

**OREGON DEPARTMENT
OF FORESTRY
TILLAMOOK DISTRICT**



2019 ANNUAL OPERATIONS PLAN

TILLAMOOK DISTRICT

2019 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 2019. 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 Draft AOP is now undergoing a 45 day public comment period. ODF will request review and comments on our plan from others, including Tillamook County Commissioners, the Forest Trust Land Advisory Committee (representing the counties that deeded land to ODF), the State Forests Advisory Committee (SFAC - composed of Oregonians representing many interests), Oregon Department of Fish and Wildlife, the US Fish and Wildlife Service, motorized and non-motorized recreation users, hunters, fishermen, and wildlife advocates, as well as Oregonians in general.

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

A short summary of activities planned for the coming year:

- Planting approximately 1,171,000 seedlings on 2,900 acres and conducting site prep on 2,500 acres while also conducting vegetation and animal management activities on an additional 5,050 acres to ensure the survival and growth of plantations.
- Conduct individual surveys for northern spotted owls over more than 25,000 acres.
- Evaluate over 30 miles of streams to determine flow duration and approximately 5 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 2 streams near a planned harvest units in the Trask and basin could benefit from large wood additions to the stream system. This stream 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 1,124 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.
- Planning to harvest approximately 47 million board feet of timber volume, through modified clearcut, generating gross revenue estimated at \$16.2 million. This harvest level is alignment with longer term plans and modeling to ensure it is sustainable and promotes the development of a mixture of habitat types across the landscape.
- Operating and maintaining the following developed facilities in a safe, clean, and responsible manner:
 - 3 fee campgrounds
 - 2 fee OHV campgrounds
 - 4 OHV staging areas
 - 5 day use areas,
 - 1 highway wayside interpretive site
 - 3 trailhead facilities
 - 89 designated dispersed campsites
- Providing a safe and clean environment for the myriad of dispersed activities that occur across the forest – hunting, camping, angling, sight-seeing, target shooting, swimming, mushroom picking, etc.
- Maintaining, managing, and patrolling the motorized and non-motorized trail networks, striving to protect the trail investments, provide for user safety, address developing trail issues, and protect water quality.
- Supporting the important volunteer network that assists in recreation management
- Supporting the pre-planned 16 organized motorized events and providing support for 3 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

2019 ANNUAL OPERATIONS PLAN

INTRODUCTION

This annual operations plan (AOP) outlines activities planned on state-owned forestland managed by the Tillamook District for Fiscal Year 2019 (FY19), which begins July 1, 2018 and ends June 30, 2019. 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 FY19 time period. Actual on-the-ground operations will likely not occur during FY19 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 FY2019.

A 45-day public comment period runs from March 19, 2018 through May 4, 2018. The District Forester will consider the comments received during this period and make any changes or modifications determined to be necessary, prior to approving the AOP. Appendix E, found in the final AOP, will outline the changes made after the public comment period.

Accomplishments of forest management activities that occurred under previous AOPs can be found in several reports, including the *State Forester's Annual Report for the Association of Oregon Counties*, the *Common School Forest Lands Annual Report*, *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>
TILLAMOOK DISTRICT 2019 ANNUAL OPERATIONS PLAN
FINAL – JUNE 2018

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 2019 harvest levels², the district has included 47 MMBF of timber harvest in this Annual Operations Plan (Table A-1).

The FY19 sale plan is estimated to generate gross revenues of approximately \$16,157,273 and net revenues of \$14,282,508. It is estimated that active management will result in producing approximately 36.3 million board feet of conifer volume, 10.7 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 7 primary operations comprised of 2,029 net acres of regeneration harvest (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 three alternate timber sales (that have a total of 8 units) and 4 alternate sale units (totaling 1,290 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. In order to make the sale layout and project work

² Oregon State Forests Guidance 2019 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).

preparation process more efficient two sales have both primary and alternate sale units. These alternate units are planned for the 3rd and 4th quarters and will be used to adjust any volume shortages or overruns that may be encountered in order to meet the 47 MMBF target. If the volume is under-running then alternate areas will be added as needed. If the volume is over-running then areas can be removed as needed.

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

Silvicultural Activity	IP Annual Objective		2019 AOP Objective
	Low	High	
Partial Cut Harvest	0	3,450	0
Regeneration Harvest	800	3,150	2,029
Reforestation (Initial Planting)			2,400

All of the Primary and Alternate harvest operations and many of the other forest management activities have been reviewed by ODF’s wildlife biologists, aquatic specialist, geotechnical engineer, road engineer, and 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 the 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. 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 (Current AOP) ²	47.1	47.1	--	--
2019 (Draft AOP)	47	47	--	--

1. IP Harvest Objective versus Sold Volume

2. Estimated Volume based on completion (prepared / sold volume) of 13% 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 FY19 Annual Operations Plan. This section discusses goals for green tree, snag, and down wood at a landscape level and per AOP. The Pre-Operations Reports discuss specific strategies for each operation and harvest unit. A harvest unit includes the sale area(s) and the adjacent buffers and green tree retention areas, with unit boundaries extending to the streams.

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 shows that we have averaged approximately 19 green trees per acre in a wide variety of arrangements (located in upland riparian buffers, headwalls, inner gorge areas, in clumps, and scattered) in the harvest boundaries. 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 2019 AOP will contribute approximately 10-15 green trees per acre 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 2019 AOP.

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

Terrestrial Anchor Site (TAS)	Current AOP (FY 2019) Planned Harvest		Cumulative Harvest (FY 2012 AOP to Present)	
	Clearcut	Partial Cut	Clearcut	Partial Cut
Entire District (AOP) (250,516 acres)	2,029	0	18,267	4710
% 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 2019) Planned Harvest		Cumulative Planned Harvest 2014 AOP to Present	
	Clearcut	Partial Cut	Clearcut	Partial Cut
Entire District (AOP)	2029	0	13,683	2446
(250,516 acres) % of Acres	0.81%	0.0%	5.46%	0.98%
Ben Smith Creek	0	0	198	56
(3,602 acres) % of Acres	0.00%	0.00%	12.52%	1.55%
Cedar Creek	0	0	1081	0
(7,214 acres) % of Acres	0.00%	0.00%	14.98%	0.00%
Coal Creek	0	0	0	0
(1,237 acres) % of Acres	0.00%	0.00%	0.00%	0.00%
Cook Creek	0	0	1225	249
(18,286 acres) % of Acres	0.00%	0.00%	6.70%	1.36%
East Fork S Fork Trask	0	0	1568	415
(15,627 acres) % of Acres	0.00%	0.0%	10.03%	2.66%
Elkhorn	0	0	330	0
(3,860 acres) % of Acres	0.00%	0.00%	8.55%	0.00%
Foley Creek	198	0	198	0
(4,403 acres) % of Acres	4.50%	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	0	0	428	0
(14,155 acres) % of Acres	0.00%	0.00%	3.02%	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	198	0	6,063	1,279
(95,417 acres) % of Acres	0.21%	0.0%	6.56%	1.34%

Summary of Timber Harvest Operations by Basin

In the following section, the commercial forest management operations planned for FY19 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.

Individual pre-operation reports include information regarding riparian protection and structural components such as snags, down wood, and green tree retention. Since the Forest Management Plan strategies provide standards for these components, they are not discussed in the summary. 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	0	567
Short Sands	0	0
Miami	0	0
Kilchis	0	0
Tillamook Bay	0	0
Wilson	0	233
Tillamook River	0	106
Trask	0	1121
Nestucca	0	2
Little Nestucca	0	0

North Fork Nehalem Basin

There are no harvest operations planned in this basin for FY19.

Lower Nehalem Basin

Clay Corner (Primary) – This sale consists of two primary sale areas (Units 502 and 503) that total 224 acres of modified clearcut and are predominately ground yarding. These stands vary from 52 to 78 years old. They are comprised of Douglas-fir with minor components of western hemlock and red alder. Most of Units 502 and 503 were commercially thinned between 1996 and 2003, with a small portion commercially thinned in 2012. The Desired Future Condition (DFC) for these areas is General (GEN).

There is a domestic water source approximately ¼ of a mile downstream from Unit 502. ODF buffer requirements surpass domestic buffer rules in the Forest Practices Act .

The northern 11 acres of Unit 502 are within the ORBIC circle of interest for the Flett’s groundsel (*Packera flettii*). This plant is tracked in ORBIC but it is not designated identified under Federal or State as a plant requiring protection and is not listed in the district IP. The species was not observed during AOP preparations.

East Foley (Primary) – This sale consists of three primary sale areas (Units 355, 819, and 832) that total 343 acres of modified clearcut. Units 355 and 819 are comprised of 58 to 73 year old dense western hemlock stands with components of red alder and Douglas-fir that have had no prior management. Unit 832 is an 80 year old Douglas-fir and red alder stand with minor components of western hemlock that has sustained some wind damage. One third of Unit 832 was commercially thinned in 2006.

The majority of the sale areas have a DFC of GEN except for 5 acres of small slivers which has a DFC of Older Forest Structure (OFS). 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.

Units 355 and 819 are located in the Foley Creek Aquatic Anchor (AA). A bridge is proposed at the 2/3 mile marker of East Foley Creek Road as part of the project work for this sale to improve fish passage.

Clam Bake (Alternate) – This sale is an alternate and is made up of four areas (Units 661, 734, 735, and 736) totaling 402 acres of modified clearcut. The stands range in age from 45 to 65 years old. Units 661 and 735 are mixed Douglas-fir and western hemlock with minor components of red alder. Approximately 40 acres of Unit 735 and 30 acres of 661 were commercially thinned between 2002 and 2004. The DFC for both these areas are GEN.

Unit 734 is primarily small red alder mixed with Douglas-fir. No management has been done since the stand was initiated. The DFC for Unit 734 is GEN.

Unit 736 is primarily dense western hemlock with scattered Douglas-fir and red alder and approximately 15 acres of Unit 736 were commercially thinned between 2001 and 2003. Approximately 15 acres are identified as having a current stand condition of Layered (LYR) by the ODF stand structure computer model. While meeting the required DBH measurements used to categorize LYR by the algorithm, a field review with the Area Biologist determined that the dense single cohort stand is lacking in the vertical layering components that are associated with a LYR stand type. Based on the field review this stand will be reclassified as UDS. The DFC for this unit is GEN.

All of the Clam Bake units are located in the Cook Creek aquatic anchor. There are no fish streams in or adjacent to these stands and no stream projects are scheduled at this time.

The Oregon Biodiversity Information Center (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.

A review of historic maps indicate that a “spring” is in the vicinity of this sale. During sale layout, foresters will conduct a specific 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.

Short Sands Basin

There are no harvest operations planned in this basin for FY19.

Miami Basin

There are no harvest operations planned in this basin for FY19.

Kilchis Basin

Kilchis Saddle (Alternate) – 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.

Tillamook Bay Basin

There are no harvest operations planned in this basin for FY19.

Wilson River Basin

Stones Throw (Primary) – Units 624, 766, and a portion of 807 and 835 are in the Wilson River Basin. Please refer to the Trask Basin for the information concerning all areas of this sale.

Tillamook River Basin

Skookum Ridge (Primary) – This sale contains one area (Unit 801) totaling 108 acres of modified clearcut. The sale is comprised of 50 to 60 year old dense naturally regenerated western hemlock, noble fir with a component of Douglas-fir and red alder that has had no previous stand management. The DFC for this stand is GEN.

A review of historic maps indicate that a “trail” was in the vicinity. During sale layout, foresters will conduct a specific 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.

This sale is adjacent to a recently established property line. Haul routes for this sale may vary depending on road conditions when the sale is sold.

Trask Basin

Stones Throw (Primary) – This sale contains two areas (Units 624 and 766) in the Wilson Basin, and five areas (Units 240, 649, 808, 834, and 861) in the Trask River Basin. Two of the areas (Units 807 and 835) are split between the Wilson and Trask Basins. This sale has nine

primary areas, totaling 619 acres of modified clearcut. Sale areas are comprised of 40 to 74 year old timber. Units 240, 766, and 834 are comprised of Douglas-fir with components of western hemlock, Sitka spruce, and red alder with minor portions of each unit thinned. Units 624 and 649 are primarily red alder stands with clumps of Douglas-fir. Units 807 and 808 are primarily Douglas-fir stands that have been previously thinned. Units 835 and 861 were retention harvested in either 1999 or 2009 resulting in a residual basal area of 50 to 80ft². The Douglas-fir in all areas have moderate to severe symptoms of SNC. The majority of the areas have a DFC of GEN except for small slivers that total 4 acres in Units 240 and 649 that have a DFC of 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.

Unit 808 has a domestic water source approximately 700 feet south of the most southern boundary. ODF buffer requirements surpass domestic buffer rules in the Forest Practices Act.

The OBIC database indicates that a fisher (*Pekania pennanti*) may have been observed in the area of Units 624 and 766 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.

A review of historic maps indicate that a "trail" was in the vicinity. During sale layout, foresters will conduct a specific 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.

This area has a high amount of public use due to the Trask Cutoff Road and Kansas Creek Road. Areas harvesting along these roads will need to be well signed to avoid public conflict.

Jethro Toll (Primary/Alternate) – This sale is composed of three primary areas (Units 37, 633, and 781) totaling 333 acres and one alternate area (Unit 687) totaling 116 acres, all of which are modified clearcut. These stands are made up of 50 to 63 year old Douglas-fir and red alder. Portions of Units 633, 687, and 781 were sprayed in the 1970's to treat the red alder. Approximately 25 acres of Unit 687 were pre-commercially thinned and commercially thinned. The Douglas-fir is dense with poor live crown ratios and has moderate to severe symptoms of SNC. The DFC in this area is GEN.

There is a domestic water source downstream of Unit 687. ODF buffer requirements surpass domestic buffer rules in the Forest Practices Act. A small portion of Unit 687 is in the East Fork of the South Fork Trask River Aquatic Anchor.

A review of historic maps indicate that there were "trails" and the "Tillamook and Yamhill Toll Road" in the vicinity. During sale layout, foresters will conduct a specific 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.

Gold Rush (Primary/Alternative) – This sale is made up of three primary areas (Units 54, 804, and 828) totaling 180 acres and three alternate areas (Units 50, 666, and 805) totaling 325 acres all of which are planned as modified clear cuts.

Units 50, 54, 804, and 805 are predominately Douglas-fir stands with a mixture of red alder. Portions of 50, 54, and 804 were sprayed with herbicides in the 1970's to treat the red alder. The majority of Units 54 and 804 were pre-commercially thinned in 1991.

Units 666 and 828 are comprised mainly of red alder but have large pockets of Douglas-fir. Small portions of Unit 828 were sprayed with herbicides in the 1970's to treat the red alder. Portions of both Units 666 and 828 were pre-commercially thinned between 1991 and 1994.

The sale areas vary from 49 to 57 years old and have moderate symptoms of Swiss Needle Cast. The majority of the sale areas have a DFC of GEN. Approximately 35 acres have a DFC of LYR but due to the current stand characteristics of SNC Douglas-Fir and alder, these areas will be changed to GEN and exchanged for a stand with better stand characteristics for LYR.

Units 50 and 805 have property lines that will need to be identified and/or surveyed or re-established and Unit 50 will need to haul over adjacent private property and will require a special use permit for access. Unit 666 has a Tillamook PUD powerline on the bottom of the unit that will need special considerations.

Queen of the Forest was identified according to ORBIC plant database in the general vicinity of approximately 6 acres of Unit 54 and is identified as a Candidate Plant in the Tillamook District IP. 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.

There is a high volume of recreation use in the area. Several OHV trails extend through the sale, and Hollywood Camp is along the haul route. Additional recreation traffic includes heavy use in the spring and summer camping seasons and fall hunting season.

A potential stream enhancement project has been identified with this sale. The project would include wood placement on a medium tributary between Unit 54 and Unit 828. Further evaluation of this project will be completed with the Aquatic and Riparian Specialist during sale layout.

South Bushong (Primary) – This sale is made up of two primary areas (Units 802 and 803) totaling 222 acres of modified clearcut. Units 802 and 803 are comprised of Douglas-fir with a component of red alder. These units have timber that ranges from 48-57 years old. The alder in these stands was sprayed in the 1970's and is showing signs of damage. Unit 803 was pre-commercially thinned in 1992. The Douglas-fir in both of these stands are showing symptoms of SNC. The DFC in this area is GEN.

There is a high volume of recreation use in the area. Several OHV trails extend through the sale, and Hollywood Camp is along the haul route. Additional recreation traffic includes heavy use in the spring and summer camping seasons and fall hunting season.

Coast Bill (Alternative) – This sale is made up of two alternate areas (Units 93 and 104) that are planned modified clear cuts, totaling 222 acres. Both units are predominately Douglas-fir stands showing moderate symptoms of Swiss Needle Cast with a mixture of red alder mostly in the riparian areas. Unit 93 was pre-commercially thinned in 1990 no other stand management has occurred. The DFC for both of these areas is GEN.

Access to Unit 104 on Coast Range Road South crosses private land and an easement is already in place. This sale will also be adjacent to a property line which has been surveyed.

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.

The sale area is in the motorized recreation zone with active OHV use year round. Additional recreation traffic includes heavy use in the spring and summer camping seasons and fall hunting season.

Nestucca Basin

Skookum Ridge (Primary) – Almost all of this timber sale is in the Tillamook River Basin. Please refer to the Tillamook River Basin for information.

Little Nestucca Basin

There are no harvest operations planned in this basin for FY19.

Forest Roads Management

Overview

The Tillamook District road system consists of approximately 1,051 miles of rocked roads, 73 miles of unsurfaced spur roads, and 292 miles of blocked roads in a self-maintaining state. Roads constructed and improved in this AOP will provide access for silvicultural activities, recreation users, and fire protection. Guidance for Level III Transportation Plans developed under this AOP will include the *ODF Forest Roads Manual (July 2000)* and the *Northwest Oregon State Forests Management Plan (April 2010)*.

The FY 2019 AOP includes approximately 12.7 miles of new road construction or abandoned road reconstruction and 58.3 miles of road improvement or maintenance. Refer to summary tables in Appendix A (Table A-3, Forest Roads Summary) for more information.

A majority of the project work for the 2019 AOP timber sales will occur in the Trask River Basin. Stockpiles along the South Fork Trask Road and Hembre Ridge Road will be replenished to allow for adequate road maintenance rock. The following roads will be targeted for alignment improvements, hydrologic disconnects, and rocking: Clay Creek Road, Northside Road, East Foley Creek Road, Eagle Hill Road, Edwards Creek Road, Gold Peak Road, BSM Road, and Simmons Ridge Road.

Multiple fish passage improvement projects will be implemented to address haul route infrastructure needs as well as reduce maintenance obligations. A bridge will be installed along East Foley Creek Road to replace a culvert near the end of its service life. Tilden Bluffs Road will be vacated to restore fish passage to Aiken Creek and two additional unnamed small fish streams. Lastly, engineering work will be conducted on Whitney Creek to develop a design for a replacement structure.

Road Construction

The majority of roadwork in this AOP is new road construction. Approximately 12.7 miles of new roads are to be new construction or re-construction. 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, side cast pullback, and drainage structures upgrades. Road improvement on the Tillamook District includes approximately 58.3 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 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 be evaluated for road vacating.

Road Access Management

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

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.

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 Source/Supply

A major component of project work costs is crushing and hauling rock. Crushed rock is also used to maintain the haul routes of active timber sales. Having a network of rock sources and crushed rock stockpiles can reduce costs making marginal timber sales financially viable. Annually, the district requires between 7,000 to 12,000 cubic yards of crushed rock stockpiles for appraised road maintenance work. The district will continue to maintain stockpile volumes and explore new rock sources in FY 2019.

Storm Damage

The district transportation system sustained major damage in the Wilson, Kilchis, Miami, and Nehalem drainages from a storm system in early December 2015.

On February 17, 2016 the storm was declared a disaster and federal disaster aid was made available to supplement local recovery efforts. Cook Creek Road and West Fork Road washed out during the storm and remain closed. An engineering contract for designs for the repair of Cook Creek will be completed in FY19 with federal consultations

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 2019. 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

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 labor for bud-capping, pre-commercial thinning, and some trapping.

The types and anticipated amounts of reforestation and stand management activities for FY19 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 2018 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 2,500 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 2,400 acres of initial planting (over 1,046,000 seedlings) using contract crews. South Fork Inmate Camp 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 500 acres of inter planting (around 115,000 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 0 acres. The actual plan will be developed in early spring when brush and red alder is more developed and actual needs can be assessed.

Chemical (Late Foliar) The late foliar chemical release objective maintain stand growth on units that are in current competition with brush species. The current estimate is 0 acres. The actual late foliar plan will be prepared in mid-summer when harvest units and brush development is better known. Most late foliar chemical release is completed by helicopter spraying.

Chemical (Hack & Squirt): The current estimate is 500 acres. The actual plan will be developed in late spring or early summer when competing red alder is more developed and actual needs can be assessed. South Fork Inmate Camp will be responsible for accomplishing these acres.

Tree Protection

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

Bud Caps: The current estimate is 2,000 acres. Bud caps are installed on Douglas-fir seedlings in 0-2 year old plantations with heavy elk/deer browse pressure. South Fork Inmate Camp will be responsible for accomplishing this work.

Direct Control: Trapping mountain beaver prior to planting a harvest unit significantly reduces damage from these animals. 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 FY19 is 3,050 acres. South Fork Inmate Camp will be responsible for maintenance trapping 350 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 FY19. 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 FY19.

Pruning

No pruning operations are planned for FY19.

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 FY19, the Tillamook District will treat approximately 150 acres, targeting Scotch broom using South Fork Inmate 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 140 miles of roadside vegetation to remove brush and retain grasses. This equates to approximately 280 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 4,300 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, and sight-seeing. River access for day use, white water kayaking and white water canoeing continues to grow while anglers increasingly use walk-in access for remote bank fishing opportunities. Anglers also launch drift boats and pontoon boats from developed sites like Stones Road Boat Ramp, Peninsula, or other Oregon Department of Fish and Wildlife boat ramps. Use levels for all activities continue to increase while resources and budget are being reduced.

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

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 2019 reflect a reduction in permanent staff. However, summer service levels will be improved over last year with addition of 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.

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
Grey Water Receptacle Install	Keenig Creek Campground	Recreation staff, South Fork shop, South Fork crew	Install grey water receptacles per county direction at Keenig Creek 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.
Designated Recreation Area Designation & Sign Install	Jordan Creek Designated Campsites	Recreation staff, South Fork shop, south fork crew	Obtain Designated Recreation Area status to allow for better management of the Jordan Creek Designated Campsites. Install sign with designation at the entrance.
Designated Dispersed Site Fee Collection	Jordan Creek Designated Campsites	Recreation staff, South Fork crew	Install information board and fee box on Jordan Creek Road and initiate fee collection at the Jordan Creek Designated Campsites.
Resource Protection	Campsite Closure	Recreation staff, South Fork Crew, contractor, road crew	Close Cedar Creek Designated Campsite #20 and a dispersed site on West Muesial Creek Road.

Trails

Through FY 2019, 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 Trailhead to Elk Creek Campground. The equestrian staging area will be open and users will be responsible for providing water for their stock and packing out manure.

Motorized (OHV) Trails

In FY 2019 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 Trail Reroute	Rickety Bridge OHV Trail	OHV Specialist, OHV Equipment operators	Reroute portions of the trail due to logging activity to make trail more sustainable.
OHV Trail Bridge Replacement	Spaur Creek OHV Trail	OHV Specialist, OHV Equipment operators	Replacement of existing bridge with glu-lam stringer. Project funded by RTP Grant.
OHV Trail Bridge Replacement	Blue Bus OHV Trail	OHV Specialist and Equipment Operators	Replacement of bridge damaged in 2015 winter storm
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
OHV Trail Bridge Repair	Buzzard Point OHV Trail	OHV Specialist and Equipment Operators	Perform bank stabilization measures and shore up current abutments to reestablish secure bridge footings.

Non-Motorized Trails

The district will seek to maintain 20.1 miles of non-motorized trails in FY 2019. 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 Reroute and Bridge Install	Wilson River Trail	Recreation Staff, South Fork crew, Road Crew, Volunteers	Reroute a portion of the Wilson River Trail to mitigate resource damage and address public safety. This will redirect the trail north of Jones Creek Campground and will include the installation of two new trail bridges. The existing bridge over Jones Creek will be replaced with a seasonal bridge. Resource specialists has assessed and approved the reroute.
Trail Development	Tillamook Ridge Mountain Bike-Hiking Trail	Volunteers, Recreation staff,	Work with local volunteer mountain bikers to flag preliminary route to develop the Tillamook Ridge Trails on existing abandoned roads. Trail planning began in 2015 with community volunteers and the BLM. Trail development will be a joint effort between ODF and BLM.
Trail Reroute and Bridge Install	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. This redirects the trail off of the old railroad grade that contains three failing short wooden bridges. The reroute will include the installation of three trail bridges above the end of fish use. Resource specialist have assessed the existing

			bridges, determined fish extent of fish presence and approved the reroute.
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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.

Volunteer Program

In FY 2019 the Tillamook District will administer a wide variety of volunteer activities including

- Motorized trail work parties and the first annual Single Track OHV Trail Day
- SOLVE Beach & Riverside Cleanup Event
- Trail work parties on non-motorized trails
- Camp Host Program at Jones Creek, Nehalem Falls, & Keenig Creek Campground
- Alternative Spring Break for University of Idaho and Southern Oregon University for trail building and maintenance projects.

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 2019 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 and 50k running event, a cross country running camp and three hunting guides are planned for renewal in FY 2019.

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 2019 to support Recreation Operations.

- Apply to Yamaha for a double vault toilet at Cedar Creek OHV Staging Area.
- Explore Land & Water Conservation Development Fund Grant for a vault toilets at Jones Creek Day Use Area and Jones Creek Campground.

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

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

There are also several shallow lakes on state forest lands, the largest of which is Lake Tahoe (Approximately 2.5 acres). Beaver ponds and other wetlands are scattered throughout the district. The 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 has removed the dam on Skookum Lake, but a small pond remains. Tillamook District owns 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 leave trees adjacent to streams to protect stream temperature, provide nutrients, protect stream banks, and eventually provide wood to improve fish habitat. Best management practices for road construction, reconstruction, and maintenance minimize impacts to water quality. Aquatic Anchors have been established in 11 watersheds in which additional aquatic conservation measures are applied. The Aquatic Anchors include: Coal Creek, Cook Creek, South Fork Salmonberry, Foley Creek, Miami River, Middle Kilchis River, Little North Fork Wilson River, Cedar Creek, Ben Smith, Elkhorn Creek, and East Fork of the South Fork Trask River.

Restoration Goals and Identification Process: The overarching principles for fish habitat restoration are described in the Forest Management Plan. Landscape and site-specific strategies will improve levels of aquatic function in the short term to meet the immediate habitat needs of

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

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

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

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

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

For FY19, 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 complete for the Trask, Miami, and Wilson basins along with watershed analysis recommendations and Action Plans developed from the analysis to identify areas recommended for improvement. The program is taking the opportunity to review the work completed to this point on State Forests before beginning new watershed analysis projects. In addition the Oregon Department of Fish and Wildlife completed Fish Habitat Assessments and summarized the findings by district (ODFW 2005-2006).

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

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

- Prouty Creek crossing on Miami Forest Road is scheduled to for completion Spring/Summer2018 through a service contract with a bridge.
- Bill Creek – Log placement stream enhancement project on Bill 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.
- Gold Rush Medium tributary - A log placement stream enhancement project on a tributary between Unit 54 and Unit 828 might be possible. Foresters will work with the Aquatic and Riparian Specialist in consultation with ODF&W during sale layout to evaluate project options.

Watershed Council 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 has 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.

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

The district finalized a land exchange in FY18 with Tillamook County that is mutually beneficial for management of lands and recreational facilities. In FY19 the newly acquired areas around Sprague Wayside on Hwy 6 will be incorporated into current management plans.

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

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 (\$135,000) 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.

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 FY19, 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 6,150 SLI stands on the Tillamook district, totaling 250,516 acres. Currently the district has 1,245 inventory stands measured using stand level inventory procedures on the Tillamook District, which represents 23% of district stands. The measured stands represent approximately 95,888 acres or 38% 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 33,591 acres or 13% of the State Forest land in the Tillamook District. New SLI data collection for 80 - 90 stands is planned for FY19. The contract for inventory measurement will be managed through the Salem office.

Wildlife Surveys

Northern Spotted Owl Surveys

In FY19 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 the Forest Management Plan (FMP) goals. Survey requirements for each sale are determined in accordance with the State Forest Division Northern Spotted Owl Policy, Procedures, and Guidance (January 2012).

A private contractor will continue the annual surveying for northern spotted owls on the district. However, this year the district may be transitioning from conducting operational surveys to conducting density surveys in the Trask, Nestucca, and southern portion of the Wilson basins. The district is working out the details with the contractor. 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.

See the table below for a summary of required timber sale surveys for northern spotted owls and marbled murrelets for FY19 sales. There will be 43 sales surveyed for northern spotted owls in FY19, for current, previous and future sale plans, to complete protocol surveys. There will also be additional surveys for spot checks for 19 active timber sales and for district monitoring purposes on 11 northern spotted owl activity centers.

Table 4. Summary of Surveys for Northern Spotted Owls

Operation	Survey Years ¹	BA ² Required	Special Considerations
Clay Corner	2017 - 2018	No	
East Foley	2017 - 2018	No	
Gold Rush	2017 - 2018	No	*
Jethro Toll	2017 - 2018	No	*
Skookum Ridge	2017 - 2018	No	*
South Bushong	2017 - 2018	No	*
Stones Throw	2017 - 2018	No	*
Clam Bake (Alt)	2016,2017,2018	No	
Coast Bill (Alt)	2016,2017,2018	No	*
Kilchis Saddle (Alt)	2016,2017,2018	Yes	

¹Years that surveys have been completed or are planned.

²A Biologic Assessment is required for this operation due to the presence of NSO or MM in the vicinity of the operation.

* Indicates operations that may be surveyed using the Density Survey Protocols

Marbled Murrelet Surveys

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

There will be 4 sales with 2nd year surveys and 6 sales planned for first year surveys for marbled murrelets in FY19.

Table 5. Summary of Surveys for Marbled Murrelets

Operation	Survey Years ¹	BA ² Required	Special Considerations
Skookum Ridge	2017- 2018	No	
Stones Throw	2017-2018	No	(Units 240,835,861,649,807,808,834)
East Foley	2017- 2018	No	
Clam Bake (Alt)	2016- 2017	No	

¹ Years that surveys have been completed or are planned.

² A Biologic Assessment is required for this operation due to the presence of NSO or MM in the vicinity of the operation

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

T&E Plants

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

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 approximately 6 acres of the Gold Rush sale (Unit 54) 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.

Flett's groundsel (*Packera flettii*, a daisy looking yellow flower with a leaves resembling beach buttercup, was last observed 2.3 miles away to the NE on steep rocky soils. This plant is tracked in ORBIC but it is not designated identified under Federal or State as a plant requiring protection and is not listed in the district IP. The species was not observed during AOP preparation.

Species of Concern Wildlife

Units 624 and 766 of the Stones Throw 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.

Research and Monitoring

The Tillamook District will be involved in a variety of research and monitoring projects in FY19. 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 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.

T&E Surveys: (ODF, Contractors)

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

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

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

Marbled Murrelet Systematic Surveys: (ODF, Contractors)

Systematic surveys on the highest potential habitat sites in the area identified as the Systematic Survey Zone may be conducted in the district during FY19. The objective of these surveys is to survey areas which have not been previously surveyed to determine if marbled murrelets have started to use the potential habitat further inland. The Systematic Survey Zone⁴ is defined as “all of the Forest Grove District and portions of the Astoria and Tillamook Districts that are east of the

⁴ ODF Marbled Murrelet Operations Policy, August 28, 2013, 1.1.6.20
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North Coast Survey Zone.” Surveys in these areas over the last two decades have resulted in no detections.

Other Planning Operations

Wood Accounting and Log Tracking (WALT)

In FY19 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 FY19 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. 2019 AOP timber sales have been created in the Geo-Planner function of the program.

Implementation Plan

The current Tillamook District Implementation Plan (IP) under the Northwest Oregon State Forests Management Plan was approved in June 2009 and was intended to be a 10 year planning document (July 1, 2009 through June 30, 2019). A major modification is planned to be worked on during FY19 and implemented in FY20. Revisions may include:

- Incorporation of new information – Species of Concern Policy (Terrestrial Anchors, Aquatic Anchor Watersheds, etc.)
- Reflecting changes in condition – Land exchanges, T&E species locations, Inventory, Stand Condition, Roads, Streams, etc.
- Adjusting Forest Land Management Classifications and Landscape Design
- Better achieving the Northwest Oregon State Forest Management Plan (FMP) goals.

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 FY19 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 FY19 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 2018 through the end of February 2019 and on Mondays and Tuesdays throughout the rest of year because of the limited operational budget.

ADMINISTRATION

District Organization

There are 29 permanent positions whose full-time function is to manage State Forest land on the Tillamook District and five (5) permanent positions who work part-time on management of State Forest land. All are responsible for implementing the 2019 Annual Operations Plan. These positions are divided into five functional groups: Forest Management, Forest Roads, Reforestation, Recreation, and Administration. See the attached organizational chart.

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

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

The Reforestation unit is responsible for all activities in forest plantations from the time the harvesting is complete 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.

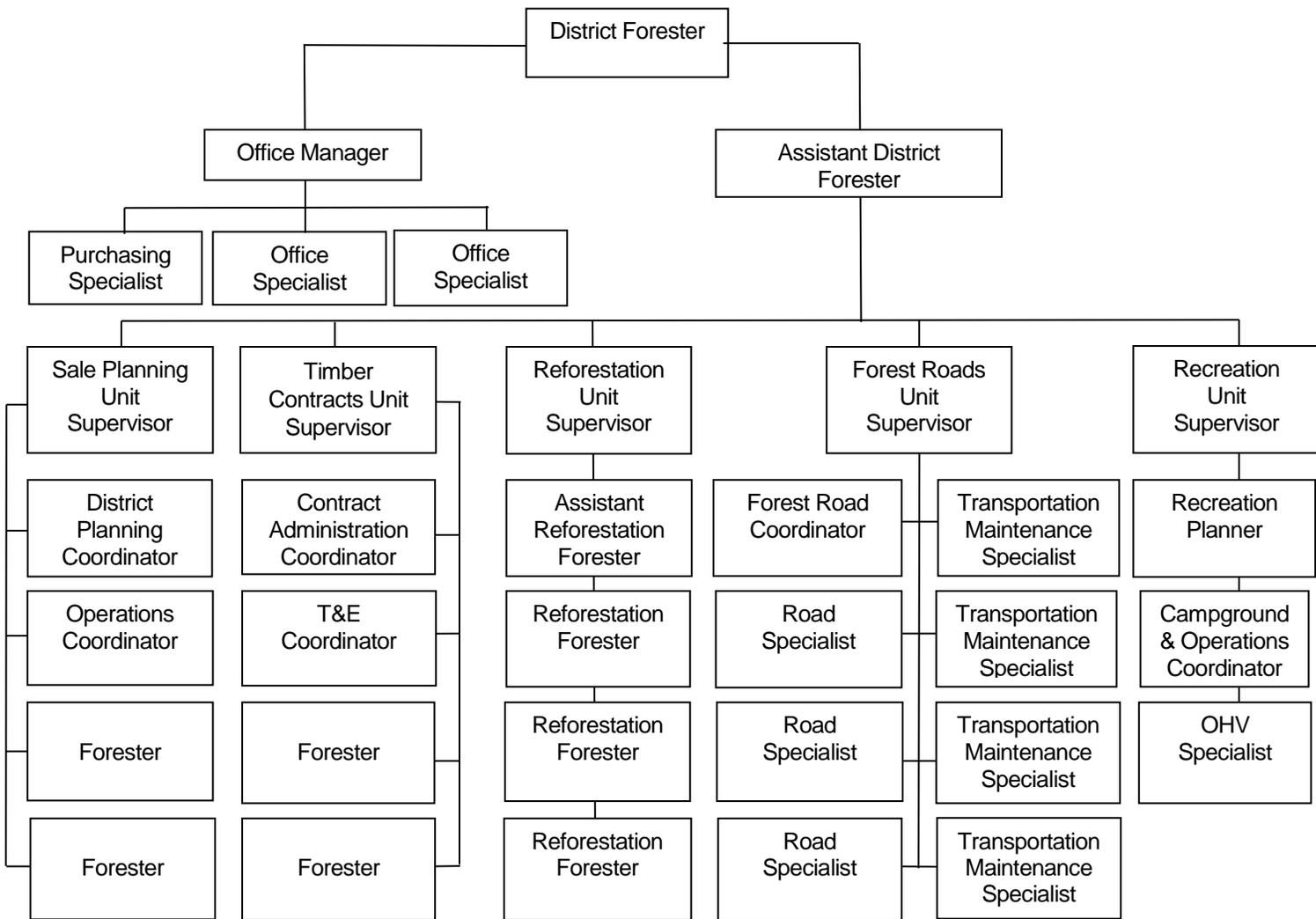
The Recreation unit is responsible for implementation of the *Tillamook State Forest Recreation Action Plan* and operation of the overall recreation program including facility maintenance. Program elements include the operation and maintenance of campgrounds, day use areas, trailheads, staging areas,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

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

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

Tillamook District Organization Chart



APPENDIXES

A. Summary Tables

- A. 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.

APPENDIX "A"

TIMBER HARVEST OPERATIONS - FINANCIAL SUMMARY

District: Tillamook

Fiscal Year: 2019

Date: Jun-18

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
Clay Corner	100%	0%	Tillamook	4	0	224	7.2	0.3	7.5	\$3,058,295	\$232,063	\$2,826,232
East Foley	100%	0%	Tillamook	1	0	343	6.3	1.7	8.0	\$2,218,207	\$209,845	\$2,008,362
Gold Rush (Units 54, 804, 828)	100%	0%	Tillamook	3	0	180	2.9	1.4	4.3	\$1,545,768	\$431,206	\$1,114,562
Jethro Toll (Units 37,633, 781)	100%	0%	Tillamook	2	0	333	4.2	2.5	6.7	\$2,259,053	\$258,287	\$2,000,766
Skookum Ridge	100%	0%	Tillamook	1	0	108	3.5	0.3	3.8	\$1,115,694	\$118,501	\$997,193
South Bushong	100%	0%	Tillamook	2	0	222	3.3	1.8	5.1	\$1,781,994	\$181,064	\$1,600,930
Stones Throw	100%	0%	Tillamook	4	0	619	8.9	2.7	11.6	\$4,178,262	\$443,799	\$3,734,463
Total:					0	2,029	36.3	10.7	47.0	\$ 16,157,273.00	\$ 1,874,765.00	\$ 14,282,508.00

Alternate Operations												
Gold Rush (Units 50, 666, 805)	100%	0%	Tillamook	Alt	0	325	4.4	2.8	7.2	\$ 2,207,950	\$ 365,445	\$ 1,842,505
Clam Bake (2018 AOP)	100%	0%	Tillamook	Alt	0	402	5.4	3.5	8.9	\$ 2,664,640	\$ 306,053	\$2,358,587
Coast Bill (2018 AOP)	100%	0%	Tillamook	Alt	0	222	2.9	1.3	4.2	\$ 1,629,547	\$ 429,274	\$1,200,273
Jethro Toll (Unit 687)	100%	0%	Tillamook	Alt	0	116	1.8	0.6	2.4	\$ 851,324	\$ 51,257	\$ 800,067
Kilchis Saddle (2018 AOP)	100%	0%	Tillamook	Alt		225	3.1	1.6	4.7	\$ 1,259,921	\$ 287,575	\$972,346
Total:					0	1,290	17.6	9.8	27.4	\$ 8,613,382	\$ 1,439,604	\$ 7,173,778

APPENDIX "A"

PRIMARY HARVEST OPERATIONS - FOREST RESOURCE SUMMARY

District: Tillamook

Fiscal Year: 2019

Date: Jun-18

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 MMPA (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
Clay Corner				--	--	--	--	x	--	--	--	--	--	--	x	x	*		--	--	* All areas have been reviewed by GeoTech and boundaries have been adjusted based on recommendations.
East Foley				--	x	x	--	x	--	x	--	--	--	--	x		*			--	* All areas have been reviewed by GeoTech and boundaries have been adjusted based on recommendations.
Gold Rush	54, 804, 828	SNC		--	x	--	--	--	--	--	--	--	--	--	x	x	*			--	* All areas have been reviewed by GeoTech and boundaries have been adjusted based on recommendations.
Jethro Toll	37, 633, 781	SNC		--	--	--	--	x	--	x	--	--	--	--	x		*		x	--	* All areas have been reviewed by GeoTech and boundaries have been adjusted based on recommendations.
Skookum Ridge				--	--	--	--	--	--	--	--	--	--	--	x		*		x	--	* All areas have been reviewed by GeoTech and boundaries have been adjusted based on recommendations.
South Bushong		SNC		--	--	--	--	--	--	--	--	--	--	--	x		*			--	* All areas have been reviewed by GeoTech and boundaries have been adjusted based on recommendations.
Stones Throw		SNC		--	x	--	--	x	--	--	--	--	--	--		x	*		x	x	* All areas have been reviewed by GeoTech and boundaries have been adjusted based on recommendations.

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. The Pre-Operation Report identifies whether T&E fish are present in the basin.

APPENDIX "A"

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	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	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
Clam Bake		SNC	-	X	X	X	-	-	-	X	-	-	-	-	X	X	*	-	-	-	Permanent plot adjacent to 661, * All areas have been reviewed by GeoTech and boundaries have been adjusted based on recommendations.
Coast Bill		SNC	-	-	-	X	-	-	X	-	-	-	-	-	X	-	*	-	-	-	Progeny site adjacent to 104. * All areas have been reviewed by GeoTech and boundaries have been adjusted based on recommendations.
Gold Rush	50, 666, 805	SNC		--	x	--	--	--	--	--	--	--	--	--	x	x	*			--	* All areas have been reviewed by GeoTech and boundaries have been adjusted based on recommendations.
Jethro Toll	687	SNC		--	--	--	--	x	--	x	--	--	--	--	x		*		x	--	* All areas have been reviewed by GeoTech and boundaries have been adjusted based on recommendations.
Kilchis Saddle		SNC	X	-	-	X	-	-	-	X	-	X	-	-	X	-	*	-	-	-	* All areas have been reviewed by GeoTech and boundaries have been adjusted based on recommendations.

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 inconslutation 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.

APPENDIX "A"

FOREST ROADS SUMMARY

District: Tillamook

Fiscal Year: 2019

Date: Jun-18

Primary Operations	Construction		Improvement		Other Projects	Total Project Costs	Gross Value of Operation	Total Cost as a percent of Gross Value	Comments
	Miles	Cost	Miles	Cost					
Clay Corner	0.8	\$ 90,763	10.8	\$ 141,300		\$ 232,063	\$ 3,058,295	8%	
East Foley	0.9	\$ 56,865	9.5	\$ 137,480	\$ 15,500	\$ 209,845	\$ 2,218,207	9%	
Gold Rush	2.5	\$ 260,106	4.5	\$ 88,480	\$ 82,620	\$ 431,206	\$ 1,545,768	28%	
Jethro Toll	2.3	\$ 130,604	6.9	\$ 124,183	\$ 3,500	\$ 258,287	\$ 2,259,053	11%	
Skookum Ridge	1.2	\$ 20,686	5.6	\$ 82,815	\$ 15,000	\$ 118,501	\$ 1,115,694	11%	
South Bushong	0.8	\$ 58,079	9.9	\$ 91,340	\$ 31,645	\$ 181,064	\$ 1,781,994	10%	
Stones Throw	4.2	\$ 190,013	11.1	\$ 185,536	\$ 68,250	\$ 443,799	\$ 4,178,262	11%	
Total	12.7	\$807,116	58.3	\$851,134	\$216,515	\$1,874,765	\$16,157,273	11.6%	

Alternate Operations									
Clam Bake (2018 AOP)	2.2	\$ 241,563	19.8	\$ 64,490	\$ -	\$ 306,053	\$ 1,629,547	19%	
Coast Bill (2018 AOP)	3.0	\$ 294,090	8.16	\$ 135,184	\$ -	\$ 429,274	\$ 851,324	50%	
Gold Rush (Units 50,666, 805)	2.7	\$ 269,074.00	1.3	\$ 26,450.00	\$ 69,921	\$ 365,445	\$ 2,207,950	17%	
Jethro Toll (Unit 687)	0.8	\$ 22,527.00	0.9	\$ 23,730.00	\$ -	\$ 46,257	\$ 2,664,640	2%	
Kilchis Saddle (2018 AOP)	2.13	\$ 186,070.50	13.21	\$ 101,504.00	\$ -	\$ 287,575	\$ 1,259,921	29%	
Total	10.9	\$1,013,324	43.4	\$351,358	\$69,921	\$1,434,603	\$8,613,382	16.7%	

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				
Bridge Inspections		\$ -		\$ -	\$15,000	\$ 15,000	FDI	Periodic Bridge Inspections
Tilden Bluffs Road Vacate		\$ -		\$ -	\$45,000	\$ 45,000	FDI	WOC - Construction Services
Whitney Creek Bridge Design		\$ -		\$ -	\$30,000	\$ 30,000	FDI	WOC - Engineering Services
East Foley Bridge					\$52,000	\$ 52,000	FDI	To be completed with East Foley Timber Sale
Maintenance Rock		\$ -		\$ -	\$100,000	\$ 100,000	FDI	Individual Sales TBD
Rock Pit Development		\$ -		\$ -	\$60,000	\$ 60,000	FDI	Individual Sales TBD
Cook Creek Repair Design		\$ -		\$ -	\$75,000	\$ 75,000	FEMA	Engineering Services - Funding previously secured
West Fork Repair Design		\$ -		\$ -	\$75,000	\$ 75,000	FEMA	Engineering Services - Funding previously secured
Total	0.0	\$ -	0.0	\$ -	\$ 452,000	\$ 452,000		

APPENDIX "A"

REFORESTATION AND YOUNG STAND MANAGEMENT SUMMARY

District: Tillamook

Fiscal Year: 2019

Date: Jun-18

Projects Conducted by ODF Staff or Contractors	Board of Forestry		Common School Forest Lands			District		
	Acres Planned	Average Cost*/Acre	BOF Cost	Acres Planned	Average Cost*/Acre	CSL Cost	Total Acres	Total Cost
Seedling / Nursery Costs	2,900	\$ 179	\$ 520,318			0	2,900	\$ 520,318
Initial Planting	2,400	\$ 230	\$ 552,000			0	2,400	\$ 552,000
Interplanting	500	\$ 153	\$ 76,500			0	500	\$ 76,500
Underplanting			\$ -			0	0	\$ -
Tree Protection - Barriers			\$ -			0	0	\$ -
Tree Protection - Direct Control	2,700	\$ 90	\$ 243,000			0	2,700	\$ 243,000
Site Prep - Chemical - Aerial	2,400	\$ 50	\$ 120,000			0	2,400	\$ 120,000
Site Prep - Chemical - Hand			\$ -			0	0	\$ -
Site Prep - Broadcast Burning			\$ -			0	0	\$ -
Site Prep - Piling Burning *	2,400	\$ 5	\$ 12,000			0	2,400	\$ 12,000
Site Prep - Mechanical			\$ -			0	0	\$ -
Release - Chemical - Aerial			\$ -			0	0	\$ -
Release - Chemical - Hand			\$ -			0	0	\$ -
Release - Mechanical - Hand			\$ -			0	0	\$ -
Precommercial Thinning			\$ -			0	0	\$ -
Pruning			\$ -			0	0	\$ -
Invasive Species			\$ -			0	0	\$ -
Road Side Spraying	280	\$ 82	\$ 22,999			0	280	\$ 22,999
Stocking Surveys	1,285	\$ 12	\$ 14,996			0	1,285	\$ 14,996
Other (Stocking Surveys)*	3,000	\$ -	\$ -			0	3,000	\$ -
Totals	17,865	--	\$ 1,561,813	0	--	0	17,865	\$ 1,561,813

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

APPENDIX "A"

REFORESTATION AND YOUNG STAND MANAGEMENT SUMMARY

Projects Conducted by Inmates	Board of Forestry		Common School Forest Lands			District		
	Acres Planned	Average Cost*/Acre	BOF Cost	Acres Planned	Average Cost*/Acre	CSL Cost	Total Acres	Total Cost
Initial Planting			\$0			\$0.00	0	\$0.00
Interplanting			\$0			\$0.00	0	\$0.00
Underplanting			\$0			\$0.00	0	\$0.00
Tree Protection - Barriers	2,000	\$42.34	\$84,680			\$0.00	2,000	\$84,680.00
Tree Protection - Direct Control	350	\$60.00	\$21,000			\$0.00	350	\$21,000.00
Site Prep. - Chemical Aerial			\$0			\$0.00	0	\$0.00
Site Prep - Chemical - Hand			\$0			\$0.00	0	\$0.00
Site Prep - Broadcast Burning			\$0			\$0.00	0	\$0.00
Site Prep - Piling Burning			\$0			\$0.00	0	\$0.00
Site Prep - Mechanical			\$0			\$0.00	0	\$0.00
Release - Chemical - Hand	500	\$63.00	\$31,500			\$0.00	500	\$31,500.00
Release - Mechanical - Hand			\$0			\$0.00	0	\$0.00
Precommercial Thinning			\$0			\$0.00	0	\$0.00
Pruning			\$0			\$0.00	0	\$0.00
Invasive Species	150	\$42.00	\$6,300			\$0.00	150	\$6,300.00
Other (Tree Packing)	1,700	\$24.61	\$41,837			\$0.00	1,700	\$41,837.00
Totals	4,700	--	\$185,317	0	--	\$0.00	4,700	\$185,317.00

RECREATION SITE MANAGEMENT SUMMARY

District: Tillamook

Fiscal Year: 2019

Date : Jun-18

Project	Construction Cost (Funding)		Improvement Cost (Funding)		Operations/Maint. (Funding)		Total Costs	Comments
	ODF (\$)	Other (\$)	ODF (\$)	Other (\$)	ODF (\$)	Other (\$)		
Campgrounds								
Diamond Mill						\$3,700	\$3,700	trash, septic pumping (ATV Transfer Fund)
Jones Creek					\$16,000		\$16,000	trash, septic pumping, electriciy
Keenig					\$3,600		\$3,600	trash, septic pumping
Jordan Creek						\$2,600	\$2,600	trash, septic pumping
Nehalem Falls					\$4,000		\$4,000	trash, septic, phone, electricity
Designated Dispersed Campsites								
North Fork Wilson					\$2,100		\$2,100	portable toilet
Cedar Creek					\$3,500		\$3,500	portable toilet, septic pumping if successful grant
Jordan Creek					\$50	\$50	\$100	signs, posts, fire grate maint.
North Fork Trask					\$50		\$50	signs, posts, fire grate maint
East Fork Trask					\$100		\$100	signs, posts, fire grate maint
South Fork Trask					\$100		\$100	signs, posts, fire grate maint
Morrison Eddy					\$1,200		\$1,200	signs, posts, fire grate maint, septic pumping
Cook Creek					\$100		\$100	signs, posts, fire grate maint
Day Use Areas								
Stones Road Boat Launch					\$50		\$50	sign maint.
Beaverslide Boat Launch					\$50		\$50	sign maint.
Jones Creek Day Use Area					\$3,900		\$3,900	trash, septic pumping
Trailheads								
Cedar Creek OHV Staging Area						\$5,000	\$5,000	trash, 1 portable toilet ATV Transfer Fund
Footbridge Trailhead					\$3,100		\$3,100	trash, septic pumping
Hollywood OHV Staging					\$50		\$50	signs, posts, fire grate maint.
Peninsula Trailhead & Boat Launch					\$100		\$100	signs, posts, table maintenance
Interpretive Sites								
Sprague Wayside					\$2,200		\$2,200	septic pumping, electricity

RECREATION SITE MANAGEMENT SUMMARY

District: Tillamook

Fiscal Year: 2019

Date : Jun-18

Project	Construction Cost (Funding)		Improvement Cost (Funding)		Operations/Maint. (Funding)		Total Costs	Comments
	ODF (\$)	Other (\$)	ODF (\$)	Other (\$)	ODF (\$)	Other (\$)		
Other Operations								
Dust Abatement					\$4,500		\$4,500	Jones Creek, Nehalem Falls
Field Supplies & Services					\$26,000		\$26,000	lumber, concrete, hardware, paint, signs, camp host propane & fuel, garbage bags, crew support, well pump service, crushed rock, office supplies, contracted work for resource protection/blocking, all field related expenditures
5 picnic tables					\$3,250		\$3,250	replacement tables @ \$650 each
Garbage Service at District					\$350		\$350	
Fee Envelopes					\$1,600		\$1,600	
Fort Knox Fee Box					\$800		\$800	Jordan Creek Designated Campsites
Water testing					\$1,400		\$1,400	quarterly water tests, annual nitrates test, required sanitation surveys at Jones Creek & Nehalem Falls
Field Supplies ATV Transfer Fund						\$1,300	\$1,300	hoses, parts, tires - ATV Transfer Fund
County Permit Fees					\$3,010		\$3,010	Cedar Creek Vault toilet, Keenig Creek Grey Water units, 2 Wilson River Trail Bridges
Grey Water Units - Keenig Creek					\$7,000		\$7,000	Installation of grey water units at Keenig Creek Campground
Bridge Inspections					\$2,100		\$2,100	yearly contract for bridge inspections
					District Total		\$90,260	
					Other Total		\$12,650	
					TOTAL		\$102,910	

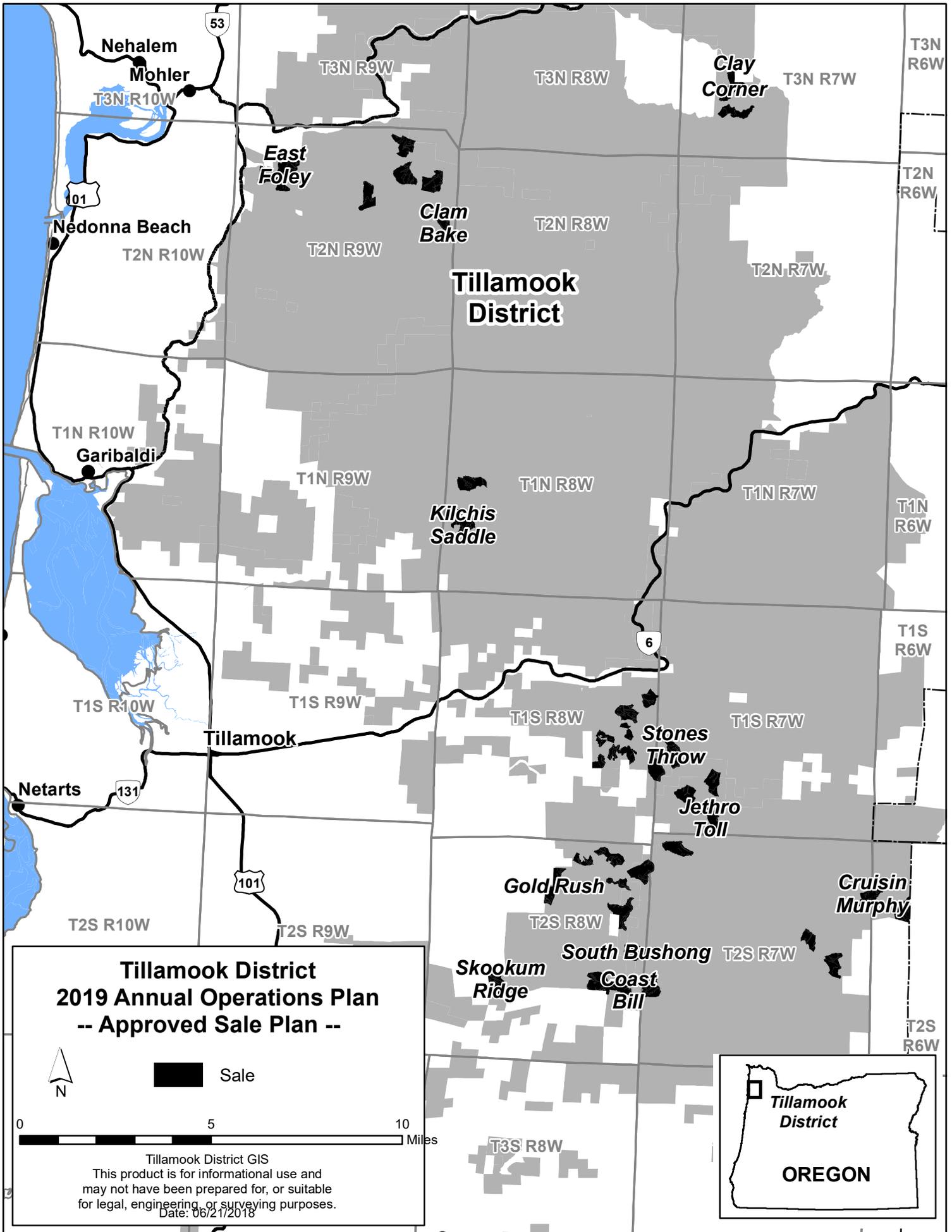
RECREATION TRAIL MANAGEMENT SUMMARY

District: Tillamook

Fiscal Year: 2019

Date : Jun-18

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, & Coal Creek Trail							20.1	\$12,000		\$12,000	15 days of South Fork Crew time at \$800 per man day
Wilson River Trail Bridges					\$9,600					\$9,600	12 days of South Fork Crew & shop time at \$800 per man day. Bridge materials to be funded through Wayne Nailion Funds & NWTa grant. I-beams from South Fork surplus will be moved & placed by volunteers & road crew.
Coal Creek Trail Bridges & Reroute					\$16,200					\$16,200	\$2100 per bridge (2) for decking & hardware, 15 South Fork Crew days at \$800 per man day
Motorized											
Blue Bus OHV Trail Bridge						\$2,200				\$2,200	4 days OHV Specialist & equipment operators to repair bridge. OMRA to provide decking materials.
OHV Trail Brushing								\$6,400		\$6,400	8 days South Fork Crew time at \$800 per man day. Additional work to be done by volunteers.
Rickety Bridge Trail Reroute						\$4,400				\$4,400	8 days OHV Specialist & equipment operators to reroute trail. ATV Transfer Fund
										\$0	
										\$0	
District Total										\$44,200	
Other Total										\$6,600	
TOTAL										\$50,800	



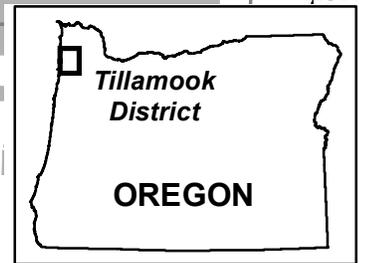
**Tillamook District
2019 Annual Operations Plan
-- Approved Sale Plan --**



 Sale

0 5 10 Miles

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for legal, engineering, or surveying purposes.
Date: 06/21/2018



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):
 - Jethro Toll
 - Skookum Ridge
 - Stones Throw
- Potential historic roads (In vicinity):
 - Jethro Toll

ODFW

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

Green Trees

Many of the regeneration harvest areas have scattered or clumped green tree (GT) distributions prescribed for them. These are optimal GT placements for wildlife, especially for GTs left in lieu of created down wood or snags, as many wildlife species utilizing these structure are territorial in nature. Leaving some GTs in in-unit RMAs is OK, but should not be where most of them are placed. Some of the pre-op reports specify that GTs are to be left adjacent to RMAs and some call for placement within green tree areas (GTAs). RMA prescriptions for GTs should stand alone in their adequacy, and not need additional GTs for augmentation. Green trees in GTAs offer minimal value to wildlife unless protecting sensitive wildlife sites (e.g. nests) from wind-throw or edge effects.

Snags

Strategies for addressing snag standards in the FMP are generally mentioned in Table 7 and accompanying text in the pre-op reports, and specify that snags will be created to meet FMP standards where there are deficiencies. Many pre-op reports specify current snag inventory levels and identify where additional snags are to be created, which is very helpful to the reviewer. ODFW supports snag creation in lieu of leaving additional GTs, especially if they are scattered and/or clumped in distribution.

Down Wood

Strategies for meeting down wood standards in the FMP are specifically mentioned in Table 7 and accompanying text, which is very helpful. It is good to see that down wood targets on sales will meet or exceed the minimum standard in the FMP. Again, if GTs are left in lieu of created down wood, optimal distributions of them would be scattered and clumped in the harvest units.

Roads

Nearly all of the newly constructed dirt spurs, and some of the rocked spurs in this AOP, are slated for physical closure after use, which is beneficial for wildlife. ODFW recommends physical closure for newly constructed dirt and rocked spurs, especially if they have no immediate need in further management and/or maintenance. If new rocked spur roads have immediate further needs, consider closing them physically in later AOPs to keep open road densities down. Some of the spurs could also be considered for the cooperative road management (OHA gates) program. By the way, Tables 11 and 11a do an excellent job of summarizing road prescriptions for the reviewer!

Appendix D

PUBLIC COMMENTS ON THE TILLAMOOK DISTRICT 2018 ANNUAL OPERATIONS PLAN

Introduction

The Tillamook District 2019 Annual Operations Plan (AOP) was included in the formal 45-day public comment period held from April 4th through May 20th, 2016 by the Oregon Department of Forestry. The purpose of the public comment period was to provide a time for the districts to share their plans with the public and for the public to ask questions and offer comments. . As a public agency, ODF strives to operate in the best interest of Oregonians. We provide opportunities for public participation to assist us in securing the greatest permanent value from state forests for all Oregonians. After the public comment process was completed, the AOPs were revised if needed, then reviewed, and approved by the District Forester.

Evaluation Process

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

1. Review each document to identify and evaluate individual statements;
2. Address each statement to 1) briefly show how the district intends to change the AOP based on the statement, or 2) why the statement does not warrant a change to the AOP.
3. Respond to the statement(s) in a letter to the commenter if a return address was provided. The response is either a very brief synopsis of how the district intends to change the AOP based on the statement, or an explanation of how the planned activity is consistent with the FMP, IP, and other policy or regulation;
4. The public comment documents and the department's responses will be placed on the web site as Appendix D. Commenters who supplied return addresses were sent a personal response and were given the opportunity to 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 2019 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 2019 AOP since the Public Comment Period.

Appendix E

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

Appendix F

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

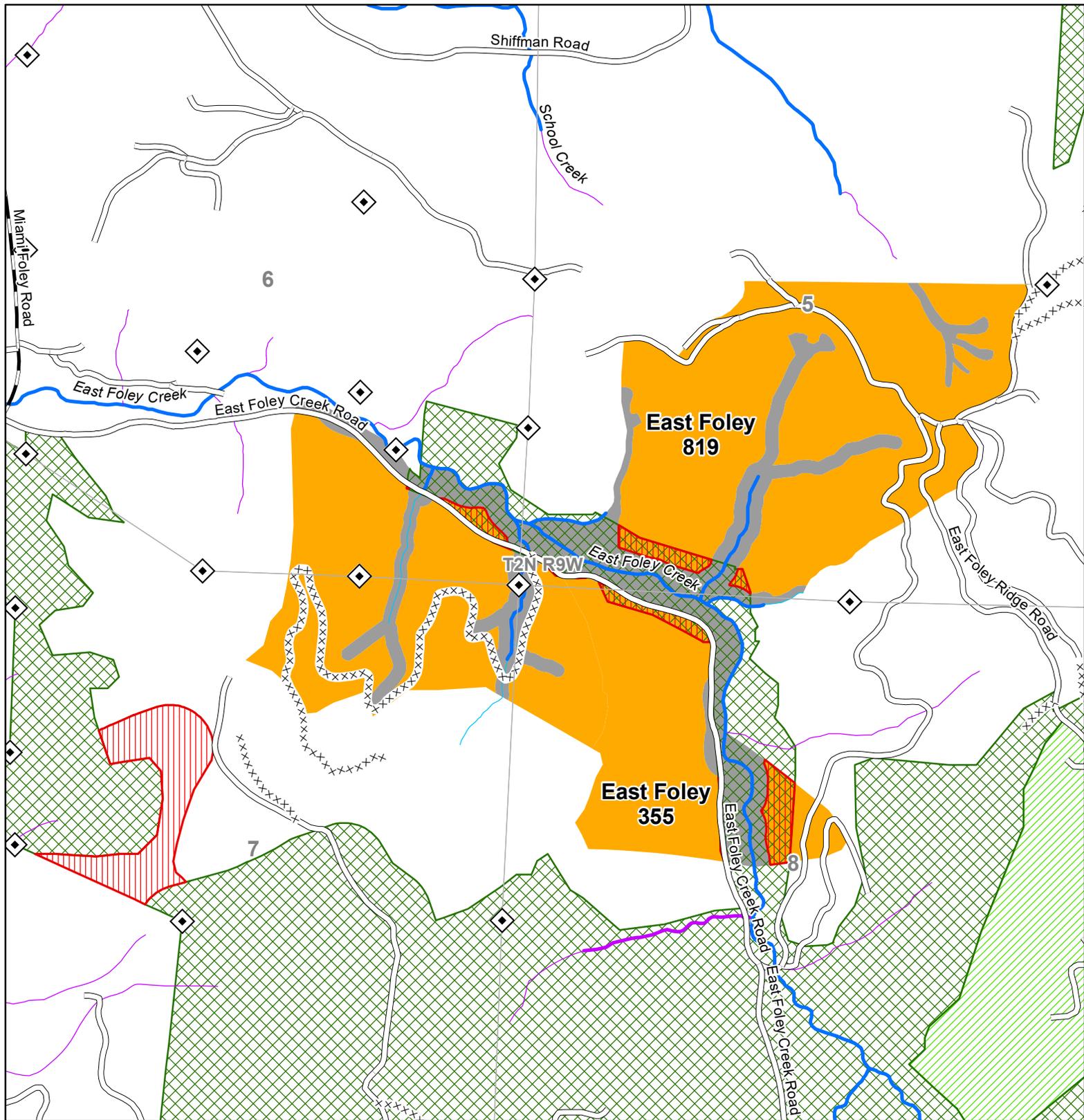
The Landscape Design for the Tillamook District consists of 40 percent of the land base which is designated to achieve a Desired Future Condition (DFC) of either Layered (LYR) or Older Forest Structure (OFS). The 40 percent landscape design was adopted in 2009 as part of the Tillamook District Implementation 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, new and adjusted T&E boundaries, and new information on stands potential to achieve (or not) a complex forest condition. A total of 240 acres were modified; 74 acres were added to the DFC and 166 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	
Current Stand Condition	Acres	Current Stand Condition	Acres
NF	0	NF	0
OFS	108	OFS	0
LYR	58	LYR	74
Total Acres Removed	166	Total Acres Added	74



Legend

 2019_DFC_Changes

Desired_Future_Condition

DFC

 Older Forest Structure

 Layered

Boundary Labels

HarvType

 Modified Clearcut

 No Harvest

2019 Tillamook AOP

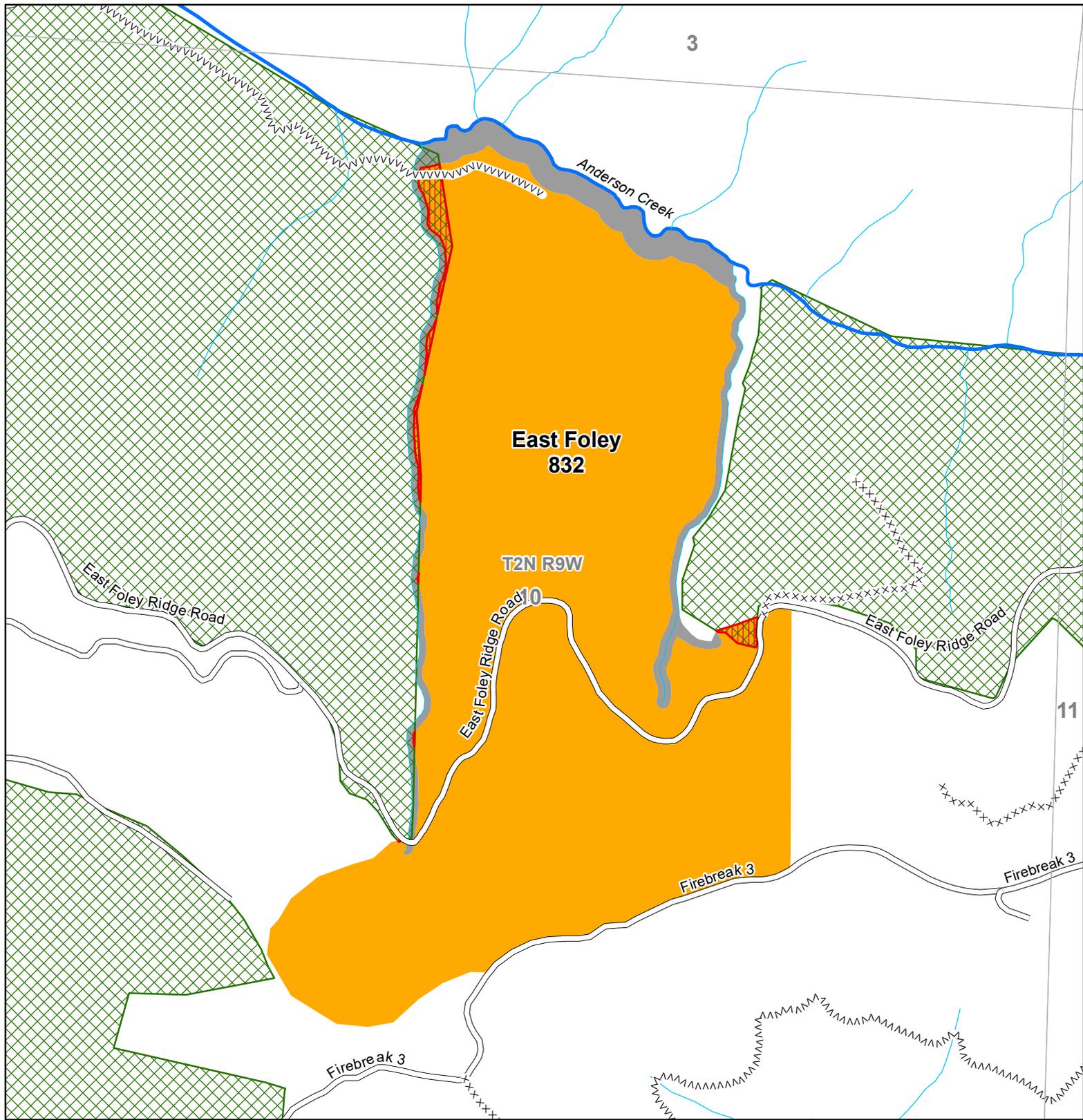
Change 8 acres from OFS to GEN
 Change 16 acres from GEN to LYR



1:12,000

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Date: 02/06/2018

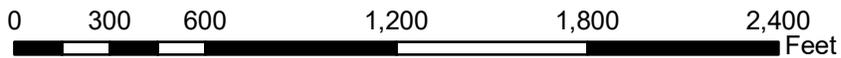


Legend

- 2019_DFC_Changes
- Desired_Future_Condition**
- DFC**
- Older Forest Structure
- Layered
- Boundary Labels
- HarvType**
- Modified Clearcut
- No Harvest

2019 Tillamook AOP

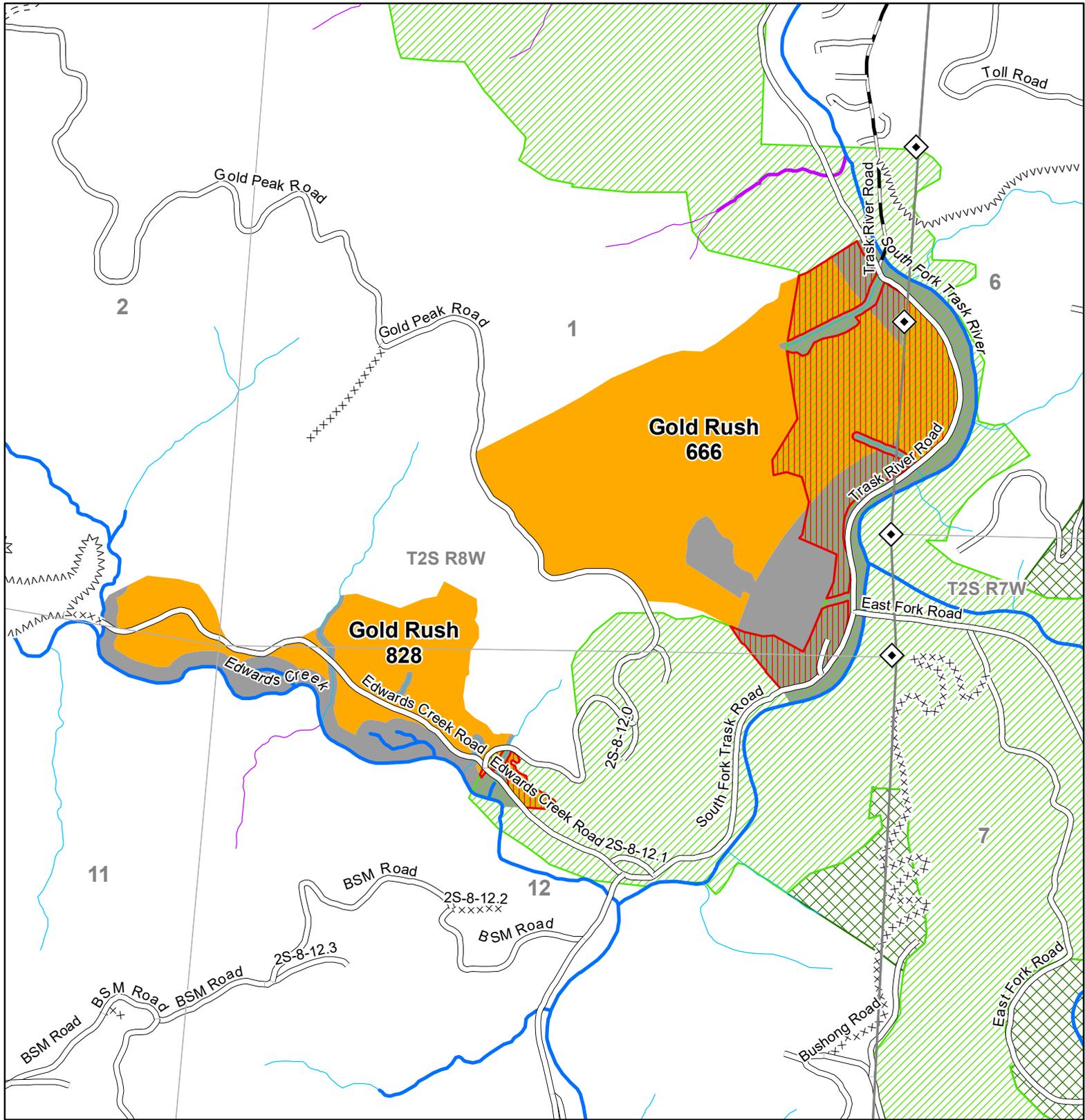
Remove 1 acre from OFS



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1:7,200

Date: 01/24/2018

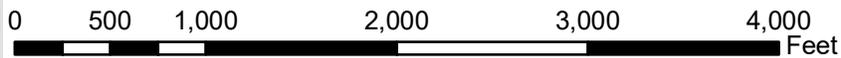


Legend

-  2019_DFC_Changes
- Desired_Future_Condition**
- DFC**
-  Older Forest Structure
-  Layered
- Boundary Labels
- HarvType**
-  Modified Clearcut
-  No Harvest

2019 Tillamook AOP

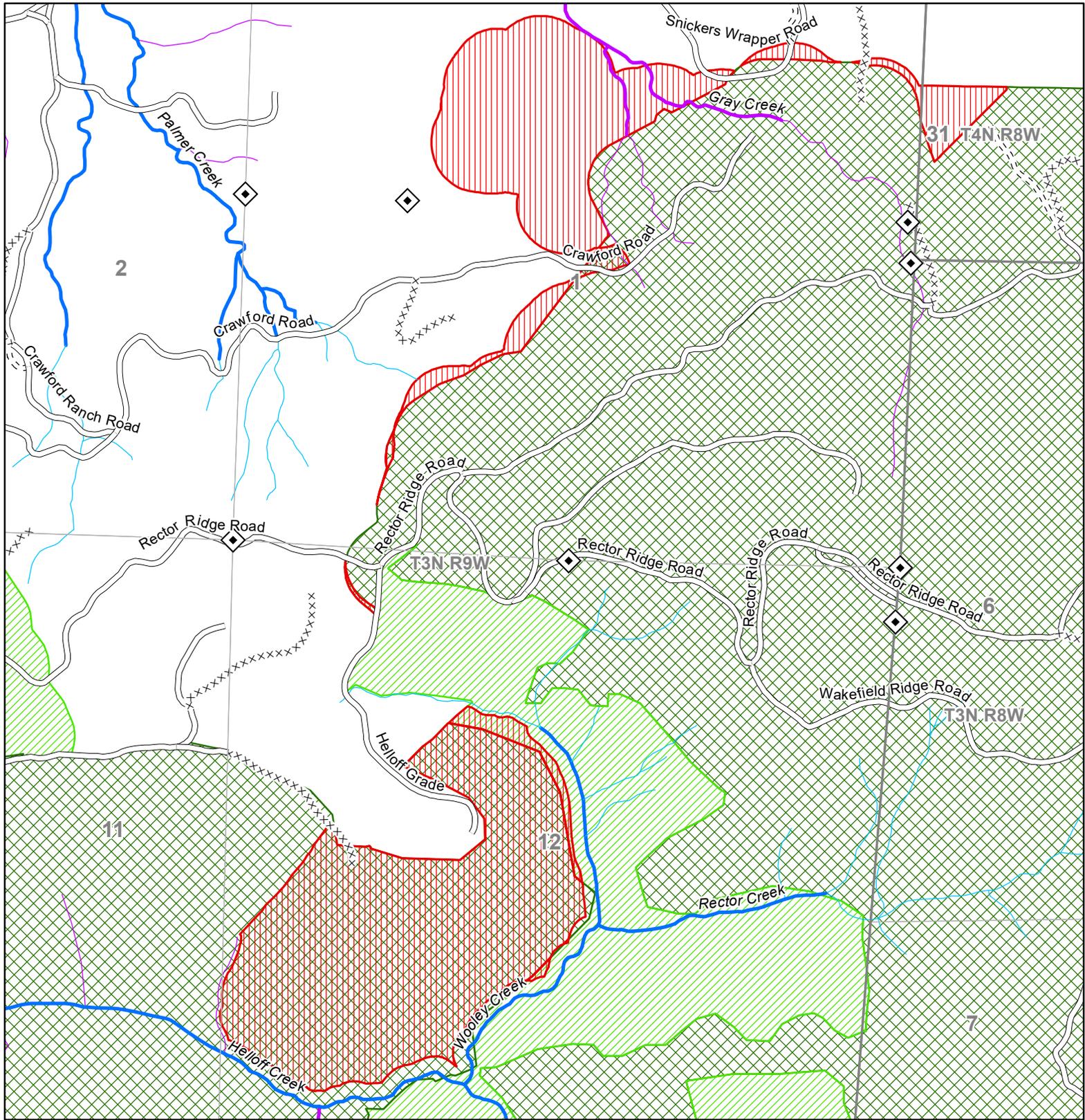
Remove 51 acres from LYR



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Date: 01/25/2018



2019 Tillamook AOP

Change 58 acres of GEN to LYR & 3 acres of LYR & 99 acres of OFS to GEN

Legend

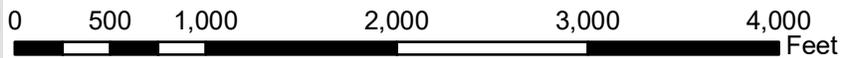
 2019_DFC_Changes

Desired_Future_Condition

DFC

 Older Forest Structure

 Layered

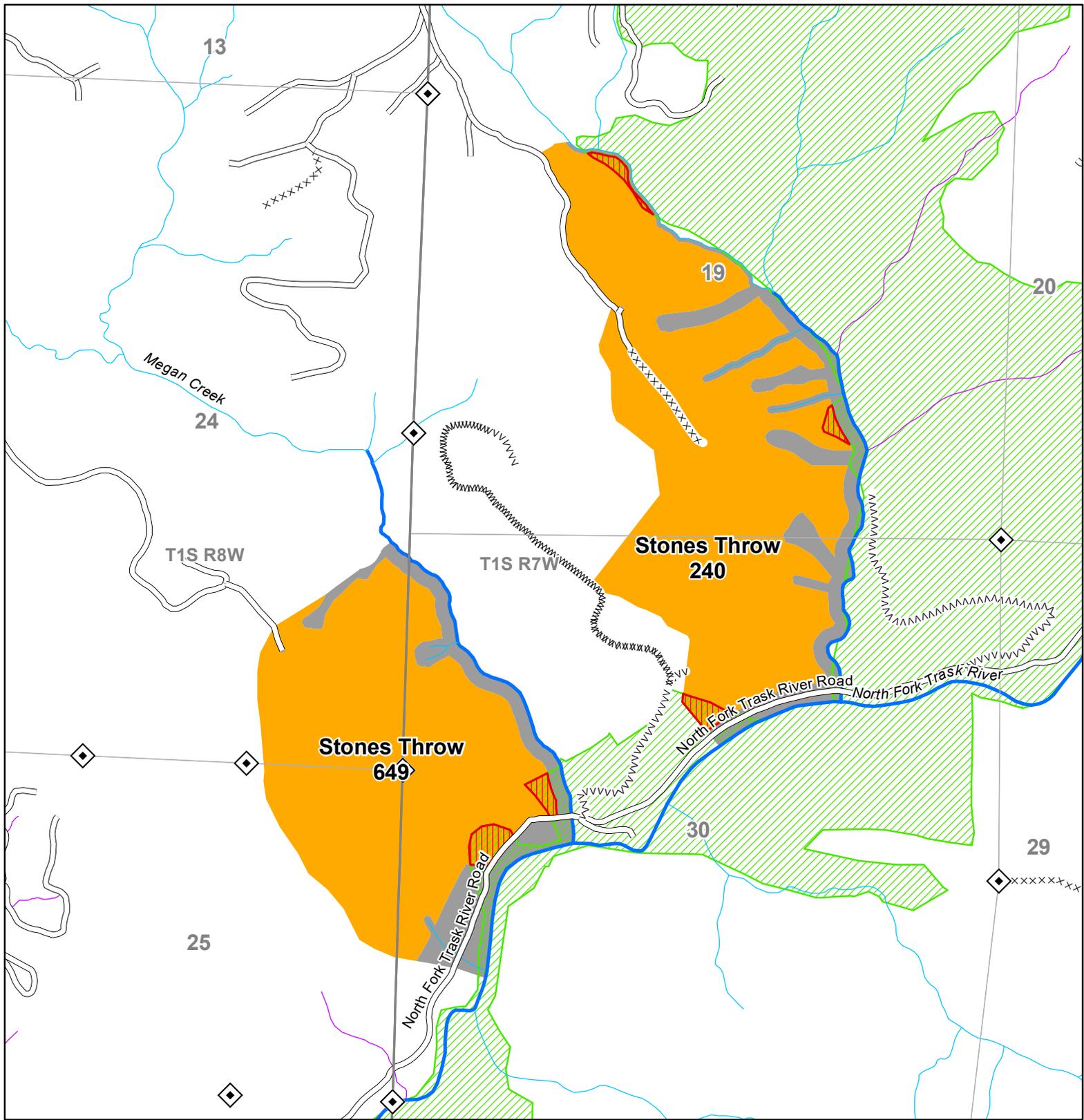


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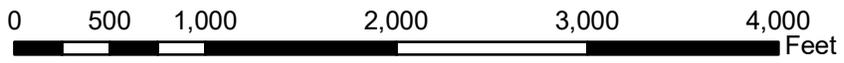
1:12,000

Date: 02/06/2018



2019 Tillamook AOP

Remove 4 acres from LYR



1:12,000

Legend

- 2019_DFC_Changes
- Desired_Future_Condition**
- DFC**
- Older Forest Structure
- Layered
- Boundary Labels
- HarvType**
- Modified Clearcut
- No Harvest

Tillamook District GIS
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Date: 01/24/2018