

*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> 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.*

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:*    **N-1100 VDT VRH**                      *Agreement #* **30-090940**

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

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

**Andrew Gorbett  
Department of Natural Resources  
411 Tillicum Lane  
Forks, WA 98331  
(360) 374-2800**

4. Date checklist prepared: **05/28/2015**

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

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

- a. *Auction Date:* **02/24/2016**
- b. *Planned contract end date (but may be extended):* **10/31/2018**
- 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. Unit 5 is a proposed 3 acre harvest which will allow future expansion of the Miser Pit.**

*Timber Sale:*

- a. *Site preparation:*  
**Unit 5: Ground Herbicide 08/15/2018; 3 acres (if pit not developed)**  
**Unit 6: Ground Herbicide 08/15/2018; 20 acres**
- b. *Regeneration Method:*  
**Unit 3: Hand Plant 01/15/2019; 5 Acres**  
**Unit 5: Hand Plant 01/15/2019; 3 acres (if pit not developed)**  
**Unit 6: Hand Plant 01/15/2019; 20 acres**
- c. *Vegetation Management:*  
**Vegetation management in Unit 3, 5 and Unit 6 will be assessed as needed.**
- d. *Thinning:*  
**PCT of Unit 3, 5 (if pit not developed) and Unit 6 is expected 10 to 15 years post-planting.**

*Roads:*

**Ongoing road maintenance, periodic ditching, and culvert and ditch cleanouts as needed.**

Rock Pits and/or Sale:

South Winfield Pit, North Winfield Pit, Miser Pit, Pistol Pit, Nolan Stockpile, and Red Creek Pit.

Other:

Future forest management activities are anticipated to continue within the WAU and adjacent to the current proposal. Potential activities may include but are not limited to biomass salvage, firewood salvage, hardwood slashing, planting, pre-commercial thinning, commercial thinning, and regeneration harvest. All future activities will be consistent with the DNR's Habitat Conservation Plan (HCP), applicable policies and planning documents.

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: **Middle Coast Draft**

Watershed analysis:

Interdisciplinary team (ID Team) report:

Road design plan: **05/19/2015**

Wildlife report:

Geotechnical report:

Other specialist report(s):

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

Rock pit plan: **Winfield Pit (North and South), Miser Pit, Pistol Pit, Red Creek Pit**

Other: **Final Habitat Conservation Plan (September 1997), State Soil Survey, Forestry Handbook (August 1999), Sustainable Harvest Calculation (Sept 2004), Spotted Owl Habitat Mapping, Forest Practices board manual, Forest Practices Activity Maps, Policy for Sustainable Forests (PSF 2006), HCP Checklist, Planning and Tracking reports and associated maps, Road Maintenance and Abandonment Plan (RMAP) for the Kalaloch administrative unit: #2610029. The following documents are all generated by Department GIS databases: Weighted Old Growth Habitat Index (WOGHI), OESF Habitat Marbled Murrelet Habitat Model, 12-Step Watershed Assessment Report, Marbled Murrelet Habitat Proximity Map and GLO maps.**

**All documents are available for review at the Olympic Region office during the SEPA comment period.**

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**

10. List any government approvals or permits that will be needed for your proposal, if known.

HPA Burning permit Incidental take permit FPA Other:

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

a. *Complete proposal description:*

The N-1100 VDT is located approximately 25 road miles south of Forks via HWY 101 and the N-1000, and K-1100 road systems. It is located within the Kalaloch Ridge, Cedar, and the Lower Clearwater WAUs and is a six unit timber sale proposal encompassing approximately 578 acres, with an approximate sale volume of 3,460 mbf.

This proposal has four variable density thinning (VDT) units, one variable retention harvest (VRH) unit, and one unit designated for proposed pit development. This sale totals 578 gross acres: 405 thinning acres, 20 VRH acres, 101 acres of skip, 7.1 acres of gaps, 3 acres of pit development, 0.35 Leave Tree Area (LTA) acres, and 42 acres of existing roads. Skips consist of Riparian Management Zones (RMZ's), Wetland Management Zones (WMZ's), forested wetlands, and potentially unstable slopes. Thinning of the exterior wind buffer will leave a minimum of 70% shade for all Type 3 streams as per Forest Practice requirements. Using skips and gaps together will increase the complexity of the forest structure, provide protection for RMZ's, promote stand diversity, and create openings for wildlife use.

Estimated Sale Volume:	3.46 mmbf
Total Proposed Acres:	578
RMZ, WMZ, Skip Protection	101
Existing Road Acres:	42
Leave Tree Area Acres:	0.35
Total Number of Leave Trees:	160
Net Harvest Acres:	435

Approximately 2,555 feet of new road construction, 15,467 feet of reconstruction, 1,651 feet of deactivation, and 93,388 feet of pre-haul maintenance are proposed to meet access needs into the sale area. The designated rock sources for this proposal are: North Winfield Pit located in Section 35, Township 27 North, Range 12 West, W.M.; South Winfield Pit, located in Section 35, Township 27 North, Range 12 West, W.M.; Red Creek located in Section 34, Township 27 North, Range 11 West, W.M.; Pistol Pit located in Section 4, Township 25 North, Range 13 West, W.M.; the development of Miser Pit (Unit 5) located in Section 14, Township 25 North, Range 13 West, W.M.; and the Nolan Stockpile located in Section 19, Township 26 North, Range 12 West, W.M..

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

The N-1100 VDT timber sale is a six unit proposal consisting of four VDT units, one VRH unit, and one pit development unit. This sale proposal includes the variable density thinning of 26-50 year old mixed conifer timber. Slopes within the proposal area range from 0-100%. Slopes over 70% are associated with cut slopes and side cast harvest with low potential of delivery as-well-as skip areas that will receive no harvest activities. Elevations within the proposal area range from 393-1368 feet. The sale will utilize 63% cable and 37% ground-based logging methods.

Unit 1 is a 95 acre VDT unit and consists of 33 year old timber; Douglas-fir and western hemlock are the primary conifer species, with scattered Sitka spruce and western red cedar. The terrain is characterized by ridge top and draws. The slope ranges from 0-100% and the

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elevation range is 393-880 feet. Both ground-based and cable harvesting methods will be used for this unit. This unit is comprised of 82.5 acres of thinning, 8 acres of existing roads, and 4.5 acre of skip. Currently this stand has an RD of 69 and will be thinned from below to an RD of 40.

Unit 2 is a 161 acre VDT unit and consists of 26-46 year old timber; Douglas-fir and western hemlock are the primary conifer species, with scattered Sitka spruce. The terrain is characterized by ridge top and draws. The slope ranges from 0-90% and the elevation range is 720-1368 feet. Both ground-based and cable harvesting methods will be used for this unit. This unit is comprised of 105.5 acres of thinning, 5 clear cut gaps totaling 1acre, 15 acres of existing roads and 39.5 acres of skip. Currently this stand has an RD of 68 and will be thinned from below to an RD of 40.

Unit 3 is a 50 acre VDT unit and consists of 45 year old timber; Douglas-fir and western hemlock are the primary conifer species, with scattered Sitka spruce and western red cedar. The terrain is characterized by ridge top and draws. The slope ranges from 0-90% and the elevation range is 760-1080 feet. Both ground-based and cable harvesting methods will be used for this unit. This unit is comprised of 23 acres of thinning, 3 clear cut gaps totaling 5 acres, 3 acres of existing roads, and 18 acres of skip. Currently this stand has an RD of 61 and will be thinned from below to an RD of 40.

Unit 4 is a 249 acre VDT unit and consists of 36-50 year old timber; Douglas-fir and western hemlock are the primary conifer species, with scattered Sitka spruce. The terrain is characterized by ridge top and draws with a slopes of 0-100% and elevation range of 600-1200 feet. Both ground-based and cable harvesting methods will be used for this unit. This unit is comprised of 194 acres of thinning, 3 clear cut gaps totaling 1 acres, 15.4 acres of existing roads, and 39 acres of skip. Currently 78 acres of the thinning has an RD of 68 and will be thinned from below to an RD of 50 while the remaining 116 acres with an RD of 72 will be thinned from below to an RD of 40.

Unit 5 is a 3 acre pit development and consists of 34 year old timber. This newly developed pit will be named Miser Pit. The terrain is flat ridge top with a slope range of 0-45% and elevation range of 1040-1160 feet. Ground-based harvesting methods will be used for this unit. The 3 acre pit area includes an overburden storage location and active pit face (see: N-1100 VDT Road plan 05/19/2015).

Unit 6 is 20 harvest acres of VRH of with timber of similar age to Unit 4 between 35 and 49 years old. Terrain is characterized by ridge top and draws, with slopes ranging from 0-60% and an elevation range of 661-859 feet. Ground-based and uphill cable yarding harvesting methods will be used for this unit. This unit will have green retention trees dispersed and aggregated throughout the site. A minimum of eight trees per acre have been left as retention trees. Larger structurally unique trees were targeted for retention as well as exposed wind firm trees along windward edges of the stands. These marked leave trees and leave tree clumps will expedite the development of a more diverse, multi-storied canopy 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		2555	2	0
Reconstruction		15467		0
Abandonment		0	0	0
Bridge Install/Replace	0			0
Culvert Install/Replace (fish)	1			0
Culvert Install/Replace (no fish)	12			

**\*The sale includes 93,388 feet of prehaul road maintenance and 1,651 feet of road deactivation.**

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.

a. *Legal description:*

T25N R12W S7	Unit 2
T25N R13W S1	Units 1 & 2
T25N R13W S2	Unit 1
T25N R13W S4	(Pistol Pit)
T25N R13W S11	Unit 4
T25N R13W S12	Units 2, 3, & 4
T25N R13W S13	Unit 4
T25N R13W S14	Units 4 & 5 (Miser Pit)
T25N R13W S15	Unit 4
T26N R12W S19	(Nolan Stock Pile)
T27N R11W S34	(Red Creek Pit)
T27N R12W S35	(Winfield Pit North & South)

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

**From Forks travel south on U.S. 101 for approximately 20 miles and take a left on the N-1000 road. Continue on the N-1000 for approximately 1.3 miles and turn right on the N-1100 road. Continue on the N-1100 for approximately 3.4 miles to the timber sale.**

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/ResearchScience/sepa/Pages/Home.aspx> under the topic "Current SEPA Project Actions – Timber Sales" for a broader landscape perspective.*

WAU Name	WAU Acres	Proposal Acres
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CEDAR	12675.6	411
KALALOCH RIDGE	14179.2	149
LOWER CLEARWATER	39674.2	18

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.")

Kalaloch Ridge WAU		
Land Manager	Acres	% of WAU
DNR	7042	49.7
Federal	2947	20.8
Other State (Non-DNR)	214	1.5
Other Land (Private & Other Public Land)	3976	28.0

Cedar WAU		
Land Manager	Acres	% of WAU
DNR	4548	35.9
Federal	3453	27.2
Other State (Non-DNR)	112	0.9
Other Land (Private & Other Public Land)	4563	36.0

Lower Clearwater WAU		
Land Manager	Acres	% of WAU
DNR	20,965	52.8
Federal	45	0.1
Other State (Non-DNR)	13	0.0
Tribal	60	0.2
Other Land (Private & Other Public Land)	18,591	46.9

Data Source & Description: DNR ownership updated weekly. Non-DNR Public Lands (NDMPL) data. Management parcels are for federal, state (excluding DNR), tribal, county, and city lands within the state. Data was created by DNR Engineering Division Resource Mapping in 1994 and is periodically updated by mapping projects (100k quad or statewide MPL map).

Activities within the past seven years and those proposed for the near future are summarized for the Kalaloch Ridge, Lower Clearwater and Cedar WAUs in the following tables. On DNR ownership in the Kalaloch Ridge WAU during the past seven years approximately 120 acres of even-aged and 144 acres of uneven-aged harvests have occurred. Also on DNR ownership in the Cedar WAU during the past seven years approximately 50 acres of even-aged and 0 acres of uneven-aged harvests have occurred. Also on DNR ownership in the Lower Clearwater WAU during the past seven years approximately 315 acres of even-aged and 579 acres of uneven-aged harvests have occurred. In the future, stands will be selected for regeneration, thinning, and partial cut harvests as they meet the Department's financial and ecological policies and mandates.

Over the past seven years on Non-DNR managed lands within the Kalaloch Ridge WAU there have been 218 acres of even-aged harvest and 21 acres of uneven-age harvest. Over the past seven years on Non-DNR managed lands within the

Cedar WAU there have been 319 acres of even-aged harvest and 0 acres of uneven-age harvest. Over the past seven years on Non-DNR managed lands within the Lower Clearwater WAU there have been 573 acres of even-aged harvest and 0 acres of uneven-age harvest. It is unknown what future plans other landowners have within this WAU.

WAU	Ownership	Even-aged Harvest acres within the last seven year	Uneven-aged Harvest acres within the last seven year	Planned Even-aged Harvest	Planned Uneven-aged Harvest	Salvage
Kalaloch Ridge	DNR Managed Land	120	144	135	909	328
	Non-DNR Managed Land	218	21	Unknown	Unknown	77
	<b>Total</b>	<b>338</b>	<b>165</b>	<b>135</b>	<b>909</b>	<b>405</b>

WAU	Ownership	Even-aged Harvest acres within the last seven year	Uneven-aged Harvest acres within the last seven year	Planned Even-aged Harvest	Planned Uneven-aged Harvest	Salvage
Cedar	DNR Managed Land	50	0	13	948	0
	Non-DNR Managed Land	319	0	Unknown	Unknown	23
	<b>Total</b>	<b>369</b>	<b>0</b>	<b>13</b>	<b>948</b>	<b>23</b>

WAU	Ownership	Even-aged Harvest acres within the last seven year	Uneven-aged Harvest acres within the last seven year	Planned Even-aged Harvest	Planned Uneven-aged Harvest	Salvage
Lower Clearwater	DNR Managed Land	315	579	371	208	0
	Non-DNR Managed Land	573	0	Unknown	Unknown	67
	<b>Total</b>	<b>888</b>	<b>579</b>	<b>371</b>	<b>208</b>	<b>67</b>

*Data Source & Description: DNR Forest Practices Application Review System (FPARS) data. Table shows the last seven years of proposed harvest areas, some of these areas may not have actually been harvested. Data are continuously updated*

This proposal and all future management activities on DNR lands will be conducted in accordance with the State's Habitat Conservation Plan (HCP, 1997), Policy for Sustainable Forests (2006), and Forest Practices Rules. The HCP is an agreement with the federal government that requires the DNR to manage landscapes in accordance with its terms that include the following applicable strategies that were found to provide a conservation benefit for multiple species:

- Retaining Riparian Management Zones (RMZ's) on Typed waters, this includes a variable width interior core buffer on all streams and exterior wind buffers on stream types 3, 4 and unstable type 5's. Equipment limitation zones are required on all streams.
- Deferring harvest on unstable slopes;
- Designing, constructing, and maintaining a road system to minimize potential adverse effects on the environment;
- Implementing procedures pertaining to threatened and endangered species conservation.

In concert, the HCP strategies for spotted owl, marbled murrelet, and riparian conservation will contribute to the retention and development of older forests, while the leave tree procedure will enhance the structural diversity of forests across the landscape. Road network planning and maintenance will reduce the amount of roads needed for management and improve the quality of existing roads to reduce their impacts on the environment.

**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).*

**Kalaloch Ridge WAU**

**Elevation: 0-1,451 ft. with a mean elevation of 398 ft.**

**Annual Precipitation: weighted average 101 inches annually**

**Forest Vegetation Type: Western Hemlock**

**Peak Rain on Snow: 227**

**Cedar WAU**

**Elevation: 1 – 1,361 ft. with a mean elevation of 366 ft.**

**Annual Precipitation: weighted average 98 inches annually**

**Forest Vegetation Type: Western Hemlock**

**Peak Rain on Snow: 11**

**Lower Clearwater WAU**

**Elevation: 39 – 1,895 ft. with a mean elevation of 600 ft.**

**Annual Precipitation: weighted average 112 inches annually**

**Forest Vegetation Type: Western Hemlock**

**Peak Rain on Snow: 1,022**

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

**This proposal is located primarily in the mid to upper level elevation of the Kalaloch Ridge WAU with an elevation range of 710-1368 ft.; in the mid to upper level elevation range in the Cedar WAU within the elevation band of 393-1204; and in the upper level elevation range in the Lower Clearwater WAU within the elevation band of 1086-1368. There are also no portions of this timber sale within the designated rain on snow areas.**

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

**100%**

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 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.*

State Soil Survey #	Soil Texture or Soil Complex Name	% Slope	Acres	Mass Wasting Potential	Erosion Potential
5224	SILT LOAM	30-65	305	MEDIUM	MEDIUM
3368	V.GRAVELLY SILT LOAM	5-20	96	INSIGNIFICANT	LOW
5733	SILT LOAM	5-35	95	LOW	LOW
2962	GRAVELLY SILT LOAM	20-40	49	MEDIUM	LOW
5225	SILT LOAM	65-90	33	HIGH	HIGH

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

1) *Surface indications:*

**Yes: A potentially large deep-seated landslide was field identified to the south west of unit 4; north of the possible earth flow (26575) identified on the Forest Practices – Landslide Inventory GIS layer. In addition, multiple unstable features were found adjacent to harvest areas to include: shallow/sporadic deep-seated, debris slides, hallow-undifferentiated, and earth flows. All identified unstable features within and adjacent to this sale were deferred from harvest.**

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: **All sub-basins associated with this sale express shallow rapid landslides and debris flows. These are typically associated with over steepened slopes, convergent headwalls, and incised stream (inner gorge) channels.**

**All sub-basins associated with this sale also have deep-seated landslides mapped in the Forest Practices – Landslide Inventory, but individual features outside the sale area may not be specifically ground-truthed. These deep-seated features are described in the Forest Practices – Landslide Inventory as either shallow/sporadic or deep-seated,**

**All areas of potential slope instability associated with this proposal have either been bounded out or located within the skip portions of this sale.**

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: Based on the Kalaloch Ridge Landslide Hazard Zonation Project some shallow landslides were identified as road-caused. In addition, some shallow landslides were located within past clear-cuts.**

**According to the proponent, conclusions about unstable slopes were reached based on extensive remote review as well as several field visits. A remote review of the**

entire area was completed by a DNR licensed geologist using a combination of information screening tools, including LiDAR data and a landform remote identification modeling tool, orthophotos from six different years spanning 1995 through 2011, geologic maps, and DNR GIS layers for Forest Practices – Landslide Inventory, Forest Practices – Landslide Hazard Zone map, and data recorded by past geologists working in these area. In addition, the geologist made four field visits to the area to evaluate the areas shown as high risk from the modeling and evaluated mapped features from the Forest Practices – Landslide Inventory. The forester accompanied the geologist on the field visits. Areas of potentially unstable slopes that were identified were removed front the harvest area by including them within skips (no-harvest areas) and other leave tree areas.

To further clarify, responses in the SEPA the questions B.1.d.2 and B.1.d.5 stated the areas of potential slope instability are excluded from harvest. The language used in these two sections and B.3.7 could appear at odds, but they are not. Question B.3.7 refers to potentially unstable slopes that are within “the sale area” that are appropriately buffered, while B.1.d.5 states all potentially unstable slopes were excluded from the harvest area. This wording reflects the fact that those potentially unstable slopes that exist within the sale area and fall within skips and other leave areas and are therefore buffered from harvest (i.e. these skips lie within the sale area but are not within the harvest area). Therefore, the Checklist and supporting information from the proponent indicate the avoidance of adverse impacts.

- 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.*

**All potentially unstable slopes were excluded from the harvest area.**

The statewide landslide inventory (LSI) screening tool indicates the presence of polygons mapped as landslides within the proposed harvest unit boundaries. This landslide database is maintained by the Washington Department of Natural Resources, Forest Practices Division. The LSI includes landslides mapped during many different projects including large-scale geologic mapping, watershed analyses, landscape planning, and landslide hazard zonation, in addition to other case studies and mapping efforts. A large majority of landslides identified by these projects are mapped by remote review with minimal field verification. In addition, dormant and ancient deep-seated landslides are mapped in many projects included in the LSI. A large number of the remotely identified landslides and deep-seated features have been mapped with a questionable, probable, or unknown certainty. As a result, the LSI database is meant to be used as a screening tool and field verification is a necessary step in confirming the absence, presence, and extent of mapped features, as well as their actual level of activity/instability.

State Lands slope stability specialists conducted a field review of LSI mapped landslides 24996, 26350, 26352, 34987, 34988, 34989, 34995, and 35005 within

harvest units 1, 2, and 4 of this proposal. These features are mapped as definite and probable landforms. On the ground, portions of the mapped features polygons exhibit rule identified landform morphology; show no signs of recent movement and the landform boundaries were refined in the field. No harvest activities will occur on rule identified unstable slopes. None of the mapped polygons qualify as 'high hazard' landforms under the Forest Practices Rules and no further investigation was determined to be necessary.

- 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: 2      Approx. acreage new landings: 1      Fill Source:*  
**Winfield (North and South), Miser, Pistol, Nolan Stockpile and Red Creek Pits.**

- f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe. **Yes. A small amount of incidental surface erosion could occur during the course of road construction and harvest activities. However, prudent road location, construction, and maintenance, as well as the mitigating measures outlined in question (h). below will minimize and control any possible erosion.**

- 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 1% of the sale will be covered in landings and gravel roads including preexisting gravel roads.**

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

**Road construction will be restricted during periods of heavy rainfall when rutting and surface erosion may occur. Roads will be constructed with properly located ditches, ditch outs and cross drains to divert water onto stable forest floor and/or into stable natural drainages. Additionally, timber and rock haul will be restricted from October 15th through April 15th:**

**Ground based harvest operations will be suspended from October 15th through April 15th and during periods of wet weather or wet soil conditions when rutting of skid or shovel roads begins. No rubber tired skidders will be allowed unless authorized by the contract administrator. The gaps within unit 3, Unit 6 and Unit 5 (if pit is not developed) will be reforested within one growing season of the expiration of the contract.**

## 2. Air

- a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

**Engine exhaust from logging equipment and dust from log truck(s) travel are the only foreseeable emissions to the air. Logging slash, if burned, will be burned adhering to the State's smoke management plan.**

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

N/A

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

None

### 3. Water

a. Surface Water:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into. *(See timber sale map available at DNR region office, or forest practice application base maps.)*

a. *Downstream water bodies:*

**Unnamed perennial streams, Steamboat Creek, Sand Creek, Miller Creek, South Fork Cedar Creek, Cedar Creek, West Fork Kalaloch Creek, Kalaloch Creek, and Pacific Ocean.**

b. *Complete the following riparian & wetland management zone table:*

Wetland, Stream, Lake, Pond, or Saltwater Name (if any)	Water Type	Number (how many?)	Avg RMZ/WMZ Width in feet (per side for streams)
Stream	3	23	A variable width interior core buffer (5' - 95') with 30' equipment limitation zone and a 150 foot exterior wind buffer.
Stream	4	71	A variable width interior core buffer (5' - 80') with an average 50' exterior wind buffer.
Stream	5	256	A 30 foot equipment limitation zones adjacent to all type 5 streams. On unstable type 5 streams a variable width interior core buffer (5'-80') and a 50 foot exterior wind buffer.
Wetland	Forested	3	Wetlands have a buffer equal to 2/3 of the 100 year site index (96 - 104 ft).

c. *List RMZ/WMZ protection measures including silvicultural prescriptions, road-*

*related RMZ/WMZ protection measures, and wind buffers.*

**In accordance with the Habitat Conservation Plan, all floodplains and unstable slopes were protected with no harvest variable width interior core buffers based on site specific conditions. Exterior wind buffers on all typed waters will be thinned. A 30-foot equipment limitation zone will be in effect on all typed streams. The forested wetlands have a 2/3 index site buffer which range from 96' to 104'. The buffers surrounding the forested wetlands will also be thinned to a relative density of 40 or 50 based on the prescription of the unit prescription in which they are located. As required, a minimum residual basal area of 120sqft/acre will be retained in the wetland buffers at minimum. The wetlands themselves have been bounded out of the sale. Road construction and logging operations will be in compliance with the HCP and Forest Practice rules to mitigate possible adverse effects on RMZs/WMZs.**

**The work detailed in the road plan has been designed to improve surfacing on the haul roads, and provide for better drainage by installing additional, and replacing inadequate, culverts that will divert storm water onto stable forest floor. These actions will minimize the potential for delivery of sediment to streams. Soils exposed during road construction activities will be protected from erosion by grass seeding and mulching with hay.**

- 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 map available at DNR region office.)

*Description (include culverts):*

**Timber felling, bucking, yarding, and road construction will occur within 200 feet of all the described waters above. All activities will be done in accordance with the HCP and Forest Practice rules. Culvert installation will occur on the N-1100, K-1100, K-1100.35, K-1100.61, K-1160, K-1106, and K-1250 roads.**

- 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.  
N/A

- 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**  
**The potential for eroded material entering surface water is low. The possibility for eroded material entering surface water has been minimized due to the fact that unstable slopes within, or directly adjacent to, the sale area has been appropriately buffered and the measures listed in B. 1. h.**

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:

**Yes, areas within the Kalaloch Ridge, Cedar, and Lower Clearwater WAUs show evidence of changes to stream channels. Some steep drainages in the WAU show evidence of debris torrent events which have increased the dimensions of affected drainage channels, exposed native bedrock which now forms the floor along segments of channels, and decreased the overall amount of large woody debris in the streams. These events may be attributed to past road construction techniques, inherently unstable slopes, soil composition or significant amounts of precipitation in short time periods.**

9) Could this proposal affect water quality based on the answers to the questions 1-8 above?

No  Yes, explain:

**B 1-h, wet weather restrictions on road work and logging operations will all contribute to reducing the potential of affecting water quality.**

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:

**It is likely some road or road ditches within the WAU intercept sub-surface flow and deliver surface water to streams. However, current standards for road construction address this issue by installing cross drains to deliver ditch water to stable forest floors.**

Kalaloch Ridge		
Land Owner	Miles of Road	Miles per Square Mile
Non-DNR	39.7	1.8
DNR	56.7	2.6
Total	96.4	4.4

  

Cedar		
Land Owner	Miles of Road	Miles per Square Mile
Non-DNR	40.1	2.0
DNR	36.5	1.8

Total	76.5	3.9
<b>Lower Clearwater</b>		
<b>Land Owner</b>	<b>Miles of Road</b>	<b>Miles per Square Mile</b>
Non-DNR	131.5	2.1
DNR	169.6	2.7
Total	301.0	4.9

*Data Source & Description: DNR Transportation (TRANS) data. Data is the best estimate of the transportation routes in the state, however, should not be considered a complete inventory of these routes. Updates to this data are variable.*

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 sub-basin(s) in significant ROS zone:

**Or**, approximate percent of WAU:

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 and sub-basin(s)?

No       Yes, describe observations in the WAU and in the sub-basin(s):

**The Kalaloch Ridge, Cedar, and Lower Clearwater WAUs shows evidence of slope failures which caused a shift in stream channel. Also, some stream segments show cutting and scouring which can be attributed to the absence of LWD during peak flow events. Refer to B3a8.**

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.

**This proposal should not measurably change timing, duration, or volume of water during a peak flow event. The harvest prescription, unit size, and buffering, will minimize potential impact(s) to peak flow.**

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:

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.

**Road maintenance, new construction, and reconstruction will minimize impacts by using cross drains to release ditch water onto stable forest floors where much of the energy can be dissipated prior to reaching stream channels. Maintaining large RMZ's on streams that maintain bank stability, hydrologic functions and provides recruitment of LWD. See B.1.h, B.3.a.1.c and A.13 for additional 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.

N/A

- 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 stormwater):

- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

**Storm-water will be collected using roadside ditches directly, and as road runoff. Ditch-outs and cross-drains will divert storm-water away from roads and streams onto stable forest floor. This water will percolate through the soil and ultimately flow into streams which drain the area.**

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

No       Yes, describe:

a. *Note protection measures, if any.* N/A

- 3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.

No

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-16, B-3-b-3-a, and B-3-c-2-a.**

**4. Plants**

- a. Check the 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: multiple upland ferns and forbs

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.)

**Approximately 3,460 mbf of mixed conifer will be harvested with this proposal.**

- 1) Describe the species, age, and structural diversity of the timber types immediately adjacent to the removal area. (See color landscape/WAU and adjacency maps on the DNR website:

<http://www.dnr.wa.gov/ResearchScience/sepa/Pages/Home.aspx>

Click on the DNR region under the Topic "Current SEPA Project Actions - Timber Sales.")

**Unit 1: is bordered to the north and west by 53 and 33 year old State timber, to the east by mature private timber, and to the south by 32 and 25 year old state timber.**

**Unit 2: is bordered to the north by 34, 35, 42 year old State timber; to the east by 32, 38, and 88 year old State timber, to the south by 26, 28, 35, 36, and 119 year old State timber; and to the west is Timber Sale Unit 3 and 40 and 46 year old State timber.**

**Unit 3: is bordered to the east by Unit 2; to the south by 28 and 46 year old State timber; to the west by 35, 46 and 240 year old State timber; and to the north by 46 and 240 year old State timber.**

**Unit 4: is bordered to the north by private timber and by 35, 36, 41, and 46 year old State timber; to the west by 35, 41 and 46 year old State timber, and by juvenile private timber; to the south by 46 year old State timber; and to the east by 31, 35, 40, 106, and 114 year old State Forest.**

**Unit 5: is bordered to the west and south by Unit 4, and to the north and east is 35 year old State timber.**

**Unit 6:** is bordered to the north by private timber land, to the east and west by State timber that is a similar timber type and ages as Unit 4 estimated to be between 30 and 50 years old. The south is bordered by Unit 4.

2) *Retention tree plan:*

Some natural regeneration of native species will occur on site after harvest.

**Unit 1:** Residual trees will average 145 ft<sup>2</sup> in basal area per acre and 150 trees per acre.

**Unit 2:** Residual trees will average 150 ft<sup>2</sup> in basal area per acre and 145 trees per acre.

**Unit 3:** Residual trees will average 187 ft<sup>2</sup> in basal area per acre and 102 trees per acre.

**Unit 4:** (RD 40) Residual trees will average 173 ft<sup>2</sup> in basal area per acre and 136 trees per acre. (RD 50) Residual trees will average 219 ft<sup>2</sup> in basal area per acre and 139 trees per acre.

**Unit 5:** Is a proposed pit development and has no retention trees.

**Unit 6:** A minimum of eight trees per acre have been left as retention trees. Larger structurally unique trees were targeted for retention as well as exposed wind firm trees along windward edges of the stands. These marked leave trees and leave tree clumps will expedite the development of a more diverse, multi-storied canopy in the future stand. There are 80 individual leave trees and 80 leave trees in one leave tree area.

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

A review of GIS data bases referenced in question A.8 found no listed species.

TSU Number	FMU_ID	Common Name	Federal Listing Status	WA State Listing Status
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:

**Unit 3 has three gaps totaling 5 acres, Unit 5 (if pit is not developed), and Unit 6 will be**

**planted with native conifer species. Unit 6 will be planted with native conifer species. The rest of Unit 3 and Units 1, 2, and 4 are part of a thinning program to maintain long-term timber production and will not require replanting.**

- e. List all noxious weeds and invasive species known to be on or near the site.  
**Scotch broom and Canadian thistle**

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

**Eagles have been observed in flight in this vicinity. There are no known nest sites within 660' of the harvest proposal.**

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

TSU Number	FMU ID	Common Name	Federal Listing Status	WA State Listing Status
1	89819	SPOTTED OWL: Site:236-KALALOCH	THREATENED	ENDANGERED
1	89819	SPOTTED OWL: Site:239-MILLER CREEK	THREATENED	ENDANGERED
2	89820	SPOTTED OWL: Site:236-KALALOCH	THREATENED	ENDANGERED
2	89820	SPOTTED OWL: Site:239-MILLER CREEK	THREATENED	ENDANGERED
3	89821	SPOTTED OWL: Site:236-KALALOCH	THREATENED	ENDANGERED
3	89821	SPOTTED OWL: Site:239-MILLER CREEK	THREATENED	ENDANGERED
4	89822	MARBLED MURRELET: Reference No: 24019	THREATENED	THREATENED
4	89822	MARBLED MURRELET: Reference No: 39541	THREATENED	THREATENED
4	89822	SPOTTED OWL: Site:236-KALALOCH	THREATENED	ENDANGERED
4	89854	SPOTTED OWL: Site:236-KALALOCH	THREATENED	ENDANGERED
4	89855	SPOTTED OWL: Site:236-KALALOCH	THREATENED	ENDANGERED
2	89867	SPOTTED OWL: Site:236-KALALOCH	THREATENED	ENDANGERED
2	89867	SPOTTED OWL:	THREATENED	ENDANGERED

		Site:239-MILLER CREEK		
2	89868	SPOTTED OWL: Site:236-KALALOCH	THREATENED	ENDANGERED
2	89868	SPOTTED OWL: Site:239-MILLER CREEK	THREATENED	ENDANGERED
2	89869		THREATENED	ENDANGERED

c. Is the site part of a migration route? If so, explain.

Pacific flyway       Other migration route:      Explain if any boxes checked:

**This site is part of the Pacific flyway but is not used extensively for resting or feeding by waterfowl.**

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

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

**Species/Habitat: Spotted Owl - The DNR mitigates for the potential of significant adverse environmental impacts to northern spotted owls in the OESF by implementing the HCP strategy. This strategy established threshold percentages for spotted owl habitat on DNR-managed lands for Landscape Planning Units (LPU). Each LPU is managed to achieve and maintain at least 20% Old Forest Habitat and at least 40% of Old and Young Forest (or Structural) Habitat types taken together according to a schedule of habitat enhancement and harvest activities developed within the Forest Land Plan (FLP). This thinning is consistent with silvicultural pathways for development and/or enhancement of owl habitat. Forest Land Planning has been initiated but not implemented. Ninety acres of unit 4 are considered structural habitat according to the OESF NSO Habitat Model and will be thinned to a residual RD of no less than 48.**

**Species/Habitat: Marbled Murrelet -- The proposal area was evaluated for habitat protection or other marbled murrelet conservation opportunities. There are occupied murrelet sites on DNR and Olympic National Park lands within ¼-mile of the majority of this proposal; timing restrictions to avoid disturbance were incorporated into the entire proposal. Units 1 – 4 also incorporate thinning of the 100 meter buffer for occupied murrelet habitat. The proposal itself was identified as non-habitat by the OESF marbled murrelet habitat model. Occupied sites will be protected from noise disturbance by restricting timber harvest, road construction, and Miser Pit development activities during the Murrelet’s daily peak activity periods (one hour before to two hours after official sunrise, and one hour before to one hour after official sunset) within their critical nesting season (April 1 through September 23). That, in concert with the VDT harvest prescription which maintains a closed-canopy forest, will protect the site from edge effects.**

**Species /Habitat: Riparian and Wetland – Interior core buffers have been applied to all Type 3, Type 4, and unstable Type 5 waters, as well as equipment limitation zones on all typed waters, as described in B.3.a.1)b). These buffers are designed to protect the unstable portions of the stream banks, and help to protect waters from siltation and increase of water temperatures by providing shade and cover. Buffers also allow the natural occurrence of woody debris that provides pools and eddies for fish habitat along stream banks. Furthermore, these buffers will develop old-forest characteristics that, in combination with the owl and murrelet strategies, will help support old-forest dependent wildlife.**

**Species /Habitat: Upland – small clear cut gaps within units 2, 3, 4 and the Unit 6 VRH will temporarily create open environments that provide valuable forage for deer and elk as well as habitat for a variety of wildlife species associated with early-seral environments. This thinning proposal will temporarily open the overstocked young stand, allowing increased light and understory development that will increase habitat value for many forest-living species of plants and animals.**

- e. List any invasive animal species known to be on or near the site.  
**None**

## **6. Energy and natural resources**

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.

**N/A**

- a. Would your project affect the potential use of solar energy by adjacent properties?  
If so, generally describe.  
**N/A**
- b. 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:  
**N/A**

## **7. Environmental health**

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal?  
If so, describe.
  - 1) Describe any known or possible contamination at the site from present or past uses.  
**None**
  - 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**
  - 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.  
**None**
  - 4) Describe special emergency services that might be required.  
**Fire suppression, hazardous waste cleanup, and emergency medical services.**

- 5) Proposed measures to reduce or control environmental health hazards, if any:  
**The timber sale contract requires purchaser to minimize risk of fire, spills, and does not allow for disposal of any waste on State or any other lands. Pump trucks and/or pump trailers will be required on site during fire season. Spill cleanup kits for hazardous materials must be 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 a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.  
**There will be noise from chainsaws, heavy equipment, and log truck traffic while the sale is active.**
- 3) Proposed measures to reduce or control noise impacts, if any:  
**(See: Proposed measures to preserve or enhance wildlife, question B-5-d.)**

**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: Commercial forest lands.**  
**Current use of adjacent properties: Commercial forest lands.**  
**The proposal will not impact any current land uses nearby or on adjacent properties.**
- 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?  
**The current use of the project site is working forest. No portion of this proposal will be converted to non-forest use.**
- 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. **N/A**
- d. Will any structures be demolished? If so, what? **No**
- e. What is the current zoning classification of the site? **Commercial Forest Land**
- f. What is the current comprehensive plan designation of the site? **Commercial Forest Use**

- g. If applicable, what is the current shoreline master program designation of the site? **N/A**
- h. Has any part of the site been classified as a critical area by the city or county? If so, specify. **N/A**
- 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: **N/A**
- l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:  
**The design of this project is consistent with current comprehensive plans and procedures pertaining to DNR's OESF Habitat Conservation Plan, and the state Forest Practices Act.**
- m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:  
**See B.8.1 above**

## 9. Housing

- a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.  
**N/A**
- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.  
**N/A**
- c. Proposed measures to reduce or control housing impacts, if any:  
**N/A**

## 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?  
**N/A**
- b. What views in the immediate vicinity would be altered or obstructed?
  - 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? **N/A**

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

**The VRH unit (VRH) will be reforested within one year of contract expiration.**

## 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?

**Dispersed informal recreation in the form of hunting, hiking, fishing, berry picking, sightseeing, and more similar activities.**

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

**No**

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

**N/A**

## 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 located on or near the site? If so, specifically describe.

**After a review of the TRAX report and consultation with the local cultural resources expert; cultural resources were determined to not be located within or adjacent to the harvest units.**

b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.

**None**

- c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.  
**None**
- 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.  
**N/A**

#### 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.  
**US Highway 101, N-1000, N-1100, K-1100 road systems, and pit access roads.**
  - 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 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?  
**N/A**
- c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?  
**N/A**
- 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, approximately 2,555 feet of new construction, 15,467 feet of reconstruction and 93,388 feet of pre-haul maintenance are proposed to meet the needs of the sale.**
  - 1) *How does this proposal impact the overall transportation system/circulation in the surrounding area, if at all?*  
**The proposal will have no additional impacts on the overall transportation system in the area.**
- e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.  
**No**
- f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates?  
**Approximately 5-15 trips per day thru peak harvest times. Peak harvest times are morning through early afternoon. Estimates are based on harvest traffic of similar sales.**

- 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.

N/A

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

**Roads will be constructed in compliance with HCP and Forest Practice requirements and will divert storm water onto stable forest floor.**

#### 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.

N/A

#### 16. Utilities

- a. Check utilities currently available at the site: N/A

electricity natural gas water refuse service telephone sanitary sewer  
septic system other \_\_\_\_\_

- b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

N/A

#### 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:



Name of signee Andrew Gorbett

Position and Agency/Organization NRS2/Washington DNR

Date Submitted: \_\_\_\_\_