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: **RAILROAD CREEK VRH & VDT**
   Agreement # **30-104867**

2. Name of applicant:
   Washington Department of Natural Resources

3. Address and phone number of applicant and contact person:
   Washington Department of Natural Resources
   South Puget Sound Region
   950 Farman Ave N.
   Enumclaw, WA 98022
   Contact: Audrey Mainwaring
   (360) 825-1631

4. Date checklist prepared:
   01/03/2024

5. Agency requesting checklist:
   Washington Department of Natural Resources

6. Proposed timing or schedule (including phasing, if applicable):
   a. *Auction Date:*
   03/25/2025

   b. *Planned contract end date (but may be extended):*
   10/31/2026

   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 2 and 3, 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. Unit 1 consists of a thinning prescription and a fully stocked stand will remain following harvest, therefore no regeneration or site preparation is necessary in this unit.

b. *Regeneration Method:*
Unit 1: This stand is proposed to be harvested under a thinning prescription and will remain a fully stocked stand following this proposal. No regeneration is necessary in this unit.

Units 2 and 3 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:*
Units 2 and 3 possible treatments 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 will 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.

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

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*:
- ☐ *temp*
- ☐ *sediment*
- ☐ *completed TMDL (total maximum daily load)*

☒ *Landscape plan:* **South Puget HCP Planning Unit Final EIS (SPS FLP 2010)**

☐ *Watershed analysis:*

☐ *Interdisciplinary team (ID Team) report:*

☒ *Road design plan:* **Included in the Road Plan, dated 7/12/2024**

☒ *Wildlife report:* **Wildlife Habitat Assessment by Alan Mainwaring, Region Biologist, dated 08/01/2024**

☐ *Geotechnical report:*

☒ *Other specialist report(s):* **Geologic Field Summary for the Railroad Creek Timber Harvest, Pierce County, Washington, by Susie Wisehart, Licensed Engineering Geologist, dated May 23, 2024; Level 1 hydrologic change analysis for proposed timber sales in sub-basin 3 of Reese Creek WAU, by Jeff Keck, Forest Hydrologist, dated May 7, 2024**

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

☒ *Rock pit plan:* **Included in the Road Plan, dated 7/12/2024**

☒ *Other:* **Additionally, the following was reviewed and consulted in design 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**
  - **Clarification of projections of forest types and stand structural conditions on Washington DNR State Trust Lands, USFWS; October 27, 2021**
  - **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 Railroad Creek VRH & VDT Timber Sale**
- **Stand Development Stage Assessment form for Railroad Creek VRH & VDT Timber Sale**

- **Forest Stewardship Council and 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 #* **2424146** ☒ *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:
Railroad Creek VRH & VDT Timber Sale proposal encompasses approximately 248 acres of forested land within the Reese Creek Watershed Administrative Unit (WAU) on DNR managed trust land within the Elbe Hills 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.). This proposal is also located within the Elbe Hills Spotted Owl Management Unit in the DNR's South Puget HCP Planning Unit.

Having identified areas to be reserved for conservation, the final proposal design includes 116 net acres of timber harvest and 129 acres excluding 3 acres of existing roads (52% of the overall proposal area) designated for conservation and leave tree areas to protect streams,

wetlands, northern spotted owl habitat, and potentially unstable slopes protections. Additionally, 49 acres of the 116-acre timber harvest includes thinning to develop higher quality NSO dispersal habitat.

The harvest area consists of one variable density thinning (VDT) unit, two units of variable retention harvest (VRH) and one road right-of-way (ROW) unit, harvesting approximately 3,341 MBF of merchantable timber.

Each unit net acreage is as follows:
Unit 1 (VDT) - 49 acres
Unit 2 (VRH) - 14 acres
Unit 3 (VRH) - 49 acres
Unit 4 (ROW) – 4 acres

The Railroad Creek VRH & VDT Timber Sale also includes road work consisting of 3.16 miles of maintenance of existing forest road, reconstruction of existing forest road, which includes replacement of a fish barrier culvert on a Type 3 stream with a culvert that allows fish passage, and 0.4 miles of optional temporary forest road construction.

b. *Describe the stand of timber pre-harvest (include major timber species and origin date), type of harvest and overall unit objectives.*
The stands within the harvest units are comprised predominantly of naturally regenerated Douglas-fir with a lesser component of western hemlock, red alder, black cottonwood, bigleaf maple, noble and Pacific silver fir, and western redcedar in the main canopy. The understory vegetation is dominated by sword fern, Oregon grape, and red huckleberry with areas of vine maple. There is relatively minimal presence of shade tolerant species within the lower or mid-canopy. There is also minimal structure within stands with what is present consisting of large old-growth stumps and dispersed cull logs remaining from previous harvests and smaller second-growth competitive mortality trees. The stand of stand development for the harvest areas within this proposal on the stand level scoring using the Van Pelt guide (2007) includes Biomass Accumulation/Stem Exclusion and Maturation II. The adjacent areas conserved in RMZs and WMZs associated with this proposal are similar stand types as the adjacent harvest areas.

Pre-harvest Stand Description:

Unit	Origin Date	Major Timber Species	Type of Harvest
1	Post-1920	Douglas-fir, western hemlock, red alder, black cottonwood, western redcedar	Variable Density Thinning
2	Post-1920	Douglas-fir and western hemlock	Variable Retention Harvest
3	Post-1920 and post-1976	Douglas-fir, western hemlock, western redcedar	Variable Retention Harvest
4	Post-1920 and 1990	Douglas-fir, western hemlock, red alder, black cottonwood	Right-of-Way

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

Proposal Objectives:
The objectives of this proposal are:

Short-term objectives:

1) **Create revenue for State Forest Transfer, Capitol Trust, and Common School and Indemnity trust beneficiaries through timber 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 for the future stands and maintaining biological diversity, maintain the productivity of the site, and protect water quality, fish, and wildlife habitat.**
4) **Maintain NSO habitat according to DNR's HCP commitments.**
5) **Maintain hydrologic maturity across DNR managed lands according to DNR's procedure.**
6) **Contribute to conservation areas identified as long-term forest cover through HCP and other regulatory protection and mitigation measures.**
7) **Supply sustainably grown timber to local mills and support jobs and economic activity for local economies.**
8) **In Units 2 and 3, establish a new stand of native conifers by planting supplemented with natural regeneration and maintain for long-term forest management. The growth of these trees may be enhanced and managed by altering the density of the plantation through pre-commercial thinning in order to produce future high-quality timber and Northern Spotted Owl (NSO) dispersal habitat.**
9) **In Unit 1, thin to accelerate the stand's trajectory to enhance NSO dispersal habitat.**

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.**
5) **Maintain at least 50% of acreage within the SOMU as NSO habitat per DNR's HCP requirements.**
6) **Maintain hydrologic maturity across DNR managed lands according to DNR's procedure.**

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		**2,180**	**0.9**	**0**
Reconstruction		**1,100**		**1***
Maintenance		**16,700**		**0**
Abandonment		**2,180**	**0.9**	**0**
Bridge Install/Replace	**0**			**0**
Stream Culvert Install/Replace (fish)	**1***			**1***
Stream Culvert Install/Replace (no fish)	**3**			
Cross-Drain Install/Replace	**2**			

***One existing fish barrier will be replaced with a fish passable culvert as part of reconstruction of the existing 8 Road.**

Routine maintenance will occur on all roads used throughout the life of this 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: z. 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:*
Section 20, Township 15 North, Range 6 East, W.M. – timber harvest, culvert replacement, rock pit
Section 21, Township 15 North, Range 6 East, W.M. – timber harvest

b. *Distance and direction from nearest town:*
This proposal is located approximately 7 miles by road east of Elbe, Washington. From Elbe, follow SR-706 east for 6.2 miles. Turn left on 278th Ave. E./Stoner Road and follow for 0.6 miles to reach Unit 4. Unit 1 is walk-in access approximately 0.2 miles north along Unit 4. From 278th Ave. E./Stoner Road, continue left on the 8 Road and follow for 1.6 miles to reach Unit 2. Continue for 0.1 miles to reach Unit 3.

To reach Primo Pit, from 278th Ave. E./Stoner Road follow the 8 road for 1.6 miles and turn right onto the 8-18 road. Follow for 0.5 miles to the pit.

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).*

Within the Reese Creek WAU, agriculture and home sites are located in the valleys near major streams. The uplands are primarily managed for timber production by private forests and Department of Natural Resources (DNR) managed forests. Forested stands within the WAU appear to be primarily second and third growth stands.

The Reese Creek WAU includes potentially unstable slopes, cultural resources, and northern spotted owl habitat.

The Elbe Hills Spotted Owl Management Unit encompasses much of the northwestern portion of the WAU at mid-to-high elevations on DNR managed lands.

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 CO_2; 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 Puget 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 2090 (S. PUGET 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 Railroad Creek VRH & VDT 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 have been identified and protected. Potentially unstable slopes were excluded from this proposal.

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
REESE CREEK	19011	11958	468	527	342

Data as of September 18, 2024 obtained from the agency's Land Resource Manager system.

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:	REESE CREEK
WAU Acres:	19011
Elevation Range:	1200 - 4338 ft.
Mean Elevation:	2003 ft.
Average Precipitation:	72 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)?
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
9828	LOAM
0485	V.CINDERY LOAMY SAND
5241	CINDERY SANDY LOAM
0643	V.CINDERY SANDY 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 a screening tool. 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. Landslide inventories are used as screening tools. 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 qualified practitioners. Site-specific analysis by a qualified practitioner may result in conclusions that are different from the information available in the screening tools.

Available landslide inventories and other remote screening tools were reviewed for this proposal by slope stability trained foresters and state lands geologists. Potentially unstable, rule identified landforms (RILs) around the harvest were identified by slope stability trained foresters and a licensed engineering geologist (LEG) through office and field review in accordance with the Washington State Forest Practices rules. Inner gorges, one relict bedrock deep-seated landslide, one dormant-distinct to dormant-indistinct deep-seated landslide, and one shallow landslide have been excluded from the proposed harvest units and are outside the timber sale boundaries.

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.*
   - **Rule identified potentially unstable slopes with potential to deliver sediment to a public resource are excluded from the proposed harvest area.**
   - **Road locations were designed to avoid crossing potentially unstable landforms.**
   - **Remote and field reviews were conducted by a licensed State Lands Geologist and professional foresters to ensure that all other identified potentially unstable slopes that were interpreted as having potential to adversely impact public resources or public safety were excluded from the harvest areas. See associated Geologic Field Summary for the Railroad Creek Timber Harvest, Pierce County, Washington, dated May 23, 2024.**
   - **Cross drains and ditchouts will be utilized to minimize the potential for mass wasting and slope failures associated with poor drainage.**

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: **1.3**
Approx. acreage new landings: **2**
Fill Source: **On site material, Primo Pit. Streambed rock mix is to be obtained from a 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 or removing culverts, and hauling timber.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? *Approximate percent of proposal in permanent road running surface (includes gravel roads):*
Approximately 1% of the site will remain as gravel roads, which are currently existing forest roads. This proposal will not increase impervious surfaces following completion.

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

The timber sale contract, including a detailed Road Plan, ensure the following:

- **Roads will be crowned or in-sloped and cross drained to provide for water drainage.**
- **Cross drains will be properly spaced, installed and maintained.**
- **Protection measures to avoid sediment delivery will be addressed as needed during operations and may include the use of water bars, catch basins or silt traps.**
- **There will be periodic maintenance and inspection of the road system to ensure proper drainage.**
- **A detailed plan of operations will be developed by the Purchaser and approved by the Contract Administrator prior to commencing operations.**
- **Traditional ground-based yarding will be restricted to 45% slopes to reduce soil impact.**
- **The lead end of logs will be suspended during yarding operations.**
- **Erosion prevention measures include: road construction and hauling will be restricted during saturated soil conditions; proper compaction as specified in the Road Plan; ensuring subgrade exposed during road construction are rocked or waterbarred during months of typically high precipitation.**
- **Operations may be suspended when soil rutting exceeds 12 inches as measured from the natural ground line.**
- **Construction of water bars or grass seed application may be utilized to reduce soil damage.**

2. Air

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.
Minor amounts of engine exhaust from logging and road construction equipment and dust from vehicle traffic on roads will be emitted during proposed activities. If landing debris is burned after harvest is completed, smoke will be generated. There will be no emissions once the proposal is complete.

Harvest operations and the removal of timber will result in minor amounts of CO_2 emissions from the direct proposal site. See A.13.a. for details regarding completed analyses of carbon emissions and sequestration on DNR-managed lands in western Washington.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.
None known.

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 in Units 2 and 3 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. Unit 1 will remain as fully stocked stands, and as a result from the thinning, continue to sequester carbon through forest stand growth.

3. Water

a. Surface Water:

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

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

a. Downstream water bodies: **Sahara Creek, Railroad Creek, Nisqually River, and Alder Lake**

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)
Stream	**3**	**2**	**192 – no cut**
Stream	**3**	**3**	**180 – no cut**
Stream	**3**	**3**	**200 – no cut**
Stream	**4**	**3**	**100 - no cut**
Wetland (associated with T3 stream)	**0.25 to <1 acre**	**1**	**180 - no cut**
Wetland	**0.25 to <1 acre**	**2**	**100 - no cut**
Wetland	**>1 acre**	**1**	**180 and 200* – no cut**

***WMZ widths were determined using 50-year site index values from DNR inventory layers. Site index values varied slightly in Units #2 and #3 bordering this wetland, yielding different WMZ buffer widths.**

c. List any additional RMZ/WMZ protection measures including silvicultural prescriptions, road-related RMZ/WMZ protection measures and wind buffers.
Streams adjacent to this proposal were identified during field reconnaissance. The stream types were determined using physical stream characteristics according to DNR's Trust Forestland Habitat Conservation Plan (HCP) water typing system. Refer to the associated timber sale map for stream type and locations.

Wet areas and two Type 5 streams within Unit 3 were strategically targeted for the placement of some leave trees to provide additional protection to these features.

Road-related protection measures for this proposal include preventing silt-bearing runoff from entering any streams and prohibiting organic debris or waste material from being placed within 100 feet of a live stream.

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 streams, but beyond the buffer distances listed in the table above.

There are fifteen Type 5 streams within or adjacent to the harvest proposal that will be protected with a 30-foot equipment limitation zone or are excluded from the harvest area. Type 5 stream crossings may be allowed with approval by the Contract Administrator.

Temporary forest road locations were designed to avoid streams where possible.

Two culverts will be installed at Type 5 crossings associated with an optional temporary forest spur road. On existing forest roads used by the public, two stream culverts will be replaced: one culvert will be replaced at one Type 5 crossing, and one fish-passable culvert will be installed at a Type 3 crossing on the 8 Road to replace a non-fish passable culvert.

Refer to the associated timber sale map for stream types and locations.

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. During culvert replacements, fill will be temporarily dredged from stream channels when old culverts are removed and restored with the installation of new culverts.

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:*
Streams may be temporarily diverted around road crossing locations during culvert installations if water is present to reduce sedimentation to the stream during installation.

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

☐ *No* ☒ *Yes, describe activity and location:*
Work will occur within the 100-year floodplain at a Type 3 stream culvert installation location on the 8 Road. This will include temporarily diverting streamflow to reduce sediment delivery during culvert replacement, excavating the road fill to remove the old culvert, altering streambed elevation and location near the new inlet, installation of a new fish-passable culvert, placement of rip rap along the new culvert, and placement of manufactured streambed material within the new culvert and within the new channel.

One additional culvert will be replaced on the 8 Road within the 100-year floodplain of a Type 5 stream. Two temporary culverts will be installed within the 100-year floodplain of a Type 5 stream on Spur 1. These locations are described within the Road Plan.

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. Equipment operation will be minimal in close proximity to streams as part of this proposal, limited to the Type 5 streams and the Type 3 culver replacement described above. 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)?
REESE CREEK = 4.9 (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 work standards will be applied that address this issue by installing cross drains to deliver ditch water to stable forest floors.

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

debris (LOD), change in channel dimensions)?

☐ *No* ☒ *Yes, describe observations:*
There is evidence of changes to channels across the WAU(s). These changes are a result of natural events such as spring runoff from snowmelt and significant storm events. Channel migration, scouring, and deposition of material can be seen in channels across the WAU(s); this indicates those channels historically experience higher water levels and peak flows.

11) *Describe any anticipated contributions to peak flows resulting from this proposal's activities which could impact areas downstream or downslope of the proposal area.*
Portions of this proposal are within the rain-on-snow dominated zone of Reese Creek sub-basins 2 and 3. It is not likely the proposed activity will change the timing, duration, or volume of water during a peak flow event as a result of managing for hydrologic maturity in these sub-basins. This proposal maintains at least two-thirds of the rain-on-snow/snow-dominated zone within Reese Creek sub-basin 2 in hydrologically mature stands and results of a hydrologic change module analysis of Reese Creek sub-basin 3 reflect a "low" sensitivity by the proposed harvest based on modeled two-year peak annual flow increase relative to maximum hydrologic maturity conditions. 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):*
The Nisqually River is approximately 5 miles downstream. Based on protection measures outlined in B.1.d.5., and B.3.a.16., 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.*
This proposal limits harvest unit size and proximity to other recent harvests, retains hydrologic mature thresholds in sub-basins per DNR procedure PR14-004-060, minimizes the extent of the road network, incorporates road drainage disconnected from stream networks, and implements no-entry riparian buffers that exceed Forest Practices minimum requirements, all which have mitigating effects on the potential

for this proposal to increase peak flows that could impact areas downstream or downslope of the proposal area. DNR staff will monitor roads, streams, and harvest area throughout the project. In stream work for the Type 3 crossing on the 8 Road to restore access to fish habitat will be restricted to the dry season from July 1 through September 30.

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, <u>downstream or downslope</u> of the proposed activity?

☐ *No* ☒ *Yes, describe:*
The Nisqually River is approximately 5 miles downstream.

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

☒ *No* ☐ *Yes, describe possible impacts:*

Note protection measures, if any:

c. Water runoff (including stormwater):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.
Water runoff, including storm water, from road surfaces will be collected by roadside ditches and diverted onto the forest floor via ditchouts and cross drain culverts.

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

☐ *No* ☒ *Yes, describe:*
Waste materials, such as sediment or slash, may enter surface water.

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

3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.
No significant changes to drainage patterns are expected.

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:
See surface water, ground water, and water runoff sections above, questions B-3-a-1-c, B-3-a- 13, B-3-b-3, and B-3-c-2. Wet areas and two Type 5 streams within Units 3 were strategically targeted for the placement of some leave trees to provide additional protection to these features.

4. Plants

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

☒ Deciduous tree:
☒ Alder ☐ Aspen ☐ *Birch* ☒ *Cottonwood* ☒ Maple ☐ *Western Larch*
☐ Other:

☒ Evergreen tree:
☒ *Douglas-Fir* ☐ *Engelmann Spruce* ☐ *Grand Fir* ☐ *Lodgepole Pine*
☐ *Mountain Hemlock* ☒ *Noble Fir* ☒ *Pacific Silver Fir* ☐ *Ponderosa Pine*
☒ *Sitka Spruce* ☒ *Western Hemlock* ☒ *Western Redcedar* ☐ *Yellow Cedar*
☐ Other:

☒ Shrubs:
☒ *Huckleberry* ☐ *Rhododendron* ☒ *Salmonberry* ☒ *Salal*
☒ *Other:* **Oregon grape, vine maple**

☒ *Ferns*

☒ Grass

☐ Pasture

☐ Crop or Grain
☐ *Orchards* ☐ *Vineyard* ☐ *Other Permanent Crops*

☒ Wet Soil Plants:
☐ Bullrush ☒ Buttercup ☐ Cattail ☒ *Devil's Club* ☒ Skunk Cabbage
☐ Other:

☐ Water plants:
☐ Eelgrass ☐ Milfoil ☐ Water Lily
☐ Other:

☐ Other types of vegetation:
☐ *Plant communities of concern:*

b. What kind and amount of vegetation will be removed or altered? *(Also see answers to questions A-11-a, A-11-b and B-3-a-2).*
Approximately 3,341 MBF of primarily Douglas-fir and western hemlock will be removed as part of the Railroad Creek VRH & VDT Timber Sale. The proposal includes stands that are approximately 34, 48, and 100 years old. Understory vegetation within the harvest units will be disturbed or damaged during the felling and yarding process. Following the proposal, Unit 1 will maintain a fully stocked stand above a residual relative density of 48. Units 2 and 3 will retain 8 leave trees per acre within clumped leave tree areas inside each unit, following DNR's PR 14-006-090. No timber will be removed or understory vegetation disturbed in leave tree areas or within the riparian and wetland management zones.

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.)*
Stands immediately adjacent to the proposed harvest units are DNR managed State trust lands with the Reese Creek WAU and are similar to the proposal area, except private lands located southeast of Unit 1/east of Unit 4. These stands are primarily second-growth and young plantations ranging from 18-100 years old and are dominated by Douglas-fir and western hemlock. Private lands consist of second-growth timber and cleared areas.

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:
A minimum of 8 trees per acre (greater than 10 inches diameter at breast height) are retained in clumps distributed within VRH Units 2 and 3. This strategy will provide legacy elements for recruitment of future snags, coarse wood debris, multi-layered stands, and large diameter trees. In combination, these features will provide elements of older forest habitat characteristics within the new plantation. Some of these leave trees are placed in locations within harvest units to minimize soil displacement and surface erosion. Some clumps were selected for their species diversity of native flora. These clumps will provide a local seed source for native overstory and understory species. Trees with defects such as split or broken tops, dominate crowns, large dimeters and large limbs were favored as leave trees to enhance wildlife potential. Leave trees placement targeted areas that would contribute high wildlife value, such as along Type 5 streams and in wet areas, and an area of cultural use. Wet areas and two Type 5 streams within Unit 3 were strategically targeted for the placement of some leave trees to provide additional protection to these

features.

Unit 1 will be harvested following a gap thinning prescription by harvesting approximately 5% of the area in 0.25 and 0.1 acre gaps. Approximately 1% of the area will be harvested in skid trails. Areas of relatively low tree density with small canopy gaps already present and areas adjacent to Type 5 streams were avoided for placement of gaps.

Some natural regeneration of native species will likely occur on site after harvest. Units 2 and 3 will be replanted with native conifer species following completion of the proposal.

e. List all noxious weeds and invasive species known to be on or near the site.
There is woodland groundsel, oxeye daisy, false dandelion, scotch broom, and holly on or near the site.

5. Animals

a. List any birds and other animals *or unique habitats* which have been observed on or near the site or are known to be on or near the site. Examples include:
birds:
☒ eagle ☒ hawk ☒ heron ☒ *owls* ☒ songbirds
☒ other: N**orthern flicker, ruffed grouse, sooty grouse, waterfowl**
mammals:
☒ bear ☒beaver ☒ *coyote* ☒ *cougar* ☒ deer ☒ elk
☒ other: **Douglas and northern flying squirrels, mountain beaver, mice, voles, Townsend's chipmunk, bobcat, bats**
fish:
☐ bass ☐ herring ☐ salmon ☐ shellfish ☒ trout
☐ other:
*amphibians/reptiles***:**
☒ *frog* ☐ *lizard* ☒ *salamander* ☒ *snake* ☒ *turtle*
☒ *other*: **garter snake, western toad**
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)*.
This proposal is within the Elbe Hills Spotted Owl Management Unit and is managed for northern spotted habitat. No northern spotted owls are known to be or have been observed on or near this site. No other threatened or endangered species were identified 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. 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: **Riparian and Wetland**
Protection Measures: **HCP RMZ and WMZ buffers that contribute towards the conservation areas and providing fish passage at a Type 3 stream crossing on the 8 Road to restore access to upstream habitat. Type 3 streams are protected with 180-foot, 192-foot, and 200-foot no harvest buffers. Type 4 streams are protected with 100-foot no harvest buffers. A wetland associated with a Type 3 stream is protected with a 180-foot no harvest buffer. A wetland greater than 1 acre in size is protected with a 180-foot and a 200-foot no harvest buffer. Wetlands greater than 0.25 acres but less than 1 acre are protected with 100-foot no harvest buffers. A current fish barrier culvert on the 8 road will be replaced with a fish passable culvert to restore upstream fish habitat. This work will be restricted to July 1 through September 30 to minimize potential impact on fish populations.**

Species /Habitat: **Upland**
Protection Measures: **Clumped and individual leave trees will be retained at a density of 8 trees per acre in Units 2 and 3. Leave trees retained are wind firm and well-formed dominant and co-dominant trees representing the original diversity of species. Additionally, individual species and tree types known to have high wildlife use have been retained. Trees with unique characteristics such as forked or damaged tops have been incorporated within many of the leave tree groups an individually selected throughout the proposal to provide current and future habitat for a variety of wildlife species. Large hard and soft snags with high evident use and cavities will also be retained when possible. VDT Unit 1 will be thinned following a gap creation only prescription.**

Species /Habitat: **Northern Spotted Owl dispersal habitat**
Protection Measures: **The Railroad Creek VRH & VDT Timber Sale proposal is located within the Elbe Hills Spotted Owl Management Unit (SOMU), which is within a designated Dispersal Management Area within the South Puget HCP planning unit. The Elbe Hills SOMU is currently at 57.2 percent total NSO Habitat. Unit 1 will be harvested utilizing Variable Density Thinning prescriptions and maintain a residual RD 48 post-harvest. Units 2 and 3 is designated movement, young stand marginal, and non-habitat and will be Variable Retention Harvests. The sale will remove 71.6 acres of habitat. The SOMU will be 56.9 percent total NSO habitat post-harvest as of 7/29/2024. This proposal is in movement plus habitat but will not drop below the 50 percent movement plus habitat in the SOMU. This proposal is consistent with DNR's HCP and PR 14-004-120 Northern Spotted Owl Management (Westside) and PR 14-001-03 Settlement Agreement. See**

associated Wildlife and Wetland Forest Habitat Assessment Memo.

e. List any invasive animal species known to be on or near the site.
Barred owl (Strix varia).

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.

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:
The proposal site is used as actively managed forest land. Adjacent properties are used as actively managed forest land and residential properties. Existing forest roads associated with the proposal area, and used for the haul road are used for forest management activities and public 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?
Forest Resources Zone.

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

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?
The proposal may be visible from some nearby forest roads and Washington State Route 706. Portions of Units 1 and 4 may be visible from nearby residences.

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?*
The view will change from a fully stocked stand to a harvest with leave trees in Units 2 and 3. The stand will remain fully stocked in Unit 1, but the canopy will have somewhat larger openings as a result of the thinning harvest prescription.

c. Proposed measures to reduce or control aesthetic impacts, if any:
None

11. Light and glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?
None.

b. Could light or glare from the finished project be a safety hazard or interfere with views?
No.

c. What existing off-site sources of light or glare may affect your proposal?
None.

d. Proposed measures to reduce or control light and glare impacts, if any:
None.

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?
There are no recreation facilities or designated trails within the proposal area. Hunting, hiking, horseback riding, mountain biking, mushroom and berry picking and other dispersed outdoor recreation activities may occur within the proposal area.

The DNR 8 Road is used by the public for recreational access to the Elbe Hills State Forest, and specifically 92 Road Sno-Parks and trails, Elbe Hills ORV Campgrounds and trails, and Nicholson Horse Trail System trailheads and day use areas.

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. There will be disruption of recreation traffic during 8 Road maintenance and reconstruction.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:
Caution and active timber harvest signs will be posted on roads in the vicinity of operations. No work will occur on weekends or State recognized holidays without Contract Administrator approval.

The length of closure of the 8 Road for culvert replacement work will be minimized. Signs will be posted giving advance notice of the road closure.

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.
Site PI01336 is within portions of and adjacent to the proposal. Site PI01650 is adjacent to the proposal area. Both sites have been determined to be ineligible for listing in State or National registers.

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.
Evidence of modern tribal use was found within the proposal area. All located areas at time of harvest unit layout are protected within non-tradeable leave tree areas and as a result, no impact from this proposal is anticipated.

Evidence associated with the sites listed in B.13.a above were identified and reviewed by a DNR Cultural Resource Technician.

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.
The proposal area was remotely assessed by a DNR Cultural Resource Technician and DNR Archaeologist, reviewing GLO and Historic maps, and existing recorded historical sites that have been recorded with DAHP. A DNR Cultural Resource Technician conducted a field review of the sale area and surveyed site PI01336 and PI01650. Tribal outreach and consultation with representatives from the following

tribes: Muckleshoot, Nisqually, Puyallup, and Squaxin. No concern with the proposal and protection plan was brought forward during this outreach with the tribes.

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.
Identified tribal use areas have been protected in a leave tree area. Site PI01650 is excluded from the proposal. 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.
The haul route will utilize DNR forest roads within the Elbe Hills State Forest and a county road (278th Ave. E./Stoner Road) that are accessed by State Route 706.

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 25 miles away.

c. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).
Yes, see A-11-c.

1) *How does this proposal impact the overall transportation system/circulation in the surrounding area and any existing safety problem(s), if at all?*
This project will have minimal to no additional impacts on the overall transportation system in the area. The DNR 8 Road will be closed during periods of maintenance and reconstruction temporarily restricting access to portions of Elbe Hills State Forest via the eastern 8 Road entrance. Other open access routes to Elbe Hills State Forest are available.

d. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.
No.

e. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and non-passenger vehicles). What data or transportation models were used to make these estimates?
Approximately 10 to 15 truck trips per day while the operation is active. Peak volumes would occur during the yarding and loading activities between 4:00 a.m. and 4:00 p.m. of the operating period. The completed project will generate less than one vehicular trip per day. Estimates are based on the observed harvest traffic of past projects.

f. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.
No.

g. Proposed measures to reduce or control transportation impacts, if any:
Road construction and timber hauling will not be allowed on weekends or State recognized holidays with Contract Administrator approval. 8 Road closures associated with stream culvert replacements will be minimized. Signage will be posted ahead of road closures warning recreation users.

15. Public services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.
No.

b. Proposed measures to reduce or control direct impacts on public services, if any.
None.

16. **Utilities**

a. Check utilities currently available at the site:
☐ electricity ☐ natural gas ☐ water ☐ refuse service ☐ telephone ☐ sanitary sewer
☐ septic system ☒ other**: Utilities are not available at the site but are available at nearby private parcels southeast of Unit 1.**

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**

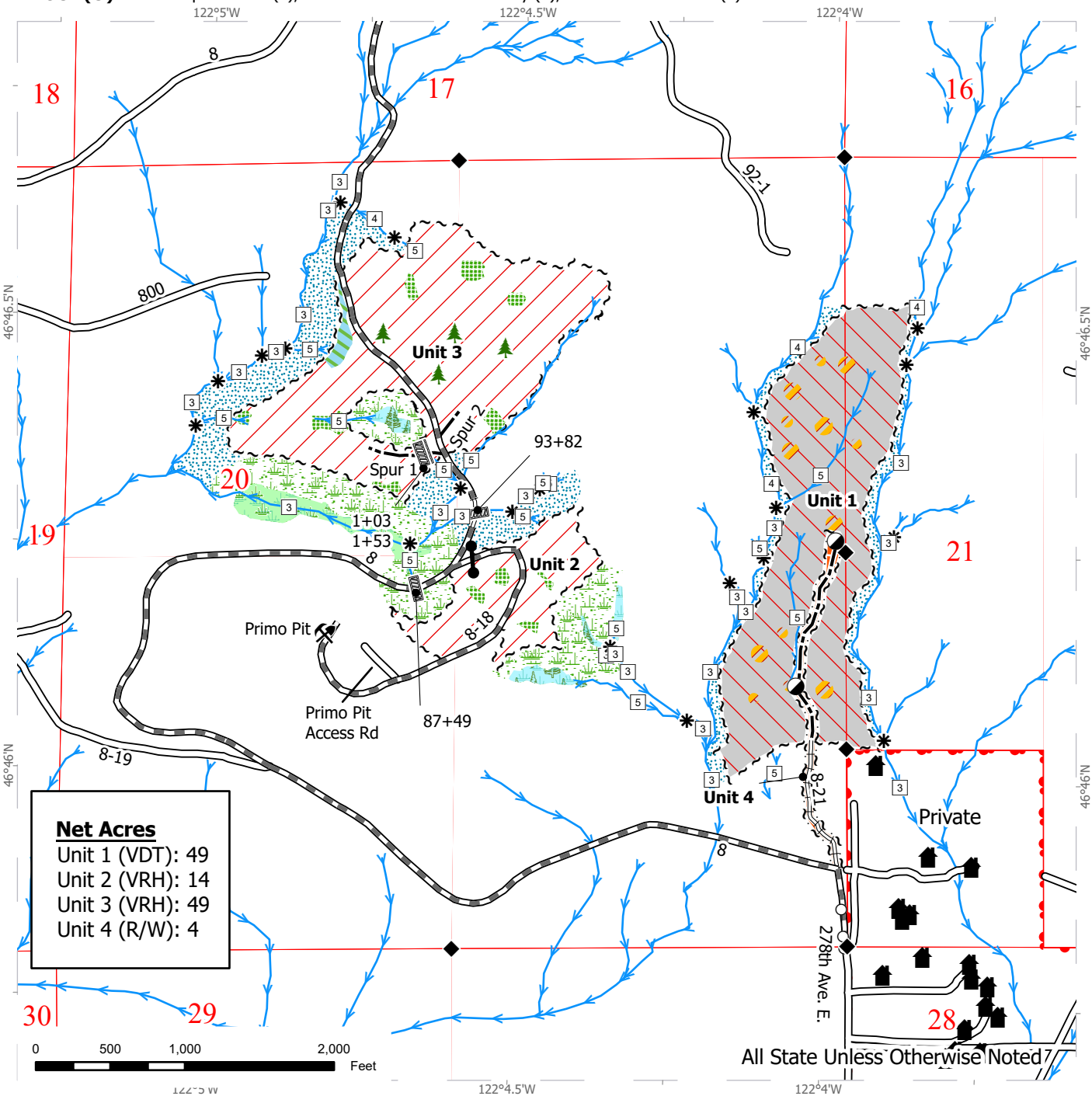
Date Submitted: 12/6/2024

A M 12/4/24

TIMBER SALE MAP

SALE NAME: RAILROAD CREEK VRH VDT
AGREEMENT#: 30-104867
TOWNSHIP(S): T15R6E
TRUST(S): Capitol Grant (7), Common School and Indemnity (3), State Forest Transfer (1)

REGION: South Puget Sound Region
COUNTY(S): Pierce
ELEVATION RGE: 1800-2600



Net Acres
Unit 1 (VDT): 49
Unit 2 (VRH): 14
Unit 3 (VRH): 49
Unit 4 (R/W): 4

- Variable Retention Harvest
- Variable Density Thinning
- Right-of-Way Harvest
- Leave Tree Area
- Non-Tradeable Leave Tree Area
- Forested Wetland
- Wetlands - Non-forested
- Wetland Mgt Zone
- Riparian Mgt Zone
- Gap Creation Area
- Sale Boundary Tags
- Right of Way Tags
- Property Line
- Power Lines
- Existing Roads
- Required Pre-Haul Maintenance
- Required Reconstruction
- Optional Construction
- Stream Type
- Stream Break
- Streams
- Culvert
- Designated Landing
- Leave Tree Area <1/4-acre
- Rock Pit
- Gate
- Structure
- Survey Monument
- Property Line

N

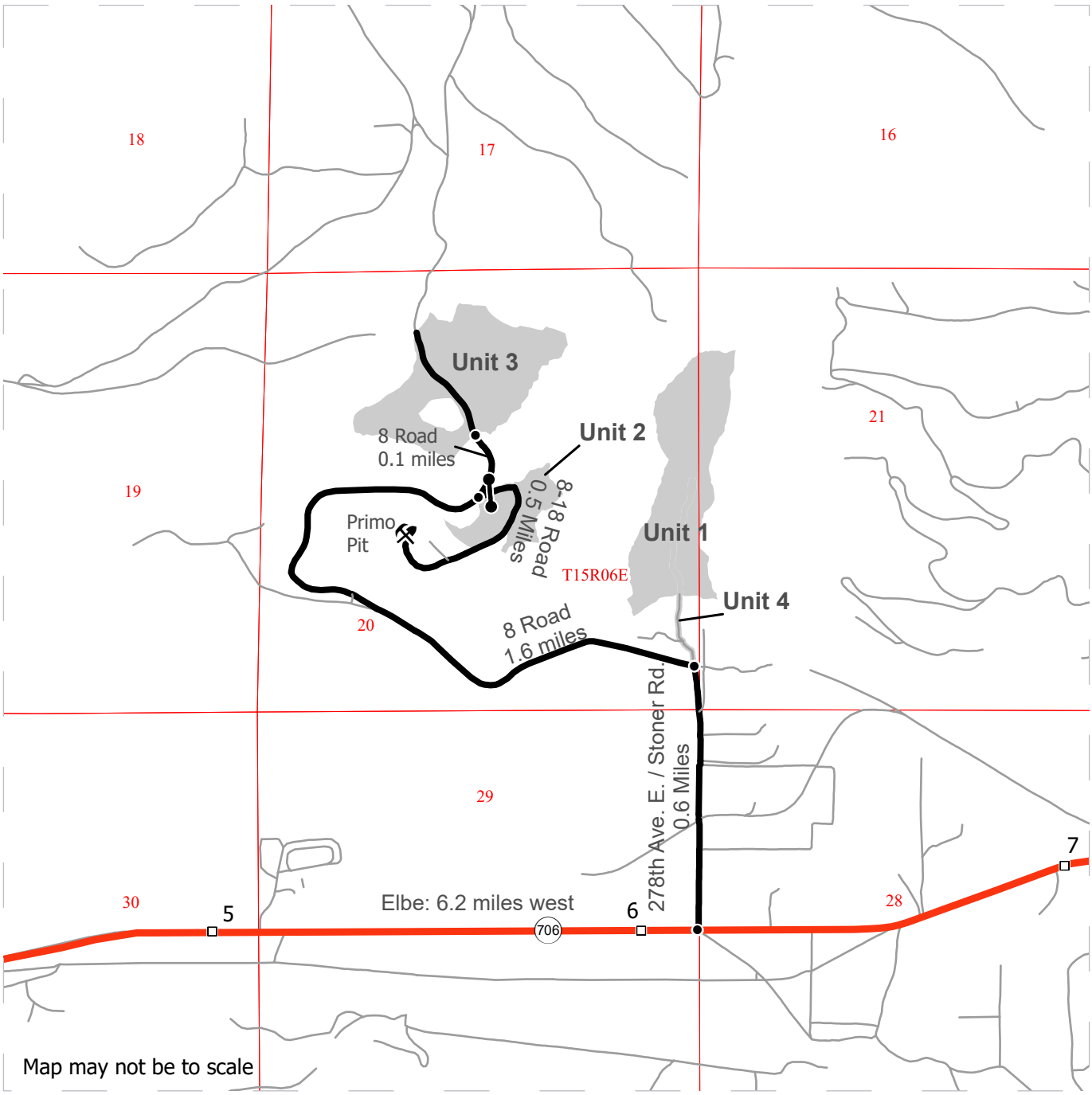
Prepared By: kfry490

Modification Date: kfry490 10/12/2024

DRIVING MAP

SALE NAME: RAILROAD CREEK VRH VDT
AGREEMENT#: 30-104867
TOWNSHIP(S): T15R6E
TRUST(S): Capitol Grant (7), Common School and Indemnity (3), State Forest Transfer (1)

REGION: South Puget Sound Region
COUNTY(S): Pierce
ELEVATION RGE: 1800-2600



- Harvest Unit
- Highway
- Haul Route
- Other Route
- Milepost Marker
- Distance Indicator
- Gate (383 Master)
- Rock Pit

DRIVING DIRECTIONS:

From Elbe, follow SR-706 east for 6.2 miles. Turn left on 278th Ave. E./Stoner Rd. and follow for 0.6 miles to reach Unit 4. Unit 1 is walk-in access approximately 0.2 miles north along Unit 4.

From 278th Ave. E./Stoner Road, turn left onto the 8 road and follow for 1.6 miles to reach Unit 2. Continue for 0.1 miles to reach Unit 3.

Primo Pit: From 278th Ave. E. follow the 8 road for 1.6 miles and turn right onto the 8-18 road. Follow for 0.5 miles to the pit.

N

Prepared By: kfry490

Modification Date: kfry490 10/10/2024