

## *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:* **FLASHBACK VRH & VDT**

*Agreement #:* **30-091746**

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

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

**Washington Department of Natural Resources**

**South Puget Sound Region**

**950 Farman Avenue North**

**Enumclaw, WA 98022**

**Audrey Mainwaring**

**(360) 802-7001**

4. Date checklist prepared: **03/07/2016**

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

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

a. *Auction Date:* **01/24/2017**

b. *Planned contract end date (but may be extended):* **10/31/2018**

c. *Phasing:* **Not applicable.**

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

*Timber Sale:*

a. *Site preparation:*

**Units 1-4: Ground herbicide hand spray as needed to ensure establishment of planted seedlings.**

**Unit 5: None**

b. *Regeneration Method:*

**Units 1-4: Hand plant with native conifer species. Units will be planted at a density that meets or exceeds Forest Practice standards.**

**Unit 5: None**

c. *Vegetation Management:*

**Units 1-4: Vegetation management needs will be assessed from plantation ages three to eight. Vegetation control activities will be scheduled as needed.**

**Unit 5: None**

d. *Thinning:*

**Units 1-4: Pre-commercial thinning needs may be assessed at approximately 8-12 years of age.**

**Unit 5: None**

**Roads: Roads that are part of this proposal will receive periodic road maintenance such as grading, ditch cleanout, and vegetation management during harvest activities. The mainline haul roads outside the harvest area will be used for future forestland management activities such as timber harvesting and fire control. The roads that will remain open after completion of timber harvest activities will be maintained as part of a road maintenance plan for the Pleasant Valley State Forest. The purchaser of this timber sale proposal will be required to complete road maintenance on those roads used as part of this proposal.**

**Rock Pits and/or Sale: Rock for the construction of landings and surfacing for the new road construction may come from the Peavy Pit located in the E½, SW¼, Section 29, Township 15 North, Range 05 East, W.M.**

**Other: None**

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

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

Landscape plan:

Watershed analysis:

Interdisciplinary team (ID Team) report:

Road design plan: **Included in the Road Plan, dated 03/04/2016**

Wildlife report: **Wildlife Habitat Assessment, dated 04/18/2016**

Geotechnical report:

Other specialist report(s):

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

Rock pit plan: **Included in the Road Plan, dated 03/04/2016**

Other:

- 1.) Owl Habitat surveys for 1996
- 2.) Policy for Sustainable Forests
- 3.) State Soil Survey
- 4.) GIS WAU Analysis: Maps and data pertaining to Mass Erosion and Erosion Potential, Hydrologic Maturity, roads per square mile, and rain-on-snow zone. This information has been adjusted where more recent and accurate proprietary data exists.
- 5.) P&T Special Concerns Report
- 6.) DNR's 1997 Habitat Conservation Plan
- 7.) Final EIS South Puget Planning Unit Forest Land Plan
- 8.) Emails dated 2/05/2014 from Lee Stilson (State Lands Archaeologist)
- 9.) NSO Settlement Agreement, 2006, PR14-001-030
- 10.) DNR Road Maintenance and Abandonment Plan #240027

*Referenced documents may be obtained from the South Puget Sound Region office in Enumclaw 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 known.**

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

FPA    FHPA    Burning permit    Shoreline permit    Incidental take permit    Existing HPA    Other: **Board of Natural Resources Approval**

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 Flashback VRH & VDT Timber Sale proposal lies within the East Creek Watershed Administrative Unit (East Creek WAU). The project area selected for consideration was around 102 acres, which was reduced to 97.9 net acres after consideration of the Riparian Management Zones (RMZs), Northern Spotted Owl habitat, potentially unstable slopes, leave trees, existing road acres and those areas not feasible for timber harvest and will be removing approximately 3,011 MBF of merchantable timber. This is a second growth mixed conifer and hardwood stand comprised of a mix of Douglas-fir, western hemlock, western red cedar, red alder, bigleaf maple, black cottonwood, and Pacific silver fir. The stands composing the harvest units are between 70 to 85 years old.**

**The proposal consists of eight harvest units, including four with variable retention harvest (VRH) prescriptions, one with variable density thinning (VDT) prescriptions, and three right-of-way units. Roadwork associated with this proposal includes 4,424 feet of new construction, 14,091 feet of required pre-haul maintenance, 1,682 feet of reconstruction and 1,085 feet of road decommissioning of newly constructed forest roads.**

**Unit 1:**

- **Approximate Net Acres: 7**
- **Type of Harvest: VRH**
- **Logging System: Ground based**
- **Estimated Removal Volume: 211 MBF**

**Unit 2:**

- **Approximate Net Acres: 3**
- **Type of Harvest: VRH**
- **Logging System: Ground based**
- **Estimated Removal Volume: 34 MBF**

**Unit 3:**

- **Approximate Net Acres: 21**
- **Type of Harvest: VRH**
- **Logging System: Ground based**
- **Estimated Removal Volume: 1,332 MBF**

**Unit 4:**

- **Approximate Net Acres: 4**
- **Type of Harvest: VRH**
- **Logging System: Ground based**
- **Estimated Removal Volume: 245 MBF**

**Unit 5:**

- **Approximate Net Acres: 62**
- **Type of Harvest: VDT, retaining a relative density (RD) of 40**
- **Logging System: Cable/Ground based**
- **Estimated Removal Volume: 1,064 MBF**

**Right-of-Ways A-C:**

- **Approximate Net Acres: 2**
- **Logging System: Ground based**
- **Estimated Removal Volume: 125**

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

**The proposed harvest units are primarily located on flat and rolling terrain with a large portion of Unit 5 located on a steep hillside. The proposed harvest has slopes between 0 and 87 percent. Elevation of the proposal ranges from 1,356 to 2,059 feet.**

**The majority of the harvest area is in the stem exclusion stage of development. The five harvest units are composed of 70 to 85 year old mixed conifer and hardwood (with Units 1, and 2 dominated by hardwood), fire –regenerated, hydrologically mature second growth forest. Trees fully occupy the site and form a single main canopy layer. Where understory is present, it is dominated by Oregon grape, salal, sword fern and vine maple. The proposal area is located approximately three miles southwest of the town of Elbe within the Pleasant Valley area.**

**Short-term objectives:**

- 1) **Create revenue for trust beneficiaries through timber harvest.**
- 2) **Provide legacy trees for the future stands. In VRH Units 1-4, residual trees will be well distributed throughout the harvest unit and will create structural diversity over time and will provide habitat for various species of animals and plants.**
- 3) **In VRH Units 1 and 2 (currently hardwood dominant), native conifer stands will be established within two years of harvest. The growth of these trees may be enhanced and managed by altering the density of the plantation through pre-**

commercial thinning in order to produce future high quality timber, dispersal habitat, and increase hydromaturity levels.

- 4) **Habitat Enhancement:** Treat stands with thinning and hardwood conversion to enhance and develop quality spotted owl movement and wildlife habitat.
- 5) **Resource Protection:** Type 3 streams and wetlands will be protected in riparian management zones and wetland management zones. Any road construction through these areas will be kept to a minimum in length and width so as to minimize any negative impact on their function and the habitat they provide. Type 5 streams will be protected through use of equipment limitation zones.

**Long-term objectives:**

- 1) The primary objective of the treatment in Units 3 and 4 will be to stimulate wood production, generate trust revenue, create new canopy layers, and enhance important structural components to produce stand conditions associated with older stands.
- 2) In VRH Units 1-4, **Timber Stand Improvement:** a series of intermediate thinnings and harvests will be scheduled as needed during the development of the new stands.
- 3) **Habitat Management:** maintain, and improve the components within the developing stand with each succeeding treatment as part of the overall objective to create quality spotted owl movement and wildlife habitat.
- 4) **Resource Protection:** the protection of soil productivity and water quality will remain priorities. Each harvest prescription will be crafted to prevent soil erosion and limit compaction. Large coarse woody debris and recruitment snags will be left to contribute to site productivity. Management activities within the established RMZs and WMZs will be designed to maintain protection of water quality.
- 5) Create a sustainable source of revenue for trust beneficiaries.
- 6) Maintain hydrologic maturity across DNR managed lands.

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		4424	1.6	
Reconstruction		1682		
Abandonment		0	0	
Bridge Install/Replace				
Culvert Install/Replace (fish)	0			
Culvert Install/Replace (no fish)	7*			

\*All 7 culverts are installations.

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:* :

**Section 35, Township 15 North, Range 04 East, W.M. – Timber harvest  
 Section 36, Township 15 North, Range 04 East, W.M.– Timber harvest  
 Section 25, Township 15 North, Range 04 East, W.M.– Road  
 Construction Section 29, Township 15 North, Range 05 East, W.M.–  
 Rock pit**

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

**The proposal is located approximately 6.4 miles, by road, southwest of the town of Elbe.**

**From Elbe, drive south on S.R. 7 for approximately 2.2 miles. Turn west on Pleasant Valley Rd. and follow for 2.1 miles. To reach the Peavy Pit, turn north onto the PV100 Rd. and follow for 1.2 miles. Turn north to keep following the PV100 Rd. and continue for 0.7 miles to reach the rock pit. To reach the harvest units, continue on the Pleasant Valley Rd. for another 1.3 miles. Turn south onto private road and follow for 0.8 miles to reach the beginning of new road construction.**

c. *Identify the names of all watershed administrative units (WAU). See also landscape/WAU map on DNR website: <http://www.dnr.wa.gov/sepa> under the topic "Current SEPA Project Actions – Timber Sales" for a broader landscape perspective.*

WAU Name	WAU Acres	Proposal Acres
EAST CREEK	20284.80	98

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/sepa> for a broader landscape perspective.)*

Name of WAU	DNR ACRES EVEN-AGED HARVESTED IN LAST 7 YEARS + SOLD TIMBER SALES NOT HARVESTED YET (WILL BE EVEN AGED HARVESTING)	DNR ACRES UNEVEN-AGED HARVESTED IN LAST 7 YEARS	DNR PLANNED HARVEST ACRES WITHIN NEXT FIVE YEARS	PRIVATE ACRES EVEN-AGED HARVESTED IN LAST 7 YEARS	PRIVATE ACRES UNEVEN-AGED HARVESTED IN LAST 7 YEARS
EAST CREEK	41	27	362	777	80

The East Creek WAU is 20,285 acres in size, 18.5 percent of the WAU is state owned non-DNR land, 65.6 percent is in private ownership, and 15.9 percent is in federal ownership. In the past seven years on private lands within the WAU, approximately 4.2 percent of the land base has had some form of forest practices harvest or road activity. The DNR managed lands within the WAU have had forest practice applications on approximately less than 1 percent of the land base per year over the last seven years. In the next five year period the majority of the acres harvested in the WAU on DNR managed lands will come from thinnings which will maintain hydrologic maturity levels.

It is anticipated that the implementation of the procedures of the DNR Habitat Conservation Plan (HCP) and compliance with existing Forest Practice Rules will minimize or prevent any potential impact that this proposal may have 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).*

The East Creek WAU is generally varied with steep mountainous slopes in the western and southern portions of the WAU, rolling topography in the eastern half of the WAU and flat, gentle topography in the Nisqually River Valley. Elevations range from 1,095 feet and 4,079 feet with an average elevation of 1,786 feet.

There are five precipitation ranges within the WAU. They range from a low of 50 inches to a high of 90 inches per year. The majority of the precipitation falls within the 50 to 70 inch range, mostly falling between October and June. In areas above 2,500 feet, snow normally covers the ground from December through March. The temperatures range from lows below 0 degrees Fahrenheit during the winter in the higher elevations to highs in the 90s during the summer in the lower elevations.

Major forest types found in this WAU consist of Douglas fir, western hemlock and red alder with western red cedar, black cottonwood, and big leaf maple present to a lesser extent. Noble fir and Pacific silver fir are found in the higher elevations.

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

The proposal area is a representative example of the East Creek WAU at the same elevation and aspect.

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

**87 percent.**

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	% Slope	Mass Wasting Potential	Erosion Potential
5268	LOAM	5-15	INSIGNIFIC'T	MEDIUM
6097	PHEENEY-ROCK OUTCROP-COMPLEX	30-65	No Data	No Data
1097	SILT LOAM	0-8	INSIGNIFIC'T	MEDIUM
6087	GRAVELLY LOAM	30-65	LOW	MEDIUM
3940	SILT LOAM	0-3	INSIGNIFIC'T	LOW
2406	SILT LOAM	0-8	INSIGNIFIC'T	MEDIUM

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

1) *Surface indications:*

**Multiple landslides originated from the steep drainage basin west/southwest of the proposal area during a rain-on-snow storm in December 2007. Timber within this drainage basin is not included in the proposal. Areas identified during remote and field reviews that suggested potential instability and delivery potential to typed water, such as bedrock hollows and inner gorges, were excluded from the proposal harvest area.**

2) *Is there evidence of natural slope failures in the sub-basin(s)?*

No  Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:

**There have been natural, shallow slope failures that deposited sediment and organic debris in the channel migration zone of streams protected within the RMZs south of the proposal area. Coarse sediment and woody debris deposition was concentrated in the upper reaches of the streams where steep, confined stream channels transitioned to lower gradient, poorly confined channels. Finer grained sediment deposition occurred farther downstream. These landslides initiated in the upper reaches of sub-basin 4 during a rain-on-snow storm in December 2007 at the downslope of the PV 2 Road and PV 310 Road located west and uphill of the PV 2. The coarser sediments were subsequently reworked farther downstream during a rain-on-snow storm in 2009.**

- 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:*

**There have been shallow rapid slope failures in more mountainous portions of the WAU. The majority of these failures have occurred in the vicinity of old roads. For example, some of the landslides referred to above in the upper reaches of sub-basin 4 initiated at the now abandoned PV 310 Road. The failures were caused, in part, by poor road locations, inadequate engineering/design of the roads, and lack of road maintenance.**

- 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:*

**There are no similarities between the proposed sale area and those areas of the WAU and sub-basins where slope failures have occurred in the past.**

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

**The harvest boundaries and road locations are designed to exclude areas identified as potentially unstable with the likelihood of delivery to public resources. One end of all logs will be suspended during the yarding operations. Harvest operations will be suspended during wet weather, if in the opinion of the contract administrator the operation has the potential to damage public resources. To control impacts on the soils that could result in excessive soil displacement and exposure, ground-based equipment will not be allowed on sustained slopes steeper than 45 percent.**

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

*Approx. acreage new roads: 1.6      Approx. acreage new landings: 1      Fill Source: N/A*

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

**Minimal erosion may occur as the result of road construction, road use, and logging operations.**

- 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):*

**The impervious surfacing consists of rock applied to the surface of the roads and landings. This amounts to approximately 2 percent of the sale area.**

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

- **A detailed Road Plan is included as part of the Timber Sale Contract to ensure the following:**
  - **Roads will be crowned or in-sloped and cross drained or out-sloped to provide for water drainage.**
  - **Cross drains will be properly spaced, installed, and maintained.**
  - **Protection measures to avoid sediment delivery will be addressed as needed during operations and may include the use of water bars, catch basins, or silt traps.**
  - **There will be periodic maintenance and inspection of the road system to ensure proper drainage.**
- **Falling, yarding and timber haul will not be permitted on weekdays from 8:00 pm to 5:00 am and from November 1<sup>st</sup> – April 30<sup>th</sup>. Permission to do otherwise must be granted in writing by the State.**
- **No timber haul, rock haul, or road construction will be permitted on weekends or State recognized holidays unless permission is granted in writing by the Contract Administrator.**
- **A detailed plan of operations will be developed by the Purchaser and approved by the Contract Administrator prior to commencing operations.**

## 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.

**Minimal amounts of engine exhaust from logging equipment, log trucks and automobile exhaust will be emitted as a result of this proposal.**

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

**None.**

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:

East Creek, Alder Lake, and the Nisqually 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	3	1	185-foot no harvest buffer
Unnamed Streams	5	9	30 foot equipment limitation zone (ELZ), or excluded from the proposal
Wetland	Forested	1	185-foot no harvest buffer
Wetland	A	1	185-foot no harvest buffer

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

The streams adjacent to this proposal were identified during field reconnaissance. The stream types were determined using physical stream characteristics according to DNR's Trust Forestland Habitat Conservation Plan (HCP) water typing system. Refer to the associated timber sale map for stream types and locations.

- Type 3 stream(s) are protected with a 100-year site index (SI) buffer.
- Type 5 stream(s) within the harvest area have a 30 foot equipment limitation zone (ELZ).
- 2 wetland(s) are protected with a 100-year site index (SI) 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 map available at DNR region office.)

*Description (include culverts):*

**Timber harvest will occur beyond the RMZ and WMZ distances listed in the above table. Harvest operations will occur adjacent to Type 5 streams and yarding may occur over Type 5 streams within the harvest. Cables may be strung over any of the listed streams, but no yarding will occur over streams outside of the harvest boundary.**

**There are seven stream culverts that will be installed in typed water as part of road construction.**

- 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

**None.**

- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. (Include diversions for fish-passage culvert installation).

No  Yes, description:

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

No  Yes, describe location:

**A temporary skid trail and temporary Type 5 stream crossing will be located within the 100 year flood plain of a Type 3 stream.**

- 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 East Creek WAU has steep incised slopes, which are mostly associated with stream channels in the higher elevations. The erosion potential for soils in the immediate proposal vicinity is considered medium to low. The mass wasting potential for soils in the immediate proposal vicinity is considered low to**

insignificant. The unit boundary excludes all identified potentially unstable slopes and landforms, minimizing potential for eroded material to enter surface water. The potential for eroded material to impact some of the streams within the proposal area is minimal. This data was collected from soil mapping descriptions of the WAU.

- 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:

**Major changes in the amount of large organic debris, channel width, and location are primarily due to large scale rain-on-snow events and annual spring runoff. Within the WAU, there is evidence to suggest that for example, within the upper reaches of sub-basin 4, shallow surface failures have occurred during major rain-on-snow events resulting in changes to the stream channels.**

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

No       Yes, explain:

**This proposal should not significantly impact water quality. This conclusion is based upon examination of past logging and harvesting activities within the WAU and current design of the harvest units within the proposal. This proposal was designed to limit the increase of the potential for management-related mass wasting or an event that would significantly impact stream or water quality. There will be a temporary culvert in a Type 5 stream crossing of a skid trail to reduce disturbance to the stream bank and channel. Erosion control measures will be implemented as described in question B.1.h above to prevent the potential for sediment delivery to surface waters.**

- 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:

**The East Creek WAU contains an average of 4.8 miles of road per square mile. On non-DNR lands the average is 3.8 miles of road per square mile. On DNR lands the average is 0.9 miles per square mile.**

- 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:

East Creek WAU: 35.5% (ROS/Snow Dominated Zone: All Ownerships)

East Creek WAU Sub-basin #3: 23.0% (ROS/Snow Dominated Zone: All Ownerships)

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?

SUB-BASIN NAME	TOTAL ROS ACRES (DNR) WITHIN SUB-BASIN	HYDRO MATURE TARGET ACRES (2/3 OF COLUMN 2)	CURRENT DNR SUB-BASIN ACRES IN HYDRO MATURE FOREST IN ROS	ACRES OF HYDRO MATURE FOREST TO BE REMOVED	SURPLUS (+) OR DEFICIT (-) ACRES AFTER ACTIVITY
East Creek sub-basin #3	357	238	304	0	66

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):

There is evidence in the WAU and sub-basin #3 within the proposal area of channel modification that have been caused by peak stream flows. This is manifested in processes such as toe undercutting, scour, and over bank flows.

There is evidence in sub-basin #4 within the proposal area of changes to channels associated with peak flows. Specifically there is debris flow deposition and peak stream caused by the 2007 storm and peak stream flow and sediment reworking caused by the 2009 storm.

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.

There is no indication that past, current, or foreseeable future proposals working in combination with this proposal will contribute to a water runoff problem within the East Creek WAU. Measures were taken to identify the outer edge of the channel migration zone (CMZ) and to establish the RMZ from the edge of the CMZ which will provide increased protection per the HCP.

- 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.*

**The current guidelines for the HCP implementation include prescriptions that address the potential for peak flow impacts. HCP procedure PR-14-040-006 provides guidance for assessing the hydrological maturity levels for the sub-basins within the rain-on-snow zone. This policy is used to manage hydrological maturity levels and reduce impacts of timber harvest operations to peak flow rates. This proposal includes maintaining cross-drains and ditch-outs on the haul routes. These structures will ensure that ditch water is deposited on the forest floor and not allowed to flow directly into typed waters. Measures were taken to identify the outer edge of the channel migration zone (CMZ) and to establish the RMZ from the edge of the CMZ which will provide increased protection per the HCP.**

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.

**Ground water will not be withdrawn and no water will be discharged to groundwater. However, it is possible that minor amounts of subsurface flow will be intercepted with road construction excavation slopes. There are no known wells within the proposal area.**

- 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.

**Insignificant amounts of oil and other lubricants could be discharged inadvertently as a result of heavy equipment use. If spills occur, containment and cleanup will be required. Spill kits are required to be onsite during all heavy equipment operations.**

- 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.*

**None**

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.

**The location of cross drain culverts will be selected to disperse collected storm water from the ditches onto the forest floor. The frequent spacing of culverts will minimize the distance water flows before being dispersed onto the forest floor. Consequently, no surface or ditch water will flow directly into existing stream channels. Ditch outs will also be used to direct runoff onto the forest floor. No water runoff will be channeled onto exposed soils.**

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

No       Yes, describe:

**Minor amounts of motor oil, grease, and hydraulic fluids may leak form equipment or be washed off equipment by rainwater.**

a. *Note protection measures, if any.*

**No lubricants will be disposed of on site. If spills occur, containment and cleanup will be required. Spill kits are required to be onsite during all heavy equipment operations.**

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.)*

- **Proper landing location.**
- **Road construction and maintenance techniques utilizing Forest Practice Rules and**

best management practices.

- **Falling, yarding and timber haul will not be permitted from November 1<sup>st</sup>- April 30<sup>th</sup>.**
- **Use of sound, adequate ballast and surfacing for road construction and maintenance.**
- **Leave trees within the harvest unit will minimize soil displacement and surface erosion.**

**The following measures will be used to reduce and control the impacts of surface, ground and runoff water:**

- **Spacing and placement of the culverts with head walls;**
- **Frequent, catch basins, and energy dissipaters;**
- **Use of ditch outs.**

#### 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: vine maple

grass

pasture

crop or grain

wet soil plants:

cattail, buttercup, bullrush, skunk cabbage, devil's club,  
other:

water plants:

water lily, eelgrass, milfoil, other:

other types of vegetation: sword fern

plant communities of concern:

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

**Approximately 3,011 MBF of Douglas-fir, western hemlock, western red cedar, Pacific silver fir, red alder, big leaf maple, and cottonwood will be removed. The age**

of the timber is between 70 and 85 years old. There is some understory vegetation in areas within the harvest unit that will be disturbed or damaged during the felling and yarding process.

- 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/sepa>

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

The stands immediately adjacent to the proposed harvest area are private ownership along the northern and eastern boundary and DNR managed State trust lands within the Mashel WAU. Stands on DNR lands are second-growth, range in age from 70-85 years old and are dominated by Douglas-fir and western hemlock. Adjacent privately owned land consists of pasture to the north of unit 1, 2 and 5, recently harvested forest land to the east of unit 3 and 5, and a young plantation north of unit 4.

- 2) Retention tree plan:

Units 1-4 are variable retention harvest units that are designed to retain at least 8 trees per acre, all greater than 10 inches in diameter at breast height (DBH). These leave trees were selected from the dominant and co-dominant size classes, and are marked with a band of blue paint or yellow "Leave Tree Area" tags. The leave trees are individually scattered or clumped throughout the units.

Unit 5 is a variable density thinning harvest unit. Post-harvest stand conditions will be compliant with management parameters of the HCP and Forest Practice Rules while meeting stand objectives to improve productivity, understory vegetation development, NSO habitat and ecological function. The stand will be thinned to an average Relative Density (RD) of 40 and a residual density of 88 trees per acre.

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

None found in the TRAX database or onsite.

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

Replanting of native conifer species in harvest units 1-4 at a density that meets or exceeds Forest Practice standards within two years following harvest.

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

None known.

**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: **barred owl**

mammals:       deer, bear, elk, beaver, other: **mountain lion**

fish:           bass, salmon, trout, herring, shellfish, other:

*unique habitats*: talus slopes, caves, cliffs, oak woodlands, balds,  
mineral springs

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

<b>TSU Number</b>	<b>FMU_I D</b>	<b>Common Name</b>	<b>Federal Listing Status</b>	<b>WA State Listing Status</b>
1	94825	<b>SPOTTED OWL: Site 931- WILDCAT CR- NISQUALLY R</b>	<b>THREATENED</b>	<b>ENDANGERED</b>
1	94825	<b>SPOTTED OWL: Site:943- PLEASANT VALLEY- NISQUALLY</b>	<b>THREATENED</b>	<b>ENDANGERED</b>
2	94826	<b>SPOTTED OWL: Site:931- WILDCAT CR - NISQUALLY R</b>	<b>THREATENED</b>	<b>ENDANGERED</b>
2	94826	<b>SPOTTED OWL: Site:943- PLEASANT VALLEY NISQUALLY</b>	<b>THREATENED</b>	<b>ENDANGERED</b>
3	94827	<b>SPOTTED OWL: Site:931- WILDCAT CR - NISQUALLY R</b>	<b>THREATENED</b>	<b>ENDANGERED</b>
3	94827	<b>SPOTTED OWL: Site:943- PLEASANT VALLEY- NISQUALLY</b>	<b>THREATENED</b>	<b>ENDANGERED</b>
4	9179	<b>SPOTTED OWL: Site:931- WILDCAT CR - NISQUALLY R</b>	<b>THREATENED</b>	<b>ENDANGERED</b>

5	9178	SPOTTED OWL: Site:931- WILDCAT CR- NISQUALLY R	THREATENED	ENDANGERED
5	9178	SPOTTED OWL: Site 943- PLEASANT VALLEY- NISQUALLY	THREATENED	ENDANGERED

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

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

All of western Washington is within the Pacific flyway. It is possible that some migratory birds use this area as a stopping over point but none have been observed on site.

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

The Flashback proposal consists of 97.6 net acres. Units 1, 2, and 5 are located in the Pleasant Valley Nesting Roosting and Foraging (NRF) Spotted Owl Management Unit (SOMU) within the South Puget HCP planning unit. The Pleasant Valley NRF SOMU is at 0.84 percent total NSO Habitat. Units 3 and 4 are in lands not designated for Spotted Owl management and a variable retention harvest (VRH) has been prescribed. Units 1 and 2 are in “non-habitat” that is not identified as next best habitat and is available for the full range of management options. A variable retention harvest (VRH) has been prescribed to be hardwood conversions. Unit 5 is in Next-best NRF NSO habitat. A variable density thinning (VDT) retaining an average RD of 40 and a density of 88 trees per acre. This activity will not change any current amounts of total movement habitat with the Pleasant Valley NRF SOMU. This proposal is consistent with DNR’s HCP and PR 14-004-120 Northern Spotted Owl Management (Westside) and PR 14-001-030 Settlement Agreement.

This proposal is within the South Puget HCP Planning Unit, which does not have a Marbled Murrelet Reclassified Habitat Model. This proposal is not in nor within 300 feet of any identified potential, newly identified, or suitable habitat, PR 14-004-320.

This proposal is located within 2.7 miles of a Stat 1 R circle (Wildcat Creek) and a Stat 3 circle (Pleasant Valley). All harvest units are outside the inner core circle of both circles. See attached map for location of 70 best acres within the inner core of the Wildcat Creek circle. No restrictions apply.

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

Species /Habitat: **Riparian and wetlands**      Protection Measures: **HCP Buffers**

Species /Habitat: **Upland**

Protection Measures: **Scattered and clumped leave trees**

Species /Habitat: **Northern spotted owl**

Protection Measures: **See above**

**There have been eagles observed in the Alder Lake Area. No nests have been observed or are known in the proposal area.**

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

**Barred owl (*Strix varia*)**

## 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 products will be used for transportation and equipment.**

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

**No.**

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

**None.**

## 7. Environmental health

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

**Minimal amounts of oil and other lubricants may be accidentally discharged during heavy machinery operation. There is some risk of fire if operations occur during dry times of the year.**

- 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.

**Oil based products will be used by equipment during the development and operating life of the 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 from Elbe, Ashford, Morton, or Eatonville 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:

**During the fire season, April 15 through October 15, operators will comply with all State fire laws and have the proper fire equipment on site. In addition, operations will be suspended if the onsite relative humidity falls below 30 percent. A 300 gallon water supply is required to be on site during the "Closed Season".**

**No oil based products will be disposed of on site. If spills occur, containment and cleanup will be required. Spill kits are required to be onsite during all heavy equipment operations.**

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 within the proposal area. This type of noise has been historically present in this geographical area. The typical hours of operation will be Monday through Friday from 5:00 a.m. to 8:00 p.m.**

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

**Timber haul, road construction, and rock haul will not be permitted on weekends or State recognized holidays without prior written approval from the Contract Administrator.**

**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.)*

**Rural residential, timber production and forest management. The proposal will not affect current land uses on nearby or 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 project site has been used as working forest lands. Approximately 2 percent of the project area will be converted to logging roads and landings as a result of this proposal.**

- 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 Zone.**

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

**Timber production.**

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

**Does not apply.**

- h. Has any part of the site been classified as a critical area by the city or county? If so, specify.

No.

- i. Approximately how many people would reside or work in the completed project?

None.

- j. Approximately how many people would the completed project displace?

None.

- k. Proposed measures to avoid or reduce displacement impacts, if any:

None.

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

**This proposal is located within the Forest Resources Zone of Lewis County and is compatible with that designation. The use of harvest planning information based on data taken from DNR's GIS database, and strict adherence to the DNR's Forestry Handbook and the HCP will assure that this proposal is compatible with the existing and projected land use and plans. The DNR's Forestry Handbook is on file at the South Puget Sound Region office in Enumclaw.**

- m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:

None.

## 9. Housing

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

None.

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

None.

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

None.

## 10. Aesthetics

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

**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, 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?*

**Not applicable.**

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

**None.**

## **11. Light and glare**

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

**None.**

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

**No.**

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

**None.**

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

**None.**

## **12. Recreation**

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

**There are informal recreational activities such as hiking, hunting, and horseback riding around the proposal site.**

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

**There will be some disruptions to recreational use of the area 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:

**Timber haul, road construction, and rock haul will not be permitted on weekends or state recognized holidays unless approved in writing by the Contract Administrator.**

### 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.

**None were found in the area based on a TRAX search, review of the Department of Archeology and Historical Preservation (DAHP) database and field review.**

- 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 known.**

- 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.

**Consultation with a Cultural Resource Technician and review of sites listed on the DAHP database.**

- 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 cultural resources or human remains are found during active operations, all activities will cease until the area has been investigated, and the DNR guidelines for Inadvertent Discovery will be followed.**

### 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.

**The haul route will utilize DNR forest roads within the Pleasant Valley block, private and county roads, Pleasant Valley Road and SR – 7.**

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?

**No, the nearest transit is 20 miles away in Morton.**

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).

**No.**

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

**There will not be any increase over historic levels.**

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?

**There may be 10 to 15 round trips per day while the operation is active. Peak volumes would occur during the yarding and loading activities between 5:00 a.m. and 8:00 p.m. of the operating period. No truck traffic will occur directly from this proposal once the project is complete.**

- 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.

**Accidents would need to use existing emergency services provided by the local communities. Wildfire would need fire response from the local fire districts and the Department of Natural Resources.**

- 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: David Lorence

Name of signee David Lorence

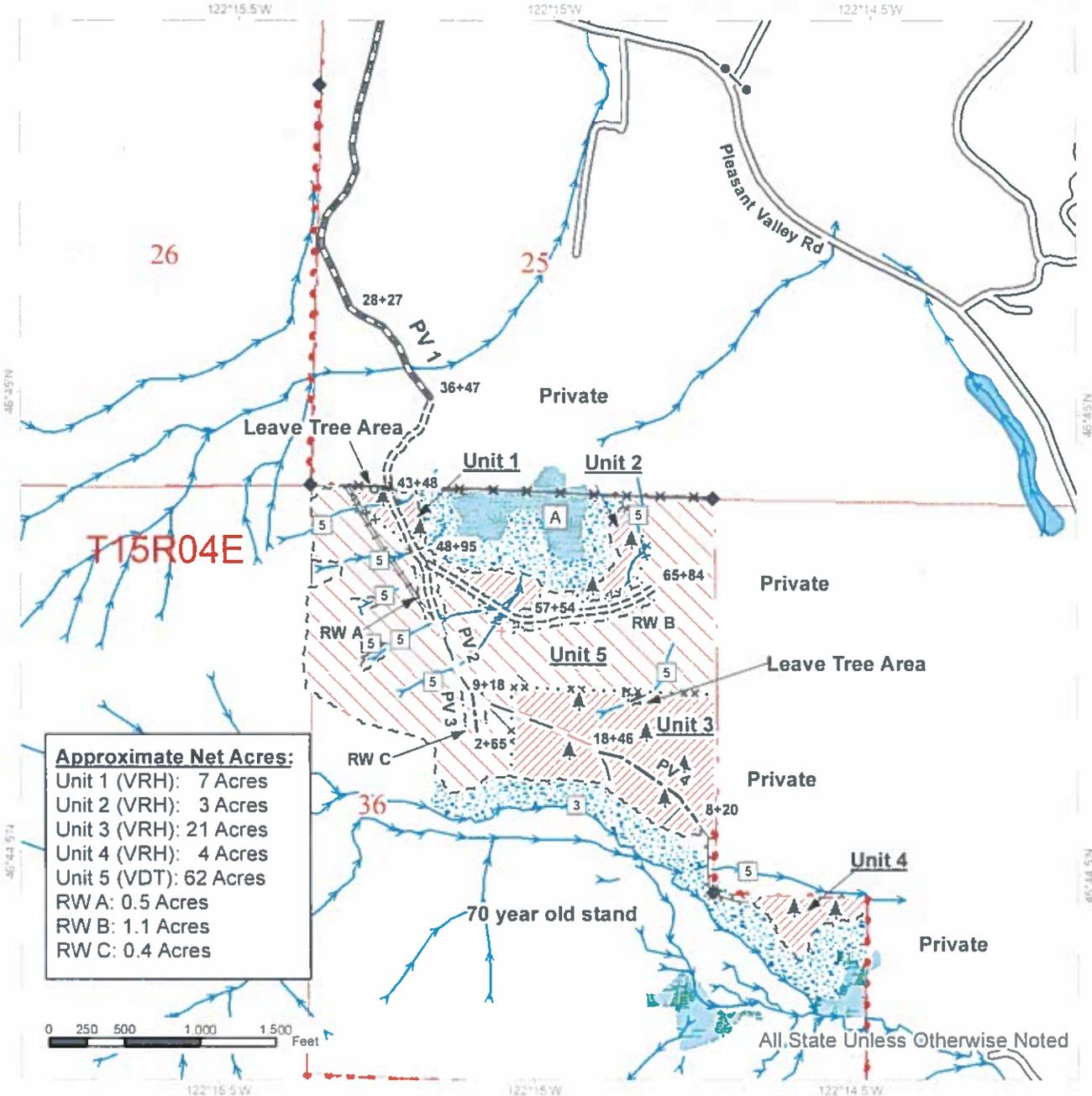
Position and Agency/Organization State Lands Assistant Region Manager

Date Submitted: 8/5/2016  
AEM 8-4-16

# TIMBER SALE MAP

**SALE NAME:** FLASHBACK VRH & VDT  
**AGREEMENT #:** 30-091746  
**TOWNSHIP(S):** T15R04E  
**TRUST(S):** State Forest Transfer(1), Common School and Indemnity(3), Charitable/Educational/Penal & Reformatory Instit (6), Capitol Grant(7)

**REGION:** South Puget Sound Region  
**COUNTY(S):** LEWIS  
**ELEVATION RGE:** 1,352 - 2,398 ft



**Approximate Net Acres:**

- Unit 1 (VRH): 7 Acres
- Unit 2 (VRH): 3 Acres
- Unit 3 (VRH): 21 Acres
- Unit 4 (VRH): 4 Acres
- Unit 5 (VDT): 62 Acres
- RW A: 0.5 Acres
- RW B: 1.1 Acres
- RW C: 0.4 Acres



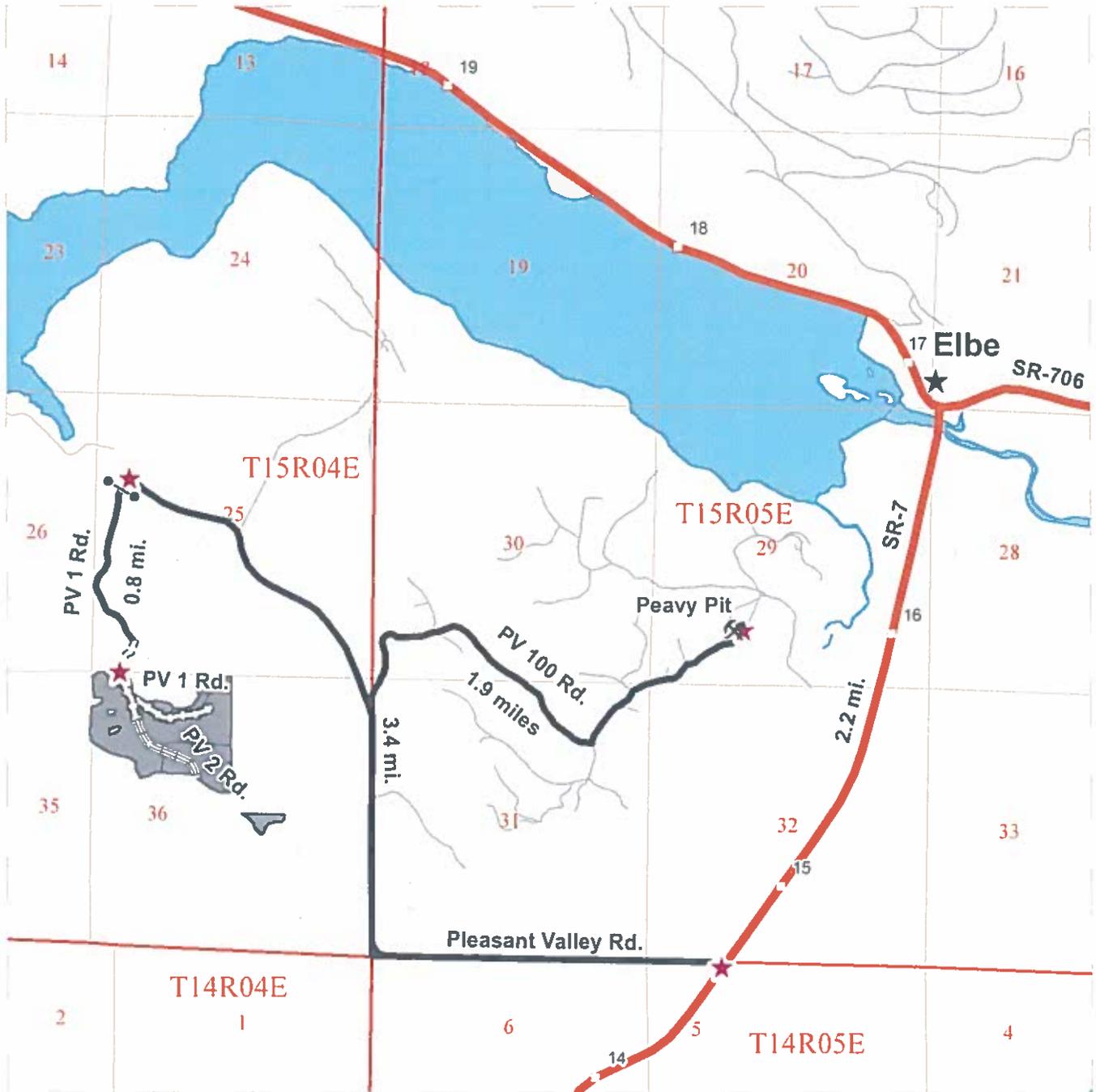
~ ~ ~ Sale Boundary Tags	Existing Roads	Leave Trees
... x Special Mgmt Area	Required Pre-Haul Maintenance	Monumented Corner
~ ~ Leave Tree Tags	Required Construction	Gate Installation
~ ~ Right of Way Tags	Optional Construction	Leave Tree Area
--- Property Line	Optional Reconstruction	Riparian Mgt Zone
Variable Retention Harvest	Designated Skid Trail	Forested Wetland
Variable Density Thinning	Existing Abandon/Orphan Road	Nonforested Wetland
	Fence	Public Land Survey Sections
		Public Land Survey Townships
		DNR Managed Lands



# DRIVING MAP

SALE NAME: FLASHBACK  
 AGREEMENT#: 30-091746  
 TOWNSHIP(S): T15 R04E S36  
 TRUST(S): State Forest Transfer(1), Common School and Indemnity(3), Charitable/Educational/Penal & Reformatory Instit.(6), Capitol Grant(7)

REGION: South Puget Sound Region  
 COUNTY(S): LEWIS  
 ELEVATION RGE: 1,352 - 2,398 ft.



## DRIVING DIRECTIONS:

From Elbe, drive south on SR 7 for approximately 2.2 miles. Turn west on Pleasant Valley Rd for approximately 3.4 miles. Turn south on private land owner road for 0.8 miles and arrive at Unit 1.

Peavy Pit: From SR 7, drive west on the Pleasant Valley Rd. for 2.1 miles. Turn northeast on the PV-100 Rd. and follow for 1.9 miles to reach the Peavy Pit.