

STATE FOREST LAND
SEPA ENVIRONMENTAL CHECKLIST

Purpose of checklist:

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

Instructions for applicants:

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

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

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

Instructions for Lead Agencies:

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

Use of checklist for nonproject proposals:

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

A. BACKGROUND

1. Name of proposed project, if applicable:

Timber Sale Name: **LONE SPRUCE**

Agreement # **30-091527**

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

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

Mike Potter
411 Tillicum Lane
Forks, WA. 98331
(360) 374-2800

4. Date checklist prepared: **08/07/2014**

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

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

a. Auction Date: **03/25/2015**

b. Planned contract end date (but may be extended): **10/31/2016**

c. Phasing: **N/A**

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

Timber Sale:

a. Site preparation:

Unit 6 will need treatment prior to planting

b. Regeneration Method:

Unit 1 Hand Plant 57 Acres 1/30/2017

Unit 2 Hand Plant 27 Acres 1/30/2017

Unit 3 Hand Plant 5 Acres 1/30/2017

Unit 4 Hand Plant 39 Acres 1/30/2017

Unit 5 Hand Plant 4 Acres 1/30/2017

Unit 6 Hand Plant 33 Acres 1/30/2017

c. Vegetation Management:

Vegetation management will be assessed as needed.

d. *Thinning:*

PCT needs will be assessed in 10-12 years after harvest.

Roads:

Road maintenance, periodic ditch and culvert clean out as needed.

Rock Pits and/or Sale:

Pits will continue to be used for timber sale and road maintenance needs.

Other:

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

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

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

Landscape plan:

Watershed analysis:

Interdisciplinary team (ID Team) report:

Road design plan: **September 2014**

Wildlife report:

Geotechnical report:

Other specialist report(s):

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

Rock pit plan: **Loop Tavern Pit**

Other: **Final Habitat Conservation Plan (September 1997), Forestry Handbook (August 1999), Sustainable Harvest Calculation (Sept 2004), Spotted Owl Habitat Mapping, Forest Practices board manual, Forest Practices Activity Maps, Policy for Sustainable Forests (PSF 2006), HCP Checklist, Planning and Tracking reports and associated maps, Road Maintenance and Abandonment Plan (RMAP) #2610029 for the Dickodochtedar, 12-Step watershed assessment . The following documents are all generated by Department GIS databases: OESF Habitat Marbled Murrelet Habitat Model, Marbled Murrelet Habitat Proximity Map.**

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain. **None**

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

HPA Burning permit Shoreline permit Incidental take permit FPA 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:*

Lone Spruce Timber Sale is located approximately 8 - 14 road miles northwest of Forks, Washington, off the D-2000 road system. Lone Spruce is a 6 unit variable retention harvest located on State Forest Board-Transfer and State Capitol land within the Coast District of Olympic Region. The sale proposal is located within the Lower Dickey, East-Fork Dickey, and West-Fork Dickey WAU's. The total proposal area encompasses approximately 254 acres. Excluding riparian and unstable slope protection, leave tree areas, and existing roads, the net harvest acreage is 165. Leave trees were selected both individually and in clumps throughout the units. Three fish blockages were identified and will be replaced on the D-2300 road with this sale. This proposal was designed under guidelines of the HCP.

Estimated Sale Volume:	4,433 MBF
Total Proposal Acres:	254
RMZ, WMZ Protection:	78
Leave Tree Acres:	4
Existing Road Acres:	7
Net Harvest Acres:	165
Clumped Leave Trees:	780
Scattered Leave Trees:	660
Total Leave Trees:	1440

Approximately 1,009 feet of new construction, 5,032 feet of reconstruction, and 24,115 feet of pre-haul maintenance are proposed to meet the needs of the sale. Rock will come from Loop Tavern Pit located in T29 R13W Sec 3

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

This proposed harvest will be a VRH of mixed conifer timber ranging from 34-46 years old. Tree species are predominately western hemlock, Douglas-fir, Sitka spruce, with minor amounts of red alder, and western red cedar. The average DBH of all species is approximately 15 inches. Existing understory vegetation is primarily sword fern, salmonberry, and salal. The sale will utilize 85% ground based and 15% cable based logging methods. Leave trees have been left both dispersed and aggregated throughout the sale area.

Unit 1 is 82 acres in size and consists of 42-44 year old second growth timber; Douglas-fir, and western hemlock are the primary species. Of the 82 acres there are approximately 57 harvest acres, 4 acres of existing road, 1 acre of Leave Tree Areas, and 20 acres of riparian and wetland management zone protection. The terrain throughout the unit is hilly with slopes ranging from 10-70% with an elevation range from 240-440 feet. Cable and a small amount of ground based harvest will be used throughout this unit. There are three leave tree areas containing 293 trees with the remainder of leave trees dispersed throughout the unit for a total of 488 retention trees.

Unit 2 is 37 acres in size and consists of 42 year old second growth timber. Douglas- fir and Sitka spruce are the primary species. Of the 37 acres assessed for harvest there are approximately 27 harvest acres, 2 acres of existing road, a 1 acre leave tree area, and 7 acres of riparian and wetland protection. Maximum slope in the unit is 25% with an elevation range of 80-160 feet. Ground based harvest will be used throughout the unit. There is one leave tree area containing 95 trees with an additional 145 scattered throughout the unit for a total of 240 retention trees.

Unit 3 is 15 acres in size and consists of 46 year old second growth timber. Douglas- fir and Sitka spruce are the primary species. Of the 15 acres there are approximately 5 acres of harvest. There are 42 scattered leave trees throughout the unit. 10 acres of the unit were deferred from harvest for riparian management zones. The steepest slope in the unit is 15%. Site elevation varies from 220-240 feet. Ground based harvest will be used throughout this unit.

Unit 4 is 60 acres in size and consists of 36-38 year old second growth timber. Douglas -fir and Sitka spruce are the primary species. Of the 60 acres assessed for harvest there are approximately 39 acres of harvest, 1 acre leave tree area, and 20 acres of riparian and wetland protection. The steepest slope in the unit is 15% with an elevation range of 240-280 feet. There are 140 trees in the leave tree area with an additional 188 scattered throughout the unit for a total of 328 leave trees. Ground based harvest will be used throughout this unit.

Unit 5 is an 11 acre unit that consists of 36-38 year old second growth timber. Douglas- fir and Sitka spruce are the primary species. Of the 11 acres assessed for harvest there are approximately 4 harvest acres and 7 acres are being deferred from harvest for riparian management zones. There are 37 scattered leave trees throughout the unit. The steepest slope in the unit is 35% with an elevation between 240-280 feet. Ground based harvest will be used throughout the unit.

Unit 6 is a 58 acre unit that consists of 34-38 year old second growth timber. Douglas- fir and Sitka spruce are the primary species. Of the 58 acres assessed for harvest there are 33 harvest acres, 1 acre of leave trees, 1 acre of existing road and 23 acres have been deferred from harvest for riparian and wetland protection. The steepest slope in the unit is 25% with

an elevation range from 160-240. There are three leave tree areas with a total of 215 leave trees. The remaining 90 leave trees are scattered throughout the unit for a total of 305 retention trees.

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		1009	1	0
Reconstruction		5,032		0
Abandonment		0	0	0
Bridge Install/Replace	0			0
Culvert Install/Replace (fish)	3			3
Culvert Install/Replace (no fish)	2			

In addition, approximately 24,115 feet of pre-haul maintenance is planned with this sale. This will consist of grading, ditching, brushing and installing cross drains on existing forest roads.

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:* :

**T29N R14W S17
T29N R14W S23
T29N R14W S26
T29N R14W S27
T29N R14W S34
T29N R13W S3 – Loop Tavern Pit**

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

This proposal is located 8-14 miles northwest of Forks, Washington off the D-2000 road system.

c. *Identify the watershed administrative unit (WAU), the WAU Sub-basin(s), and acres. (See also landscape/WAU map on DNR website:*

<http://www.dnr.wa.gov/ResearchScience/sepa/Pages/Home.aspx> under the topic “Current SEPA Project Actions – Timber Sales” for a broader landscape perspective.

WAU Name	WAU Acres	Proposal Acres
LOWER DICKEY	25727.7	66
EF DICKEY	25759.5	151
WF DICKEY	27140.4	37

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

The proposed Lone Spruce timber sale is located in the Lower Dickey, East-Fork Dickey, and West-Fork Dickey WAU’s within the Olympic Experimental State Forest. The surrounding and adjacent land to the proposal area are managed by the DNR and private land owners. The following tables break down land ownership within the WAUs. (See color landscape/WAU map on the DNR website <http://www.dnr.wa.gov> under “SEPA Center.”)

East Fork Dickey

Land Manager	Acres	% of WAU
DNR	11510	44.7
Other Land (Private & Other Public Land)	14250	55.3

West Fork Dickey

Land Manager	Acres	% of WAU
DNR	2234	8.2
Other Land (Private & Other Public Land)	24906	91.8

Lower Dickey

Land Manager	Acres	% of WAU
DNR	7731	30.0
Federal	4653	18.1
Tribal	17	0.1
Other Land (Private & Other Public Land)	13327	51.8

Activities within the past seven years and those proposed for the near future are summarized for these WAU's in the following tables. In the future, stands will be selected for variable retention, thinning, and partial cut harvests as they meet the Department's financial and ecological policies and mandates. It is unknown what future plans other landowners have within this WAU.

Lower Dickey WAU

Harvest Type	Acres on DNR Land	Acres on Non-DNR Land	Acres on All Lands
EVEN-AGE	135	277	341
SALVAGE	0	23	23
UNEVEN-AGE	0	93	93
PLANNED EVEN-AGED	75	UNKNOWN	145
PLANNED UNEVEN-AGED	0	UNKNOWN	0
PLANNED SALVAGE	0	UNKNOWN	0

East Fork Dickey WAU

Harvest Type	Acres on DNR Land	Acres on Non-DNR Land	Acres on All Lands
EVEN-AGE	476	394	803
SALVAGE	11	27	38
UNEVEN-AGE	725	74	310
PLANNED EVEN-AGED	100	UNKNOWN	161
PLANNED UNEVEN-AGED	0	UNKNOWN	344
PLANNED SALVAGE	0	UNKNOWN	0

West Fork Dickey WAU

Harvest Type	Acres on DNR Land	Acres on Non-DNR Land	Acres on All Lands
EVEN-AGE	252	621	873
SALVAGE	0	630	630
UNEVEN-AGE	0	0	0
PLANNED EVEN-AGED	50	UNKNOWN	50
PLANNED UNEVEN-AGED	0	UNKNOWN	0
PLANNED SALVAGE	0	UNKNOWN	0

This proposal and all future management activities on DNR lands will be conducted in accordance with the State's Habitat Conservation Plan (HCP, 1997), Policy for Sustainable Forests (2006), and Forest Practices Rules. The HCP is an agreement with the federal government concerning threatened and endangered species and their habitat, which requires DNR to manage landscapes with the intent to preserve and enhance habitat used by fish and older forest dependent species. The applicable HCP strategies incorporated into this and future proposals are as follows:

- Retaining Riparian Management Zones (RMZ 's) on Type 1, 3 streams and maintaining equipment limitation zones adjacent to Type 5 streams;
- Retaining Wetland Management Zones(WMZ's) on all forested and non-forested wetlands;
- Deferring harvest on unstable slopes;
- Retaining a minimum of 8 leave trees per acre dispersed and aggregated throughout the units;
- Designing, constructing, and maintaining a road system to minimize potential adverse effects on the environment;
- Implementing procedures pertaining to threatened and endangered species.
-

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

B. ENVIRONMENTAL ELEMENTS

1. Earth

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

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

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

Lower Dickey WAU

Elevation: 0-923 ft. with a mean elevation of 249 ft.

Annual Precipitation: weighted average 76 inches annually

Forest Vegetation Type: Western Hemlock

Peak Rain on Snow: 0

East Fork Dickey WAU

Elevation: 44-1921 ft. with a mean elevation of 505 ft.

Annual Precipitation: weighted average 101 inches annually

Forest Vegetation Type: Western Hemlock

Peak Rain on Snow: 0

West Fork Dickey WAU

Elevation: 41-1880 ft. with a mean elevation of 380 ft.

Annual Precipitation: weighted average 96 inches annually

Forest Vegetation Type: Western Hemlock

Peak Rain on Snow: 0

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

This proposal is located in the lower portions of the Lower Dickey, East Fork, and West Fork Dickey WAU's. The Elevation ranges from 80-480 feet. There are no portions of the sale within the designated rain on snow areas.

b. What is the steepest slope on the site (approximate percent slope)? **70% in unit 1, on approximately 10% of the unit.**

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	Acres	Mass Wasting Potential	Erosion Potential
5733	SILT LOAM	5-35	41	LOW	LOW
3977	KLONE-OZETTE-TEALWHIT-COMPLEX	0-15	37	No Data	No Data
3970	V.GRAVELLY LOAM	0-15	37	INSIGNIFIC'T	LOW
7421	V.GRAVELLY LOAM	35-70	26	MEDIUM	HIGH
3972	V.GRAVELLY LOAM	30-65	11	MEDIUM	HIGH
8017	SILT LOAM	0-5	8	INSIGNIFIC'T	LOW
4006	KYDAKA-ZEEKA-COMPLEX	0-20	5	No Data	No Data

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

1) *Surface indications:*

This proposal is located on relatively flat to moderate gradient slopes and is immediately adjacent

to incised stream channels with actively slumping banks evidenced by over steepened slopes and exposed bare soil. All areas of potential slope instability associated with this proposal were appropriately buffered and have been bounded out of the timber sale.

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:

Within the upper reaches of these WAU's there are areas of shallow landslides and mass wasting. These are mainly associated with incised streams and headwall areas. See 3.c below

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 are areas within the WAU where slope failures have occurred mainly associated with past logging and road construction practices.

4) *Is the proposed site similar to sites where slope failures have occurred previously in the sub-basin(s)?*

No Yes, describe similarities between the conditions and activities on these sites:

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

All potentially unstable slopes were excluded from the sale area.

A review of the statewide landslide inventory (LSI) screening tool indicates that there are no mapped polygons within the harvest area. This landslide database is maintained by the Washington Department of Natural Resources, Forest Practices Division. The LSI includes landslides mapped during many different projects including large-scale geologic mapping, watershed analysis, landscape planning, and landslide hazard zonation, in addition to other case studies and mapping efforts.

A state lands geologist conducted a field review of potential unstable slopes within unit 1. One bedrock hollow was discovered in the southwest portion of unit 1. This feature was bounded out of the timber sale in accordance with the geologist recommendations

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 Approx. acreage new landings: .5 Fill Source:
Loop Tavern Pit

- f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.
Yes. A small amount of incidental surface erosion could occur during the course of road construction and harvest activities. However, prudent road location, construction, and maintenance, as well as the mitigating measures outlined in question (h). below will minimize and control any possible erosion.
- g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? *Approximate percent of proposal in permanent road running surface (includes gravel roads):*
Less than 1% in gravel roads and landings
- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any: *(Include protection measures for minimizing compaction or rutting.)*
In unit 2 all operations will be restricted from October 15-April 15th. Harvesting and road construction will be restricted for all units during periods of heavy rainfall when rutting and surface erosion may occur. Roads will be constructed with properly located ditches, ditch outs and cross drains to divert water onto stable forest floor and/or into stable natural drainages. Ground based operations will be suspended during periods of wet weather or wet soil conditions when rutting of skid or shovel roads begins. No rubber tired skidders will be allowed unless authorized by the contract administrator. The sale area will be reforested within one growing season of the expiration of the contract.

2. Air

- a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.
Engine exhaust from logging equipment and dust from passage of log trucks is the only foreseeable emissions to the air. Logging slash, if burned, will be burned adhering to the State's smoke management plan.
- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.
No
- c. Proposed measures to reduce or control emissions or other impacts to air, if any:
NONE

3. Water

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

- a. *Downstream water bodies: Unnamed Perennial streams, Chanterelle Creek, Dickey River, Quillayute River, and the Pacific Ocean*

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

Wetland, Stream, Lake, Pond, or Saltwater Name (if any)	Water Type	Number (how many?)	Avg RMZ/WMZ Width in feet (per side for streams)
West Fork Dickey	1	1	Variable width interior core of 10' – 100' and a 150' exterior wind buffer.
Stream	3	7	Variable width interior core of 10' – 50' and a 150' exterior wind buffer.
Stream	5	6	A 30' equipment limitation zone on all type 5's and green tree retention
Wetland	Forested	1	Average 100 year 2/3 site index of 110'.
Wetland	(A) Non-Forested	7	Average 100 year full site index buffer of 166'

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

There is one Type 1 stream associated with this proposal. This stream has been protected with an inner core buffer of 10-100 feet and an exterior wind buffer of 150 feet. There are 7 type 3 streams associated with this proposal. The Type 3 streams have been protected with inner core buffers of 10 - 50 feet and an exterior wind buffers of 150'. There are 6 type 5 streams that are also associated with this sale. All type 5 streams have been protected with 30' equipment limitation zones and clumped retention in places.

There are 7 non-forested wetlands and 1 forested wetland associated. All wetlands greater than 5 acres have been protected with a full site index buffer of 166 feet. The wetlands less than 5 acres have been protected with a 2/3 site index buffer of 110 feet. No harvest will occur in riparian or wetland buffers.

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

No Yes (See RMZ/WMZ table above and timber sale map available at DNR region office.)

Description (include culverts):

Timber felling, bucking, yarding, and road construction will occur within 200 feet of all the described waters above. All activities will be done in accordance with the HCP and Forest Practice rules.

In addition 3 culverts will be replaced in fish streams on the D-2300 road.

- 2) 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**

- 3) 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:

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

No Yes, describe location:

- 5) 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:

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

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

- 7) *Is there evidence of changes to the channels in the WAU and sub-basin(s) due to surface erosion or mass wasting (accelerated aggradations, erosion, decrease in large organic debris (LOD), change in channel dimensions)?*

No Yes, describe changes and possible causes: **Yes, areas within these WAUs show evidence of changes to stream channels. Some steep drainages in the WAU show evidence of debris torrent events which have increased the dimensions of affected drainage channels, exposed native bedrock which now forms the floor along segments of channels, and decreased the overall amount of large woody debris in the streams. These events may be attributed to past road construction techniques, inherently unstable slopes, soil composition or significant amounts of precipitation in short time periods.**

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

No Yes, explain: **This proposal will have minimal effects on water quality. Measures described in B 1-h, wet weather restrictions on road work and logging operations will all contribute to reducing the potential of affecting water quality.**

- 9) *What are the approximate road miles per square mile in the WAU and sub-basin(s)? Are you aware of areas where forest roads or road ditches intercept sub-surface flow and deliver surface water to streams, rather than back to the forest floor?*

No Yes, describe:
It is likely some road or road ditches within the WAU intercept sub-surface flow and deliver surface water to streams, however current standards for road construction address this issue by installing cross drains to deliver ditch water to stable forest floors.

Lower Dickey		
Land Owner	Miles of Road	Miles per Square Mile
Non-DNR	105.4	2.6
DNR	53.7	1.3
Total	159.2	4.0

West Fork Dickey		
Land Owner	Miles of Road	Miles per Square Mile
Non-DNR	201.1	4.7
DNR	15.8	0.4
Total	216.9	5.1

East Fork Dickey		
Land Owner	Miles of Road	Miles per Square Mile
Non-DNR	114.2	2.8
DNR	83.3	2.1
Total	197.5	4.9

10) 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:

11) 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? **N/A**

12) *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 some evidence of slope failures which caused a shift in stream channel. Also, some stream segments show cutting and scouring which can be attributed to the absence of LWD during peak flow events. Refer to B3a8.

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

This proposal should not measurably change the timing, duration, or amount of water in a peak flow event. The harvest prescription, unit size, and buffering, will minimize this proposal's impact to peak flow.

14) *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:

15) *Based on your answers to questions B-3-a-10 through B-3-a-15 above, note any protection measures addressing possible peak flow/flooding impacts.*

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

b. Ground Water:

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

No

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

NA

- 3) *Is there a water resource use (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or down slope of the proposed activity that could be affected by changes in groundwater amounts, timing, or movements as a result this proposal?*

No Yes, describe:

- a. *Note protection measures, if any.*

- c. Water runoff (including storm water):

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

Storm water will be collected by roadside ditches. Ditch-outs and culvert cross-drains will divert storm water onto stable forest floor. This water will percolate through the soil and ultimately flow into streams which drain the area.

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

No Yes, describe:

- a. *Note protection measures, if any.* **None**

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

No

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

(See surface water, ground water, and water runoff sections above, questions B-3-a-1-c, B-3-a-16, B-3-b-3-a, and B-3-c-2-a.)

4. Plants

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

- deciduous tree:
 - alder, maple
- evergreen tree:
 - Douglas fir, western hemlock, Sitka spruce, red cedar,
- shrubs:
 - huckleberry, salmonberry, salal,
- grass
- wet soil plants:
 - cattail, skunk cabbage, devil's club, other:

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.)

There is approximately 4,433 mbf of 34-46 year old timber that will be harvested within this proposal.

c.

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

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

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

Unit 1 is bordered to the north by 29 year old state timber, to the east by 114 year old state timber, to the south by 28 year old state timber, and to the west by 30 year old private timber.

Unit 2 is bordered to the north and east by 5 year old private reprod, to the south by 3 year old private reprod, and to the west by 35 year old private timber.

Unit 3 is bordered to the north by 34 year old state timber, to the east and south by 45 year old state timber, and to the west by 37 year old state timber.

Unit 4 is bordered to the north by 25, and 37 year old state timber, to the east by 45 year old state timber, the south by 3 year old private reprod, and the west by 37 year old state timber.

Unit 5 is bordered to the north by 37 year old state timber and to the east by 34 year old state timber, the south by 45 year old private timber, and to the west by 37 year old state timber.

Unit 6 is bordered to the north by 30 year old state timber and to the east by 34 year old state timber, the south by 45 year old private timber, and to the west by 37 year old state timber.

2) Retention tree plan:

Unit 1: There are a total of 293 trees in three clumped leave tree areas and 195 individually painted leave trees scattered throughout the unit.

Unit 2: There are a total of 95 clumped leaf trees in one area and 145 individually painted leaf trees scattered throughout the unit.

Unit 3: There are 42 individually painted leaf trees scattered throughout the unit.

Unit 4: There are a total of 140 clumped leaf trees in one area and 188 individually painted leaf trees scattered throughout the unit.

Unit 5: Has one leaf tree area containing 37 clumped leaf trees.

Unit 6: There are 215 clumped leaf trees in three areas and 90 individually painted leaf trees scattered throughout the unit.

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

TSU Number	FMU_ID	Common Name	Federal Listing Status	WA State Listing Status
None found				

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

All units in this proposal will be leaving 8 trees per acre and will be reforested within one growing season upon expiration of the contract. Conifer species will be planted in the units following harvest. Other native conifer and deciduous species may regenerate naturally on the site. Native grass seed will also be used on areas of exposed mineral soil during road building operations.

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

Scotch Broom, Canadian Thistle, and Himalayan Blackberry.

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

mammals: deer, bear, elk, beaver

fish: bass, salmon, trout

Eagles were observed in flight near the sale area, but there are no known nest sites within 660' of the proposal.

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

TSU Number	FMU_ID	Common Name	Federal Listing Status	WA State Listing Status
1	90664	SPOTTED OWL: Site:738-EAST FORK DICKEY RIVER	THREATENED	ENDANGERED
1	90664	SPOTTED OWL: Site:995-COLBY CREEK - DICKEY RIVER	THREATENED	ENDANGERED
2	90665	SPOTTED OWL: Site:738-EAST FORK DICKEY RIVER	THREATENED	ENDANGERED
3	90666	SPOTTED OWL: Site:738-EAST FORK DICKEY RIVER	THREATENED	ENDANGERED
3	90666	Steelhead	Not Warranted	Healthy
4	90667	SPOTTED OWL: Site:738-EAST FORK DICKEY RIVER	THREATENED	ENDANGERED
4	90667	Steelhead	Not Warranted	Healthy
5	90668	Chinook	Not Warranted	Unknown
5	90668	SPOTTED OWL: Site:738-EAST FORK DICKEY RIVER	THREATENED	ENDANGERED
5	90668	Steelhead	Not Warranted	Healthy
6	90669	Chinook	Not Warranted	Unknown
6	90669	SPOTTED OWL: Site:738-EAST FORK DICKEY RIVER	THREATENED	ENDANGERED

6	90669	Steelhead	Not Warranted	Healthy

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

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

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

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

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

Species/Habitat: Spotted Owl - The DNR mitigates for the potential of significant adverse environmental impacts to northern spotted owls in the OESF by implementing the HCP strategy. This strategy established threshold percentages for spotted owl habitat on DNR-managed lands for Landscape Planning Units (LPU). Each LPU is managed to achieve and maintain at least 20% Old Forest Habitat and at least 40% of Old and Young Forest (or Structural) Habitat types taken together according to a schedule of habitat enhancement and harvest activities developed within the Forest Land Plan (FLP). Forest Land Planning has been initiated but not implemented. The sale area is not considered structural habitat according to the OESF NSO Habitat Model. This sale is not harvesting stands over 50 years of age and will not be subject to the acreage limits in the LPU.

Species/Habitat: Marbled Murrelet -- The proposal area was evaluated for habitat protection or other marbled murrelet conservation opportunities. There are occupied murrelet sites within ¼-mile of units 1 and 6 of this sale proposal. No harvest will occur on Unit 1 within 328' of the occupied site, and on Unit 6 no harvest will occur within 165' of occupied habitat. The 165' buffer on Unit 6 was chosen due to the small size and position of the unit relative to the short edge of occupied sites being protected. Timing restrictions will be implemented on these two units during the peak daily activity window during the murrelet nesting season from April 1 through August 31. Harvest activities will not be allowed from one hour before sunrise to 2 hours after official sunrise and from one hour before official sunset to one hour after official sunset

Species /Habitat: Riparian and Wetland – Interior and exterior core buffers have been applied to all Type1, Type 3, and unstable Type 5 waters, as well as equipment limitation zones on all typed waters, as described in B.3.a.1)b). Buffers are designed to protect the unstable portions of the stream banks, and help to protect waters from siltation and increase of water temperatures by providing shade and cover. Buffers also allow the natural occurrence of woody debris that provides pools and eddies for fish habitat along stream banks. Furthermore, these buffers will develop old-forest characteristics that, in combination with the owl and murrelet strategies, will help support old-forest dependent wildlife.

Species /Habitat: Upland – The Lone Spruce timber sale will temporarily create open environments that provide valuable forage for deer and elk, as well as habitat for a variety of wildlife species associated with early-serial environments. This VRH proposal will temporarily open the edges of the adjoining timber stands allowing increased light and understory development that will increase habitat value for many forest-living species of plants and animals.

1)

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

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. **Does not apply**
- b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe. **Does not apply**
- 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: **Does not apply**

7. Environmental health

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, which could occur as a result of this proposal?
If so, describe.
- 1) Describe any known or possible contamination at the site from present or past uses.
None
 - 2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.
Does not apply
 - 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.
Does not apply
 - 4) Describe special emergency services that might be required.
Fire suppression, hazardous waste cleanup, and emergency medical services.
 - 5) Proposed measures to reduce or control environmental health hazards, if any:
The timber sale contract requires purchaser to minimize risk of fire and does not allow for disposal of any kind of waste on any State lands. Pump trucks and/or pump trailers will be required on site during fire season. Hazardous waste cleanup materials will be required on site.
- b. Noise

- 1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)? **None**
- 2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site. **Noise from chainsaws, heavy equipment and log truck traffic while the sale is active.**
- 3) Proposed measures to reduce or control noise impacts, if any: **see 5d above**

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.*)
Commercial Forest Land
- 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?
No
 - 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? **Commercial Forestland**
- f. What is the current comprehensive plan designation of the site? **Commercial Forestland**
- 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? **Does not apply**
- 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: **The design of this project is consistent with current comprehensive plans and procedures pertaining to the DNR's Habitat Conservation Plan, and the State Forest Practices Act.**

- m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any: **See 8l above**

9. Housing

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

10. Aesthetics

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed? **Does not apply**
- b. What views in the immediate vicinity would be altered or obstructed? **The majority of the sale area will be void of timber after harvest.**

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?* **There will be no visual impacts from towns or scenic highways.**

- c. Proposed measures to reduce or control aesthetic impacts, if any: **Eight trees per acre have been left scattered and clumped throughout the sale area. In addition the area will be reforested upon completion of harvest.**

11. Light and glare

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

12. Recreation

- a. What designated and informal recreational opportunities are in the immediate vicinity? **Dispersed informal recreation in the form of hunting, hiking, fishing, berry picking, sightseeing, etc.**
- b. Would the proposed project displace any existing recreational uses? If so, describe. **No**
- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any: **None**

13. Historic and cultural preservation

- a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers located on or near the site? 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. **None**
- c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc **A check of the Department of Archaeology and Historic Preservation (DAHP) database and TRAX using a Planning and Tracking Special Concerns report shows no known cultural resources on or near the site. A check of the cultural resources layer on the State Upland viewing tool shows no cultural resources on or near the site. During timber sale preparation, trained foresters found nothing on or near the site to indicate any potential cultural.**
- 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. **None**

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 101, D-2000, Loop Tavern road for pit access.
 - 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**
- 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, this proposal includes approximately 1,009 feet of construction, 5,032 feet of reconstruction, and 24,115 feet of pre-haul maintenance**
 - 1) *How does this proposal impact the overall transportation system/circulation in the surrounding area, if at all?* **This proposal will have no additional impacts on the overall transportation system in the area.**
- e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe. **No**
- f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and non-passenger vehicles). What data or transportation models were used to make these estimates?
Approximately 5-20 trips per day thru peak harvest times.
- 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:
Roads will be constructed and reconstructed in compliance with HCP and Forest Practice requirements and will divert storm water onto stable forest floor. To avoid erosion And impacts to water quality, soils exposed during culvert installation will be grass Seeded and covered with hay.

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: **Does not apply**

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

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed. **Does not apply**

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 Mike Potter _____

Position and Agency/Organization Forester 2/DNR _____

Date Submitted: 10/1/14