	-	-	-	-	X	-	-	X	-	-	-	-	-	Approx. 3 ac. LYR (current cond.)
Dry Creek		-	-	-	-	-	-	-	-	X	-	-	-	-	X	X	-	-	-	-	
Ed Sheeridan		-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	
Edward's Butte		-	-	-	X	-	-	-	X	-	-	-	-	-	X	-	-	X	-	-	56 ac. of DFC LYR
Kilchis Company		-	-	-	-	-	-	-	-	X	-	-	-	-	X	-	-	-	-	-	
Muesial Chairs		-	-	-	-	-	-	-	-	-	-	-	-	-	X	X	-	X	-	X	

¹ 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

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

³ A 'x' indicate that the operation contains areas that have been designated for the development of complex forest stands (LYR/OFS)

⁴ The final decision on these projects will occur during sale preparation and inconsultation with ODFW.

⁵ This table lists harvest operations (units or log haul routes) that are adjacent to streams that are known to contain T&E fish.

FOREST ROADS SUMMARY

District: Tillamook

Fiscal Year: 2023

Date: 06/17/2022

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					
Bob Hembre	0.54	\$57,510	0.40	\$18,860	\$30,475	\$106,845	\$571,200	18.7%	
Breaking Boundary	2.68	\$90,915	2.82	\$98,120	\$128,360	\$317,395	\$2,093,364	15.2%	
Cook Creek Overlook	1.84	\$205,040	2.06	\$111,059	\$62,861	\$378,960	\$1,063,520	35.6%	
East Cook Creek	0.23	\$29,710	0.80	\$43,680	\$101,975	\$175,365	\$1,472,016	11.9%	
Groom Creek	1.05	\$56,210	0.00	\$0	\$10,780	\$66,990	\$973,504	6.9%	
North Miami	0.86	\$60,590	2.33	\$113,725	\$138,730	\$313,045	\$1,109,420	28.2%	
Pothole Murphy	2.14	\$169,910	2.12	\$126,525	\$75,675	\$372,110	\$2,100,000	17.7%	
Schmeagle Hill	4.12	\$196,610	0.75	\$35,365	\$111,600	\$343,575	\$2,470,608	13.9%	
Tin Pants	2.02	\$255,920	3.60	\$184,015	\$414,105	\$854,040	\$2,998,422	28.5%	
Sub-total	15.5	\$1,122,415	14.9	\$731,349	\$1,074,561	\$2,928,325	\$14,852,054	19.7%	
Sub-total WOC (see below)	0.3	\$700,000	0.0	\$0	\$870,000	\$1,570,000	\$0		
Totals	15.8	\$1,822,415	14.9	\$731,349	\$1,944,561	\$4,498,325	\$14,852,054	30.3%	

Alternate Operations

Clear Creek	0.77	\$94,196	0.20	\$12,880	\$88,579	\$195,655	\$844,800	23.2%	
Coast Range South	2.20	\$149,470	3.13	\$125,262	\$25,835	\$300,567	\$540,000	55.7%	
Dry Creek	1.33	\$102,925	0.88	\$68,132	\$72,648	\$243,705	\$1,519,160	16.0%	
Ed Sheeridan	0.17	\$5,885	0.29	\$6,605	\$3,195	\$15,685	\$604,800	2.6%	
Edward's Butte	2.41	\$207,533	0.69	\$32,535	\$149,932	\$390,000	\$1,825,200	21.4%	
Kilchis Company	3.14	\$386,657	4.90	\$300,828	\$22,515	\$710,000	\$1,113,840	63.7%	
Muesial Chairs	2.81	\$226,215	0.00	\$0	\$73,255	\$299,470	\$1,642,500	18.2%	
Total	12.8	\$1,172,881	10.1	\$546,242	\$435,959	\$2,155,082	\$8,090,300	26.6%	

Road Projects Not Associated with Harvest Operations in this AOP:

--

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					
Cook Creek Reconstruction	0.30	\$700,000			\$0	\$700,000	FDF/FEMA	\$175,000 FDF	
Whitney Creek Bridge					\$300,000	\$300,000	FDF/NOAA	\$200,000 FDF	
Jordan Creek Stockpile					\$140,000	\$140,000	FDF		
Tillamook Culverts #3					\$100,000	\$100,000	FDF		
Pullback					\$40,000	\$40,000	FDF		
Vacating					\$25,000	\$25,000	FDF		
Road Maint. Ditching					\$125,000	\$125,000	FDF		

Road Maint. Grading					\$60,000	\$60,000	FDF		
Road Maint. Extra Trucks					\$25,000	\$25,000	FDF		
Murphy Camp Bridge Eng					\$35,000	\$35,000	FDF		
Land Survey					\$20,000	\$20,000	FDF		
Total	0.30	\$700,000	0.00	\$0	\$870,000	\$1,570,000			

REFORESTATION AND YOUNG STAND MANAGEMENT SUMMARY

District: Tillamook

Fiscal Year: 2023

Date: 01/19/2022

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
Site Prep - Broadcast Burning	0		\$0.00			\$0.00	0	\$0.00
Site Prep - Piling Burning	3,000	\$4.00	\$12,000.00			\$0.00	3,000	\$12,000.00
Site Prep - Mechanical	0		\$0.00			\$0.00	0	\$0.00
Site Prep - Chemical - Aerial	2,500	\$65.00	\$162,500.00			\$0.00	2,500	\$162,500.00
Site Prep - Chemical - Ground	200	\$120.00	\$24,000.00			\$0.00	200	\$24,000.00
Initial Planting	2,700	\$245.00	\$661,500.00			\$0.00	2,700	\$661,500.00
Interplanting	300	\$200.00	\$60,000.00			\$0.00	300	\$60,000.00
Underplanting	0		\$0.00			\$0.00	0	\$0.00
Tree Protection - Barriers	2,500	\$95.00	\$237,500.00	0	\$0.00	\$0.00	2,500	\$237,500.00
Tree Protection - Direct Control	3,000	\$115.00	\$345,000.00			\$0.00	3,000	\$345,000.00
Release - Chemical - Aerial	0		\$0.00			\$0.00	0	\$0.00
Release - Chemical - Ground	400	\$100.00	\$40,000.00			\$0.00	400	\$40,000.00
Release - Manual	300	\$125.00	\$37,500.00			\$0.00	300	\$37,500.00
Precommercial Thinning	750	\$150.00	\$112,500.00			\$0.00	750	\$112,500.00
Pruning	0		\$0.00			\$0.00	0	\$0.00
Stocking Surveys	2,500		\$0.00	0		\$0.00	2,500	\$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
Totals	24,180	--	\$1,803,850.00	0	--	\$0.00	24,180	\$1,803,850.00

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

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	\$0.00	\$0.00			\$0.00	0	\$0.00
Site Prep - Piling Burning	0	\$0.00	\$0.00			\$0.00	0	\$0.00
Site Prep - Mechanical	0	\$0.00	\$0.00			\$0.00	0	\$0.00
Initial Planting	0	\$0.00	\$0.00			\$0.00	0	\$0.00
Interplanting	0	\$0.00	\$0.00			\$0.00	0	\$0.00
Underplanting	0	\$0.00	\$0.00			\$0.00	0	\$0.00
Tree Protection - Barriers	200	\$11.25	\$2,250.00			\$0.00	200	\$2,250.00
Tree Protection - Direct Control	200	\$0.00	\$0.00			\$0.00	200	\$0.00
Release - Manual	300	\$0.00	\$0.00			\$0.00	300	\$0.00
Precommercial Thinning	0	\$0.00	\$0.00			\$0.00	0	\$0.00
Pruning	0	\$0.00	\$0.00			\$0.00	0	\$0.00
Invasive Species	0	\$0.00	\$0.00			\$0.00	0	\$0.00
Other	0	\$0.00	\$0.00			\$0.00	0	\$0.00
Totals	700	--	\$2,250.00	0	--	\$0.00	700	\$2,250.00

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

RECREATION SITE MANAGEMENT SUMMARY

District: Tillamook

Fiscal Year: 2023

Date : 01/22/2022

[illegible]

Sprague Wayside			\$ 6,500.00		\$2,500		\$9,000	septic pumping, electricity, Asphalt sealing, replacement damaged interpretive panels on kiosk (6500)
Other Operations								
CXT Restroom Painting					\$5,000		\$5,000	CXT Restroom painting at Nehalem Falls, Sprague Wayside, and Jones Creek Campground
Designated Dispersed Site Campsite Sign Replacement					\$1,500		\$1,500	Replace campsite signs at designated dispersed sites in the Trask, Jordan Creek, Cedar Creek, and Cook Creek Areas.
Garbage Service at District Office					\$3,935		\$3,935	
Spray Contract					\$3,500		\$3,500	Contracted spraying at recreation sites
FDF Total							\$86,085	
Other Total							\$13,200	
TOTAL							\$99,285	

*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

District: Tillamook **Fiscal Year:** 2023 **Date :** 06/01/2022

2023

Date : 06/01/2022

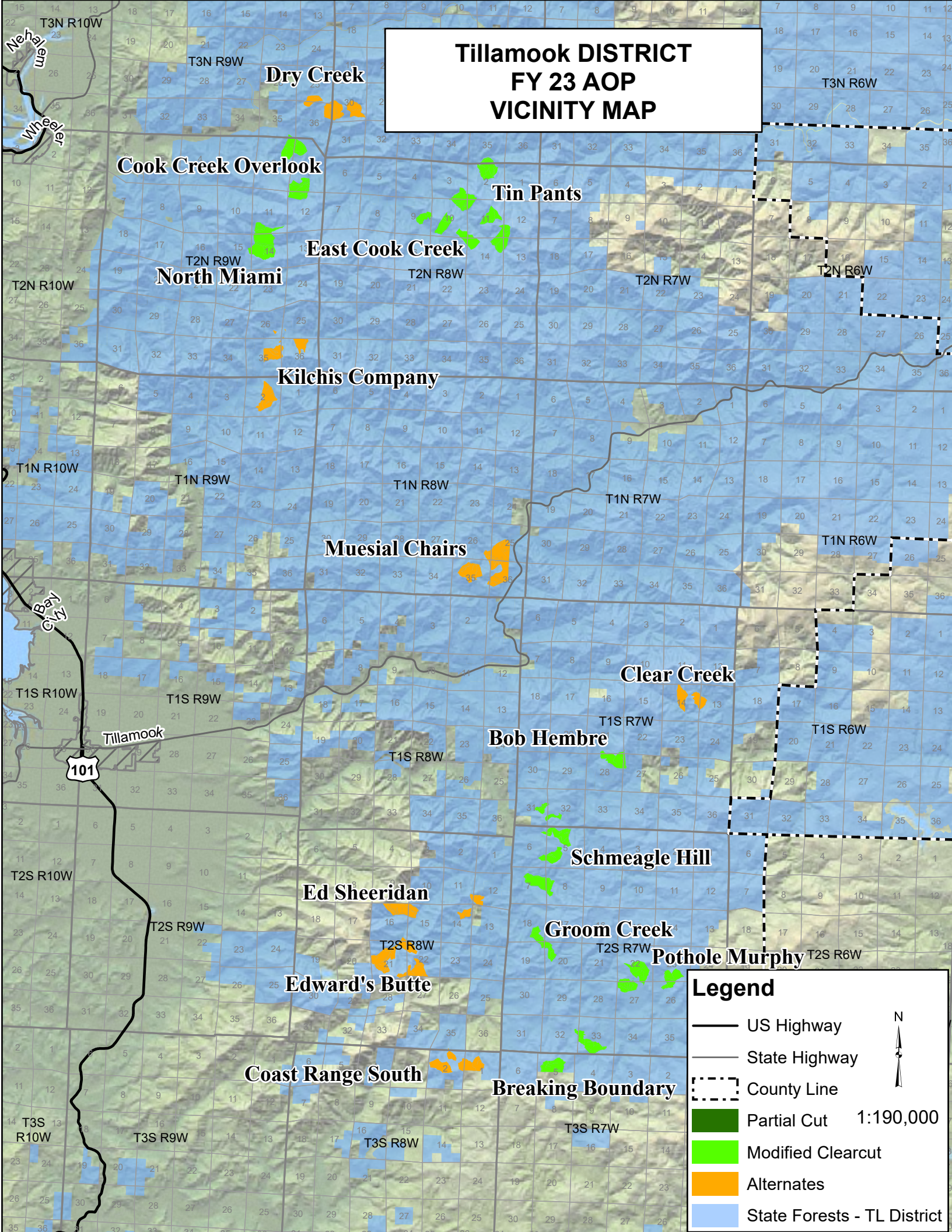
Project	Construction Projects			Improvement Projects			Operations & Maintenance Projects			Total Costs	Comments
	Miles	ODF (\$)	Other (\$)	Miles	ODF (\$)	Other (\$)	Miles	ODF (\$)	Other (\$)		
Non-Motorized											
Trail Maintenance							21.0	\$1,500		\$1,500	Material costs only
Trail Sign Maintenance and Replacement								\$3,000		\$3,000	Replacement of damaged trail signs
Motorized											
Trail Maintenance							317.0		\$2,000	\$2,000	Material costs only
Yellow Jacket Trail Bridge Replacement						\$24,000				\$24,000	OHV trail bridge replacement of damaged bridge. OHV Program Staff
								FDF Total		\$4,500	
								Other Total		\$26,000	
								TOTAL		\$30,500	

Appendix B

Vicinity Maps

- **Harvest Operations Vicinity Map**
- **Recreation Projects Vicinity Map**
- **Recreation Facilities Vicinity Map**

Tillamook DISTRICT FY 23 AOP VICINITY MAP



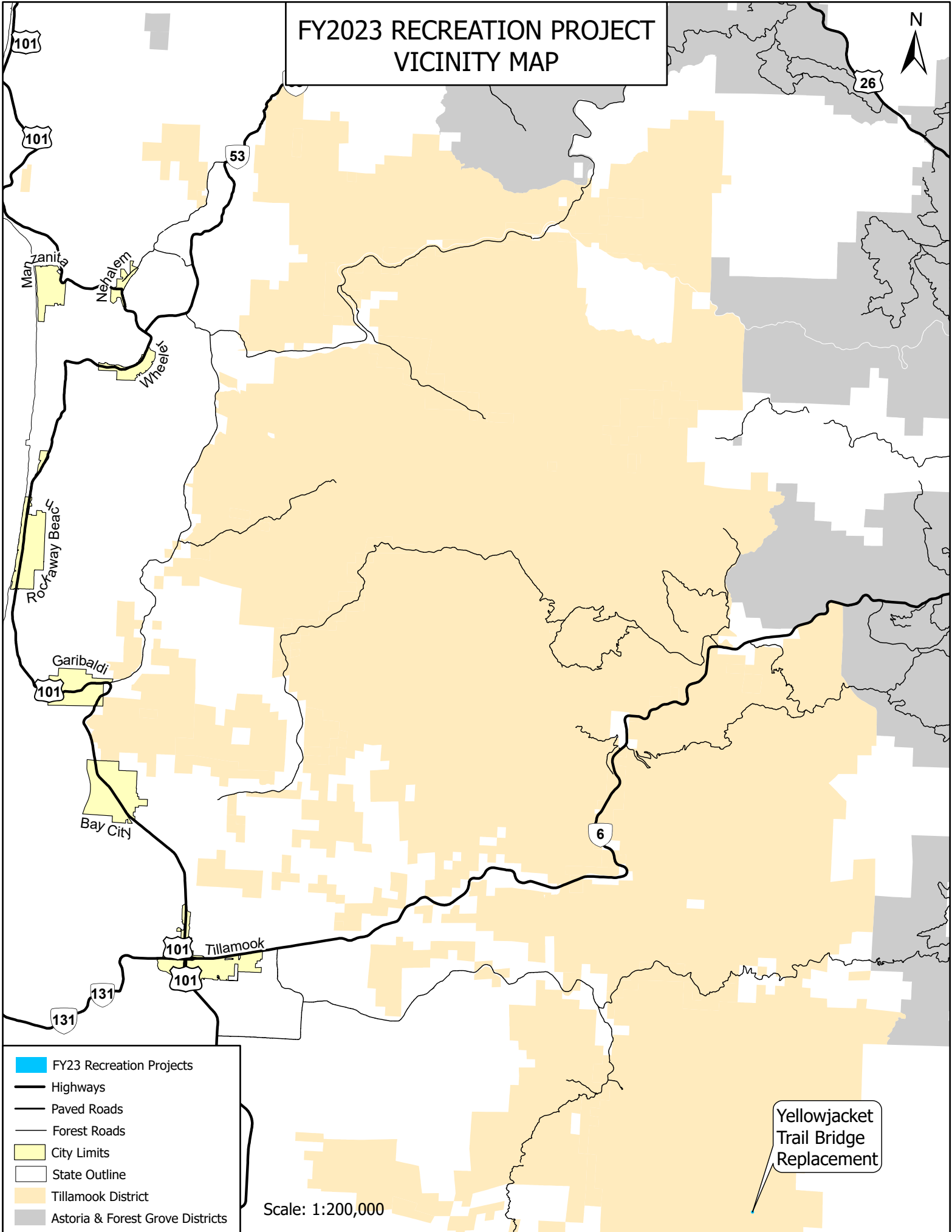
Legend

- US Highway
- State Highway
- County Line
- Partial Cut
- Modified Clearcut
- Alternates
- State Forests - TL District



1:190,000

FY2023 RECREATION PROJECT VICINITY MAP



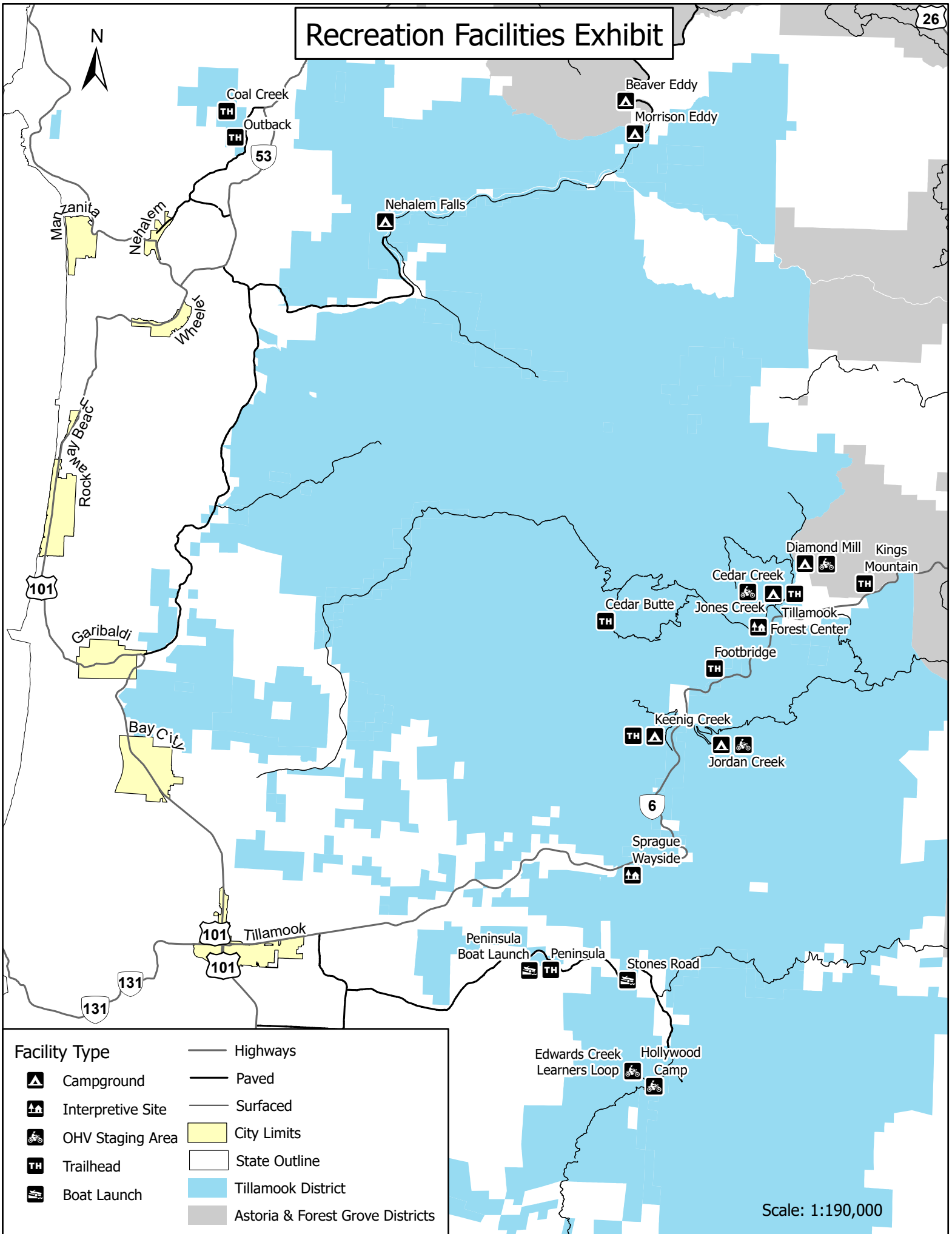
- FY23 Recreation Projects
- Highways
- Paved Roads
- Forest Roads
- City Limits
- State Outline
- Tillamook District
- Astoria & Forest Grove Districts

Yellowjacket
Trail Bridge
Replacement

Scale: 1:200,000

Recreation Facilities Exhibit

26



Appendix C

Consultations with Other State Agencies

Oregon Department of Fish and Wildlife (ODFW):

ODFW biologists attended a FY23 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 FY23 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.

Appendix D

PUBLIC COMMENT PROCESS FOR THE FY23 ANNUAL OPERATIONS PLAN

The Oregon Department of Forestry issued a Press Release in March 2022, announcing a formal public comment period for the FY23 Annual Operations Plans from March 21 through May 5, 2022. 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 FY23 AOP since the Public Comment Period:

Pre-Operation Reports:

- The *Diamond Wallow* timber sale, which was a primary sale, was postponed until at least the FY24 AOP.
- *Bob Hembre* and *North Miami*, previously alternate sales, were moved up to primaries to replace the volume from *Diamond Wallow*.
- Geotechnical buffers, acreages, volumes, and exhibits were updated for the following sales:
 - *Bob Hembre, Cook Creek Overlook, Dry Creek, East Cook Creek, Ed Sheeridan, Edward's Butte, and Muesial Chairs.*
- Comments were added to the *East Cook Creek & Pothole Murphy* pre-operations reports under "Other resource considerations" to better describe the intent of "No Harvest – Other" areas.
- The *North Miami* pre-operations report was updated to reflect that only operational surveys are required for Northern Spotted Owls. It previously listed density surveys as well.
- AOP volume was revised down from 48.8 to 45.7 mmbf due to higher than anticipated volume harvested in previous fiscal year.

Summary Document:

- Information regarding plans for Cook Creek Road reconstruction was added to the Forest Roads Management section.
- Tables were updated to reflect changes to the primary sales line up.

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 FY23 AOPs and ODF's responses to those comments.

<https://www.oregon.gov/odf/documents/aboutodf/2023-aop-public-comment-summary.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 FY23 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.

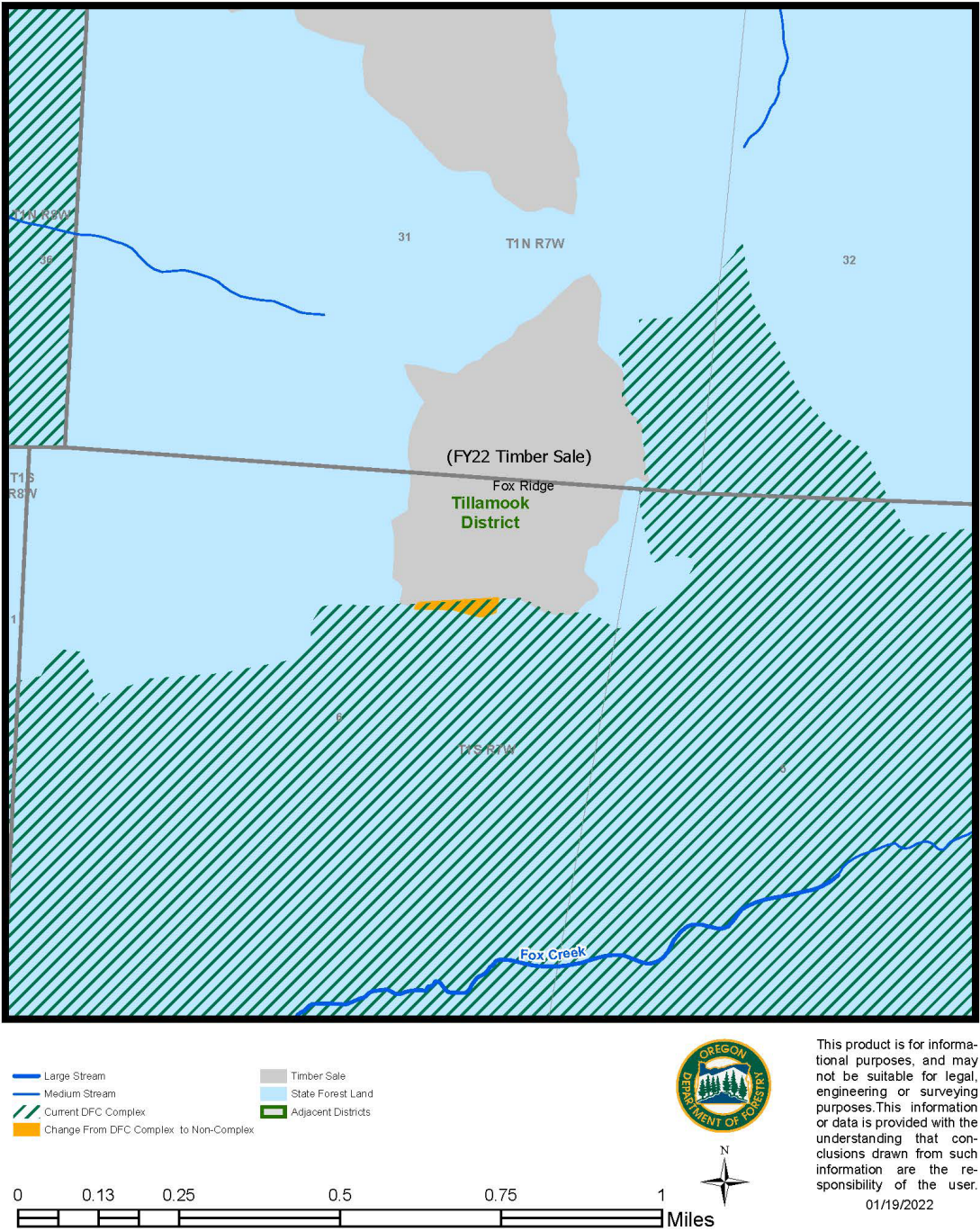
Description of change: The district is proposing to change 66 acres that have a current DFC of Layered and 56 acres of OFS. These acres are being changed to accommodate operational timber sale boundaries for FY23. There is also 1 acre being changed for an FY22 timber sale whose boundary changed after AOP approval. These areas were reviewed by the Area Biologist and the District's Operations Coordinator (See maps 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	66	LYR	60
OFS	56	OFS	55
Total Acres Removed	122	Total Acres Added	115

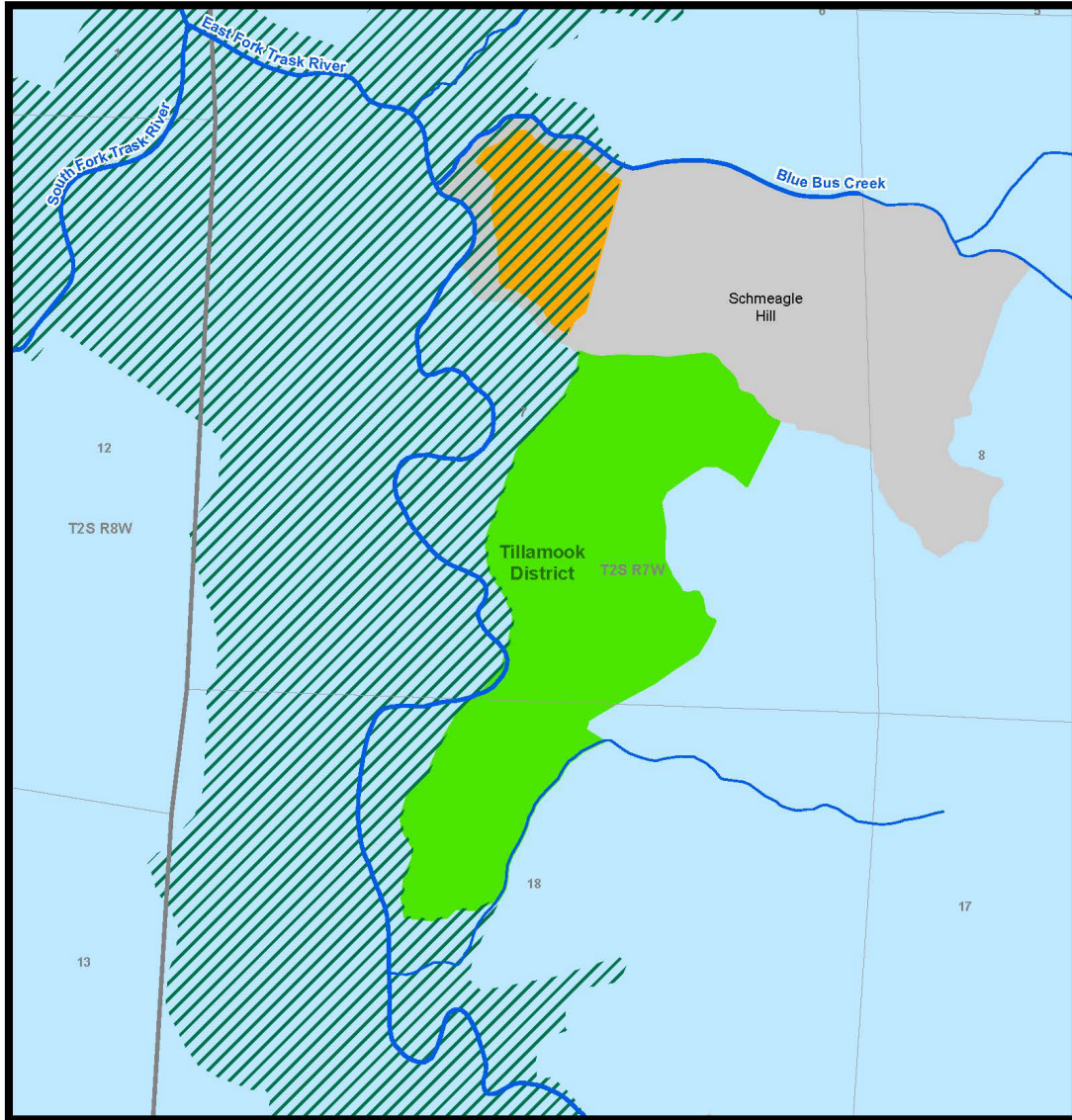
Tillamook District

Landscape Design - Desired Future Condition Revision

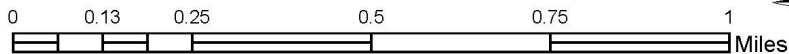


Tillamook District

Landscape Design - Desired Future Condition Revision



- Large Stream
- Medium Stream
- Current DFC Complex
- Change From DFC Non-Complex to Complex
- Change From DFC Complex to Non-Complex
- Timber Sale
- State Forest Land
- Adjacent Districts

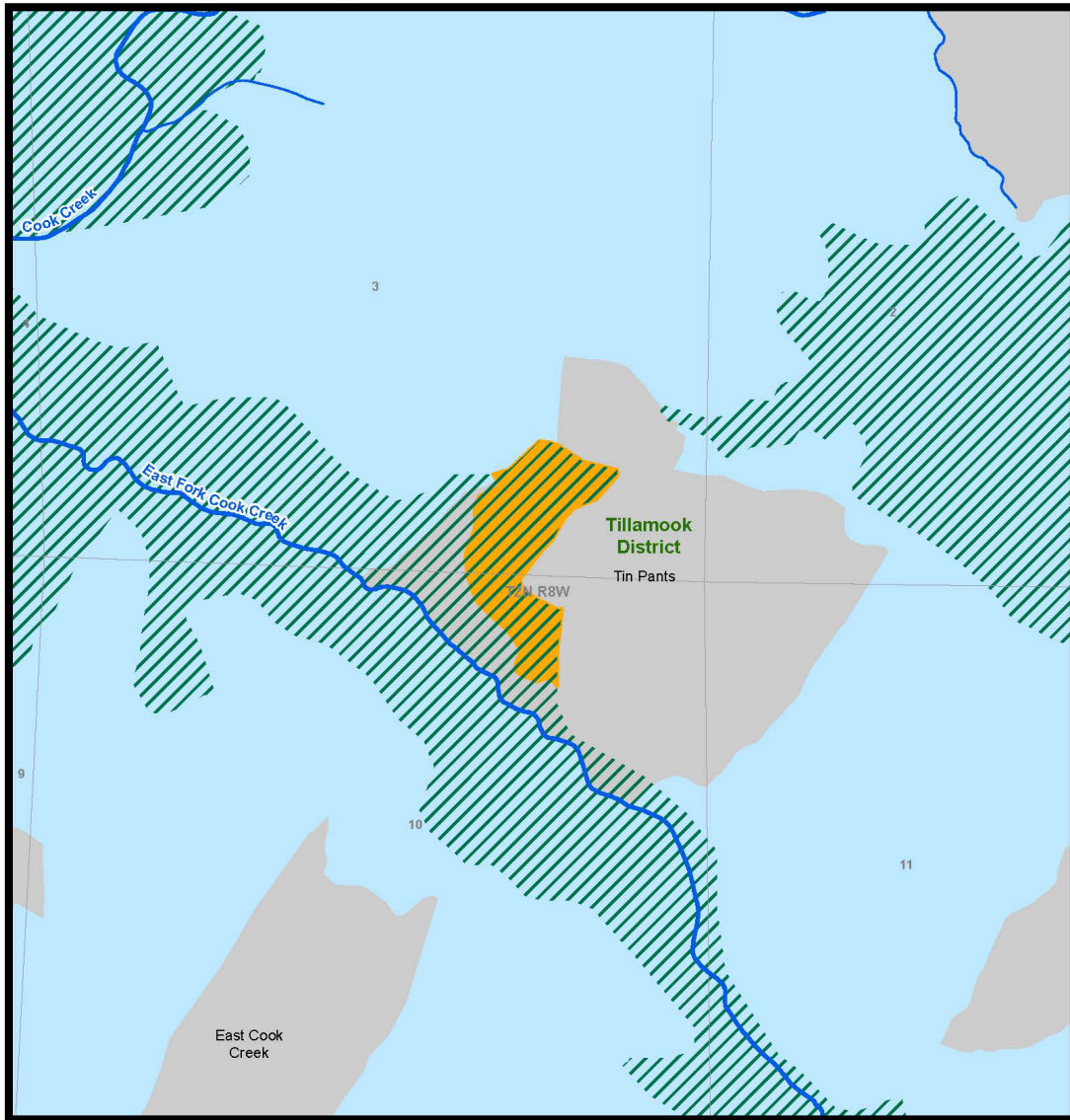


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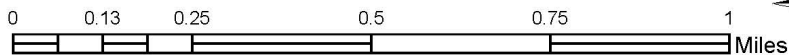
01/19/2022

Tillamook District

Landscape Design - Desired Future Condition Revision



- | | |
|--|--------------------|
| Large Stream | Timber Sale |
| Medium Stream | State Forest Land |
| Current DFC Complex | Adjacent Districts |
| Change From DFC Complex to Non-Complex | |



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01/19/2022

Tillamook District

Landscape Design - Desired Future Condition Revision

