

## *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:* **TRUMPET VRH RMZ SORTS**  
*Agreement #* **30-098366**

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

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

**Pacific Cascade Region**  
**PO Box 280**  
**Castle Rock, Washington 98611-0280**  
**Phone: (360) 577-2025**  
**Contact Person: Marcus Johns**

4. Date checklist prepared: **01/04/2019**

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

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

a. *Auction Date:* **09/26/2019**

b. *Planned contract end date (but may be extended):* **04/30/2020**

c. *Phasing:* **None**

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

*No, go to question 8.*

*Yes, identify any plans under A-7-a through A-7-d:*

a. *Site Preparation:*

**Site preparation may occur in Unit 1, including a chemical herbicide application to ensure that planting can be achieved at acceptable stocking levels to meet or exceed Forest Practice standards following harvest. Slash piles may be burned in the fall before planting.**

**Unit 2 is a WMZ thinning and will not require any site preparation.**

b. *Regeneration Method:*

**Unit 1 will be hand planted with conifer species following harvest.**

c. *Vegetation Management:*

**Possible treatments for Unit 1, including a chemical herbicide application, may occur following harvest. Treatments will be based on vegetative competition, and will ensure a free-to-grow status that complies with Forest Practices standards.**

*d. Other:*

**Pre-commercial thinning needs for Unit 1 will be assessed at approximately 7-10 years of age. Commercial thinning potential will be assessed at approximately 25-35 years of age. Thinning will be done as needed to meet desired density, stocking, species diversity, and growth.**

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

**The Signal Pit will be used as the rock source for this proposal. This pit may be used for other current or future projects in the vicinity.**

**Piled slash may be burned following harvest activities. Firewood permits for the sale area may be issued to the public after timber harvest activities are completed.**

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:

Road design plan:

Wildlife report:

Geotechnical report:

Slope Stability additional information form:

Other specialist report(s):

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

Rock pit plan:

**Other: Forest Practices Board Manual, Forest Practices Activity Maps; Policy for Sustainable Forests (PSF 2006); State Soil Survey; Habitat Conservation Plan (HCP 1997); HCP Checklist; Land Resource Manager Reports and associated maps; Road Maintenance and Abandonment Plan (RMAP): R2900196-1. The following information is provided by the DNR's GIS database: Weighted Old Growth Habitat Index (WOGHI); WAU Rain-On-Snow layer; Marbled Murrelet Habitat Layer; Spotted Owl Habitat Layer; and USGS and GLO maps. Statewide Landslide Inventory (LSI) screening tool maintained by the DNR Forest Practices Division; State Lands Geologist Remote Review (SLGRR)**

**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 # **2936042**  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:*

**TRUMPET VRH RMZ SORTS timber sale includes one variable retention harvest (VRH) unit and one wetland management zone (WMZ) thinning unit. Rock for these units will be obtained from the Signal rock pit. This proposal will be both ground-based and cable harvest systems. Removing approximately 2,993 MBF of timber.**

Unit	Proposal Acres (gross)	RMZ/WMZ Acres	Potentially Unstable Slope Acres	Existing Road Acres (within unit)	Sale Acres	Leave Tree Clump Acres	Net Harvest Acres
1	118	12*	4*	3	103	6*	97
2	3	0	0	0	3	0	3
Totals	121	12	4	3	106	6	100

**\*In Unit 1, ~1.3 acres of potentially unstable slopes are contained within leave tree areas and ~2.7 acres are contained with RMZs.**

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

**Pre-harvest Stand Description:**

Unit	Origin Date	Major Timber Species	Type of Harvest
1	1970-1977	Douglas Fir, Western Hemlock, Noble Fir, & Silver Fir	Variable Retention Harvest
2	1970-1977	Douglas Fir, Western Hemlock, Noble Fir, & Silver Fir	WMZ Thinning

**Overall Unit Objectives:**

**The objective of this proposal is:**

- 1.) Produce revenue for the Common School Trust (03) and Scientific School (10) through the production of saw logs, poles, and pulp material.**
- 2.) Provide for wildlife and wetland habitat by developing vertical stand structure and age class distribution in the future stands.**
- 3.) Diversify the ages of stands across the landscape and within rain-on-snow managed sub-basins**

*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.*

<b>Type of Activity</b>	<b>How Many</b>	<b>Length (feet) (Estimated)</b>	<b>Acres (Estimated)</b>	<b>Fish Barrier Removals (#)</b>
Construction		<b>2,487</b>	<b>1.7</b>	<b>0</b>
Reconstruction		<b>0</b>		<b>0</b>
Abandonment		<b>2,487</b>	<b>1.7</b>	<b>0</b>
Bridge Install/Replace	<b>0</b>			<b>0</b>
Stream Culvert Install/Replace (fish)	<b>0</b>			<b>0</b>
Stream Culvert Install/Replace (no fish)	<b>0</b>			
Cross-Drain Install/Replace	<b>3</b>			

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:*

**Unit 1 is located in portions of Section 4 and section 9 of Township 09 North, Range 02 East.**

**Unit 2 is located in Section 4 of Township 09 North, Range 02 East.**

**Signal Pit is located in Section 3 of Township 09 North, Range 02 East.**

*b. Distance and direction from nearest town (see the driving map listed on the DNR website for further information):*

**All units of this proposal are approximately 10.2 road miles southeast of Toutle, Washington. The route from Toutle is via State Hwy 504 to South Toutle Road, then onto the 4100, to the 4200 road.**

*13. Cumulative Effects*

- a. *Briefly describe any known environmental concerns that exist regarding elements of the environment in the associated WAU(s). (See WAC 197-11-444 for what is considered an element of the environment).*

**This proposal may temporarily affect elements of the environment including, Geology, Water, Soils, Air quality, Noise, Aesthetic, Plants, Animals, and Recreation.**

- b. *Briefly describe existing plans and programs (i.e. the HCP, DNR landscape plans, retention tree plans) and current forest practice rules that provide/require mitigation to protect against potential impacts to environmental concerns listed in question A-13-a.*

**The Department of Natural Resources has a multi-species Habitat Conservation Plan (HCP) with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service concerning threatened and endangered species and their habitats, which requires the Department to manage landscapes to provide and sustain long-term habitat in exchange for an Incidental Take Permit. This agreement substantially helps the Department to mitigate for cumulative effects related to management activities.**

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

**In order to minimize the chance of negative environmental impact, several mitigation measures are included in this proposal:**

- **Retaining Wetland Management Zones (WMZ) averaging 176 feet wide adjacent to harvest areas around the forested wetland that is greater than an acre in size, measured from the edge of the forested wetland. Within the Unit 2 WMZ thinning, trees are 100% marked to ensure proper thinning procedures are followed. These measures are intended to protect water quality, sensitive wetland soils, and to maintain wetland hydrological function.**
- **Retaining Riparian Management Zones (RMZs) a minimum of 100 feet wide adjacent to harvest areas along Type 4 streams, measured from the outer edge of the 100 year floodplains. These measures are intended to protect water quality, stream bank integrity, stream temperatures, and provide down woody debris.**
- **Cable yarding may require stringing cables over RMZs across type 4 streams as part of this proposal, however, trees are not to be cut in RMZs unless operational or safety concerns require. Trees cut are to be left on site.**
- **Most of the type 5 streams within the unit were protected with a series of leave trees. This will minimize the possibility of sediment delivery and loss of stream function.**

- **In Unit 1, the strategy of retaining 8 trees per acre (greater than 10 inches Diameter at Breast Height) in the proposal should 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.**
- **Cliffs, balds, unique rock band features, and a low value cave were found on site. A biologist was brought on site to review. Most features were protected with the use of leave trees. This will protect the integrity of the structures and retain habitat.**
- **Road cut banks will be re-vegetated with native grass seed prior to the onset of wet weather to reduce the risk of potential erosion, sediment delivery and soil instability.**
- **The proposal was evaluated for potential slope instability. Approximately 4 acres that exhibited indicators of potentially unstable slopes have been excluded from harvest activities.**
- **After harvest, tree seedlings will be planted to reforest the site. A component of disturbed, native plants such as grasses, sword fern, salmonberry, and huckleberry will remain on site after logging. If, following harvest, a site preparation herbicide application is used, some component of the understory vegetation will be altered for a period of time ranging from 2-5 years.**
- **A regular maintenance schedule will be followed to allow for proper road surface run-off and drainage. Haul routes for this proposal have been evaluated for potential environmental impacts. To ensure sediment is minimized during hauling, cross-drains, sediment ponds, and other structures will be used to disconnect ditch water from flowing streams. Road ditch water will be routed to the forest floor for filtering to prevent it from entering live streams. New road construction was located on stable ridge-top location, where possible. Road system analysis and design required under the HCP and analysis required under the Forest Practices RMAP process in the Toutle Block was completed and approved. Road improvement projects identified in the RMAP began in 2003.**

*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
SF TOUTLE	41958	8143	1634	426	2137

**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:

**Unit 1 is mostly hilly with some steep slopes down to the streams. Unit 2 is mostly flat.**

1. *General description of the associated WAU(s) or sub-basin(s) within the proposal (landforms, climate, elevations, and forest vegetation zone).*

<b>WAU:</b>	SF TOUTLE
<b>WAU Acres:</b>	41958
<b>Elevation Range:</b>	437 - 3374 ft.
<b>Mean Elevation:</b>	1437 ft.
<b>Average Precipitation:</b>	67 in./year
<b>Primary Forest Vegetation Zone:</b>	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 WAUs at the same elevation and aspect.**

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

**85%**

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
6094	GRAVELLY SILT LOAM/SILT LOAM
0471	SILT LOAM
0472	SILT LOAM
6661	SILT LOAM
6090	GRAVELLY SILT LOAM

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

No, go to question B-1-e.

Yes, briefly describe potentially unstable slopes or landforms in or around the area of the proposal site. For further information, see question A-8 for related slope stability documents and question A-10 for the FPA number(s) associated with this proposal.

**The DNR state lands geologist did a remote and onsite review of the proposed units. The geologist remotely reviewed these units utilizing historic aerial photographs, Forest Practices Statewide Landslide Inventory Date, and Landslide Remote Identification Model (LRIM). LRIM is a screening tool which identifies areas of potentially unstable landforms using remote sensing data from Light Detection and Ranging (LIDAR) and slope. The result of the geologists review, available in SLGRR (State Lands Geologist Remote Review), indicate the proposal area has areas of slope instability. Potentially unstable slopes were identified and excluded from the sale using white “Timber Sale Boundary” tags and yellow “Leave Tree Area” tags. The excluded area totaled 4 acres.**

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

No  Yes, describe the proposed activities:

**The proposal contains Forest Practices rule identified unstable landforms.**

**Past harvest activities (pre Forest Practices Rules) operated on areas now recognized as potentially unstable. This proposal avoids all Forest Practices rule identified landforms by removing all potentially unstable landforms from harvest operations as described in B.1.d.1.**

2) Describe any slope stability protection measures (including sale boundary location, road, and harvest system decisions) incorporated into this proposal.

- **Cross-drains and ditch outs will be utilized to minimize the potential for mass wasting and slope failures associated with poor drainage**
- **Most Type 5 headwalls have leave tree clumps protecting them.**
- **Approximately 4 acres in Unit 1 of potentially unstable slopes are excluded from the harvest area.**
- **Lead end suspension will be required on all cable settings.**

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.

*Approx. acreage new roads: 1.7*

*Approx. acreage new landings: 2*

*Purpose: **New road construction***

*Fill Source: **Native and Manufactured material***

*Approx, cubic yards of fill: **2,399 cubic yards***

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.**

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

**Protection measures to reduce erosion associated with roads:**

- **Soils exposed during road construction will be treated with erosion control measures, such as re-vegetation.**
- **Roads will be maintained as needed to control water runoff and avoid delivery of sediment to live water.**
- **Sediment control measures will be used as necessary during active haul to prevent sediment delivery into typed waters.**
- **Timing restrictions or temporary shutdown will be used as necessary during active haul to prevent sediment delivery to typed water.**

**Protection measures to reduce erosion associated with logging operations:**

- **Skid trails may be water-barred post-harvest to minimize sediment delivery to live water as necessary.**

- Harvested areas will be replanted with coniferous tree species to reestablish root bound soils, excluding the WMZ thinning Unit 2.
- No-harvest RMZs and WMZs, except in Unit 2 where some WMZ thinning will take place, will function to protect streams from sediment delivery.
- Lead end suspension will be required on all cable settings.

## 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.**

- 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.**

## 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:

**All streams associated with the proposal are tributaries to the South Fork Toutle River, as well as the Toutle River, Cowlitz River, and Columbia 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)
Forested Wetland	>1 acre	1	176 feet
Forested Wetland	0.25-1 acre	1	100 feet
Forested Wetland	<0.25 acre	2	n/a
Unnamed Stream	4	5	100 feet
Unnamed Stream	5	5	n/a

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

The WMZ associated with Unit 2 will be thinned in order to put the WMZ on a trajectory to develop into a fully functional and structurally complex riparian stand. A buffer width of 176 was applied to the wetland edge. Timber within the WMZ of Unit 2 will be 100% marked to expedite the thinning operations.

Skid trails within the units may be water-barred.

Leave trees were placed around portions of most Type 5 streams. Unit 1 and 2 RMZs have no harvest buffers. Wind buffers were not used in the layout of the sale due to the orientation of RMZs/WMZs.

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):

In Variable Retention Harvest, trees will be felled away from all streams unless safety or operational needs arise. Trees may be cut in RMZ/WMZs for safety or operational needs, but will be left in place. Cable lines for tailholds may be strung through Type 4 RMZs, however, no timber will be yarded through them. Timber harvest will occur within 100 feet of a Type 4 stream in Unit 1 to facilitate road construction. Otherwise, timber harvest may occur as close as 100 feet (required minimum RMZ width) to all Type 4 streams in the proposal area.

The WMZ thinning prescription in Unit 2 was developed with the primary goal of accelerating the current stand's trajectory towards a fully functional and structurally complex forest. Due to potential wind throw concern, the goal is to thin primarily western hemlock, noble, and silver fir, while retaining Douglas-fir in the

**WMZ.**

- 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.

**No.**

- 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)?*

**SF TOUTLE = 6.0 (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:

**The mass wasting event that originated from the Mt. St. Helens eruption in 1980 and the resulting lahars (mudflows) down the South Fork Toutle River and the North Fork Toutle River has altered the majority of the tributaries at their confluence points. During the winters of 1996, 2007, 2009, and 2015 large storm events occurred. The storms set rainfall and flood level records in Southwest Washington and Northwest Oregon. The events cause many shallow mass-wasting events, which caused stream channels to change location and/or dimension. The full extent and long-term impacts across the WAU from these storms is not known due to varying ownerships.**

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 current proposal may slightly change the timing, duration, and/or magnitude of peak flows due to decreased evapotranspiration, but significant impacts are not anticipated.**

12) *Is there a water resource (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or downslope of the proposed activity?*

No             Yes, describe the water resource(s):

*a. Is it likely a water resource or an area of slope instability listed in B-3-12 (above) will be affected by changes in amounts, quality or movements of surface water as a result of this proposal?*

No             Yes, describe possible impacts:

13) *Describe any protection measures, in addition to those required by other existing plans and programs (i.e. the HCP, DNR landscape plans) and current forest practice rules included in this proposal that mitigate potential negative effects on water quality and peak flow impacts.*

- **Type 4 100-foot no-harvest RMZ buffers will help preserve the natural water quality and protect the stream banks from erosion.**
- **Harvest and road building activities will be monitored and potentially restricted during adverse weather conditions.**
- **The proposal harvest units are each less than 100 acres to minimize impacts to watershed hydrology**

- See B.1.d.5. and B.1.h. for further protection measures.

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.

**None.**

- 3) *Is there a water resource use (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or downslope of the proposed activity?*

No       Yes, describe:

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

No       Yes, describe possible impacts:

*Note protection measures, if any:*

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.

**Storm water runoff from road surfaces and intercepted subsurface flow will be collected by roadside ditches and diverted onto the forest floor via ditch-outs and cross drain culverts. Ditch-outs and cross drain culverts will be installed and maintained to direct ditch water onto the forest floor.**

- 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.

**Surface and subsurface flow may be intercepted by roads and associated cut banks and ditches. Any intercepted water will be diverted to the forest floor via ditch-outs and cross drain culverts. 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  Pacific Silver Fir  Ponderosa Pine  Sitka Spruce

Western Hemlock  Western Redcedar  Yellow Cedar

Other: **Noble Fir**

Shrubs:

Huckleberry  Rhododendron  Salmonberry  Salal

Other: **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 parsley, golden saxifrage**

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.*)

**All conifer and hardwood trees will be removed as part of this harvest proposal, except the wildlife leave trees, green recruitment trees, and the vegetation within the RMZs. Understory vegetation will be disturbed and/or reduced within the proposed harvest area as a result of timber felling, bucking, yarding, and site preparation activities. Most of the vegetation will re-establish within 2-3 years after forestry activities are complete.**

- 1) *Describe the species, age, and structural diversity of the timber types immediately adjacent to the removal area. (See “WAU Map(s)” and “Timber Harvest Unit Adjacency Map(s)” on the DNR website: <http://www.dnr.wa.gov/sepa>. Click on the DNR region of this proposal under the Topic “Current SEPA Project Actions - Timber Sales.” Proposal documents also available for review at the DNR Region Office.)*

**Unit 1: To the north is a 54 year old thinned conifer stand. To the south is two 3 year old Douglas-Fir/Western Red Cedar plantations and a 46 year old Douglas fir stand. To the east is a 43 year old Doug Fir stand. To the west is a 3-7 year old Doug-fir plantation.**

**Unit 2: The WMZ unit is attached to unit 1.**

- 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:

**The Unit 2 WMZ thinning unit will retain approximately 92 TPA or 222 square feet of basal area.**

**Retention tree clumps are identified across the harvest area. 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, most Type 5 streams, and potentially unstable slopes. Trees with defects such as split or broken tops, dominant crowns, large diameters, and large limbs were favored as leave trees to enhance wildlife potential. Older legacy trees were identified and retain individually and in leave tree clumps.**

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

Noxious weeds and invasive species have not been observed 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:

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:*

**This proposal is located in the Columbia River Flyway, which is part of the Pacific Flyway. Migratory waterfowl use the Columbia River Flyway; however, the area in which this proposal is contained is not generally the type of area used for resting or feeding by migratory waterfowl. While migrating through Pacific Northwest Forests, many Neotropical migratory birds are closely associated with riparian areas, cliffs, snags, and structurally unique trees. Riparian areas and special habitats are protected through implementation of DNR's Habitat Conservation Plan.**

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

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

**This sale has been designed to comply with the Department's HCP and provides for the protection of wildlife and their habitats. Scattered and clumped leave trees**

provide nesting, roosting and foraging areas for avian species. Well engineered and constructed roads reduce potential water quality impacts for downstream fish populations. Grass seeding exposed soil aids water quality and provides forage for ungulates. Large diameter leave trees, and leave trees with unique structure, will remain post-harvest to enhance the wildlife habitat value of the future stand. The regenerated stand will be composed of mixed conifer species.

**Riparian habitat**

- No harvest RMZs on Type 4 streams
- No harvest WMZs 100 foot buffer 0.25-1 acre

**Upland habitat**

- A minimum of 8 leave trees per acre were left clumped and scattered
- Older large down woody debris will be left onsite
- Snags will be left where operationally feasible

**WMZ thinning habitat**

- The WMZ will be 100% marked to expedite the thinning operations.

- e. List any invasive animal species known to be on or near the site.

**Invasive species have not been observed on or near the site**

**6. Energy and natural resources**

- a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

**Petroleum fuel (diesel or gasoline) will be used for heavy equipment during active road building, timber harvest operations, and for transportation. No energy sources will be needed following project completion.**

- b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

**No.**

- c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

**None.**

**7. Environmental health**

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste that could occur as a result of this proposal? If so, describe.

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

- 1) Describe any known or possible contamination at the site from present or past uses.

**None known.**

- 2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.

**None known.**

- 3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.

**Petroleum-based fuel and lubricants may be used and stored on site during the operating life of this project.**

- 4) Describe special emergency services that might be required.

**The Department of Natural Resources, private, and fire protection district suppression crews may be needed in case of wildfire. In the event of personal injuries, emergency medical services may be required. Hazardous material spills may require Department of Ecology and/or county assistance.**

- 5) Proposed measures to reduce or control environmental health hazards, if any:

**No petroleum-based products will be disposed of on site. If a spill occurs, containment and cleanup will be required. Spill kits are required to be onsite during all heavy equipment operations. The cessation of operations may occur during periods of increased fire risk. Fire tools and equipment, including pump trucks and/or pump trailers, will be required on site during fire season.**

*NOTE: If contamination of the environment is suspected, the proponent must contact the Department of Ecology.*

b. Noise

- 1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

**None.**

- 2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation,

other)? Indicate what hours noise would come from the site.

**There will be short term, low level and high level noise created by the use of harvesting equipment and hauling operations within the proposal area. This type of noise has been historically present in this geographical area.**

3) Proposed measures to reduce or control noise impacts, if any:

**None.**

## **8. Land and shoreline use**

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe. (*Site includes the complete proposal, e.g. rock pits and access roads.*)

**Current use of site and adjacent land types: the DNR and large industrial landowners manage the land surrounding the units for timber production.**

**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:

**This proposal is consistent with current and standard forestland harvest activities; there are no anticipated effects on this or adjacent lands that would affect normal forest land business operations. Equipment access, application of pesticides and timber harvesting are normal activities that would be expected on forest lands.**

c. Describe any structures on the site.

**There are no structures associated with this proposal.**

d. Will any structures be demolished? If so, what?

**No.**

e. What is the current zoning classification of the site?

**Not zoned.**

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

**The comprehensive plan designation is Forestry Open Space.**

- g. If applicable, what is the current shoreline master program designation of the site?

**There are no shorelines associated with this proposal.**

- 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:

**None.**

- l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

**This proposal is consistent with the DNR's Habitat Conservation Plan and Policy for Sustainable Forests as well as the Cowlitz County Comprehensive Plan designation.**

- m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any:

**This proposal is consistent with the Department's Habitat Conservation Plan and Washington Forest Practices Rules.**

## **9. Housing**

- a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

**None.**

- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

**None.**

- 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?

**There are no structures associated with this proposal.**

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

**Views will be temporarily altered by the removal of trees.**

- 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:

**Portions of this proposal are visible from SR 504 and from the town of Silverlake, Washington.**

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

**Since the majority of the landscape in this area is used for timber production (public and private), this proposal will generally blend in with the surrounding landscape. In addition, the retention tree plan discussed in B.4.d. will aid in mitigating the visual effects of the regeneration harvest.**

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

**The retention tree plan discussed in B.4.d. will aid in mitigating the visual effects of the regeneration harvest.**

## 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 is no designated recreation within the proposal area. However, hunting, hiking, horseback riding, mountain biking, mushroom, and berry picking, and other informal 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.**

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

**None at this time.**

## **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.

**No.**

- c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

**This site was remotely assessed by a DNR Cultural Resource Technician, reviewing GLO and Historic maps, and existing cultural resources.**

- 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.

**SR 504 and South Toutle Road provide access to the forest roads which access the harvest units.**

- b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?

**No. Nearest transit spot is approximately 15 miles west of the proposal.**

- 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. This proposal expands the network of DNR forest roads 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?

**5-20 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. Estimates are based on the observed harvest traffic of past projects. Vehicles are primarily dump trucks and logging trucks.**

- 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:

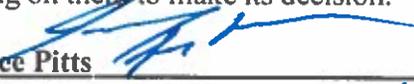
**None.**

- 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: Renee Pitts 

Name of signee: Renee Pitts *Jeremy Homer*

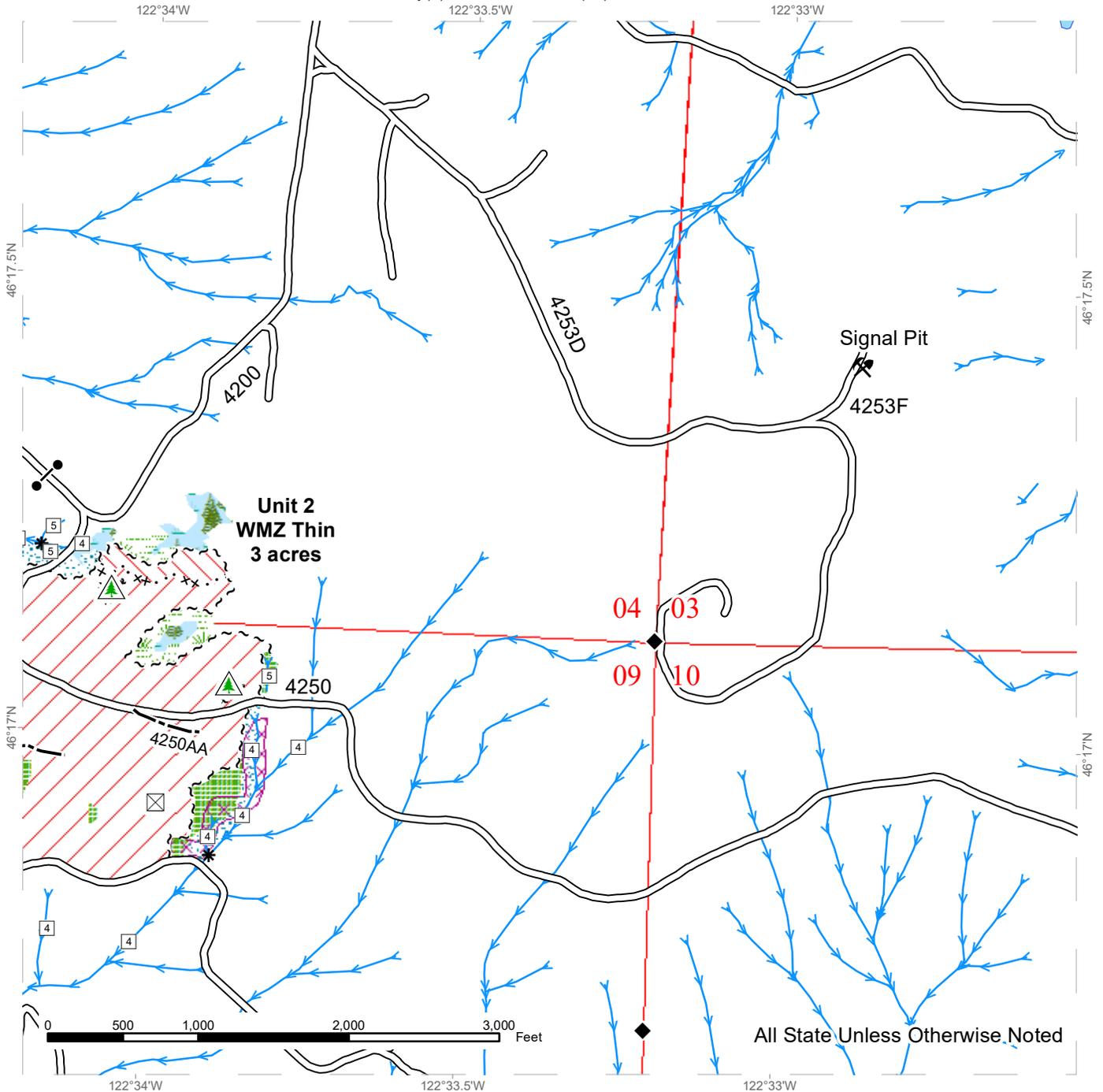
Position and Agency/Organization: *NRS2 / DNR*  
Forester, Washington State Department of Natural Resources

Date Submitted: 1/30/2019 *2/14/2019*

# TIMBER SALE MAP

**SALE NAME:** TRUMPET VRH RMZ SORTS  
**AGREEMENT #:** 30-098366  
**TOWNSHIP(S):** T09R02E  
**TRUST(S):** Common School and Indemnity(3), Scientific School (10)

**REGION:** Pacific Cascade Region  
**COUNTY(S):** COWLITZ  
**ELEVATION RGE:** 1,918 - 2,765 ft.



All State Unless Otherwise Noted

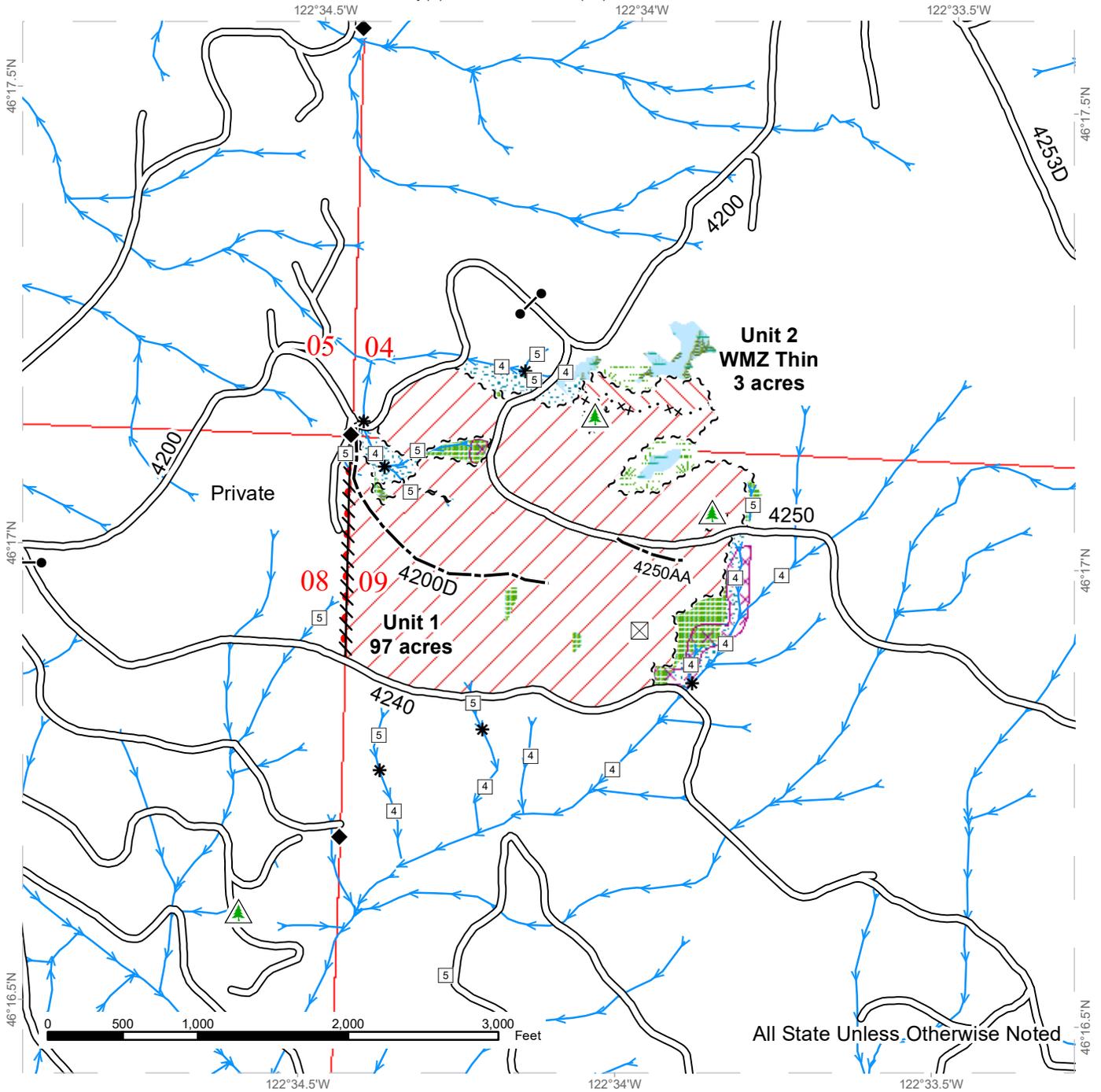
Variable Retention Harvest	Sale Boundary Tags	Non-Tradeable Leave Trees
WMZ Thinning	Special Mgmt Area	Rock Pit
Leave Tree Area	Leave Tree Tags	Bald
Riparian Mgt Zone	Existing Roads	Gates (Unlocked)
Forested Wetland	Optional Construction	
Wetland Mgt Zone	Streams	
Potentially Unstable Slopes	Survey Monument	



# TIMBER SALE MAP

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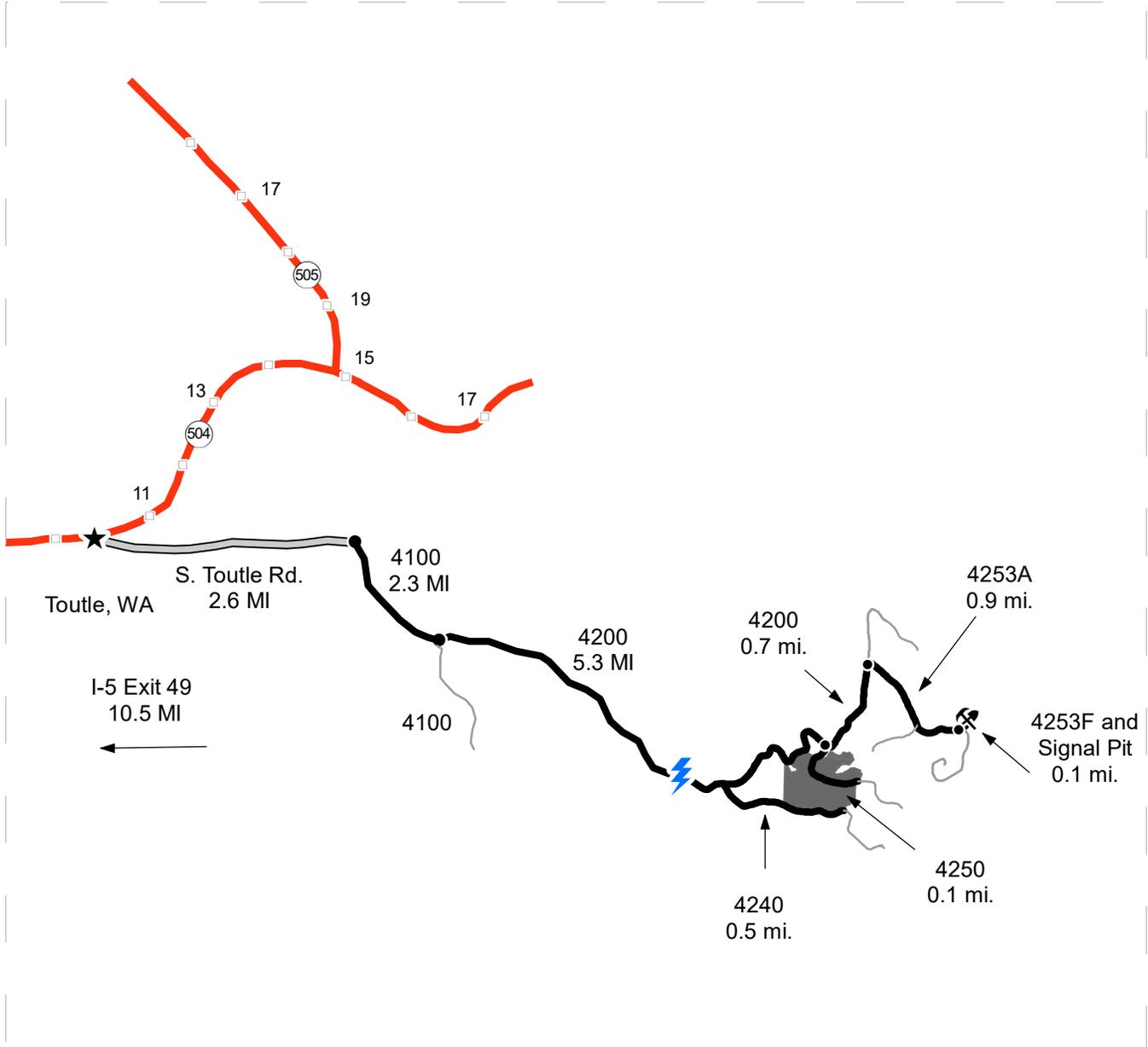
Variable Retention Harvest	Sale Boundary Tags	Streams
WMZ Thinning	Special Mgmt Area	Survey Monument
Leave Tree Area	Leave Tree Tags	Non-Tradeable Leave Trees
Riparian Mgt Zone	Property Line	Bald
Forested Wetland	Flag Line	Gates (Unlocked)
Wetland Mgt Zone	Existing Roads	
Potentially Unstable Slopes	Optional Construction	



# DRIVING MAP

**SALE NAME:** TRUMPET VRH RMZ SORTS  
**AGREEMENT#:** 30-098366  
**TOWNSHIP(S):** T09R02E  
**TRUST(S):** Common School and Indemnity(3), Scientific School(10)

**REGION:** Pacific Cascade Region  
**COUNTY(S):** COWLITZ  
**ELEVATION RGE:** 1,918 - 2,765 ft.



Map may not be to scale

	Timber Sale Unit
	Haul Route
	Other Road
	Highway
	Town
	Distance Indicator
	Rock Pit

**DRIVING DIRECTIONS:**

From 1-5 Exit 49 follow SR 504 east to Toutle for 10.5 miles.  
 From Toutle, turn right onto South Toutle Rd and follow for 2.6 miles.  
 Turn right on to the 4100 gravel road and follow for 2.3 miles.  
 Veer left and then right onto the 4200 and follow for 5.3 miles.  
 Turn right to remain on the 4250.  
 Unit begins almost immediately upon entering the 4250 road.

Signal Pit: Continue past the 4250 for 0.7 miles along the 4200 road.  
 Turn right onto the 4253A and follow for 0.9 miles.  
 Turn left onto the 4253F, arrive at the Signal Pit.

