FPA/N No. 2421595
*see attached summary of comments - ckf

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: **PERTNEAR VRH**
   Agreement # **30-099045**

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

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

   950 Farman Ave
   Enumclaw, WA 98022
   Contact: Audrey Mainwaring
   Phone: (360) 825-1631

4. Date checklist prepared: **01/28/2020**

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

6. Proposed timing or schedule (including phasing, if applicable):
   a. *Auction Date:*
   08/25/2020

   b. *Planned contract end date (but may be extended):*
   10/31/2022

   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: **Unit 1 will have herbicide applied as needed to ensure establishment of planted seedlings.**

   b. Regeneration Method: **Hand plant native conifers within three years of harvest in Unit 1 to a density that meets or exceeds Forest Practice standards.**

   c. Vegetation Management: **Unit 1 will have vegetation management needs assessed from plantation ages two to eight. Vegetation control activities will be scheduled as needed, this includes hand-slashing of competing hardwoods and shrubs.**

   d. Other:
   Thinning: Needs will be assessed. Generally, pre-commercial thinning is considered at approximately 8-15 years following planting. Pre-commercial thinning, if needed, will be performed to retain a healthy, vigorous stand of native conifers in Unit 1.

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

** 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:*
- ☐ *Watershed analysis:*
- ☒ *Interdisciplinary team (ID Team) report:* **SPS ICN 20-6624010**
- ☒ *Road design plan:* **01/29/2020** dated Road Plan
- ☐ *Wildlife report:*
- ☒ *Geotechnical report:* **Engineering Geologic Risk Assessment, by Susie Wisehart, GIT, and Jennifer Parker, LEG, dated 01/27/2020**
- ☒ *Appendix D. slope stability informational form:*
- ☐ *Other specialist report(s):*
- ☐ *Memorandum of understanding (sportsmen's groups, neighborhood associations, tribes, etc.):*
- ☒ *Rock pit plan:* **See Road Plan, dated 01/29/2020**
- ☒ *Other:*

-Forest Resource Inventory System
-GIS Analysis
-WA Department of Natural Resources Special Concerns Report through the Land Resource Management System

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 #* _____ ☒ *FPHP* ☒ *Board of Natural Resources Approval*
☐ *Burning permit* ☐ *Shoreline permit* ☐ *Existing HPA*
☐ *Other:*

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

a. Complete proposal description:

The Pertnear VRH Timber Sale proposal is a 1 unit variable retention harvest (VRH), and 2 unit Borrow Pit Expansion consisting of approximately 62 gross acres and 58 net acres within the Tiger Mountain State Forest. The original proposal area considered for harvest was over 102 acres and reduced for protection of streams, wetlands and potentially unstable slopes. Approximately 3,405 MBF will be removed.

Each unit net acreage is as follows:
Unit 1 – VRH – 56 acres
Unit 2 – Pit Expansion – 2 acres

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

Pre-harvest Stand Description: **This proposal is a second growth naturally regenerated conifer stand. The stand age ranges from 50 to 98 years, with the exception of the Pit Expansion unit which is around 40 years. The proposal area primarily contains site class II ground with a base age 50 year Douglas-fir site index of 130. The elevation of the proposal area ranges from 680 to 1,400 feet. The ground cover consists mostly of sword fern, salal, Oregon grape, salmonberry and devil's club. Advanced regeneration consists primarily of western hemlock and western redcedar. The majority of the stand's overstory is comprised of Douglas-fir and western hemlock with sparse to moderate components of red alder, western redcedar, bigleaf maple and cottonwood.**

Unit	Origin Date	Major Timber Species	Type of Harvest
U1	1922	Douglas-fir and western hemlock	Variable Retention Harvest
U2	1980	Douglas-fir and western hemlock	Clear cut for rock pit expansion

Unit 1 contains a second growth stand that is not designated to meet older forest target for the North Puget HCP Planning Unit. Stands designated to meet older forest targets across the North Puget HCP Planning Unit include old growth stands and structurally complex stands located in special ecological management areas such as spotted owl and marbled murrelet habitat, riparian management zones, natural areas, gene pool reserves, etc.

Overall Unit Objectives:

The overall objective of this proposal is to provide sustainable revenue to the trust beneficiaries through forest management while providing for and creating wildlife habitat as directed under the 1997 Habitat Conservation Plan (HCP), protecting hydrologic function and water quality under forest practices and HCP regulations, retaining visual aesthetics and continuing good working relationships with adjacent landowners and user groups. The desired future condition of the proposal area is a mix of regenerating conifers amidst scattered and grouped large legacy and wildlife trees. Other objectives include

proper reforestation and subsequent management activities consistent with DNR policy, Sustainable Forestry Initiative, DNR's HCP, Policy for Sustainable Forests, and Washington State Forest Practice Rules.

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

* FPA# 2421595 indicates 2,758 feet of new road construction. TC SEPA Center 5/12/2020.

	Type of Activity	How Many	Length (feet) (Estimated)	Acres (Estimated)	Fish Barrier Removals (#)
**	Construction		**2288**	**0.84**	**0**
	Reconstruction		**370**		**0**
	Abandonment		**2288**	**0.84**	**0**
	Bridge Install/Replace	**0**			**0**
	Stream Culvert Install/Replace (fish)	**0**			**0**
	Stream Culvert Install/Replace (no fish)	**2**			
	Cross-Drain Install/Replace	**19**			

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 9, 10, 15 & 16 of Township 23 North, Range 07 E, W.M.**

b. *Distance and direction from nearest town (see the driving map listed on the DNR website for further information):* **The towns of North Bend and Maple Valley are approximately 10 miles northeast and southwest, respectively, to the units.**

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).* **The Raging River WAU includes potentially unstable slopes, surface erosion, peak flow impacts, and cultural resources.**

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. The applicable HCP strategies incorporated into this proposal include:

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

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

- **Assessing for and protecting significant historic, archaeological and cultural areas.**
- **Generally limiting harvest units to a maximum of 100 acres.**

Current Forest Practice Rules also require that:

- **Potentially unstable slopes and landforms are evaluated and rule-identified landforms with the potential to delivery to public resources are excluded from the sale area.**
- **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 regenerations 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.

Multiple inner gorge areas and a bedrock hollows associated streams and steep slopes were bound out of the sale with unmangaged Riparian Management Zones and Leave Tree Areas. A glacial deep-seated landslide and associated topographic ground-water recharge area were found near a stream. The deep-seated landslide was bound out of the sale and a portion of the groundwater recharge area was protected with a Leave Tree Area. The 7250 Rd may be constructed through the upper portion of the groundwater recharge area. Culverts were placed on either side of the groundwater recharge area to direct runoff away from the groundwater recharge area. A geologic risk assessment was completed to evaluate potential impacts. See also B-1-d-2.

d. Based on the answers in questions A-13-a through A-13-c, is it likely potential impacts from this proposal could contribute to any environmental concerns listed in question A-13-a?
No.

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

WAU Name	Total WAU Acres	DNR-owned 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
RAGING RIVER	22472	15644	729	106	13

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:	RAGING RIVER
WAU Acres:	22472
Elevation Range:	72 - 3497 ft.
Mean Elevation:	1383 ft.
Average Precipitation:	70 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 entire 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
8115	LOAM/SILT LOAM
8108	GRAVELLY LOAM
0465	GRAVELLY SANDY LOAM
1330	LOAM

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

☐ *No, go to question B-1-e.*
☒ *Yes, briefly describe potentially unstable slopes or landforms in or around the area of the proposal site. For further information, see question A-8 for related slope stability documents and question A-10 for the FPA number(s) associated with this proposal.*

Inner gorge areas, bedrock hollows, and glacial deep-seated landslide and associated topographic ground-water recharge area.

Sidecast failure from the 7000 Road occurred in the northwestern portion of the unit. This was determined to originate mainly from tree wind throw and was not determined to be related to potentially unstable slopes.

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

☐ *No* ☒ *Yes, describe the proposed activities:* **Timber harvest and road construction will take place on a portion of the topographic groundwater recharge area.**

2) *Describe any slope stability protection measures (including sale boundary location, road, and harvest system decisions) incorporated into this proposal.* **Other than the portion of the topographic groundwater recharge area which will have timber harvest and road construction on it, all other rule-identified landforms were bound out of the sale by either unmanaged Riparian Management Zones or non-tradeable Leave Tree Areas. The lower portion of the topographic groundwater recharge area is protected with a 0.54 acre leave tree area. The road construction will have culverts installed on either side of the topographic groundwater recharge area to direct runoff away from the area.**

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: **0.84**
Approx. acreage new landings: **1.00**
Fill Source: **7000 Borrow Pit or commercial rock.**

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 0% of the site will remain as gravel roads.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any: *(Include protection measures for minimizing compaction or rutting.)*
Best management practices for road construction techniques will reduce the need for erosion control measures through use of frequent cross drains, and culverts. Use of significant erosion control methods are not anticipated, but if found to be necessary silt fencing, erosion control fabric, and other methods may be used in compliance with best management practices and required by permits.

Purchaser may be required to provide further protection of water, soil, roads and other forest assets as described in the contract and road plan. Falling, yarding and timber haul will be suspended during periods of wet weather, if in the opinion of the Contract Administrator the operation poses a threat to public resources. Equipment operating will be limited to track mounted machines or rubber tired equipment with tracked attachments to reduce compaction. The proposal is located on stable ground and will have little or no effect on water quality due to seasonal restrictions and harvest equipment restrictions and limitations.

Regular road maintenance will also help limit erosion. Roads remaining active after the forest practice will be on a regular maintenance schedule including but not limited to reshaping and culvert and ditch maintenance to insure proper water flow and redistribution to the forest floor. When installing culverts at live stream locations water bypasses will be established when water is present that pump clean water at established catch basins around the work site and back into stream. Water containing sediment will be pumped away from site and onto forest floor.

The residual leave trees and vegetation following harvest will prevent erosion related to runoff. Gate 809 will be closed year-round (excluding during hauling activities) to reduce road maintenance and prevent erosion 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. There will be no emissions once the proposal is complete.

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

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

None.

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: **Raging River, Snoqualmie River, Snohomish 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)
Raging River	**1**	**1**	**200 feet unmanaged**
Stream	**3**	**2**	**187 feet unmanaged**
Stream	**4**	**9**	**100 feet unmanaged**

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

When installing culverts at live stream locations water bypasses will be established when water is present that pump clean water at established catch basins around the work site and back into stream. Water containing sediment will be pumped away from site and onto forest floor.

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 activities will take place within 200 feet of the typed waters above but not within the above stated buffers. There is one culvert installation at a Type 5 stream and one culvert replacement at a Type 4 stream. There are ten Type 5 streams that will have a 30 foot Equipment Limitation Zone (ELZ).**

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.
Approximately 80 cubic yards of light loose riprap for culvert armoring. Rock obtained from the 7000 Borrow Pit or a commercial rock source.

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:*
If water is present at the time of culvert installation and replacement, the surface water will be diverted for the duration of the install or replacement and will be redirected through the culvert upon completion.

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

☐ *No* ☒ *Yes, describe activity and location:* **One culvert installation and one culvert replacement.**

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)?*

RAGING RIVER = 5.6 (mi./sq. mi.)

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

☐ *No* ☒ *Yes, describe:*
It is likely some roads or road ditches within the WAU intercept sub-surface flow and deliver surface water to streams, however current road construction, reconstruction, and/or maintenance standards will be applied that address this issue by installing cross-drains to deliver ditch water to stable forest floors.

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

☐ *No* ☒ *Yes, describe observations:* **Storm events have caused increased aggradations and scouring in some of the stream channels within the Raging River WAU. Streams on these sites naturally carry high sediment loads during flooding, primarily because these areas are geologically young and the streams are still actively cutting (eroding) their channels. Some erosion and sedimentation is attributed to past logging practices, but more specifically to poor road location, construction, and maintenance. In areas where erosion has increased, in stream large organic debris has decreased, attributed to higher flows, and decreased available woody debris from logging activities.**

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.*

The foreseeable likelihood of this proposal contributing to peak flow impacts as viewed in conjunction with past, present and future proposals is minimal. The activities associated with the proposed harvest and resulting timber stand following the timber harvest should not result in any significant contribution to peak flows.

Past sales within the Raging River WAU on DNR managed lands have totaled less than 200 acres annually. There is no indication that this trend will change. This and limiting DNR sales to less than 100 contiguous acres will help reduce the potential of peak flow occurrences. Forest practice green-up rules restricting adjacency of sales adds to the protection. Harvesting activities on privately owned lands within the watershed seem to be consistent with historic averages. Few adverse effects have been witnessed in conjunction with these activities and there is little reason to believe there will be adverse effects in the future.

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 Raging River, inner gorge**

areas, bedrock hollows, and a glacial deep-seated landslide and associated topographic ground-water recharge area.

** *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:* **This proposal was reviewed by a geologist-in-training and assessed by a licensed geologist. With mitigation measures of leave tree placement and culverts located to direct runoff way from the topographic recharge area of the deep-seated landslide, there is no anticipated significant increase in surface water or potential to impact slope stability.**

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.*
The current proposal, along with landscape level practices to maintain mature forest components will not significantly contribute to peak water runoff beyond historic levels. The proposal is considered low risk and includes adequate protection of the streams near the units. The current guidelines for HCP implementation include several prescriptions that address the potential for peak flow impacts. This proposal has adequate cross drains on the haul route. These structures will ensure ditch water is deposited onto the forest floor and not allowed to flow directly into typed water.

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:* **See B-3-a-12**

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:* **See B-3-a-12-a**

Note protection measures, if any: **See B-3-a-13**

c. Water runoff (including stormwater):

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

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

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

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

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

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

4. Plants

a. Check the types of vegetation found on the site:
☒ Deciduous tree:
☒ Alder ☐ Aspen ☐ *Birch* ☒ *Cottonwood* ☒ Maple ☐ *Western Larch*
☐ Other:
☒ Evergreen tree:
☒ *Douglas-Fir* ☐ *Engelmann Spruce* ☐ *Grand Fir* ☐ *Lodgepole Pine*
☐ *Mountain Hemlock* ☐ *Noble Fir* ☐ *Pacific Silver Fir* ☐ *Ponderosa Pine*

☒ *Sitka Spruce* ☒ *Western Hemlock* ☒ *Western Redcedar* ☐ *Yellow Cedar*
☐ Other:

☒ Shrubs:
☒ *Huckleberry* ☐ *Rhododendron* ☒ *Salmonberry* ☒ *Salal*
☐ *Other:*

☒ *Ferns*

☐ Grass

☐ Pasture

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

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

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

☐ Other types of vegetation:

☐ *Plant communities of concern:*

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

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.)*

VRH U1
To the north is a mixed conifer stand with an origin year between 1922 and 1942.
To the east is the Raging River and a community of private landowners.
To the south are two different-aged mixed conifer stands, one with a stand origin date of 1947 and the other 1980.
To the west is a planted mixed conifer stand with an origin year of 2011.

Pit Expansion U2
To the north are two different-aged mixed conifer stands, one with a stand origin date of 1947 and the other 1980.
To the east is a mixed conifer stand with an origin year of 1980.
To the south is a mixed conifer stand with an origin year of 1980.
To the west is a mixed conifer stand with an origin year of 1947.

** 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: **This proposal will be replanted with native conifer species. Ten leave tree clumps that range in size from 0.03 to 1.16 acres will be retained. Leave tree clumps were selected to protect areas that hold unique ecological values and also provide an accurate representation of pre-harvest stand conditions. There are also individually marked trees retained throughout the proposal area. A total of 8 trees per acre will be retained after harvest. At least one tree per acre was selected from the largest diameter class. Several of the other leave trees per acre were selected from the dominant crown class as well as for wind firmness, good form, species diversity, wildlife value and protection of existing snags. Following timber harvest activities, the proposal area will be hand-planted with native conifer seedlings.**

e. List all noxious weeds and invasive species known to be on or near the site.
Himalayan Blackberry and holly were observed onsite. For a complete list of noxious weeds in King County please visit the website below.
https://www.kingcounty.gov/services/environment/animals-and-plants/noxious-weeds/laws/list.aspx

5. **Animals**

a. List any birds and other animals *or unique habitats* which have been observed on or near the site or are known to be on or near the site. Examples include:
birds:
☐ eagle ☒ hawk ☐ heron ☒ *owls* ☒ songbirds
☐ other:
mammals:
☒ bear ☒beaver ☐ *coyote* ☒ *cougar* ☒ deer ☒ elk
☐ other:
fish:
☐ bass ☐ herring ☒ salmon ☐ shellfish ☒ trout
☐ other:
amphibians/reptiles:
☒ *frog* ☒ *lizard* ☒ *salamander* ☒ *snake* ☐ *turtle*
☐ *other*:
unique habitats:
☐ *balds* ☐ *caves* ☐ *cliffs* ☐ *mineral springs* ☐ *oak woodlands* ☐ *talus slopes*
☐ other:

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

None found in corporate database

c. Is the site part of a migration route? If so, explain.
☒*Pacific flyway* ☐*Other migration route:*
Explain: **Migration route for migratory waterfowl. Although waterfowl are observed in large water bodies in the general vicinity, none have been observed onsite.**

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

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

Species /Habitat: **Aquatic Habitat**
Protection Measures: **HCP and RMZs. This timber sale proposal conforms to commitments under the 1997 DNR Habitat Conservation Plan (HCP). The HCP includes a number of strategies to enhance and preserve wildlife over time.**

Species /Habitat: **Upland Habitat**
Protection Measures: **Leave trees. 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 and individually selected throughout the proposal to provide current and future habitat for a variety of wildlife species including woodpeckers, sapsuckers and other cavity dwellers. Large hard and soft snags with high evident use and cavities will also be retained where possible.**

List any invasive animal species known to be on or near the site. **With aquatic habitat near the proposal site, the invasive American Bullfrog is a possibility, but none have been found during field reconnaissance. Barred owl have been known to be in the vicinity and are considered invasive according to US Fish and Wildlife Service.**

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 Production and 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 Production**

f. What is the current comprehensive plan designation of the site? **Forest Production and Recreation**

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.

The Snoqualmie Corridor Recreation Plan (completed in March 2015) identified objectives, strategies, and implementation plans that are consistent with this project proposal. The recreation planning process actively engaged the public in developing the planning concepts for managing recreational trails, including to evaluate the existing trail network and upgrade, relocate, or decommission trail segments as appropriate to ensure the trail network's long-term sustainability. In addition, DNR maintains an ongoing citizen-based advisory committee, named the Snoqualmie Unit Advisory Committee, which includes representatives from local communities, natural resource professionals, environmental organizations, and recreation groups. This group helps ensure implementation of trail projects are compatible with the Snoqualmie Corridor Recreation Plan's goals and strategies.

See also A-13-b for information about the requirements, regulations and policies concerning the DNRs Habitat Conservation Plan and Policy for Sustainable Forests.

m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:
Unit 1 will be replanted with native conifers, and will continue to be managed for long term forest production.

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.
Does not apply.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.
Does not apply.

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

10. Aesthetics

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

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

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

☐ *No* ☒ *Yes, name of the location, transportation route or scenic corridor:*
May be visible from Interstate 90 which is within the Mountains to Sound Greenway

2) *How will this proposal affect any views described above?* **The proposal will alter the background views from Interstate 90, changing it from fully forested to a harvested stand with leave trees throughout Unit 1.**

c. Proposed measures to reduce or control aesthetic impacts, if any: **Leave Tree Areas and Riparian Buffers will provide breaks in the removed vegetation. Unit 1 will also be replanted with native conifers which will provide green up.**

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?
Mountain biking, hiking, equestrian, mushroom picking, hunting, and fishing

b. Would the proposed project displace any existing recreational uses? If so, describe.
There may be some disruptions to recreational use during periods of harvesting and hauling.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any: **Short-term impacts to recreation will be communicated to users through signage placed on trails accessing the harvest area and through social media communications.**

13. Historic and cultural preservation

** a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers? If so, specifically describe. **No.**

** b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources. **None.**

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. **GIS inventory, GLO Maps, historic maps, and field reconnaissance with a Cultural Resource Technician and State Lands Archaeologist.**

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 a presently-unknown cultural resource is discovered during project operations, DNR will comply with the March 2010 Cultural Resources Inadvertent Discovery Guidance.**

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. **Highway 18 connects with the 7000 Rd. Log trucks will be entering the highway from this intersection.**

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 7 miles away.**

c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate? **None.**

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

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

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

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

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

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

15. Public services

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

Name of signee **Dean R. Adams**

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

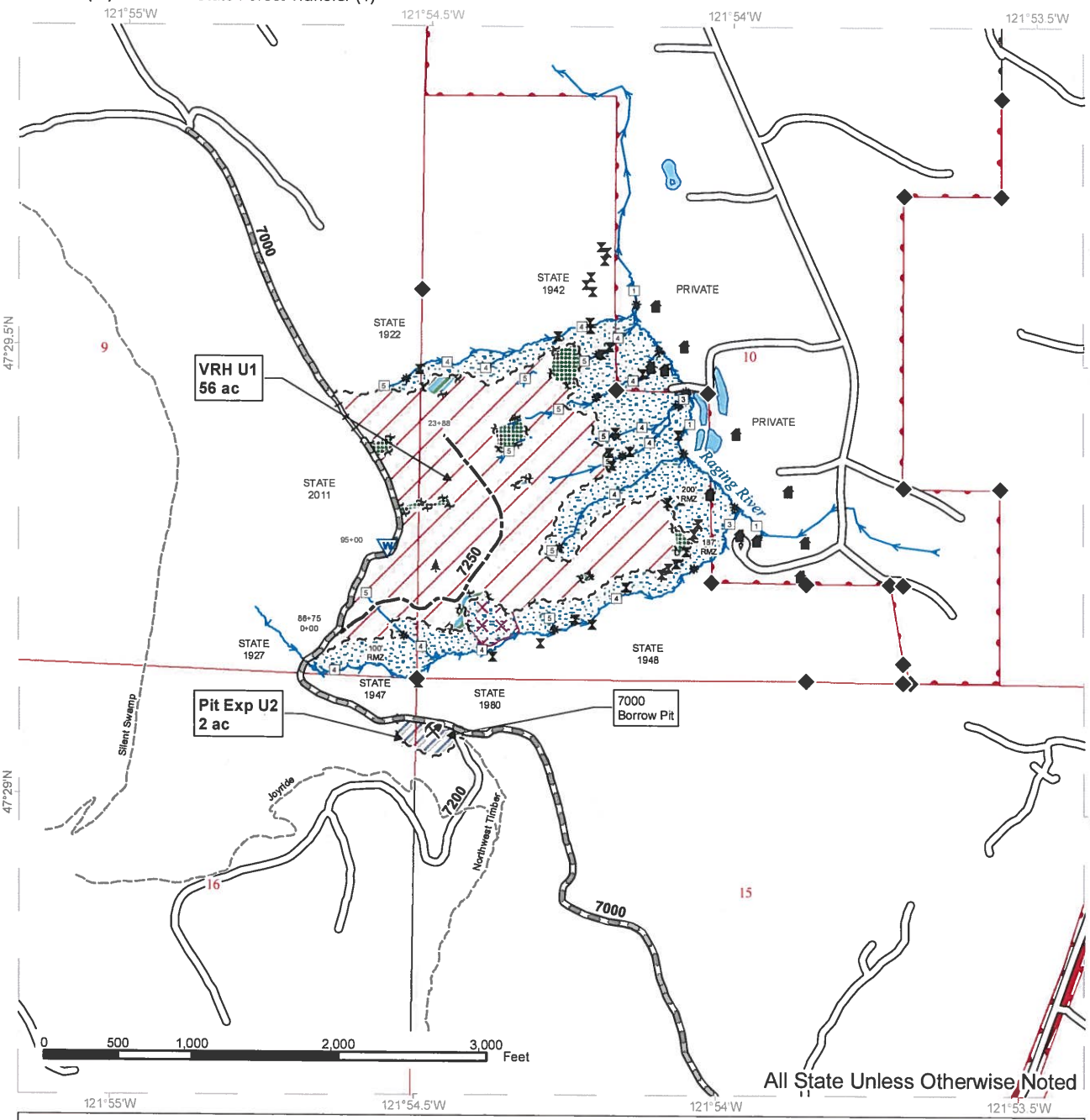
Date Submitted: 4/28/2020

AEM 4-27-20

TIMBER SALE MAP

SALE NAME: PERTNEAR VRH
AGREEMENT #: 30-099045
TOWNSHIP(S): T23R7E
TRUST(S): State Forest Transfer (1)

REGION: South Puget Sound Region
COUNTY(S): King
ELEVATION RGE: 680-1400



- Variable Retention Harvest
- Pit Expansion
- Leave Tree
- Riparian Mgt Zone
- Non-tradeable Leave Tree
- Potentially Unstable Slopes
- Public Land Survey Sections
- Leave Tree Area <1/4-
- Potentially Unstable Slopes
- Rock Pit
- Structure
- Waste Area
- Sale Boundary Tags
- Leave Tree Tags
- Existing Roads
- Required Pre-Haul Maintenance
- Required Reconstruction
- Optional Construction
- Recreation Trails
- Streams
- Stream Type
- Stream Type Break
- Survey Monument
- DNR Managed Lands

N

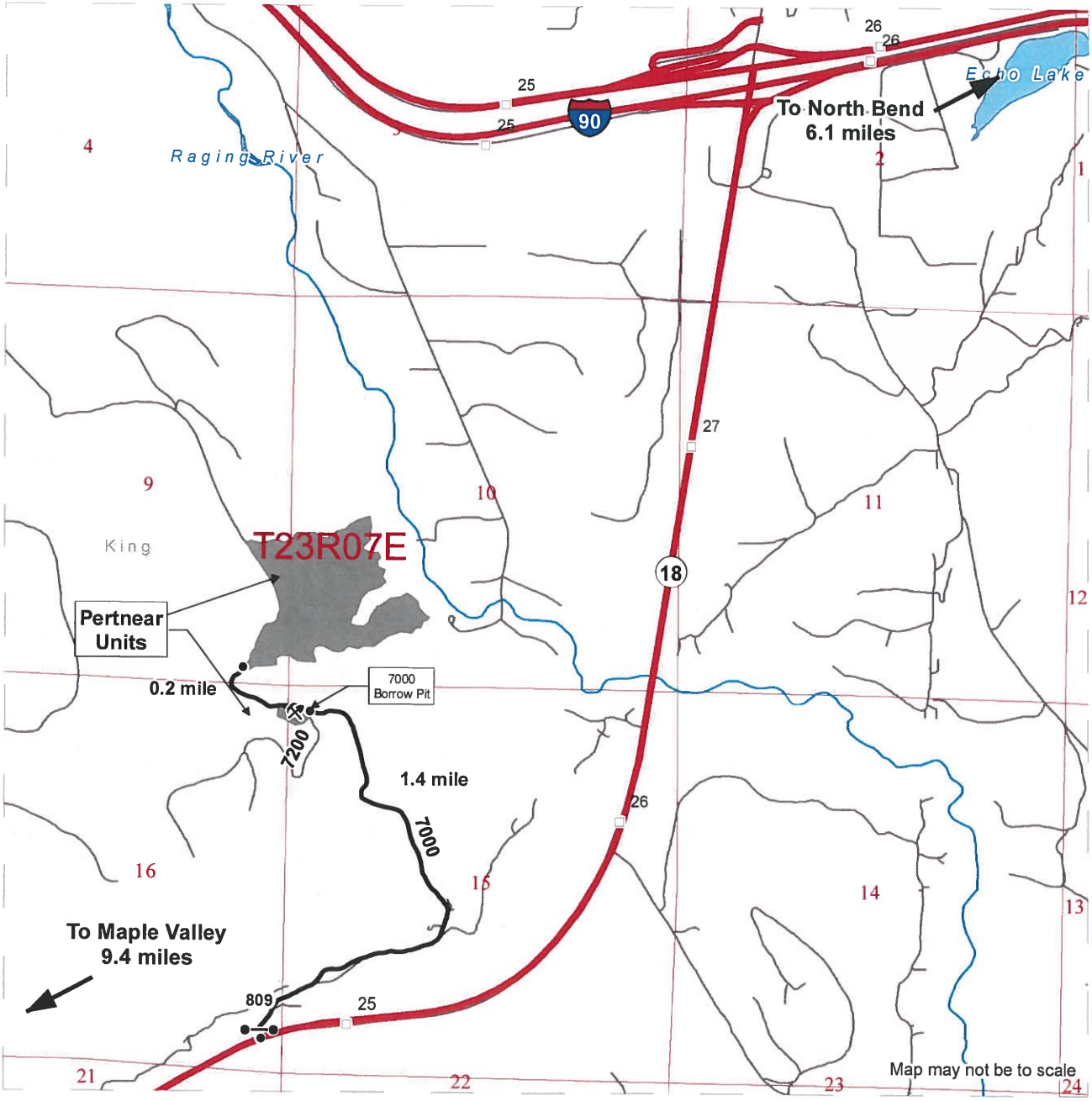
Prepared By: chig490

Modification Date: astu490 4/28/2020

DRIVING MAP

SALE NAME: PERTNEAR VRH
AGREEMENT#: 30-099045
TOWNSHIP(S): T23R7E
TRUST(S): State Forest Transfer (1)

REGION: South Puget Sound Region
COUNTY(S): King
ELEVATION RGE: 680-1400



- Timber Sale Unit
- Haul Route
- Other Route
- Milepost Markers
- Distance Indicator
- Gate (Master 786)
- Rock Pit
- Public Land Survey Sections

DRIVING DIRECTIONS:

From Highway 18 and Interstate 90 junction travel west for approximately 3.0 miles. Turn right onto the 7000 Road and enter through Gate# 809 (Master 786). Stay on the 7000 Road for approximately 1.4 miles. Pit Expansion U2 will be located at the 7000 and 7200 Road junction. Continue for another 0.2 mile to reach VRH U1.

N

Prepared By: chig490

Modification Date: zbee490 2/20/2020

WASHINGTON STATE DEPT OF NATURAL RESOURCES

FPA/N No. 2421595

Summary of Comments

I have reviewed this SEPA Checklist and have the following comments:

A. Background

8. Environmental information listed is available on Forest Practices Application Review System (FPARS) with Forest Practices Application/Notification (FPA/N) No. 2421595.

10. FPA/N 2421595 is available for viewing in FPARS.

11c. FPA/N 2421595 indicates 2,758 feet of new road construction.

12. Proposal is located in King County.

B. Environmental Elements

Water

3.a.12.a. The geologic assessment is available on FPARS with FPA/N 2421595.

Plants

4.c. Forest Practices Risk Assessment Mapping (FPRAM) check confirms no conflicts with T&E plant species.

Animals

5.b. FPRAM check confirms no conflicts with T&E animal species.

Historic and cultural preservation

13.a. FPRAM check confirms no conflict with cultural historical sites or resources.

13.b. FPRAM check confirms no conflict with archaeological or cultural sites or resources.

Carla Fosberg

Carla Fosberg
Department of Natural Resources - South Puget Sound Region
Forest Practices Program Coordinator