

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: **JUNEAU**
Agreement # **30-102082**

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

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

South Puget Sound Region
950 Farman Ave N
Enumclaw, WA 98022
Contact: Audrey Mainwaring
(360) 825-1631

4. Date checklist prepared: **10/17/2022**

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

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

a. *Auction Date:*
04/25/2023

b. *Planned contract end date (but may be extended):*
04/30/2025

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 for units 1-4 including an herbicide application, may be used to control noxious weeds, help planted trees withstand the effects of drought, and 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:*

**Units 1 and 3 will be hand-planted with Red Alder seedlings following harvest.
Units 2 and 4 will be hand-planted with Douglas-fir seedlings following harvest.**

c. *Vegetation Management:*

Possible treatments for units 1-4 include an herbicide application that could occur following planting to treat noxious weeds. Pre-commercial thinning needs will be assessed at approximately 4-8 years of age. Commercial thinning potential will be assessed at approximately 28 to 30 years of age. Thinning will be done as needed to meet desired density, stocking, species diversity, and growth.

d. *Other:*

Road maintenance assessments will be conducted and may include periodic ditch and culvert cleanout, and grading as necessary. Slash may be burned following harvest activities. Firewood permits for the sale area may be issued to the public after timber harvest activities are completed. Brush picking activities may also occur.

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: **Chehalis River**

temp

sediment

completed TMDL (total maximum daily load)

Landscape plan:

Watershed analysis:

Interdisciplinary team (ID Team) report:

Road design plan: **Road design planned by Grant Gerritsen 10/26/2022**

Wildlife report:

Geotechnical report:

Other specialist report(s): **Stand Origin Assessment for Juneau timber sale*; Old Growth Assessment by Sam Lake and Alan Mainwaring, revised and updated 1/31/2022*; Geologic Field Summary Memo by John Jenkins, dated 10/19/2022.**

Memorandum of understanding (sportsmen's groups, neighborhood associations, tribes, etc.):

Rock pit plan: **Rock pit plan designed by Grant Gerritsen, Littlerock Unit engineer included in Road Plan, dated 10/26/2022**

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)**
 - **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 Layer**
- **Marbled Murrelet Habitat Layer**
- **WAU Rain-On-Snow GIS Layer and Reports**
- **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)**
 - **Landslide Remote Identification Model (LRIM) tool**
 - **Forest Practices Statewide Landslide Inventory (LSI) screening tool**
- **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**
- **Communications and reviews by State Lands licensed engineering geologist, DNR Archeologist and cultural resource technicians, old growth designee, and Region biologist**

Referenced documents may be obtained at the region office responsible for this proposal.

**These assessments were conducted early in the proposal design. Following these assessments, the original Unit 1 was split into Units 1 & 3, therefore references to Unit 1 and maps in these documents cover the geographic area of both Units 1 & 3.*

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 # 2423290*
 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:

Juneau Timber Sale consists of four variable retention harvest (VRH) units, one right-of-way (ROW) unit, and one daylighting unit in the Capitol State Forest. The area selected for consideration was approximately 279 acres, and then was decreased to approximately 160 net acres after protection of streams, wetlands, potentially unstable slopes, un-harvestable areas, WMZs and RMZs and wildlife trees. Approximately 7,213 MBF of mixed conifer and hardwood logs will be harvested. A minimum of 8 trees per acre larger than 10 inches in diameter at breast height will be retained in leave tree clumps distributed throughout the units. Some leave tree clumps were used to protect unique and sensitive areas.

Net acres for each unit are as follows:

Unit 1: 66

Unit 2: 36

Unit 3: 43

Unit 4: 12

Unit 5: 2.7

Unit 6: <0.1 (3 individually marked trees for road daylighting.)

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:

Unit	Origin Date	Major Timber Species	Type of Harvest
1	Post – 1910*	Douglas-fir, western hemlock, western red cedar, red alder	Variable retention harvest
2	1911-1937	Douglas-fir, western hemlock, western red cedar, red alder	Variable retention harvest
3	Post – 1930 Post – 1910 and Post - 1988	Douglas-fir, western hemlock, western red cedar, red alder	Variable retention harvest
4	Post - 1960	Douglas-fir, western hemlock, western red cedar, red alder	Variable retention harvest
5	Post - 1988	Douglas-fir, western hemlock, western red cedar, red alder	Right-of-Way
6	Post - 1986	Douglas-fir and western red cedar	Daylighting

Stand origins in Units 1-3 obtained by field sampling in July of 2022 and using historical photos. Stand origin in units 4-6 obtained using DNR’s RS-FRIS Combined Origin Year data.

**Unit 1 stand origin is post-1910 with a subset of remnants post-1870. The post-1870 remnants were targeted as leave trees.*

Overall Unit Objectives: The overall objective of this proposal is to provide sustainable revenue to the trust beneficiaries through forest management while providing for and creating wildlife habitat as directed under the 1997 Habitat Conservation Plan (HCP), protecting hydrologic function and water quality under forest practices, and retaining visual aesthetics. The desired future condition of the proposal area is a mix of regeneration amidst scattered and grouped large legacy and wildlife trees. Other objectives include reforestation and subsequent management activities consistent with DNR policy, Sustainable Forestry Initiative, DNR’s HCP, Policy for Sustainable Forests, and Washington State Forest Practice Rules.

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		3,790	1.4	
Reconstruction		4,650		
Maintenance		36,210		
Abandonment		2,395	<1	
Bridge Install/Replace	0			
Stream Culvert Install/Replace (fish)	0			
Stream Culvert Install/Replace (no fish)	1			
Cross-Drain Install/Replace	19			

Routine maintenance will occur on roads used throughout the duration of the proposal.

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:

T17-0N R3-0W S32	Harvest
T16-0N R3-0W S04	Harvest
T16-0N R3-0W S05	Harvest
T16-0N R3-0W S08	Rock Pit
T16-0N R4-0W S12	Harvest
T16-0N R4-0W S13	Harvest

**T16-0N R4-0W S22
T16-0N R4-0W S23**

**Rock Pit
Harvest/Rock Pit/Road Work**

b. Distance and direction from nearest town:

The town of Littlerock is 6 miles by road east of the nearest unit.

The town of Littlerock is approximately 9.0 miles east from the Scott Paper Quarry and 12.4 miles northeast from the Southview Quarry by road.

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).

Waddell Creek WAU has experienced peak flow impacts and include areas of potentially unstable slopes. Within this WAU there appears to be a trend towards increasing conversion of agriculture and forest land to home sites in the low to mid elevation ranges. The Majority of forested stands within the WAUs appear to be primarily second and third growth stands.

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 sustainably managed lands sequester more carbon than emit, including this proposal. 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)." The legislature further finds 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.

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. Thus, managing state trust lands sustainably, DNR sequesters more carbon than emits while conducting land management activities such as this proposal.

DNR manages state trust lands for numerous objectives including a trust fiduciary – revenue producing objective. The timber that DNR harvests, is used to produce climate smart forest products. This objective is documented in multiple environmental impact statements that have informed the Board of Natural Resources’ decisions and is consistent with the IPCC which states that “Meeting 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 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. The applicable Habitat

Conservation Plan (HCP) strategies incorporated into this proposal include:

- Retaining Riparian Management Zones (RMZs) to protect water quality, stream bank integrity, stream temperatures, and provide down woody debris.**
- Wetland Management Zones (WMZs) will protect water quality, sensitive wetland soils, and maintain hydrologic function.**
- Retaining a minimum of 8 trees per acre (greater than 10 inches diameter at breast height) clumped and scattered throughout the units. This strategy will provide legacy elements within the new plantation and retains very large diameter, structurally unique trees.**

Agency policies and guidelines from the Policy for Sustainable Forests incorporated into this proposal include:

- Generally limiting even-aged harvests to less than 100 acres per unit.**

Development of older forests is an expected outcome of the 1997 Trust Lands Habitat Conservation Plan (HCP), and a policy objective stated in DNR’s Policy for Sustainable Forests. Landscape assessments made in May 2021, demonstrate that through implementation of the HCP and other Policies and laws, older forest targets will be met in

conservation areas over time. These conservation areas include identified 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, and spotted owl habitat that must be maintained to comply with the northern spotted owl conservation strategy (within NRF and South Coast Planning Unit dispersal management areas). The South Coast HCP Planning Unit will meet at least 10% older forest within conservation areas by 2100.

Current Forest Practice Rules also require that:

- **Potentially unstable slopes and landforms are evaluated and rule-identified landforms with the potential to delivery to public resources are excluded from the sale area.**
- **Allowing green-up (regenerated stands that are either 4 feet tall or 5 years of age) of adjacent stands to minimize impacts to watershed hydrology.**
- **Best management practices for road construction and maintenance is implemented to prevent sediment delivery to typed waters and avoid improper drainage patterns that may create slope failures.**
- **After harvest, tree seedlings will be planted to reforest the site and may be complemented by the natural regeneration that is expected to occur.**

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

Rule identified landforms, according to the Forest Practices Board Manual, with potential to deliver to public resources have been identified and protected. Several areas of inner gorge, and 1 bedrock hollow was identified and excluded from the sale area where potential for delivery exists. The bedrock hollow is located and protected in the RMZ .All inner gorges were excluded from the sale located within RMZs or non-tradable leave tree areas consistent with State Lands Geologist recommendations (See Field Summary Memo and associated maps).

The HCP strategy for riparian conservation (in concert with other conservation areas throughout the HCP Planning Unit) will contribute to the retention and development of older forests, while the leave tree procedure will enhance the structural diversity of forests across the landscape over time.

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?

It is not anticipated that this proposal will contribute to any environmental concerns.

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
WADDELL CREEK	24322	17704	2011	40	91

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:	<u>WADDELL CREEK</u>
WAU Acres:	<u>24322</u>
Elevation Range:	<u>80 - 2659 ft.</u>
Mean Elevation:	<u>620 ft.</u>
Average Precipitation:	<u>52 in./year</u>
Primary Forest Vegetation Zone:	<u>Western Hemlock</u>

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 WAU at the same elevation and aspect.

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

70%

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
5689	SILT LOAM
5685	SILT LOAM
6640	SILT LOAM
0575	SILT 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.

A DNR State Lands Licensed Engineering Geologist (LEG) remotely reviewed all units of the sale utilizing LiDAR, orthophotos, and other datasets available in the DNR GIS database. A field review was also conducted in units 1-3 with the State Lands Licensed Geologist to further evaluate the presence of potentially unstable slopes. All potentially unstable slopes or landforms have been excluded from harvest with a buffer of at least two tree crown widths.

Several inner gorges with slopes greater than 70% are associated with unit 1 All are protected by RMZ buffers or non-tradeable leave trees.

Unit 2 has several inner gorges, with slopes greater than 70%, around the unit, all are protected by the RMZ. There is also one bedrock hollow, which is protected in the RMZ

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.*

- **Remote and field reviews were conducted to ensure that all identified potentially unstable slopes that were interpreted as having potential to adversely impact public resources or public safety, were excluded from the harvest areas.**

- Rule-identified landforms with potential to deliver sediment were excluded from harvest by non-tradeable leave tree clumps or within RMZs.
- No tail-holds will be allowed within and no timber will be yarded across any identified Forest Practices Rule-Identified Landforms located in non-tradeable leave tree clumps or RMZs.
- Cross-drains and ditch-outs will be utilized to minimize the potential for mass wasting and slope failures associated with poor drainage by dispersing water onto the stable forest floor.
- Roads will not be constructed during saturated soil conditions.
- Most Type 5 streams and their headwalls have been protected with leave tree clumps.
- Skid trails may be water barred post-harvest activities, if necessary, to avoid concentrating surface water runoff.

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.

Approx. acreage new roads: 1.4

Approx. acreage new landings: <1

Fill Source: Scott Paper Quarry, Southview Quarry, or commercial source

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. Incidental erosion may occur within the sale boundaries but should be confined to the area of disturbance by vegetation left on-site and erosion control measures.

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 <1% of the site will remain as gravel roads.

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

- There is no harvest within WMZs or RMZs.
- One culvert will be replaced in a Type 4 stream. The old fill may be moved to the designated waste area, and may be replaced with new fill, and straw and seed will be applied to exposed soils.
- Non self-leveling ground-based harvesting may only be utilized on slopes measuring 45 percent and less, and self-leveling shovels may be utilized on slopes measuring 55 percent and less. Ground based equipment will be suspended when potential for excessive soil disturbance exists.
- Road work was designed to protect streams and wetlands from sediment delivery.
- Roads will be crowned, ditched and cross-drained, and existing cross-drains will be maintained.

- Leave tree clumps were left around the majority of Type 5 streams and wetlands less than 0.25 acre.
- Units 1-4 will be replanted with native tree species.
- Road construction and harvesting operations are restricted during saturated soil conditions.
- Drainage control devices such as rolling drain dips, culverts (including energy dissipaters), and cross drains, and waterbars will be utilized to allow for proper drainage.
- Skid trails may be water barred post harvest activities, if necessary, to avoid concentrating surface water runoff.
- Seasonal timing restrictions will restrict hauling from November 1 through April 30 to reduce activities during wet weather conditions, unless otherwise authorized by the Contract Administrator.

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.

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. If landing debris is burned after harvest is completed, smoke will be generated. There will be no emissions once the proposal is complete.

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

None known.

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

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. 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.

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: **Downstream water bodies include Mill Creek, Black River, Chehalis River**

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)
Mill Creek	3	1	192
Stream	3	9	192
Stream	4	3	Minimum 100
Wetland	Greater Than 1	2	192
Wetland	0.25 acre to <1 acres	2	Minimum 100

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

Local knowledge of prevailing wind direction and observation of standing trees in RMZs and WMZs in recently harvested units determined no wind buffers were necessary.

RMZ/WMZs for this proposal are designed in accordance with the Department’s HCP procedures and their stream type identified by the stream’s physical characteristics per the water typing system for Forested State Trust HCP lands. All RMZ/WMZs are measured horizontally from the edge of the 100-year floodplain or from the outer extent of the wetland.

Disposal areas during road construction for organic debris will not be within 100 feet of streams or wetlands.

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):

Harvest may occur within 200 feet, but beyond the buffer distances listed above, of streams and wetlands. Cables will be suspended over streams for yarding operations, but no logging will occur over streams with the exceptions of Type 5

streams, which may be crossed at approved locations. Other than at crossings, type 5 streams will be protected with 30' equipment limitation zones or are located within leave tree clumps. Forested wetlands less than 0.25 acre in size are protected within RMZs, WMZs, or leave tree clumps.

Type 5 streams are mostly protected within RMZs, WMZs, leave tree clumps, or are excluded by the sale boundary.

One 48-inch culvert will be installed, replacing an undersized culvert, in a Type 4 stream as part of existing road maintenance. Equipment crossings associated the culvert installation, replacement, and removals will be minimized and performed while the stream is dry, or if water is present, the stream will be pumped around the crossing site.

Four small forested wetlands less than 0.25 acre in size are protected within RMZs, WMZs, or leave tree clumps.

Thirty-four Type 5 streams are mostly protected within RMZs, WMZs or leave tree clumps.

- 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.

One culvert will be replaced in Type 4 stream on the E-4000 road. Some native materials excavated in the process may be used as backfill, the rest will be moved to the designated waste area.

- 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 if fish culvert replacement) *Yes, description:*

Temporary diversion or pumping may be necessary for the type 4 stream culvert if water is present. 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:*

One culvert will be replaced in a Type 4 stream.

- 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.

It is not likely that any waste materials will be discharged into the surface water(s).

However, minor amounts of oil, fuel, and other lubricants may inadvertently be discharged to the adjacent surface water(s) as a result of heavy equipment use or mechanical failure. No lubricants will be disposed of on-site.

- 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)?*

WADDELL CREEK = 5.1 (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 likely some roads or road ditches within the WAU intercept sub-surface flow and deliver surface water to streams, however current road construction, reconstruction, and/or maintenance 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.*

It is not likely the proposed activity will change the timing, duration, or volume of water during a peak flow event. This proposal limits harvest unit size and proximity to other recent harvests, minimizes the extent of the road network, incorporates road drainage disconnected from stream networks, and implements wide riparian buffers which all have mitigating effects on the potential for this proposal to increase peak flows that could impact areas downstream or downslope of the proposal area.

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 a few private surface water intakes downstream (approximately 2 miles) from the proposal. Based on the protection measures outlined in B.1.d.2 and B.1.h, no measurable impacts are anticipated.

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. and B.1.d.2

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.

Minor amounts of oil, fuel, and other lubricants may inadvertently be discharged to the ground as a result of heavy equipment use or mechanical failure. No lubricants will be disposed of on-site. All spills are required to be contained and cleaned-up. This proposal is expected to have no impact on ground water.

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 a few private surface water intakes downstream (approximately 1.5 miles) from the proposal. Based on the protection measures outlined in B.1.d.2 and B.1.h, no measurable impacts are anticipated.

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:

See B-1-d-2, B-1-h, B-3-a-2, and B-3-a-13

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 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: **bitter cherry, cascara**

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: **Vine maple, Oregon grape, oceanspray, beaked hazelnut**

Ferns: **Sword fern, spiny wood fern, deer fern, maidenhair fern, lady fern, licorice fern**

Grass

Pasture

Crop or Grain

Orchards Vineyard Other Permanent Crops

Wet Soil Plants:

Bullrush Buttercup Cattail Devil's Club Skunk Cabbage

Other: **Pacific water parsley, slough sedge**

Water plants: Pacific water parsley

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).

- 1) 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: Southwest there is a 10 year old Douglas-fir plantations. To the East the 10 year old Douglas-fir plantation continues. There is also a Type 3 RMZ consisting of wetland facultative species as well as a range of Douglas-fir age from 27-92 years old. Continuing on the East and on the Northeast there is a 33

year old Douglas-fir plantation which had a poor silvicultural management history, which is demonstrated by the high presence of hardwood competition and low stocking. Along the north and the west side of Unit 1 there is an older Douglas-fir stand located in the RMZ of several connected Type 3 streams. These RMZ's are diverse in vertical structure and species, with plenty of Redcedar and Hemlock present with an age estimated from 31- 138 years old. The south end of the stand is a well managed 21 year old Douglas-fir stand.

Unit 2: To the east there is a 28 year old Douglas-fir plantation. There is also a Douglas-fir plantation that is 32 years old. To the north there is a RMZ of similar age to Unit 2, roughly 112 years old, with a Douglas-fir/ Redcedar overstory. Along the west side of Unit 1 there is a Type 3 RMZ with riparian overstory side mature Douglas-fir/ Redcedar/ Hemlock overstory with an age of 135 years old. To the southwest there is an 18 year old Douglas-fir plantation. To the South there is an 18 year old Douglas-fir plantation.

Unit 3: To the southeast and west there exists a 33 year old 1989 Douglas-fir plantation which had a poor silvicultural management history, which is demonstrated by the high presence of hardwood competition and low stocking. To the north, west, and south of the stand is a Type 3 RMZ that is 122 years old. This RMZ is primarily Douglas-fir but does have patches of Red Alder and Redcedar.

Unit 4: To the east and west there is a 102 year old Douglas-fir dominated stand. To the south is a 72 year old Douglas-fir stand, there is a large hardwood component to this stand, likely as a result of past management. To the north of the Unit there is a valley and RMZ consisting of a more diverse canopy but relatively the same age at 110 years old.

Unit 5: Unit 5 is a right of way going through a 33 year old Douglas-fir plantation which had a poor silvicultural management history, which is demonstrated by the high presence of hardwood competition and low stocking.

Unit 6: Unit 6 is a daylighting project to remove three trees to replace a culvert to increase drainage potential. The three trees as similar to those found in the RMZ. The surrounding timber has a maximum age of 36 years consisting of Red Alder, Western Redcedar, and Douglas-fir.

Origin dates used above are obtained from DNR's inventory combined origin year ArcGIS layer.

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

None found in DNR's Land Resource Manager's special concerns reports.

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

The HCP strategy for riparian conservation (in concert with other conservation areas throughout the HCP Planning Unit) will contribute to the retention and development of older forest, while the leave tree procedure will enhance the structural diversity of forests across the landscape over time. Leave trees were selected in accordance with HCP and agency directives concerning stand representation, wildlife potential, proximity, and distribution. Both the leave tree design and silvicultural prescriptions have been tailored to the unique circumstances of each site to capture microsite variation and ensure enduring species diversity.

Retention tree clumps are identified across the harvest area. A combination of Douglas-fir, western hemlock, western red cedar, sitka spruce and red alder were left for green tree retention and snag recruitment. Retention tree numbers were based on leaving eight trees per acre. The majority of the largest two trees per acres were individually marked as leave trees. Most of the remaining trees were left in clumps. This type of leave tree pattern is conducive to a safe harvest operation and allows the distribution of wildlife trees throughout the proposal. Whenever possible, leave tree clumps were used to protect Type 5 streams, and wetlands less than 0.25 acres. Wind firm 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.

Remnant trees with origins of pre-1900 are protected as leave trees in Units 1 and 3. Within some of the larger leave tree clumps, there are some components of older large down woody debris within the undisturbed vegetation.

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

Scotch broom, Tansy ragwort, English holly, Himalayan blackberry, Evergreen blackberry, Woodland groundsel, Oxeye daisy and False dandelion.

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: **Douglas squirrel, and mountain beaver**

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. While migrating through Pacific Northwest forests, many Neotropical migratory birds are closely associated with riparian areas, snags, and structurally unique trees. Riparian areas and special habitats are protected through implementation of the Department's Habitat Conservation Plan. No impacts are anticipated as a result of this proposal.

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

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

Species /Habitat: **Aquatic Habitat Protection Measures: Type 3 and Type 4 streams; no-harvest in WMZs on wetlands greater than 0.25 acre.**

Species /Habitat: **Upland Habitat Protection Measures: A minimum of 8 leave trees per acre were left clumped and scattered. Snags will be left where operationally feasible. Scattered and clumped leave trees provide nesting, roosting and foraging areas for avian species as well as protect unique features such as wet areas. Large diameter leave trees, and leave trees with unique structure, will remain post-harvest to enhance the wildlife habitat value of the future stand. Remnant old growth trees will be retained in clumps or as individually marked trees.**

- e. List any invasive animal species known to be on or near the site.
Invasive animal species known to be in the geographic area include:

- **Starlings**
- **House sparrows**
- **Eurasian collared dove**
- **Bullfrogs are found throughout the lowlands of Washington.**
- **Nutria are found in lakes, wetlands, sloughs, drainage ditches, and irrigation canals along the Columbia River and north to Skagit County.**
- **There are several exotic leaf rollers of concern that are present in Washington.**

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 incident to operation of heavy machinery such as the risk of fire or small amounts of oil and other lubricants may be accidentally discharged as a result of heavy equipment use.

- 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, 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: Long term forest management and formal recreation border this landscape. 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 areas of this proposal are zoned Long-Term Forestry (LTF)

- 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?

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)?*

Trails??

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

Portions of Unit 4 will be visible from SR-12. Portions of Units 1 and 3 will be visible from Mima Falls Trail.

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

This proposal will resemble previous timber harvests in the area and background views will change from a stand of mature timber to a view of a recent harvest with mature trees remaining around streams and wetlands. There will also be clumps of leave trees and individually painted leave trees scattered throughout. This view will change to that of a young plantation after seedlings are planted and the planted trees continue to grow.

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

Clumps of mature leave trees were scattered across all VRH units, and mature stands trees remaining around streams and wetlands will help reduce the aesthetic impacts. Leave tree clumps and individually painted leave trees were scattered across all VRH units to help reduce the aesthetic impacts.

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?

Recreation activities in the immediate vicinity include Mima Falls trail , target shooting, hunting, berry picking, and sightseeing.

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

There may be some disruptions to recreational use during periods of 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:

The haul route will be posted with signs to recreationalists of logging traffic. Trail closure signs posted and information provided in advance to user groups and trails will be cleaned up and back to their original condition within 2 weeks of logging activity ending in the area.

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

The haul route will be posted with signs to inform recreationalists of logging traffic. Trail closure signs will be posted on the trail, and closures will be listed on the DNR recreation website. If necessary, trails will be cleaned out following harvest operations.

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.

Yes. Indications of modern Tribal cultural use of the proposal area were identified during timber sale layout. A DNR archaeologist reviewed the area.

- 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.

Historical maps and the Department of Archaeology and Historic Preservation database for architectural and archaeological resources and reports (WISAARD)

were reviewed. A DNR cultural resource technician and archaeologist were consulted and conducted field visits. Consultation occurred with the Confederated Tribes of the Chehalis, Quinault Tribe, and Squaxin Island Tribe regarding this area and proposed activity.

- 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.

Alteration occurred to this proposal pursuant to the response received from the Confederated Tribes of the Chehalis. If a presently-unknown cultural resource is discovered during project operations, DNR will comply with the March 2010 Cultural Resources Inadvertent Discovery Guidance, or its successor 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.

Hauling will occur on forest roads to Bordeaux Rd SW, to 128th Ave SE, to Littlerock Rd SW, to Maytown Rd SW, to I-5.

- 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 9 miles by road away.

- c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?

None.

- d. 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, DNR managed forest roads will require some improvements, 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.

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

No.

- f. 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.

- g. 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.

- h. 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.

If a fire occurs during or after operations, fire protection response would be from DNR and/or rural fire districts. Medical response by emergency services could be necessary if injury or accidents occur to personnel during active operations

- 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:

- 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: Brandon Mohler

Name of signee **Brandon Mohler**

Position and Agency/Organization **State Lands Assistant Region Manager/DNR**

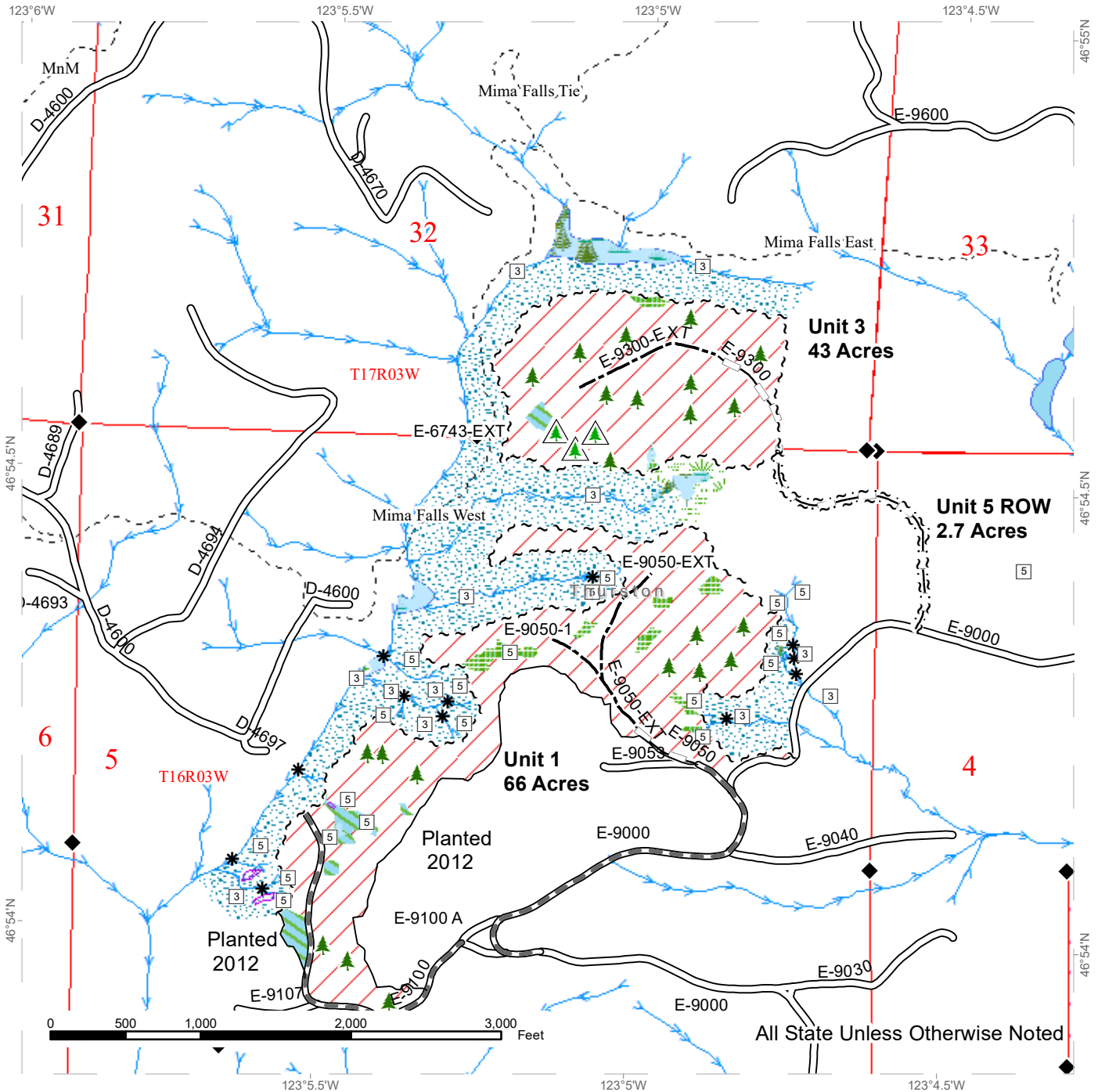
Date Submitted: 01/25/2023

AEM 1/24/23

TIMBER SALE MAP

SALE NAME: JUNEAU
AGREEMENT #: 30-102082
TOWNSHIP(S): T16R3W, T16R4W, T17R3W
TRUST(S): Forest Board Repayment (42), State Forest Purchase (2)

REGION: South Puget Sound Region
COUNTY(S): Thurston
ELEVATION RGE: 400-1040



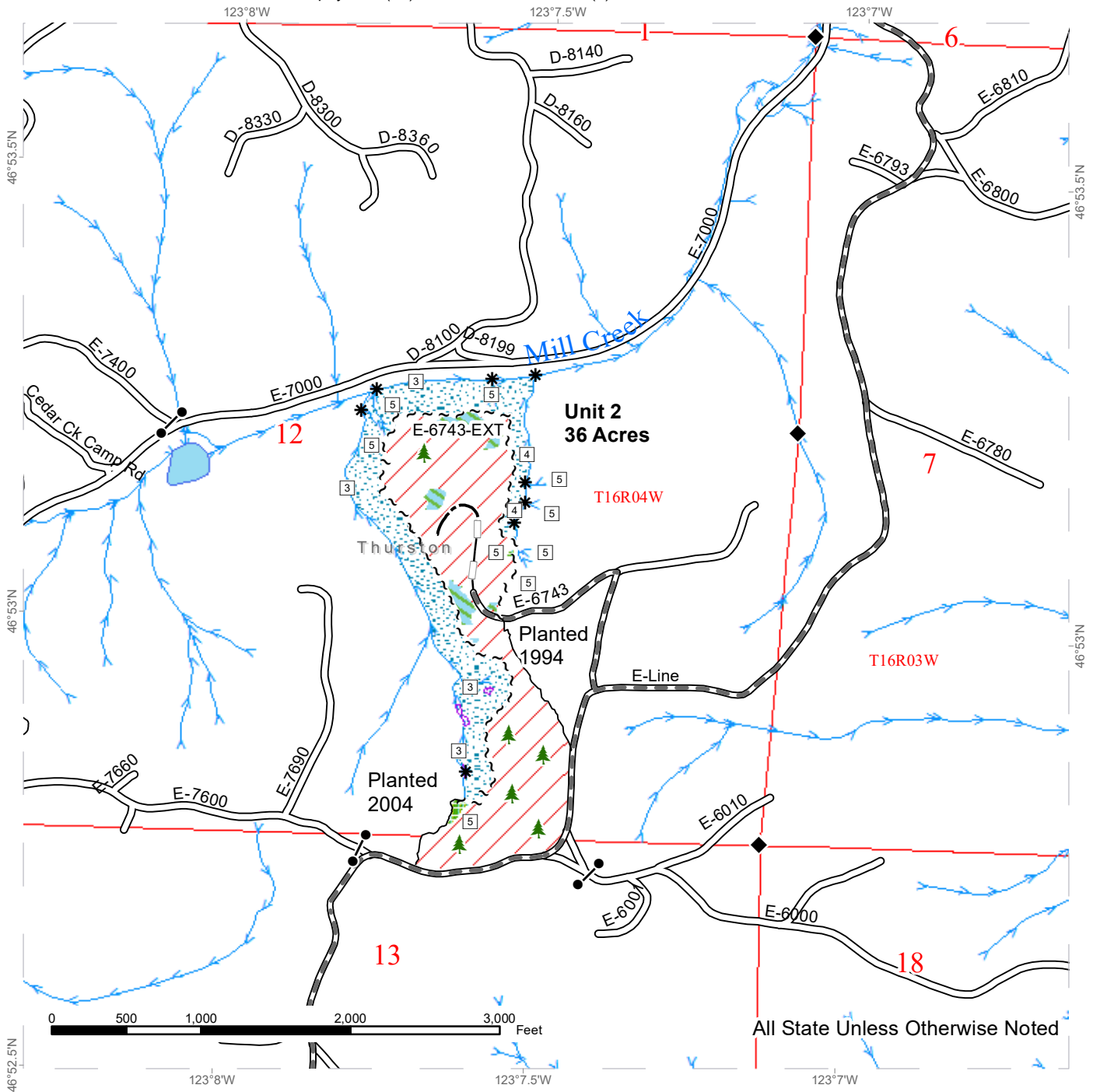
Sale Area	Existing Roads	Leave Tree Tags
Wetlands - Non-forested	Required Pre-Haul Maintenance	Right of Way Tags
Non-Tradeable Leave Clump	Optional Construction	Timber Type Change
Leave Tree Area	Optional Reconstruction	Survey Monument
Riparian Mgt Zone	Streams	Leave Tree Area <1/4-acre
Forested Wetland	Stream Type	Non-Tradeable Leave Trees
Wetland Mgt Zone	Stream Type Break	Trail
Tailhold Restriction Area	Sale Boundary Tags	



TIMBER SALE MAP

SALE NAME: JUNEAU
AGREEMENT #: 30-102082
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TRUST(S): Forest Board Repayment (42), State Forest Purchase (2)

REGION: South Puget Sound Region
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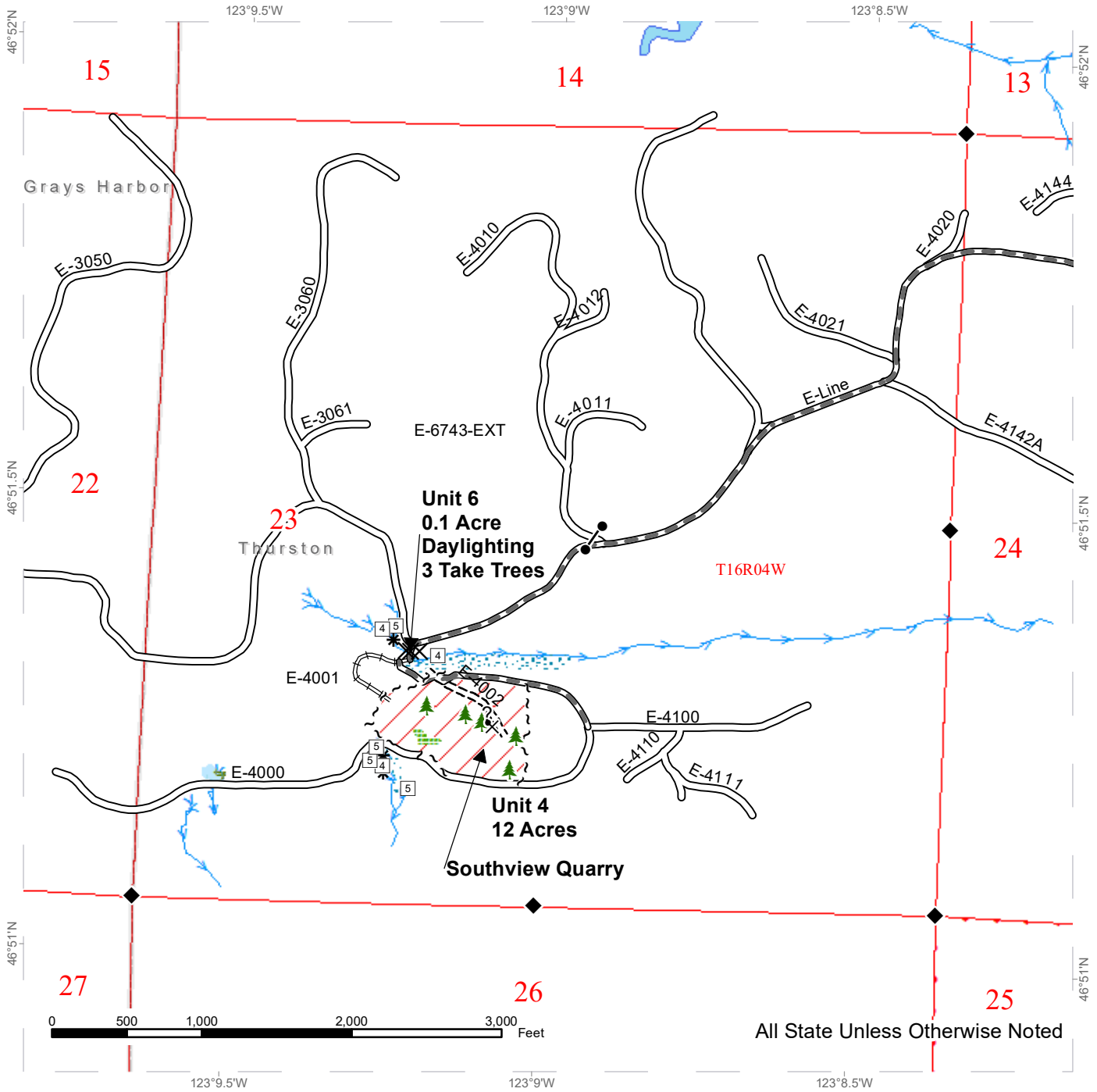
Sale Area	Optional Construction	Right of Way Tags
Non-Tradeable Leave Clump	Optional Reconstruction	Timber Type Change
Leave Tree Area	Streams	Survey Monument
Riparian Mgt Zone	Stream Type	Leave Tree Area <1/4-acre
Tailhold Restriction Area	Stream Type Break	Gates (H597)
Existing Roads	Sale Boundary Tags	
Required Pre-Haul Maintenance	Leave Tree Tags	



TIMBER SALE MAP

SALE NAME: JUNEAU
AGREEMENT #: 30-102082
TOWNSHIP(S): T16R3W, T16R4W, T17R3W
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REGION: South Puget Sound Region
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ELEVATION RGE: 400-1040



All State Unless Otherwise Noted

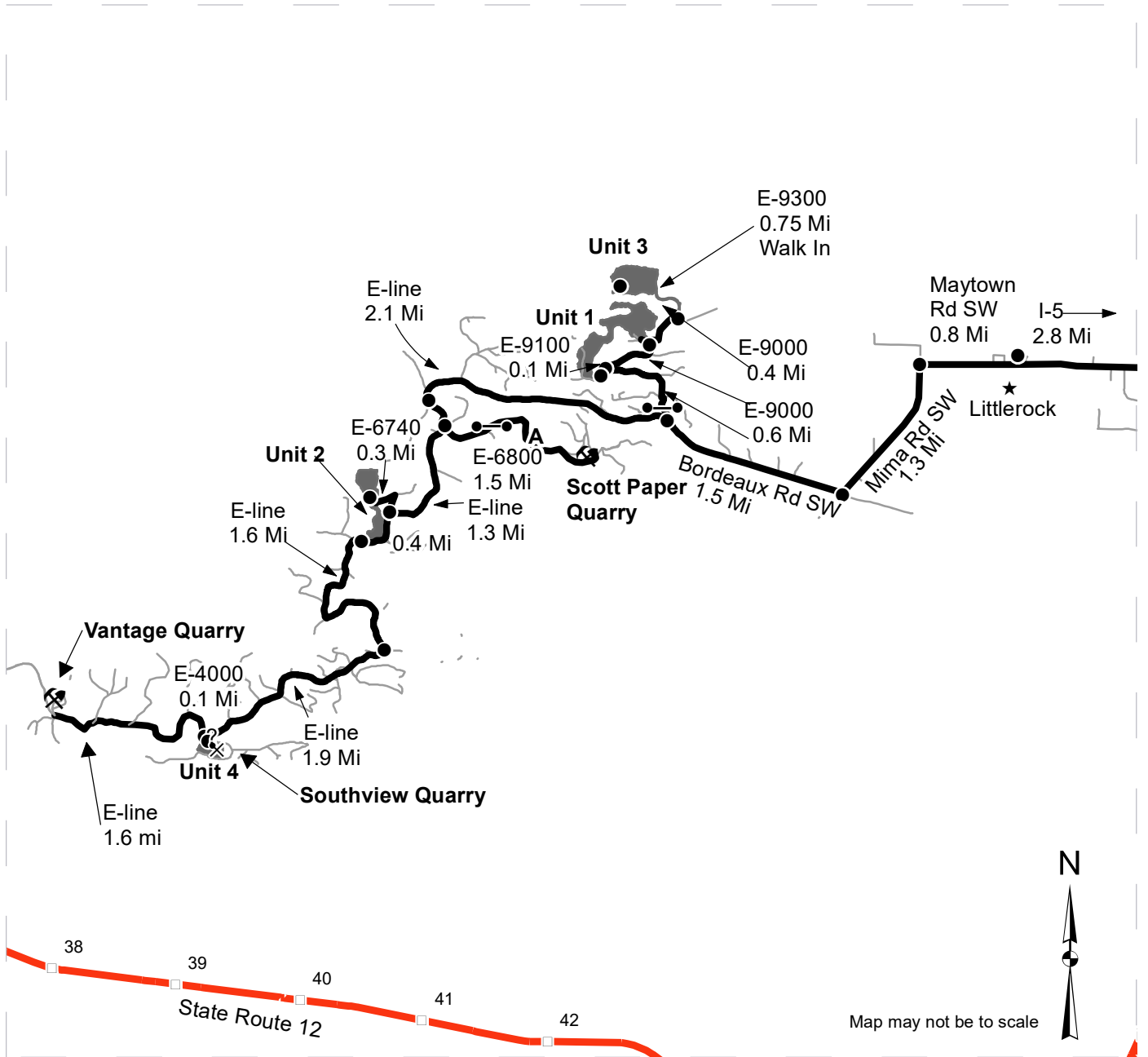
Sale Area	Required Reconstruction	Timber Type Change
Leave Tree Area	Streams	Survey Monument
Riparian Mgt Zone	Stream Type	Leave Tree Area <1/4-acre
Forested Wetland	Stream Type Break	Potential Rock Source
Existing Roads	Sale Boundary Tags	Take Tree
Required Pre-Haul Maintenance	Leave Tree Tags	Gates (H597)
Required Construction	Right of Way Tags	



DRIVING MAP

SALE NAME: JUNEAU
AGREEMENT#: 30-102082
TOWNSHIP(S): T16R3W, T16R4W, T17R3W
TRUST(S): Forest Board Repayment (42), State Forest Purchase (2)

REGION: South Puget Sound Region
COUNTY(S): Thurston
ELEVATION RGE: 400-1040



	Timber Sale Unit
	Haul Route
	Other Road
	Highway
	Distance Indicator
	Gate (H-957)
	Potential Rock
	Rock Pit
	Town

DRIVING DIRECTIONS:

From I-5 (exit 95): Turn west onto Maytown Rd SW for 2.8 miles.
 Continue straight onto Littlerock Rd SW for 0.1 miles.
 Continue straight onto 128th Ave SE for 0.8 miles.
 Turn left onto Mima Rd SW for 1.3 miles.
 Turn right onto Bordeaux Rd SW for 1.5 miles

*To Unit 1 and 3 turn right through the E-9000 gate. Continue 0.7 miles and turn left onto E-9100 for 0.1 mile to unit 1. Continue 1.4 miles after turning on E-9000 until you arrive at E-9300. Walk 0.75 mile to Unit 3.

*To Scott Paper Quarry from indicator A stay on E-line for 0.3 miles then turn left onto E-6800 for 1.5 miles

*To Unit 2, 4, and Southview Quarry Bordeaux becomes the E-line for an additional 2.1 miles. Then turn left to stay on E-line (Indicator "A" begin gravel up the hill). Stay on the E-Line for 1.5 miles to enter unit 2, continue on the E-line for another 1.9 miles to the intersection of the E-4000 continue 0.1 mile to Unit 4 and Southview Quarry.

*To Vantage Quarry from the "A" stay on the E-line for 4.9 miles then turn right on E-3020, continue 0.1 mile to Quarry.

Map may not be to scale