STATE FOREST LAND
ENVIRONMENTAL CHECKLIST

Purpose of Checklist:

The State Environmental Policy Act (SEPA), chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decided whether an EIS is required.

Instructions for Applicants:

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can. *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 under "SEPA Center." 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.*

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later. *All of the questions are intended to address the complete proposal as described by your response to question A-11. The proposal acres in question A-11 may cover a larger area than the forest practice application acres, or the actual timber sale acres.*

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

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.

Use of checklist for nonproject proposals:

Complete this checklist for nonproject proposals, even though questions may be answered " does not apply." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NON PROJECT ACTIONS (part D).

For nonproject actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer" and "affected geographic area," respectively.

A. BACKGROUND

1. Name of proposed project, if applicable:

   Timber Sale Name: **SLIPPERY PETE BD** *Agreement #:* **30-086207**

2. Name of applicant: **Washington State 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: **08/12/2010**

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

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

   a. *Auction Date:* **5/26/2011**
   b. *Planned contract end date (but may be extended):* **November 30, 2011**
   c. *Phasing:* **N/A**

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

   Yes.

   Timber Sale

   a. *Site preparation:*

      Site prep 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 units will be hand planted with conifer species following harvest to promote the continuation of a healthy conifer forest with diversity of tree species.

   c. *Vegetation Management:*

Possible treatments 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. *Thinning:*

Pre-commercial thinning needs will be assessed at approximately 10 to 15 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.

Roads:

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

Rock Pits and/or Sale:

None.

Other:

None.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

☐*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:*
☐*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, WAU Map for Rain-On-Snow areas, 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): #2502130. The following layers are all generated by Department GIS databases: Weighted Old Growth Habitat Index (WOGHI); South Coast Planning Unit Marbled Murrelet Habitat Layer; and USGS and GLO maps.**

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.

☐*HPA* ☒*Burning permit* ☐*Shoreline permit* ☒*Incidental take permit* **1168 & PRT 812521** ☒*FPA* **#2922040** ☐*Other:*

11. Give brief, complete description of our 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 specific information on project description.)

a. *Complete proposal description:*

Slippery Pete BD is a blow down salvage sale located in the Radar Block. This proposal will be both ground-based and cable methods.

Unit	Proposal Acres	RMZ/WMZ Acres	Unstable Slope Acres	Existing Road Acres	Sale Acres	Leave Tree Clump Acres	Harvest Acres
	gross			*within unit*			*net*
1	5	0	<1	0	5	0	5
Totals	5	0	0	0	5	0	5

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

Unit	Origin year	Species Composition
1	1950	**Overstory:** western hemlock, Douglas-fir, western redcedar, red alder, **Understory:** sword fern.

Type of Harvest: **This proposal is a variable retention, salvage harvest of 5 net harvest acres. Timber was damaged in the November, 2009 wind storm. About 40% of the stand was completely uprooted, an additional 20% of the stand is now leaning heavily, and more of the exposed timber edge is anticipated to be damaged before the proposed sale day.**

Overall Unit Objectives:

The objective of this proposal is:

1) Produce revenue for the University Transferred (05) through the production of saw logs and pulp material.
2) Provide for wildlife and riparian habitat by developing vertical stand structure and age class distribution in the future stand.

c. *Road activity summary. See also forest practice application (FPA) for maps and more details.*

Type of Activity	How Many	Length (feet) (Estimated)	Acres (Estimated)	Fish Barrier Removals (#)
Construction		0	0	0
Reconstruction		0		0
Abandonment		0	0	0
Bridge Install/Replace	0			0
Culvert Install/Replace (fish)	0			0
Culvert Install/Replace (no fish)	0			

12. Location of 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 timber sale map available at DNR region office, and/or color landscape/WAU map on the DNR website http://www.dnr.wa.gov under "SEPA Center.")*

a. Legal description:

The harvest unit is located in portions of Section 28 of Township 11 North, Range 09 West, W.M.

b. *Distance and direction from nearest town (include road names):*

The harvest unit is located approximately 1 mile north of the town of Naselle. State Route 4 to Cowan A-Line to A-7000.

c. *Identify the watershed administrative unit (WAU), the WAU Sub-basin(s), and acres. (See also landscape/WAU map on DNR website http://www.dnr.wa.gov under " SEPA Center.")*

WAU Name	WAU Acres	Proposal Acres
LOWER NASELLE	37604.1	5
Sub-Basin #8	2115.9	5

13. *Discuss any known future activities not associated with this proposal that may result in a cumulative change in the environment when combined with the past and current proposal(s). (See digital ortho-photos for WAU and adjacency maps on DNR website http://www.dnr.wa.gov under "SEPA Center" for a broader landscape perspective.)*

The following tables are an estimated summary of past and future activities on Department of Natural Resources managed land and privately managed land in the Lower Naselle WAUs (information is based on Forest Practices applications that have been approved in the last seven years as of August 12, 2010 compiled by the Department's GIS database). No attempt was made to predict future timber harvest on private ownerships within the WAU. The source for this information only provided the acreage at the WAU level.
***Future is defined as occurring within the next 5-7 years (approximately).**

Lower Naselle WAU	WAU Acres	Acres of Even-Aged Harvest Within the Last Seven Years	Acres of Salvage Harvest Within the Last Seven Years	Acres of Uneven-Aged Harvest Within the Last Seven Years	Proposed Even-Aged Harvest in the Future	Proposed Uneven-Aged Harvest in the Future
DNR Managed Land	6,018	402	207	101	5	0
Non-DNR Ownership	31,586	1316	1807	130	Unknown	Unknown
Total	37,604	1718	2014	231	5	0

This proposal is located within the Lower Naselle WAUs. Agriculture and home sites are located in the valleys near the major streams. There appears to be a trend towards increasing conversion of agriculture and forest land to home sites in the low to mid elevation ranges. The uplands are mainly managed for timber production. Ownership includes large industrial forests, small private forests, and Department of Natural Resources managed forests. Forested stands within the WAUs appear to be primarily second and third growth stands. The numbers of forest practice activities shown on the WAU maps (referenced above on the Department's website) along with observations within the WAUs indicate that the WAUs are intensively managed for timber production, including variable retention harvest, thinning, and partial cuts.

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. The HCP requires the Department to manage landscapes to provide and sustain long-term habitat in exchange for an Incidental Take Permit. This agreement identifies specific strategies the department implements to mitigate for potential, landscape cumulative effects related to individual management activities. The applicable HCP strategies and mitigation measures incorporated into this proposal are as follows:

- **Evaluating the proposal for potential slope instability, and excluding harvest activities on <1 acres that exhibited indicators of potentially unstable slopes. This reduces the risk of mass wasting, which also contributes to protecting water quality.**

- **Retaining a minimum of 8 trees per acre (greater than 10 inches Diameter at Breast Height) clumped within the unit to provide legacy elements for recruitment of future snags, coarse woody debris, multi-layered stands, protection of sensitive areas, and large diameter trees. In combination, these features will provide elements of older forest habitat characteristics within the new plantation.**
- **An Equipment Limitation Zone (ELZ), a 30 foot wide strip from the ordinary high water mark, on all type 5 streams located within and adjacent to the proposed unit will minimize the possibility sediment delivery and loss of stream function.**
- **Protection of occupied Marbled Murrelet habitat and modeled habitat on a landscape level within coastal ownership blocks. This proposal is not located in occupied or modeled habitat. Modeled and occupied habitat will not be harvested, which will provide an increase in older forest condition as these stands continue to develop. Many of the above strategies also contribute to an increase in future older forest condition which is needed by Marbled Murrelets for their habitat.**

After harvest, tree seedlings will be planted to complement natural regeneration that is expected to occur. Understory vegetation will be disturbed and/or reduced within the proposed harvest area as a result of timber felling, bucking, and yarding. Most of the vegetation will robustly re-establish within 2 – 3 years.

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. Road improvement projects identified in the RMAP began in 2003.

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 WAU or sub-basin(s) (landforms, climate, elevations, and forest vegetation zone).*

The topography of the Lower Naselle WAU is variable. There are rolling hills surrounding the lower reaches of the major streams, which occupy broad flat alluvial valleys, that merge into estuaries at their confluences with Willapa Bay. As elevation increases, the topography is well dissected. The upper reaches of the main streams, along with their tributaries, typically occupy fairly deep valleys and v-notched draws confined by steep and broken hill slopes.

The timber types in this area are primarily Sitka spruce, western hemlock, and Douglas-fir. Elevations in the Lower Naselle WAU range from sea level to 1,955 feet with an average annual rainfall of 80 to 120 inches. The Lower Naselle WAU is within the Sitka Spruce Forest Vegetation Zone.

2) *Identify any difference between the proposal location and the general description of the WAU or sub-basin(s).*

The general description of the WAUs adequately describes the proposal location. The sale area is located near the ridge top.

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

The steepest slope within the site is approximately 65%.

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 prime farmland. *Note: The following table is created from state soil survey data. It is a roll-up of general soils information for the soils found in the entire sale area. It is only one of several site assessment tools used in conjunction with actual site inspections for slope stability concerns or erosion potential. It can help indicate potential for shallow, rapid soil movement, but often does not represent deeper soil sub-strata. The actual soils conditions in the sale area may vary considerably based on land-form shapes, presence of erosive situations, and other factors. The state soil survey is a compilation of various surveys with different standards.* ***Note: The following table is created from state soil survey data. It is a roll-up of general soils information for the soils found in the entire sale area. It is only one of several site assessment tools used in conjunction with actual site inspections for slope stability concerns or erosion potential. The state soil survey is a compilation of various surveys with different standards.***

State Soil Survey #	Soil Texture or Soil Complex Name
6004	SILT LOAM

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

Yes.

1) *Surface indications:*

There is evidence of a slope failure <1 acre north of the Unit. The failure occurred in mature timber, around an oversteepened type 5 headwall, in 2005. The region geologist visited the site in 2007 and determined that the slopes have stabilized. Since none of this proposal had signs of potential instability there was no geologist report written.

2) *Is there evidence of natural slope failures in the sub-basin(s)?*
☐*No* ☒*Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:*

There is evidence of slope failures within the sub-basins. These are generally associated with slopes greater than 70% within convergent landforms such as bedrock hollows and inner gorges. These landforms, per local knowledge, typically occur within the RMZs, lower slopes of the main draws, and on headwalls at the top of steep draws.

3) *Are there slope failures in the sub-basin(s) associated with timber harvest activities or roads?*
☐*No* ☒*Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:*
Associated management activity:

Indicators of small slope failures are evident in some harvested areas within the sub-basins. Failures of sidecast material along inactive grades, which were built prior to the Forest Practices rules, have also occurred.

4) *Is the proposed site similar to sites where slope failures have occurred previously in the sub-basin(s)?*
☒*No* ☐*Yes, describe similarities between the conditions and activities on these sites:*

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

- **The <1 acre slope failure to the north of the unit was avoided by posting the sale boundary outside the drainage basin containing the feature.**
- **Lead-end suspension will be required on all cable settings. Ground based logging will be restricted to slopes less than 45%, and rutting will not be permitted.**

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.
Approx. acreage new roads: ***0*** *Approx. acreage new landings:* ***0*** *Fill source:* **NA**

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Some erosion could occur as a result of 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):*

Less than 1% of the site will be covered with impervious surfaces after project completion.

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

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

- **Harvested areas will be replanted with coniferous tree species to reestablish root bound soils.**
- **Ground-based harvesting will only occur on slopes measuring less than 45% and during dry soil conditions.**
- **Skid trails will be water barred post harvest if rutting exceeds 4 inches from natural ground line.**

2. Air

a. What types of emissions to the air would result from the proposal (i.e., dust *from truck traffic, rock mining, crushing or hauling*, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

Small amounts of engine exhaust from logging and road construction equipment and dust from vehicle traffic on roads will be emitted. 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:

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 timber sale map available at DNR region office, or forest practice application base maps.)*

a) *Downstream water bodies:*

Unnamed type 5 streams to Pete's Creek to the Naselle 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)

Unnamed Stream	5	1	None

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

None. A 30-foot wide equipment limitation zone will be enforced along the type 5 stream.

2) Will the project require any work over, in, or adjacent to (within 200 feet) to the described waters? If yes, please describe and attach available plans.
☐*No* ☒*Yes (See RMZ/WMZ table above and timber sale map available at DNR region office.)*
Description (include culverts):

Type 5 streams may have cables suspended over them as well as timber yarded over them. Timber will be felled/bucked in and around the type 5 stream. If ground yarding occurs near type 5 streams, a 30-foot Equipment Limitation Zone will be utilized to maintain stream function, stream bank integrity and minimize possible sediment delivery.

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 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* ☐*Yes, type and volume:*

7) *Does the sub-basin contain soils or terrain susceptible to surface erosion and/or mass wasting? What is the potential for eroded material to enter surface water?*

Yes. Generally, the sub-basin contains soils or terrain susceptible to surface erosion or mass wasting is located on slopes steeper than 70%.

Based upon current Department of Natural Resources timber harvest management practices the potential for eroded material to enter surface water is mininmized.

8) *Is there evidence of changes to the channels in the WAU and sub-basin(s) due to surface erosion or mass wasting (accelerated aggradations, erosion, decrease in large organic debris (LOD), change in channel dimensions)?*
☐*No* ☒*Yes, describe changes and possible causes:*

Channels have been altered due to mass wasting along Pete's creek where slopes exceed 70%. The observed failures are rather large, 1-5 acres, and have shifted the flow of Pete's creek. One area is about 1 stream mile upstream from the proposal and was discovered in 2006. This mass wasting event may have occurred during a period of rain on snow, where the oversteepened slope became saturated. The other is about ¼ mile downstream and is estimated to have occurred around the 1950's. It appears that there was a large landing perched above oversteepened slopes that failed to cause this mass wasting event.

9) *Could this proposal affect water quality based on the answers to the questions 1-8 above?*
☐*No* ☒*Yes, explain:*

This proposal could introduce small amounts of sediment into the streams associated with this proposal during wet weather within or adjacent to the proposal area as a result of road building and harvest operation activity. The erosion control measures and operation procedures outlined in B.1.d.5. and B.1.h. are expected to minimize sediment delivery.

10) *What are the approximate road miles per square mile in the WAU and sub-basin(s)?*
Are you aware of areas where forest roads or road ditches intercept sub-surface flow and deliver surface water to streams, rather than back to the forest floor?
☒*No* ☐*Yes, describe:*

There are an estimated 5.5 miles of road per square mile in the Lower Naselle WAU. Road density estimates for the sub-basins are similar.

11) *Is the proposal within a significant rain-on-snow (ROS) zone? If not,* ***STOP HERE*** *and go to question B-3-a-13 below. Use the WAU or sub-basin(s) for the ROS percentage questions below.*
☒*No* ☐*Yes, approximate percent of WAU in significant ROS zone.*
Approximate percent of sub-basin(s): –

12) *If the proposal is within the significant ROS zone, what is the approximate percentage of the WAU or sub-basin(s) within the significant ROS zone (all ownerships) that is (are) rated as hydrologically mature?*

13) *Is there evidence of changes to channels associated with peak flows in the WAU or sub-basin(s)?*
☐*No* ☒*Yes, describe observations:*

Normally, there are few significant changes associated with peak flows in the WAU or sub-basins.

During the winters of 1996, 2007, and 2009, suspected 100-year precipitation events occurred. Some channels in the WAU were altered during these events due to high stream flows.

14) *Based on your answers to questions B-3-a-10 through B-3-a-13 above, describe whether and how this proposal, in combination with other past, current, or reasonably foreseeable proposals in the WAU and sub-basin(s), may contribute to a peak flow impact.*

The current proposal may slightly change the timing, duration, and/or magnitude of peak flows and stream flows may increase slightly during low flow periods due to decreased transpiration and canopy interception.

15) *Is there water resource (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or downslope of the proposed activity that could be affected by changes in surface water amounts, quality, or movements as a result of this proposal?*
☐*No* ☒*Yes, possible impacts:*

The Naselle Youth Camp's fish hatchery has a water intake on Pete's Creek approximately 1.5 miles downstream. The Camp itself does not receive water from this intake.

16) *Based on your answers to questions B-3-a-10 through B-3-a-15 above, note any protection measures addressing possible peak flow/flooding impacts.*
- **The proposal's unit is less than the 100 acres to minimize impacts to watershed hydrology.**
- **No part of the harvest unit lies on oversteepened slopes over 70%.**
- **Reforesting unit after harvest.**
- **Allowing green-up (regenerated stands that are either 4 ½ feet tall or 5 years of age) of adjacent stands to minimimize impacts to watershed hydrology.**
- **See B.1.d.5. and B.1.h. for further protection measures**

b. Ground *Water*:

1) Will ground water be withdrawn, or will water be discharged to ground water? 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.\

Small amounts of oil, fuel, and other lubricants may inadvertently be discharged to the ground as a result of heavy equipment use or mechanical failure. No lubricants will be disposed of on-site. All spills are required to be contained and cleaned-up. This proposal is expected to have no impact on ground water.

3) *Is there a water resource use (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or down slope of the proposed activity that could be affected by changes in groundwater amounts, timing, or movements as a result this proposal?*
☒*No* ☐*Yes, describe:*

a) *Note protection measures, if any.*

c. Water Runoff (including storm water):

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.

None.

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

Waste materials, such as sediment or slash, may enter surface water.

a) *Note protection measures, if any.*

No other specific protection measures will be necessary to protect these resources beyond those described in B.1.d.5., B.1.h., B.3.a.2., and B.3.a.16.

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:
(See surface water, ground water, and water runoff sections above, questions B-3-a-1-c, B-3-a-16, B-3-b-3-a, and B-3-c-2-a.)

See surface water, ground water, and water runoff sections above, questions B.1.d.5., B.1.h., B.3.a.1.c., B.3.a.16., B.3.b.3.a., and B.3.c.2.a.

4. Plants

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

☒deciduous tree: ☒alder, ☐maple, ☐aspen, ☐*cottonwood,* ☐*western larch,* ☐*birch,* ☐other:
☒evergreen tree: ☒*Douglas fir,* ☐*grand fir,* ☒*Pacific silver fir,* ☐*ponderosa pine,* ☐*lodgepole pine,* ☒*western hemlock,* ☐*mountain hemlock,* ☐*Englemann spruce,* ☒*Sitka spruce,* ☒*red cedar,* ☐*yellow cedar,* ☐other:
☒shrubs: ☒*huckleberry,* ☒*salmonberry,* ☐*salal,* ☐*other:*
☐grass
☐pasture

☐crop or grain
☐wet soil plants: ☐cattail, ☐buttercup, ☐bullrush, ☐skunk cabbage, ☐*devil's club*, ☐other:
☐water plants: ☐water lily, ☐eelgrass, ☐milfoil, ☐other:
☒other types of vegetation: **sword fern**
☐*plant communities of concern:*

b. What kind and amount of vegetation will be removed or altered? *(See answers to questions A-11-a, A-11-b, B-3-a-1-b and B-3-a-1-c. The following sub-questions merely supplement those answers.)*

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 preperation operations. 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 landscape/WAU and adjacency maps on the DNR website at: http://www.dnr.wa.gov under "SEPA Center.")*

To the North is a 64 year old western hemlock stand. To the West is a 60 year old western hemlock stand. To the South is a 10-year-old Douglas-fir plantation. There is a 64 year old western hemlock stand to the East.

2) *Retention tree plan:*

Reserve tree numbers were based on leaving eight trees per acre. One leave tree clump comprised of western hemlock was left in an area that was not blown down, and is protected, slightly, by topography. This type of leave tree pattern is conducive to a safe harvest operation and allows the distribution of wildlife trees throughout the proposal. When selecting wildlife trees, the highest preference was given to trees having form defects that may be desireable for birds, the largest trees, and the most windfirm species.

c. List threatened or endangered *plant* species known to be on or near the site.

TSU Number	FMU ID	Common Name	Federal Listing Status	WA State Listing Status
None Found in Database Search				

None found in database search.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

One leave tree clump was left in the unit. This clump will provide a local seed source for native over story and understory species. Some natural regeneration of native species will occur on site after harvest. Wildlife trees were left in an area where standing trees were present and will not impede logging operations.

5. Animal

a. Circle or check any birds animals *or unique habitats* which have been observed on or near the site or are known to be on or near the site:

birds: ☒hawk, ☐heron, ☐eagle, ☒songbirds, ☐*pigeon*, ☒other: **Marbled Murrelet**
mammals: ☒deer, ☒bear, ☒elk, ☐beaver, ☐other:
fish: ☐bass, ☒salmon, ☒trout, ☐herring, ☐shellfish, ☐other:
unique habitats: ☐*talus slopes*, ☐*caves*, ☐*cliffs*, ☐*oak woodlands*, ☐*balds*, ☐*mineral springs*

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

There is a marbled murrelet occupied stand approximately 1.2 miles to the west of the proposal area. A second marbled murrelet occupied stand is approximately 1.3 miles the south of the proposal area.

c. Is the site part of a migration route? If so, explain.
☒*Pacific flyway* ☐*Other migration route:* *Explain if any boxes checked:*

This proposal is located in the Columbia River Flyway, which is part of the Pacific Flyway. Migratory waterfowl also 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 departments HCP and provide for the protection of wildlife and their habitats. Scattered and clumped leave trees allow for feeding, roosting, nesting, and areas for Neotropical migratory birds to use. Well engineered and constructed roads reduce potential water quality impacts for down-stream fish populations. Grass seeding exposed soil aids water quality and provides forage. Large diameter leave trees, and leave trees with unique crowns, 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.*

- **Upland habitat**
  - **A minimum of 8 leave trees per acre were left clumped and scattered to provide additional structure in the regenerated stand.**
- **Marbled Murrelets**

- **The proposal area was evaluated for habitat protection or other marbled murrelet mitigation opportunities. No specific protection or mitigation was needed due to the location of this sale in relation to areas known to be occupied by marbled murrelets.**

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.

Not applicable.

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

Not applicable.

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:

Not applicable.

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 special emergency services that might be required.

There are no special emergency services required at this time.

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

The cessation of operations may occur during periods of time when the risk of fire is increased. Fire tools and equipment will be kept on site during fire season. Pump trucks and/or pump trailers will be required on site during fire season. In the event of a lubricant spill the Purchaser will contact the Department of Natural Resources and the Department of Ecology. No oil or lubricants will be allowed to be disposed of on site.

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 long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from this site.

Log trucks will use forest roads, county roads, and State Route 4. 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? *(Site includes the complete proposal, e.g. rock pits and access roads.)*

These state lands are managed for timber production by the Department of Natural Resources.

b. Has the site been used for agriculture? If so, describe.

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?

Forestry.

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

Forest Land.

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 an "environmentally sensitive" area? 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 current landscape objectives. There is no change to the existing land use, and no impacts from adjacent land uses on this proposal.

9. Housing

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

Not applicable.

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

Not applicable.

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

Not applicable.

10. Aesthetics

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

Not applicable.

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

Views in the immediate area will be temporarily altered by the removal of trees. This site is not part of any views from communities or public corridors.

1) Is this proposal visible from a residential area, town, city, developed recreation site, or a scenic vista?
☒*No* ☐*Yes, viewing location:*

2) Is this proposal visible from a major transportation or designated scenic corridor (county road, state or interstate highway, US route, river, or Columbia Gorge SMA)?
☒*No* ☐*Yes, scenic corridor name:*

3) How will this proposal affect any views described in 1) or 2) above?

NA

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?

Not applicable.

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 on the proposal area. However, hunting, hiking, horseback riding, mountain biking, mushroom and berry picking, and other informal outdoor recreation activities may occur on the proposal area.

b. Would the proposed project displace any existing recreational uses? If so, describe:

Informal recreation will be displaced for the short term during periods of active logging.

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

No proposed measures are necessary because informal recreation will only be displaced for the short-term and then will resume.

13. Historic and Cultural Preservation

a. Are there any places or objects listed on, or proposed for national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

No.

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

Cultural resources were not observed on or next to the site.

c. Proposed measures to reduce or control impacts, if any:
(Include all meetings or consultations with tribes, archaeologists, anthropologists or other authorities.)

This proposal was reviewed for archeological/historic resources using DNR's Planning and Tracking database and USGS and GLO maps. In the event that any unknown archaeological resources are encountered, ground disturbing activities would be halted and a Department of Natural Resources archaeologist will be contacted to survey the site and develop a Site Protection Plan. The Department's Inadvertent Discovery Plan is available at the Region office or at http://www.dnr.wa.gov/BusinessPermits/Topics/AppraisalPackets/Pages/Home.aspx.

14. Transportation

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

State Route 4 to Cowan A-Line to A-7000.

1) Is it likely that this proposal will contribute to an existing safety, noise, dust, maintenance, or other transportation impact problem(s)?

No.

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

N/A.

c. How many parking spaces would the completed project have? How many would the project eliminate?

None.

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

No.

1) How does this proposal impact the overall transportation system/circulation in the surrounding area, if at all?

This proposal expands the network of Department of Natural Resoruces' forest roads in the area.

e. Will the project 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? If known, indicate when peak volumes would occur.

Five to 20 trips per day during harvesting activities with periodic trips post harvest to conduct monitoring and timber stand improvements.

g. Proposed measures to reduce or control transportation impacts, if any:

None.

15. Public Services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, 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. Circle 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.

Completed by: For Larry Leach Mary Robertson Unit Forester Date: 02/08/2011
Title

Reviewed by: Marcus A. Johns PSM Date: 2/8/11
Title