

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: **Cake Walk**
Agreement # **30-106341**

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

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

950 Farman Ave. N.
Enumclaw, WA 98022
360-825-1631
Contact: Audrey Mainwaring

4. Date checklist prepared: **9/16/2024**

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

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

a. *Auction Date:*
02/25/2025

b. *Planned contract end date (but may be extended):*
05/31/2027

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 for Units 1 and 2, 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 exceed Forest Practices Standards following harvest. Slash piles may be burned during the fall before planting. Units 3 and 4 consists of right-of-way, and Units 3, 5-7 consists of daylighting existing forest roads that may include roadside herbicide application.

b. *Regeneration Method:*

Units 1-2 will be planted at a density that meets or exceeds Forest Practices standards per WAC 222-34-010. Plantings will be supplemented by natural regeneration from adjacent conservation areas and leave trees within harvest units. Following planting, DNR will conduct surveys and additional reforestation actions as necessary based on survey results to ensure reforestation standards are met.

c. *Vegetation Management:*

Possible treatments for Units 1-2 include an herbicide application that 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. Pre-commercial thinning needs will be assessed at approximately 7 years of age. Commercial thinning potential will be assessed at approximately 25 to 35 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 Plan by Chris Werner and Jacob Gross dated 10/02/2024**

Wildlife report:

Geotechnical report:

Other specialist report(s): **Geologic Field Summary Memo by Susie Wisehart, State Lands Licensed Engineering Geologist, dated 12/13/2023.**

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

Rock pit plan: **Rock pit plan designs included in the Road Plan dated 10/02/2024**

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, including Special Concerns Report, 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)
- USFWS letter to DNR, signed 10/27/2021 clarifying projections of forest types and stand structural conditions on Washington DNR State Trust Lands
- Spotted Owl Habitat GIS Layer
- Marbled Murrelet Habitat GIS Layer
- WAU Rain-On-Snow GIS Layer
- 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 Rules (Title 222 WAC)
 - 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 Historical 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
 - DNR inventory layers, including RS_FRIS
 - Stand Origin Assessment form for Cake Walk Timber Sale
 - Stand Development Stage Assessment form for Cake Walk Timber Sale
 - FY'24 Timber Sales Fish and Wildlife Remote Review for Littlerock Unit, dated April 11, 2022 by wildlife biologist Alan Mainwaring
- Sustainable Forestry Initiative certification standards and audit reports
- Reviews by and communications with State Lands Geologist, State Lands Archaeologist, and Region Biologist

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

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 #2424133* *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 Cake Walk Timber Sale proposal encompasses approximately 155 acres of forested land within the Upper Chehalis/Cedar Creek Watershed Administrative Unit on DNR managed trust land within the Capitol State Forest. The proposal area was evaluated by the unit forester, region biologist, archaeologist, geologist, and engineer. Areas where timber harvest is inconsistent with one or more of the agency's objectives have been excluded from planned harvest and contribute to conservation areas (e.g. potentially unstable slopes, riparian and wetland buffers, old growth stands, or habitat for state or federally listed species needed to meet DNR's Habitat Conservation Plan objectives and other conservation commitments, etc.).

Having identified areas to be reserved for conservation, the final proposal design includes 82 net acres of timber harvest and 70 acres (45% of the overall proposal area) designated for conservation and leave tree areas to protect streams, potentially unstable slopes, culturally sensitive areas, RMZs and wildlife trees and will contribute to older-forests over time.

The harvest area consists of two variable retention harvest (VRH) units and five right-of-way (ROW) and daylighting units harvesting approximately 4,873 MBF of merchantable timber.

Unit 1 (VRH)	44
Unit 2 (VRH)	31
Unit 3 (ROW)	1.2
Unit 4 (ROW/Daylighting)	0.4
Unit 6 (Daylighting)	0.1
Unit 7 (Daylighting)	4.2
Unit 8 (Daylighting)	1.1

Roadwork associated with this timber sale consists of forest road construction, maintenance and abandonment of forest roads. Maintenance will consist of cleaning culverts and catch basins, reconstructing ditches, stream culvert replacement and

installation, applying rock, installing drain structures, grading, and other tasks outlined in the road plan for the Cake Walk Timber Sale.

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:

Cake Walk Units 1 and 2 are naturally regenerated conifer-dominant second-growth timber stands, originating after clear cut harvests in the 1910s and post-harvest fire. Douglas-fir is the dominant species, with western red-cedar as a codominant species, having higher concentrations in flatter areas. Western hemlock, bigleaf maple, and red alder are present scattered throughout the units, with higher concentrations in wetter areas. The ground vegetation consists primarily of vine maple with sword fern and Oregon grape. Structure within the stand is primarily down wood and small diameter snags resulting from small diameter mortality trees, and hand-cut stumps from the previous logging. The stage of stand development for these harvest units on the stand level scoring using the Van Pelt guide (2007) includes Maturation II. The adjacent areas conserved in RMZs associated with this proposal are similar stand types as the adjacent harvest areas.

Units 4-7 are ROW and/or daylighting units, mostly consisting of third growth Douglas-fir after regeneration from clear-cuts and VRHs from the 80s and 90s. The objectives for the right of way and daylighting units are to provide access to the timber sale units and maintenance improvement of existing forest roads.

Unit	Origin Date	Major Timber Species	Type of Harvest
1	Post – 1910s	Douglas-fir, western hemlock, western red cedar, red alder	Variable retention harvest
2	Post – 1900s	Douglas-fir, western hemlock, western red cedar, red alder	Variable retention harvest
3	Post – 1990	Douglas-fir, western hemlock, western red cedar, red alder	Right-of-Way/Daylighting
4	Post – 1990	Douglas-fir, western hemlock, western red cedar, red alder	Right-of-Way
5	Post – 1990	Douglas-fir, western hemlock, western red cedar, red alder	Daylighting
6	Post – 1980	Douglas-fir, western hemlock, western red cedar, red alder	Daylighting
7	Post – 1980	Douglas-fir, western hemlock, western red cedar, red alder	Daylighting

Origin dates were obtained from DNR’s RS-FRIS GIS “Combined Origin Year” layer, DNR regeneration data, and field sampling.

Overall Proposal Objectives:

Short Term Objectives

- 1) **Generate non-tax revenue for the beneficiaries of the underlying trusts through harvest of the existing stand as part of DNR's sustained yield trust obligations and fiduciary requirements as trust managers per RCW 79.10.300-340 and RCW 79.15.**
- 2) **Protect upland soil productivity and water quality and habitat within the riparian management zones.**
- 3) **Retain legacy trees within the timber sale for the future stand to maintain biological and structural diversity, preserve native seed source, shade and maintain the productivity of the site and future stand, and protect water quality and wildlife habitat.**
- 4) **Contribute to conservation areas identified as long-term forest cover through HCP and other regulatory protection and mitigation measures.**
- 5) **Supply sustainably grown timber to local mills and support jobs and economic activity for local economies.**
- 6) **Establish a new stand of site-appropriate, native conifers through hand planting (supplemented with natural regeneration) and maintain for long-term forest management.**

Long Term Objectives

- 1) **Actively manage for long-term site productiveness for intergenerational benefit to the trust, primarily through revenue generation for trust beneficiaries through timber stand management. A series of silviculture activities will be scheduled as needed in the sale area as the new stands develops. The primary objective of each treatment is to ensure growth of a healthy, resilient stand of native tree species to create revenue for the trusts.**
- 2) **Maintain current and historical uses of the site, including preservation of water quantity and quality, active forest management, and public and tribal use.**
- 3) **Resource protection and conservation through implementation of the HCP and DNR's regulatory and management framework.**
- 4) **Balance trust income, environmental protection, and social and cultural benefits according to the DNR trust land management framework.**

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		2,864	1.1	0
Reconstruction		0		0
Maintenance		29,915		0
Abandonment		2,864	1.1	0
Bridge Install/Replace	0			0
Stream Culvert Install/Replace (fish)	0			0
Stream Culvert Install/Replace (no fish)	0			
Cross-Drain Install/Replace	10			

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-N R4-W S35	Harvest/ROW/daylighting
T17-N R4-W S36	Harvest/daylighting/waste area
T17-N R3-W S30	Daylighting
T17-N R4-W S25	Daylighting
T16-N R3-W S10	Rock quarry
T17-N R3-W S29	Rock quarry

b. Distance and direction from nearest town:

The harvest proposal is located approximately 13 miles, and Greenline Quarry is approximately 8 miles by road, west of Littlerock, 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).

Upper Chehalis/Cedar 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. Forested stands within this WAU 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 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 (S. COAST in 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.

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 Cake Walk 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.*

Rule identified landforms, according to the Forest Practices Board Manual, with potential

to deliver to public resources have been identified and protected. Bedrock hollows, inner gorges, and toes slopes greater than 65 percent of deep-seated landslides were excluded from the sale area.

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, with consideration of other DNR planned and sold timber sales, 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
UPPER CHEHALIS/CEDAR CREEK	26228	24562	1688	14	145

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:	UPPER CHEHALIS/CEDAR CREEK
WAU Acres:	26228
Elevation Range:	35 - 2659 ft.
Mean Elevation:	927 ft.
Average Precipitation:	54 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 WAU at the same elevation and aspect.

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

79%

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
6638	SILT LOAM
5685	SILT LOAM
6639	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.

The unstable slopes review included published landslide inventories as screening tools. Landslide inventories come from many different projects including published geologic mapping, watershed analyses, landscape planning, landslide hazard zonation, and other case studies and mapping efforts. Other than the Washington Geology Survey landslide inventory, most of these landslide data sources predate lidar availability. A large majority of remotely identified landslides have not been verified in the field and were mapped with various levels of certainty. Dormant and relict deep-seated landslides are included in many databases. Field verification is a necessary step in confirming the absence, presence, and extent of mapped features, as well as their actual level of activity/instability. These datasets are not intended as substitutes for a detailed investigation of potential slope instability by slope stability trained field staff. Available landslide inventories and other remote screening tools were reviewed for this proposal by foresters and state lands geologists. Site-specific analysis may result in conclusions that are different from the information available in the screening tools.

Potentially unstable rule identified landforms (RILs) around the harvest were identified by slope stability trained field staff and/or a licensed geologist through office and field review in accordance with the Washington State Forest Practices rules.

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 all units with the State Lands Geologist to further evaluate the presence of potentially unstable slopes. All potentially unstable slopes or landforms have been excluded from harvest with timber sale boundary tags with a buffer of at least two tree crown widths.

Unit 1 has two bedrock hollows located in the northwest portion of the unit that have been excluded from the sale with timber sale boundary tags. The timber sale boundary was extended from Sherman Creek RMZ to surround these features from two crown widths away. Toe slopes 65 percent and steeper of deep-seated landslides and inner gorges were also identified and excluded from the harvest area.

Daylighting units along the D-4700 Road are on top of and on the south side of a ridge above potential bedrock deep-seated landslides. This proposal does not change the footprint of or drainage associated with the existing roads.

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

No Yes, describe the proposed activities:

Suspension of cables over RILs.

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 identify potentially unstable slopes and exclude them from the harvest area.**
- **Rule-identified landforms with potential to deliver sediment were excluded from harvest by the sale boundary or non-tradeable leave tree clumps.**
- **No tail-holds will be allowed within, and no timber will be yarded across any identified Forest Practices Rule-Identified landforms.**
- **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.**
- **No new road construction will occur on potentially unstable slopes.**
- **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: 1.1

Approx. acreage new landings: 1.9

Fill Source: Greenline 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 RMZs, except for confined areas of right-of-way for temporary forest road construction.**
 - **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 65 percent and less. Ground based equipment will be suspended when potential for excessive soil disturbance exists.**
 - **Roadwork was designed to protect streams 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.**
 - **Units 1-2 will be replanted with native conifer species.**
 - **Road construction and harvesting operations are restricted during saturated soil conditions leading to sediment delivery.**
 - **Drainage control devices such as rolling drain dips, culverts (including energy dissipaters), cross drains, and waterbars will be utilized 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.

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: **Within three years following harvest, the project area will be reforested with native tree species at a stocking level higher than existed prior to harvest. Tree planting, along with natural seeding, will result in regeneration of the forest stand, initiating carbon sequestration through forest stand growth. DNR will conduct seedling survival surveys at the project site following planting to assure survival of the next stand to meet regulatory standards (RCW 76.09.070; WAC 222-34-010) and protect the value of this working forest for future generations.**

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: Sherman Creek, Lost Valley Creek, Cedar Creek, and the 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)
Sherman Creek	1	1	200
Lost Valley Creek	3	1	189
Stream	3	3	189
Stream	4	4	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 in recently harvested units determined no wind buffers were necessary.

Seasonal timing restrictions will restrict hauling and road construction from November 1 through April 30 to reduce activities during wet weather conditions, unless otherwise authorized by the Contract Administrator due to dry weather.

RMZs 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 RMZs are measured horizontally from the edge of the 100-year floodplain or from the outer extent of channel migration zones, where they exist.

New, temporary roads were designed in locations to avoid stream crossings.

- 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 will occur within 200 feet of some streams, but outside the buffer distances listed above. RMZs on Sherman and Lost Valley Creeks were measured starting at the outer edge of the channel migration zones of these streams. Trees may be cut within RMZs for safety or operational needs, but will be left in place to provide large woody debris functions.

Cables may be suspended over streams for yarding operations, but no logging will occur over streams with the exception of Type 5 streams, which may be crossed at approved locations. Type 5 streams are mostly protected within RMZs, leave tree clumps, or are excluded by the harvest area.

Small forested wetland less than 0.25 acre in size is protected within a RMZ.

- 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.

None.

- 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:

No.

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

No Yes, describe activity and location:

No.

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. Any spills will require immediate containment and cleanup. 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 by 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)?*

UPPER CHEHALIS/CEDAR 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 this 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:

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):

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:

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 Red cedar Yellow Cedar

Other: **Pacific Yew**

Shrubs:

Huckleberry Rhododendron Salmonberry Salal

- Other*: **Vine maple, Oregon grape, ocean spray, 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, reed canary grass, piggyback plant, seep monkeyflower.**
- Water plants:
 - Eelgrass Milfoil Water Lily
 - Other*:
- Other types of vegetation: **Oxalis, Baneberry, dwarf ginseng, false-solomon's seal, dwarf larkspur, Columbian windflower, Miner's lettuce, Vetch, Scouler's harebell, heal-all**
- 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: North of Unit 1 is an even-age 1990 origin Douglas-fir stand with minimal snags and understory. West of Unit 1 is Sherman Creek RMZ, naturally regenerated after early 1900's logging and post-harvest fire, with mixed-age Douglas-fir, western redcedar, and western hemlock with occasional snags, and minimal understory at the top of the RMZ, and higher components of hardwoods, and sitka spruce with greater understory of vine maple, and wetland-associated plants closer to the creek. South of Unit 1 is Lost Valley Creek RMZ, also naturally regenerated Douglas-fir, western redcedar, and western hemlock of 1916 origin, continuing all the way to the stream edge, but with much less hardwood, sitka spruce, and understory vegetation. To the southeast is even-age Douglas-fir stand approximately 20-years-old. To the northeast is similar to interior of the unit, naturally regenerated Douglas-fir, western redcedar, and western hemlock, mixed age class and with occasional snags.

Unit 2: Northeast of Unit 2 is an even-age 1987 origin Douglas-fir stand with minimal snags and understory. Southeast of Unit 2 is Lost Valley Creek RMZ with significant snags, and hardwoods beneath 100-year-old Douglas-fir stand. Northwest of Unit 2 is even-age 2001 origin Douglas-fir stand. Southwest of Unit 2 is similar to interior of the unit, naturally regenerated mixed age Douglas-fir,

western redcedar, and western hemlock with occasional snags and diverse understory.

Unit 3: This is a ROW and daylighting unit to access the north side of Unit 1. To the northwest of the unit is even-age 30-year-old Douglas-fir stand from a 1990 harvest unit. To the southeast of the unit is similar to Unit 1 with naturally regenerated 100-year-old Douglas-fir, and western redcedar stand.

Unit 4: This is a ROW unit to access the east side of Unit 1 that goes through a 1998 harvest unit. To the west is Unit 1. The 1998 harvest unit that surrounds Unit 5 is mostly 20-year-old Douglas-fir stand with 8 scattered leave trees of approximately 100-year-old Douglas-fir, and western redcedar. A few of the leave trees are the edge of the ROW boundary, and care was taken to exclude all prior leave trees from the ROW harvest.

Unit 5: This is a less than 0.1-acre daylighting Unit, approximately 5, 23 year old trees will be harvested. North of the unit is 23-year-old Douglas-fir stand from a harvest unit hand planted in 2001. Northeast of the unit is a 4-year-old Douglas-fir stand from a harvest unit hand planted in 2019. Southeast of the Unit is Douglas-fir stand from a harvest unit hand planted in 1987. Southwest of the unit is Unit 2.

Unit 6: This unit is a 4-acre daylighting unit along the D-4700. It is surrounded on all sides by a various recent timber harvests with 8 leave trees per acre to Douglas-fir stand ranging from 4 years-old to 36 years-old stand. Timber harvests before 1997 did not have 8 leave trees per acre and are even-age Douglas-fir stands. Timber harvests after 1997 have 8 leave trees per acre of mature native conifer and hardwood species surrounded by even-age Douglas-fir stands.

Unit 7: This is a 1-acre daylighting unit along the D-4700. To the north is 36-year-old Douglas-fir stand. To the south is 35-year-old Douglas-fir stand.

- c. List threatened and endangered *plant* species known to be on or near the site.
None observed and none found in DNR's database and DNR's Special Concerns Report, which includes data from Washington Department of Ecology, Washington Fish and Wildlife and Washington Natural Heritage Program.
- 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. No individual, old-growth remnants were located, but 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. 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.

- e. List all noxious weeds and invasive species known to be on or near the site.
Scotch broom, Tansy ragwort, foxglove, English holly, English Ivy, 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 squirrels, mountain beavers, Townsend chipmunk, deer mice, northern flying squirrels
 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 DNR’s database and DNR’s Special Concerns Report, which includes data from Washington Fish and Wildlife.
- 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:

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

Species /Habitat: Aquatic Habitat

Protection Measures: No-harvest site height index width RMZs on Type 1 and 3 streams and a minimum of 100-foot RMZs on Type 4 streams. RMZs were measured starting at the outer edge of channel migration zones, where they exist associated with Sherman and Lost Valley Creeks. Leave tree placement will provide additional stream protection for Type 5 streams within the harvest units. Other Type 5 streams were excluded from the boundary.

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.

- 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**
- **Barred owls**
- **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.**

None of these species were 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 associated with the operation of heavy machinery, such as the risk of fire or accidental discharge of small amounts of oil and other lubricants, may exist for the short period of time that operations are active.

- 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 designated recreation. 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)?

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

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 scattered throughout Units 1 and 2. This view will change to that of a young stand 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 in RMZs remaining around streams will 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 designated recreation trails (Lost Valley), target shooting, hunting, mountain biking, horse riding, berry picking, and sightseeing.

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

There may be some disruptions to the Lost Valley trail 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 will be posted during active operations and information provided in advance to user groups. The trails will be cleaned up and back to their original condition within 2 weeks of logging activity ending in the area.

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.

Yes, sites previously documented historical resources are located near the project area. These sites of historical resources were determined ineligible for listing in State or National registers. One archaeological resource was recorded and found to be eligible for listing in State or National registers.

- b. Are there any landmarks, features, or other evidence of Native American 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, evidence of Native American use was identified and recorded by an Agency archaeologist following field review.

- 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 and archaeologist for archaeological and historic resources using the Department of Archaeology and Historic Preservation's WISAARD database of known sites, as well as historical maps including USGS and GLO maps. An onsite review was conducted by a state lands archaeologist. DNR communicated with the Squaxin Island, Quinault, Cowlitz and Chehalis Tribes in July and August 2023 regarding findings, protections and impacts to modern CMTs.

- 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.

The project has been designed to avoid all known cultural resources. Part of the sale has been bounded out of the proposal based on recommendations from the DNR archaeologist who examined the proposal site during the timber sale planning process. 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.
- Interstate 5 and Maytown Road SW, 128th Avenue, Mima Road SW, and Bordeaux Road SW county roads to access the forest roads which access the harvest units. State Route 12 will access forest roads, which will also access the harvest units.**

- 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, the nearest transit spot is approximately 18 miles 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**

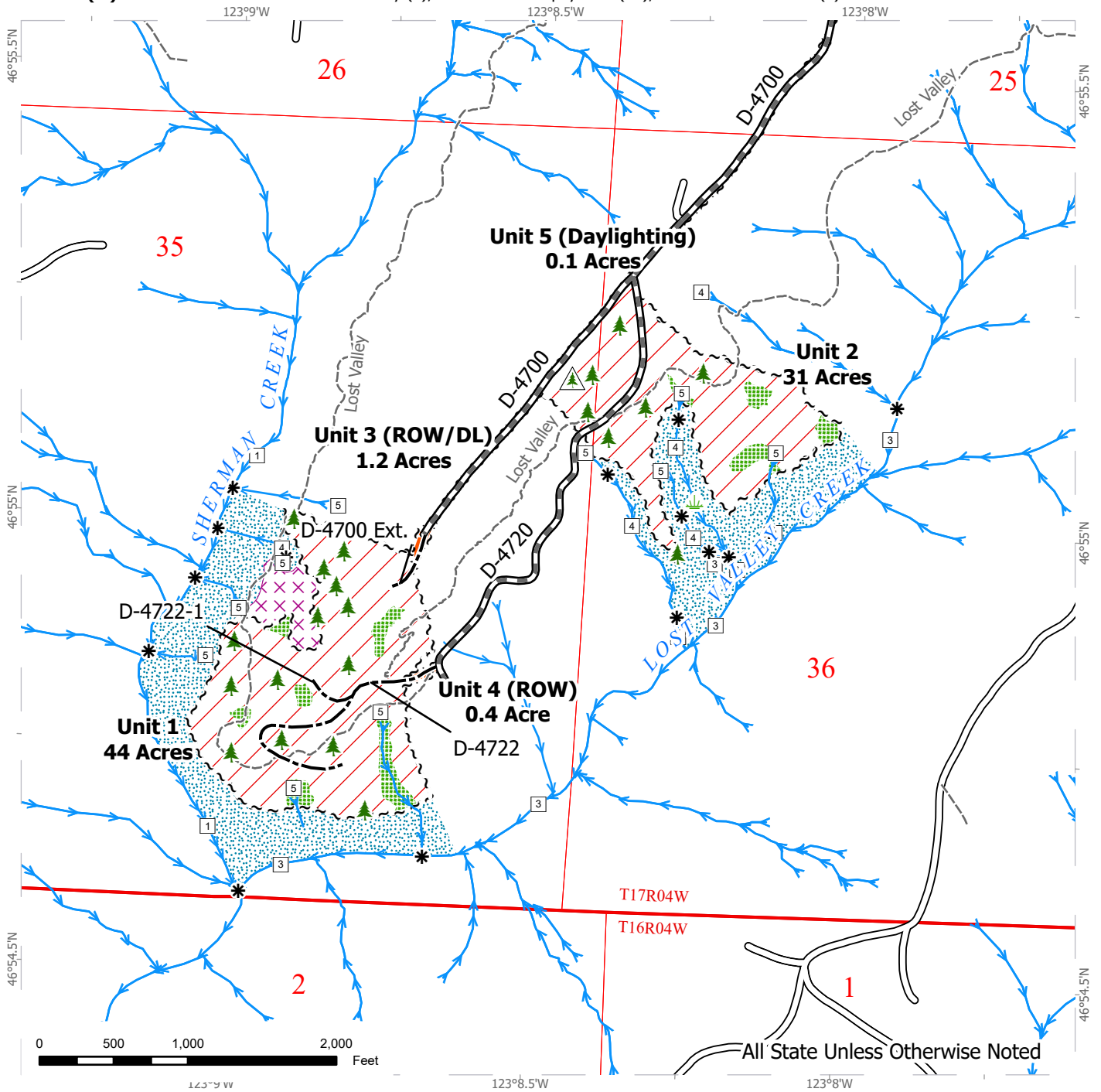
Date Submitted: 10/14/2024

AEM 10/14/2024

TIMBER SALE MAP

SALE NAME: CAKE WALK
AGREEMENT #: 30-106341
TOWNSHIP(S): T17R3W, T17R4W
TRUST(S): Common School and Indemnity (3), Forest Board Repayment (42), State Forest Purchase (2)

REGION: South Puget Sound Region
COUNTY(S): Thurston
ELEVATION RGE: 560-1040

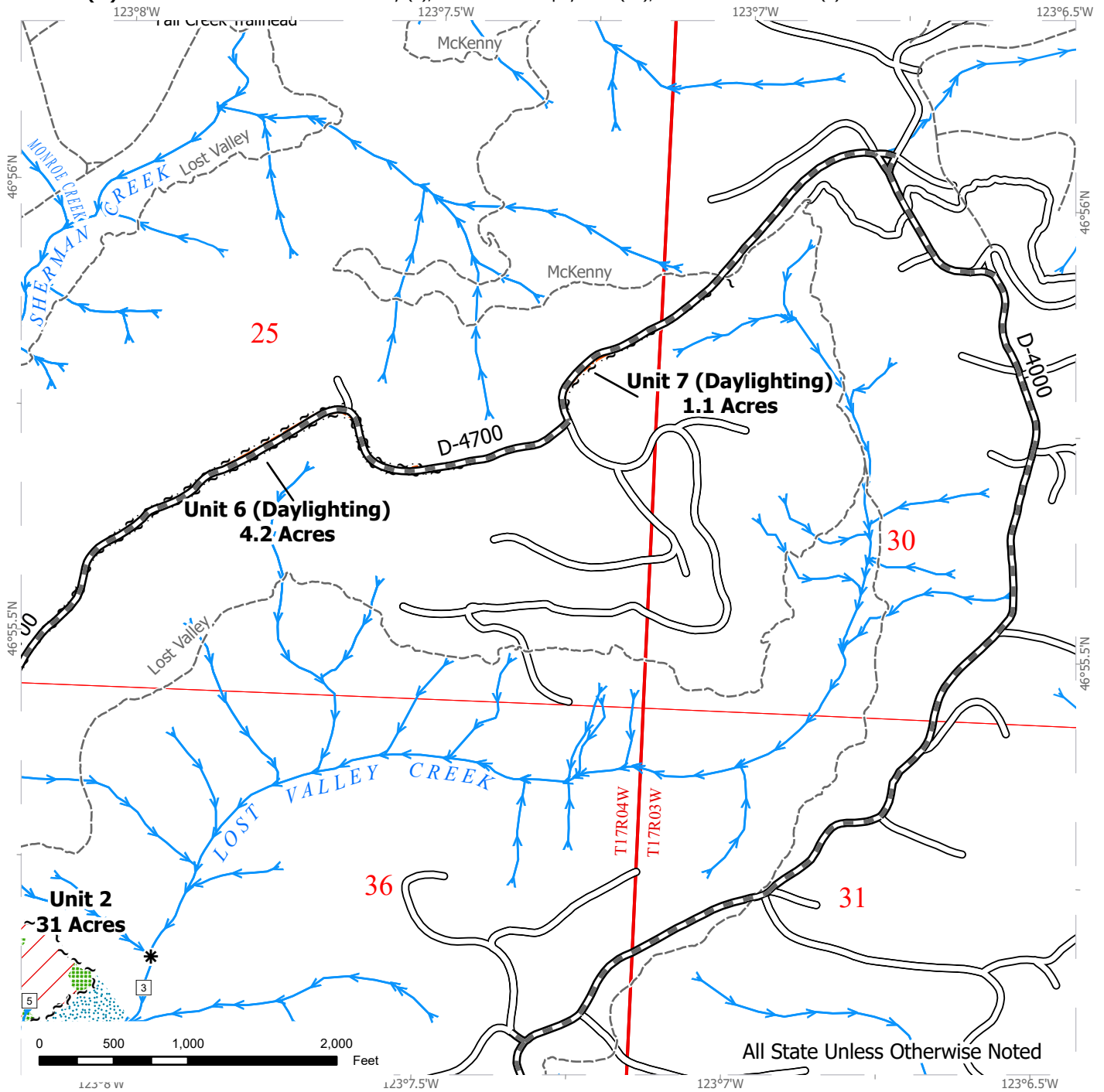


Sale Area	Required Pre-Haul Maintenance	Streams
Right-of-Way Harvest	Optional Construction	Stream Type
Tailhold Restriction Area	Trails	Stream Break
Leave Tree Area	Wetland Mgt Zone	
Riparian Mgt Zone	Leave Tree Area <1/4-acre	
Sale Boundary Tags	Non-Tradeable Leave Trees	
Right of Way Tags		
Existing Roads		

TIMBER SALE MAP

SALE NAME: CAKE WALK
AGREEMENT #: 30-106341
TOWNSHIP(S): T17R3W, T17R4W
TRUST(S): Common School and Indemnity (3), Forest Board Repayment (42), State Forest Purchase (2)

REGION: South Puget Sound Region
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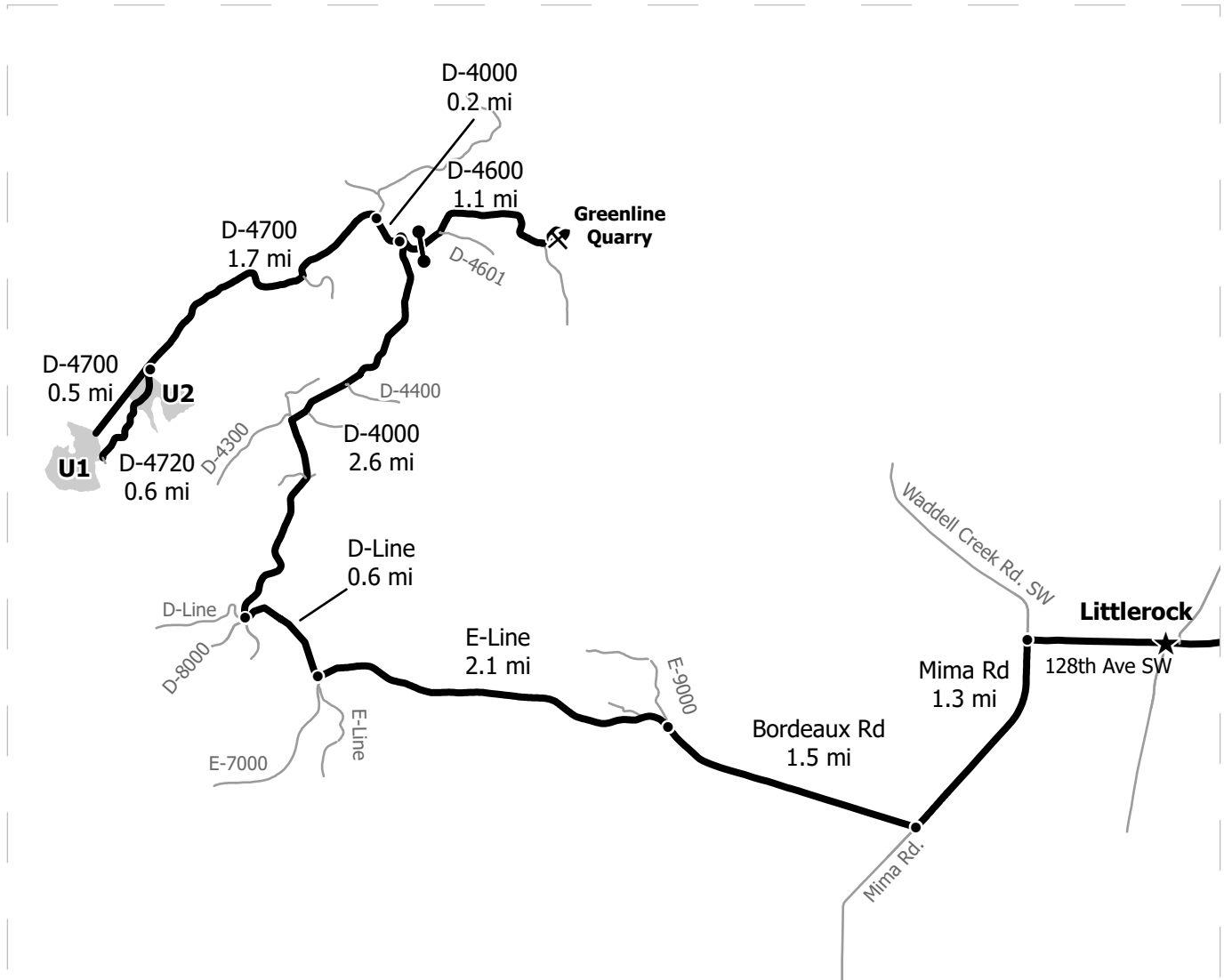
All State Unless Otherwise Noted

Sale Area	Required Pre-Haul Maintenance	Streams
Right-of-Way Harvest	Trails	Stream Type
Leave Tree Area	Gate	Stream Break
Riparian Mgt Zone		
Sale Boundary Tags		
Right of Way Tags		
Existing Roads		

DRIVING MAP

SALE NAME: CAKE WALK
AGREEMENT #: 30-106341
TOWNSHIP(S): T17R3W, T17R4W
TRUST(S): Common School and Indemnity (3), Forest Board Repayment (42), State Forest Purchase (2)

REGION: South Puget Sound Region
COUNTY(S): Thurston
ELEVATION RGE: 560-1040



Map may not be to scale

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

DRIVING DIRECTIONS:

From the intersection of 128th Ave SW, Mima Rd, and Waddell Creek Rd SW in Littlerock, turn left (south) on Mima Road for 1.3 miles. Turn right (west) on Bordeaux Rd SW for 1.5 miles, then continue an additional 2.1 miles after it becomes the E-Line. Turn right (northwest) on D-Line for 0.6 mile. Turn right (north) onto the D-4000 Road and follow for 2.6 miles.

- To Greenline Quarry: Turn right (east) onto D-4600 Road and through the gate (H-957 key). Follow the D-4600 for 1.1 miles. Continue east on D-4606 Road for 0.1 mi to Greenline Quarry.

- To Units 2: From the the D-4600 junction, continue on the D-4000 for an additional 0.2 miles. Turn left (west) onto the D-4700 and follow for 1.7 miles to reach Unit 2.

- Daylighting Units 5, 6, & 7: These units are all located along the D-4700. From the D-4000 junction, Unit 7 begins 0.3 miles down the D-4700 (at the trail crossing); Unit 6 is 1.0 mile down the D-4700; and Unit 5 is 1.7 miles down the D-4700, on the east side of Unit 2.

- To Units 1, 3 ROW, & 4 ROW: From Unit 2, either continue on the D-4700 for 0.5 miles to reach Unit 1; Unit 3 is along the D-4700 between Units 2 and 1. Alternatively, turn left (south) onto the D-4720 and follow for 0.6 miles to reach Units 1 and 4 ROW.

