

Memo

To: Andy White, NWOA Director

From: Kate Skinner, Tillamook District Forester

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

Date: June 17, 2019

Re: Information Item – Approved Annual Operations Plan for Fiscal Year 2020

The 2020 State Forests Annual Operations Plan (AOP) for the Tillamook District is attached for your information. During my review of this plan, I have found that it conforms to the Oregon Forest Practices Act and is consistent with the Northwest Oregon State Forest Management Plan, the current District Implementation Plan, and the 2020 Annual Operations Planning Standards and Guidance memorandum. Consistent with the Divisions 2020 AOP guidance, the District included a number of alternate sales, which were subjected to the same process of review and public comment as the primary sales.

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

Other considerations for approving the 2020 AOP include ensuring that: Road management will provide efficient access and roads are being managed with water quality considerations in mind; Public Safety and Landslide reviews are conducted by the Geotechnical Specialist; Reforestation and young stand management activities and investments are aligned with FMP objectives and budget considerations; and that Recreation facilities and trails are managed and maintained for safety, positive experience and protecting other resources like water quality.

Partnerships with other organizations or agencies meet multiple objectives for the Division. During its preparation, ODFW biologists attended a review meeting for resource specialists and were provided the Summary Tables and Pre-Operations Reports for review. No written comments have been received. The draft Annual Operations Plan also underwent a 45-day public comment period. The public involvement process is summarized in Appendix 'D' and summarized changes since the Public Comment Draft.

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

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

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

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

APPROVED:



Kate Skinner, Tillamook District Forester

6/17/19

Date

**OREGON DEPARTMENT
OF FORESTRY
TILLAMOOK DISTRICT**



2020 ANNUAL OPERATIONS PLAN

TILLAMOOK DISTRICT

2020 ANNUAL OPERATIONS PLAN



OVERVIEW

This plan describes the activities and outcomes that Oregonians can expect to see on the western side of the Tillamook State Forest for 2020. The Tillamook State Forest is an actively managed forest, valued by many Oregonians for its mixture of environmental, economic, and social benefits. This plan supports this mixture and provides a balance of these benefits as required by Oregon Administrative Rule (OAR 629-035-0020). We strive to manage the forest sustainably, so that the benefits from the forest can be delivered into perpetuity. The forest harvesting is planned at a sustainable level; a level that our computer models suggest can be harvested year after year without reduction.

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

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

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

This AOP has undergone a 45-day public comment period and over the last few months, ODF has requested review on our plan from others, the State Forests Advisory Committee (SFAC - composed of Oregonians representing many interests), Oregon Department of Fish and Wildlife, the US Fish and Wildlife Service, motorized and non-motorized recreation users, hunters, fishermen, and wildlife advocates, as well as Oregonians in general.

A short summary of activities planned for the coming year:

- Planting approximately 1,300,800 seedlings on 3,200 acres and conducting site prep on 2,800 acres while also conducting vegetation and animal management activities on an additional 4,500 acres to ensure the survival and growth of plantations.
- Conduct individual surveys for northern spotted owls over more than 25,000 acres.
- Evaluate over 28 miles of streams to determine flow duration and approximately 2 miles for the presence of fish.
- Protecting streams and water resources through a series of buffers and seasonal restrictions activities.
- Stream improvement projects: An initial screen suggests that three streams near planned harvest units could benefit from large wood additions to the stream system. These streams will be evaluated by an ODFW Fish Biologist and/or ODF Aquatic Specialist for potential projects during sale layout.
- Habitat development such as creating snags, retaining green trees in clearcut areas, and leaving down wood, all for wildlife benefits in harvest areas and future forests.
- Maintaining a 1,128-mile road network that provides access to timber harvest as well as various recreational opportunities, forest patrol and protection.
- Improving and maintaining roads to ensure ditch water is dispersed and filtered as much as possible, keeping sediment from entering streams.
- Review District roads to develop plans to block or vacate roads not needed for the district transportation plan.
- Proposed Forest Gates: The installation of 4 gates to control vehicle access have been proposed at key locations within the Bay City block of the Tillamook District. See Road Access Management page 20 for more information.
- Planning to harvest approximately 47 million board feet of timber volume, through modified clearcut, generating gross revenue estimated at \$17.1 million. This harvest level is alignment with longer term plans and modeling to ensure it is sustainable and promotes the development of a mixture of habitat types across the landscape.
- Operating and maintaining the following developed facilities in a safe, clean, and responsible manner:
 - 4 fee campgrounds
 - 1 fee OHV campgrounds
 - 3 OHV staging areas
 - 6 day use areas,
 - 1 highway wayside interpretive site
 - 4 trailhead facilities
 - 3 boat launch facilities
 - 82 designated dispersed campsites
- Providing a safe and clean environment for the myriad of dispersed activities that occur across the forest – hunting, camping, angling, sight-seeing, target shooting, swimming, mushroom picking, etc.
- Maintaining, managing, and patrolling the motorized and non-motorized trail networks, striving to protect the trail investments, provide for user safety, address developing trail issues, and protect water quality.
- Supporting the important volunteer network that assists in recreation management
- Supporting the pre-planned 16 organized motorized events and providing support for 5 non-motorized event.
- Providing a firewood cutting program and miscellaneous forest products permits (salal, mushrooms, etc.) as done in 2018.
- Supporting ongoing research and monitoring on the district, in partnership with research cooperatives and universities.

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TILLAMOOK DISTRICT

2020

ANNUAL OPERATIONS PLAN

INTRODUCTION

This annual operations plan (AOP) outlines activities planned on state-owned forestland managed by the Tillamook District for Fiscal Year 2020 (FY20), which begins July 1, 2019 and ends June 30, 2020. This document describes how the activities and projects undertaken by the district will achieve the goals, strategies, and objectives of the *NW Oregon Forest Management Plan (FMP)*, *Tillamook State Forest Recreation Action Plan*, and the *Tillamook District Implementation Plan (IP)*. Please refer to the district IP for more specific information on physical characteristics and other district resource information.

This AOP is also consistent with a proposed minor modification to the Landscape Design identified in the District Implementation Plan; this revision is described in Appendix F.

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

The proposed harvest operations are planned to be designed, engineered, and submitted for processing during the FY20 time period. Actual on-the-ground operations will likely not occur during FY20 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 FY2020.

A 45-day public comment period was held from March 18, 2019 through May 3, 2019. The District Forester reviewed all the comments received before approving the plan.

Accomplishments of forest management activities that occurred under previous AOPs can be found in several reports, including the *State Forester's Annual Report for the Association of Oregon Counties*, the *Common School Forest Lands Annual Report*, *State Forest Advisory Accomplishment Report*, and individual district annual reports (these reports also cover the accomplishments of the Fire Protection and Private Forests Programs). These reports are available through the local district office or online.¹

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

INTEGRATED FOREST MANAGEMENT

Timber Harvest Operations

Overview of Timber Harvest Operations

The planned timber harvest operations are within the total acres objective in the Tillamook District IP. The objective is to achieve the average of the Annual Harvest Objective (AHO) over the expected duration for the IP. 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 this AOP may be sold as primary operations in repose to any of these circumstances. Activities in the AOP will allow for stands to be moved toward the Desired Future Condition and contribute revenue to the counties with the overall objective of **47 MMBF**.

In accordance with the guidance on the 2020 harvest levels², the district has included 47 MMBF of timber harvest in this Annual Operations Plan (Table A-1).

The FY20 sale plan is estimated to generate gross revenues of approximately \$17,121,252 and net revenues of \$14,386,272. It is estimated that active management will result in producing approximately 41.3 million board feet of conifer volume, 5.7 million board feet of hardwood volume. In addition to the above revenue and volume, some sales are expected to have pulp removed from sale areas. The amount and value of pulp is difficult to predict during planning process but will likely occur in areas of regeneration harvest on steep slopes and whole tree yarding systems. Refer to the attached Financial Summary table for more detail on volumes and values.

Table 1 compares the proposed acres by harvest type³ in this AOP to the harvest acre ranges specified in the IP. This AOP contains 8 primary operations comprised of 1,968 net acres of regeneration harvest and 48 acres of partial cut (approximately 0.81% of the district's total acreage) which achieves the annual volume objective. The anticipated harvest acres, volume, and revenue for each proposed operation in this AOP are listed in the "Harvest Operations – Financial Summary" table in Appendix A-1, while a vicinity map of these harvest operations can be found in Appendix B.

Note that the acres detailed throughout the report express net acres, unless otherwise stated. Net acres are based on orthophotos and GIS and exclude roads, non-required thinning areas, stream buffers, other buffers and green tree retention areas. The district has included six alternate timber sales (totaling 958 acres) in this Annual Operations Plan for public review. These alternate operations may be used to replace primary sales that cannot be completed as planned or to allow flexibility for favorable market conditions. Table 1. Annual Operations Plan

² Oregon State Forests Guidance 2020 Annual Operations Planning Guidance.

³ A Modified Clearcut is the most common of three type of Regeneration Harvest (or clearcut) that may occur on State Forests. The defining characteristics of Modified Clearcuts are that they meet the structural component standards of the FMP (green tree, snag, and down wood).

objectives compared to Annual Harvest Objectives identified in the Tillamook District Implementation Plan. All values are acres.

Annual Harvest Objectives	IP Annual Objective		2020 AOP Objective
	Low	High	
Partial Cut Harvest	0	3,450	48
Regeneration Harvest	800	3,150	1968

All of the Primary/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 operations coordinator, as well as fish and wildlife biologists from the Oregon Department of Fish and Wildlife, and archeologists from Oregon Department of Transportation. Occasionally, operations may contain a resource or activity where review with another state agency, such as the Department of Agriculture or the Department of State Lands, is warranted. Written comments from external resource specialists can be found in Appendix C. Some additional operations may produce timber volume for the district but are not included in this AOP. These sales will be less than \$100,000 in value and comply with all policies and plans. Examples include salvage, pulp sales, and commercial firewood sales. Table 2 illustrates the planned versus sold volume history over the life of the Tillamook District Implementation Plan (2009). The volume objective may fluctuate from year to year as long as the average over the ten years is 47 MMBF.

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

Fiscal Year	IP Annual Objective	AOP Planned Volume	AOP Sold Volume	Sold Cumulative Difference from Objective ¹
2010	47	47	35.6	-11.4
2011	47	47.2	47.3	-11.1
2012	47	47.3	51	-7.1
2013	47	47.3	43.3	-10.8
2014	47	50.2	50	-7.8
2015	47	47	46.2	-8.6
2016	47	47.6	47.8	-7.8
2017	47	47.1	50.4	-4.5
2018	47	47.1	53.2	1.8
2019 (Current AOP) ²	47	47.0	45.2	0
2020 (Draft AOP) ³	47	47	--	--

1. IP Harvest Objective versus Sold Volume

2. Estimated Volume based on completion of the planned volume from current AOP

Structural Habitat Components

Green Tree, Snag and Down Wood Strategies

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 FY20 Annual Operations Plan. Structural habitat components such as green trees, snags and down woody debris (DWD) are considered for all harvest prescriptions; however, most intentional development and retention of structural components is done within regeneration harvest units.

Green tree arrangements for this AOP may include; scattered individual trees, clumps of trees, and trees concentrated in and adjacent to riparian management areas. 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.

Within a given annual operations plan, green trees may be retained at higher levels in some units and at lower levels in other units. An analysis of the last 5 years (2013-2017) of green tree retention within operations have shown approximately 19 green trees per acre left in a wide variety of arrangements with the majority resulting from FMP requirements (including upland riparian buffers, headwalls, and inner gorge areas). Some of the harvests, treating slow-growth from SNC and off-site seed, are in stands of younger age classes and may require deferring snag and down wood creation in order to achieve the required size classes.

Leave trees for snags and green trees will be grouped in riparian areas, inner gorge areas, headwalls, and other areas with slope stability issues in many sales as allowed by FMP strategies. In stands that have minor components of other species and large diameter trees additional trees may be left scattered or clumped across the sale area where available. It is expected that the 2020 AOP will contribute approximately 10-15 green trees per acre due to FMP requirements and using these strategies. The need for snag creation in each unit is evaluated based on cruise information that documents snags in decay class 1 and 2. Areas with less than 2 hard snags per acre will be evaluated and an appropriate snag prescription will be developed.

Down Wood will continue to be created through bucking practices, leaving felled snags in the unit and tops on ground yarding areas. The 2010 Implementation monitoring report shows the Tillamook District clearcuts average 700ft³ of down wood in decay class 1 and 2 through normal cable harvesting operations and bucking practices.

Harvest Operations within Terrestrial Anchor Sites and Aquatic Anchors

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

- Terrestrial Anchor Sites (TAS) are intended to benefit terrestrial wildlife species of concern, especially those associated with older forest or interior habitat conditions,

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

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

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

Since the creation of the TAS in 2011 with the 2012 AOP, the Tillamook District has managed in the Ripple Creek TAS with the 2014 AOP. There are no sales planned in TAS's for the 2020 AOP.

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

Terrestrial Anchor Site (TAS)	Current AOP (FY 2020) Planned Harvest		Cumulative Harvest (FY 2012 AOP to Present)	
	Clearcut	Partial Cut	Clearcut	Partial Cut
Entire District (AOP) (250,516 acres)	1968	48	20,235	4,758
% of Acres	0.81%	0.0%	7.23%	1.88%
Bastard Creek	0	0	0	0
(5,021 acres) % of Acres	0%	0%	0%	0%
Ripple Creek	0	0	0	559
(3,831 acres) % of Acres	0%	0%	0%	14.6%
Miami	0	0	0	0
(6,396 acres) % of Acres	0%	0%	0%	0%
Hembre	0	0	0	0
(2,981 acres) % of Acres	0%	0%	0%	0%
Boundary	0	0	0	0
(2,138 acres) % of Acres	0%	0%	0%	0%
All TAS (20,367 acres)	0	0	0	559
% of Acres	0.0%	0.0%	0.0%	2.7%

The AAs strategies are applied to approximately 38% of the Tillamook District and focus on the protection of riparian areas within the AA watersheds. Harvest in these basins require additional stream buffers. The harvest rate for each basin is shown below along with the harvest rate for the entire district (see Table 4). As timber sales are sold and harvested there will be acreage updates to the Cumulative Harvest column from the acres reported in the AOP to the actual acres harvested.

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

Aquatic Anchors (AA)	Current AOP (FY 2020) Planned Harvest		Cumulative Planned Harvest 2014 AOP to Present	
	Clearcut	Partial Cut	Clearcut	Partial Cut
Entire District (AOP)	1968	48	15561	2494
(250,516 acres) % of Acres	0.76%	0.05%	6.2%	1.0%
Ben Smith Creek	297	0	1027	56
(3,602 acres) % of Acres	8.25%	0.00%	28.51%	1.55%
Cedar Creek	225	0	1306	0
(7,214 acres) % of Acres	3.12%	0.00%	18.10%	0.00%
Coal Creek	0	0	0	0
(1,237 acres) % of Acres	0.00%	0.00%	0.00%	0.00%
Cook Creek	4	0	1229	249
(18,286 acres) % of Acres	0.02%	0.00%	6.72%	1.36%
East Fork S Fork Trask	178	0	1746	415
(15,627 acres) % of Acres	1.14%	0.00%	11.17%	2.66%
Elkhorn	251	0	581	0
(3,860 acres) % of Acres	6.50%	0.00%	15.05%	0.00%
Foley Creek	0	0	198	0
(4,403 acres) % of Acres	0.00%	0.00%	4.50%	0.00%
Little N Fork Wilson	0	0	799	0
(10,310 acres) % of Acres	0.00%	0.00%	7.75%	0.00%
Miami	0	0	181	0
(13,910 acres) % of Acres	0.00%	0.00%	1.30%	0.00%
Middle Kilchis	220	0	648	0
(14,155 acres) % of Acres	1.55%	0.00%	4.58%	0.00%
S Fork Salmonberry	0	0	0	559
(2,813 acres) % of Acres	0.00%	0.00%	0.00%	19.87%
All Aquatic Anchors	1175	0	7715	1,279
(95,417 acres) % of Acres	1.23%	0.0%	8.09%	1.34%

Summary of Timber Harvest Operations by Basin

In the following section, the commercial forest management operations planned for FY20 will be summarized in the context of the 11 management basins on the Tillamook District. This section is a summary of the operations by basin (North to South) and is not meant to completely describe the planned operation. Additional information regarding the harvest operations may be found within Table A-2, the Forest Resources Summary. Several sales have proposed landscape design modifications (refer to Appendix F) to address current stand condition issues or to better align the desired future condition boundaries to coincide with the riparian buffers and move DFC complex to more suitable locations. Road concerns and standards are discussed in the Forest Roads Management section

Table 5. Summary of Timber Harvest Operations in each Management Basin. (All values are in net acres.)

Management Basin	Partial Cut	Clearcut
N. Fork Nehalem	0	0
Lower Nehalem	48	410
Short Sands	0	0
Miami	0	0
Kilchis	0	331
Tillamook Bay	0	0
Wilson	0	534
Tillamook River	0	0
Trask	0	562
Nestucca	0	131
Little Nestucca	0	0
Total	48	1,968

North Fork Nehalem Basin

There are no harvest operations planned in this basin for FY20.

Lower Nehalem Basin

Lost Mountain (Primary) – This sale consists of 5 sale areas totaling 308 acres of modified clearcut (Units 87, 301, 846, and 914) and 48 acres of partial cut (Unit 204). These stands vary from 54 to 68 years old and are comprised of Douglas-fir and varying levels of red alder with minor components of western hemlock .

The Desired Future Condition (DFC) for all of Units 87 and 30, and for the majority of Unit 301 and 914 is General (GEN). Approximately 4 acres of slivers in Unit 301 are currently have a DFC of Layered (LYR). These are mapping errors that are adjacent to roads and riparian areas. These areas will be adjusted to better align the DFC boundary to coincide with the riparian buffer and roads. In Unit 914 approximately 19 acres will be changed from Older Forest Structure (OFS) to General (GEN) in order to accurately classify an existing rock quarry and future expansion projects and to better align the DFC boundary to coincide with the riparian buffer and roads. (See Appendix F). A very small portion of Units 204 and 816 are located in the Cook Creek Aquatic Anchor.

A review of historic maps indicates that there was a “trail” in the vicinity of the operation. During sale layout, foresters will conduct a search for potential artifacts. If potential artifacts are found, an archaeologists will be consulted to classify the artifacts and assist in developing management strategies for the site.

Wooley Grade (Primary) – This sale consists of one sale area (Unit 540) that is 102 acres of modified clearcut. This stand is approximately 80 years old and is comprised of Douglas-fir and a minor component of red alder and western hemlock that was commercially thinned in 2000. The DFC for this stand is General (GEN)

A potential stream enhancement project has been identified with this sale. The project would include wood placement on Bill Creek. Further evaluation of this project will be completed with the Aquatic and Riparian Specialist during sale layout.

North Fork Nehalem Basin

There are no harvest operations planned in this basin for FY20.

Lower Nehalem Basin

There are no harvest operations planned in this basin for FY20.

Short Sands Basin

There are no harvest operations planned in this basin for FY20.

Miami Basin

South Minich (Alternate) - This sale is made up of one modified clearcut unit (Unit 764) totaling 119 acres. There are two stand types that make up this sale. The western ½ of the unit is a 36 year old Douglas-fir plantation that has SNC. The eastern ½ of the unit is a 65-85 year old dense Douglas-fir/western hemlock stand with little understory. A portion (33 acres) of this stand was thinned in 1998. This sale is in an isolated 300 acre parcel that mostly has a DFC designation as General (239 acres). The remaining 61 acres of this parcel (which is also in this sale) will be changed from OFS to GEN in exchange for a better location (See Appendix F).

This sale is located in the Miami Aquatic Anchor. A potential domestic water source was identified during sale planning and will be verified and buffered appropriately during sale layout. The ORBIC layer indicates the potential presence of the Northern red-legged frog. During sale layout areas that contain slow/still water or pools in the riparian areas will be identified and the Biologist will be consulted to determine sale layout recommendations.

Kilchis Basin

Kilchis Saddle (Primary) – This sale is made up of two areas (Unit 732 & 71) that total 225 acres. These stands are 56 year old and are comprised of Douglas-fir, red alder, and a component of western hemlock. These areas are planned modified clearcuts, have had no prior stand management, and have a DFC of GEN. Both of these areas are in the Middle Kilchis River Aquatic Anchor. Approximately 35 acres are in a northern spotted owl circle. A draft biological assessment has been completed.

The OBIC database indicates that a fisher (*Pekania pennanti*) may have been observed in the area in 1980. The Area Wildlife Biologist was consulted during the planning process and recommended that meeting the FMP down wood and snag requirements within the sale will help provide future denning sites. The OBIC database shows Queen-of-the-forest could be in the area. Queen-of-the-Forest is usually found in riparian areas, especially shaded moist stream banks and NW FMP buffers will incorporate most if not all of the plant's habitat.

Old Bungee (Primary) – Unit 849 is located in the Kilchis River Basin. Please refer to the Wilson River Basin section for more information.

Tillamook Bay Basin

There are no harvest operations planned in this basin for FY20.

Wilson River Basin

Old Bungee (Primary) - This sale consists of 3 units totaling 336 acres of modified clearcut. Two of these (Units 19 and 399) are in the Wilson River Basin and the Cedar Creek Aquatic Anchor and the remaining unit (Unit 849) is in the Kilchis Basin. The stands are approximately 50 years old and mainly consist of Douglas-fir with scattered red alder. Portions of all 3 areas were commercially thinned in 1997 (Kilchis Falls Thin). The majority of the areas have a DFC of GEN except for small slivers that total 4 acres in Unit 19 that have a DFC of LYR. These are mapping errors that are adjacent to riparian areas. These areas will be adjusted to better align the DFC boundary to coincide with the riparian buffer.

The ORBIC layer indicates the potential presence of fishers, which are currently classified as a species of concern. The Area Wildlife Biologist has recommended that meeting the FMP green tree, down wood and snag requirements within the sale will help provide future denning sites.

OHV trails and campsites are within the sale areas. Recreation staff have reviewed these and made recommendations to prevent or reduce resource damage and to provide for public safety.

Smith and Archer's (Primary) - This sale consists of 3 units (Units 325, 346, and 616) totaling 309 acres. These stands are 69 years old and are comprised of Douglas-fir, red alder, and a component of western hemlock. The majority of Units 325 and 346 were thinned in 1996 while Unit 616 has had no prior management. These areas are planned modified clearcuts.

The majority of the areas have a DFC of GEN except for small slivers that total 5 acres in Unit 616 that have a DFC of LYR. These are mapping errors that are adjacent to past harvest boundaries. These areas will be adjusted to better align the DFC boundary to coincide with the adjacent harvest boundary. All of these areas are in the Ben Smith Aquatic Anchor.

OHV trails are within the sale areas and the OHV Coordinator has reviewed the trails. Some trails may be rerouted to prevent or reduce resource damage.

Hembre Falls (Alternate) - This sale is made up of two areas (Units 560 and 853) that total 181 acres of modified clearcut. These stands are 55 years old and are comprised of red alder and Douglas-fir. A small portion of Unit 853 was thinned in 2002. The majority of these sale areas have a DFC designation of General. Approximately two acres of Unit 560 have a DFC of LYR. These are mapping errors that are adjacent to riparian areas. These areas will be adjusted to better align the DFC boundary to coincide with the riparian buffer.

A review of historic maps indicates that there was a trail and house in the vicinity of the operation. During sale layout, foresters will conduct a search for potential artifacts. If potential artifacts are found, an archaeologist will be consulted to classify the artifacts and assist in developing management strategies for the site.

Jordan Ridge (Alternate) - This sale is made up of two areas (Units 850 and 851) that total 176 acres of modified clearcut. These stands are 65 years old and are comprised of Douglas-fir and red alder and have had no prior stand management.

The majority of these sale areas have a DFC designation of General. Approximately 13 acres of Unit 850 and one acre of Unit 851 have a DFC of LYR. These are mapping errors that are adjacent to riparian areas and a change of acres to accommodate an operational setting. These areas will be adjusted to better align the DFC boundary to coincide with the riparian buffer and operational setting.

Tillamook River Basin

There are no harvest operations planned in this basin for FY20.

Trask Basin

Cruisin Murphy (Primary) – This sale consists of four areas (Units 449, 467, 468, and 475) totaling 384 net acres of modified clearcut. The stands range in age between 55 and 65 years-old and are Douglas-fir stand with scattered red alder. The Desired Future Condition (DFC) for all of the areas is General stewardship. The sale area is located in upper Trask River basin and the majority of the sale area is in the Elkhorn Creek Aquatic Anchor.

All sale areas have been previously commercially thinned between (Toll Bark 1997, and Murphy Simmons Thin, 2002). Historic maps indicate that there were three houses, one cabin, the Tillamook and North Yamhill Toll Road and two trails are in the vicinity of this operation. During sale layout, foresters will explore the area for potential artifacts from these activities. If potential artifacts are found, an archaeologist will be consulted to classify the artifacts and assist in developing management strategies for the site.

These sale areas have active recreation use year round. There are several OHV trails within and adjacent to the sale areas. Trail closures will be utilized during operations.

Rocky 2 (Primary) - This sale consists of two areas (Units 585 and 587) totaling 178 acres of modified clearcut. All the stands in this sale are very homogenous, 55 year old Douglas-fir with scattered red alder and have a desired future condition designation of General.

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

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

Historic maps indicate that there were three houses, one cabin, the Tillamook and North Yamhill Toll Road and two trails are in the vicinity of this operation. During sale layout, foresters will explore the area for potential artifacts from these activities. If potential artifacts are found, an archaeologist will be consulted to classify the artifacts and assist in developing management strategies for the site.

Coast Bill (Alternative) – This sale is made up of three areas (Units 93, 94, and 104) that are planned modified clear cuts, totaling 331 acres. These areas are predominately Douglas-fir stands showing symptoms of Swiss Needle Cast with a mixture of red alder mostly in the riparian areas. Unit 93 and Unit 94 was pre-commercially thinned in 1990, no other stand management has occurred. The DFC for all of these areas is GEN.

A potential stream enhancement project has been identified with this sale. The project would include wood placement on Bill Creek. Further evaluation of this project will be completed with the Aquatic and Riparian Specialist this fiscal year.

These sale areas have active recreation use year round. Additional recreation traffic includes heavy use in the spring and summer camping seasons and fall hunting season. Special considerations will be made if lines hang over South Fork Trask Road.

ZZ Tops (Alternative) - This sale consists of two areas (Units 852 and 864) totaling 126 acres of modified clearcut. These stands are 54-64 years old and are predominately red alder with a large component of Douglas-fir and have a desired future condition designation of General.

An ODOT review of historic maps indicate that there was a “trail” in the vicinity of the operation. During sale layout, foresters will conduct a search for potential artifacts. If potential artifacts are found, an archaeologist will be consulted to classify the artifacts and assist in developing management strategies for the site.

These sale areas have active recreation use year round. Additional recreation traffic includes heavy use in the spring and summer camping seasons and fall hunting season. Special considerations will be made if lines hang over designated campsites.

Nestucca Basin

Beaver Nation (Primary) - This sale consists of two alternate areas (Units 339, and 754) that are planned modified clear cuts, totaling 131 acres. These areas are comprised of predominately 40 year old Douglas-fir that are showing symptoms of Swiss Needle Cast with a mixture of red alder mostly in the riparian areas. The DFC for all of these areas is GEN.

Eastern Moon (Alternate) - This sale is located in an isolated ownership parcel in the Nestucca Basin and consists of one sale area (Units 769) that is a planned modified clear cuts, totaling 36 acres. This stand is comprised of 90 year old Douglas-fir and has a salmonberry understory. The Douglas-fir have symptoms of Swiss Needle Cast and white speck. This stand was commercially thinned in 1971(Detrick Ranch PC) and 1998 (Tom's Thin) and the DFC is General.

The ORBIC layer indicates the potential presence of purple marten in a small portion of the area, which are currently classified as a "species of concern." Biologist will be consulted during sale layout to determine discuss snag retention and snag creation levels to provide for snags that are well distributed throughout harvest area.

Little Nestucca Basin

There are no harvest operations planned in this basin for FY20.

Forest Roads Management

Overview

The Tillamook District road system consists of approximately 1,062 miles of rocked roads, 66 miles of unsurfaced spur roads, and 292 miles of blocked roads in a self-maintaining condition. Roads constructed and improved in this AOP will provide access for silvicultural activities, recreation users, and fire protection. Guidance for Level III Transportation Plans developed under this AOP includes the ODF *Forest Roads Manual (July 2000)* and the *Northwest Oregon State Forests Management Plan (April 2010)*.

The FY 2020 AOP includes approximately 12.9 miles of new road construction or abandoned road reconstruction and 70 miles of road improvement or maintenance. Refer to summary tables in Appendix A (Table A-3, Forest Roads Summary) for more information.

The project work for the 2020 AOP timber sales is spread evenly across the district from North to South. Stockpiles along Hanson Road, Kilchis Forest Road, and South Fork Trask Road will be replenished to allow for adequate road maintenance rock. The following roads will be targeted for alignment improvements, hydrologic disconnects, and rocking: Rector Ridge Road, Sibley Road, Minich Creek Road, Kilchis Lookout Road, Sam Downs Road, Ben Smith Road, Toll Road, Joyce Creek Road, and West Creek Road .

Fish passage improvement projects will be implemented under work order contracts to address haul route infrastructure needs as well as reduce maintenance obligations. Bridges will be installed on fish streams along East Foley Creek Road and Kilchis Forest Road to replace culverts near the end of their service lives.

Work order contracts include projects to conduct pullback of historic sidecast material from Tillison Ridge and Doty East Roads. A section of the Little South Fork Kilchis Road to the junction with Dietz Creek Road is also being targeted for vacating.

Road Construction

The majority of roadwork in this AOP is new road construction. Approximately 12.9 miles of new roads are to be constructed or re-constructed. Most new construction roads are classified as spur roads. These roads are often short terminal roads to access ridge tops and facilitate harvesting operations. Road construction on steep slopes or through high landslide hazard locations are reviewed by the Area Geotechnical Specialist. Roads are designed to the minimum width necessary to accommodate the planned management activity. Improvement of abandoned roads from the Tillamook Burn salvage operations are considered new construction when there are trees larger than 5 inches in diameter growing in the road bed.

Road Improvement

Road improvement will consist of road surfacing, road widening, sidecast pullback, and drainage structure upgrades. Road improvement on the Tillamook District includes approximately 70 miles of improvement and maintenance of existing roads and improvement of abandoned roads. Existing roads have been improved and maintained over the years through timber sales or the district road crew. Work on abandoned roads from the Tillamook Burn salvage operations are considered road improvement when a defined roadbed is present and overgrown with trees less than 5 inches in diameter. Abandoned roads often require sidecast pullback, culvert installation, and resurfacing but the roadbed is defined and minimal equipment work is needed.

All roads are reviewed during sale reconnaissance and preparation for road drainage upgrades. Work for drainage structure improvements are added to contract requirements and appraisals. This work might include measurements for larger culverts, replacing failing culverts or adding culverts (cross drains) to the road to disconnect ditch water from entering live streams. The cross drains will direct water onto the forest floor away from live streams. Where cross drains cannot be installed due to landslide hazards, unstable slopes, or rocky cutbanks settling ponds are utilized or outslowed roads with ditch-outs to move water off the road surface.

Road Blocking and Vacating

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

Road Access Management

The district has several check-in points to determine if a road is to be left open, closed or vacated. During the life of a timber sale, all unsurfaced or dirt roads are blocked by waterbarring and blocking in the fall each year and at the end of the sale. After a timber sale, district staff evaluate

each road for surfacing, access to future timber sales, and access for tree planting and young stand management. If a road is no longer needed, the timber sale Purchaser will be required to close the road by pulling culverts, waterbarring and blocking. After a plantation is free to grow, the road is evaluated again for future access for young stand management or upcoming timber sales.

Gates will be installed in four locations to improve management of public use. Gates will be installed at the beginning or four different spur roads: Hobsonville Point Rd., Powerline North Rd., Powerline East Rd., and an unnamed spur off of Illingsworth Creek Rd. These gates will be closed to restrict vehicle access by the public, in response to trash dumping, resource damage, and other illegal activity. The gates may open and close in response to public activity and will be opened during the General Rifle Hunting seasons for both deer and elk. Maps are available by request at the Tillamook District Office.

North Coast Travel Management Area

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

Oregon Hunters Association Gate Program

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

Road Maintenance

Timber sale purchasers maintain timber sale access roads and haul routes. The Tillamook District Road Crew maintains roads not covered under timber sale contracts. Several haul routes are shared with private industry and maintenance of these roads is also shared proportionally with the amount of use. Road maintenance activities are divided into five basic categories; drainage, surface maintenance, cut and fill slopes, erosion control and vegetation control. Culverts, catch basins and ditches will be cleaned as necessary to ensure proper drainage. Road surfaces will be graded to maintain a smooth, stable running surface and surface drainage. Cut slope ravel will be removed from ditches and unstable fill slope material will be removed to prevent failure. Erosion and sediment control structures, such as culvert downspouts, riprap, dissipaters, sediment fencing, straw bales, bio-bags, sediment ponds and bio-filtration swales will be maintained or repaired as necessary to ensure their proper function.

Management of Rock Resources

A major component of annual project work costs involve rock pits and crushing road rock. Crushed rock and pit-run are used to surface newly constructed spurs and maintain existing roads. Having a network of rock sources and crushed rock stockpiles helps lower surfacing costs making marginal timber sales financially viable. Annually, the district requires between 7,000 to 12,000 cubic yards of crushed rock stockpiled for appraised road maintenance work. The district will continue to maintain stockpile volumes and explore new rock sources in FY 2020.

Storm Damage

The district transportation system sustained major damage in the Wilson, Kilchis, Miami, and Nehalem drainages from a storm system in December 2015. In February 2016 the storm was declared a disaster and federal disaster aid was made available to supplement local recovery efforts.

The district continues to work on repair plans for Cook Creek Road. In lieu of repairing the West Fork Wilson Road the district is pursuing an alternate project to purchase commercially produced crushed rock to maintain alternate haul routes in the Wilson River Basin. The long term plan for the West Fork Wilson Road is to vacate the road and remove the bridge.

Land Surveying

As needed the District will re-witness, maintain, and restore property corners and survey property lines. Surveying work will be accomplished through service contracts with licensed professional land surveyors. No survey work is anticipated for 2020. Opportunities for cost share surveys and boundary agreements with adjoining federal and private landowners will be pursued where the State will have a current or future need.

Reforestation/Young Stand Management

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

The types and anticipated amounts of reforestation and stand management activities for FY20 are described below and shown in the Young Stand Management Table (Appendix A, Table A-5). The location and amount (acres) of these activities are estimates based on plans, information and conditions as known at this point in time. The type, amount, and specific stand management prescriptions will be adjusted based on completion of sales, updated assessments, and stocking surveys that will occur during and after the 2019 growing season. Current budget constraints limit young stand management mostly to those activities that are essential to the establishment of new stands and preventing loss of present young stands through density management.

Site Preparation

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

Tillamook District is using prescribed burns for large landing piles in the fall, which helps reduce fuel loading and down slope hazards, and to open ground for planting.

Mechanical (Slash Piling): None Planned

Chemical Site Preparation: The site preparation objective is to control brush species to allow stand establishment and maintain 2-3 years of reduced vegetative competition. The current estimate is 2,800 acres. The actual site preparation plan is prepared in late spring when harvest units and brush development is better known. Most chemical site preparation is completed by helicopter spraying.

Planting

Initial Planting: The planting objective is to establish mixed conifer stands at 436 trees per acre on all clearcut areas, both modified clearcuts and retention cuts. Initial plant species will consist of western hemlock, noble fir, 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. The current estimate is 2,800 acres of initial planting (over 1,220,800 seedlings) using contract crews. South Fork camp will be responsible for 400 acre of initial plant. SFK also will assist with planting operations by providing daily tree packing crews.

Interplanting: The interplanting objective is to raise conifer stocking in young plantations that are below acceptable levels or below Forest Practices Requirements to a minimum of 360 trees per acre to achieve the State Forest Division goal of establishment and maintenance of healthy, well stocked stands. The current estimate is less than 400 acres of inter planting (around 80,000 seedlings) using contract crews. Actual plans will be made after stocking surveys have been completed in the fall.

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 wind storms, 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, Sitka spruce and other minor species is used to provide diversity in all harvest units.

Young Stand Management

Vegetation Management

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

Manual (Chainsaw slashing): The current estimate is between 300-400 acres. 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 SFK crews will be responsible for the completion of this.

Chemical (Late Foliar, Hack & Squirt, Basal Treatment) The current estimate is 250 acres. 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.

Tree Protection

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

Bud Caps: The current estimate is 2000 acres. Bud caps are installed on Douglas-fir seedlings in 0-2 year old plantations with heavy elk/deer browse pressure. Contract 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. The current estimate for trapping in FY20 is 2,500 acres. South Fork Inmate Camp will be responsible for trapping 200 acres.

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

Pre-commercial Thinning

No Pre-commercial thinning operations are planned for FY20. The district will continue to survey and monitor potential plantations for PCT need. These surveys are used to determine stocking levels and needs for pre-commercial thinning. The district will look to review 3,500 acres of potential PCT in FY20 and plan for implementation of highest priority stands in future AOPs and budgets.

Pruning

No pruning operations are planned for FY20.

Invasive Species

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

The district currently tracks and treats knotweed, Scotch broom and false brome. There are other common invasive species, such as tansy ragwort, Himalaya blackberry, and Canada thistle along road sides and haul routes or in small concentrated patches throughout the forest. In FY20, the Tillamook District will treat approximately 200 acres, targeting Scotch broom and knotweed using contract crews.

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

Roadside Spraying

Roadside vegetation will be controlled manually, mechanically or chemically where necessary. The method used will depend on the characteristics of the vegetation and its location. The district anticipates chemically treating 120 miles of roadside vegetation to remove brush and retain grasses. This equates to approximately 240 acres of chemical vegetation control. Roadside brushing will be included in timber sale project work where vegetation is too large for effective chemical control.

Stocking Surveys

The district will also conduct stocking and survival surveys in young stands and plantations on approximately 4,200 acres using district staff and contractors. The surveys are used to determine seedling stocking levels, needs for tree planting, release or pre-commercial thinning. Low-level photo flights in late spring are also used to evaluate upcoming planting units.

Recreation Management

Overview of Recreation Management

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

At present the district manages 4 fee campgrounds, 1 OHV fee campground, 3 OHV staging areas, 6 day-use sites, 82 designated dispersed sites, 3 boat launch facilities, 20.1 miles of non-motorized trail, 307 miles of designated OHV trails, plus multiple rustic trailhead facilities that provide access to motorized and non-motorized trail network. In addition to the 4 fee campgrounds, fees for overnight use are also charged at Diamond Mill OHV Staging Area, Cedar Creek OHV Staging Area/Designated Campsites, and the North Fork Wilson Designated Campsites.

Current direction for management is captured in the State Forest Division Bulletin, “Near Term Direction for Recreation Management and Investment on State Forests”, September 2011. The recreation management activities planned for FY 2020 reflect a reduction in permanent staff. Summer service levels will be supported by seasonal staff. Tillamook District will work to protect the existing infrastructure, provide for public safety and sanitation, and mitigate damage to natural resources.

ODF continues to receive All Terrain Vehicle (ATV) Transfer fund dollars administered by Oregon State Parks to support 1 NRS1 OHV Coordinator and associated Service and Supply such as vehicle costs, in the Tillamook District.

Facilities (Campgrounds, View Points, Trailheads, etc.)

Regular facility maintenance includes protecting assets, infrastructure, and providing for safety and sanitation. Activities include fence repair, sign replacement, fire grate and picnic table repairs, painting, wood preservation, janitorial work, graffiti and moss removal, dust abatement, trash pickup, septic pumping, hazard tree removal, parking lot rocking, and updating information boards. As a service to our campground visitors, firewood is available for purchase at Jones Creek and Nehalem Falls Campground. Facility maintenance work is accomplished with recreation staff, South Fork crews, South Fork shop, volunteers and contracted services such as trash and vault pumping.

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

Table 1. Developed Facility and Dispersed Campsite Project

Project Type	Project Name	Work Resources	Project Description
Facility Maintenance	Picnic Table Replacement	Recreation staff, South Fork crew	Replace 5 picnic tables at campgrounds. Location based on highest priority for public safety.
Grey Water Receptacle Install	Morrison Eddy Campground	Recreation staff, South Fork shop, South Fork crew	Install grey water receptacles per county direction at Morrison Eddy Campground.
Dispersed campsite management	Foss Road Dispersed Campsites	Recreation staff	Complete conceptual planning to rehab five existing dispersed campsites and convert them into designated campsites with a fire grate and sign. These sites will replace 5 dispersed campsites that have been vacated due to resource damage. (Carryover from FY18)

Trails

Through FY 2020, the Tillamook District intends to maintain designated motorized and non-motorized trails to the highest standard possible with available funds and workforce. In addition to regular maintenance, winter storm events cause damage that requires more extensive trail repair including bridge damage, slides, slumps, sloughs, and large tree blow down.

Equestrian use of the Wilson River Trail will continue to be accommodated on a seasonal basis from July 1 to September 30 from Jones Creek Equestrian Trailhead to Elk Creek Campground. Staging for equestrian use can be done at Equestrian Trailhead and users will be responsible for providing water for their stock and packing out manure.

Motorized (OHV) Trails

In FY 2020 the OHV Specialists will continue work on long term OHV trail system planning project. This will be a basin-by-basin systematic trail planning effort with public involvement, specialist review, and careful route planning. Part of the planning effort will be to identify areas or sub-basins that should have limited or no OHV trails to allow for other recreation activities. This project will develop a snapshot of the desired future condition of the OHV trail system, providing guidance for future AOP projects, and help coordinate on the ground projects with potential timber sale impacts. Having a detailed outline of future projects will also promote continuity through personnel and policy changes.

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

Table 2. Motorized Trail Projects

Project Type	Project Name	Work Resources	Project Description
OHV Site Management: Gate Installation	Diamond Mill OHV Staging Area Gate Installation	OHV Specialist, OHV Equipment operators, road crew	Installation of a gate at the entrance of Diamond Mill OHV Staging Area. Gate will be used for site management.
OHV Site Management Planning	Diamond Mill OHV Staging Area	OHV Specialist, Recreation Staff, volunteers	Develop conceptual plan for converting designated campsites to drive-in campsites. Meet with clubs, users and law enforcement to find solutions to current management issues at Diamond Mill related to large groups, parking lot riding, and safety issues.
OHV Trail Reroute	Mongos OHV Trail	OHV Specialist and OHV Equipment Operators	Reroute Mongos OHV Trail due to Arch Cape Slide. (Carryover from FY19?)
OHV Site Development	Jordan Creek OHV Event Staging Area	OHV Specialist and OHV Equipment Operators	Develop a 2-acre event staging area. Work to be done in conjunction with OHV clubs who will fundraise, volunteer and support the site development. Additional OHV event space is needed due to limited space at Jordan Creek OHV Campground.
OHV Trail Bridge Replacement	Blue Bus OHV Trail	OHV Specialist and Equipment Operators	Replacement of bridge damaged in 2015 winter storm. Work is pending the contribution of OMRA. (Carryover from FY19)
OHV Trail Brushing	Various OHV trails throughout the greater system	OHV Specialist, South Fork work crews, volunteers	Perform routine brushing maintenance on trails currently being overrun with salmonberry and other brush.

Non-Motorized Trails

The district will seek to maintain 20.1 miles of non-motorized trails in FY 2020. Annual trail work includes bridge inspection, brushing, grade repair, and removal of wind throw. Trail maintenance may be accomplished through a variety of resources including volunteers, and South Fork Inmate crews depending on staffing and availability.

Table 3. Non-Motorized Trail Projects

Project Type	Project Name	Work Resources	Project Description
Trail Bridge Removal	Wilson River Trail Bridge (over Jones Creek)	Recreation staff, South Fork crew	Removal of the existing trail bridge located between Jones Creek Campground and the Tillamook Forest Center.
Trail Bridge Retaining Walls	Wilson River Trail Bridge (north of Jones Creek Campground)	Recreation staff, South Fork crew	Install retaining walls on the 40' trail bridge located north of Jones Creek Campground. Retaining wall blocks to be relocated from the bridge removed over Jones Creek.
Build & Install Temporary Trail Bridge	Wilson River Trail (over Jones Creek)	Recreation staff, South Fork crew	Construction and installation of a temporary bridge to be used during the high use season between Jones Creek Campground and Tillamook Forest Center.

Wilson River Trail Maintenance	Cedar Butte Road to Footbridge Trailhead	Northwest Youth Corps	Contract with Northwest Youth Corps for one week to maintain and rehab a difficult 5 miles section of the Wilson River Trail from Cedar Butte Road to Footbridge Trailhead.
Trail Reroute	Coal Creek Trail Reroute	Recreation staff, South Fork crew	Reroute a portion of the Coal Creek Trail to mitigate resource damage and address public safety. (Carryover from FY19)

Trail Maintenance (Motorized and Non-Motorized)

The district will work with volunteers and South Fork inmate crews to accomplish trail maintenance work on non-motorized and OHV trails. Trail maintenance is done year round through a combination of volunteer, South Fork Inmate crews, OHV Equipment Operators, OHV Specialist and recreation staff efforts. An unmet trail maintenance need will be addressed with a Northwest Youth Corps trail crew.

Volunteer Program

In FY 2020 the Tillamook District will administer a wide variety of volunteer activities including

- Motorized trail work parties and the annual Single Track OHV Trail Day
- SOLVE Beach & Riverside Cleanup Event
- Trail work parties on non-motorized trails
- Camp Host Program at Jones Creek, Nehalem Falls, & Keenig Creek Campground

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

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

Event Management

For FY 2020 Tillamook District will administer or review permits for 16 motorized events on the Tillamook State Forest. Events include motorcycle races, 4WD events, dual sport events, and observed motorcycle trials.

The Tillamook District Recreation Unit will process and administer a limited amount of permits for recreation related special uses of State Forest Lands. Special uses include commercial and non-commercial activities such as guide services, filming for advertisements, and trail running events. Special use permits for a 25K, 50k and marathon distance running event, a cross country running camp and three hunting guides are planned for renewal in FY 2020.

Additionally, the Tillamook District will work cooperatively with the Forest Grove District on special use permit administration of the Jeep Jamboree. This national Jeep owner’s event was

held for the first time in the Tillamook State Forest in June 2015. With the success of the event, it has become an annual OHV event that has a positive economic impact on Tillamook County.

Grants

Recreation is planning to apply for the following grants in FY 2020 to support Recreation Operations.

- Explore Land & Water Conservation Development Fund Grant for a vault toilets at Jones Creek Day Use Area and Jones Creek Campground.
- Explore other grant opportunities to support recreation opportunities.

Planning and Partnerships

ODF will continue to partner with local recreation providers through the North Coast Trails Coalition.

Other Integrated Forest Management Projects

Aquatic Habitat Improvement

Federally Threatened Salmon and Steelhead listed species with Critical Habitat Designations found within the Tillamook District include Oregon Coast Coho Salmon. Eight of the primary sales and two of the alternate sales are adjacent to streams with Critical Habitat Designations and the remaining 3 sales are upstream from streams with Critical Habitat Designations.

All fish bearing streams found on the district are subject to the Management Standards for Aquatic and Riparian Areas found in the Northwest Forest Management Plan. 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, flow duration, and inner gorge strategies. 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 and Riparian Conditions: Major streams that drain from the forest lands on the Tillamook District are: the Nehalem, North Fork Nehalem, Miami, Kilchis, Wilson, Trask, Tillamook, Nestucca and Little Nestucca Rivers, which flow directly into the Pacific Ocean. These major watershed basins define the basin planning areas in the section entitled "Summary of Timber Harvest Operations by Basin".

There are also several shallow lakes on the Tillamook District, the largest of which is Lake Tahoe (Approximately 2.5 acres). Beaver ponds and other wetlands are scattered throughout the district as well. The City of Tillamook Water Department and the Beaver Water District are in the southwest corner of the district encompassing about 3,600 acres of state forest land. In the summer of 2017, the City of Tillamook Water Department removed the dam on Skookum Lake, but a small pond remains. The Tillamook District includes approximately 515 acres upstream of the lake and will work with the City on future surface water intakes in the Fawcett Creek Basin if needed.

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, leaving trees adjacent to streams to protect stream temperature, provide nutrients, protect stream banks, and eventually provide wood to improve fish habitat. Best management practices for road construction, reconstruction, and maintenance minimize impacts to water quality. Aquatic Anchors have been established in 11 watersheds in which additional aquatic conservation measures are applied. The Aquatic Anchors include: Coal Creek, Cook Creek, South Fork Salmonberry, Foley Creek, Miami River, Middle Kilchis River, Little North Fork Wilson River, Cedar Creek, Ben Smith Creek, Elkhorn Creek, and the East Fork of the South Fork Trask River.

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

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

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

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

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

For FY20, the Tillamook District will continue to support these projects, as capacity allows and in collaboration with our partners, where habitat restoration projects provide the greatest benefits to species of concern and are cost effective and efficient.

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

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

There are potential stream enhancement projects identified by the Aquatic Specialist that could be done with this plan either as work order contracts or as projects associated with timber sales.

- Prouty Creek crossing on Miami Forest Road is scheduled for completion Spring/Summer 2019 through a service contract with a bridge.
- Coast Bill (Alt) – Log placement stream enhancement project on Bill Creek has been reviewed in the field. District will work with the Aquatic and Riparian Specialist, in consultation with ODFW, to implement the work.
- Wooley Creek – Log placement stream enhancement project on Helloff Creek might be possible when/where yarding cables are hung across the creek. Foresters will work with the Aquatic and Riparian Specialist, in consultation with ODF&W, during sale layout to evaluate project options.
- Old Bungee - Log placement stream enhancement project on Sorensen Creek might be possible when/where yarding cables are hung across the creek. Foresters will work with the Aquatic and Riparian Specialist, in consultation with ODF&W, during sale layout to evaluate project options.

Additional planned projects:

- Additional projects may be considered on Beaver Nation, South Minich (Alt), and ZZ Tops (Alt) based on initial assessments of stream enhancement opportunities. Additional work to prioritize these projects will occur during sale layout.
- Approximately 70 miles of road will be improved. This includes installing additional cross drain culverts to hydrologically disconnect the roads from streams.

Watershed Council and Other Partnerships: Tillamook District participates in multiple Watershed Councils. The main councils are Lower Nehalem, Tillamook Bay, 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 and Tillamook Bay Watershed Council, provides presentations when requested and participates in workgroups and committees when appropriate.

District staff and the Tillamook Bay Watershed Council have identified a priority project in the Kilchis basin and plan to work together to acquire grants for vacating old roads and non-

designated dispersed camp sites adjacent to the river located on both County and ODF ownership. These areas are experiencing high levels of resource damage.

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.

Additionally the Tillamook District hosts three scientific studies that explore various aspects of State Forests management practices on the aquatic environment. These studies include: the Trask Watershed Study, a 10-year study that evaluates the influence of forest operations in the headwaters on the fishless communities and the downstream impacts on Type F streams; the post-Trask fish Study, a four year study that assesses the direct impact of forest harvest on the fish community; and the EFSF Dam Removal Study, a three-year study that documents response of the macroinvertebrate community to the “sediment wave” that follows a dam removal. For more information, please see the Research and Monitoring section, pg. 35.

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

Land Exchange

None Planned

Law Enforcement and Public Safety

ODF and the Tillamook County Sheriff's Office (TCSO) partner to maintain three full time forest deputies that are funded through ATV grants (\$150,000) and ODF (\$225,000). Tillamook District staff work closely with the forest deputies and the Forest Grove District staff to facilitate law enforcement activity on the district.

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

Firewood Cutting Program

The primary objective of the District Firewood Cutting Program is to provide a source of firewood from State Forests to the public for personal use. The District has an ongoing firewood cutting program, which includes both commercial and individual wood cutting permits.

The Tillamook District issues personal firewood cutting permits as shown on maps attached to the permits. The individual woodcutting permits are sold by area, with the district divided into four (4) unique areas. Exclusions include active and sold timber sales, recreation sites, critical wildlife sites, and planned operations. Down and dead trees within 100 feet of a road are allowed for removal. The permit fee for personal firewood cutting is \$20 for two cords and is not transferrable to another party. Permits are issued for a period of three weeks and expire either when two cords have been cut or the time period expires, whichever occurs first. Personal firewood cutting permits will be issued with a limit of 3 permits per individual or household per 9 month period (Oct-June)

Commercial woodcutting sales are for more specific areas and are used to remove trees adjacent to roads, clean up landings, and salvage windthrow in concentrated areas where down wood levels are above FMP targets. These sites are often large, volumes greater than 10 cords, and have short timelines.

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

The Tillamook District will use a variety of tools, data sources, and other information for the planning and implementation of the AOP. These consist of computer programs (ArcMap, SuperACE, GPS programs, etc), inventories (Road Inventories and Stand Level Inventories (SLI), surveys (T&E, fish habitat, perennial streams), and field reconnaissance. These tools and the data that is collected will assist in setting resource goals for the district, and to monitor progress in achieving those goals. During the FY20, the district will be undertaking the following projects in order to update existing data and acquire new information.

Stand Level Inventory and Other Vegetation Inventories

There are currently 6,044 SLI stands on the Tillamook district, totaling 250,516 acres. Currently the district has 1,477 inventory stands measured using stand level inventory procedures on the Tillamook District, which represents 24.5% of district stands. The measured stands represent approximately 98,276 acres or 39.3% of State Forest land in the Tillamook District. There are also 792 stands that have other vegetation inventories (stocking surveys and planting records).

These represent 13% of district stands and approximately 35,085 acres or 14% of the State Forest land in the Tillamook District.

Wildlife Surveys

Northern Spotted Owl Surveys

For the FY20 AOP, the District will continue its northern spotted owl (NSO) survey program in order to effectively comply with federal and state Endangered Species Acts and to contribute to Forest Management Plan (FMP) goals. Survey requirements are determined in accordance with ODF Northern Spotted Owl Operational Policies, November 2017.

A private contractor will continue the annual surveying for northern spotted owls on the district doing density surveys in the Trask, Nestucca, and southern portion of the Wilson basins and operational surveys where needed on the rest of the district. Density surveys are designed to inform demography for the NSO population and the study area covers all suitable habitat in the study area which are called compartments.

There will be 44 sales (past, present, and future sales) surveyed for northern spotted owls in FY20, to complete protocol surveys. There will also be additional surveys for spot checks for 5 active timber sales in the operational survey zone and for district monitoring purposes on 11 northern spotted owl activity centers.

Marbled Murrelet Surveys

In FY2020, 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.

There will be 3 sales with 2nd year surveys and 4 sales planned for first year surveys for marbled murrelets in FY20.

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

T&E Plants

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

Queen-of-the-Forest (*Filipendula occidentalis*) a Candidate plant, was identified in 1979 in the vicinity of the lower Wilson drainage. A range was established for the plant and the Kilchis Saddle

sale fall inside the range identified. No plants have been found on the sale areas. Queen-of-the-Forest is usually found in riparian areas, especially shaded moist stream banks and NW FMP buffers will incorporate most if not all of the plant's habitat.

Species of Concern Wildlife

The Kilchis Saddle and portions of the Old Bungee sale fall within the range of a fisher (*Pekania pennanti*) that may have been observed in the area in 1980. The Area Wildlife Biologist was consulted during the planning process and recommended that meeting the FMP down wood and snag requirements within the sale will help provide future denning sites.

The Eastern Moon sale falls within the range of purple marten, which are currently classified as a "species of concern." Biologist will be consulted during sale layout to determine discuss snag retention and snag creation levels to provide for snags that are well distributed throughout harvest area.

The South Minich sale falls within a range of the Northern red-legged frog. During sale layout areas that contain slow/still water or pools in the riparian areas will be identified and the Biologist will be consulted to determine sale layout recommendations.

Research and Monitoring

The Tillamook District will be involved in a variety of research and monitoring projects in FY20. Study sites and plots will be maintained on the district. District employees may participate in these projects. The following sections provide brief summaries of current research.

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

- Monitoring of SNC disease conditions through periodic measurements.
- Installation of new monitoring plot network to take place of aging Growth Impact Study Plot network in stands 10 to 20 years old.

Trask River Paired Watershed Study: (ODF, Weyco, OSU, BLM)

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

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

Post-Trask Study: (ODF, USGS FRESC)

The Trask Watershed Study (2006 - 2016) was designed in part to assess the downstream effects on fish communities from forest harvest adjacent to non-fish bearing streams in the headwaters. ODF State Forests Monitoring Program is working on a Post-Trask study that assesses the direct impact of a State Forest harvest on the fish community. The new study will continue the monitoring at two of sites used in the Trask Watershed study. The treatment will be the Pothole habitat reach, which will be harvest (Little Bumps timber sale) and Rock Creek habitat reach will continue to serve as the reference. The overall objective of this study is to assess the impacts of a State Forests modified clear-cut, FY17 Little Bumps timber sale, on a fish-bearing stream (fish, temperature, shade, turbidity) utilizing the 10 years of previous data that was collected with the Trask WSS.

East Fork Trask Macro-Invertebrate Monitoring Study: (ODF, TEP, OSU)

ODFW has decommissioned the East Fork Trask acclimation pond in partnership with ODOT by removing the dam and fish ladder in the summer of 2016. ODF State Forests Monitoring Program in conjunction with the Tillamook Estuaries Partnership and Oregon State University designed a study to assess the impact on the downstream macroinvertebrate community from the sediment load released from behind the dam. This study will assess the impact of the dam removal on the macroinvertebrate community using a before-after-control-impact-paired study design (BACIP). The sample area will include two sites (above and below) and one control located in the South Fork Trask. The overall objective of this three year study is to detect change in the macroinvertebrate community composition (richness and abundance) downstream of the dam removal site relative to upstream and reference sites. The first data collection was in 2016. Currently all field work and data collection has been completed and the work on sorting and analysis of the collected samples has begun.

T&E Surveys: (ODF, Contractors)

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

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

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

Other Planning Operations

Wood Accounting and Log Tracking (WALT)

In FY20 State Forest will implement WALT, the new business Enterprise System to track timber sale volume and value from the beginning of the planning process through the end of the timber sale. The Tillamook District has assisted with the design and testing of all phases of the project. In FY20 Tillamook District personnel will process all forest product sales through WALT, including firewood permits and miscellaneous forest product permits, All timber sales will be created in Contractor, the contract creation feature of the program. 2020 AOP timber sales have been created in the Geo-Planner function of the program.

PUBLIC INFORMATION AND EDUCATION

The district will maintain supporting information for the Implementation Plan, Land Management Classification System, and Annual Operations Plans for public review. Public involvement will include public review and input on the FY20 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 when they have specific questions.

The Tillamook Forest Center is located at mile post 22 on the Wilson River Highway. Typical activities on-site during FY20 will include: routine maintenance of the building and grounds; guided and self-guided public use of the trails including many school groups; access to the river by interpretive trails. The Center hosts more than 50,000 people per year. The Smith Homestead Day Use Area, located ½ mile east of the Center, hosts many school groups, family activities, and other visitors. The Tillamook Forest Center will be closed from the Monday after Thanksgiving in November 2020 through the end of February 2021 and on Mondays and Tuesdays throughout the rest of year because of the limited operational budget.

ADMINISTRATION

District Organization

During FY20 the district will be transitioning to a new organization. There will be 19 permanent positions whose full-time function is to manage State Forest land on the Tillamook District and five (5) permanent positions who work part-time on management of State Forest land. 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 2020 Annual Operations Plan. The district positions are divided into five 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.

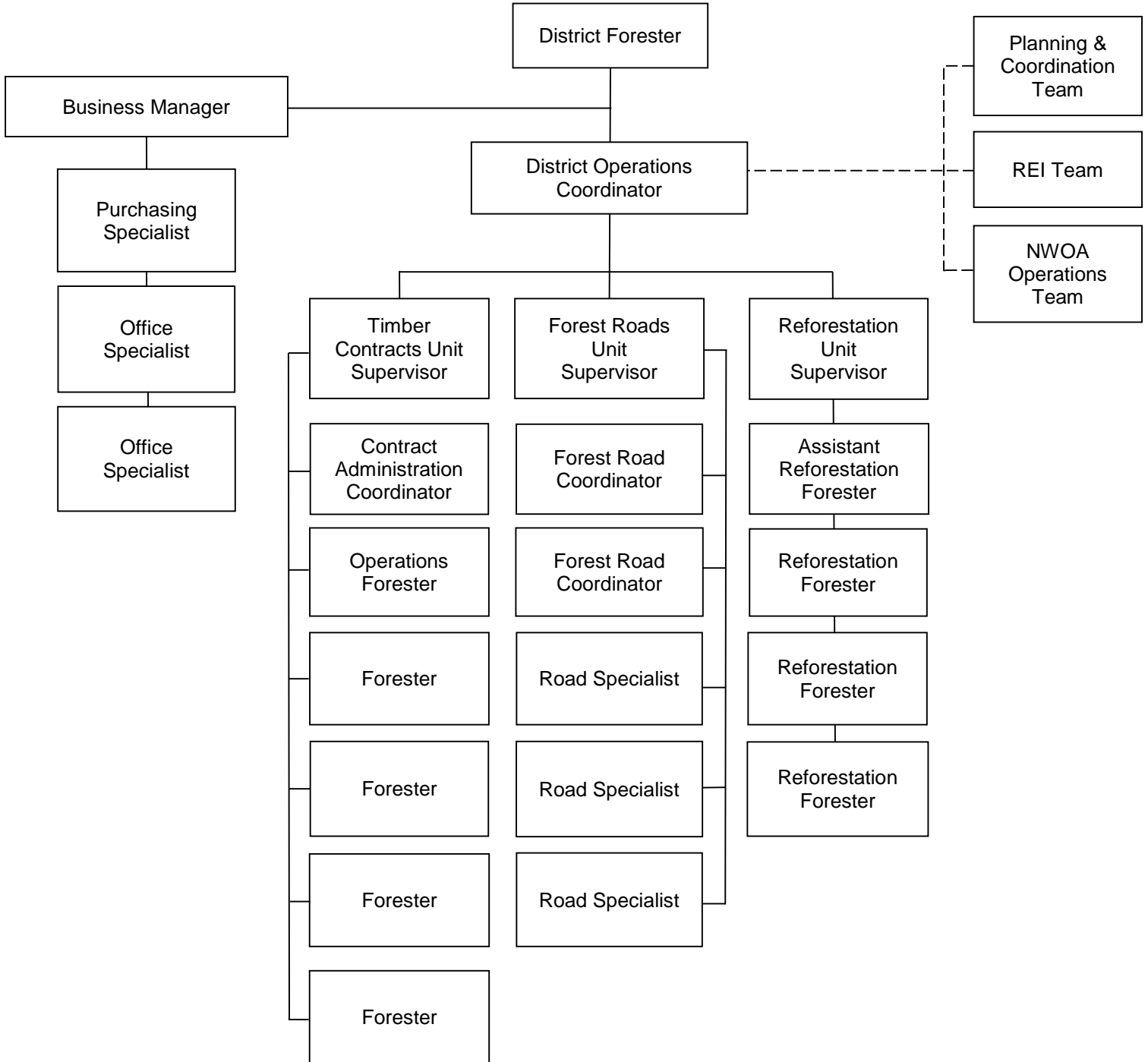
The Reforestation unit is responsible for all activities in forest plantations from the time the harvesting is complete until the new stand produces commercial timber. The activities of this

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, Assistant District Forester, Office Manager, Purchasing Specialist, and two Office Specialists. The District Forester and Assistant District Forester provide policy direction, budget development, and oversight to the field units. The Office Manager, Purchasing Specialist, and two Office Specialists provide clerical support to State Forest Management. These positions are responsible for initial public contact, distribution and filing of documents, and providing assistance at timber sale auctions. The Office Specialist is also responsible for issuing permits for firewood cutting, and special forest products.

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



APPENDIXES

A. Summary Tables

- A. Harvest Operations – Financial Summary
- B. Harvest Operations – Forest Resource Summary
- C. Forest Road Management Summary
- D. Reforestation and Young Stand Management Summary
- E. Recreation Management Summary

B. Map Section

- a. Harvest Operations Vicinity Map
- b. Include other maps that support the AOP

C. Consultations with Other State Agencies

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

D. Public Involvement

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

E. Pre-Operations Reports

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

F. Minor Implementation Plan Modifications

This section describes any minor modifications to the district implementation plans, including minor changes to the landscape design.

TIMBER HARVEST OPERATIONS - FINANCIAL SUMMARY

District: Tillamook`

Fiscal Year: 2020

Date: Jun-19

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	
Beaver Nation	48%	52%	Tillamook	1.0		131	1.3	0.1	1.4	\$ 410,834	\$25,975	\$384,859	
Cruisin Murphy	100%	0%	Tillamook	3.0		384	6.8	0.8	7.6	\$2,947,093	\$202,725	\$2,744,368	
Kilchis Saddle	100%	0%	Tillamook	4		220	3.8	1.2	5.0	\$ 1,313,644	\$423,783	\$889,861	
Lost Mountain	100%	0%	Tillamook	4.0	48	308	6.8	1.0	7.8	\$2,577,470	\$536,557	\$2,040,913	
Old Bungee	100%	0%	Tillamook	2.0		336	5.4	0.8	6.2	\$ 2,446,749	\$392,815	\$2,053,934	
Rocky 2	100%	0%	Tillamook	4.0		178	3.7	0.7	4.4	\$ 1,702,696	\$190,171	\$1,512,525	
Smith & Archers	100%	0%	TILL(86/WA14%)	4.0		309	9.0	0.6	9.6	\$3,804,872	\$560,974	\$3,243,898	
Wooley Grade	100%	0%	Tillamook	1.0		102	4.5	0.5	5.0	\$1,917,894	\$131,980	\$1,785,914	
	100%	0%	Tillamook						0.0			\$0	
Sub-total:						48	1,968	41	6	47	17,121,252	2,464,980	14,656,272
Project WOC Sub-total:						0	0	0.0	0.0	0.0	\$0	\$270,000	-\$270,000
Total:						48	1,968	41.3	5.7	47.0	\$17,121,252	\$2,734,980	\$14,386,272
Alternate Operations													
Coast Bill	100%	0%	Tillamook			331	5.8	1.2	7.0	\$2,520,928	\$572,520	\$1,948,408	
Eastern Moon	100%	0%	Tillamook			25	1.0	0.1	1.1	\$ 440,425	\$56,767	\$383,658	
Hembre Falls	100%	0%	Tillamook			181	4.2	0.5	4.7	\$ 1,832,490	\$ 117,955.00	\$ 1,714,535	
Jordan Ridge	100%	0%	Tillamook			176	4.5	0.2	4.7	\$ 1,816,590	\$ 293,733	\$ 1,522,857	
South Minich	100%	0%	Tillamook			119	2.4	0.1	2.5	\$764,466	\$ 76,855	\$687,611	
ZZ Tops	100%	0%	Tillamook			126	1.1	0.4	1.5	\$ 475,520	\$ 174,853	\$ 300,667	
Total:						0	958	19.0	2.5	21.5	\$ 7,850,419.00	\$ 1,292,683	\$6,557,736

PRIMARY HARVEST OPERATIONS - FOREST RESOURCE SUMMARY

District: Tillamook

Fiscal Year 2020

Date: Jun-19

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	Landcape 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 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	
Beaver Nation		x		--	--	--	--	--	--	--	--	--	--	--	x	--			--	--	x	Property Lines
Cruisin Murphy		x		--	--	--	--	--	--	x	--	--	--	--	x	--			x	--	--	Property Lines
Kilchis Saddle		x		--	--	--	--	--	--	x	--	x	--	--	x	x			--	--	--	
Lost Mountain		x		--	x	--	--	--	--	x	--	--	--	--	x	--			x	--	--	Permanent Plot / Property Lines
Old Bungee		x		--	x	--	--	--	--	x	--	--	--	--	x	--			--	--	--	Permanent Plot
Rocky 2		--		--	--	--	--	--	--	x	--	--	--	--	x	--			--	--	--	Transmission Line, Property Lines
Smith & Archers		--		--	x	--	--	--	--	x	--	--	--	--	x	--			--	--	x	Old COPE Study, portion WA Cnty
Wooley Grade		--		--	--	--	--	--	--	--	--	--	--	--	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 inconultation 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 MIMMA (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	
Coast Bill		X		--	--		--	--	X	--	--	--	--	--	X	--			--	--	Property Lines	
Eastern Moon		X		--	--		--	--	--	--	--	--	--	--	X	--			--	--	Property Lines	
Hembre Falls		X		--	X		--	--	--	--	--	--	--	--	X	--			X	--		
Jordan Ridge		--		--	X		--	--	--	--	--	--	--	--	X	--			--	--	Property Lines	
South Minich		X		--	X		--	--	--	X	--	--	--	--	X	--			--	--	Property Lines	
ZZ Tops		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 inconspicuous 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. The Pre-Operation Report identifies whether T&E fish are present in the basin.

FOREST ROADS SUMMARY

District: Tillamook

Fiscal Year: 2020

Date: Jun-19

Primary Operations	Construction		Improvement		Other Projects	Total Project Costs	Gross Value of Operation	Total Cost as a percent of Gross Value
	Miles	Cost	Miles	Cost				
Beaver Nation	0.3	\$ 4,597	0.9	\$ 5,950	\$ 15,428	\$ 25,975	\$ 410,834	6%
Cruisin Murphy	1.1	\$ 28,875	13.8	\$ 173,850		\$ 202,725	\$ 2,947,093	7%
Kilchis Saddle	2.2	\$ 215,433	13.24	\$ 103,100	\$ 105,250	\$ 423,783	\$ 1,313,644	32%
Lost Mountain	3.8	\$ 238,889	15.8	\$ 186,330	\$ 111,338	\$ 536,557	\$ 2,577,470	21%
Old Bungee	1.5	\$ 106,110	9.4	\$ 286,705		\$ 392,815	\$ 2,446,749	16%
Rocky 2	2.2	\$ 90,102	0.0	\$ -	\$ 100,069	\$ 190,171	\$ 1,702,696	11%
Smith & Archers	2.0	\$ 154,224	8.8	\$ 263,785	\$ 142,965	\$ 560,974	\$ 3,804,872	15%
Wooley Grade	0.0	\$ -	7.8	\$ 131,980		\$ 131,980	\$ 1,917,894	7%
Sub-total	12.9	\$ 838,230	69.6	\$ 1,151,700	\$ 475,050	\$ 2,464,980	\$ 17,121,252	14.4%
Sub-total WOC (see below)	0.0	\$ -	0.0	\$ -	\$ -	\$ 270,000	\$ -	
Totals	12.9	\$ 838,230		\$ 1,151,700	\$ 475,050	\$ 2,734,980	\$ 17,121,252	16.0%

Alternate Operations								
Coast Bill	3.3	\$ 380,535	9.7	\$ 179,445	\$ 12,540	\$ 572,520	\$ 2,520,928	23%
Eastern Moon	0.7	\$ 6,767	0.0	\$ -	\$ 50,000	\$ 56,767	\$ 440,425	13%
Hembre Falls	0.9	\$ 63,335	9.3	\$ 54,620	\$ -	\$ 117,955	\$ 1,832,490	6%
Jordan Ridge	1.78	\$ 152,625	0	\$ -	\$ 141,108	\$ 293,733	\$ 1,816,590	16%
South Minich	0.3	\$ 11,335	2.6	\$ 65,520		\$ 76,855	\$ 764,466	10%
ZZ Tops	1.73	\$ 84,673	6.2	\$ 69,915	\$ 24,265	\$ 178,853	\$ 475,520	38%
Total	8.7	\$ 699,270	27.8	\$ 369,500	\$ 227,913	\$ 1,296,683	\$ 7,850,419	17%

Road Projects Not Associated with Harvest Operations in this AOP

Operation	Construction		Improvement		Other Projects	Total Project Costs	Funding Source	Comments
	Miles	Cost	Miles	Cost				
Tillison Ridge Pullback WOC		\$ -		\$ -	\$80,000	\$80,000	FD	Work Order Contract
Doty East Road Pullback WOC		\$ -		\$ -	\$30,000	\$30,000	FD	Work Order Contract
Little South Fork Kilchis Vacate WOC		\$ -		\$ -	\$30,000	\$30,000	FD	Work Order Contract
Kilchis and East Foley Bridge WOC		\$ -		\$ -	\$130,000	\$130,000	FD	Work Order Contract
Total	0.0	\$ -	0.0	\$ -	\$ 270,000	\$ 270,000		

REFORESTATION AND YOUNG STAND MANAGEMENT SUMMARY

District: Tillamook

Fiscal Year: 2020

Date: 06/18/2019

Projects Conducted by ODF Staff or Contractors	Board of Forestry			Common School Forest Lands			Tillamook	
	Acres Planned	Average Cost*/Acre	BOF Cost	Acres Planned	Average Cost*/Acre	CSL Cost	Total Acres	Total Cost
Seedling / Nursery Costs	2,800	\$179.00	\$501,200.00			\$0.00	2,800	\$501,200.00
Initial Planting	2,400	\$230.00	\$552,000.00			\$0.00	2,400	\$552,000.00
Interplanting	400	\$170.00	\$68,000.00			\$0.00	400	\$68,000.00
Underplanting			\$0.00			\$0.00	0	\$0.00
Tree Protection - Barriers	2,000	\$60.00	\$120,000.00			\$0.00	2,000	\$120,000.00
Tree Protection - Direct Control	2,500	\$95.00	\$237,500.00			\$0.00	2,500	\$237,500.00
Site Prep - Chemical - Aerial	2,800	\$53.50	\$149,800.00			\$0.00	2,800	\$149,800.00
Site Prep - Chemical - Hand			\$0.00			\$0.00	0	\$0.00
Site Prep - Broadcast Burning			\$0.00			\$0.00	0	\$0.00
Site Prep - Piling Burning	2,800	\$5.00	\$14,000.00			\$0.00	2,800	\$14,000.00
Site Prep - Mechanical			\$0.00			\$0.00	0	\$0.00
Release - Chemical - Aerial			\$0.00			\$0.00	0	\$0.00
Release - Chemical - Hand	250	\$100.00	\$25,000.00			\$0.00	250	\$25,000.00
Release - Mechanical - Hand	300	\$125.00	\$37,500.00			\$0.00	300	\$37,500.00
Precommercial Thinning			\$0.00			\$0.00	0	\$0.00
Pruning			\$0.00			\$0.00	0	\$0.00
Invasive Species	200	\$100.00	\$20,000.00			\$0.00	200	\$20,000.00
Road Side Spraying	240	\$92.50	\$22,200.00			\$0.00	240	\$22,200.00
Stocking Surveys *	4,200		\$0.00			\$0.00	4,200	\$0.00
Other			\$0.00			\$0.00	0	\$0.00
Totals	20,890	--	\$1,747,200	0	--	\$0	\$20,890	\$1,747,200

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

Projects Conducted by Inmates	Board of Forestry			Common School Forest Lands			Tillamook	
	Acres Planned	Average Cost*/Acre	BOF Cost	Acres Planned	Average Cost*/Acre	CSL Cost	Total Acres	Total Cost
Initial Planting	400	\$200.00	\$80,000.00			\$0.00	400	\$80,000.00
Interplanting			\$0.00			\$0.00	0	\$0.00
Underplanting			\$0.00			\$0.00	0	\$0.00
Tree Protection - Barriers	150	\$65.00	\$9,750.00			\$0.00	150	\$9,750.00
Tree Protection - Direct Control	200	\$100.00	\$20,000.00			\$0.00	200	\$20,000.00
Site Prep. - Chemical Aerial			\$0.00			\$0.00	0	\$0.00
Site Prep - Chemical - Hand			\$0.00			\$0.00	0	\$0.00
Site Prep - Broadcast Burning			\$0.00			\$0.00	0	\$0.00
Site Prep - Piling Burning			\$0.00			\$0.00	0	\$0.00
Site Prep - Mechanical			\$0.00			\$0.00	0	\$0.00
Release - Chemical - Hand			\$0.00			\$0.00	0	\$0.00
Release - Mechanical - Hand	125	\$115.00	\$14,375.00			\$0.00	125	\$14,375.00
Precommercial Thinning			\$0.00			\$0.00	0	\$0.00
Pruning			\$0.00			\$0.00	0	\$0.00
Invasive Species			\$0.00			\$0.00	0	\$0.00
Other (Tree Packing)	1,200	\$50.00	\$60,000.00			\$0.00	1,200	\$60,000.00
Totals	2,075		\$184,125	\$0	--	\$0	\$2,075	\$184,125

RECREATION SITE MANAGEMENT SUMMARY

District: Tillamook

Fiscal Year: 2020

Date : 06/18/2019

Project	Construction Cost (Funding)		Improvement Cost (Funding)		Operations/Maint. (Funding)		Total Costs	Comments
	ODF (\$)	Other (\$)	ODF (\$)	Other (\$)	ODF (\$)	Other (\$)		
Campgrounds								
Diamond Mill						\$3,885	\$3,885	trash, septic pumping (ATV Transfer Fund)
Jones Creek					\$16,800		\$16,800	trash, septic pumping, electricity
Keenig					\$3,780		\$3,780	trash, septic pumping
Jordan Creek						\$2,730	\$2,730	trash, septic pumping (ATV Transfer Fund)
Nehalem Falls					\$4,200		\$4,200	trash, septic pumping, phone, electriciy
Morrison Eddy					\$1,260		\$1,260	trash, septic pumping
Designated Dispersed Campsites								
North Fork Wilson					\$2,205		\$2,205	portable toilet
Cedar Creek					\$3,675		\$3,675	trash, portable toilets, pumping is successful grant
Jordan Creek					\$105		\$110	signs, posts, fire grate maint
North Fork Trask					\$55		\$55	signs, posts, fire grate maint
East Fork Trask					\$105		\$105	signs, posts, fire grate maint
South Fork Trask					\$2,205		\$2,205	portable toilet
Cook Creek					\$105		\$105	signs, posts, fire grate maint
Day Use Areas								
Stones Road Boat Launch					\$55		\$55	sign maint
Beaverslide Boat Launch					\$55		\$55	sign maint
Jones Creek Day Use Area					\$4,095		\$4,095	trash, septic pumping
Trailheads								
Cedar Creek OHV Staging Area						\$5,250	\$5,250	trash, 1 portable toilet (ATV Transfer Fund)
Footbridge Trailhead					\$3,255		\$3,255	trash, septic pumping
Hollywood OHV Staging Area					\$55		\$55	signs, posts ,fire grate maint
Equestrian Trailhead					\$105		\$105	posts, signs
Penninsula Trailhead & Boat Launch					\$105		\$105	posts, signs, table maintenance
Interpretive Sites								
Sprague Wayside					\$2,310		\$2,310	septic pumping, electricity

Project	Construction Cost (Funding)		Improvement Cost (Funding)		Operations/Maint. (Funding)		Total Costs	Comments
	ODF (\$)	Other (\$)	ODF (\$)	Other (\$)	ODF (\$)	Other (\$)		
Other Operations								
Dust Abatement					\$4,725		\$4,725	Jones Creek, Nehalem Falls
Field Services & Supplies					\$27,300		\$27,300	lumber, concrete, hardware, paint, signs, camp host propane & fuel, garbage bags, crew support, well pump service, crshed rock, office supplies, contracted work for resource protection/blocking, all field related services
5 picnic tables					\$3,250		\$3,250	replacement tables @ \$650 each
Garbage Service at District					\$3,675		\$3,675	
Fee Envelopes					\$1,680		\$1,680	
Water Testing					\$1,470		\$1,470	quarterly water tests, annual nitrated test, required sanitation surverys at Jones Creek & Nehalem Falls.
Field Supplies OHV						\$1,355	\$1,355	hoses, parts, tires (ATV Transfer Fund)
Grey Water Units - Morrison Eddy					\$4,000		\$4,000	Fabrication and installation of grey water units at Morrison Eddy Campground
Gate - Diamond Mill					\$3,500		\$3,500	installation of a gate at the entrance of Diamond Mill OHV Staging Area
County Permit Fees					\$3,160			Morrison Eddy grey water units, Blue Bus OHV Trail bridge, Wilson River Trail temporary bridge
Bridge Inspections					\$2,205		\$2,205	yearly contract for bridge inspections
Spray Contract					\$2,500		\$2,500	Contracted spraying at recreation sites spring 2020
District Total							\$101,995	
Other Total							\$13,220	
TOTAL							\$112,060	

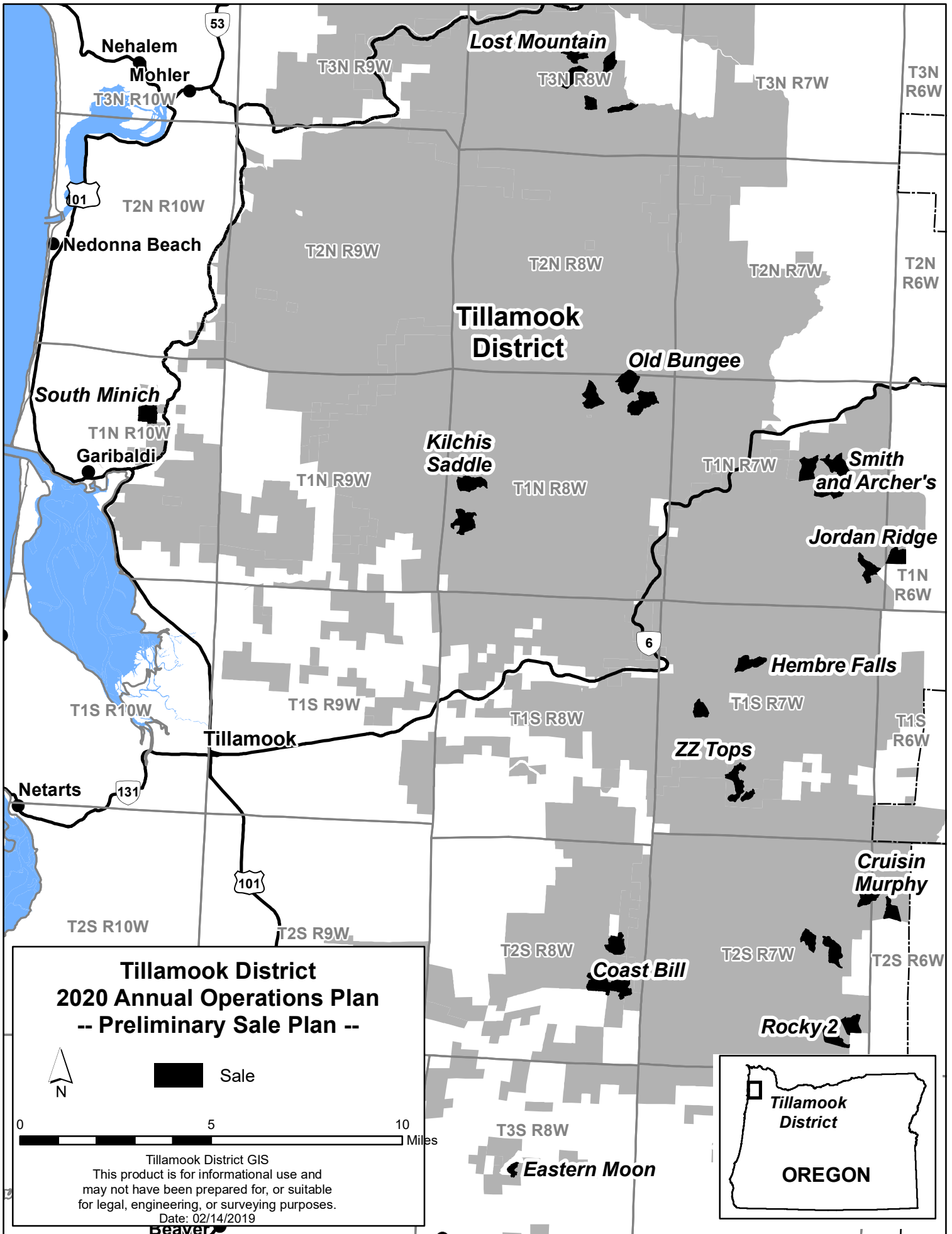
RECREATION TRAIL MANAGEMENT SUMMARY

District: Tillamook

Fiscal Year: 2020

Date : 06/18/2019

Project	Construction Projects			Improvement Projects			Operations & Maintenance Projects			Total Costs	Comments
	Miles	ODF (\$)	Other (\$)	Miles	ODF (\$)	Other (\$)	Miles	ODF (\$)	Other (\$)		
Non-Motorized											
Wilson River, Cedar Butte, Peninsula, Outback, Bridge Falls Trail							15.1	\$13,601		\$13,601	15 days of South Fork Crew time at \$906.70 per man day
Wilson River Trail							5.0	\$8,800		\$8,800	Northwest Youth Corps trail maintenance on a difficult 5 mile section of the Wilson River Trail from Cedar Butte Road to Footbridge Trailhead
Wilson River Trail								\$5,440		\$5,440	6 days of South Fork Crew time at 906.70 per man day to remove existing bridge over Jones Creek and paver block retaining walls. Paver block retaining walls to be reinstalled on the east end of the new 40' trail bridge over Jones Creek
Wilson River Trail								\$7,500		\$7,500	Purchase of temporary bridge to be used over Jones Creek during the low water season from May through Sept. 4 days of South Fork time in install and remove annually.
Coal Creek Trail								\$3,627		\$3,627	4 days of South Fork Crew time to build a trail reroute on the Coal Creek Trail at \$906.70 per man day
Motorized											
OHV Trail Brushing								\$7,254		\$7,254	8 days of South Fork crew time at \$906.70 per man day. Additional work to be done by volunteers
										\$0	
										District Total	\$46,221
										Other Total	\$0
										TOTAL	\$46,221



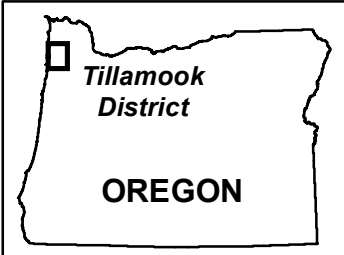
**Tillamook District
2020 Annual Operations Plan
-- Preliminary Sale Plan --**



■ Sale

0 5 10 Miles

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Date: 02/14/2019



Tillamook
District

OREGON

Appendix C

Consultations with Other State Agencies

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

ODOT

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

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

- Potential trails (In vicinity):
 - Cruisin Murphy
 - Lost Mountain
 - Hembre Falls (Alt)
 - ZZ Tops (Alt)
- Potential historic roads (In vicinity):
 - Cruisin Murphy
- Potential house/cabin location
 - Cruisin Murphy
 - Hembre Falls

ODFW

ODFW biologists attended a review meeting for resource specialists and were provided the Summary Tables and Pre-Operations Reports for review. No written comments have been received.

Appendix D

PUBLIC COMMENTS ON THE TILLAMOOK DISTRICT 2018ANNUAL OPERATIONS PLAN

Introduction

The Tillamook District 2020 Annual Operations Plan (AOP) was included in the formal 45-day public comment period held from March 18, 2019 through May 3, 2019 by the Oregon Department of Forestry. The purpose of the public comment period was to provide a time for the districts to share their plans with the public and for the public to ask questions and offer comments. . As a public agency, ODF strives to operate in the best interest of Oregonians. We provide opportunities for public participation to assist us in securing the greatest permanent value from state forests for all Oregonians. After the public comment process was completed, the AOPs were revised if needed, then reviewed, and approved by the District Forester.

Evaluation Process

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

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

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

The Tillamook District did not receive any comments regarding specific sales within the 2020 AOP. The public comments that applied to multiple districts and the Program's responses are available upon request.

No changes have been made to the Tillamook District FY 2020 AOP since the Public Comment Period.

Appendix E

Pre-Operations Reports are available upon request.

Appendix F

Changes to Landscape Design – Minor Modification to the Tillamook District Implementation Plan

The Landscape Design for the Tillamook District consists of 40 percent of the land base which is designated to achieve a Desired Future Condition (DFC) of either Layered (LYR) or Older Forest Structure (OFS). The 40 percent landscape design was adopted in 2009 as part of the Tillamook District Implementation Plan (IP). The landscape design is a long term vision of the arrangement of stand structures to be developed across the district achieve the landscape objectives set forth in the 2010 Forest Management Plan (FMP).

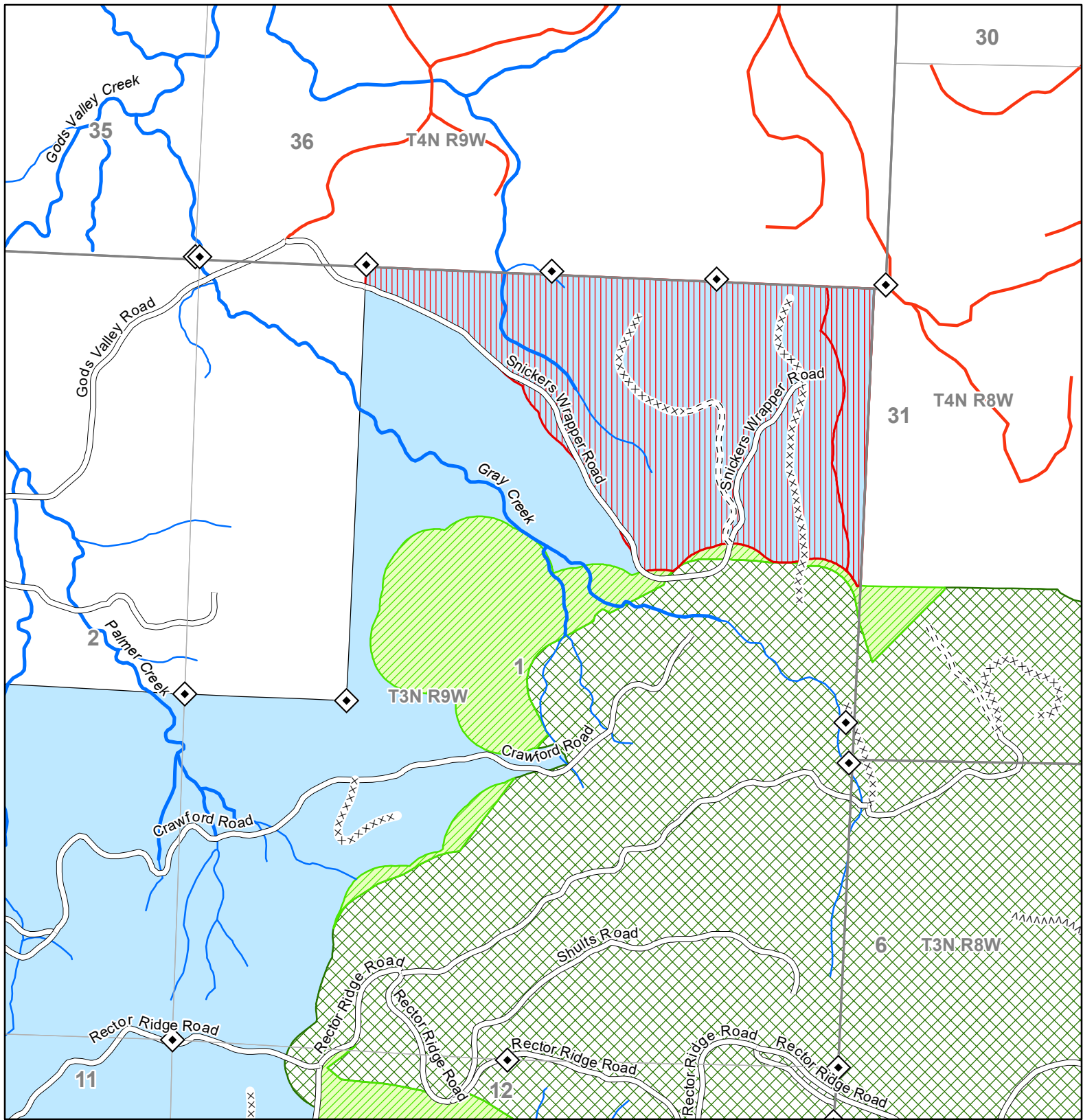
In order to adapt to new information such as: updated forest inventory, new threatened and endangered species sites, forest land management classification updates, landscape changes due to storm damage, insect and/or disease or other significant events; the landscape design was anticipated to change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

Edits made for this minor modification consisted of aligning and fine tuning the DFC boundary with riparian area boundaries, stand type boundaries, road edges, forest health issues, high landslide potential areas, rock pit locations, and new information on stands potential to achieve (or not) a complex forest condition. A total of 240 acres were modified; 126 acres were added to the DFC and 114 acres were removed.

Total LYR acres after this modification are 49,098 (19.6% of District Acres), and total OFS acres are 51,197 (20.4 % of District Acres).

Summary of Minor Landscape Design Changes			
Acres Removed		Acres Added	
Desired Future Condition	Acres	Desired Future Condition	Acres
OFS	84	OFS	126
LYR	30	LYR	0
Total Acres Removed	114*	Total Acres Added	126

*All acres removed have a current stand condition of Closed Single Canopy (CSC) or Understory (UDS).

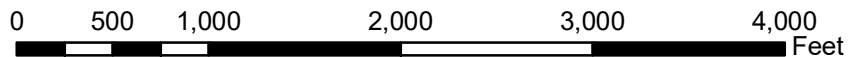


Legend

- DFCupdates2020_AOP
- Desired_Future_Condition**
- DFC**
- General
- Older Forest Structure
- Layered
- DFC**
- General
- Layered
- Older Forest Structure

2020 Tillamook AOP

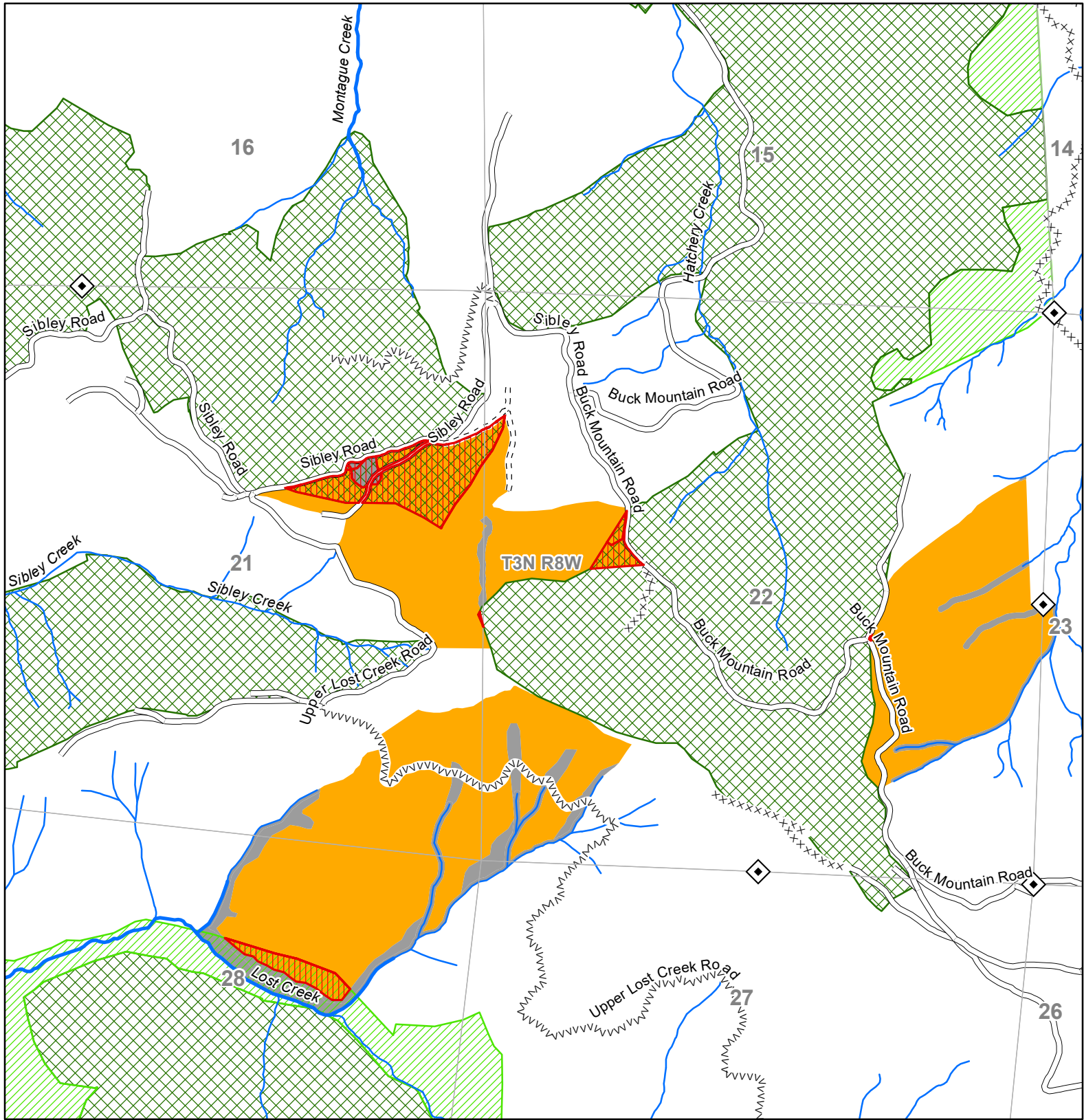
Change 126 acres from GEN to OFS








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Date: 02/15/2019

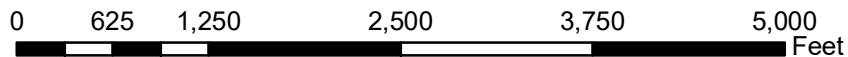


Legend

-  DFCupdates2020_AOP
- Desired_Future_Condition**
- DFC**
- General
-  Older Forest Structure
-  Layered
- AOP_2020_Preliminary**
- HarvType**
-  Modified Clearcut
-  No Harvest

2020 Tillamook AOP

Change 4 acres from LYR to GEN
 Change 20 acres from OFS to GEN

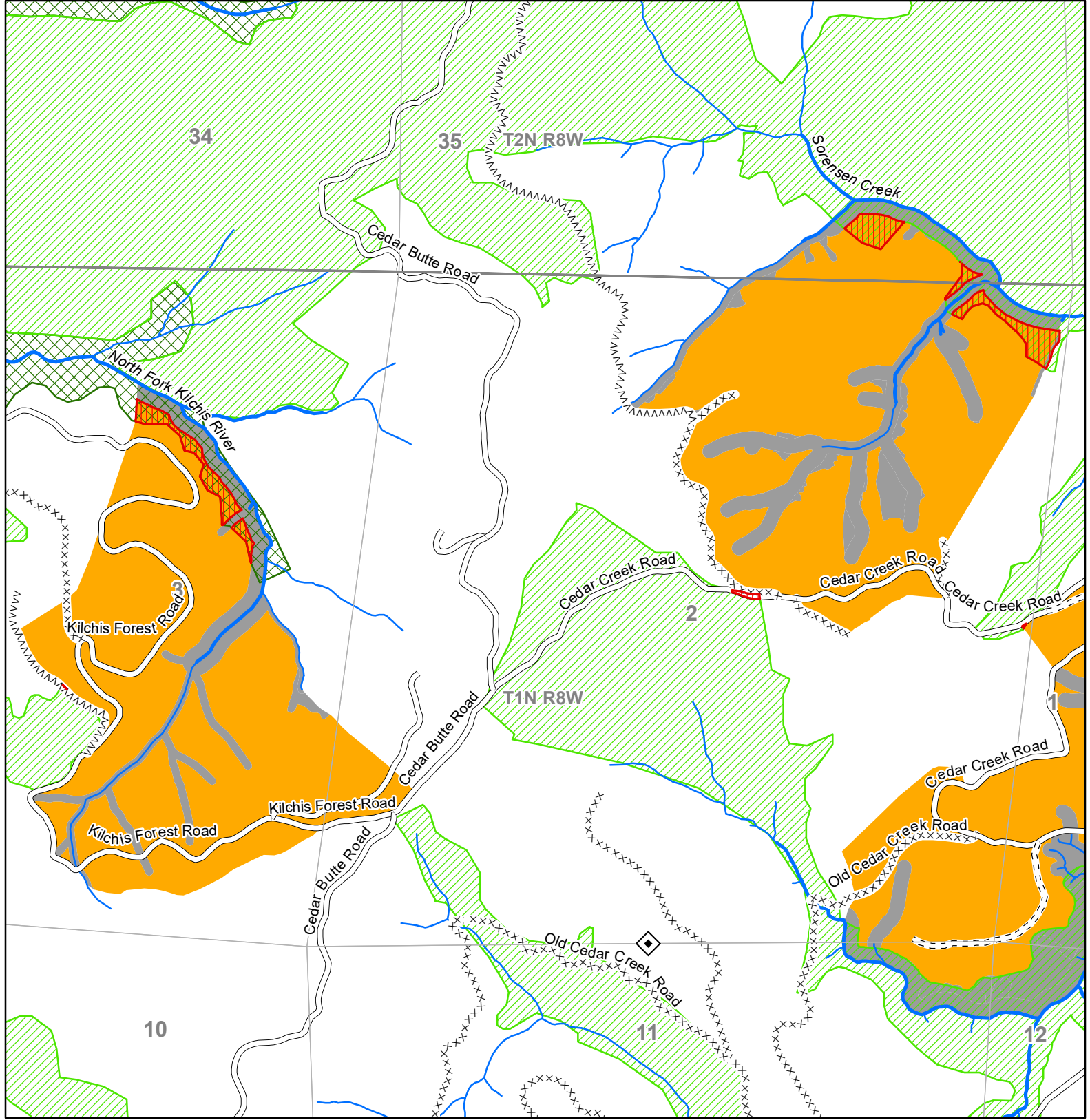


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Legend

DFCupdates2020_AOP

Desired_Future_Condition

DFC

General

Older Forest Structure

Layered

AOP_2020_Preliminary

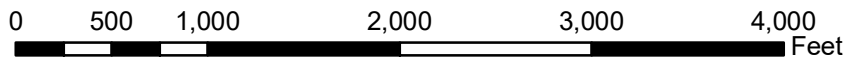
HarvType

Modified Clearcut

No Harvest

2020 Tillamook AOP

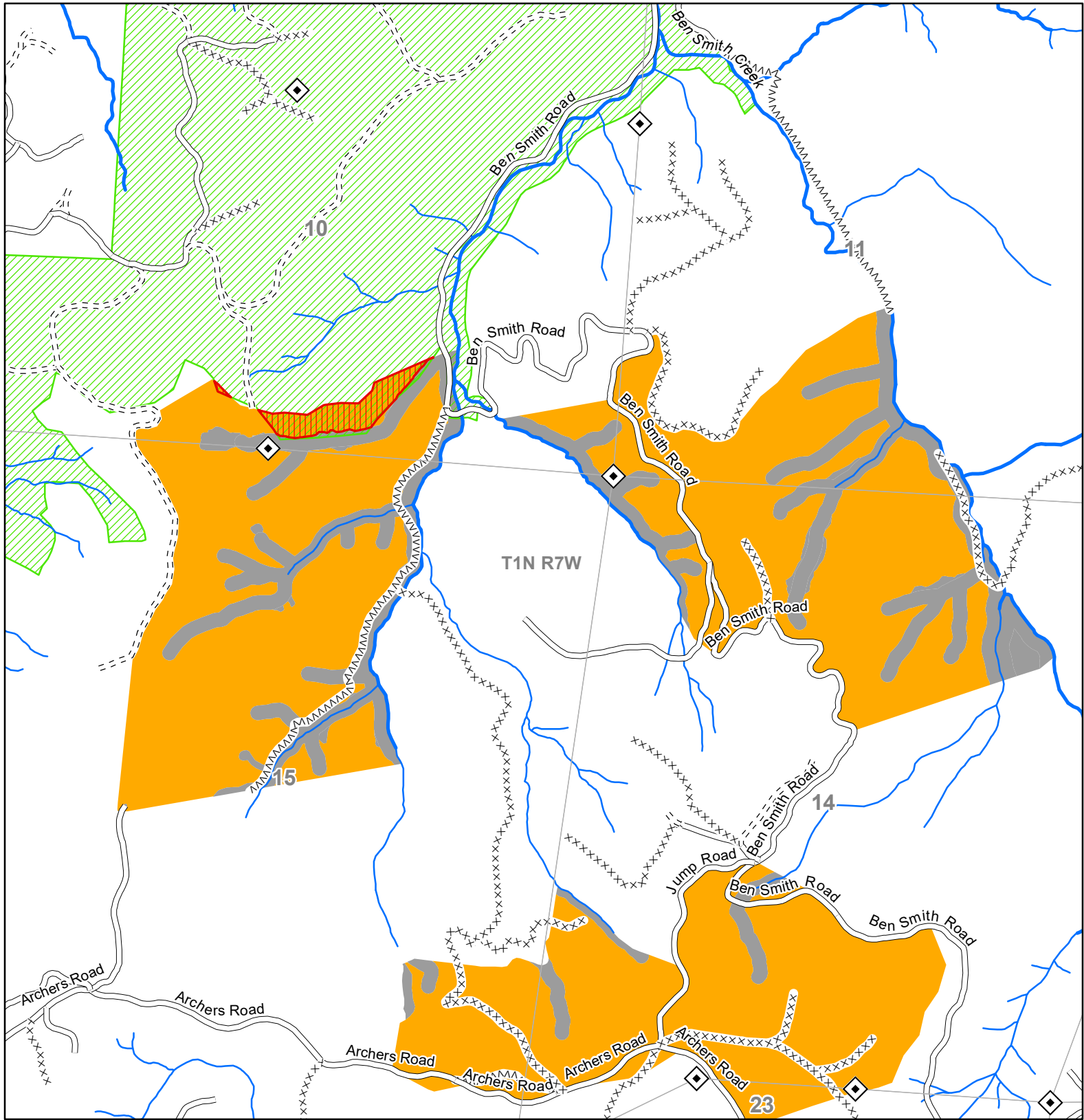
Change 4 acres from LYR to GEN
 Change 3 acres from OFS to GEN








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Date: 02/15/2019

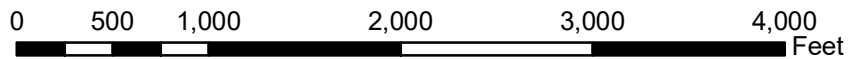


Legend

-  DFCupdates2020_AOP
- Desired_Future_Condition**
- DFC**
-  General
-  Layered
- AOP_2020_Preliminary**
- HarvType**
-  Modified Clearcut
-  No Harvest

2020 Tillamook AOP

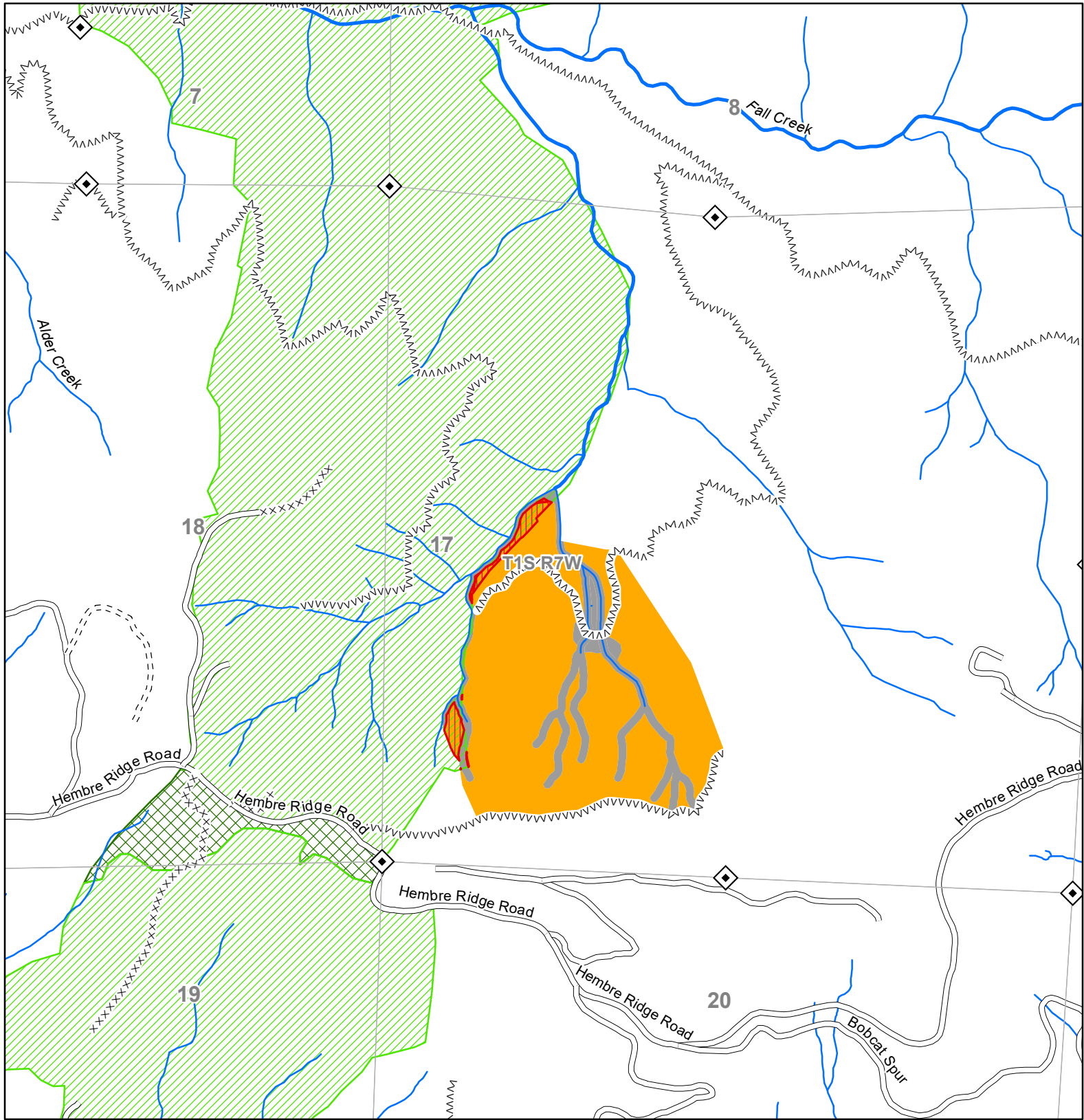
Change 5 acres from LYR to GEN








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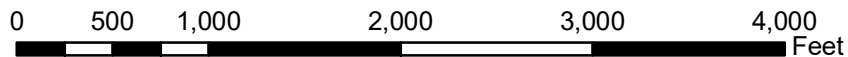


Legend

-  DFCupdates2020_AOP
- Desired_Future_Condition**
- DFC**
- General
-  Older Forest Structure
-  Layered
- AOP_2020_Preliminary**
- HarvType**
-  Modified Clearcut
-  No Harvest

2020 Tillamook AOP

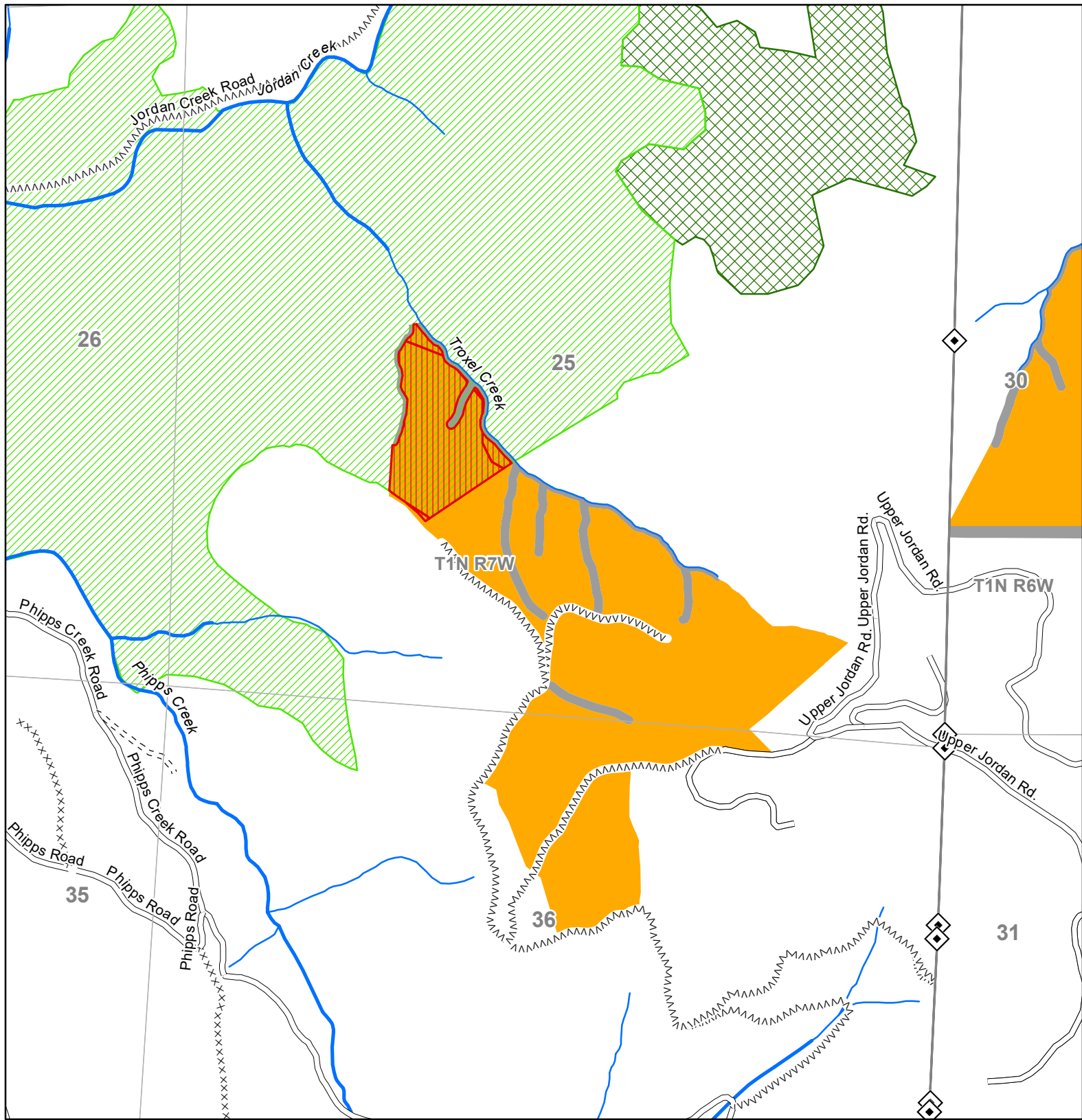
Change 2 acres from LYR to GEN








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1:12,000

Date: 02/15/2019

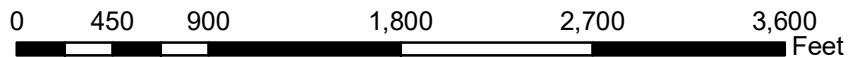


Legend

-  DFCupdates2020_AOP
- Desired_Future_Condition**
- DFC**
- General
-  Older Forest Structure
-  Layered
- AOP_2020_Preliminary**
- HarvType**
-  Modified Clearcut
-  No Harvest

2020 Tillamook AOP

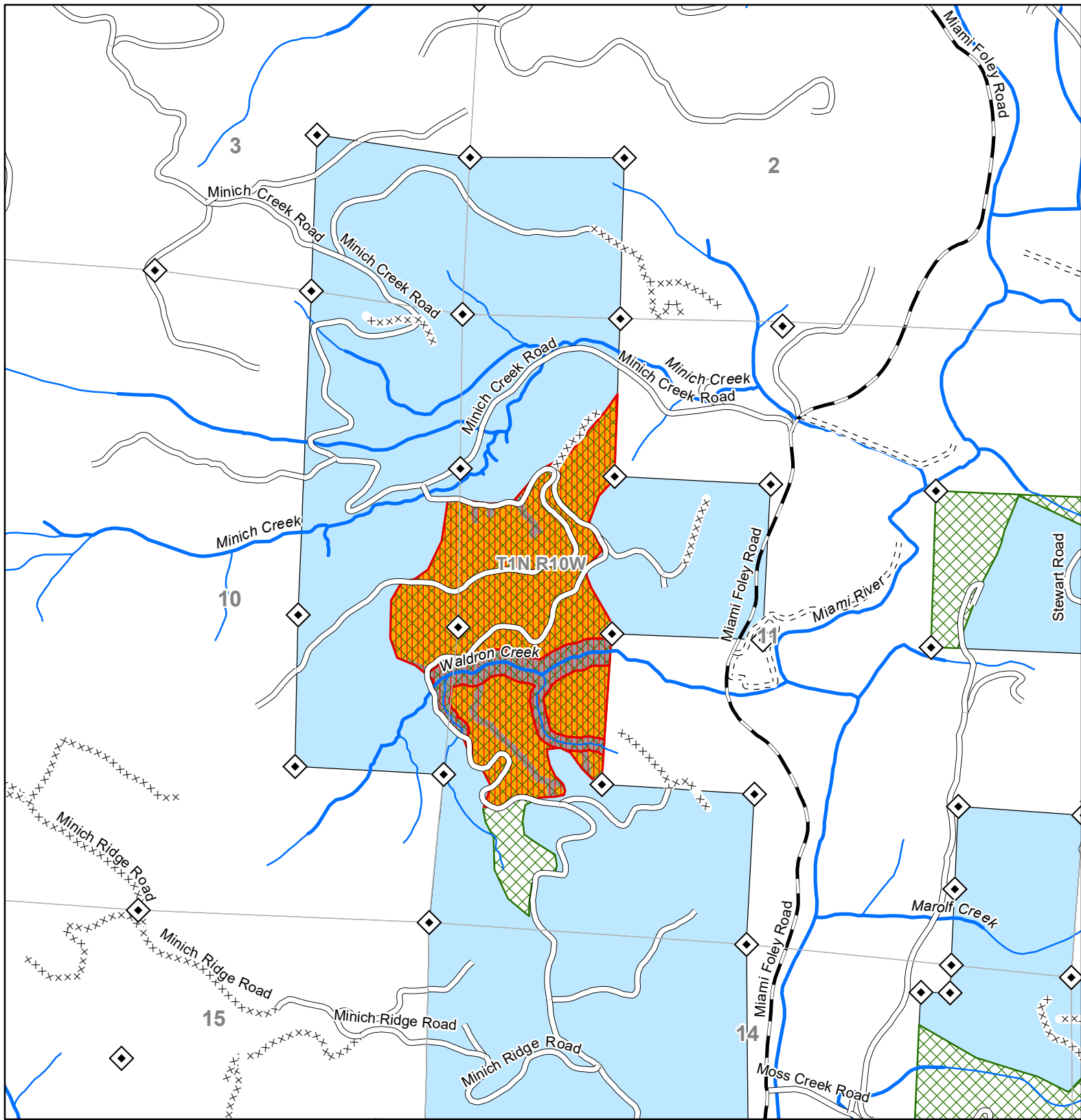
Change 14 acres from LYR to GEN



Tillamook District GIS
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Date: 02/15/2019

1:10,800

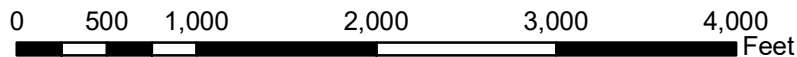


Legend

- DFCupdates2020_AOP
- Desired_Future_Condition**
- DFC**
- General
- Older Forest Structure
- DFC**
- General
- Older Forest Structure
- AOP_2020_Preliminary**
- HarvType**
- Modified Clearcut
- No Harvest

2020 Tillamook AOP

Change 62 acres from OFS to Gen



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Date: 02/15/2019

1:12,814