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: **JECKLE VRH & VDT**
Agreement # **30-104866**

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: **01/04/2024**

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

6. Proposed timing or schedule (including phasing, if applicable):
a. *Auction Date:*
11/19/2024

b. *Planned contract end date (but may be extended):*
10/31/2027

c. Phasing:
None

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.
☐ *No, go to question 8.* ☒ *Yes, identify any plans under A-7-a through A-7-d:*

a. Site Preparation:
Units 1, 2, and 5: Site preparation, including a herbicide application, may be used to ensure that planting can be achieved at acceptable stocking levels to meet or exceed Forest Practices standards following harvest. Slash piles may be burned during the fall or winter before planting.

b. Regeneration Method:
Units 1, 2, and 5: Hand planted with native conifer species following harvest. Units will be planted at a density that meets or exceeds Forest Practice standards. Natural regeneration from trees in neighboring stands and from leave trees is expected to occur and some of these trees are expected to become part of the subsequent stand.

c. Vegetation Management:

Units 1, 2, and 5: Possible treatments, including a herbicide application to control noxious weeds, could occur following harvest. Treatments will be based on vegetation competition, and will ensure a free-to-grow status that complies with Forest Practices standards.

d. Other:

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

Rock will be obtained from the Black Rock 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*: Mashel River

☒ *temp*

☐ *sediment*

☐ *completed TMDL (total maximum daily load)*

☒ *Landscape plan:* **South Puget HCP Planning Unit Forest Land Plan Final EIS (2010)**

☐ *Watershed analysis:*

☐ *Interdisciplinary team (ID Team) report:*

☒ *Road design plan:* **Included in the Road Plan, dated 3/4/2024**

☒ *Wildlife report:* **Wildlife Habitat Assessment from Alan Mainwaring, Region Biologist, dated 4/22/2024**

☐ *Geotechnical report:*

☒ *Other specialist report(s):* **Geologic Field Summary for the Jeckle Timber Harvest, Pierce County, Washington, from Susie Wisehart, Licensed Engineering Geologist, dated 03/13/2024; Level 1 hydrologic change analysis for proposed timber sale in sub-basin 5 of the Mashel WAU, from Jeff Keck, Forest Hydrologist, dated 3/27/2024**

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

☒ *Rock pit plan:* **Included in the Road Plan, dated 3/4/2024**

☒ *Other:* **Additionally, the following was reviewed and consulted in design of this proposal:**

- **DNR Policies and Implementation**
  - **Policy for Sustainable Forests (PSF 2006)**
  - **Final Environmental Impact Statement on the Sustainable Harvest Calculation (SHC 2019)**
  - **South Puget HCP Planning Unit Forest Land Plan Final EIS (SPS FLP 2010)**
  - **Landscape Assessment to Identify and Manage Structurally Complex Stands to Meet Older-Forest Targets in Western Washington (May 2024)**
  - **Identifying Mature and Old Forests in western Washington by Robert Van Pelt (Van Pelt, R. 2007)**
  - **Silvicultural Rotational Prescriptions**
  - **Land Resource Manager Special Concerns Reports and associated maps**
- **DNR Habitat Conservation Plan and Supplemental Information**
  - **State Trust Lands Habitat Conservation Plan (HCP 1997)**

    - **State Trust Lands Final Conservation Plan Amendment for the Marbled Murrelet Long-term Conservation Strategy (MM LTCS 2019)**
    - **Riparian Forest Restoration Strategy (RFRS)**
    - **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**
- **Forest Practices Regulations and Compliance**
    - **Forest Practices Board Manual**
    - **Forest Practices Activity Maps**
- **Supporting Data for Unstable Slopes Review**
    - **State Lands Geologist Remote Review (SLGRR)**
    - **Landslide Remote Identification Model (LRIM) tool**
    - **Forest Practices Statewide Landslide Inventory (LSI) screening tool**
- **Supporting Data for Cultural Resources Review**
    - **Historical Aerial Photographs**
    - **USGS and GLO maps**
- **Additional Supporting Data for Policy Compliance**
    - **Weighted Old Growth Habitat Index (WOGHI)**
    - **State Soil Survey**
    - **DNR inventory layers, including RS_FRIS**
    - **Stand Origin Assessment for Jeckle VRH & VDT Timber Sale**
    - **Stand Development Stage Assessment for Jeckle VRH & VDT Timber Sale**
    - **Washington Natural Heritage Program inventory data**
    - **Forest Stewardship Council and Sustainable Forestry Initiative certification Standards**
- **Reviews by and communications with DNR Cultural Resource Technicians, State Lands Geologist, Region Biologist, and State Lands Archaeologist**

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 #***2424041** ☐ *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*:

Jeckle VRH & VDT Timber Sale proposal is a three unit variable retention harvest (VRH), two unit variable density thinning (VDT) and a three road right-of-way (ROW) units, consisting of approximately 220 gross acres and 212 net acres within the Elbe Hills State Forest. This proposal is located within the Elbe Hills Spotted Owl Management Unit in the DNR's South Puget HCP Planning Unit.

The original proposal area considered for harvest was over 337 acres and reduced to 212 net acres of harvest area after incorporating 125 acres or 37% of the proposal in conservation area for streams, wetlands, and potentially unstable slopes protections. Additionally, 75 acres of the timber sale includes thinning and ecological enhancement sites to develop higher quality NSO dispersal habitat. Approximately 7,572 MBF will be removed.

Each unit net acreage is as follows:

Unit 1 (VRH) - 58 acres
Unit 2 (VRH) - 61 acres
Unit 3 (VDT) - 35 acres
Unit 4 (VDT) – 40 acres
Unit 5 (VRH) – 5 acres
Unit 6 (ROW) – 10.6 acres
Unit 7 (ROW) – 1.0 acre
Unit 8 (ROW) – 0.9 acre

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 silver fir, and western redcedar in the main canopy. The understory vegetation is dominated by sword fern, Oregon grape and salal with some 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 the previous harvest and smaller second-growth competitive mortality trees. The stage 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, Maturation I, 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-1930	Douglas-fir, western hemlock, red alder	Variable Retention Harvest
2	Post-1920	Douglas-fir, western red cedar, western hemlock, red alder	Variable Retention Harvest
3	Post-1920	Douglas-fir, western hemlock, western red cedar, red alder	Variable Density Thinning
4	Post-1920	Douglas-fir, western hemlock, western red cedar, red alder	Variable Density Thinning
5	Post-1920	Red alder, Douglas-fir, western hemlock	Variable Retention Harvest
6 ROW	Post-1920	Douglas-fir, western hemlock, western red cedar, red alder	Right of Way
7 ROW	Post-1920	Douglas-fir	Right of Way
8 ROW	1989 and post-1920	Red alder, Douglas-fir, western hemlock	Right of Way

Origin dates were determined by using DNR's RS-FRIS GIS "Combined Origin Year" layer and tree core data gathered from field assessment.

Overall Objectives:

The objectives of this proposal are:

Short-term objectives

1) **Generate revenue for State Forest Board Transfer and Common School beneficiaries 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.**
2) **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.**
3) **Maintain habitat thresholds and enhance designated NSO habitat according to DNR's HCP commitments.**
4) **Maintain hydrologic maturity across DNR managed lands according to DNR's procedure.**
5) **Contribute to long-term forest cover through HCP required protections.**
6) **In Units 1, 2, and 5, 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.**
7) **Supply sustainably grown timber to local mills.**

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 stand develops. The primary objective of each treatment is to ensure growth of a healthy, resilient stand of native species to create revenue for the trusts.**

2) **Resource protection and conservation through implementation of conservation measures as outlined in DNR's trust land management framework.**
3) **Maintain and enhance designated NSO habitat within the SOMU as NSO habitat according to DNR's HCP commitments.**
4) **Maintain hydrologic maturity across DNR managed lands according to DNR's HCP commitments.**
5) **Meet objectives and projected outcomes outlined in DNRs programmatic framework through implementation of conservation measures outlined in DNR's 1997 Trust Lands Habitat Conservation Plan (HCP).**

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		**12,251**	**5.7**	**0**
Reconstruction		**3,208**		**0**
Maintenance		**25,700**		**0**
Abandonment		**6,130**	**3.0**	**0**
Bridge Install/Replace	**0**			**0**
Stream Culvert Install/Replace (fish)	**0**			**0**
Stream Culvert Install/Replace (no fish)	**0**			
Cross-Drain Install/Replace	**37**			

Routine maintenance will occur on 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: 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:*
Sections 7 and 8 in Township 15 North, Range 05 East, W.M.

b. *Distance and direction from nearest town:*
This proposal is located approximately 4 miles by road northwest of Elbe, Washington. From Elbe follow State Route 7 west approximately for 0.1 miles. Turn right onto the 5 Road and follow for 2.5 miles. Turn left onto the 7 Road and follow for 1.4 miles to reach Black Rock Pit. Continue on the 7 Road for 0.2 miles to reach Units 3, 4, 5, and 6. Units 3, 4, and 5 are walk-in access approximately 0.25 miles from the 7 Road. Continue on the 7 Road for another 0.3 miles to reach Units 1 and 7. Continue on the 7 Road for another 0.6 miles to reach Units 2 and 8. Unit 2 is walk-in access approximately 0.25 miles from the 7 Road. The 5 Road gate near Elbe is closed from September 1 to March 15.

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 Mashel WAU, agriculture and home sites are located in the valleys near major streams. The uplands are mainly managed for timber production by large industrial forests, small 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 Mashel WAU includes potentially unstable slopes, excessive levels of surface water temperature, cultural resources, and northern spotted owl habitat.

The Elbe Hills Spotted Owl Management Unit encompasses the south-central 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 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 Habitat Conservation Plan (HCP) with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service concerning threatened and endangered species and their habitats. The applicable Habitat Conservation Plan (HCP) strategies incorporated into this proposal include:

- **Retaining Riparian Management Zones (RMZ) to protect water quality, stream bank integrity, stream temperatures, and provide down woody debris.**
- **Wetland Management Zones (WMZs) will protect water quality, sensitive wetland soils, and maintain hydrologic function.**
- **Retaining a minimum of 8 trees per acre (greater than 10 inches diameter at breast height) clumped and scattered throughout the units. This strategy will provide legacy elements for recruitment of future snags, coarse woody 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.**
- **Riparian Management Zone thinning under the DNR's HCP Riparian Forest Restoration Strategy (RFRS).**
- **Maintaining northern spotted owl dispersal habitat within designated Spotted Owl Management Units.**
- **Maintaining a specified level of hydrologically mature forests within rain-on-snow zones of DNR-managed watershed sub basins to reduce impacts of timber harvest operations to peak flow rates.**

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

- **Assessing for and protecting significant historic, archaeological and cultural areas.**
- **Generally limiting even-aged harvests to less than 100 acres per unit.**

The General Silviculture Strategy (policy) in the Policy for Sustainable Forests 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.

In May 2024, the DNR produced a document titled '*Landscape Assessment to Identify and Manage Structurally Complex Stands to Meet Older-Forest Targets in Western Washington*'. 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 stands suitable 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 deferred from regeneration harvest.

The results from the May 2024 landscape assessment, and included in the above-referenced memorandum, show that while the South Puget HCP Planning Unit does not currently contain 10 to 15 percent older forest conditions, it demonstrates that through implementation of the HCP and other Policies and laws, stands containing structurally complex forests or managed for older forest targets in conservation areas is projected to exceed 10 percent in the South Puget HCP Planning Unit by 2090 (Table 1). Stands currently identified to meet older forest targets are represented in the attached map titled, "2021 Older Forest Within Conservation S. PUGET" (2024). Additionally, those stands projected to meet older-forest targets are depicted in the attached map titled, "Projected 2100 Older Forest Within Conservation S. PUGET" (2024).

Table 1. Percent area western Washington HCP planning units with older-forest stands in conservation areas by decade through 2120. With plot discounts and disturbance factor.

ADJUSTED QUERY OUTPUT (WITH PLOT DISCOUNT & DISTURBANCE FACTOR)											
HCP Planning Unit	**Year**										
	2021	**2030**	**2040**	**2050**	**2060**	**2070**	**2080**	**2090**	**2100**	**2110**	**2120**
COLUMBIA	1.1%	1.2%	1.4%	1.8%	2.6%	4.3%	6.8%	**10.1%**	**14.0%**	**17.3%**	**18.9%**
N. PUGET	3.2%	3.9%	4.9%	6.2%	7.9%	**10.2%**	**13.2%**	**16.7%**	**20.6%**	**23.9%**	**25.0%**
OESF	**10.2%**	**10.7%**	**11.0%**	**11.7%**	**12.6%**	**13.9%**	**16.0%**	**20.1%**	**25.0%**	**28.4%**	**29.6%**
S. COAST	0.2%	0.3%	0.6%	1.2%	2.2%	3.6%	6.0%	8.8%	**12.3%**	**16.0%**	**18.7%**
S. PUGET	1.7%	2.1%	2.7%	3.6%	4.6%	6.1%	8.4%	**11.3%**	**14.4%**	**17.2%**	**18.7%**
STRAITS	1.8%	2.5%	3.2%	4.3%	5.6%	7.4%	9.9%	**12.6%**	**15.0%**	**17.9%**	**19.3%**

Additionally, DNR has designated forest stand acreage in each HCP planning unit to meet or exceed the policy's 10% older forest target.

The Jeckle VRH & VDT Timber Sale is not identified as one of those stands designated to meet older-forest targets over time. In the Jeckle VRH & VDT Timber Sale 212 net acres are being harvested, while 125 acres are being conserved from the overall area considered for harvest (37% of the proposal area) for potential unstable slopes, riparian and wetland management zones plus leave tree areas that will contribute to older forests 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 harvested units.

Protections and mitigation according to Forest Practice Rules:

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

c. Briefly describe any specific mitigation measures proposed, in addition to the mitigation provided by plans and programs listed under question A-13-b.
Rule identified landforms according to the Forest Practices Board Manual have been identified and protected. Potentially unstable slopes were excluded from this proposal. See also documents listed under A-8.

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
MASHEL	57043	15129	470	1169	1508

Data as of July 8, 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:	MASHEL
WAU Acres:	57043
Elevation Range:	452 - 4869 ft.
Mean Elevation:	2213 ft.
Average Precipitation:	63 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)?
72%

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
3610	GRAVELLY SILT LOAM
9828	LOAM
6087	GRAVELLY LOAM
3609	GRAVELLY SILT LOAM
6085	GRAVELLY LOAM

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

☐ *No, go to question B-1-e.*

☒ *Yes, briefly describe potentially unstable slopes or landforms in or around the area of the proposal site. For further information, see question A-8 for related slope stability documents and question A-10 for the FPA number(s) associated with this proposal.*
There is one bedrock hollow north of the proposed harvest. There are also inner gorges outside the timber sale units. There is one active, bedrock deep-seated landslide which has been excluded from harvest and is outside the timber sale. There are three shallow landslides which have been excluded from harvest and are outside the timber sale.

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.**
   - **Cross-drains and ditch outs will be utilized to minimize the potential for mass wasting and slope failures associated with poor drainage.**
   - **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 Jeckle Timber Harvest, Pierce County, Washington, dated March 13, 2024.**
   - **Road plan does not include harvest or excavation into shallow landslide near Unit 8.**

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: **5.7**
Approx. acreage new landings: **4**
Fill Source: **On site material and Black Rock Pit.**

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.
Yes. Some erosion could occur as a result of building new roads, installing culverts, and hauling timber.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? *Approximate percent of proposal in permanent road running surface (includes gravel roads):*
Approximately 3% of the site will remain as gravel roads.

Proposed measures to reduce or control erosion, or other impacts to the earth, if any:
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.**
- **Road construction will be restricted during saturated soil conditions. Proper compaction as specified in the Road Plan.**

2. Air

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

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

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

c. Proposed measures to reduce or control emissions or other impacts to air, if any:
If landing debris is burned, it will be in accordance with Washington State's Smoke Management Plan. A burn permit will be obtained before burning occurs.

Following harvest, native tree species will be planted on site in Units 1, 2, and 5 resulting in regeneration of the forest stand and initiating carbon sequestration through forest stand growth. Units 3 and 4 will remain a fully stocked stand, 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: **Mashel River and Nisqually 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)
Stream	**3**	**2**	**180-no cut**
Stream	**4**	**2**	**100-no cut**
Wetland	**0.25 to 1 acre**	**2**	**100-no cut**
Wetland	**>1 acre**	**3**	**180-no cut**
Wetland	**>1 acre**	**3**	**180-managed**

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.

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 and wetlands, but beyond the buffer distances listed in the table above, with the exception of the managed >1 acre wetland WMZs in Unit 3.

There are 21 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.

Wetlands larger than 1 acre associated with Unit 3 will be protected with a minimum of a 50-foot equipment restriction zone inside of the managed WMZ. The harvest activities within the WMZ will be variable density thinning to a residual relative density of 48.

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.

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:*

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

☒ *No* ☐ *Yes, describe activity and location:*

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.
It is not likely that any waste materials will be discharged into the surface water(s). However, minor amounts of oil, fuel, and other lubricants may inadvertently be discharged to the adjacent surface water(s) as a result of heavy equipment use or mechanical failure. No lubricants will be disposed of on-site.

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

☐ *No* ☒ *Yes, describe:*
Soils and terrain susceptible to surface erosion are generally located on slopes steeper than 70%. The potential for eroded material to enter surface water is minimized due to the erosion control measures and operational procedures outlined in B-1-h.

8) What are the approximate road miles per square mile in the associated WAU(s)?
MASHEL = 5.9 (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 rain-on-snow dominated zones of Mashel sub-basins 4 and 5. 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 hydro maturity targets according to DNR's procedure 14-004-060 and results of a hydrologic change module analysis of Mashel sub-basin 5. Additional mitigation for potential peak flow impacts includes limiting harvest unit size and proximity to other recent harvests, minimizing the extent of the road network, incorporating road drainage disconnect from stream networks, and implementing 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 Mashel River is approximately 3 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.*
Nothing in addition to what is stated in A.13. above.

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:*
The Mashel River is approximately 3 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 ditch-outs and cross drain culverts.

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

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

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

3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If

so, describe.
No significant changes to drainage patterns are expected.

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:
See surface water, ground water, and water runoff sections above, questions B-3-a-1-c, B-3-a- 13, B-3-b-3, and B-3-c-2.

4. Plants

a. Check the types of vegetation found on the site:
☒ Deciduous tree:
☒ Alder ☐ Aspen ☐ *Birch* ☒ *Cottonwood* ☒ Maple ☐ *Western Larch*
☐ Other:
☒ Evergreen tree:
☒ *Douglas-Fir* ☐ *Engelmann Spruce* ☐ *Grand Fir* ☐ *Lodgepole Pine*
☐ *Mountain Hemlock* ☒ *Noble Fir* ☒ *Pacific Silver Fir* ☐ *Ponderosa Pine*
☐ *Sitka Spruce* ☒ *Western Hemlock* ☒ *Western Redcedar* ☐ *Yellow Cedar*
☐ Other:
☒ Shrubs:
☒ *Huckleberry* ☐ *Rhododendron* ☒ *Salmonberry* ☒ *Salal*
☒ *Other:* **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 7,572 MBF of primarily Douglas-fir and western hemlock will be removed as part of the Jeckle VRH & VDT Timber Sale. Understory vegetation within the harvest units will be disturbed or damaged during the felling and yarding process. Units 1 and 2 will retain 8 leave trees per acre within clumps or individually scattered leave trees following PR 14-006-090. Wet areas and a Type 5 stream within Units 1 and 2 were strategically targeted for the placement of some leave trees to provide additional protection to these features. Western redcedar were

targeted for leave trees in portions of Unit 2 in order to better reflect the species composition of the current stand. Unit 3 will maintain a fully stocked stand and be thinned to a relative density of 48. Unit 4 will maintain a fully stocked stand and after gap thinning will remain above a relative density of 48. Ecological enhancement site trees are designated for structure creation. Of these 105 trees, 60 will be felled for Down Woody Debris recruitment and 45 will be converted to snags. No timber will be removed or understory vegetation disturbed in the conservation areas.

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 within the Mashel WAU and are similar to the proposal area. These stands are primarily second-growth and young plantations ranging from 20-96 years old and are dominated by Douglas-fir, western hemlock, and western red cedar.

c. List threatened and endangered *plant* species known to be on or near the site.
None found in corporate database.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:
Retention tree clumps are identified across the harvest area in the VRH units 1, 2 and 5. 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. Some natural regeneration of native species will occur on site after harvest. Wildlife trees were left in areas to protect snags, large down logs, advanced regeneration, and potentially unstable slopes. 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. These units will be replanted with Douglas-fir, and supplemented with natural regeneration of native species within the leave tree clumps and adjacent buffers.

Units 3 will be harvested following a thinning prescription with a target residual relative density of 48. Trees will be selected for harvest throughout the diameter range of the stand, however no trees over 36 inches DBH will be harvested, except potentially for road construction in Unit 6.

Units 4 will be harvested following a gap thinning prescription by harvesting approximately 12% of the area in 0.25 and 0.1 acre gaps. Approximately 5% of the area will be harvested in skid trails.

This proposal also includes ecological enhancement sites adjacent to Unit 4 for structure creation which will be accomplished by falling 60 trees for Down Woody Debris recruitment and converting 45 trees to snags.

e. List all noxious weeds and invasive species known to be on or near the site.
There is woodland groundsel, oxeye daisy, Scotch broom, and false dandelion 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: **Pacific wren, Stellar's jay, gray jay, northern flicker, varied thrush, ruffed grouse, sooty grouse, American crow, Swainson's thrush, common raven**
mammals:
☒ bear ☐beaver ☒ *coyote* ☒ *cougar* ☒ deer ☒ elk
☒ other: **Douglas and northern flying squirrels, mountain beaver, mice, voles, Townsend's chipmonk, bobcat**
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 (SOMU) and is managed for northern spotted habitat. No northern spotted owls are known to be or have been observed on or near this site.

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. This timber sale proposal conforms to commitments under the 1997 DNR Habitat Conservation Plan (HCP).**

Species /Habitat: **Upland**
Protection Measures: **Clumped and individual leave trees will be retained at a density of 8 trees per acre in Units 1, 2, and 5. 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 3 will be thinned to RD 48 with an upper diameter limit of 36" DBH has been set to retain the dominant conifer while a lower diameter limit of 6" has been set to retain the established shade tolerant understory. VDT Unit 4 will be thinned following a gap creation only prescription. The habitat enhancement treatment adjacent to Unit 4 is designed to provide an assortment of light regimes intended to stimulate understory/midstory development and influence overstory canopy architecture (growth from the top down).**

Species /Habitat: **Northern Spotted Owl**
Protection Measures: **The Jeckle 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. DNR's HCP requires 50 percent of the SOMU to be maintained as suitable NSO habitat. The Elbe Hills SOMU is currently at 57.8 percent total NSO habitat, therefore containing a surplus of acreage above the 50 percent threshold available for variable retention harvest. Units 1, 2, and 5 (VRH units) are located in surplus designated habitat or non-habitat. Units 3 and 4 will be thinned and maintain a residual RD 48 post-harvest. Additionally, this proposal includes structure creation and will add snags and down woody debris in three ecological enhancement sites adjacent to Unit 4. Following this proposal, the SOMU will remain above the 50 percent habitat threshold per DNR's HCP and be at 57.2 percent total NSO habitat post-harvest. This proposal is consistent with DNR's HCP and PR 14-004-120 Northern Spotted Owl Management (Westside). See associated Wildlife 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:
Forest Land. **Private residential properties are located at least 1,100 feet away from this proposal. 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.

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 1, 2, and 5. The stand will remain fully stocked in Units 3 and 4, 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.

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.

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.

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 PI01377 is adjacent to the proposal but has 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.
See B.13.a.

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 site was remotely assessed by a DNR Cultural Resource Technician, reviewing GLO and Historic maps, and existing recorded historical sites that have been recorded with DAHP. A DNR Archaeologist and Cultural Resource Technician conducted a field review of the sale area.

d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.
If presently-unknown skeletal remains, cultural resources, or both become known during project operations, DNR will comply with the Discovery of Skeletal Remains or Cultural Resources procedure.

14. Transportation

a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.
The haul route will utilize DNR forest roads within the Elbe Hills State Forest that are accessed by State Route 7.

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 19 miles away.

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

1) *How does this proposal impact the overall transportation system/circulation in the surrounding area and any existing safety problem(s), if at all?*
This project will have minimal to no additional impacts on the overall transportation system in the area.

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

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

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

g. Proposed measures to reduce or control transportation impacts, if any:
None.

15. Public services

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

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

16. **Utilities**

a. Check utilities currently available at the site:
☐ electricity ☐ natural gas ☐ water ☐ refuse service ☐ telephone ☐ sanitary sewer
☐ septic system ☐ other**:**

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**

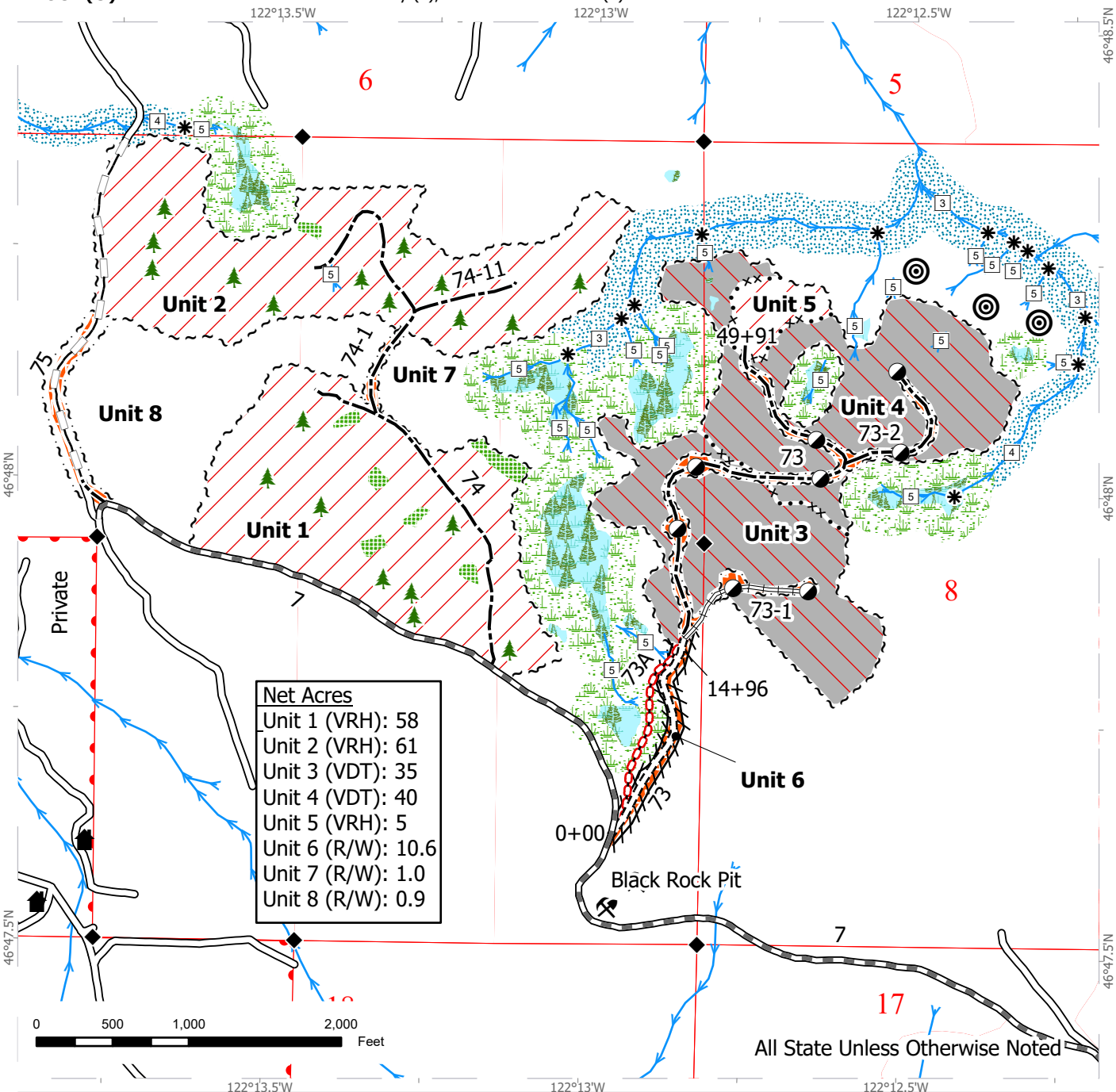
Date Submitted: 8/12/2024

AEM 8/9/24

TIMBER SALE MAP

SALE NAME: JECKLE VRH VDT
AGREEMENT#: 30-104866
TOWNSHIP(S): T15R5E
TRUST(S): Common School and Indemnity (3), State Forest Transfer (1)

REGION: South Puget Sound Region
COUNTY(S): Pierce
ELEVATION RGE: 1760-2560



- Variable Retention Harvest
- Variable Density Thinning
- Right-of-Way Harvest
- Leave Tree Area
- Forested Wetland
- Wetland Mgt Zone
- Riparian Mgt Zone
- Sale Boundary Tags
- Special Mgmt Unit Boundary Tags
- Right of Way Tags
- Pink Flagging
- Existing Roads
- Required Pre-Haul Maintenance
- Required Construction
- Required Reconstruction
- Optional Construction
- Optional Reconstruction
- Required Abandonment
- Streams
- Stream Type
- Stream Break
- Designated Landing
- Leave Tree Area <1/4-acre
- Rock Pit
- Structure
- Ecological Enhancement Site
- Survey Monument
- Property Line
- Public Land Survey Sections

N

Prepared By: kfry490

Modification Date: kfry490 8/9/2024

DRIVING MAP

SALE NAME: JECKLE VRH VDT
AGREEMENT#: 30-104866
TOWNSHIP(S): T15R5E
TRUST(S): Common School and Indemnity (3), State Forest Transfer (1)

REGION: South Puget Sound Region
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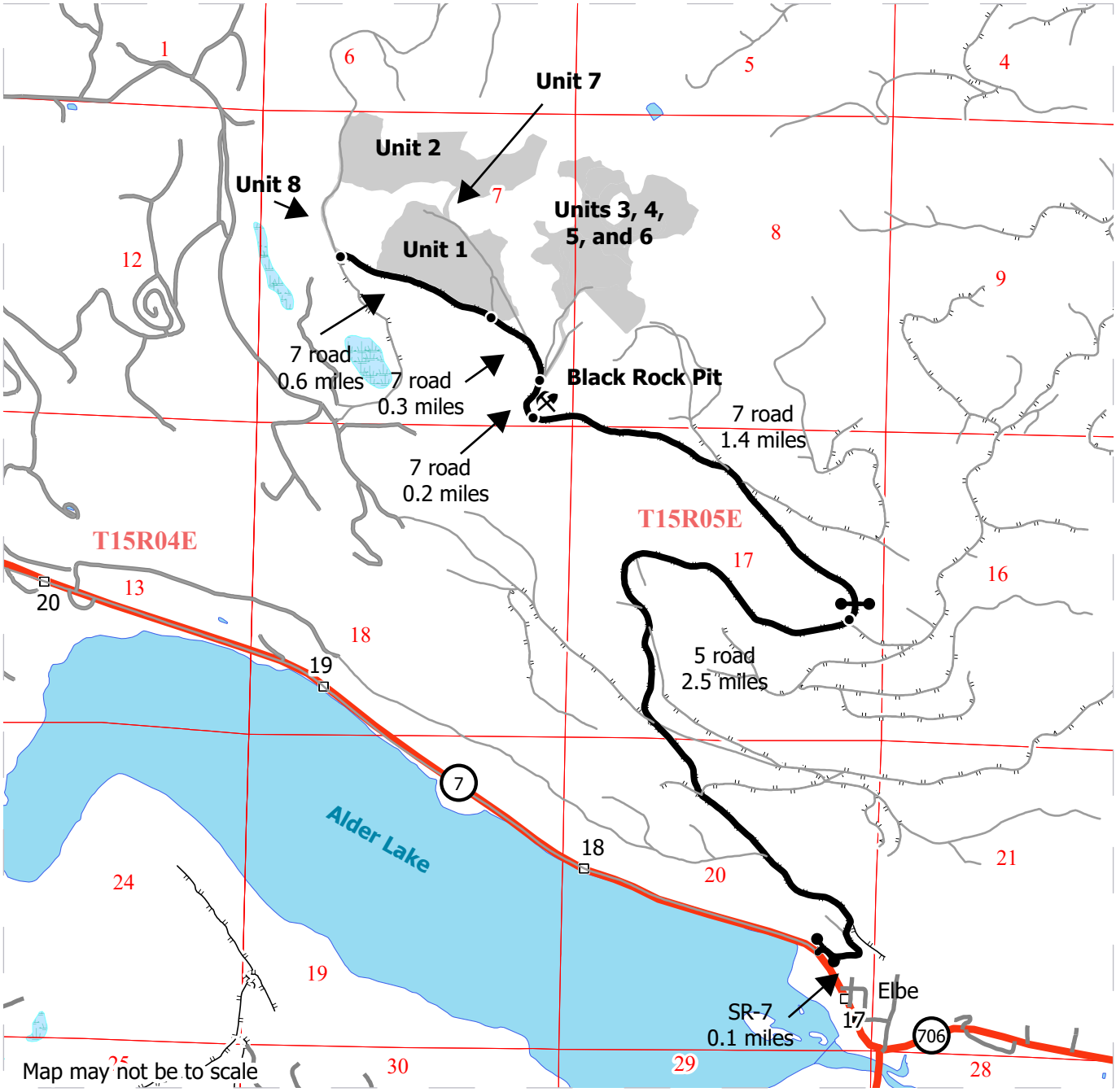
ELEVATION RGE: 1760-2560



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

DRIVING DIRECTIONS:

From Elbe follow SR-7 west approximately for 0.1 miles. Turn right onto the 5 road and follow for 2.5 miles. Turn left onto the 7 road and follow for 1.4 miles to reach Black Rock Pit. Continue on the 7 road for 0.2 miles to reach Units 3, 4, 5, and 6. Units 3, 4, and 5 are walk-in access approximately 0.25 miles from the 7 road. Continue on the 7 road for another 0.3 miles to reach Units 1 and 7. Continue on the 7 road for another 0.6 miles to reach Units 2 and 8. Unit 2 is walk-in access approximately 0.25 miles from the 7 road.

Additional Information
The 5 Rd. gate near Elbe is closed from September 1 to March 15.

N

Prepared By: mfow490

Modification Date: mfow490 7/8/2024