



Oregon

Tina Kotek, Governor

Department of Forestry

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July 07, 2023



"STEWARDSHIP IN FORESTRY"

To: Don Everingham, Area Director
From: Dan Goody, Astoria District Forester

CC: Michael Wilson, State Forests Division Chief
Ron Zilli, State Forests Deputy Division Chief
Colleen Kiser, State Forests Planning Manager

Re: Information Item – Approved Annual Operations Plan for FY 2024

The FY 2024 State Forests Annual Operations Plan (AOP) for the Astoria District has been completed. During my review of this plan, I have found that it conforms to the Oregon Forest Practices Act and is consistent with the 2010 Northwest Oregon State Forest Management Plan, the 2023 Astoria District Implementation Plan (IP), and the FY 2024 State Forests budget instructions.

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

As prepared, this AOP consists of 51.1MMBF of harvest volume. This volume will be achieved through 316 acres of partial cut harvest and 1,286 acres of regeneration harvest. There are 10 primary operations and 3 alternate operations within this plan. The operations are estimated to generate gross revenues of approximately \$22,964,255 and net revenues of \$20,158,847 (100% within Clatsop County). The volume is in alignment with the IP range of 48-52 MMBF.

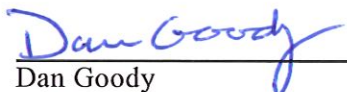
Reforestation and young stand management activities and investments are aligned with FMP objectives and budget considerations. Recreation facilities and trails are managed and maintained for safety, positive experiences and protecting other resources like water quality and are consistent with the FY 2024 budget level.

Approval of this plan does not constitute final approval of individual project details. Individual operations are subject to additional review processes at the district and division staff level before implementation. The planned amount and location of all management activities are based on the latest site-specific assessments and estimates of operational, T&E surveys, and market variables. Management activity levels may be adjusted and modified to account for any significant changes to these variables. The alternate sales in this Annual Operations Plan may be used to replace the primary sales that cannot be completed as planned. Actual revenue realized from this AOP could change due to market fluctuations. Harvest operations and the associated project work provide an accurate picture of what will be designed and prepared for contract in FY 2024. Due to the time lag with contract duration, most of the actual harvest operations with associated revenues will not occur for a period of one to two years beyond the end of the fiscal year. Forest management activities such as reforestation and recreation projects will occur in FY 2024.

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

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

Approved:



Dan Goody
Astoria District Forester

Astoria District

2024 ANNUAL OPERATIONS PLAN



Astoria DISTRICT

Fiscal Year 2024 ANNUAL OPERATIONS PLAN

OVERVIEW

This plan describes the activities and outcomes that Oregonians can expect to see on Astoria District for Fiscal Year 2024. The Astoria District is an actively managed forest, valued by many Oregonians for its mixture of environmental, economic, and social benefits. This plan supports this mixture and provides a balance of these benefits as required by Oregon Administrative Rule (OAR 629-035-0020). We strive to manage the forest sustainably, so that the benefits from the forest can be delivered into perpetuity. The forest harvesting is planned at a sustainable level; a level that our computer models suggest can be harvested year after year without reduction.

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

Managing a public forest has its challenges. In addition to the challenges of providing the opportunities described above, the forest is expected to be financially self-supporting. About two-thirds of the revenues from state forest timber sales go to local counties and other taxing districts, including schools. Oregon Department of Forestry (ODF) uses the remaining third of the revenue to manage the forests and keep them healthy, through activities including fire protection, tree planting, thinning, research and monitoring, recreation services, road maintenance and stream habitat improvement. We are striving to continue to provide the current opportunities, and are considering a few opportunities for change.

Every year in the Forest, we learn new things and find new challenges and opportunities. In preparing this plan, we have consulted with ODF's wildlife biologists, aquatic specialist, archeologist, geotechnical engineer, road engineer, as well as fish and wildlife biologist from the Oregon Department of Fish and Wildlife. The plan has undergone a 45-day public comment period. The operations were shared with the nine federally recognized Tribes in Oregon.

This Annual Operations Plan has been reviewed by the Forest Trust Land Advisory Committee (representing the counties that deeded land to ODF), the State Forests Advisory Committee (composed of Oregonians representing many interests), a variety of interest groups, as well as Oregonians in general.

The activities shown in the Summary Document and appendixes are estimates based on plans, information, and conditions as known at this point in time. The type, amount, and specific activities will be further adjusted based on field work conducted and on updated assessments that occur during the 2024 fiscal year.

A short summary of activities planned for the coming year:

- Planting 470,000 trees on 1,452 acres and conducting vegetation management activities on 861 acres and 1,134 animal management activities on an additional 120 acres to ensure the survival and growth of these plantations.
- Conducting density or operational surveys for northern spotted owls and marbled murrelets covering the majority of the district and surveying approximately 22 miles of streams for the presence of fish habitat.
- Protecting streams and water resources through a series of buffers and seasonal restrictions.
- Stream improvement projects. The ODF Aquatic and Riparian Specialist will be consulted to help identify potential stream improvement candidates and will consult with Oregon Department of Fish and Wildlife fish biologists as needed.
- Habitat development projects such as retaining green trees in clearcut areas, and leaving down wood, all for wildlife benefits in harvest areas and future forests.
- Maintaining approximately 91 miles of road, constructing approximately 5.9 miles of road, and improving approximately 81.2 miles of road to ensure ditch water is dispersed and filtered as much as possible, keeping runoff from entering streams. These roads provide access to timber harvest as well as various recreational opportunities.
- Installation of several gates that will at times limit vehicular access to targeted areas that have persistently presented public safety problems or threaten environmental quality and public education efforts have not curtailed these behaviors.
- Proposing to harvest approximately 50.6 million board feet of timber volume, through modified clearcuts and partial cuts, generating revenue of an estimated \$20.6 (after subtracting Work Order Contract Costs) million net value.
- Operating and maintaining developed facilities in a safe, clean, and responsible manner.

- Providing a safe and clean environment for the myriad of dispersed activities that occur across the forest – hunting, camping, angling, sight-seeing, target shooting, swimming, mushroom picking, etc.
- At Spruce Run Campground the existing flush toilets and water system will be removed and funding opportunities will be explored to replace them with a passive vault toilet system.
- Maintaining, managing, and patrolling the 28 miles of motorized and 21 miles of non-motorized trails, striving to protect the trail investments, provide for user safety, address developing trail issues, and protect water quality.
- Supporting the important volunteer network that assists in forest management including the following programs:
 - Camp Hosts, and Adopt a Trail
 - Forest Clean-up
 - Trail Maintenance and Construction Work Parties
- Providing a firewood cutting program and miscellaneous forest products permits (salal, mushrooms, etc.) as done in 2023.
- Supporting ongoing research on the district, in partnership with research cooperatives and universities.

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INTRODUCTION

This annual operation plan outlines activities on state-owned forestland managed by the Astoria District for Fiscal Year 2024, which begins July 1, 2023 and ends June 30, 2024. 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*, the *Draft Habitat Conservation Plan*, the, and the *Astoria District 2023 Implementation Plan*. Please refer to the district Implementation Plan's for more specific information on physical characteristics and other district resource information.

The Annual Operations Plan document is divided into five major categories: Integrated Forest Management; Planning and Information Systems; Public Information and Education; Administration, and Appendices. A short summary of proposed activities is listed within this introduction. In addition to describing forest management activities for Fiscal Year 2024, Appendix F describes any modifications to the Forest Land Management Classification System. Appendix G describes any modifications to the Astoria District Landscape Design*.

The proposed harvest operations and activities are planned to be designed, engineered, and submitted for processing during the Fiscal Year 2024 time period. Actual on-the-ground operations will likely not occur during Fiscal Year 2024 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 Fiscal Year 2024.

A 45-day public comment period was held from April 25, 2023 through June 08, 2023. The District Forester has reviewed all comments received before approving this plan.

Accomplishments of forest management activities that occurred under previous Annual Operations Plans can be found in several reports, including the *State Forester's Annual Report for the Association of Oregon Counties* and the *Common School Forest Lands Annual Report*. These reports are available through the local district office or online.**

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

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

INTEGRATED FOREST MANAGEMENT OPERATIONS

Timber Harvest Operations

Overview of Timber Harvest Operations

All of the Primary and Alternate harvest operations and many of the other forest management activities have been reviewed by ODF’s wildlife biologists, aquatic specialist, archaeologist, geotechnical engineer, road engineer, and planning manager, and were reviewed by fish and wildlife biologists from the Oregon Department of Fish and Wildlife. All of the operations have been reviewed against the State Historic Preservation Office and General Land Office databases for potential impact to cultural resources. Occasionally, operations may contain a resource or activity where review with another state agency, such as the Department of Agriculture is warranted. Written comments from the external resource specialists and the resolution of those comments can be found in Appendix C.

The Fiscal Year 2024 Annual Operations Plan is estimated to produce 50.6 million board feet in volume, generate gross revenues of approximately \$23.1 million and net revenues of \$20.6 million. The volume objective is within the 48-52 Million Board Feet range outlined in the Astoria Districts 2023 Implementation Plan. However, some events may result in an Annual Operations Plan volume that is outside the Annual Harvest Objective range. These events may consist of, but are not limited to, storm damage, insect and/or disease outbreaks, timber market conditions or other significant events. Alternate timber sales included in the Annual Operations Plan may be sold as primary operations in response to any of these circumstances.

Additional operations may produce timber volume for the district during the 2024 fiscal year but are not included in this Annual Operation Plan. These are generally small areas, produce little volume, and/or are time sensitive in nature. These sales do not require significant effort to develop and execute and will comply with all policies, the district Implementation Plan, and the Forest Management Plan. Examples of these sales include salvage, pulp sales, removal of hazard trees, pole sales, etc.

Refer to the attached Astoria District Financial Summary Table (Appendix A, Table A-1) and vicinity map (Appendix B) for more detail on expected outputs from planned timber sales.

Table 1. Accomplishment of Annual Operations Plan Harvest Volume Compared to Implementation Plan Annual Objective (Million Board Feet)

Harvest Objectives	Fiscal Year 2024 Implementation Plan Harvest Ranges		2024 Annual Operations Plan
	Low	High	
Volume (Million Board Feet)	48	52	51.1

Harvest Outside of Habitat Conservation Areas

The 1,286 acres of regeneration harvest planned for Fiscal Year 2024 represents approximately one percent of the district. All of the regeneration harvest acres will be designed as modified clearcuts.

Harvest Inside of Habitat Conservation Areas

The 316 acres of partial cut harvest is designed with the goal to thin out the dense trees allowing more light to reach the forest floor. This will allow increased understory development and improve the layering of structure within the stand. Prescriptions may incorporate a mix of gap-cuts, areas of untreated stands, and variable density thinning prescriptions. Minor species will be evaluated to reserve based on the composition of the stand and the amount of diversity present. Residual tree selection will emphasize preserving the trees of good form and vigor with the largest diameter and height. These prescriptions will be developed in consultation with ODF biologists.

Table 2. Summary of Primary Timber Harvest Operations. All values are in net acres.

2024 Annual Operations Plan			
Harvest Outside of Habitat Conservation Areas		Harvest Inside of Habitat Conservation Areas	
Partial Cut Acres	Modified Clearcut Acres	Partial Cut Acres	Clearcut Acres
0	1,286	316	0

The anticipated harvest acres, volume, and revenue for each proposed operation in this Annual Operations Plan are listed in the “Harvest Operations – Financial Summary” Table A-1 in Appendix A.

Overview of Structural Components

The guidelines for managing structural habitat components listed under Landscape Management Strategy 3 in the NW Oregon State Forests Management Plan (pg. 4-52), will be followed for the Fiscal Year 2024 Annual Operations Plan. Structural components may be retained at higher levels in some units and at lower levels in other units. The intent is to achieve the targets outlined in the Forest Management Plan strategies in a given annual operations plan.

The green tree retention target for regeneration harvest units is an average of five trees per acre in the NW Forest Management Plan. Tree arrangements for this Annual Operations Plan may include; scattered individual trees, clumps of trees, and trees concentrated in and adjacent to riparian management areas, inner gorge areas or headwalls. The final decision on the location and arrangement of the green trees is made while the sale is being laid out to incorporate information on potential minor tree species, unique stand features, steep slopes, visual considerations, reforestation considerations, etc. To promote diversity on the landscape a variety of green tree placement strategies will be used.

The NW Forest Management Plan strategy for hard snags is to manage for at least two per acre on average across the landscape. The Forest Management Plan strategy for Down Woody Debris is to retain an average of 600 to 900 cubic feet of hard conifer logs (class 1 & 2) per acre during regeneration harvest. Strategies for retaining snags and down wood are determined using a current condition assessment from forest inventory data or timber cruising data. The need for snag creation in each unit is evaluated based on cruise or inventory information that documents snags in decay class 1 and 2 in the sale and surrounding landscape. Areas with less than 2 hard snags

per acre will be evaluated and an appropriate snag prescription will be developed as needed. Down Wood will continue to be created through bucking practices, leaving felled snags in the unit and tops on ground yarding areas.

The Astoria district has experienced a number of large wind and snow break events over the last 10-15 years. This has produced a large number of residual snags and down woody components across the landscape. Due to this, snag creation is generally not pursued. If snags are found to be deficient in an area, generally additional leave trees will be retained with the assumption that wind and or ice will cause a certain percentage of these to become snags.

In addition to the leave tree strategies within the Forest Management Plan all timber sales within Fiscal Year 2024 will also abide by the green tree retention strategies of the Draft Habitat Conservation Plan. Two trees per acre will be retained within any forest stand harvested using regeneration harvest techniques. Trees selected for retention will be outside of Riparian Conservation Areas and will be assessed during each final harvest so that selected trees will not be removed in subsequent rotations and will contribute to long-term recruitment of large diameter snags and downed wood. Overlaps may occur with the green tree retention strategies of the Forest Management Plan. Leave tree configuration will be determined during sale layout to ensure compliance with Forest Management Plan and Habitat Conservation Plan strategies.

Harvest Operations within Terrestrial Anchor Sites and Aquatic Anchors

The Astoria District's 2023 Implementation Plan implemented the State Forests' Species of Concern Strategies that specifically identifies fish and wildlife species of concern on the Astoria District. Two of these strategies are Terrestrial Anchor Sites and Aquatic Anchor sites.

- Terrestrial Anchor Sites areas are intended to benefit terrestrial wildlife species of concern, especially those associated with older forest or interior habitat conditions, sensitive to forest fragmentation, or do not readily disperse across younger forest conditions. Management within Terrestrial Anchor Sites is intended to be limited, to emulate natural small-scale disturbance patterns, and to minimize short-term negative impacts to habitat. All areas that were designated as Terrestrial Anchor Sites were designated for the development of complex structure in the Landscape Design.
- Aquatic Anchor sites are watersheds where salmon and aquatic amphibian conservation is of concern. Riparian management strategies beyond those described in the Forest Management Plan will be applied within Aquatic Anchors. In addition, areas designated for the development of complex structure in the Landscape Design are clustered around streams important to fish in the Aquatic Anchors.

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

Terrestrial Anchor Sites

Since the adoption of the Terrestrial Anchor Sites in the July 2011, the district has been proceeding with operations in these areas. Great care has been given in selecting stands for harvest and developing prescriptions in these areas to ensure that these harvest activities achieve the goals

of the Terrestrial Anchor Sites. These sales were reviewed with ODF and Oregon Department of Fish and Wildlife Resource Specialists. Table 3 shows there are no harvests planned within the Terrestrial Anchor Sites proposed for primary sales in the 2024 Annual Operations Plan and also shows the cumulative operations in Terrestrial Anchor Sites since the strategy was adopted.

Table 3. Summary of Harvest Operations within Terrestrial Anchor Sites (Acres and Percent)

Acres within Terrestrial Anchor Sites	Current Annual Operations Plan (Fiscal Year 2024)		Cumulative Harvest (Since Fiscal Year 2012)	
	Clearcut	Partial Cut	Clearcut	Partial Cut
Terrestrial Anchor Site Basin				
Buster (4,599 ac)	0	0	0	0
% of Acres	0%	0%	0%	0%
Plympton (4,077 ac)	0	0	1	64
% of Acres	0%	0%	<0.1%	1.6%
Sweethome (2,282 ac)	0	0	11	68
% of Acres	0%	0%	0.5%	3.0%
All Terrestrial Anchor Sites (10,958 ac)	0	0	13	131
% of Acres	0%	0%	0.1%	1.2%

Aquatic Anchors

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

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

Acreages	Current Annual Operations Plan (Fiscal Year 2024)		Cumulative Harvest (since Fiscal Year 2014)	
	Clearcut	Partial Cut	Clearcut	Partial Cut
Aquatic Anchor Basins				
Northrup Creek (7,027 ac)	5	0	1,364	118
% of Acres	<0.1%	0%	19.4%	1.7%
Buster Creek (10,874 ac)	0	0	1,625	669
% of Acres	0%	0%	15.0%	6.2%
Upper Rock Creek (3,498 ac)	0	0	253	65
% of Acres	0%	0%	7.2%	1.9%
Upper North Fork Nehalem (9,908 ac)	52	0	779	814
% of Acres	0.3%	0%	7.9%	8.2%
Coal Creek (183 ac)	0	0	0	0
% of Acres	0%	0%	0%	0%
All Aquatic Anchors (31,490 ac)	35	0	4,021	1,666
Total % of Acres	0.1%	0%	12.8%	5.3%

Summary of Timber Harvest Operations by Basin

In the following section, the harvest operations planned for Fiscal Year 2024 will be summarized in the context of the 17 management basins on the Astoria District. Since the Forest Management Plan strategies provide standards for structural components such as green trees, snags, down wood as well as riparian protection, these are not discussed in the summary. Road strategies and standards are discussed in the Forest Roads Management section. Additional information regarding the harvest operations may be found within Table A-2, the Forest Resources Summary in Appendix A.

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

Basin	2024 Annual Operations Plan	
	Partial Cut	Clearcut
Astoria	0	154
Beneke	155	245
Buster	0	265
Crawford	0	0
Davis	0	119
Fishhawk	0	0
Gnat	0	528
Hamilton	161	12
Klaskanine	0	0
Lousignot		235
N. Fork Nehalem	0	52
Northrup	0	95
Plympton	0	54
Quartz	0	0
Sager	0	0
Scattered	0	0
Sweethome	0	0
Totals	316	1,706

Astoria Basin

ODR: This operation consists of three modified clearcut units totaling 154 acres. The mixed conifer stands within this sale are between 57 and 67 years old. The current condition of a majority of the sale area is Layered with a minor amount of Understory. Approximately 6 acres of Unit 3 has a current condition of Understory. Following the completion of harvest, the unit will be replanted with a mixture of species to be determined closer to the time of reforestation.

Approximately 0.7 miles (0.1 miles of rocked and 0.6 miles of unsurfaced) of spur road will be constructed to facilitate harvest. Approximately 5.5 miles of road will be improved in conjunction with this sale.

There is potential for stream enhancement within Unit 2. Additional reconnaissance will be needed during sale layout to determine the best candidates and locations.

Beneke Basin

Ebsen Jarvie Thin: A portion of Ebsen Jarvie Thin (Units 4 and 5) is located within the Hamilton basin. See sale description under the Hamilton Basin.

All of the Units are within a Draft Habitat Conservation Area. District staff has consulted with Biologists on thinning these stands to develop more complex structure and improve habitat. More consultation will take place as exact prescriptions are developed.

Wild Gander (Alternate): This operation consists of five modified clearcut units totaling 245 acres. The mixed conifer stand within the sale are between 31 and 77 years old. The 31 year old stand is being harvested to clean up a setting break. The current condition of the sale is a mix of Understory and Closed Single Canopy, with a Desired Future Condition of non-complex. Following the completion of harvest, the unit will be replanted with a mixture of species to be determined closer to the time of reforestation.

Approximately 1.4 miles (1.3 miles of rocked and 0.1 miles of unsurfaced) of spur road will be constructed to facilitate harvest. Approximately 10.6 miles of road will be improved in conjunction with this sale.

There is potential for stream enhancement within Unit 5. Additional reconnaissance will be needed during sale layout to determine the best candidates and locations.

Buster Basin

D.R. Chopper: This operation consists of four modified clearcut units totaling 230 acres. The mixed conifer stands within this sale are between 61 and 88 years old. The current condition of this sale is a mix of Understory and Layered. The units have a Desired Future Condition of non-complex stands. Following the completion of harvest, the unit will be replanted with a mixture of species to be determined closer to the time of reforestation.

Approximately 0.9 miles of rocked spur road will be constructed to facilitate harvest. Approximately 13.2 miles of road will be improved in conjunction with this sale.

Tin Man Alder: This operation consists of two modified clearcut units totaling 35 acres. The mixed conifer and hardwood stands within this sale are between 36 and 77 years old. The current condition of this sale is Understory. The units have a Desired Future Condition of non-complex stands. Following the completion of harvest, the unit will be replanted with a mixture of species to be determined closer to the time of reforestation.

Approximately 0.1 miles of rocked spur road will be constructed to facilitate harvest. Approximately 5.9 miles of road will be improved in conjunction with this sale.

There is a point of diversion upstream from Unit 1. Due to its location no action is needed. There is a point of diversion on the eastern boundary of Unit 2. The district will locate the point of diversion and contact the landowner prior to sale layout.

Crawford Basin

There are no harvest operations planned in this basin for Fiscal Year 2024.

Davis Basin

Humpty's Wall: This operation consists of three modified clearcut units totaling 119 acres. The mixed conifer stands within this sale are between 35 and 62 years old. The current condition of a majority of the sale area is Understory. Approximately 13 acres of Unit 1 has a current condition of Layered. The units have a Desired Future Condition of non-complex stands. Following the completion of harvest, the unit will be replanted with a mixture of species to be determined closer to the time of reforestation.

Approximately 0.3 miles of rocked spur road will be constructed to facilitate harvest. Approximately 9.2 miles of road will be improved in conjunction with this sale.

Recreation resources exist within proximity of the sale. Gnat Creek Campground and Gnat Creek Trailhead exist along the timber sale haul route. The Marketing and Roads Units will work closely with the Recreation Unit during road project layout and contract writing to put provisions in place to minimize impact to the recreation facility and mitigate public use safety concerns.

Fishhawk Basin

There are no harvest operations planned in this basin for Fiscal Year 2024.

Gnat Basin

Shingle Knob: This operation consists of two modified clearcut units totaling 170 acres. The mixed conifer and hardwood stands within this sale are between 56 and 73 years old. The current condition of the sale area is Understory. The units have a Desired Future Condition of non-complex. Following the completion of harvest, the units will be planted with a mixture of species to be determined closer to the time of reforestation.

Approximately 0.1 miles of rocked spur road will be constructed to facilitate harvest. Approximately 10 miles of road will be improved in conjunction with this sale.

The first few miles of Nicolai and Shingle Mill are both used extensively for Recreational purposes. Signage on Nicolai is already posted but additional signs on Shingle Mill may be needed. The REI unit will determine if additional signage is needed when operations commence.

Mill Shack: This operation consists of four modified clearcut units totaling 279 acres. The mixed conifer and hardwood stands within this sale are primarily between 53 and 77 years old. The current condition of a majority of the sale area is Understory. Approximately 1 acre of Unit 3 has a current condition of Regeneration. This area was a part of a previous salvage operation and will need to be yarded through for this sale. Approximately 56 acres of Unit 3 have a current condition of Layered. The units have a Desired Future Condition of non-complex stands. Following the completion of harvest, the units will be planted with a mixture of species to be determined closer to the time of reforestation.

Approximately 0.8 miles (0.7 miles of rocked and 0.1 miles of unsurfaced) of spur road will be constructed to facilitate harvest. Approximately 9.3 miles of road will be improved in conjunction with this sale.

A short section of the Knob Loop four-wheel drive trail is within Unit 4. A trail re-route is planned for the eastern portion of this trail approaching its intersection with Shingle Mill Road.

The first few miles of Nicolai and Shingle Mill are both used extensively for Recreational purposes. Signage on Nicolai is already posted but additional signs on Shingle Mill may be needed. The Recreation, Education and Interpretation unit will determine if additional signage is needed when operations commence.

East Micro (Alternate): This operation consists of one modified clearcut unit totaling 80 acres. The conifer stand within this sale is 54 years old. The current condition of the sale area is Understory with a Desired Future Condition of non-complex. Following the completion of harvest, the units will be planted with a mixture of species to be determined closer to the time of reforestation.

The Sale Unit is in close proximity to the Nicolai Off Highway Vehicle Campground and portions of the Trunk Line Trail are within the proposed sale boundary. Portions of this trail are in need of improvement. Opportunities for improvement or re-routes will be identified during sale layout.

Approximately 0.3 miles of unsurfaced spur road will be constructed to facilitate harvest. Approximately 6.4 miles of road will be improved in conjunction with this sale.

Hamilton Basin

Ebsen Jarvie Thin: This operation consists of five partial cut units and one modified clearcut unit totaling 328 acres. The conifer/hardwood stands within this sale are between 30 and 82 years old. The current condition of this sale is understory.

Approximately 1.5 miles (0.1 miles of rocked and 1.4 miles of unsurfaced) of spur road will be constructed to facilitate harvest. Approximately 15.1 miles of road will be improved in conjunction with this sale.

All of the units are within a Draft Habitat Conservation Area. The thinning prescription for this stand will be developed to create more complex structure and improve habitat.

Klaskanine Basin

There are no harvest operations planned in this basin for Fiscal Year 2024.

Louisignot Basin

Kingsmen: This operation consists of three modified clearcut units totaling 153 acres. The conifer/hardwood stands within this sale are between 76 and 81 years old. The current condition of the sale area is Understory. The units have a Desired Future Condition of non-complex. There is just over an acre at the southern boundary of Unit 3 with a Desired Future Condition of Older Forest Structure. This area has been shown as No Harvest – Other to allow for time to determine where the stream buffer would be posted and determine if it will fall within the stream buffer or a minor modification would be required. Following the completion of harvest, the units will be planted with a mixture of species to be determined closer to the time of reforestation.

Approximately 1.1 miles of rocked spur road will be constructed to facilitate harvest. Approximately 4.8 miles of road will be improved in conjunction with this sale.

Lusignan: This operation consists of one modified clearcut totaling 82 acres. The conifer/hardwood stand within this sale are between 64 and 92 years old. The current condition of the sale area is Understory. The unit has a Desired Future Condition of non-complex. Following the completion of harvest, the unit will be planted with a mixture of species to be determined closer to the time of reforestation.

Portions of the Northrup Horse Trail are present within the proposed sale boundary.

A small portion (~5 acres) of this Operation is located within the Northrup Creek Aquatic Anchor.

Approximately 0.3 miles of spur road will be constructed to facilitate harvest. Approximately 4.1 miles of road will be improved in conjunction with this sale.

North Fork Nehalem Basin

Middle Cole: This operation consists of one modified clearcut totaling 52 acres. The conifer/hardwood stand within this sale are 97 years old. The current condition of the sale is 23 acres of Layered, three acres of Older Forest Structure and eight acres of Understory. The unit has a Desired Future Condition of non-complex. Following the completion of harvest, the unit will be planted with a mixture of species to be determined closer to the time of reforestation.

This operation is located within the Upper North Fork Nehalem Aquatic Anchor.

Approximately 0.1 miles of rocked spur road will be constructed to facilitate harvest. Approximately 5.4 miles of road will be improved in conjunction with this sale.

Northrup Basin

Hawkins (Alternate): This operation consists of two modified clearcuts totaling 95 acres. The Douglas-fir and red alder stands within this sale are between 66 and 82 years old. The current condition of the sale is Understory. The unit has a Desired Future Condition of non-complex. Following the completion of harvest, the unit will be planted with a mixture of species to be determined closer to the time of reforestation.

This operation is located within the Northrup Creek Aquatic Anchor.

Approximately 1.0 miles (0.9 miles of rocked and 0.1 miles of unsurfaced) of spur road will be constructed to facilitate harvest. Approximately 1.2 miles of road will be improved in conjunction with this sale.

Plympton Basin

There are no harvest operations planned in this basin for Fiscal Year 2024.

Quartz Basin

There are no harvest operations planned in this basin for Fiscal Year 2024.

Sager Basin

There are no harvest operations planned in this basin for Fiscal Year 2024.

Scattered Basin

There are no harvest operations planned in this basin for Fiscal Year 2024.

Sweethome Basin

There are no harvest operations planned in this basin for Fiscal Year 2024.

Forest Roads Management

Overview

The State Forest road network provides access for forest management activities, fire suppression, and recreation. Visions, guiding principles, and goals for managing the road network are discussed in the Northwest Oregon State Forests Management Plan (April 2010) and the State Forest Roads Manual (September 2006). The State Forest Roads Manual also provides standards and guidance for all road management activities and definitions, road classifications and other terms.

The roadwork in this Annual Operations Plan is related to constructing spur roads and for improving haul routes for the Fiscal Year 2024 timber sales. This section describes the types of road management activities that will occur in Fiscal Year 2024 and the attached Forest Roads Summary Table (Appendix A, Table A-3) describes the anticipated total amounts.

Road Construction

The District evaluates each timber sale and strives to build the minimum number of roads required, except where the District has identified road systems that can be moved away from existing streams to mitigate hydrological issues. This may result in more road miles, but relocating roads away from the stream network is beneficial for watershed processes. The District tries to limit the number of stream crossings where possible when building new roads. Where stream crossings are unavoidable, new and replacement stream crossings will be designed to meet National Oceanic and Atmospheric Administration Fisheries (2022) passage criteria to maintain passage for covered fish species where applicable and follow best management practices outlined in the State Forest Roads Manual. All planned road construction is reviewed by the Geotechnical specialist to ensure that new roads are located in stable locations to provide the best protection to natural resources while meeting the objective of the road. Discussions are held regarding the long-term use of the road by the District staff for reforestation and future management, and whether a road needs to be surfaced or if it can be left unsurfaced. Financial costs of the construction and long-term maintenance are considered as well as potential impact to sale operations, anticipated closures related to weather, and long-term impact to wildlife and recreation.

Road Improvement

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

Work Order Contracts

Road maintenance and improvement projects not associated with a timber sale will be primarily facilitated through Work Order Contracts. This process uses the same protocols and guidance

outlined in the road improvement and maintenance sections but allows the department to be efficient in accomplishing this work and prepare for future projects. The work associated with these contracts can include bridge design, fish culvert installation, road brushing, road maintenance and repair, or repairing/replacing gates.

Other Planned Road Projects to be completed by Work Order Contract in the Fiscal Year 2024 Annual Operations Plan:

- Tin Man Alder Project Work
- North County Roadside Brushing – Approximately 40 miles.
- Road Maintenance – Emergency repairs, storm damage, debris, and slide cleanup, grading, snow plowing, ditch restoration, roadside brushing, gate repairs, etc.

Road Access Management

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

Hydrologic Connectivity

Hydrological connectivity surveys are performed on haul routes during sale layout. ODF prioritizes road improvement projects that address hydrologic connectivity and culvert replacements that are barriers to fish migration on active or planned haul routes and sites of opportunity near active or planned haul routes. Road maintenance investments are made to support forest operations, protect existing road infrastructure and water quality, and provide for safety improvements. ODF also closely monitors road conditions on active haul routes and performs additional patrols and assessments during and after inclement weather events. The District will continue conducting hydrologic connectivity surveys and mitigating items discovered during the process.

Road Maintenance

Roads will be maintained as necessary to protect water quality and the road system asset value. Road maintenance activities will follow the maintenance guidance in Chapter 7 of the Forest Roads Manual, Forest Practices rules, and Chapter 4 of the Draft Habitat Conservation Plan. Road maintenance is accomplished under timber sale contracts for roads used for hauling forest products, using the State Forest road crew or work order contracts. Maintenance is focused on ensuring proper drainage to prevent sediment entering streams. Collector roads and roads in active sale areas need and get the most maintenance. District personnel respond to heavy storms and thaw periods by performing road inspections, additional maintenance, and where necessary, stopping heavy truck use during periods when roads cannot handle traffic without damage to water quality or the road asset.

Management of Rock Source/Supply

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

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

- Green Mountain No. 1 – 7,000 cubic yards
- Viewpoint – 19,000 cubic yards
- Cole Mountain – 7,000 cubic yards

Annually, the rock that the District requires for road maintenance varies greatly depending on actual volume hauled, time of year, time of road construction, rock durability, and multiple other factors. The rock required is generally supplied from State owned stockpiles. The District will continue to explore new rock sources and further development of existing rock quarries in Fiscal Year 2024.

Land Surveying

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

- Ebsen Jarvie Thin - (1.0 miles)
- Mill Shack - (1.2 miles)

Young Stand Management

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

This section describes the types of reforestation and young stand management activities that will occur in Fiscal Year 2024 and the attached Young Stand Management Table (Appendix A, Table A-4) describes the anticipated total amounts. The location and amount (acres) of these activities are estimates based on plans, information and conditions as known at this point in time. The type, amount and specific stand management prescriptions will be further adjusted based on when existing harvest units are completed and on updated assessments and surveys that will occur during and after the 2023 growing season.

Reforestation activities will be completed by using experienced contractors. A portion of the activities will be completed by utilizing crews from South Fork Camp. These crews work on activities such as planting, inter-planting, tree protection, mechanical hand release, and noxious weed control.

Seedlings / Nurseries

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

Site Preparation

Site preparation is any planned measure to prepare a site to allow for favorable growing conditions for newly planted seedlings. More than one of these techniques may be used for any given site based on the attributes and reforestation prescription for the site. The three main site preparation techniques are mechanical, chemical and slash burning.

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

Planting

Tree planting operations are conducted for various reasons. These include meeting Forest

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

- 1) Initial Planting (Regeneration harvest units): Planting activities establish the desired species and stocking levels to meet the goals in the Forest Management Plan and Forest Practices Laws. Planted seedlings will be well suited and adapted to the reforestation site and where appropriate, a mixture of species may be planted to increase diversity on the landscape.
- 2) Interplanting: Interplanting may occur when stocking levels fall below or are at risk of falling below Forest Practices Act minimums. In certain instances, interplanting will occur to increase stocking on high quality sites to fully capture the site. In other areas, lower stocking will be acceptable, as it will provide high quality early seral habitat while still meeting Forest Practices Act requirements.
- 3) Underplanting: This type of planting is occasionally conducted after thinning in order to introduce both species diversity and an additional future layer of structure into a stand.
- 4) Natural Regeneration: Units or portions of units are assessed prior to planting. Natural regeneration is considered primarily in western hemlock stands that have been salvaged from 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 and other minor species is used to provide diversity in all harvest units.

Tree Protection

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

Vegetation Management – Release Treatments

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

Chemical Release: Chemical release treatments involve the application of herbicides to control undesirable vegetation. Typical application methods are broadcast, directed spray, and hack and squirt. Broadcast application treatments are sprayed over the top of seedlings and undesirable vegetation using either aerial or backpack methods. Directed spray applications are made with a backpack and target individual plants. This method is often used to remove invasive species such as Scotch broom from young stands. Hack and squirt involves basal or stem injection of chemicals. This method is typically applied to hardwoods to release conifers from hardwood competition.

Manual Release: Manual release can include cutting down of noxious weeds or hardwoods. Hardwood release is used when ingrowth of hardwoods, mainly red alder in the northwest and madrone and tanoak in the southwest, threaten to change the stand from conifer dominate to hardwood dominate. In this treatment, the majority of hardwoods are removed using chainsaws leaving all of the conifer trees. This differs from Pre-Commercial Thinning (described below) in the fact that conifer spacing and species are not manipulated. While hardwoods are important on the landscape and some are retained, long-term conifer production is the goal for many stands across the district.

Pre-Commercial Thinning

Pre-Commercial Thinning is a silviculture activity used to manipulate the density, structure or species composition of overstocked young forest stands. Generally, the purpose of a Pre-Commercial Thinning operation is to release the biggest and best growing trees so they can maintain their growth. Pre-Commercial Thinning is normally conducted in a stand between the ages of 10 and 20 years old. In areas of disease such as Swiss Needle Cast or *Phellinus weirii*, Pre-Commercial Thinning can be used to favor species other than impacted Douglas-fir trees in the residual stand.

Early Commercial Thinning

The primary objective of an Early Commercial Thin operation is to improve stand growth while capturing volume that would be lost due to natural mortality. This process could be viewed as revenue neutral or as a slight revenue generating activity based on markets at the time of the operation. Initial results have generated 45-55 tons of fiber per acre with an average return of \$85 per acre, prior to disbursement to the County. During times of a depressed timber market the operation could actually be revenue negative. However, along with improving the stocking and quality of the stand another benefit of these operations could be a reduction in the amount of pre-commercial thinning needed; which is currently a substantial cost to ODF. There is currently no Early Commercial Thinning planned for the Fiscal Year 2024 Annual Operation Plan.

Pruning

No pruning activities are planned for this Annual Operations Plan.

Stocking Surveys

The Reforestation Unit has the responsibility of ensuring that the goals of the Forest Management Plan are met. Stocking surveys is one tool to ensure the stands are on track for the desired future

condition. The surveys are done in order to check initial seedling survival at a time when the seedlings are vulnerable and there is still time to remedy problems, by using interplanting and animal damage control measures as examples. In addition, stocking surveys are conducted in order to assess free-to-grow status and to get baseline data on the stand for future management planning, for example evaluating release treatments and pre-commercial thinning candidates.

Invasive Species

Most noxious weeds or invasive plants are found along roads and have spread into adjacent stands. The main sources for the weed introduction into the forest are vehicle tires, equipment moved into and out of district, and where soil disturbance occurs. 100% weed-free grass seed and certified weed-free straw used for mulch is required for project work on roads. Equipment washing is required in timber sale contracts to prevent the introduction of weed seed from other sites. It is also required that weed-free hay is used for feeding stock on State Forest Lands.

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

Roadside Spraying

Reforestation works with the Forest Roads personnel on the management of vegetation alongside forest roads. Vegetation management protects the investment by preventing damage from unchecked vegetation growth, helps to maintain a safe driving environment by maintaining clear sight distance, controls noxious weeds, and reduces fire hazards. Roadside vegetation will be controlled manually, mechanically or chemically where necessary. The method used will depend on the characteristics of the vegetation and its location. During the spring of 2023, roadside vegetation surveys will be conducted to determine roadside chemical treatment needs for Fiscal Year 2024. The project will be done by utilizing experienced contractors.

Recreation Management

Overview of Recreation Management

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

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

Dispersed site activities are expected to continue in Fiscal Year 2024 and will require varying degrees of Recreation program and district staff attention. Dispersed use sites will be

monitored, maintained, and improved or closed as resources allow to meet safety, sanitation, and resource protection objectives.

The Fiscal Year 2024 plan focuses on maintaining current trails, facilities, and opportunities by maintaining the existing infrastructure, provide for public safety and sanitation, and mitigate damage to natural resources.

Due to facility and trail maintenance needs, winter weather limitations, timber sale activity, fire season restrictions, and staffing vacancies some project work from Fiscal Year 2023 will extend into Fiscal Year 2024.

Facilities (Campgrounds, Viewpoints, Trailheads, etc.)

The Recreation Program plans to operate and maintain the following developed facilities on the Astoria District:

- 5 Campgrounds
- 1 Off Highway Vehicle Staging and Day use Area
- 6 designated dispersed campsites
- 2 interpretive sites
- 7 Trailheads

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

Fiscal Year 2024 Facility projects on the Astoria District are identified and described in the following table (Table 6).

Table 6. Facility Projects

Project Type	Project Name	Project Status	Work Resources	Project Description
Planning	Spruce Run Toilet Building Replacement	Ongoing-Approved in Fiscal year 2023	Recreation Staff	Grant funding application submittal planned in Fiscal Year 2024 for replacement of flush toilet building that was removed in Fiscal Year 2023.
Planning	Information Board Replacements	Ongoing-Approved in Fiscal Year 2023	Recreation Staff, South Fork AIC Crew	Develop standard design of information boards at recreation sites consistent with state forest branding.
Planning	Site Sign Replacement	Ongoing-Approved in Fiscal Year 2023	Recreation Staff, South Fork AIC Crew	Develop standard design of site sign at recreation sites consistent with state forest branding.

Motorized (OHV) Trails

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

To support Off Highway Vehicle program management, ODF receives All-Terrain Vehicle Fund dollars from Oregon Parks and Recreation Department to support personnel and associated service and supply costs.

Fiscal year 2024 Motorized trail projects on the Astoria District are identified and described in the following table (Table 7).

Table 7. Motorized Trail Projects

Project Type	Project Name	Project Status	Work Resources	Project Description
Planning	Nicolai Off Highway Vehicle Area Trail System Management Plan Development	Ongoing-Approved in Fiscal Year 2023	OHV Trail Crew/ Volunteers	Trail System Management Plan Development
Trail Infrastructure Replacement	McNary Trail Bridge Replacement	Ongoing-Approved in Fiscal Year 2023	Off-Highway Vehicle Program Staff	Construction – Replace three trail bridges at existing locations. Construction to occur in Fiscal Year 2024.

Non-motorized Trails

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

Fiscal Year 2024 non-motorized trail projects on the Astoria District are identified and described in the following table (Table 8).

Table 8. Non-Motorized Trail Projects

Project Type	Project Name	Project Status	Work Resources	Project Description
Planning	Spruce Run Creek Trail Re-route and Improvement	Ongoing-Approved in Fiscal Year 2023	Recreation Staff	Complete location and design of trail connection from Spruce Run Creek Trail to Lost Lake Loop Trail.
Planning	Soapstone Trail Bridge Replacement	Ongoing-Approved in Fiscal Year 2022	Recreation Staff	Planning for construction of a 45' long trail bridge to replace a failing trail bridge that no longer meets design standards.
Planning	Trail Signage Replacement	Ongoing-Approved in Fiscal Year 2023	Recreation Staff	Develop standard design of trail signage consistent with state forest branding.
Planning	Trail Inventory and Assessment	Fiscal Year 2024	Recreation Staff	Inventory and assessment of non-motorized trails in the Astoria District including undesignated trails in the Astoria Basin.

Trail Maintenance (Motorized and Non-motorized)

Maintenance of existing trails remains the Recreation programs highest trail program priority. Trails will be maintained as necessary to protect investment, address developing resource and safety issues, and to protect water quality.

Maintenance needs vary year to year based on factors such as volume of use and seasonal weather conditions. The recreation program has a goal of performing maintenance on 1/3 of the trail system annually to meet our trail management objectives.

Trail maintenance activity includes the completion of trail condition inspections on all trails, development of maintenance plans, prioritization of maintenance needs and completion of maintenance work identified. Standard trail maintenance work may include cleaning water bars and rolling dips, cleaning out culverts, trail tread work, cleaning trail bridges, clearing downed trees, brushing, sign maintenance, and trail infrastructure repair.

Heavy trail maintenance work which results from winter storms includes repairing trail bridges, re-establishing trail tread in slide or washout areas, rebuilding stream ford crossings, clearing and logout work associated with heavy concentrations of downed trees, and rerouting trails due to slides, washouts, or safety issues. Heavy trail maintenance work will be incorporated into trail maintenance plans and conducted as needed.

Trail condition inspections will be conducted on all trail miles on the Astoria District (28 miles Off Highway Vehicle and 21 miles non-motorized). Standard trail maintenance work is planned to be completed on 10 miles of Off Highway Vehicle trail and 7 miles of non-motorized trail on the Astoria District in Fiscal Year 2024.

Recreation Program staff will work with the state forest engineer to conduct trail bridge inspections that will help inform trail bridge maintenance needs.

Timber Sale and Recreation Resource Interactions

As a working forest it is inevitable that as we plan future timber harvests there is interaction with our growing recreational infrastructure. The Marketing staff and Recreation staff have devoted a large amount of time and effort to identify each of these sale and trail interactions and identify what actions could be taken to protect the trails or in instances where the trail did not meet our sustainability or resource protection goals to vacate it.

Details have been added to Pre-Operation reports for each timber sale that has nearby recreational resources to detail what actions are planned for the recreational resource.

Timber sales may extend for several years depending on the flow of operations. The Fiscal Year shown in the table below are the year that the timber sales were approved. Trail assessments will occur as operations are completed.

Table 8. Timber Sale & Trail Interactions

Project Type	Timber Sale Name	Trail Name	Timber Sale Fiscal Year	Project Description
Planning	Lusignan	- Northrup Horse Trail	FY24	Trails within the identified timber sales will be assessed upon completion of logging operations to determine if trails are able to be re-opened or if additional trail planning efforts are required. See timber sale pre-op reports for additional information
Planning	Mill Shack	- Knob Loop 4x4 - McNary Loop OHV	FY24	
Planning	East Micro	- Trunkline OHV	FY24	

Volunteer Program and Partnerships

Volunteers contribute labor, supplies, and expertise to the Recreation, Education, and Interpretation Program. Volunteers have partnered with ODF to construct new trails, maintain infrastructure, and preserve natural resources.

Volunteer activities include.

- Camp Host Program at Spruce Run and Northrup Horse Camp Campgrounds
- Trail Maintenance and Construction Work Parties
- Adopt a Trail

In Fiscal Year 2024, activities associated with the volunteer program will include the recruitment, selection, and management of campground hosts; planning and management of trail maintenance, trail development, and special volunteer projects; and facilitation of Adopt a Trail program activities.

The Recreation program continues to engage with local volunteer groups to maintain working relationships and accomplish work. The program will continue to look for opportunities to develop new partnerships and to enhance existing partnerships that will increase our collective capacity to meet program and project goals and objectives.

Grants

The program will be exploring applying for grants to support a variety of infrastructure projects across state forest land.

The Recreation Program will also be partnering with clubs and organizations that will be submitting grant applications to advance Recreation program work in NW Oregon Area.

Other Integrated Forest Management Projects

Aquatic & Riparian Management

All fish bearing streams found in State Forests are subject to the Management Standards for Aquatic and Riparian Areas as outlined in Appendix J found in the Northwest Oregon State Forests Management Plan (2010). An objective of State Forests' aquatic resources is to maintain, enhance, and restore quality fish habitat. This is achieved primarily through riparian buffer strategies specific to the aquatic resource characteristics such as presence of fish, size, and flow duration. The goal of all riparian management prescriptions is to obtain mature forest conditions (e.g., development of the natural community appropriate for that site) as expediently as possible. Aquatic Anchors have been established on watersheds in the District in which additional aquatic conservation measures are applied when regeneration harvesting.

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.

In addition to the strategies detailed in the Forest Management Plan all goals and strategies identified within the Draft Habitat Conservation Plan will be followed for Fiscal Year 2024 timber sales. These goals and strategies at times will overlap with those within the management plan. Final stream protection configurations will be determined during sale layout to ensure compliance with Forest Management Plan and Habitat Conservation Plan strategies.

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

Fish Distribution Surveys: Streams are classified in part as supporting fish (Type F) or not supporting fish (Type N). Riparian protection measures depend in part on the presence of fish.

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

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

Potential Stream Projects are associated with the following Timber Sales:

- Ebsen Jarvie Thin
- ODR
- Wild Gander

Other Planned Projects to improve aquatic areas within the Fiscal Year 2024 Annual Operations Plan:

- Continue conducting hydrologic connectivity surveys and mitigating items discovered during this process.
- ODF will be partnering with the Upper Nehalem Watershed Council on an in-stream restoration project on Crawford Creek the summer of 2024.

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

Personnel on the Astoria District actively participate on the Upper and Lower Nehalem Watershed Councils and the District Operations Coordinator is a member of the North Coast Watershed Association board of directors.

Land Exchange

The District may commence a land exchange in Fiscal Year 2024 if budget and staffing assistance is available and if willing exchange partners come forward. These would only be high priority land exchanges and will be evaluated on a case by case basis.

Law Enforcement and Public Safety

Law enforcement on the district will be budgeted for and will be provided by a seasonal law enforcement officer from Clatsop County Sherriff's Office during the heavy recreation use season if a candidate is available.

Firewood Cutting Program

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

\$20 for two cords. Permits are issued for a period of three weeks. Historically firewood cutting has only been allowed outside the months of fire season. The District typically sells 700-1000 woodcutting permits each year.

Non-Timber Forest Products

The Astoria District currently administers a Special Forest Products program which consists of issuing Commercial Use Permits to individuals who wish to collect larger quantities of various forest products with the intent for the products to be re-sold. There is a fee charged to individuals for a Commercial Use Permit, which is based on the type of forest product and quantity. Special Forest Products include: mushrooms, salal, moss, and ferns. Additionally, the public has the ability to gather smaller quantities of these forest products, free of charge, for personal use. The District typically sells 150-200 special forest products permits each year.

Planning

Below are the significant district-level planning projects currently scheduled for commencement, completion, or both in Fiscal Year 2024.

Archaeological, Historical and Cultural Resources

All of the operations have been reviewed against the State Historic Preservation Office and General Land Office databases for potential impact to cultural resources. All of the operations have been shared with the nine federally recognized tribes in Oregon.

The following timber sales were identified to have potential cultural or historic within or in proximity to the timber sale. During sale layout or administration if foresters find any potential evidence of cultural or historic items inadvertent discovery policies will be followed.

- Ebsen Jarvie Thin
- Kingsmen
- Tin Man Alder
- Wild Gander

Forest Inventory

The State Forests Division is developing a lidar-based inventory that will replace Stand Level Inventory when completed. Lidar data was collected in 2020 for most ODF lands in the Northwest Oregon Area. Contract crews collected United States Forest Service Forest Inventory Assessment plots in 2021. The State Forest Division's Inventory Program is in the process of developing a raster-based estimate of forest biometrics across most of its ownership.

Wildlife Surveys

Northern Spotted Owl Surveys

For the Fiscal Year 2024 Annual Operations Plan, the District will continue the northern spotted owl 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 Northern Spotted Owl Operational Policies*, November 2017. If ODF obtains a Habitat Conservation Plan these policies will be re-evaluated.

Marbled Murrelet Surveys

In Fiscal Year 2024, the District will continue its marbled murrelet survey program in order to comply with Federal and State Endangered Species Acts and to contribute to Forest Management Plan goals. Survey requirements are determined in accordance with ODF policy, guidance, and survey protocols. If ODF obtains a Habitat Conservation Plan these policies will be re-evaluated.

Threatened and Endangered Plants

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

Species of Concern Wildlife

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

Research and Monitoring

Districts will assist in a variety of research and monitoring projects in Fiscal Year 2024. Examples include:

The Astoria District will continue monitoring the western hemlock and Douglas-fir progeny sites off of Wageland road. The two sites are part of the Northwest Tree Improvement Cooperative. The main goal of this cooperative is to enhance forest productivity in developing genetically improved trees with higher yield and better wood quality. The western hemlock progeny will require tube maintenance and the Douglas-fir progeny needs some vegetation control along the fence line and needs treatment of bigleaf maple clumps inside the unit. In the spring of 2022 the district began planting some wildflower seed for pollinators in a small trial. The project was expanded slightly in 2023 and will continue last years scope in 2024.

Other Planning Operations

In conjunction with the Recreation, Education and Interpretation Team, the District will provide input and context to recreation planning. The district will also continue to participate in Forest Management Plan and Habitat Conservation Plan reviews as needed.

Recreation, Education, and Interpretation Program Planning – Recreation, Education and Interpretation Program Wide

In Fiscal Year 2024, Recreation, Education and Interpretation program staff will be working on the following planning efforts.

- Support the State Forest Division's Forest Management Plan work, Habitat Conservation Plan work and District Annual Operation Plan development and implementation.

- Reservation Feasibility Study- Study to evaluate the potential to move Spruce Run, Beaver Eddy, and Gnat Creek Campgrounds to a campsite reservation system. This project began in the 2023 operations season and will continue through the 2024 operations season.
- Recreation Standards Manual Development- Recreation, Education and Interpretation to work with a consultant to develop a recreation program standards manual for recreation facility infrastructure (ex. fire pits, information boards, picnic tables, site signs...etc.). This project began in Fiscal Year 2023 and will continue in Fiscal Year 2024.
- Volunteer Program Manual- The REI program is undergoing an extensive re-evaluation of the volunteer program including onboarding, communication, and recruitment components. The deliverable of this process will be development of a volunteer manual that will be applied across all forests and programs. This project began in Fiscal Year 2023 and will continue in Fiscal Year 2024.

Public Information and Education

Public Information and Involvement

A number of district employees annually participate in the local school Career Day, Clatsop County Job and Career Fair, Sixth Grade Forestry Tour and Field Day, demonstration forest tours, Clatsop County Fair booth, State Fair booth, Society of American Forestry meetings and tours, and many public school presentations. The district has representatives who attend local watershed council meetings, including the Upper and Lower Nehalem Watershed. The District Operations Coordinator is on the Board of Directors of the North Coast Watershed Association and the District Forester is an elected officer on the Clatsop Forest Economic Development Committee.

Administration

There are 21 permanent positions whose full-time function is to manage State Forest land on the District and 6 permanent positions who work part-time on management of State Forest land. In addition, the District will be supported by the NW Oregon Area Recreation, Education and Interpretation Team and the NW Oregon Area Operations Team as well as the Division Planning and Coordination Team. All are responsible for implementing the Fiscal Year 2024 Annual Operations Plan. The district positions are divided into four functional groups: Forest Marketing, Forest Roads, Reforestation, and Administration. See the attached organizational chart.

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

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

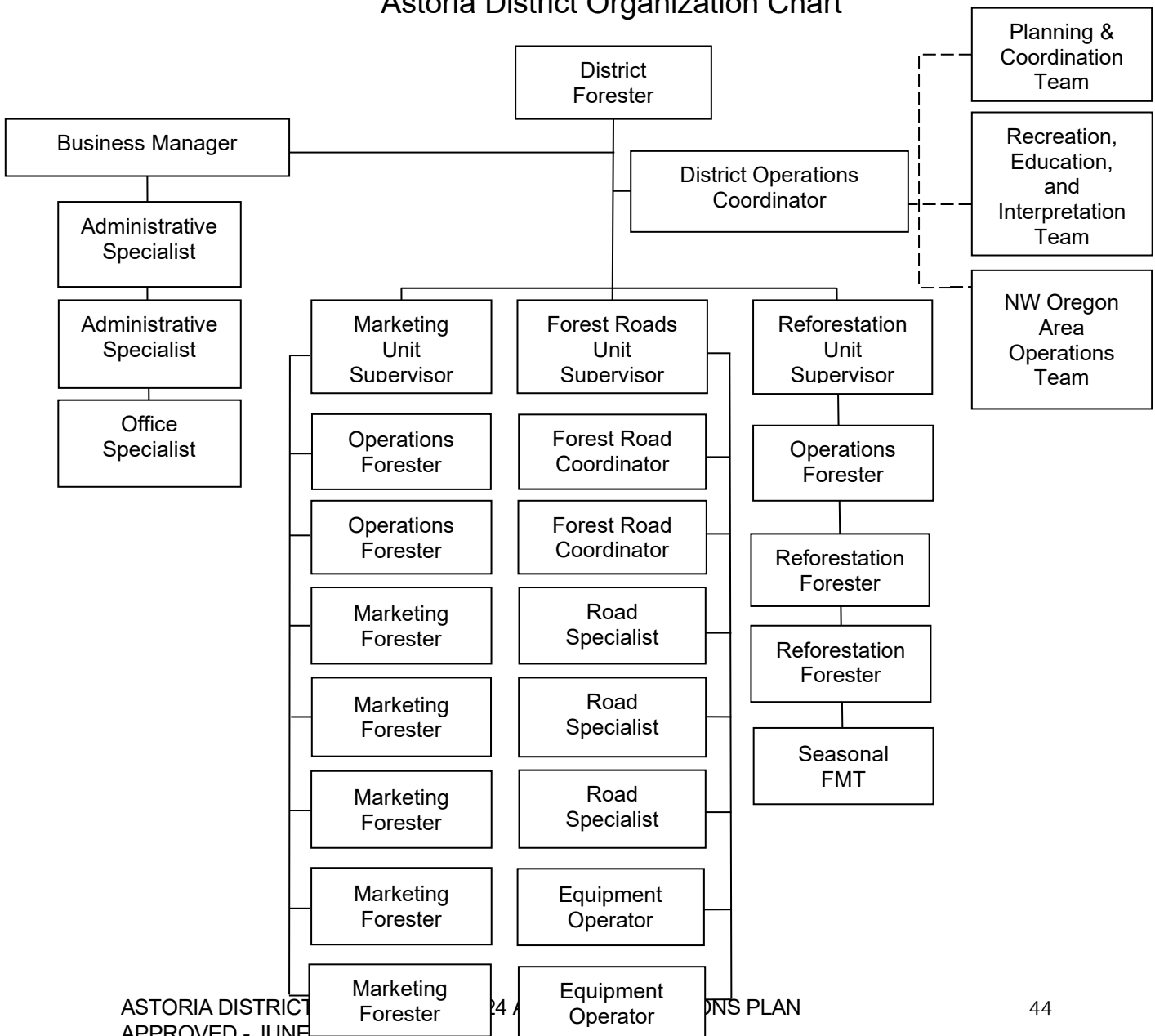
contract administration. The Forest Roads unit works with the Operations, Recreation, Education and Interpretation, and Planning & Coordination Team in developing the Annual Operations Plan.

The Reforestation unit is responsible for all activities in forest stands from the time the harvesting is complete until the new stand produces commercial timber. The activities of this unit include site preparation, trapping, tree planting, vegetation management, tree improvement, and pre-commercial thinning. The reforestation unit also coordinates South Fork crews and administers contracts to complete these tasks.

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

Each of these units and teams are responsible for ensuring the management approaches, activities, and projects are designed to meet the goals, strategies, and objectives of the Forest Management Plan, Implementation Plan, Annual Operations Plan, and Recreation Plan. The sales and projects are coordinated across the district and with the NW Oregon Area and Division Teams from the development of the Annual Operations Plan to the final sale administration for consistency within and between units to meet common goals.

Astoria District Organization Chart



APPENDICES

A. Summary Tables

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

B. Vicinity Maps

1. Harvest Operations Vicinity Map
2. Recreational Facilities Vicinity Map

C. Consultations with Other State Agencies

This appendix summarizes the results of consultations with the Oregon Department of Fish and Wildlife, Oregon Department of Transportation and other agencies as appropriate.

D. Public Comment Process

This appendix will describe the results of the public comment process of this Annual Operations Plan .

E. Pre-Operations Reports

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

F. Forest Land Management Classification

G. Landscape Design

Appendix A – Summary Tables

- **Table A-1: Commercial Forest Management Operations - Financial Summary**
- **Table A-2: Commercial Forest Management Operations – Forest Resource Summary**
- **Table A-3: Forest Roads Summary**
- **Table A-4: Reforestation and Young Stand Management Summary**
- **Table A-5: Recreation Site Management – Financial Summary**
- **Table A-6: Recreation Trail Management – Financial Summary**
- **Table A-7: Recreation Grant Management – Financial Summary**

Table A-2: PRIMARY HARVEST OPERATIONS - FOREST RESOURCE SUMMARY

District: Astoria

Fiscal Year 2024

Date: 06/30/2023

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	LVR/OFS Structures ²	Landscape Design LVR/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 MIMMA (BA Required)	Murrelet Timber Sale Screening Process Required (MM Policy 2.27)	T&E Fish Adjacent to Harvest Unit / Haul Route ⁵	T&E Plants	Geotechnical Issues Needing Field Review	Recreation Sites	Cultural Resources	Scenic Resources	Other Resources or Issues	
D.R. Chopper	-	-	X	X	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	
Ebsen Jarvie Thin	-	-	X	-	X	-	-	X	X	-	-	-	-	-	-	-	-	-	X	X	-	
Humpty's Wall	-	-	X	X	-	-	-	X	-	-	-	-	-	-	X	-	X	X	-	-	-	
Kingsmen	-	-	X	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	X	-	-	
Lusignan	-	-	X	-	-	-	-	-	-	X	-	-	-	-	X	-	-	X	-	-	-	The portion of Unit 1 within a AA has no streams associated with it
Middle Cole	-	-	X	X	-	-	-	-	-	X	-	-	-	-	X	-	-	-	-	-	-	
Mill Shack	-	-	X	X	-	-	-	-	-	-	-	-	-	-	X	-	-	X	-	-	-	
ODR	-	-	X	X	-	-	-	-	X	-	-	-	-	-	X	-	-	-	-	-	-	
Shingle Knob	-	-	X	-	-	-	-	-	-	-	-	-	-	-	X	-	-	X	-	-	-	
Tin Man Alder	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	X	-	-	

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

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

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

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	LVR/OFS Structures ²	Landscape Design LVR/OFS ³	Install/Replace Culverts on Fish Bearing / Perennial Streams	Harvesting within 100' of Fish Bearing Stream	Domestic Water Source	Potential Stream Habitat Improvement ⁴	Within Aquatic Anchor	Within Terrestrial Anchor	Operating within a NSO Provincial Circle	Operating within a MIMMA (BA Required)	Murrelet Timber Sale Screening Process Required (MM Policy 2.27)	T&E Fish Adjacent to Harvest Unit / Haul Route ⁵	T&E Plants	Geotechnical Issues Needing Field Review	Recreation Sites	Cultural Resources	Scenic Resources	Other Resources or Issues	
East Micro	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	
Hawkins	-	-	X	-	X	-	-	-	-	X	-	-	-	-	X	-	X	-	-	-	-	
Wild Gander	-	-	X	-	-	-	-	-	X	-	-	-	-	-	X	-	X	-	X	-	-	

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

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

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

TABLE A3: FOREST ROADS SUMMARY

District: Astoria		Fiscal Year: 2024		Date: 06/30/2023					
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					
D.R. Chopper	0.9	\$61,200	13.2	\$259,800	\$171,250	\$492,250	\$5,542,500	9%	
Ebsen Jarvie Thin	1.5	\$44,600	15.1	\$147,400	\$51,250	\$243,250	\$1,129,875	22%	
Humpty's Wall	0.3	\$20,400	9.2	\$123,300	\$28,500	\$172,200	\$1,428,000	12%	
Kingsmen	1.1	\$74,800	4.8	\$96,000	\$428,750	\$599,550	\$3,830,500	16%	
Lusignan	0.3	\$20,400	4.1	\$76,900	\$5,000	\$102,300	\$2,357,500	4%	
Middle Cole	0.1	\$5,959	5.4	\$38,719	\$117,630	\$162,308	\$1,201,980	14%	
Mill Shack	0.8	\$50,900	9.3	\$108,000	\$11,250	\$170,150	\$2,644,950	6%	
ODR	0.7	\$26,600	5.5	\$117,200	\$39,000	\$182,800	\$1,861,600	10%	
Shingle Knob	0.1	\$6,800	10.0	\$200,000	\$2,500	\$209,300	\$2,627,350	8%	
Tin Man Alder	0.1	6800	5.9	\$31,500	\$3,000	\$41,300	\$340,000	12%	
Sub-total	5.9	\$318,459	82.5	\$1,198,819	\$858,130	\$2,375,408	\$22,964,255		
Sub-total WOC (see below)	0.0	\$0	0.00	\$0	\$430,000	\$430,000			
Total	5.9	\$318,459	82.5	\$1,198,819	\$1,288,130	\$2,805,408	\$22,964,255	12.2%	
Alternate Operations									
East Micro	0.3	\$12,000	6.4	\$41,000	\$2,500	\$55,500	\$ 910,000	6%	
Hawkins	1.0	\$64,500	1.2	\$18,000	\$17,500	\$100,000	\$ 2,743,125	4%	
Wild Gander	1.4	\$91,700	10.6	\$175,200	\$235,500	\$502,400	\$ 4,545,375	11%	
Total	2.70	\$168,200	18.20	\$234,200	\$255,500	\$657,900	\$8,198,500	8.0%	
Road Projects Not Associated with Harvest Operations in this AOP:					Road Brushing, Road Maintenance	\$370,000			
Road Projects to be Completed as a Work Order Contract									
Operation	Construction		Improvement		Other Projects	Total Project Costs	Funding Source	Comments	
	Miles	Cost	Miles	Cost					
Tin Man Alder					*	*		May be completed with WOC	
Roadside Spray (inc. Chemical)					\$60,000			Split amongst Taxing Districts treated	
Total	0.0	\$0	0.0	\$0	\$60,000	\$0			

Table A-4: REFORESTATION AND YOUNG STAND MANAGEMENT SUMMARY

District: Astoria Fiscal Year: 2024 Date: 02/06/2023

Projects Conducted by ODF Staff or Contractors	Board of Forestry			Common School Forest Lands			District	
	Acres Planned	Average Cost*/Acre	BOF Cost	Acres Planned	Average Cost*/Acre	CSL Cost	Total Acres	Total Cost
Site Prep - Broadcast Burning	0	\$0	\$0			\$0	-	\$0
Site Prep - Piling Burning*	1,619	\$10	\$16,190	66	\$10	\$660	1,685	\$16,850
Site Prep - Mechanical	0	\$0	\$0			\$0	-	\$0
Site Prep - Chemical - Aerial	1,105	\$95	\$104,975	66	\$95	\$6,270	1,171	\$108,275
Site Prep - Chemical - Ground	81	\$150	\$12,150			\$0	81	\$12,960
Initial Planting	1,186	\$185	\$216,620	66	\$185	\$12,210	1,252	\$229,116
Interplanting	200	\$150	\$30,000			\$0	200	\$30,000
Underplanting	0	\$0	\$0			\$0	-	\$0
Tree Protection - Barriers	0	\$0	\$0			\$0	-	\$0
Tree Protection - Direct Control	0	\$0	\$0			\$0	-	\$0
Release - Chemical - Aerial	600	\$70	\$42,000			\$0	600	\$51,600
Release - Chemical - Ground	261	\$148	\$38,628			\$0	261	\$38,268
Release - Manual	0	\$0	\$0			\$0	-	\$0
Precommercial Thinning	200	\$200	\$45,000			\$0	200	\$45,000
Pruning	0	\$0	\$0			\$0	-	\$0
Stocking Surveys*	2,976	\$1	\$2,976			\$0	2,976	\$2,976
Invasive Species	150	\$150	\$22,500			\$0	150	\$22,500
Roadside Vegetation Mngt	0	\$0	\$0			\$0	-	\$0
Other	15	\$1,302	\$19,530			\$0	15	\$19,530
Totals	8,393	--	\$550,569	198	--	\$19,140	8,591	\$577,075

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

Projects Conducted by South Fork Crews (costs are for materials only)	Board of Forestry			Common School Forest Lands			District	
	Acres Planned	Average Cost*/Acre	BOF Cost	Acres Planned	Average Cost*/Acre	CSL Cost	Total Acres	Total Cost
Site Prep - Broadcast Burning	0	\$0	\$0			\$0	-	\$0
Site Prep - Piling Burning	100	\$10	\$1,000			\$0	100	\$1,000
Site Prep - Mechanical	0	\$0	\$0			\$0	-	\$0
Initial Planting	7	\$0	\$0			\$0	7	\$0
Interplanting	25	\$0	\$0			\$0	25	\$0
Underplanting	0	\$0	\$0			\$0	-	\$0
Tree Protection - Barriers	600	\$20	\$12,000			\$0	600	\$12,000
Tree Protection - Direct Control	534	\$0	\$0	66		\$0	600	\$0
Release - Manual	200	\$0	\$0			\$0	200	\$0
Precommercial Thinning	0	\$0	\$0			\$0	-	\$0
Pruning	0	\$0	\$0			\$0	-	\$0
Invasive Species	150	\$0	\$0			\$0	150	\$0
Other		\$0	\$0			\$0	-	\$0
Totals	1,616	--	\$13,000	66	--	\$0	1,682	\$13,000

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

RECREATION SITE MANAGEMENT SUMMARY

District: Astoria

Fiscal Year: 2024

Date : 02/24/2023

Project	ODF (\$)	Other (\$)	Total Costs	Comments
None				
	FDF Total		\$0	
	Other Total		\$0	
	TOTAL		\$0	

RECREATION TRAIL MANAGEMENT SUMMARY

District: Astoria

Fiscal Year: 2024

Date : 02/24/2023

Project	Construction Projects			Maintenance			Total Costs**	Comments
	Miles	ODF (\$)	Other (\$)	Miles	ODF (\$)	Other (\$)		
Non-Motorized								
Trail Maintenance				7.0			\$0	Trail Maintenance to be completed by ODF Staff, AIC Crews, or Volunteers.
Motorized								
Trail Maintenance				10			\$0	Trail Maintenance to be completed by ODF OHV Staff and/or Volunteers
							FDF Total	\$0
							Other Total	\$0
							TOTAL	\$0

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

**Labor cost not reflected in totals.

RECREATION GRANT MANAGEMENT SUMMARY

District: Astoria

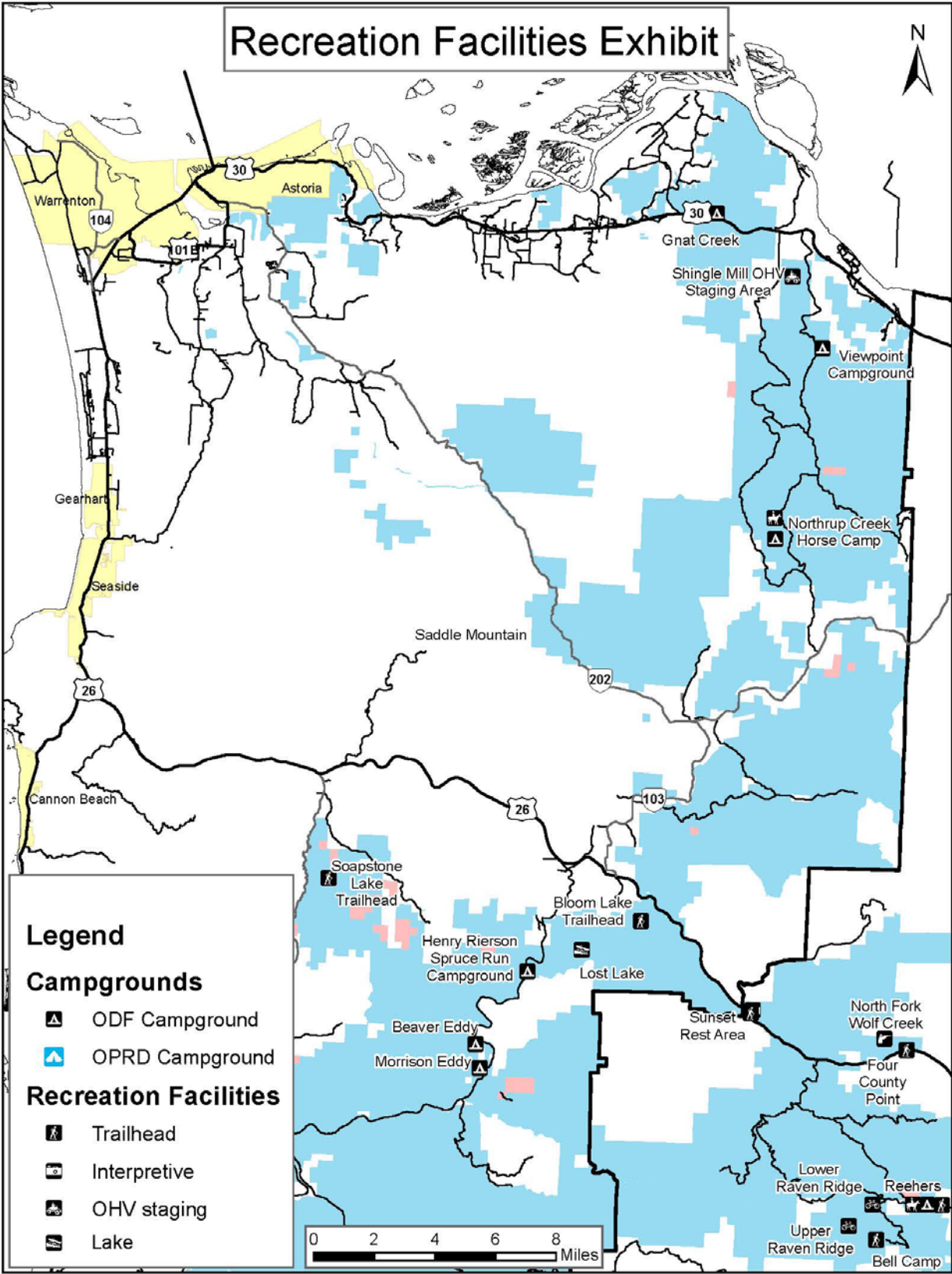
Fiscal Year: 2024

Date : 02/24/2023

Project Name	Grant	Status	Award Date (actual or anticipated)	Goals/Purpose	Funding		Project Total	Comments
					Grant (\$)	Match (\$)		
CXT Toilet Building Purchase and Installations	Land and Water Conservation Fund Grant	Application submittal expected October 2023	07/01/2024	Facility Improvement, Visitor Accomodation, and Resource Protection	\$100,000	\$100,000	\$200,000	Grant funding application submittal planned in FY24 for replacement of toilet building at Spruce Run Campground and toilet building additions at Jones Creek Campground and Drift Creek Trailhead. Matching ODF funds will be a FY25 expenditure.
					Grants Total		\$100,000	
					Match Total		\$100,000	
					TOTAL		\$200,000	

Appendix B – Vicinity Maps

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



Appendix C – Consultations with Other State Agencies

Oregon Department of Fish and Wildlife (ODFW):

Oregon Department of Fish and Wildlife biologists were provided the Summary Document and Pre-Operations Reports for review. A follow up cooperator/specialist meeting was held to address questions and concerns. ODF&W expressed an interest in working with ODFs Stream Specialist on identifying potential stream enhancement projects and prescriptions throughout the coming fiscal year.

Appendix D – Public Comment Process

The Oregon Department of Forestry issued a Press Release in April 2023, announcing a formal 45-day public comment period for the Fiscal Year 2024 Annual Operations Plans from April 25, 2023 through June 08, 2023.

The purpose of the Public Comment Period was to provide an opportunity for the public to review the Annual Operations Plan, ask questions, make recommendations and offer comments. As a public agency, ODF strives to operate in the best interest of Oregonians. We provide opportunities for public participation to assist us in securing the greatest permanent value from state forests for all Oregonians.

The following changes have been made to the Astoria FY24 AOP since the Public Comment Period:

Annual Operation Reports:

- Geotechnical information was updated on the following sales
 - Hawkins and Middle Cole
- Boundary Modifications on the following sales
 - Middle Cole
- Species, Volume, Value, or logging percentage adjustments on the following sales
 - Hawkins; Kingsmen; and Middle Cole
- Project cost adjustments (Primarily updating haul costs) on the following sales
 - D.R. Chopper; Ebsen Jarvie Thin; Humpty's Wall; Lusignan; Middle Cole; Mill Shack; ODR; Shingle Knob; East Micro; and Wild Gander.
- Updated fish survey information and seasonal vs perennial language in all reports and maps
- Other Resource Considerations edits
 - Ebsen Jarvie Thin

Summary Tables:

- Table A1: Updated project costs, volume, value, and acreage numbers.
- Table A2: Updated Kingsmen Landscape Design to show sale has a Desired Future Condition of non-complex. Updated Geotech review for Middle Cole.
- Table A3: Updated project miles and costs

Summary Document:

- The Summary Document has been updated to reflect the changes listed above.
- Added Pre-Commercial Thinning operations to Young Stand Management
- Updated Recreation Project list to include Nicolai OHV bridge replacements

Misc:

- Minor grammatical edits to Pre-Operations Reports, maps, Summary Tables, and Summary Document

Below is a link to a summary of the comments received for the FY24 AOPs and ODF's responses to those comments.

<https://www.oregon.gov/odf/documents/aboutodf/2024-aop-public-comment-summary.pdf>

Appendix E – Pre-Operations Reports

Pre-Operations Reports are available online through a Web Application at the following link:

<https://geo.maps.arcgis.com/apps/webappviewer/index.html?id=ae569c1ff445457eb8fe1b556699bce8>

Just zoom to the District you are interested in and click on any sale. A pop-up box should show up with a link to the Pre-Operations Report for the sale.

Appendix F – Forest Land Management Classification

Modification Notice

No modifications are proposed with the Fiscal Year 2024 Annual Operations Plan.

Appendix G – Landscape Design

Implementation Plan Minor Modification Notice

No modifications are proposed with the Fiscal Year 2024 Annual Operations Plan.