

STATE FOREST LAND
SEPA ENVIRONMENTAL CHECKLIST

Purpose of checklist:

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants:

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use “not applicable” or “does not apply” only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

Questions in italics are supplemental to Ecology’s standard environmental checklist. They have been added by the DNR to assist in the review of state forest land proposals. Adjacency and landscape/watershed-administrative-unit (WAU) maps for this proposal are available on the DNR internet website at <http://www.dnr.wa.gov/sepa>. These maps may also be reviewed at the DNR regional office responsible for the proposal. This checklist is to be used for SEPA evaluation of state forest land activities.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Instructions for Lead Agencies:

Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

Use of checklist for nonproject proposals:

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the [SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS \(part D\)](#). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in Part B - Environmental Elements –that do not contribute meaningfully to the analysis of the proposal.

A. BACKGROUND

1. Name of proposed project, if applicable:

Timber Sale Name: **AMOEB**
Agreement # **30-106098**

2. Name of applicant: **Washington Department of Natural Resources**

3. Address and phone number of applicant and contact person:

Pacific Cascade Region
PO Box 280
Castle Rock, Washington 98611-0280
360.577.2025
Contact Person: Becky VonDracek

4. Date checklist prepared: **09/27/2024**

5. Agency requesting checklist: **Washington Department of Natural Resources**

6. Proposed timing or schedule (including phasing, if applicable):

a. Auction Date:

04/24/2025

b. Planned contract end date (but may be extended):

10/31/2027

c. Phasing:

None

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

No, go to question 8.

Yes, identify any plans under A-7-a through A-7-d:

a. Site Preparation:

Site preparation, including a chemical herbicide application, may be used to ensure that planting can be achieved at acceptable stocking levels to meet or exceed Forest Practices standards following harvest. Slash piles may be burned during the fall before planting.

b. Regeneration Method:

All Variable Retention Harvest (VRH) units will be hand planted with conifer species following harvest.

c. Vegetation Management:

Possible treatments, including a chemical herbicide application, could occur following harvest. Treatments will be based on vegetative competition, and will ensure a free-to-grow status that complies with Forest Practices standards.

d. Other:

Road maintenance assessments will be conducted and will include periodic ditch and culvert cleanout, and grading as necessary.

Rock will be obtained from the Radar Ridge Pit for road building and associated forest management activities.

Piled slash may be burned following harvest activities. Firewood permits for the sale area may be issued to the public after harvest activities are completed.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal. *Note: All documents are available upon request at the DNR Region Office.*

- 303 (d) – listed water body in WAU: **Unnamed Creek**
 - temp
 - sediment
 - completed TMDL (total maximum daily load)
- Landscape plan:
- Watershed analysis:
- Interdisciplinary team (ID Team) report:
- Road design plan: **Included in Road Plan**
- Wildlife report:
- Geotechnical report:
- Other specialist report(s):
- Memorandum of understanding (sportsmen's groups, neighborhood associations, tribes, etc.):
- Rock pit plan: **Included in Road Plan**
- Other:

The following analyses, policies, procedures, documents, and data layers directly pertain to or were reviewed as part of this proposal:

- **DNR Policies and Implementation**
 - **Policy for Sustainable Forests (PSF; 2006a)**
 - **Final Environmental Impact Statement on the Policy for Sustainable Forests (2006b)**
 - **Alternatives for the Establishment of a Sustainable Harvest Level for Forested State Trust Lands in Western Washington Final Environmental Impact Statement (2019)**

- **Landscape Assessment to Identify and Manage Structurally Complex Stands to Meet Older-Forest Targets in Western Washington, May 2024 (Revised September 2024).**
- **Identifying Mature and Old Forests in Western Washington by Robert Van Pelt (2007).**
- **Silvicultural Rotational Prescriptions**
- **Land Resource Manager Reports and associated maps**
- **DNR Trust Lands Habitat Conservation Plan and Supplemental Information**
 - **Final Habitat Conservation Plan (HCP; 1997)**
 - **Final (Merged) Environmental Impact Statement for the Habitat Conservation Plan (1998)**
 - **Long-Term Conservation Strategy for the Marbled Murrelet Final Environmental Impact Statement (2019)**
 - **Final State Trust Lands Habitat Conservation Plan Amendment: Marbled Murrelet Long-term Conservation Strategy**
 - **Riparian Forest Restoration Strategy (RFRS; 2006)**
 - **Spotted Owl Habitat GIS Layer**
 - **Marbled Murrelet Habitat GIS Layer**
 - **WAU Rain-On-Snow GIS Layer and Reports**
 - **Biological Opinion on the HCP, USFWS; January 27, 1997**
 - **Biological Opinion on the HCP, NMFS; January 29, 1997**
 - **Biological Opinion on the HCP Marbled Murrelet Long-term Conservation Strategy Amendment, USFWS; November 7, 2019**
 - **Reinitiated Biological Opinion on the Incidental Take Permit (PRT-812521), USFWS; March 21, 2024**
- **Forest Practices Regulations and Compliance**
 - **Forest Practices Board Manual**
 - **Forest Practices Activity Maps**
 - **Trust Lands HCP Addendum and Checklist**
- **Supporting Data for Unstable Slopes Review**
 - **State Lands Geologist Remote Review (SLGRR)**
 - **Lidar Data and Derivatives**
 - **Draft Landform Remote Identification Model (LRIM) screening tool**
 - **Published Landslide Inventories**
 - **Historic Aerial Photographs**
 - **Published Geologic Mapping**
- **Supporting Data for Cultural Resources Review**
 - **Historical Aerial Photographs**
 - **USGS and GLO maps**
 - **Department of Archaeology and Historic Preservation database for architectural and archaeological resources and reports (WISAARD)**
- **Additional Supporting Data for Policy Compliance**
 - **Weighted Old Growth Habitat Index (WOGHI)**
 - **State Soil Survey**
 - **Stand Development Stage Assessment form**

Referenced documents may be obtained from the Pacific Cascade Region Office.

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

None known.

10. List any government approvals or permits that will be needed for your proposal, if known.

- FPA # **2943013** FPHP Board of Natural Resources Approval
- Burning permit Shoreline permit Existing HPA
- Other:

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

a. Complete proposal description:

The Amoeba Timber Sale is a 2 unit timber sale located in the Radar Block removing approximately 5,309 MBF utilizing both shovel and cable systems. Rock will be obtained from the Radar Ridge Pit.

Unit	Proposal Acres (gross)	RMZ/WMZ Acres	Potentially Unstable Slope Acres	Existing Road Acres (within unit)	Sale Acres	Leave Tree Clump Acres	Net Harvest Acres
1	195	85	0*	0	110	11	99
2 (ROW)	17	0	0	2	15	0	15
Totals	212	85	0*	2	125	11	114

***Approximately 5 acres of potentially unstable slopes were located within Leave Tree areas or RMZ.**

b. Describe the stand of timber pre-harvest (include major timber species and origin date), type of harvest and overall unit objectives.

Pre-harvest Stand Description:

The Amoeba Timber Sale is 114 net harvest acres with 96 acres (45% of the proposal area) are being conserved from the overall proposal area that was evaluated for harvest. These conservation areas may include potentially unstable slopes, riparian and wetland management zones and other conservation areas. Many of these conservation areas are regeneration harvest deferred and will contribute to older-forests over time. The stage of stand development for the harvest areas within this proposal on the stand level

scoring using the Van Pelt guide (Van Pelt 2007) includes Maturation 1.

Unit	Origin Date	Major Timber Species	Type of Harvest
1	1949	Western hemlock, Douglas-fir, western redcedar, Sitka spruce, red alder, Pacific Silver fir	Variable Retention Harvest (VRH)
2	1952	Western hemlock, Douglas-fir, western redcedar, Sitka spruce, red alder, Pacific Silver fir	RIGHT OF WAY (ROW)

Overall Unit Objectives:

1. Produce revenue for the Common School and Indemnity (03) and University Transferred (05) trust through the production of saw logs, poles, and pulp material.
2. Provide for wildlife and riparian habitat by developing vertical stand structure and age class variability in the future stand

c. Describe planned road activity. Include information on any rock pits that will be used in this proposal. See associated forest practice application (FPA) for maps and more details.

Type of Activity	How Many	Length (feet) (Estimated)	Acres (Estimated)	Fish Barrier Removals (#)
Construction		13,188	6	0
Reconstruction		1,871		0
Maintenance		28,660		0
Abandonment		0	0	0
Bridge Install/Replace	0			0
Stream Culvert Install/Replace (fish)	0			0
Stream Culvert Install/Replace (no fish)	4			
Cross-Drain Install/Replace	46			

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist (See “WAU Map(s)” and “Timber Harvest Unit Adjacency Map(s)” as referenced on the DNR website: <http://www.dnr.wa.gov/sepa>. Click on the DNR region of this proposal under the Topic “Current SEPA Project Actions - Timber Sales.” Proposal documents also available for review at the DNR Region Office.)

a. Legal description:

Unit 1 is located in Section 14 and 15 of Township 11 North, Range 09 West, W.M.

Unit 2 is located in Section 15 and 22 of Township 11 North, Range 09 West, W.M.

The Radar Ridge Pit is located in Section 17 of Township 11 North, Range 09 West, W.M.

b. Distance and direction from nearest town:

All Units are located approximately 4 miles by road north of Naselle, Washington.

13. Cumulative Effects

a. Briefly describe any known environmental concerns that exist regarding elements of the environment in the associated WAU(s). (See WAC 197-11-444 for what is considered an element of the environment).

This proposal may affect the known elements of the environment to varying degrees including in the following sections: Earth, Soils, Air Quality, Surface/Ground water movement/quantity, quality, runoff/absorption, Plants, Animals, Energy and Natural Resources, Environmental Health, Land and Shoreline use, Aesthetics, Recreation and Cultural Resources.

DNR analyzed carbon sequestration and carbon emissions from projected land management activities within its final environmental impact (FEIS) statement for the 2015-2024 Sustainable Harvest Calculation and the FEIS for the 2019 HCP Long-Term Conservation Strategy for the Marbled Murrelet. At the western Washington scale, land management activities on DNR-managed lands sequester more carbon than emitted. Individual activities, such as this proposal, are likely to emit some greenhouse gases, including CO₂; however, at the landscape scale, DNR's sustainable land management activities, including this proposal, sequester more carbon than they emit. Evaluating carbon sequestration at the western Washington scale is appropriate because a determination of net carbon emissions must consider both the carbon sequestered and the carbon emissions from management within the same analysis area (western Washington).

Recognizing the climate and carbon benefits of working forests in Washington's Climate Commitment Act (RCW 70A.45.005), the legislature found that Washington should maintain and enhance the state's ability to continue to sequester carbon through natural and working lands and forest products. Further, "Washington's existing forest products sector, including public and private working forests and the harvesting, transportation, and manufacturing sectors that enable working forests to remain on the land and the state to be a global supplier of forest products, is, according to a University of Washington study analyzing the global warming mitigating role of wood products from Washington's private forests, an industrial sector that currently operates as a significant net sequesterer of carbon. This value, which is only provided through the maintenance of an intact and synergistic industrial sector, is an integral component of the state's contribution to the global climate response and efforts to mitigate carbon emissions." RCW 70A.45.090(1)(a).

The legislature also found that the 2019 Intergovernmental Panel on Climate Change (IPCC) report “identifies several measures where sustainable forest management and forest products may be utilized to maintain and enhance carbon sequestration. These include increasing the carbon sequestration potential of forests and forest products by maintaining and expanding the forestland base, reducing emissions from land conversion to non-forest uses, increasing forest resiliency to reduce the risk of carbon releases from disturbances such as wildfire, pest infestation, and disease, and applying sustainable forest management techniques to maintain or enhance forest carbon stocks and forest carbon sinks, including through the transference of carbon to wood products” (2020 Washington Laws Ch. 120 §1(2)).

DNR is legally required (RCW 79.10.320) to periodically calculate a sustainable harvest level and manages state trust lands sustainably. DNR has also maintained (statewide) a forest management certificate to the Sustainable Forestry Initiative standard since 2006. In managing state trust lands sustainably, DNR sequesters more carbon than it emits while conducting land management activities such as this proposal.

The timber harvested from DNR-managed lands is used to produce climate-smart forest products. The climate impacts of DNR’s land management are analyzed in multiple environmental impact statements that have informed the Board of Natural Resources’ decisions and are consistent with the IPCC, which states that “[m]eeting society’s needs for timber through intensive management of a smaller forest area creates opportunities for enhanced forest protection and conservation in other areas, thus contributing to climate change mitigation.”

b. Briefly describe existing plans and programs (i.e. the HCP, DNR landscape plans, retention tree plans) and current forest practice rules that provide/require mitigation to protect against potential impacts to environmental concerns listed in question A-13-a.

The Department of Natural Resources has a multi-species Habitat Conservation Plan (HCP) with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service concerning threatened and endangered species and their habitats, which requires the Department to manage landscapes to provide and sustain long-term habitat in exchange for an Incidental Take Permit. This agreement substantially helps the Department to mitigate for cumulative effects related to management activities. The Department follows Forest Practices Rules as applicable to roads and potentially unstable slopes. The Department follows Forest Protections related to fire hazard mitigation.

The General Silviculture Strategy (policy) in the Policy for Sustainable Forests (PSF) emphasized that older-forest targets will be accomplished over time and that DNR intends to actively manage structurally complex forests to achieve older-forest structures (i.e. stands with older-forests identified by structural characteristics) across 10 to 15 percent of each western Washington HCP planning unit in 70 to 100 years from the adoption of the PSF.

In September 2024, the DNR revised a document titled ‘Landscape Assessment to Identify

and Manage Structurally Complex Stands to Meet Older-Forest Targets in Western Washington, May 2024' (landscape assessment). This document describes the background, historical analyses regarding attainment of older-forest conditions in western Washington, and updated data and modeling analyses showing when the various HCP planning units across western Washington are expected to attain a level of older-forest conditions through implementation of the HCP and other conservation objectives, and outlined as targets within the PSF.

This landscape assessment identifies the existing structurally complex stands, and additional suitable stands, to be managed for older-forest targets over time. The identified stands are located in conservation areas and deferred stands unavailable for regeneration harvest. These stands include areas identified as long-term forest cover under the marbled murrelet long-term conservation strategy, riparian areas, areas conserved under the multispecies conservation strategy, potentially unstable slopes, spotted owl nest patches, old growth, Natural Areas and Natural Resource Conservation Areas, and other conservation areas permanently deferred from regeneration harvest.

Some of these conservation areas are based on specific HCP strategies that are spatially fixed and conserved on the landscape, such as marbled murrelet occupied sites or spotted owl nest patches. However, other conservation areas are modeled and must be field verified based on HCP strategies, such as riparian areas or unstable slopes. There is naturally some adjustment to the location, absence, or presence of conservation areas upon field verification. This timber sale has been field verified for compliance with all conservation objectives and the planned harvest units are determined not to be regeneration harvest deferred and are available for harvest. These harvest areas also do not count towards the attainment of older-forests over time and have been excluded from the calculations and tables included in the landscape assessment. Conversely, when field verification identifies specific areas required for conservation, they will be protected from harvest and included in future conservation area modeling.

The landscape assessment demonstrates that while the South Coast HCP Planning Unit does not currently contain 10 to 15 percent older-forest conditions, the structurally complex and other suitable stands designated to be managed for older-forest targets are projected to develop into older-forest structure that meets or exceeds this threshold by 2100 (Table A) through implementation of the HCP and other policies and laws. Stands identified to be managed toward older-forest targets, including currently older-forests and stands projected to develop older-forest structure in the future, are depicted in associated maps within the landscape assessment document for each western Washington HCP planning unit.

303 (d) –

The 303(d) listed stream that is in the NEMAH WAU is listed for temperature. There should be no impact to listed water due to the measures designed to address surface water concerns described in this document. The unnamed stream is approximately 3 miles west of this proposal and in a different drainage system.

Table A. Percent area western Washington HCP planning units with older-forest stands in conservation areas by decade through 2120. With plot discounts and disturbance factor. Landscape Assessment to Identify and Manage Structurally Complex Stands to Meet Older-Forest Targets in Western Washington, May 2024 (Revised September 2024).

ADJUSTED QUERY OUTPUT (WITH PLOT DISCOUNT & DISTURBANCE FACTOR)											
HCP Planning Unit	Year										
	2021	2030	2040	2050	2060	2070	2080	2090	2100	2110	2120
COLUMBIA	1.0%	1.2%	1.4%	1.7%	2.4%	3.9%	6.2%	9.4%	13.3%	16.5%	18.2%
N. PUGET	3.2%	3.9%	4.9%	6.2%	7.9%	10.2%	13.2%	16.7%	20.5%	23.9%	25.0%
OESF	10.2%	10.7%	11.0%	11.7%	12.6%	13.9%	15.9%	20.0%	24.9%	28.3%	29.5%
S. COAST	0.2%	0.3%	0.6%	1.2%	2.1%	3.6%	5.9%	8.8%	12.2%	15.9%	18.6%
S. PUGET	1.7%	2.2%	2.7%	3.6%	4.6%	6.1%	8.4%	11.3%	14.4%	17.1%	18.7%
STRAITS	1.9%	2.6%	3.2%	4.3%	5.6%	7.4%	9.9%	12.6%	15.1%	18.0%	19.5%

DNR has designated forest stand acreage within regeneration harvest deferred areas in each HCP planning unit to meet or exceed the policy’s 10% older-forest target. This identified acreage is designated in DNR’s GIS database as the Westside Forest Cover (Conservation Areas) and Older-Forest in Conservation Areas layers.

The Amoeba Timber Sale is not identified as one of those stands designated to meet older-forest targets over time. Following the timber sale, the variable retention harvest units will be replanted with native, conifer tree species that will be supplemented by natural regeneration expected to occur as a result of the conservation areas in and around the harvest units.

c. Briefly describe any specific mitigation measures proposed, in addition to the mitigation provided by plans and programs listed under question A-13-b.

No further mitigation measures have been specifically proposed other than those outlined in questions A.13.b

d. Based on the answers in questions A-13-a through A-13-c, is it likely potential impacts from this proposal could contribute to any environmental concerns listed in question A-13-a?

No.

e. Complete the table below with the reasonably foreseeable future activities within the associated WAU(s) (add more lines as needed). Future is generally defined as occurring within the next 7

years. This data was obtained from DNR's Land Resource Manager System on the date of processing this checklist and may be subject to change.

WAU Name	Total WAU Acres	DNR-managed WAU Acres	Acres of DNR proposed even-aged harvest in the future	Acres of DNR proposed uneven-aged harvest in the future	Acres of proposed harvest on non-DNR-managed lands currently under active FP permits
LOWER NASELLE	41620	6024	219	0	2650
NASELLE HEADWATERS	49134	5366	281	0	1303
NEMAH	44903	10444	948	0	3023

Other management activities, such as stand and road maintenance, will likely occur within the associated WAU(s).

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site (check one):

- Flat, Rolling, Hilly, Steep Slopes, Mountainous, Other:

1. *General description of the associated WAU(s) or sub-basin(s) within the proposal (landforms, climate, elevations, and forest vegetation zone).*

WAU: LOWER NASELLE
WAU Acres: 41620
Elevation Range: 0 - 1965 ft.
Mean Elevation: 376 ft.
Average Precipitation: 103 in./year
Primary Forest Vegetation Zone: Sitka Spruce

WAU: NASELLE HEADWATERS
WAU Acres: 49134
Elevation Range: 10 - 2697 ft.
Mean Elevation: 805 ft.
Average Precipitation: 102 in./year
Primary Forest Vegetation Zone: Western Hemlock

WAU: NEMAH
WAU Acres: 44903
Elevation Range: 0 - 1983 ft.
Mean Elevation: 463 ft.
Average Precipitation: 97 in./year

Primary Forest Vegetation Zone:

Western Hemlock

2. *Identify any difference between the proposal location and the general description of the WAU or sub-basin(s).*

This proposal is a representative example of the WAUs at the same elevation and aspect.

- b. What is the steepest slope on the site (approximate percent slope)?

The estimated steepest slope on the net harvest acres is 70 percent.

- c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

Note: The following table is created from state soil survey data. It is an overview of general soils information for the soils found in the sale area. The actual soil conditions in the sale area may vary considerably based on land-form shapes, presence of erosive situations, and other factors.

State Soil Survey #	Soil Texture
3982	SILT LOAM
6004	SILT LOAM
8165	GRAVELLY LOAM
8166	GRAVELLY LOAM

- d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

No, go to question B-1-e.

Yes, briefly describe potentially unstable slopes or landforms in or around the area of the proposal site. For further information, see question A-8 for related slope stability documents and question A-10 for the FPA number(s) associated with this proposal.

Inner gorges, bedrock hollows and convergent headwalls were found in or around the proposal area. These rule identified landforms were removed from the harvest area and protected with leave trees, or were located in RMZ's and already excluded from harvest. A DNR State Lands geologist remotely reviewed all units of the sale utilizing historic aerial photographs, Forest Practices Statewide Landslide Inventory data, and Landform Remote Identification Model (LRIM) tool. LRIM is a screening tool which identifies areas of potentially unstable landforms using remote sensing data from Light Detection and Ranging (LIDAR) and slope. The results of the geologist's review, available in SLGRR (State Lands Geologist Remote Review), indicated the proposal area had potential for areas of slope instability and a site visit was made by the geologist to multiple units. All

potentially unstable areas were located within RMZ's and leave tree areas and excluded from the timber sale by a forester trained in potentially unstable slope identification.

1) *Does the proposal include any management activities proposed on potentially unstable slopes or landforms?*

No Yes, describe the proposed activities:

2) *Describe any slope stability protection measures (including sale boundary location, road, and harvest system decisions) incorporated into this proposal.*

- **Excluding approximately 5 acres from harvest in no-harvest RMZs or leave tree areas.**
- **Some steeper Type 5 draws and headwalls have leave tree clumps protecting them.**
- **Roads will be constructed during dry soil conditions.**
- **Cross-drains and ditch outs will be utilized to minimize the potential for mass wasting and slope failures associated with poor drainage.**
- **Lead-end suspension logging will be utilized.**

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.

Purpose: **Removal of forest products**

Approx. acreage new roads: **6**

Approx. acreage new landings: **1**

Fill Source: **Native material and Radar Ridge Pit.**

Approx. cubic yards of fill: **Approximately 12,353 cubic yards of rock will be used from the Radar Ridge Pit.**

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Yes. Some erosion could occur as a result of building new roads, installing culverts, and hauling timber.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? *Approximate percent of proposal in permanent road running surface (includes gravel roads):*

Approximately 5% of the site will remain as gravel roads and landings.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any: *(Include protection measures for minimizing compaction or rutting.)*

- **The no harvest RMZs will function to protect streams from sediment delivery.**
- **Harvested areas will be replanted with coniferous tree species to reestablish root bound soils.**
- **Harvest will utilize lead end suspension to minimize soil disturbance.**

- Roads were located on ridge-tops where possible.
- Areas of soil exposed through road construction will be revegetated.
- Roads will be constructed during dry weather.

2. Air

- a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

Minor amounts of engine exhaust from logging and road construction equipment and dust from vehicle traffic on roads will be emitted during proposed activities. If landing debris is burned after harvest is completed, smoke will be generated. There will be no emissions once the proposal is complete.

Harvest operations and the removal of timber will result in minor amounts of CO₂ emissions from the direct proposal site. See A.13.a. for details regarding completed analyses of carbon emissions and sequestration on DNR-managed lands in western Washington.

- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

Carbon dioxide emissions associated with harvested wood products are analyzed in Alternatives for the Establishment of a Sustainable Harvest Level Final Environmental Impact Statement (2019) and the Long-Term Conservation Strategy for the Marbled Murrelet Final Environmental Impact Statement (2019).

- c. Proposed measures to reduce or control emissions or other impacts to air, if any:

If landing debris is burned, it will be in accordance with Washington State's Smoke Management Plan. A burn permit will be obtained before burning occurs.

Following harvest, native tree species will be planted on site at a level higher than existed prior to harvest resulting in regeneration of the forest stand and initiating carbon sequestration through forest stand growth.

3. Water

- a. Surface Water:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into. (See "WAU Map(s)" and "Timber Harvest Unit Adjacency Map(s)" as referenced on the DNR website: <http://www.dnr.wa.gov/sepa>. Click on the DNR region of this proposal under the Topic "Current SEPA Project Actions - Timber Sales." Proposal documents also available for review at the DNR Region Office.)

No Yes, describe in 3-a-1-a through 3-a-1-c below

a. Downstream water bodies:

Willapa Bay

b. Complete the following riparian & wetland management zone table:

Wetland, Stream, Lake, Pond, or Saltwater Name (if any)	Water Type	Number (how many?)	Avg RMZ/WMZ Width in feet (per side for streams)
Middle Nemah River	3	1	165
Unnamed Stream	3	5	165
Unnamed Stream	4	11	100
Unnamed Stream	5	31	NA

c. List any additional RMZ/WMZ protection measures including silvicultural prescriptions, road-related RMZ/WMZ protection measures and wind buffers.

RMZs are no harvest buffers. Leave trees were placed along portions of some Type 5 streams. Wind buffers were not applied to streams because they were either less than 5 feet wide and/or protected by topographical sheltering from the prevailing winds.

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

No

Yes (See RMZ/WMZ table above and timber sale maps which are available on the DNR website: <http://www.dnr.wa.gov/sepa>. Timber sale maps are also available at the DNR region office.)

Description (include culverts):

Four 24 inch x 60 foot culvert will be installed on the A-5000 road in a Type 4 and 5 streams.

Cables may be hung over RMZ's to facilitate yarding. RMZs are no-harvest riparian buffers. Trees within RMZs may be cut for safety or operational needs, any trees cut will be left in placed adding to down woody debris within riparian zones.

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

There will be approximately 200 cubic yards of fill material placed for the crossing(s). The source will be native Material and/or rock from Radar Ridge Pit.

- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. (*Include diversions for fish-passage culvert installation.*)

No Yes, description:

Temporary diversion may be necessary for culvert installation and on a Type 4 and 5 streams.

These activities may include creating a check dam and diverting the water around the work area to prevent sediment delivery to typed water. Water will be returned to the original stream channel at the best possible location.

- 5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

No Yes, describe activity and location:

Culvert installations on A-5000 will be within floodplain of the streams.

- 6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

No.

- 7) *Is there a potential for eroded material to enter surface water as a result of the proposal considering the protection measures incorporated into the proposal's design?*

No Yes, describe:

Soils and terrain susceptible to surface erosion are generally located on slopes steeper than 70%. The potential for eroded material to enter surface water is minimized due to the erosion control measures and operational procedures outlined in B-1-h.

- 8) *What are the approximate road miles per square mile in the associated WAU(s)?*

LOWER NASELLE = 5.6 (mi./sq. mi.), NASELLE HEADWATERS = 6.1 (mi./sq. mi.), NEMAH = 5.2 (mi./sq. mi.)

- 9) *Are there forest roads or ditches within the associated WAU(s) that deliver surface water to streams, rather than back to the forest floor?*

No Yes, describe:

It is possible some roads or road ditches within the WAU(s) intercept sub-surface flow and deliver surface water to streams, however current road work standards will be applied that address this issue by installing cross-drains to deliver ditch

water to stable forest floors.

10) *Is there evidence of changes to channels associated with peak flows in the proposal area (accelerated aggradations, surface erosion, mass wasting, decrease in large organic debris (LOD), change in channel dimensions)?*

No Yes, describe observations:

There is evidence of changes to channels across the WAU(s). These changes are a result of natural events such as spring runoff from snowmelt and significant storm events. Channel migration, scouring, and deposition of material can be seen in channels across the WAU(s); this indicates those channels historically experience higher water levels and peak flows.

11) *Describe any anticipated contributions to peak flows resulting from this proposal's activities which could impact areas downstream or downslope of the proposal area.*

This proposal utilizes mitigation measures designed to minimize changes in peak flows, including limiting harvest size and proximity to recent harvests, minimizing the road network, road drainage that is disconnected from streams, and wide riparian buffers. Due to these mitigation measures, no significant changes to peak flows are expected due to this proposal.

12) *Is there a water resource (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or downslope of the proposed activity?*

No Yes, describe the water resource(s):

There are no known downstream or downslope resources within one mile of the proposal.

a. Is it likely a water resource or an area of slope instability listed in B-3-12 (above) will be affected by changes in amounts, quality or movements of surface water as a result of this proposal?

No Yes, describe possible impacts:

13) *Describe any protection measures, in addition to those required by other existing plans and programs (i.e. the HCP, DNR landscape plans) and current forest practice rules included in this proposal that mitigate potential negative effects on water quality and peak flow impacts.*

See B.1.h. for further protection measures.

None beyond what is required by Forest Practices and the HCP.

b. Ground Water:

- 1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.

No water will be withdrawn or discharged.

- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

None.

- 3) *Is there a water resource use (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or downslope of the proposed activity?*

No *Yes, describe:*

There are no known downstream or downslope resources within one mile of the proposal.

a. Is it likely a water resource or an area of slope instability listed in B-3-b-3 (above) could be affected by changes in amounts, timing, or movements of groundwater as a result this proposal?

No *Yes, describe possible impacts:*

Note protection measures, if any:

c. Water runoff (including stormwater):

- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

Water runoff, including storm water, from road surfaces will be collected by roadside ditches and diverted onto the forest floor via ditch-outs and cross drain culverts.

- 2) Could waste materials enter ground or surface waters? If so, generally describe.

No *Yes, describe:*

Waste materials, such as sediment or slash, may enter surface water.

Note protection measures, if any:

No additional protection measures will be necessary to protect these resources beyond those described in B-1-d-2, B-1-h, B-3-a-2, and B-3-a-13.

- 3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.

No significant changes to drainage patterns are expected.

- d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:

See surface water, ground water, and water runoff sections above, questions B-3-a-1-c, B-3-a-13, B-3-b-3, and B-3-c-2.

4. Plants

- a. Check the types of vegetation found on the site:

Deciduous tree:

Alder Aspen Birch Cottonwood Maple Western Larch

Other:

Evergreen tree:

Douglas-Fir Engelmann Spruce Grand Fir Lodgepole Pine

Mountain Hemlock Noble Fir Pacific Silver Fir Ponderosa Pine

Sitka Spruce Western Hemlock Western Redcedar Yellow Cedar

Other:

Shrubs:

Huckleberry Rhododendron Salmonberry Salal

Other:

Ferns

Grass

Pasture

Crop or Grain

Orchards Vineyard Other Permanent Crops

Wet Soil Plants:

Bullrush Buttercup Cattail Devil's Club Skunk Cabbage

Other:

Water plants:

Eelgrass Milfoil Water Lily

Other:

Other types of vegetation:

Plant communities of concern:

- b. What kind and amount of vegetation will be removed or altered? (*Also see answers to questions A-11-a, A-11-b and B-3-a-2*).

All conifer and hardwood trees will be removed as part of this harvest proposal, except the wildlife leave trees, green recruitment trees and the vegetation within the RMZs. Understory vegetation will be disturbed and/or reduced within the proposed harvest area as a result of timber felling, bucking, yarding and site preparation operations.

Describe the species, age, and structural diversity of the timber types immediately adjacent to the removal area. (See “WAU Map(s)” and “Timber Harvest Unit Adjacency Map(s)” on the DNR website: <http://www.dnr.wa.gov/sepa>. Click on the DNR region of this proposal under the Topic “Current SEPA Project Actions - Timber Sales.” Proposal documents also available for review at the DNR Region Office.)

Unit 1: Surrounded by a 75 year old mixed conifer stand.

Unit 2: Surrounded by a 72 year old mixed conifer stand.

- c. List threatened and endangered *plant* species known to be on or near the site.

None found in corporate database

- d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

Retention tree clumps are identified across the harvest area. Some clumps were selected for their species diversity of native flora. These clumps will provide a local seed source for native over story and understory species. Some natural regeneration of native species will occur on site after harvest. Wildlife trees were left in areas to protect snags, large down logs, advanced regeneration, Type 5 streams, and potentially unstable slopes. Trees with defects such as split or broken tops, dominant crowns, large diameters and large limbs were favored as leave trees to enhance wildlife potential.

- e. List all noxious weeds and invasive species known to be on or near the site.

None observed on or near site.

5. Animals

- a. List any birds and other animals *or unique habitats* which have been observed on or near the site or are known to be on or near the site. Examples include:

birds:

eagle hawk heron owls songbirds

other:

mammals:

bear beaver *coyote* *cougar* deer elk

other:

fish:

bass herring salmon shellfish trout

other:

amphibians/reptiles:

frog *lizard* *salamander* *snake* *turtle*

other:

unique habitats:

balds *caves* *cliffs* *mineral springs* *oak woodlands* *talus slopes*

other:

- b. List any threatened and endangered species known to be on or near the site (*include federal- and state-listed species*).

None found in corporate database

- c. Is the site part of a migration route? If so, explain.

Pacific flyway *Other migration route:*

Explain:

All of Washington State is considered part of the Pacific Flyway. No significant impacts are anticipated as a result of this proposal.

- d. Proposed measures to preserve or enhance wildlife, if any:

This sale has been designed to comply with the Department's HCP and provides for the protection of wildlife and their habitats. Scattered and clumped leave trees provide nesting, roosting and foraging areas for avian species. Well engineered and constructed roads reduce potential water quality impacts for downstream fish populations. Revegetating exposed soils aids water quality and provides forage for ungulates. Large diameter leave trees, and leave trees with unique structure will remain post-harvest to enhance the wildlife habitat value of the future stand. The regenerated stand will be composed of mixed conifer species.

- 1) *Note existing or proposed protection measures, if any, for the complete proposal described in question A-11.*

Additionally, daily timing restrictions (no activity from two hours prior to official sunset to two hours after official sunrise) are being used to limit noise-generating activities by equipment when conducting road maintenance activities within occupied marbled murrelet habitat or its buffer, and when blasting within ¼ mile of the occupied marbled murrelet habitat during the critical nesting season (April 1 through September 23rd).

- e. List any invasive animal species known to be on or near the site.

Invasive species have not been observed on or near the site.

6. Energy and natural resources

- a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Petroleum fuel (diesel or gasoline) will be used for heavy equipment during active road building, timber harvest operations, and for transportation. No energy sources will be needed following project completion.

- b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

No.

- c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

None.

7. Environmental health

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste that could occur as a result of this proposal? If so, describe.

Minimal hazards incidental to operation of heavy machinery these include the risk of fire or small amounts of oil and other lubricants being accidentally discharged.

Slash accumulation from harvest operations will temporarily increase risk of ground fire in dried slash. Fire hazard will be mitigated through implementation of WAC-332-24. Overall risk of fire will decrease within 2-3 years of harvest completion.

- 1) Describe any known or possible contamination at the site from present or past uses.

None known.

- 2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.

None known.

- 3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the

operating life of the project.

Petroleum-based fuel and lubricants may be used and stored on site during the operating life of this project.

- 4) Describe special emergency services that might be required.

The Department of Natural Resources, private, and fire protection district suppression crews may be needed in case of wildfire. In the event of personal injuries, emergency medical services may be required. Hazardous material spills may require Department of Ecology and/or county assistance.

- 5) Proposed measures to reduce or control environmental health hazards, if any:

No petroleum-based products will be disposed of on site. If a spill occurs, containment and cleanup will be required. Spill kits are required to be onsite during all heavy equipment operations.

The cessation of operations may occur during periods of increased fire risk. Fire tools and equipment, including pump trucks and/or pump trailers, as per WAC-332-24, Forest Protection requirements will be required on site during fire season.

NOTE: If contamination of the environment is suspected, the proponent must contact the Department of Ecology.

b. Noise

- 1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

None.

- 2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

There will be short term, low level and high level noise created by the use of harvesting equipment and hauling operations within the proposal area. This type of noise has been historically present in this geographical area.

- 3) Proposed measures to reduce or control noise impacts, if any:

None.

8. Land and shoreline use

- a. What is the current use of the site and adjacent properties? Will the proposal affect current land

uses on nearby or adjacent properties? If so, describe. *(Site includes the complete proposal, e.g. rock pits and access roads.)*

Current use of site and adjacent land types:

The land surrounding this proposal is managed for timber production by the DNR.

This proposal will not change the use of or affect the current/long term land use of areas associated with this sale.

- b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

This proposal site has been used as working forest lands. This proposal will retain the site in working forest lands.

- 1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:

No.

- c. Describe any structures on the site.

None.

- d. Will any structures be demolished? If so, what?

No.

- e. What is the current zoning classification of the site?

All units are zoned Commercial Forest (CF).

- f. What is the current comprehensive plan designation of the site?

The comprehensive plan designation is resource lands, forest of long term significance.

- g. If applicable, what is the current shoreline master program designation of the site?

Not applicable.

- h. Has any part of the site been classified as a critical area by the city or county? If so, specify.

No.

- i. Approximately how many people would reside or work in the completed project?

None.

- j. Approximately how many people would the completed project displace?

None.

- k. Proposed measures to avoid or reduce displacement impacts, if any:

Does not apply.

- l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

This project is consistent with current comprehensive plans and zoning classifications.

- m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:

None.

9. Housing

- a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

Does not apply.

- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

Does not apply.

- c. Proposed measures to reduce or control housing impacts, if any:

None.

10. Aesthetics

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

Does not apply.

- b. What views in the immediate vicinity would be altered or obstructed?

Views in the background will temporarily be altered by the removal of trees.

1) *Is this proposal visible from a residential area, town, city, recreation site, major transportation route or designated scenic corridor (e.g., county road, state or interstate highway, US route, river or Columbia Gorge SMA)?*

No Yes, name of the location, transportation route or scenic corridor:

2) *How will this proposal affect any views described above?*

This proposal will not affect the views described above.

c. Proposed measures to reduce or control aesthetic impacts, if any:

Eight leave trees per acre were clumped and scattered throughout the proposal area to maintain structural diversity.

11. Light and glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

None.

b. Could light or glare from the finished project be a safety hazard or interfere with views?

No.

c. What existing off-site sources of light or glare may affect your proposal?

None.

d. Proposed measures to reduce or control light and glare impacts, if any:

None.

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?

There are no recreational facilities within the proposal area. However, hunting, hiking, horseback riding, mountain biking, mushroom and berry picking, and other dispersed outdoor recreation activities may occur within the proposal area.

b. Would the proposed project displace any existing recreational uses? If so, describe.

There may be some disruptions to recreational use during periods of road construction, harvesting, and hauling.

- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

None at this time.

13. Historic and cultural preservation

- a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers? If so, specifically describe.

No

- b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.

Cultural Resources were not observed on or adjacent to the site.

- c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

This proposal was reviewed by a DNR Cultural Resource Technician for archeological/historic resources using DNR's Land Resource Manager database, USGS and GLO maps.

- d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.

If presently-unknown skeletal remains, cultural resources, or both become known during project operations, DNR will comply with the Discovery of Skeletal Remains or Cultural Resources procedure.

14. Transportation

- a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.

US 101 to forest roads which access the proposal area.

- b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?

No. Nearest transit spot is approximately 5 miles away.

- c. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).

Yes, see A-11-c.

- 1) *How does this proposal impact the overall transportation system/circulation in the surrounding area and any existing safety problem(s), if at all?*

This project will have minimal to no additional impacts on the overall transportation system in the area.

- d. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

No.

- e. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and non-passenger vehicles). What data or transportation models were used to make these estimates?

Approximately 10 to 15 truck trips per day while the operation is active. Peak volumes would occur during the yarding and loading activities between 4:00 a.m. and 4:00 p.m. of the operating period. The completed project will generate less than one vehicular trip per day. Estimates are based on the observed harvest traffic of past projects.

- f. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

No.

- g. Proposed measures to reduce or control transportation impacts, if any:

None.

15. Public services

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.

No.

- b. Proposed measures to reduce or control direct impacts on public services, if any.

None.

16. **Utilities**

a. Check utilities currently available at the site:

- electricity natural gas water refuse service telephone sanitary sewer
 septic system other:

None.

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

None.

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: Keith Jones

Name of signee ^{for} Mike Henrie

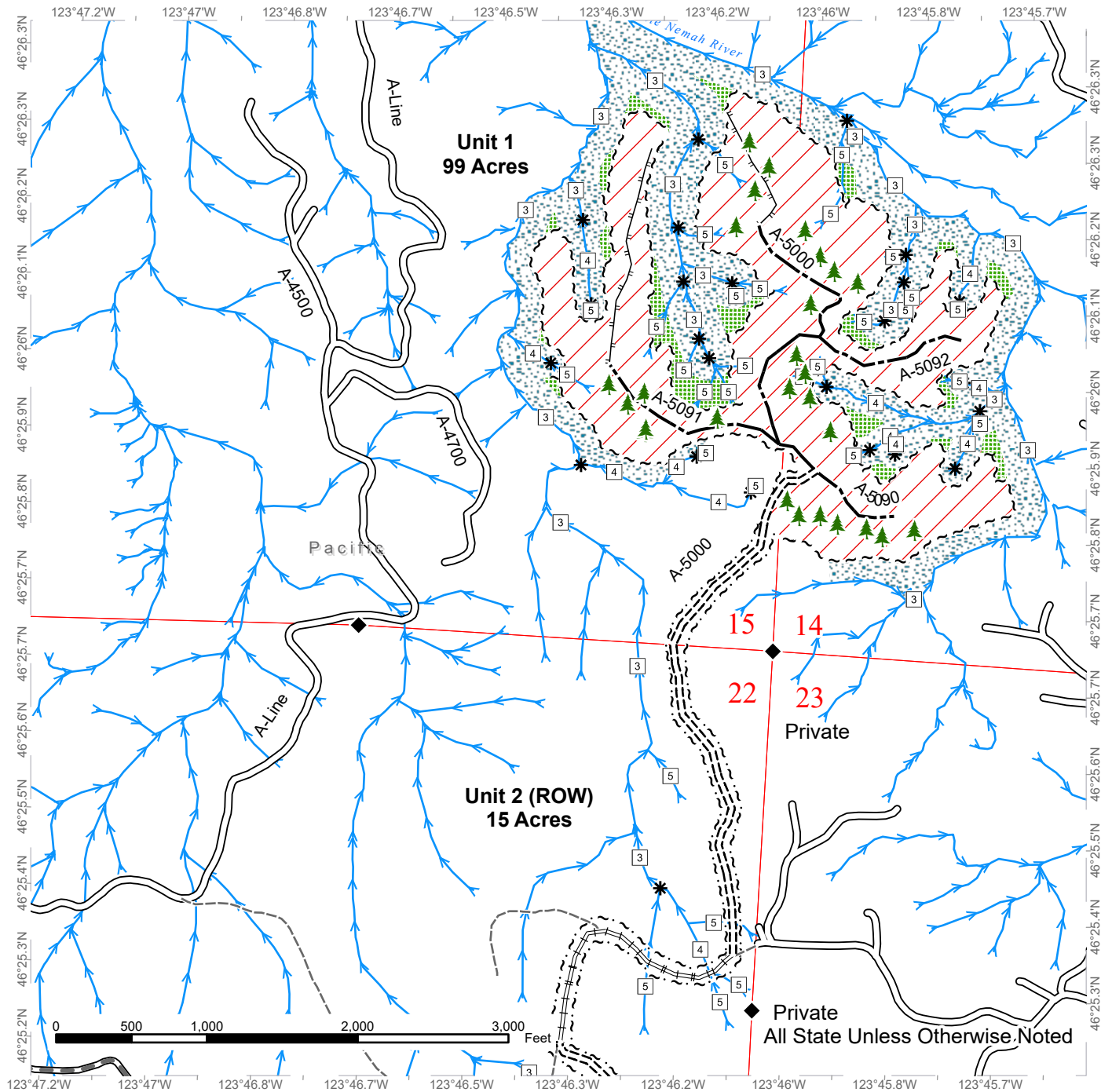
Position and Agency/Organization NASELLE UNIT FORESTER

Date Submitted: 12/12/2024

TIMBER SALE MAP

SALE NAME: AMOEBA
AGREEMENT #: 30-106098
TOWNSHIP(S): T11R9W
TRUST(S): Common School and Indemnity (3), University - Transferred (5)

REGION: Pacific Cascade Region
COUNTY(S): Pacific
ELEVATION RGE: 1000-1360



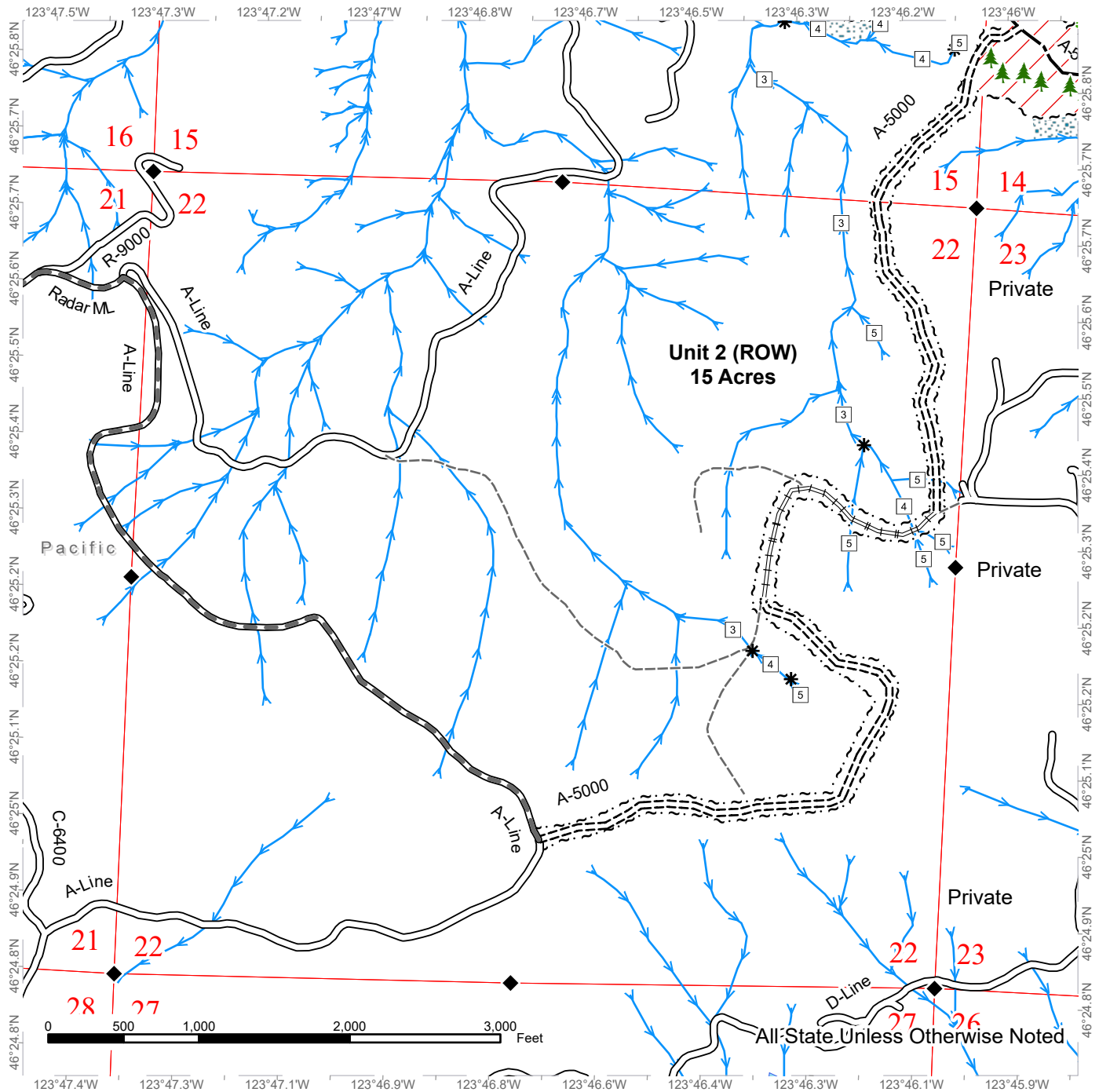
	Sale Area		Existing Roads		Old Grades/Trails
	Leave Tree Area		Required Pre-Haul Maintenance		Designated Skid Trail
	Riparian Mgt Zone		Required Construction		Streams
	Sale Boundary Tags		Required Reconstruction		Survey Monument
	Right of Way Tags		Optional Construction		Leave Trees



TIMBER SALE MAP

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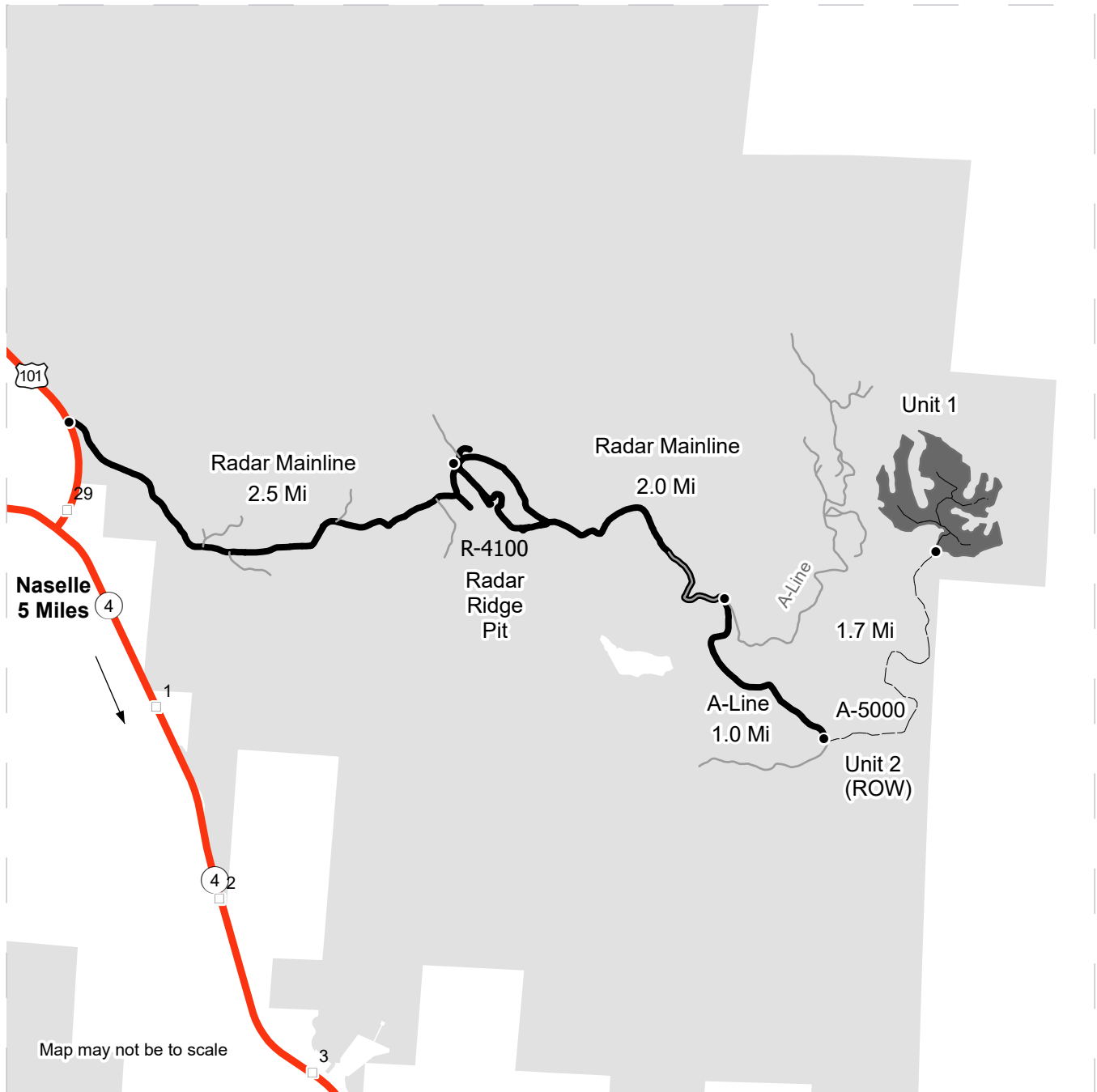
	Sale Area		Existing Roads		Old Grades/Trails
	Leave Tree Area		Required Pre-Haul Maintenance		Streams
	Riparian Mgt Zone		Required Construction		Survey Monument
	Sale Boundary Tags		Required Reconstruction		Leave Trees
	Right of Way Tags		Optional Construction		



DRIVING MAP

SALE NAME: AMOEBA
AGREEMENT#: 30-106098
TOWNSHIP(S): T11R9W
TRUST(S): Common School and Indemnity (3), University - Transferred (5)

REGION: Pacific Cascade Region
COUNTY(S): Pacific
ELEVATION RGE: 1000-1360



- Timber Sale Unit
- Haul Route
- Other Road
- Road to be built
- Milepost Markers

DRIVING DIRECTIONS:

From US 101 north of Mile Marker 29. Turn East onto Radar Mainline. Continue 2.5 miles to top of the ridge. Continue straight and head east on the north side of the ridge for 2 miles to A-Line junction. From junction, turn right (South) and head 1.0 miles to top of the Ridge.

The A-5000 road will be left (East) of A-Line at the top of the ridge. This road is to be built with this sale and is Unit 2 ROW. Continue 1.7 miles on A-5000 new construction to Unit 1.

The Radar Ridge Pit is located near the Radar Mainline on top of the ridge. (See Map)

