

STATE FOREST LAND
SEPA ENVIRONMENTAL CHECKLIST

Purpose of checklist:

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants:

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use “not applicable” or “does not apply” only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

Questions in italics are supplemental to Ecology’s standard environmental checklist. They have been added by the DNR to assist in the review of state forest land proposals. Adjacency and landscape/watershed-administrative-unit (WAU) maps for this proposal are available on the DNR internet website at <http://www.dnr.wa.gov/sepa>. These maps may also be reviewed at the DNR regional office responsible for the proposal. This checklist is to be used for SEPA evaluation of state forest land activities.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Instructions for Lead Agencies:

Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

Use of checklist for nonproject proposals:

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the [SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS \(part D\)](#). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in Part B - Environmental Elements –that do not contribute meaningfully to the analysis of the proposal.

A. BACKGROUND

1. Name of proposed project, if applicable:

Timber Sale Name: **Q PHELPS CREEK**
Agreement # **30-088241**

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

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

Joe Smith, Forest Operations District Manager
WA DNR, Southeast Region
713 Bowers Road
Ellensburg, WA 98926
509.925.8510

4. Date checklist prepared: **12/28/2018**

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

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

a. *Auction Date:*

09/26/2019

b. *Planned contract end date (but may be extended):*

12/05/2021

c. *Phasing:*

None

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

No, go to question 8.

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

a. *Site Preparation:* **None.**

b. *Regeneration Method:* **None.**

c. *Vegetation Management:* **None.**

d. *Other:*

Road maintenance assessments will be conducted and may include periodic ditch and culvert cleanout, and grading as necessary. Construction, reconstruction, and abandonment are associated with this forest management activity.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal. *Note: All documents are available upon request at the DNR Region Office.*

- 303 (d) – listed water body in WAU:
 - temp
 - sediment
 - completed TMDL (total maximum daily load)

- Landscape plan:
- Watershed analysis:
- Interdisciplinary team (ID Team) report:
- Road design plan:
- Wildlife report:
- Geotechnical report:
- Slope Stability additional information form:
- Other specialist report(s):
- Memorandum of understanding (sportsmen’s groups, neighborhood associations, tribes, etc.):
- Rock pit plan:
- Other: **Forest Practices Board Manual; Forest Practices Activity Map; Policy for Sustainable Forests (PSF 2006); State Soil Survey; Habitat Conservation Plan (HCP 1997, and HCP Amendment #1 for the Klickitat HCP Planning Unit April 2004); HCP Checklist; LRM reports; Road Maintenance and Abandonment Plan (RMAP #270086L). The following information is provided by DNR’s GIS database: WAU Rain-On-Snow Layer; Spotted Owl Habitat Layer; and USGS and GLO maps; 20-Year Forest Health Strategic Plan; and Region Biologist Habitat Assessment.**

Referenced documents may be obtained at the region office responsible for this proposal.

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

None known.

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

- FPA/FPHP # **2706685** FPHP # _____ Board of Natural Resources Approval
- Burning permit Shoreline permit Existing HPA
- Other: **Incidental take permit: PRT 81252**

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

a. Complete proposal description:

This proposal is a timber harvest on State Trust land in Klickitat County. The timber sale is a variable density thinning harvest of 3 timber sale units with a total acreage of 348 acres, with 343 net harvest acres and a total harvest volume of 3,366 MBF. Existing forest roads will be maintained and/or reconstructed where necessary, and used for the harvest. The

timber sale is located 6 miles north of Husum, WA in a block of State forestland managed as part of the HCPs Husum Sub-Landscape managed for Northern spotted owl (NSO) habitat.

The timber stands are second growth Douglas-fir stands of approximately 80 years of age. The proposal is a variable density thinning removing approximately 40% of the basal area from 8"-24" diameter classes, while retaining the legacy trees and protecting the largest diameter class (over 30"dbh) with 1/10 acre no cut skips. Cut trees are defined by those with less than 40% crown ratios in Units 1 and 2, and 30% in Unit 3, have height to diameter ratios over 100, or those within a small clump, within 1/10 acre, with trees that meet previous description. Trees marked with an orange paint ring are to receive a ¼ acre gap cut around them. The stand is 95% Douglas-fir and the majority of trees harvested will be Douglas-fir.

A stream channel within Unit 1 is protected by a 50' RMZ that has been bounded out of the unit. A stream channel south of Unit 3 is protected by a 50' RMZ and bounded out of the unit. The forest haul roads lead directly onto State Highway 141. The timber will be machine cut and ground skidded.

There will be 4,281 feet of pre-haul maintenance, 1,688 feet of optional construction, and 722 feet of required reconstruction. Post-harvest there is 1,688 feet of post-haul maintenance and 722 feet of abandonment.

Unit	Proposal Acres (gross)	RMZ/WMZ Acres	Potentially Unstable Slope Acres	Existing Road Acres (within unit)	Sale Acres	Leave Tree Clump Acres	Net Harvest Acres
1		5	0	6	135	5	130
2		5	0	0	30	0	30
3		5	0	6	183	0	183
Totals	363	15	0	12	348	5	

Road acres are included in the total harvest acres (343) and not added to the gross acres additionally.

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

Pre-harvest Stand Description:

Unit	Origin Date	Major Timber Species	Type of Harvest
1	1939	Douglas fir	Partial harvest
2	1957	Douglas fir	Partial harvest
3	1943	Douglas fir	Partial harvest

The timber stands are fairly uniform second growth stands of 95% Douglas-fir and 3% grand fir, and 2% bigleaf maple. The dense and uniform stocking has produced a single-storied stand with relatively narrow overall diameter range. The stands have differentiated into healthy dominant individual Douglas-fir trees of approximately 20”-28” dbh, with the remainder of the trees in an intermediate/suppressed class of short crowned smaller diameter trees. There are approximately 3 Legacy trees per acre greater than 30” dbh. There are pockets of root rot where mortality has allowed small canopy openings, but they are not large enough for viable natural regeneration.

In the absence of a thinning treatment, mortality will continue and eventually increase in the suppressed and intermediate trees due to the overstocking of the stand. This would further homogenize the stand. Post-treatment, the resulting stands will be stocked at a healthier density, releasing the remaining trees and allowing an understory to develop. These stands are expected to develop from the current single-storied canopies and stem exclusion phase stands, to further more complex structured multi-layered canopy stands.

An ice storm in January 2010 damaged a significant number of the smaller diameter trees throughout the stands. There was some blowdown, but most damaged trees suffered broken boles. Many of the smaller diameter trees that suffered broken boles in the ice storm have since died. All standing dead trees will be retained, where operationally safe to do so.

Overall Unit Objectives:

The objectives of this timber sale are geared to meeting the HCP goals of putting NSO non-habitat stands on a trajectory towards becoming habitat. The prescription will reduce the relative density of the stand by 40% with a proportional thinning. This will increase and preserve the structural complexity and NRF habitat features to improve the likelihood of sustaining a NRF condition in the future. The thinning will increase the quadratic mean diameter, retain and recruit snags, retain large dead and down material and protect legacy Douglas fir trees within 1/10 acre no cut skips. As well as habitat enhancement, the sale will increase fire resilience by reducing crown connectivity, stand density and fuel loading, and introduce gaps within the thinning to vary spacing.

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

Type of Activity	How Many	Length (feet) (Estimated)	Acres (Estimated)	Fish Barrier Removals (#)
Construction		1,688	2	0
Reconstruction		722		0
Abandonment		722	0.8	0
Bridge Install/Replace	0			0
Stream Culvert Install/Replace (fish)	0			0
Stream Culvert Install/Replace (no fish)	1			
Cross-Drain Install/Replace	2			

There is also 4,281 feet of pre-haul maintenance associated with this timber sale.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist (See “WAU Map(s)” and “Timber Harvest Unit Adjacency Map(s)” as referenced on the DNR website: <http://www.dnr.wa.gov/sepa>. Click on the DNR region of this proposal under the Topic “Current SEPA Project Actions - Timber Sales.” Proposal documents also available for review at the DNR Region Office.)

a. *Legal description:* **T4-0N R10-0E S03, T4-0N R10-0E S02, T5-0N R10-0E S28, T5-0N R10-0E S34, T5-0N R10-0E S27, T5-0N R10-0E S33 in Klickitat County**

b. *Distance and direction from nearest town (see the driving map listed on the DNR website for further information):* **The proposal area is approximately 6 miles north of Husum, Washington and is accessed via Highway 141. The two forest roads into the sale area are designated the B4500 and the B5000.**

13. *Cumulative Effects*

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

This timber harvest is located within the Gilmer Creek Watershed Administrative Unit (WAU).

The low to mid elevation lands in the WAU are a mixture of agricultural land, home sites and forest land, whereas the uplands are mainly managed for timber production. Ownership includes industrial forests, United States Forest Service, small private, and DNR managed

forests. Forested stands within the WAU are primarily second and third growth stands. The numbers of forest practices shown on the WAU map along with observations within the WAU indicate that the WAU is intensively managed for timber production, including regeneration harvests and partial cuts.

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

The DNR has a 20-year Forest Health strategy for the eastern Cascades that has prioritized thinning activities within the White Salmon and Trout Lake watersheds. The Phelps Creek thinning will support this strategy by increasing the stands vigor and resilience to forest pathogens and fire for the long term.

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

- **Retention of all biological legacy trees and leaving a 1/10 acre no cut skip around all trees over 30 inches DBH.**
- **NSO: Our goal is to move all stands within the Husum block closer to meeting our HCP habitat objectives for NRF by developing prescriptions through consultations between the foresters and the region biologist to change the trajectory of the stand from non-habitat (stem exclusion, single cohort stands) to sustainable NRF stands.**
- **Analyzing, designing, and constructing roads to minimize effects on the environment.**
- **Retaining Riparian Management Zones (RMZ) of 50 feet wide along all Np and Ns streams. These measurements are intended to protect water quality, stream bank integrity, stream temperatures, and provide down woody debris. RMZs will develop older riparian forest characteristics that, in combination with other strategies, will help support older riparian forest dependent wildlife and aquatic species.**
- **Evaluating the proposal for potential slope stability. The entire sale area was evaluated and nothing of concern was found. Slopes over 45% and inner gorges are absent from the sale area.**

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

After harvest, western hemlock seedlings will be planted strategically on the site in order to promote an increase in stand structural complexity post-harvest. Understory vegetation will be disturbed and/or reduced within the proposed harvest area as a result of timber felling, bucking,

yarding and site preparation activities. Most of the vegetation will robustly re-establish within 2 to 3 years.

The 303d listed water within the Gilmer WAU for temperature sensitivity is a ½ mile section of the White Salmon River just above the confluence with Rattlesnake Creek. This location is approximately 10 miles downstream from the proposed partial harvest timber sale, and no impacts to temperature of the White Salmon River are anticipated from this harvest proposal. The RMZ along the seasonal stream in Unit 1 will limit any changes to stream temperature in this section and it is 10 miles above the section of the White Salmon River that is sensitive to temperature.

A regular maintenance schedule will be followed to allow for proper road surface runoff and drainage. Haul routes for this proposal have been evaluated for potential environmental impacts. To ensure sediment is minimized during hauling, cross-drains, sediment ponds, and other structures may be used to disconnect ditch water from flowing streams. Road ditch water will be routed to the forest floor for filtering to prevent it from entering live streams. New road construction was located on stable ridge-top locations when feasible.

d. Based on the answers in questions A-13-a through A-13-c, is it likely potential impacts from this proposal could contribute to any environmental concerns listed in question A-13-a?

No.

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

WAU Name	Total WAU Acres	DNR-owned WAU Acres	Acres of DNR proposed even-aged harvest in the future	Acres of DNR proposed uneven-aged harvest in the future	Acres of proposed harvest on non-DNR-managed lands currently under active FP permits
GILMER CREEK	24653	9024	162	348	214

Sub-basins have not been delineated within eastside WAU’s. Other management activities, such as stand and road maintenance, will likely occur within the associated WAU.

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site (check one):

- Flat, Rolling, Hilly, Steep Slopes, Mountainous, Other:

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

WAU:	GILMER CREEK
WAU Acres:	24653
Elevation Range:	370 - 4288 ft.
Mean Elevation:	1740 ft.
Average Precipitation:	49 in./year
Primary Forest Vegetation Zone:	Grand Fir series

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

The timber sale is at approximately 2200' elevation on the mid-slope of the west side of the WAU, west of Highway 141.

- a. What is the steepest slope on the site (approximate percent slope)?
The steepest slopes are approximately 40% on less than 10% of the site.
- b. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

Note: The following table is created from state soil survey data. It is an overview of general soils information for the soils found in the entire sale area. The actual soil conditions in the sale area may vary considerably based on land-form shapes, presence of erosive situations, and other factors.

State Soil Survey #	Soil Texture	Number of Acres within the Proposal
8088	GRAVELLY LOAM	204
1344	GRAVELLY LOAM	69
1045	LOAM	63
8089	GRAVELLY LOAM	7
3904	COBBLY LOAM	5

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

No, go to question B-1-e.

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

There was a large deep-seated slope failure at the top of Wieberg Creek during the significant 1996 rain-on-snow event in February of that year. The failure is a very steeply inclined northeast facing slope at the top of Wieberg creek. Within the inner gorge, the

underlying soil was unconsolidated material that had been exposed by the stream action and when the slope failed it slid material more than 2 ½ miles downstream.

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

No *Yes, describe the proposed activities:*

2) *Describe any slope stability protection measures (including sale boundary location, road, and harvest system decisions) incorporated into this proposal. **The proposed site is on upland slopes less than 30% and stable soil types. The potentially unstable soil types are on steeper slopes and in inner gorges along streams which were excluded from the proposed harvest area.***

d. 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 acres

Approx. acreage new landings: 0.2 acres

Fill Source: N/A

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

Yes. Some erosion could occur as a result of building new roads, abandonment of old roads, installing culverts, and hauling timber.

f. 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 2% of the site will be covered with impervious road surface after project completion.

g. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

*(Include protection measures for minimizing compaction or rutting.) **Operational timing restrictions will limit wet weather compaction and rutting. Road drainage structures will be improved and maintained during the logging operation. The road design includes the addition of several cross drain culverts and the lessening of some grades to limit the runoff effects of the road network. Skid trails within the units will be water barred and have logging slash deposited along them to control runoff as needed.***

2. Air

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

Minor amounts of engine exhaust from logging and road construction equipment and dust from vehicle traffic on roads will be emitted during proposed activities. If landing debris is

burned after harvest is completed, smoke will be generated. There will be no emissions once the proposal is complete.

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

c. Proposed measures to reduce or control emissions or other impacts to air, if any:
If landing debris is burned, it will be in accordance with Washington State’s Smoke Management Plan. A silvicultural burn permit will be obtained before burning occurs.

3. Water

a. Surface Water:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into. (See “WAU Map(s)” and “Timber Harvest Unit Adjacency Map(s)” as referenced on the DNR website: <http://www.dnr.wa.gov/sepa>. Click on the DNR region of this proposal under the Topic “Current SEPA Project Actions - Timber Sales.” Proposal documents also available for review at the DNR Region Office.)

No Yes, describe in 3-a-1-a through 3-a-1-c below

a. Downstream water bodies: **A type Np creek lies between Units 1 and 2 and flows into Wieberg creek and then into the White Salmon River. Phelps creek is north of Unit 1, and Wieberg creek is south of Unit 2. Both of these creeks are type F and flow into the White Salmon River. There is 1 Np creek on the north side of Unit 3 and on the south side an Ns stream flows into an F stream and then flows into the White Salmon 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	Perennial (Np)	4	50'
Unnamed stream	Seasonal (Ns)	1	50'

c. List any additional RMZ/WMZ protection measures including silvicultural prescriptions, road-related RMZ/WMZ protection measures and wind buffers.
There are several streams adjacent to the sale boundaries, and one Ns (seasonal) stream within Unit 1, however a 50’ RMZ (riparian management zone) will protect the channel and soils. The stream channel south of Unit 3 will be protected as an Np creek and a 50’ RMZ protects this channel.

There are several streams adjacent to the timber sale boundaries. To the north of unit 1 runs a fish creek, which has been bounded out using the natural slope break and protects the stream with an average of 500' buffer. An Np (perennial) creek within unit 1 has been bound out with a 50' buffer. Between units 1 and 2 runs an Np creek that has been protected with 50' buffer except where the existing road crosses. For additional protection, several acres of timber between the two units and adjacent to the streams have been left as a protective buffer leave area. North of unit 1, an Np creek has been protected with a minimum 50' buffer. On the south side of unit 3, an Ns stream has been protected with a 50' buffer.

- 2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

No

Yes (See RMZ/WMZ table above and timber sale maps which are available on the DNR website: <http://www.dnr.wa.gov/sepa>. Timber sale maps are also available at the DNR region office.)

Description (include culverts): **Timber harvest will occur adjacent to the RMZ within Unit 1. All type Np/ Ns creeks outside of the timber sale boundaries are a minimum of 50 feet outside of the timber sale boundaries. Timber hauling will occur over the type Np creek between Unit 1 and 2. A one season, temporary culvert will be installed and will be removed following the harvest.**

- 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. **The temporary culvert that is to be installed on the stream between Unit 1 and Unit 2 will be installed with geotextile fabric and covered with pit run rock. The borrow pit is on the B5010 road adjacent to the site. Approximately 8 yards of rock may be utilized.**

- 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: **A temporary diversion of water will be required during the installation and subsequent removal of the temporary culvert.**

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

No

Yes, describe activity and location:

- 6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

It is not likely that any waste materials will be discharged into the surface water(s). However, minor amounts of oil, fuel, and other lubricants may inadvertently be discharged to the adjacent surface water(s) as a result of heavy equipment use or mechanical failure. No lubricants will be disposed of on-site.

- 7) *Is there a potential for eroded material to enter surface water as a result of the proposal considering the protection measures incorporated into the proposal's design?*

No Yes, describe:

The sub-basin contains erosive soils on slopes greater than 45% and terrain susceptible to mass wasting along inner gorges and slopes greater than 70%. There is potential for un-vegetated slopes within the sub-basin to supply eroded material to surface waters, but this risk is mitigated by is minimized due to the erosion control measures and operational procedures outlined in B-1-h.

- 8) *What are the approximate road miles per square mile in the associated WAU(s)?*

GILMER CREEK = 4.7 (mi./sq. mi.)

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

No Yes, describe:

It is likely some roads or road ditches within the WAU intercept sub-surface flow and deliver surface water to streams, however current road construction, reconstruction, and/or maintenance standards will be applied that address this issue by installing cross-drains to deliver ditch water to stable forest floors.

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

No Yes, describe observations: **The erosion along Wieberg creek from the 1996 storm resulted in a severely degraded stream channel and a loss of substantial amounts of soil and streamside vegetation. The channel is much wider and deeper and eroded down to underlying unconsolidated large cobble that does not support renewed vegetative cover.**

- 11) *Describe any anticipated contributions to peak flows resulting from this proposal's activities which could impact areas downstream or downslope of the proposal area. This proposal is a thinning that will leave a hydrologically mature forest canopy and thus no increases to peak flows are expected.*

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

No Yes, describe the water resource(s): **There is an undocumented domestic intake downstream of Unit 3.**

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

No Yes, describe possible impacts:

13) *Describe any protection measures, in addition to those required by other existing plans and programs (i.e. the HCP, DNR landscape plans) and current forest practice rules included in this proposal that mitigate potential negative effects on water quality and peak flow impacts. **All streams have been bounded out of the sale area. Fish creeks and those with inner gorges and/or slopes susceptible to erosion were also bounded out from the sale area.***

The boundary of Unit 3 is well above the water intake and along the top of the slope. No ground disturbance will occur that would impact this site. See also b.1.d.5. and B.1.h. for further protection measures. The post-harvest stand will remain hydrologically mature, the stream channels are protected with buffers to maintain natural drainage, and the road network will be upgraded to disperse runoff water more regularly through the addition of cross drains and other road design improvements. Chemical spill kits are required to be onsite while any operations are occurring.

b. Ground Water:

1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.

No water will be withdrawn or discharged.

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve. **Minor amounts of oil, fuel, and other lubricants may inadvertently be discharged to the ground as a result of heavy equipment use or mechanical failure. No lubricants will be disposed of on-site. All**

spills are required to be contained and cleaned-up. This proposal is expected to have no impact on ground water.

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

No *Yes, describe: **The downstream domestic intake is a surface source as stated above. It will not be affected by changes to groundwater amounts, timing, or movements. This proposal is not anticipated to affect groundwater.***

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

No *Yes, describe possible impacts:*

Note protection measures, if any: N/A

c. Water runoff (including stormwater):

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

Water runoff, including storm water, from road surfaces will be collected by roadside ditches and diverted onto the forest floor via ditch-outs and cross drain culverts.

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

No *Yes, describe:*

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

Note protection measures, if any:

No additional protection measures will be necessary to protect these resources beyond those described in B-1-d-2, B-1-h, B-3-a-2, and B-3-a-13. The B5010 road into Unit 2 will be abandoned following the harvest and the stream adjacent portion will be ripped, water barred and seeded.

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

No changes to drainage patterns are expected.

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:

1. All road drainage structures will be maintained in an operable state during and after logging operations.

2. Roads have been designed to divert water to the forest floor to minimize the risk of erosion.

3. Operational restrictions will exist during wet conditions to minimize rutting and soil disturbance on skid trails and logging roads while the proposal is in operation. No operations will be allowed from November 1 thru April 30th unless ground and weather conditions are favorable.

4. Skid trails will be water barred at the completion of each setting on slopes over 20% or as needed.

5. Existing roads, landings and skid trails will be used wherever practical

6. Chemical spill kits are required to be onsite while any operations are occurring.

(See surface water, ground water, and water runoff sections above, questions B-3-a-1-c, B-3-a-13, B-3-b-3, and B-3-c-2.)

4. Plants

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

Deciduous tree:

Alder Aspen Birch Cottonwood Maple Western Larch

Other:

Evergreen tree:

Douglas-Fir Engelmann Spruce Grand Fir Lodgepole Pine

Mountain Hemlock Pacific Silver Fir Ponderosa Pine Sitka Spruce

Western Hemlock Western Redcedar Yellow Cedar

Other:

Shrubs:

Huckleberry Rhododendron Salmonberry Salal

Other: **Oregongrape, vine maple, snowberry**

Ferns

Grass

Pasture

Crop or Grain

Orchards Vineyard Other Permanent Crops

Wet Soil Plants:

Bullrush Buttercup Cattail Devil's Club Skunk Cabbage

Other:

Water plants:

Eelgrass Milfoil Water Lily

Other:

Other types of vegetation: **The stands can be classified as the federal plant association of Grand fir/Dwarf Oregongrape/Vanillaleaf [CWS2 24]**

Plant communities of concern:

Grand Fir / Vanillaleaf, S Rank: S3, G Rank: G3
Grand Fir / Oceanspray, S Rank: S2, G Rank: G2G3

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

Proportional thinning from 8"-24" removing approximately 62 TPA. The thinning will be done by creating an individual tree, clump, and gap structure through the timber sale unit. Cut trees are defined by those with less than 40% crown in units 1 and 2 and 30% crown in unit 3, have height to diameter ratios over 100, or those within a small clump, within 1/10 acre, with trees that meet previous prescription. Approximately 3.37 MMBF will be removed.

- 1) *Describe the species, age, and structural diversity of the timber types immediately adjacent to the removal area. (See "WAU Map(s)" and "Timber Harvest Unit Adjacency Map(s)" on the DNR website: <http://www.dnr.wa.gov/sepa>. Click on the DNR region of this proposal under the Topic "Current SEPA Project Actions - Timber Sales." Proposal documents also available for review at the DNR Region Office.)* **To the east of unit 1 and 2 is an NSO nest core. The nest core is a 95-year-old stand comprised primarily of Douglas fir and grand fir. To the west of units 1 and 2 is a slightly younger stand, approximately 55 years old, mostly Douglas fir and grand fir.**

Along the south boundary of Unit 3 are some open grassy areas with ponderosa pine, Oregon white oak, and ocean spray. The majority of the other surrounding stands are a similar stand type as the unit itself.

There are large legacy Douglas fir trees scattered throughout all of the units and several adjacent stands.

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

None found in corporate database

- d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any: **Post-harvest a small amount of western hemlock will be planted in the understory in larger gaps in the stand to promote a new cohort.**

- e. List all noxious weeds and invasive species known to be on or near the site. **None.**

5. Animals

- a. List any birds and other animals *or unique habitats* which have been observed on or near the site or are known to be on or near the site. Examples include:

birds:

eagle hawk heron owls songbirds

other:

mammals:

bear beaver coyote cougar deer elk

other:

fish:

bass herring salmon shellfish trout

other:

amphibians/reptiles:

frog lizard salamander snake turtle

other:

unique habitats:

balds caves cliffs mineral springs oak woodlands talus slopes

other:

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

TSU Number	Common Name	Federal Listing Status	State Listing Status
PHELPS CREEK U1	Northern Spotted Owl	Threatened	Endangered

The Phelps Creek NSO site #874 is located approximately 0.8 miles from the north boundary of Unit 1. The Wieberg Creek NSO site #1116 is located approximately 0.5 miles from the south boundary of Unit 1. Both nest sites have a protected nest core established and no harvest activities will occur within them. The 0.7 mile timing restriction from March 1st – August 30th will apply to approximately 42 acres of Unit 1, 2 acres of Unit 2, and 6 acres of Unit 3.

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

Pacific flyway Other migration route:

Explain:

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

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

Species /Habitat: **All** Protection Measures: **The timber sale is within the Husum sub-landscape of the DNR's HCP and is managed for NRF habitat for northern spotted owls but is classified as non-habitat. The sale objective is to promote the stand development towards NRF habitat.**

The harvest is intended to reduce the stand stocking and promote development of a more structurally complex stand in order to create conditions for future nesting, roosting, and foraging (NRF) habitat. The expected result of this activity is to increase the stands vigor and resilience to forest pathogens and fire for the long term. All legacy trees will be retained, as well as high quality wildlife trees with forks, mistletoe, and large diameter snags. A seasonal timing restriction will limit operations within 0.7 miles of the nest site.

Northern goshawks have been observed in the vicinity, however no documented or know nest sites are near the timber sale. The contract requires any observations of goshawks during harvest activities to be reported.

- e. List any invasive animal species known to be on or near the site. **No known or found in the database.**

6. Energy and natural resources

- a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.
Petroleum fuel (diesel or gasoline) will be used for heavy equipment during active road building, timber harvest operations, and for transportation. No energy sources will be needed following project completion.
- b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.
No.
- c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:
None.

7. Environmental health

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste that could occur as a result of this proposal? If so, describe. **There is a minimal hazard from fluid spills incidental to operating heavy equipment. There is the possibility of fire ignition during the operating period, especially during fire season.**
 - 1) Describe any known or possible contamination at the site from present or past uses.
None known.
 - 2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.
None known.
 - 3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.
Petroleum-based fuel and lubricants may be used and stored on site during the operating life of this project.

- 4) Describe special emergency services that might be required.
The Department of Natural Resources, private, and fire protection district suppression crews may be needed in case of wildfire. In the event of personal injuries, emergency medical services may be required. Hazardous material spills may require Department of Ecology and/or county assistance.
- 5) Proposed measures to reduce or control environmental health hazards, if any:
No petroleum-based products will be disposed of on site. If a spill occurs, containment and cleanup will be required. Spill kits are required to be onsite during all heavy equipment operations. The cessation of operations may occur during periods of increased fire risk. Fire tools and equipment, including pump trucks and/or pump trailers, will be required on site during fire season.

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

b. Noise

- 1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?
None.
- 2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.
There will be short term, low level and high level noise created by the use of harvesting equipment and hauling operations within the proposal area. This type of noise has been historically present in this geographical area.
- 3) Proposed measures to reduce or control noise impacts, if any:
None.

8. Land and shoreline use

- a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe. (*Site includes the complete proposal, e.g. rock pits and access roads.*)
**The adjacent land is used is managed for forest resources.
This proposal will not change the use of or affect the current/long term land use of areas associated with this sale.**
- b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other

uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

This proposal site has been used as working forest lands. This proposal will retain the site in working forest lands.

- 1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:
No.
- c. Describe any structures on the site.
None.
- d. Will any structures be demolished? If so, what?
No.
- e. What is the current zoning classification of the site?
Forest Resources.
- f. What is the current comprehensive plan designation of the site?
Forestry and Range.
- g. If applicable, what is the current shoreline master program designation of the site?
Not applicable.
- h. Has any part of the site been classified as a critical area by the city or county? If so, specify.
No.
- i. Approximately how many people would reside or work in the completed project?
None.
- j. Approximately how many people would the completed project displace?
None.
- k. Proposed measures to avoid or reduce displacement impacts, if any:
Does not apply.
- l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:
This project is consistent with current comprehensive plans and zoning classifications.
- m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any:
None.

9. Housing

- a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.
Does not apply.
- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.
Does not apply.
- c. Proposed measures to reduce or control housing impacts, if any:
None.

10. Aesthetics

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?
Does not apply.
- b. What views in the immediate vicinity would be altered or obstructed?
 - 1) *Is this proposal visible from a residential area, town, city, recreation site, major transportation route or designated scenic corridor (e.g., county road, state or interstate highway, US route, river or Columbia Gorge SMA)?*

 No *Yes, name of the location, transportation route or scenic corridor:*
 - 2) *How will this proposal affect any views described above?* **N/A**
- c. Proposed measures to reduce or control aesthetic impacts, if any:

11. Light and glare

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?
None.
- b. Could light or glare from the finished project be a safety hazard or interfere with views?
No.
- c. What existing off-site sources of light or glare may affect your proposal?
None.
- d. Proposed measures to reduce or control light and glare impacts, if any:
None.

12. Recreation

- a. What designated and informal recreational opportunities are in the immediate vicinity?
There are no designated recreation opportunities in the proposal area. Snow mobiling, hunting, and camping take place informally.
- b. Would the proposed project displace any existing recreational uses? If so, describe.
There may be some disruptions to recreational use during periods of harvesting and hauling.
- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any: **Warning signs for log trucks and logging activities will be posted in the area of the proposal. Informal recreation will only be displaced for the short-term and then will resume at the end of the proposal.**

13. Historic and cultural preservation

- a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers? If so, specifically describe. **No.**
- b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources. **No.**
- c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.
Historic maps and GIS data were reviewed.
- d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.
If a presently-unknown cultural resource is discovered during project operations, DNR will comply with the March 2010 Cultural Resources Inadvertent Discovery Guidance.

14. Transportation

- a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.
Highway 141
- b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?
No. Nearest transit spot is approximately 11 miles away.
- c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?
None.

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

Yes, see A-11-c.

- 1) *How does this proposal impact the overall transportation system/circulation in the surrounding area and any existing safety problem(s), if at all?*

This project will have minimal to no additional impacts on the overall transportation system in the area.

- e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

No.

- f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and non-passenger vehicles). What data or transportation models were used to make these estimates?

Approximately 10 to 15 truck trips per day while the operation is active. Peak volumes would occur during the yarding and loading activities between 4:00 a.m. and 4:00 p.m. of the operating period. The completed project will generate less than one vehicular trip per day. Estimates are based on the observed harvest traffic of past projects.

- g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

No.

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

None.

15. Public services

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

No.

- b. Proposed measures to reduce or control direct impacts on public services, if any.

None.

16. Utilities

- a. Check utilities currently available at the site:

electricity natural gas water refuse service telephone sanitary sewer
 septic system other: **None.**

- b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.
None.

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: 

Name of signee Joe Smith

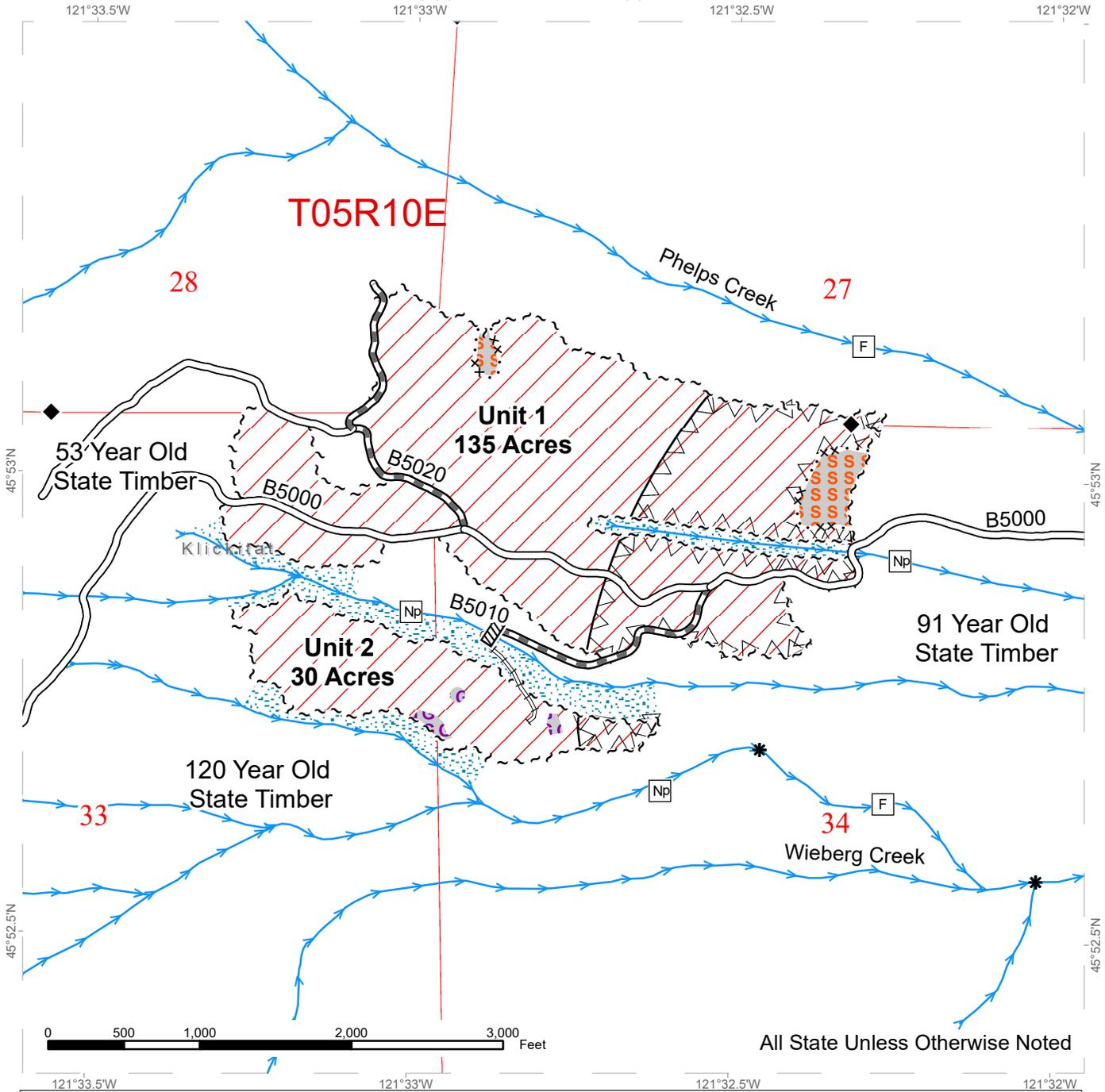
Position and Agency/Organization Forest Operations Manager, WA DNR

Date Submitted: 05/10/19

TIMBER SALE MAP

SALE NAME: PHELPS CREEK
AGREEMENT #: 30-088241
TOWNSHIP(S): T4R10E, T5R10E
TRUST(S): Common School and Indemnity (3), State Forest Transfer (1)

REGION: Southeast Region
COUNTY(S): Klickitat
ELEVATION RGE: 1000'-2560'



All State Unless Otherwise Noted

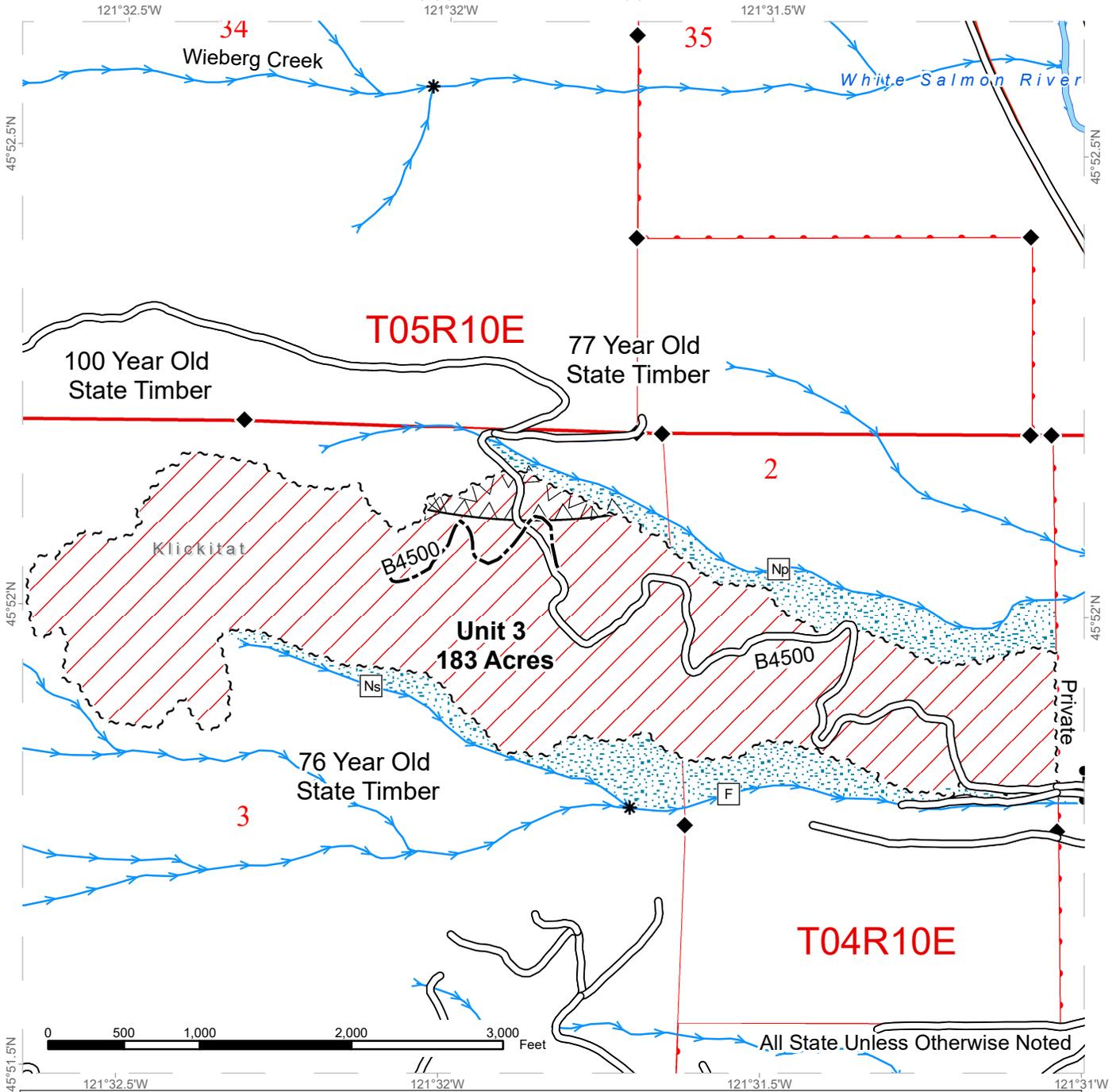
◆ Survey Monument	▨ Timber Sale Area	□ Sections
□ Stream Type	▨ Timing Restriction	▭ Townships
* Stream Type Break	▨ Gap	— Existing Roads
▨ Culvert	▨ Riparian Management Zone	▨ Required Pre-Haul Maintenance
~ ~ ~ Sale Boundary Tags	▨ Skip	▨ Required Reconstruction
... × Special Management Area Tags		
→ Streams		



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* Stream Type Break	▨ Riparian Management Zone	▨ DNR Managed Lands
~ ~ ~ Sale Boundary Tags		— Existing Roads
→ Streams		- - - Optional Construction

