

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: **SALTY VRH RMZ**
Agreement # **30-097966**

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

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

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

4. Date checklist prepared: **01/09/2019**

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

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

a. Auction Date: **12/19/2019**

b. Planned contract end date (but may be extended): **10/31/2021**

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:

For Variable Retention Harvest (VRH) and Hardwood Conversion (RFRS) units site preparation, including a chemical herbicide application, may be used to ensure that planting can be achieved at acceptable stocking levels to meet or exceed Forest Practice standards following harvest. Slash piles on landings may be burned during the fall before planting.

b. Regeneration Method:

The VRH and RFRS units will be hand planted with conifer species following harvest.

c. Vegetation Management:

For VRH units possible treatments, including ground application of chemical herbicide, could occur following harvest. Treatments will be based on vegetative competition and will ensure a free-to-grow status that complies with Forest Practices standards.

d. Other:

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

Slash may be burned or sold as biomass following harvest activities. Firewood permits for the sale area may be issued to the public after timber harvest activities are completed.

Road maintenance assessments will be conducted and will 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: Cathlapotl WAU- Lake River; Lower Kalama WAU- Columbia River, Kalama River

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): Archaeology memo (2018)

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; Riparian Forest Restoration Strategy (RFRS); Planning and Tracking Reports and associated maps; Road Maintenance and Abandonment Plan (RMAP): #R2900196-8. The following information is provided by DNR's GIS database: Weighted Old Growth Habitat Index (WOGHI); WAU Rain-On-Snow Layer; Marbled Murrelet Habitat Layer; Spotted Owl Habitat Layer; Statewide Landslide Inventory (LSI) screening tool maintained by DNR Forest Practices Division; State Lands Geologist Remote Review layer (SLGRR); and USGS and GLO maps.

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 # 2936814 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:

This proposal is seven units of variable retention harvest of 245 acres, three right-of-way units of 4 acres, and two hardwood conversion units of <1 acre, and one pit expansion of <1 acre for a total of 251 acres. This proposal will use both ground-based and cable harvesting methods, removing approximately 5,259 MBF of timber. Rock will be obtained from the PH-3700 Pit.

Unit	Proposal Acres (gross)	RMZ/WMZ Acres	Potentially Unstable Slope Acres	Existing Road Acres (within unit)	Other	Sale Acres	Leave Tree Clump Acres	Net Harvest Acres
1 VRH	34	0	0	1	0	33	3	30
2 VRH	69	4	0	4	0	61	3	58
3 VRH	89	20*	0	4	0	65	6	59
4 VRH	8	6*	0	0	0	2	0	2
5 VRH	28	4	0	1	0	23	1	22
6 VRH	14	5	0	0	3	6	0	6
7 VRH	90	11*	0	4	2	73	5*	68
8 ROW	<1	0	0	0	0	<1	0	<1
9 ROW	2	0	0	0	0	2	0	2
10 Pit Expan.	<1	0	0	0	0	<1	0	<1
11 RFRS	<1	0	0	0	0	<1	0	<1
12 RFRS	<1	0	0	0	0	<1	0	<1
13 ROW	<1	0	0	0	0	<1	0	<1
Totals	339	50	0	14	5	270	18	252

Other: Areas within the initial proposal of Units 6 and 7 that were deemed to be non-productive timberland based on assessment with Pacific Cascade Region silviculturist.

* Approximately 1.5 acres (all within type 4 RMZs and leave tree clumps) that exhibited indicators of potentially unstable slopes were excluded from harvest activities.

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	Douglas-fir, red alder	VRH
2	1936-1973	Douglas-fir, western hemlock, red alder	VRH
3	1937	Douglas-fir, western hemlock, red alder	VRH
4	1937	Douglas-fir, western hemlock, red alder	VRH
5	1951	Douglas-fir, western hemlock, red alder	VRH
6	1951	Douglas-fir, western hemlock, red alder	VRH
7	1947-1950	Douglas-fir, western hemlock, red alder, western redcedar	VRH
8	1959-1994	Douglas-fir, red alder	ROW
9	1937-1994	Douglas-fir, western hemlock	ROW
10	1874-1970	Douglas-fir	Pit Expansion
11	1937	Red alder	RFRS Hardwood Conversion
12	1937	Red alder	RFRS Hardwood Conversion
13	1990-2002	Red alder, Douglas-fir	ROW

Overall Unit Objectives:

- 1) Produce revenue for the State Forest Transfer Trust (01), Common School and Indemnity (03), Charitable/Educational/Penal & Reformation Institution (6), Capitol Grant (7), and Scientific School (10) through the production of saw logs, poles, and pulp material.
- 2) Provide for wildlife and riparian habitat by developing vertical stand structure and age class distribution in the future stand.

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

Type of Activity	How Many	Length (feet) (Estimated)	Acres (Estimated)	Fish Barrier Removals (#)
Construction		2,412	3	0
Reconstruction		2,954		0
Abandonment		8,235	7	0
Bridge Install/Replace	0			0

Stream Culvert Install/Replace (fish)	0			0
Stream Culvert Install/Replace (no fish)	1			
Cross-Drain Install/Replace	12			

***There are 27,161 feet of pre-haul and 5,954 feet of post haul maintenance associated with 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:

Units 1 and 13 (ROW) of this proposal are located in portions of Sections 24 and 25 of Township 06 north, Range 01 east, W.M.

Unit 2 of this proposal is located in portions of Sections 13 and 24 of Township 06 north, Range 01 east, W.M.

Unit 3 is located in portions of Sections 13, 18, and 19 of Township 06 north, Range 01 east, W.M.

Unit 4, 11 (RFRS), and 12 (RFRS) of this proposal are located in portions of Section 18 of Township 06 north, Range 01 east, W.M.

Units 5, 6, 7, 8 (ROW), and 9 (ROW) of this proposal are located in Section 13, Township 06 north, Range 01 east, W.M.

Unit 10 (Pit Expansion) of this proposal is located in portions of Section 20 of Township 06 north, Range 02 east, W.M.

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

The Salty Timber Sale proposal is located approximately 16 miles by road, northeast of Woodland, WA. The route from Woodland is via SR 503, to Aho-Carson road, to the PH-1000.

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,

surface water movement/quantity/quality, soils, air quality, noise, aesthetics, plants and animals, and recreation.

The 303 (d) stream in the Cathlapotl WAU is listed for Temperature; however, due to the distance and relative location from the proposal area (approximately 22 miles away and upstream from another major water body) and mitigation measures in this proposal, there should be no impact to listed water, Lake River. The 303 (d) streams in the Lower Kalama WAU are listed for Temperature; however, due to the distance and relative position from the proposal area (Columbia River- 20 miles, Kalama River- 15 miles) and mitigation measures in this proposal, there should be no impact to listed waters.

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

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

- Retaining a Wetland Management Zone (WMZ) 100 feet wide adjacent to harvest areas around a forested wetland between 0.25 and 1 acre in size, measured from the edge of the forested wetland. This measure is intended to protect water quality, sensitive wetland soils, and to maintain hydrologic function and natural water flow.
- 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.
- The strategy of retaining 8 trees per acre (greater than 10 inches Diameter at Breast Height) in the proposal will provide legacy elements for recruitment of future snags, coarse woody debris, multi-layered stands, and large diameter trees. In combination, these features will provide elements of older forest habitat characteristics within the new plantation.
- Analyzing, designing, and constructing roads to minimize effects on the environment.

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

None.

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
LOWER KALAMA	46,354	2,195	254	0	2,027
MIDDLE KALAMA	53,551	4,674	321	0	5,071
CATHLAPOTL	55,723	5,483	722	0	1,148
Lake Merwin	34,971	11,068	629	107	1,120

Other management activities, such as stand and road maintenance, will likely occur within the associated WAUs.

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: LOWER KALAMA
 WAU Acres: 46,354
 Elevation Range: 1 – 2,424 ft.
 Mean Elevation: 853 ft.
 Average Precipitation: 52 in./year
 Primary Forest Vegetation Zone: Western Hemlock

WAU: MIDDLE KALAMA
 WAU Acres: 53,551
 Elevation Range: 335 – 4,526 ft.
 Mean Elevation: 1,575 ft.
 Average Precipitation: 77 in./year
 Primary Forest Vegetation Zone: Western Hemlock

WAU: CATHLAPOTL
 WAU Acres: 55,723
 Elevation Range: 1 – 2,946 ft.
 Mean Elevation: 387 ft.
 Average Precipitation: 46 in./year

Primary Forest Vegetation Zone:	Western Hemlock
WAU:	Lake Merwin
WAU Acres:	34,871
Elevation Range:	122 – 3,202 ft.
Mean Elevation:	1,108 ft.
Average Precipitation:	75 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 WAUs at the same elevation and aspect.

- b. What is the steepest slope on the site (approximate percent slope)?
80% slopes occur on about 1% of the proposed harvest area.
- 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	Number of Acres within the Proposal
0471	SILT LOAM	93
6093	GRAVELLY SILT LOAM/SILT LOAM	91
6094	GRAVELLY SILT LOAM/SILT LOAM	82
9403	GRAVELLY SILT LOAM	43
6091	GRAVELLY SILT LOAM	14
5677	GRAVELLY SILT LOAM	15
6097	GRAVELLY LOAM	1

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 gorges were identified in RMZs adjacent to units 3, 4, and 7 and were bound out of the sale or protected by leave tree areas. Potential bedrock hollows and a convergent

headwall were bound out of unit 7 or protected by leave tree areas.

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

No *Yes, describe the proposed activities:*

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

- **This proposal avoids all Forest Practices Rule Identified Landforms by excluding all potentially unstable landforms from harvest operations.**
- **Approximately 1.5 acres (all within type 4 RMZs and leave tree clumps) that exhibited indicators of potentially unstable slopes were excluded from the harvest area.**
- **Cross-drains and ditch-outs will be utilized to minimize the potential for mass wasting and slope failures associated with poor drainage.**
- **Roads were designed and located to minimize the amount of full bench construction required.**
- **Roads will be constructed in dry weather conditions.**
- **Most type 5 streams and their headwalls have been protected with leave tree clumps.**

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: 3

Approx. acreage new landings: 1

Approx. cubic yards of fill: 20

Fill Source: Native material

Purpose: New road construction and reconstruction

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 6% of the site will remain as gravel roads and landings.

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

Erosion control and reduction measures are addressed in the sale layout and harvest system design.

- **The no harvest RMZs (with the exception of hardwood conversion units 11 and 12) and WMZs will function to protect streams and wetlands from sediment delivery.**

- Leave tree clumps were left around the majority of headwalls associated with type 5 streams.
- Harvested areas will be replanted with coniferous tree species to re-establish root bound soils.
- The proposal will be harvested utilizing lead end suspension to minimize soil disturbance.
- Areas of soil exposed through road construction will be grass seeded.
- Roads will be inspected and maintained as needed to control water runoff and minimize delivery of sediment to live water. Cross-drains and ditch-outs will be incorporated to ensure proper drainage.
- Skid trails will be water barred as necessary during active haul to minimize sediment delivery to water.
- Timing restrictions or temporary road shutdown will be used as necessary during active haul to minimize sediment delivery to water.
- Extra material as a result of construction will be end-hauled away to a waste area.

2. Air

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

- 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: **Johnson Creek, Little Kalama River, and Lake**

Merwin

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 ac	2	100'
Forested Wetland	<0.25	4	None
Unnamed Stream	4	12	100'
Unnamed Stream	5	25	None
Dee Creek	4	1	100'

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

- Leave trees were placed along portions of most type 5 streams.
- RMZs and WMZs are no harvest buffers, with the exception of one ROW (Unit 8) and two RFRS hardwood conversion units (11 and 12), which require a 50-foot Equipment Exclusion Zone (EEZ) from the edge of the streams.
- Wind buffers were not deemed necessary on Dee Creek due to low potential for windthrow based on topography, position relative to prevailing winds, and observing RMZs from past timber sales in the vicinity.

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):

Trees may be cut in RMZs and WMZs for safety or operational needs, but will be left in place to provide large woody debris functions in the riparian area. Timber harvest may occur as close as 100 feet (required minimum RMZ width) to all type 4 streams in the proposal area.

Tailhold cables may be strung through the type 4 RMZs, however, no timber will be yarded through them.

The RMZ hardwood conversion prescription in Units 11 and 12 were developed in accordance with the Riparian Forest Restoration Strategy. The primary goal of this additional harvest is the establishment of a structurally diverse, conifer-dominated stand that will develop into fully functional and structurally complex riparian forest. This will be accomplished by harvesting all hardwoods and retaining viable conifers. A 50-foot "Equipment Exclusion Zone" buffer has been bound out of the harvest unit. Following harvest, site-adapted conifer species including western

redcedar, Douglas-fir, and western hemlock will be planted in the area.

Included with this proposal are: One 24" x 30' culvert installation on a type 5 stream on the PH-1150 Road (4+28). The following culverts will be removed: one 24" x 40' culvert on a type 4 stream on the PH-1150A Road (1+19), one 24" x 40' culvert on a type 4 stream on the PH-1175 Road (31+53), one 24" x 40' culvert on a type 4 stream on the PH-1176 Road (10+51), one 24" x 40' culvert removal on a type 4 stream on the PH-1176 Road (15+14), one 24" x 40' culvert on a type 4 stream on the PH-1176 Road (20+64), one 24" x 40' culvert on a type 4 stream on the PH-1177 Road (40+70), and one 24" x 40' culvert removal on a type 4 stream on the PH-1177B Road (4+28).

- 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 20 cubic yards of native material will be placed over a 24" x 30' culvert installation on a type 5 stream on the PH-1150 Road (4+28). Approximately 50 cubic yards of native material will be removed from a 24" x 40' culvert removal on a type 4 stream on the PH-1150A Road (1+19). Approximately 60 cubic yards of native material will be removed from a 24" x 40' culvert removal on a type 4 stream on the PH-1175 Road (31+53). Approximately 150 cubic yards of native material will be removed from a 24" x 40' culvert removal on a type 4 stream on the PH-1176 Road (10+51). Approximately 250 cubic yards of native material will be removed from a 24" x 40' culvert removal on a type 4 stream on the PH-1176 Road (15+14). Approximately 190 cubic yards of native material will be removed from a 24" x 40' culvert removal on a type 4 stream on the PH-1176 Road (20+64). Approximately 300 cubic yards of native material will be removed from a 24" x 40' culvert removal on a type 4 stream on the PH-1177 Road (40+70). Approximately 200 cubic yards of native material will be removed from a 24" x 40' culvert removal on a type 4 stream on the PH-1177B Road (4+28).

- 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:

Temporary diversion may be necessary for the culvert installation on a type 5 stream. This activity will include creating a check dam and diverting the water around the work area to prevent sediment delivery to typed water. Water will be returned to the original stream channel at the best possible location.

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

No Yes, describe activity and location:

There are six type 4 culvert removals that are located within the 100-year floodplain.

- 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 Yes, type and volume:

- 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)?*
There are approximately 6.9 (mi./sq. mi) in the Lower Kalama WAU and sub-basins.

There are approximately 6.6 (mi./sq. mi) in the Middle Kalama WAU and sub-basins.

There are approximately 5.7(mi./sq. mi) in the Cathlapotl WAU and sub-basins.

There are approximately 5.2 (mi./sq. mi) in the Lake Merwin WAU and sub-basins.

Road mileages for sub-basins are similar to WAU mileages. The high number of road miles per square mile may be due to the majority of the sub-basins being in an urbanized environment.

- 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 possible some roads or road ditches within the WAU will 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 change 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:

Normally, there are no significant changes associated with erosion or mass wasting in the WAU or sub-basins. During the winters of 1996, 2007, 2009, and 2015 (suspected) 100-year return interval precipitation events occurred. The storms set rainfall and flood level records in southwest Washington and northwest Oregon. The events caused many shallow mass-wasting events, which caused stream channels to change location and/or dimension. The full extent and long-term impacts across the WAUs 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.

- **Minimum 100 foot wide no harvest RMZs to protect stream banks from erosion, except in units 11 and 12 (RFRS) and unit 8 (ROW)**
- **No harvest WMZs.**
- **The proposal's harvest units are each less than 100 acres to minimize impacts to watershed hydrology. (Unit 1 = 30 acres; Unit 2 = 58 acres; Unit 3 = 59 acres; Unit 4 = 2 acres; Unit 5 = 22 acres; Unit 6 = 6 acres; Unit 7 = 68 acres; Unit 8 = <1 acre; Unit 9 = 2 acres; Unit 10 = <1 acre; Unit 11 = <1 acre; Unit 12 = <1 acre; and Unit 13 = <1 acre).**
- **Allowing green-up (regenerated stands that are either 4 ½ feet tall or 5 years of age) of adjacent stands 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.

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:

No additional protection measures were identified as necessary to protect these resources beyond those in B.1.d.5 and B.1.h.

- 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 stormwater, 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.

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: **cascara, bitter cherry**

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: **Oregon-grape, vine maple, thimbleberry**

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, cow parsnip, false hellebore**

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 no harvest RMZs and WMZs. 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 and east is a 16-year-old Douglas-fir plantation. To the east is a 7-year-old Douglas-fir plantation. To the southeast is a 14-year-old

Douglas-fir plantation. To the west are 6- to 28-year-old Douglas-fir plantations.

Unit 2: To the north is a 33-year-old mixed conifer plantation. To the east is an 8-year-old Douglas-fir plantation. To the south is a 17-year-old Douglas-fir plantation. To the west are 28- and 37-year-old mixed conifer plantations.

Unit 3: To the north and northwest is a 68-year-old mixed conifer stand. To the east are a 6-year-old Douglas-fir plantation and a 19-year-old Douglas-fir plantation. To the south is an RMZ, 81- to 91-year old mixed conifer and hardwood stand. To the southwest is a 97-year-old mixed conifer and hardwood stand. To the west is a 33-year-old mixed conifer plantation.

Unit 4: To the north is a 19-year-old Douglas-fir plantation. To the east, south, and west is an 81- to 97-year-old mixed conifer and hardwood stand.

Unit 5: To the north are a 28-year-old Douglas-fir plantation and a 68-year-old mixed conifer stand. To the southeast is an 81-year-old mixed conifer and hardwood stand. To the south is a 31-year-old mixed conifer plantation. To the west is a 68-year old mixed conifer and hardwood stand.

Unit 6: To the north, south, and west is a 68-year-old old mixed conifer and hardwood stand. To the east is a 28-year-old Douglas-fir plantation.

Unit 7: To the north is a private mixed conifer and hardwood stand, age unknown (mature). To the east is a 33-year-old mixed conifer. To the south is a 68-year-old old mixed conifer and hardwood stand and a 31-year-old mixed conifer plantation. To the west are 30-, 31-, 33-, and 39-year old mixed conifer plantations.

Unit 8: To the north and northwest is a 30-year-old mixed conifer plantation. To the east and south is a 69-year-old mixed conifer and hardwood stand.

Unit 9: To the north, south, east, and west is a 68-year old mixed conifer and hardwood stand.

Unit 10: To the northeast is a 145-year-old mixed conifer stand. To the south and southeast is a 49-year-old mixed conifer stand. To the west and southwest is a rock pit.

Unit 11: To the north, south, east, and west is an 81-year-old mixed conifer stand and hardwood stand.

Unit 12: To the north, south, east, and west is an 81-year-old mixed conifer stand and hardwood stand.

Unit 13: To the northwest and northeast is a 29-year-old mixed conifer plantation, to the southeast and southwest is a 17-year-old mixed conifer

plantation.

The older stands (68- to 145-years-old) and the mature RMZ stands adjacent to the units have multi-layered canopies with scattered small to large snags and a moderate component of large down woody debris. The adjacent plantations (6- to 37-years-old) have few snags and most of the down woody debris are scattered logs and slash from the previous harvest. Within the larger leave tree clumps, there are some components of older large down woody debris within the undisturbed vegetation.

- c. List threatened and endangered *plant* species known to be on or near the site.
None found in corporate database or observed on site.
- d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:
Retention tree clumps are identified across the harvest area. 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, type 5 streams, wetlands smaller than a quarter acre, cliffs, 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 retained individually and within leave tree clumps.

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

Himalayan blackberry, evergreen blackberry, scotch broom, foxglove, and tansy ragwort have been observed on 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*).

All Lower Columbia River salmonid species (Chinook, coho, steelhead, and chum) are located downstream within the Lewis River and Columbia River. Bull trout are documented upstream within the Lewis River.

- 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 the Department's Habitat Conservation Plan.

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

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.

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

- **Riparian Habitat**

- No harvest RMZs on type 4 streams, except in ROW unit 8 and RFRS units 11 and 12.
- Leave trees placed around most type 5 streams.
- A no harvest WMZ on two forested wetlands <1 acre.
- Leave trees around all forested wetlands < ¼ acre.

- **Upland Habitat**

- A minimum of 8 trees per acre were left clumped and scattered.
- Snags will be left where operationally feasible and were included in leave tree clumps when possible.
- Older large down woody debris will be left on site.

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

None found in corporate database or observed on 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 or 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.

Log trucks will use forest roads, county roads, and State Route 503. This is normal activity for this area and is consistent with existing traffic. Noise will be increased during daylight hours generated from the operation of machinery and power tools.

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 private land surrounding the proposal area appears to be managed for timber production. The state land adjacent to the units is managed for timber production by the DNR.

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?
FR-80
- f. What is the current comprehensive plan designation of the site?
The comprehensive plan designation is resource lands, forest of long term significance.
- g. If applicable, what is the current shoreline master program designation of the site?
Not applicable.
- h. Has any part of the site been classified as a critical area by the city or county? If so, specify.
No.
- i. Approximately how many people would reside or work in the completed project?
None.
- j. Approximately how many people would the completed project displace?
None.
- k. Proposed measures to avoid or reduce displacement impacts, if any:
None.
- l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:
This project is consistent with current comprehensive plans and zoning classifications.
- m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any:
None.

9. Housing

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

This proposal may be visible from the Woodland area, the Little Kalama River Road, SR-503, and Lake Merwin.

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

This proposal will resemble previous timber harvests in the area and views will change from a stand of mature timber to a view of a recent harvest with mature trees remaining around forested wetlands, type 4 streams, and portions of type 5 streams. There will also be clumps and individual trees scattered throughout. This view will change to one of a young plantation after seedlings are planted and the new trees continue to grow.

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

None.

11. Light and glare

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

None.

- b. Could light or glare from the finished project be a safety hazard or interfere with views?

No.

- c. What existing off-site sources of light or glare may affect your proposal?

None.

- d. Proposed measures to reduce or control light and glare impacts, if any:

None.

12. Recreation

- a. What designated and informal recreational opportunities are in the immediate vicinity?

There is no designated recreation within the proposal area; however, hunting, hiking,

horseback riding, mountain biking, and other informal outdoor recreation 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.

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.
The 1915 GLO map showed a "Cabin" in the SW ¼ of Section 18, T 06N R 02E W.M. A field visit was conducted with the State Archeologist, and no evidence of the cabin was discovered.
- 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.
The site was remotely and field-assessed by a DNR Cultural Resource Technician, reviewing GLO and Historic maps.
- 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-503 to Little Kalama River Road, to Aho-Carson 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. The nearest public transit stop is located in Woodland, WA, approximately 16 miles west of the proposal area.

- 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 proposal expands the network of Department of Natural Resources' 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?
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:

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: Maureen J Crabtree

Name of signee FOR Michael Rutledge MAUREEN J CRABTREE

Position and Agency/Organization Natural Resource Specialist 2, Washington Department of Natural Resources

Date Submitted: 01/09/2019 08/29/19