

**STATE FOREST LAND
ENVIRONMENTAL CHECKLIST**

Purpose of Checklist:

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

Instructions for Applicants:

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can. *Questions in italics are supplemental to Ecology's standard environmental checklist. They have been added by the DNR to assist in the review of state forest land proposals. Adjacency and landscape/watershed-administrative-unit (WAU) maps for this proposal are available on the DNR internet website at <http://www.dnr.wa.gov> under "SEPA Center." These maps may also be reviewed at the DNR regional office responsible for the proposal. This checklist is to be used for SEPA evaluation of state forest land activities.*

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

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

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

Use of checklist for nonproject proposals:

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

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

A. BACKGROUND

1. Name of proposed project, if applicable:

Timber Sale Name: Joyce Dry Pole

Agreement #:

2. Name of applicant: Washington Department of Natural Resources

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

Olympic Region
411 Tillicum Lane
Forks, WA 98331

Contact Person: Gary McLaughlin
Telephone: (360) 374-6131

4. Date checklist prepared: 11/06/2008

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

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

a. Auction Date: May 21, 2009

b. Planned contract end date (but may be extended): 11/01/2010

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:* Landing piles may be burned upon completion of harvest.
- b. *Regeneration Method:* Not needed for this individual tree selection harvest..
- c. *Vegetation Management:* Not needed for this individual tree selection harvest.
- d. *Thinning:* Not anticipated.

Roads: This proposal includes new construction, reconstruction, road maintenance and abandonment. Road maintenance, which will include rocking, grading, ditch cleanout, and repair or replacement of culverts, will occur as necessary on existing roads. New roads, and roads with pre-haul maintenance, will be used to access the area for future management activities.

Rock Pits and/or Sale: Rock for this proposal will be come from Place Pit, Dry Hill Pit or commercial sources.

Other: Future forest management activities are anticipated to continue within the WAU's and adjacent to the current proposal. Potential activities may include, but are not limited to, firewood salvage, regeneration harvest, tree planting, hardwood slashing, maple stump treatment, pre-commercial thinning, commercial thinning and regeneration harvest. These future activities are connected with this proposal insofar as they will occur in close proximity to the sale area, and that the newly constructed roads and roads with pre-haul maintenance may be used to perform the required work. All future activities will be consistent with the State'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: Dry Creek: temp sediment completed TMDL (total maximum daily load):
 - Landscape plan:
 - Watershed analysis:
 - Interdisciplinary team (ID Team) report:
 - Road design plan: dated 11/19/2008
 - Wildlife report:
 - Geotechnical report:
 - Other specialist report(s):
 - Memorandum of understanding (sportsmen's groups, neighborhood associations, tribes, etc.):
 - Rock pit plan: for Place Pit and Dry Hill Pit
 - Other: Soil Survey, Habitat Conservation Plan (HCP), dated September 1997; G.I.S. Report for SEPA Evaluation on Salt Creek, Port Angeles and Sutherland-Aldwell Watershed Administrative Units; Policy for Sustainable Forests (July 2006); Special Concerns and TRAX.
- All documents may be obtained at the Olympic Region Office during the SEPA comment period.

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain. No.

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

a. Complete proposal description:

Proposal area (acres): 125

Sale area/net area (acres): 97.6

The Joyce Dry Pole timber sale is composed of two individual tree selection harvest units and four proposed road rights-of-way. Unit 1 is 59 net acres including the two proposed road R/Ws totaling 2591 feet and 2.97 acres. Unit 2 is 38 acres including two proposed road R/Ws and four landing clearings with a total of 1.1 acres.

The harvest will generate approximately 856 thousand board feet of timber.

This proposal involves the harvest of timbert, road construction, pre-haul maintenance, and road abandonment.

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

Pre-harvest Stand Description: This timber sale is in the *Tsuga heterophylla* plant community and consists of second growth stands of mixed conifer species and scattered hardwoods as a lesser component. Origin dates are from 1925 to 1943 in Unit 1 and 1890 to 1910 in Unit 2. Scattered remnant old growth trees with fire scars are present in both units. The underbrush varies but includes areas dominated by salal, fern, salmonberry and other shrubs. Much of Unit 1 has very little underbrush due to low light levels on the forest floor.

Type of Harvest:

This sale includes individual tree selection harvest and road R/W clearing and construction.

The sale will be harvested using 100% shovel or tracked skidder equipment.

The following restrictions will apply:

Cutting and Yarding:

Both units: no ground yarding from November 1 - April 30 without written permission from the contract administrator. Only hand falling will be allowed during the restriction period.

Overall Objectives:

The timber sale will provide revenue to the trust beneficiaries by capturing the high value of the utility poles while protecting ecological assets including water quality, slope stability, old forest values and maintenance and development of wildlife diversity through retention of structural legacies. Water, soils, and unique forest structure will be protected by providing streams and wetlands with protective buffers and limiting ground harvest equipment during wet weather conditions. Construction of two roads in Unit 1 will most efficiently serve future management needs while minimizing long-term road impacts. Existing roads in need of maintenance will be improved. Objectives also include protection of the residual stand during harvest activities.

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		2,921	1.0*	0
Reconstruction				0
Abandonment**		330**	.1*	0
Bridge Install/Replace	0			0
Culvert Install/Replace (fish)	0			0

Culvert Install/Replace (no fish)	5			
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26,755 feet of prehaul maintenance

Ditch relief cross drains: install 5 new culverts

*with 15 foot subgrade

**Abandonment consists of culvert removal or flow diversion, installation of tank traps, non-drivable waterbars, and logging slash placed in road prism at completion of harvest operations.

12. Location of proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist. (See timber sale map available at DNR region office, and/or color landscape/WAU map on the DNR website <http://www.dnr.wa.gov> under "SEPA Center.")

a. Legal description:

T30N R7W S13
T30N R7W S14
T30N R7W S23
T30N R7W S24
T30N R8W S05

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

Unit 1 is located 6.3 miles west of Port Angeles on US Route 101, Walkabout Road, PA-H-3000 and PA-H-3040.
Unit 2 is located approximately two miles southwest of Joyce on SR 112, Piedmont Poad and the PA-J-1000.

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

WAU Name	WAU Acres	Proposal Acres
SALT CREEK	70,618.9	38
PORT ANGELES	66,979.8	28
SUTHERLAND-ALDWELL	49,625	31

Note: WAU acres were auto-populated from DNR's Planning and Tracking system and exclude water acres.

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.)

28 acres of Unit 1 is located within the Port Angeles WAU and 31 acres is located within the Sutherland-Aldwell WAU. The DNR manages approximately 5,180 acres of forestland within the Port Angeles WAU, which equates to 20 percent of the WAU's dry land acres. Approximately 501 acres of these lands have been harvested using the regeneration method within the past five years. About 13 percent of the WAU is federally managed and 68 percent is managed by private and other public land management entities.

DNR manages approximately 6,186 acres in the Sutherland-Alwell WAU or 12 % of the dry land acres in the WAU. 64% of the acres in this WAU are federally managed and 23% are private or other governmental ownership. Approximately 182 acres of the DNR lands in this WAU have been regeneration harvested within the past 5 years.

Unit 2 Is located within the Salt Creek WAU. The DNR manages approximately 11,839 acres of forestland within the WAU, which equates to 42 percent of the WAU's dry land acres. Approximately 250 acres of these lands have been harvested using the regeneration method within the past five years. Fifty-eight percent is managed by private and other public land management entities.

Known future State activities not associated with this proposal include other regen harvests and RMAPS work. In the Salt Creek WAU there are 441 additional acres to be harvested in 2009-2011. In the Port Angeles WAU there are 105 additional acres to be harvested in 2009-2011. In the Sutherland-Aldwell WAU there are 432 additional acres to be harvested in 2009-2011.

Future Department of Natural Resources' (DNR) managed stands in these WAUs will be scheduled for regeneration, commercial thinning and partial cut harvests as they meet the department's financial and ecological policies and mandates. All current and future DNR activities will be conducted according to the State's Habitat Conservation Plan (HCP), Policy for Sustainable Forestry and State Forest Practices rules, and are expected to mitigate for potential adverse cumulative effects. DNR's HCP requires the Department to manage landscapes with the intent to preserve and enhance habitat used by fish and older-forest dependent species. The HCP is designed to protect and promote fish and wildlife species and their habitats over a broad regional area. All future activities will be completed while protecting unstable soils and wildlife habitats.

The following measures have been taken while evaluating this proposal, and will be taken when evaluating future proposals, to reduce the risk of negative environmental impacts:

- Assessments to evaluate the potential use of the proposal area by threatened and endangered species, and to ensure their protection.
- Verification of compliance with DNR's Habitat Conservation Plan (HCP) agreements for spotted owls and marbled murrelets. For a detailed description of marbled murrelet habitat mitigation see B.5.d. below.
- Protection and preservation of structurally and culturally unique features.
- Measures to analyze, design, construct, and maintain the road system in order to minimize the amount of road construction needed and to ensure the quality of existing and newly constructed roads. These measures will minimize potential adverse effects on the environment by reducing the potential for off site movement of sediments.
- Analysis of G.I.S landscape reports to evaluate the location of the proposal relative to the rain-on-snow (ROS) zone mapping units and the ground based Weighted Old Growth Habitat Index (WOGHI) assessment.
- Application of timing restriction(s) to the use of ground yarding equipment in sensitive areas in order to prevent impacts to water quality.
- Assessment of potentially unstable slopes and landforms in association with the proposal to insure that proposed management activities will not significantly increase the risk of mass wasting in the general area (B.1.d.1-5).

Over the past 5 to 10 years, the private industrial forestlands scattered within the WAU's have reached rotation age and are currently being harvested on an estimated rotation cycle of 40-60 years in accordance with forest practice laws. Some of these industrial forestlands will likely be converted to industrial and private landowner development. Future activities planned by small private forestland owners within the WAU are largely unknown. Federal timberlands have seen very little final harvest activities since the early 1980's and this is not anticipated to change for the foreseeable future.

The following tables titled, *FOREST PRACTICE APPROVED APPLICATIONS FOR HARVEST ACTIVITIES*, were taken from the Harvest and Forest Practices Report portion of the WAU Status Reports for:

Port Angeles WAU			
Harvest Type	Acres on DNR Land	Acres on Non-DNR Land	Acres on All Lands
Evenage	617	799	1416
Unevenage	2	536	538
Salvage	29	14	43
Sutherland-Aldwell WAU			
Harvest Type	Acres on DNR Land	Acres on Non-DNR Land	Acres on All Lands
Evenage	76	260	336
Unevenage	0	239	239
Salvage	7	0	7

Salt Creek WAU			
Harvest Type	Acres on DNR Land	Acres on Non-DNR Land	Acres on All Lands
Evenage	241	484	725
Unevenage	21	1861	1882
Salvage	4	0	4

NOTE: This information is derived from activity locations collected by varying methods ranging from hand drawn maps to precise GPS collection. No verification of map accuracy or activity completion is conducted. Totals may not be the sum of all harvest types due to overlapping activities. The same land may be counted more than once if, in the past seven years, more than one forest practice application has been approved for different harvests (salvage and evenage for example). All acreages are approximate. Rounding to the nearest 10 or even to the nearest 50 acres may be appropriate. Totals may not be the sum of all harvest types due to overlapping activities.

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

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).*

This proposal is located in three WAUs: Port Angeles, Sutherland-Aldwell and Salt Creek. These WAUs are located on the north Olympic Peninsula along the Strait of Juan de Fuca.

The Port Angeles WAU consists of 26,463 land acres. Elevation ranges from 0 to 6369 feet with a mean elevation of 1029 feet. Average precipitation for the WAU is 28 inches, with rainfall increasing from north to south in the WAU. The landform is generally hilly with gentle to moderately steep slopes. Steeper slopes are found in the south 1/3 of the WAU, especially on National Park lands. The dominant forest type is Douglas fir with associated western red cedar, western hemlock, grand fir, red alder, and big leaf maple. The managed forestlands are primarily regenerated with Douglas fir and red alder.

The Sutherland-Alwell WAU consists of 49,625 land acres. Elevation ranges from 0 to 6389 feet with a mean elevation of 2029 feet. Average precipitation for the WAU is 50 inches, with rainfall increasing from north to south in the WAU. The landform is generally hilly with gentle to moderately steep slopes. Steeper slopes are found in the south 1/2 of the WAU, especially on National Park lands. The dominant forest type is Douglas fir with associated western red cedar, western hemlock, grand fir, red alder, and big leaf maple. The managed forestlands are primarily regenerated with Douglas fir and red alder.

The Salt Creek WAU consists of 28405 land acres. Elevation ranges from 0 to 2513 feet with a mean elevation of 634 feet. Average precipitation for the WAU is 47 inches, with rainfall increasing from north to south. The landform is hilly with gentle to moderately steep slopes. Except for Striped Peak located along the coast in the north, most of the steeper slopes are found in the southern portion of the WAU. The dominant forest type is Douglas fir with associated western red cedar, western hemlock, grand fir, red alder, and big leaf maple. The managed forestlands are primarily regenerated with Douglas fir and red alder.

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

Unit 1 is located on hilly terrain near the top of Dry Hill east of the Ellwah River. Unit 2 is located west of the Ellwah in hilly terrain with some short steep slopes.

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

Maximum slopes are 60 percent in Unit 1 and 70 percent in Unit 2.

- c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland. *Note: The following table is created from state soil survey data. It is a roll-up of general soils information for the soils found in the entire sale area. It is only one of several site assessment tools used in conjunction with actual site inspections for slope stability concerns or erosion potential. It can help indicate potential for shallow, rapid soil movement, but often does not represent deeper soil sub-strata. The actual soils conditions in the sale area may vary considerably based on land-form shapes, presence of erosive situations, and other factors. The state soil survey is a compilation of various surveys with different standards.*

State Soil Survey #	Soil Texture or Soil Complex Name	% Slope	Acres	Mass Wasting Potential	Erosion Potential
8047	TERBIES V.GRAVELLY SANDY LOAM	30-65	74	LOW	HIGH
1959	ELWAH GRAVELLY SANDY LOAM	15-35	18	LOW	LOW
7234	SCHNORBUSH LOAM	20-55	5	MEDIUM	MEDIUM

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

- 1) *Surface indications:*

There are unstable slopes located east of Unit 1 along Dry Creek and northwest of Unit 2 along an unnamed T3 stream.

- 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:

Natural slope failures occur within incised draws where streams undercut the toe of the slope, causing some failures. Slope failures have also occurred on steep slopes underlain by unstable, glacial soils during periods of extreme saturation. Over steepened bluffs along the shorelines of the Strait of Juan de Fuca exhibit slope failures where the tidal action has eroded the toes of the slopes.

- 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:

Slope failures exist where timber harvest and road construction have occurred on extremely steep and unstable slopes. Road failures are primarily associated with older constructed side cast roads. No recent activity has been observed.

- 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:

Both deep-seated and shallow landslides are common along steep, channel-adjacent slopes. Proposed timber harvesting and road construction activities are limited to stable terrain. The convergent topography with steep slopes north of Unit 1 have been removed from the sale area. The short steep slopes in Unit 2 show no

indications of instability. However, there are steep, potentially unstable slopes adjacent to, but outside, the project area.

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

Potentially unstable slopes along the incised Type 5 streams north and west of Unit 1 have been excluded from the proposal. Skidding operations in both units will be restricted between November 1st and April 30th in order to reduce erosion potential and related soil damage. Rubber tired skidders are prohibited on the entire sale to reduce impacts to soil.

Roads have been located on relatively flat ground, well back from the topographic breaks into stream drainages. Ditch water is to be diverted onto stable locations on the forest floor, and the installation of sufficient cross drains will maintain natural drainage patterns. Road construction will be restricted between November 1st and April 30th. Please see B.1.h. below for details.

- e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

*Approx. acreage new roads: 1.0 acres**

*Approx. acreage new landings: 1.56 acres***

Fill source: Native material, Place Road Pit, Dry Hill Pit

** acreage of new road is based on a 15-foot subgrade width.*

*** acreage of new landing is based on 60-foot radius.*

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

A small amount of surface erosion incidental to freshly exposed soils is anticipated.

- g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? *Approximate percent of proposal in permanent road running surface (includes gravel roads):*

Approximately 1 percent of the site will be covered with additional road running surface as defined by compacted surfacing. This is based on the subgrade widths of newly constructed roads only.

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

Seasonal restrictions will apply to new road construction, road reconstruction, pre-haul maintenance, road abandonment, rock haul and harvest operations.

Additionally, new road construction will be restricted during periods of heavy rain fall when rutting and surface erosion is occurring. 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. Harvest operations shall be suspended during periods of wet weather or wet soil conditions when rutting of skid roads is occurring. Ground based operations will be suspended during periods of wet weather or wet soil conditions when rutting of skid roads begins. Additional guidelines for soil protection will include: proper distribution of surface runoff during construction; managed usage of roads to minimize erosion and sediment delivery; pullback of any landing debris on or near the tops of the steep slopes. Waterbars will be installed on skid trails and logging spurs as necessary to control erosion.

2. Air

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

Insignificant amounts of engine exhaust from logging equipment and dust from passage of log trucks, Logging slash, if burned, will adhere 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.

None.

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

Contract requirements include dust abatement of the PA-J-1000 as per Contract Administrator's direction. Logging slash, if burned, will adhere to the State's smoke management plan.

3. Water

- a. Surface:

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

a) *Downstream water bodies:*

Unit 1: One forested wetland area of .19 acres, and the upper end of a mapped Type 5 stream with no distinct channel are associated with Unit 1. The unit drains into unnamed tributaries to Dry Creek. The forested wetland has been delineated with Special Management Unit Boundary tags to prevent equipment entry.

The two type 5 streams mapped in Unit 2 have no distinct channels. Unit 2 drains to the east into an unnamed tributary to Salt creek.

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)
Non fish bearing , seasonal stream	5 (Ns)	3	N/A
Non fish bearing, perennial stream	4 (Np)	none	N/A
Fish stream	3 (F)	none	N/A
Fish stream	3 (F)	none	N/A
Wetland	Forested	1 (<1/4 acre)	none

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

There are no RMZs or WMZs but equipment will be prohibited within the Unit 1 forested wetland which is delineated by Special Management Unit Boundary tags.

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

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

Description (include culverts):

There may be yarding over the T5 streams in Unit 2 that have no distinct channels. The southern mapped T5 has a channel with flowing surface water west of the unit. This stream goes subsurface before entering the unit.

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

None

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

No Yes, description:

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

No Yes, describe location:

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

No Yes, type and volume:

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

It is possible that surface erosion is occurring in areas described in Part B.1.d.2. Based on the sale design, off-site movement of sediment should be minimal. Surface erosion control/prevention measures discussed in B.1.h. would minimize or prevent delivery to surface waters.

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:

There are some channels in the WAUs which show evidence of accelerated aggradations due to a combination of factors including surface erosion, slides and increased peak flows. These changes are attributed to both natural events and human activity and occur throughout the reach of some streams in the WAUs. A deep-seated slide ½ mile southeast of Unit 1 has raised the Dry Creek channel several feet higher than would be expected without the slide. At this time, debris accumulation on the downstream end of the landslide reach is maintaining stability in the alluvial reach of the landslide. This is minimizing the accelerated aggradation that has occurred since the initial slide 42 to 68 years ago.

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

No Yes, explain:

No substantial increase in surface runoff is anticipated from this partial cut harvest. With the exception of the proposed road rights of way, hydrologic maturity of these stands will not be affected. Stream and water quality after timber harvesting should not be materially affected due to the protective measures taken in sale design and compliance. The sale has been designed to reduce the risk that harvest activity would initiate a mass wasting event.

10) What are the approximate road miles per square mile in the WAU and sub-basin(s)?

The G.I.S. database shows that the Port Angeles WAU averages 4.0 miles per square mile on DNR land, the Sutherland-Aldwell WAU averages 3.8 miles per square mile on DNR lands and the Salt Creek WAU averages 4.4 miles per square mile on DNR land. No information is currently available for the sub-basins.

Are you aware of areas where forest roads or road ditches intercept sub-surface flow and deliver surface water to streams, rather than back to the forest floor?

No Yes, describe:

There are likely cases where this has occurred elsewhere in the WAUs. It has not been observed on or near the proposal.

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

Approximately 20 acres of Unit 1 are in the Rain on Snow zone of the Port Angeles WAU. 18 % of this WAU lies within the significant ROS zone. The proposal is not within the ROS of the Sutherland-Aldwell or Salt Creek WAUs.

Approximate percent of sub-basin(s): Sub-basin 2 has 7.11 percent within a significant ROS zone.

- 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?*

Data is unavailable for hydrologically mature stands on all ownerships. The percentage of the WAU within the significant ROS that is hydrologically mature on DNR lands is 90.9 percent.

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

There have been increases in peak flows associated with small drainage basins that contain a high percentage of young (less than 25 years old) timber or pasture that have created channel scouring. Specific instances of this occurring were not identified directly adjacent to the proposed timber sale units.

- 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.*

Little or no increase in peak flow is anticipated as a result of this proposal. Negative impacts are not anticipated based on the following: 97% of the proposal acres will remain in hydrologic maturity after this partial cut harvest. All current and future activities will be conducted according to the State's HCP, and are expected to mitigate for any potential adverse cumulative effects.

- 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:

There is no significant potential for increase in water yield downstream of the proposal. No negative impacts are anticipated.

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

Road network planning and road design have been performed in order to minimize the amount of road construction needed, and to ensure the quality of existing and newly constructed roads. G.I.S. landscape reports were checked to evaluate the location of this proposal relative to the rain-on-snow zone mapping units. The partial cut nature of the sale will minimize impacts to runoff.

b. **Ground Water:**

- 1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.

No.

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

Does not apply.

- 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.*
Does not apply

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 ditches, ditchouts, and cross drains and diverted to stable forest floor material.

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

No.

a) *Note protection measures, if any.*

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

4. Plants

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

deciduous tree: alder, maple, aspen, cottonwood, western larch, birch, other: bitter cherry, willow, madrona

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: Oregon grape

grass

pasture

crop or grain

wet soil plants: cattail, buttercup, bullrush, skunk cabbage, devil's club, other: sedge, piggyback plant

water plants: water lily, eelgrass, milfoil, other:

other types of vegetation: swordfern

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.)

- 1) Describe the species, age, and structural diversity of the timber types immediately adjacent to the removal area. (See landscape/WAU and adjacency maps on the DNR website at: <http://www.dnr.wa.gov> under "SEPA Center.")

Unit 1 is bounded on the north and west sides by a 200-400 foot strip of mature second growth forest similar to the unit. Beyond this strip and along the east boundary there are 3rd growth stands of mostly Douglas fir between 15 and 25 years old. The southeast side of the unit is bounded by 50-80 year old mixed deciduous and conifer second growth. Unit 2 is bounded on the west by a replanted 2 year old even-aged harvest unit with dispersed and clumped legacy trees. The northwest edge is adjacent to a 70-90 year old stand of mixed hardwoods and conifer that is part of a larger stand similar to the Unit 2 forest. The east, south and southwest perimeters of this unit are adjacent to 3rd growth conifer plantations of 15-25 years in age with low levels of structural diversity.

- 2) Retention tree plan:

Does not apply to this partial cut proposal.

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

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

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

None

5. Animal

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

birds: hawk, heron, eagle, songbirds, pigeon, other: barred owl

mammals: deer, bear, elk, beaver, other:

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

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

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

TSU Number	FMU_ID	Common Name	Federal Listing Status	WA State Listing Status
1	4896	MARBLED MURRELET: Reference No: 51199	THREATENED	THREATENED
1	4903	MARBLED MURRELET: Reference No: 49730	THREATENED	THREATENED
1	4896	SPOTTED OWL: Site:742-LAKE ALDWELL	THREATENED	ENDANGERED
1	4903	SPOTTED OWL: Site 43- MCDONALD MOUNTAIN	THREATENED	ENDANGERED
2	20640	SPOTTED OWL: Site 836- WHISKEY CREEK	THREATENED	ENDANGERED
2	20640	SPOTTED OWL: Site 741- SALT CREEK	THREATENED	ENDANGERED
2	4970	SPOTTED OWL: Site 94- BEAR VALLEY	THREATENED	ENDANGERED

2	4976	MARBELED MURRELET: Reference no. 48102	THREATENED	THREATENED
2	4976	MARBELED MURRELET: Reference No: 48099	THREATENED	THREATENED
2	4976	MARBELED MURRELET: Reference No: 48100	THREATENED	THREATENED
2	4976	MARBELED MURRELET: Reference No: 48101	THREATENED	THREATENED
2	4976	MARBELED MURRELET: Reference No: 48103	THREATENED	THREATENED
2	4976	MARBELED MURRELET: Reference No: 48104	THREATENED	THREATENED

This proposal is not located within high quality or low quality settlement habitat as described in the Spotted Owl Settlement agreement dated January 2007. Unit 1 contains 25.5 acres of released reclassified marbled murrelet habitat, with 3.3 acres in the Sutherland-Aldwell WAU and 22.2 acres in the Port Angeles WAU. Over 50% of reclassified habitat in each WAU remains. Reclassified marbled murrelet habitat is located directly north of the proposed harvest in Unit 2.

The data above was auto-populated by DNR's Planning and Tracking system.

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

Pacific flyway

Other migration route:

Explain if any boxes checked:

Numerous species of birds migrate through the North Olympic Peninsula, but the proposal is not used by migratory waterfowl.

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

Marbled murrelet protection measures include daily timing restrictions for operations in Place Pit.

This partial cut harvest proposal will not substantially change wildlife habitat conditions. Partial canopy removal will result in an increase in available light on the forest floor and improve browse conditions for ungulates and other species using early succession plants.

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

Species/Habitat: spotted owl

Protection Measures: No harvest of habitat as per Procedure 14-004-120

Species/Habitat: marbled murrelet

Protection Measures: daily timing restrictions Place Pit

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 that could occur as a result of this proposal? If so, describe.

1) Describe special emergency services that might be required.

Does not apply.

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

Contract language will require that preventative measures be taken to avoid on-site disposal, or spilling of hazardous materials. The reporting and cleanup of any spills of petroleum based products or other waste will also be required.

b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

Does not apply.

2) What types and levels of noise would be created by or associated with the project on a short-term or long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from this site.

Noise types will include typical logging and road construction equipment for the approximately 3- 4 month duration of operations.

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

None

8. Land and Shoreline Use

- a. What is the current use of the site and adjacent properties? (*Site includes the complete proposal, e.g. rock pits and access roads.*)
Timber production.
- b. Has the site been used for agriculture? If so, describe.
No.
- c. Describe any structures on the site.
None.
- d. Will any structures be demolished? If so, what?
None.
- e. What is the current zoning classification of the site?
Commercial forest.
- f. What is the current comprehensive plan designation of the site?
Commercial forest.
- 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 an “environmentally sensitive” area? If so, specify.
None.
- 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:
Proposed activities are compatible with land use designation.

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 principle 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:
The organaized group bicycle racing events conducted in Unit 1 could constitute a developed recreation site.
 - 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?*

Views in this area will be changed by the clearing of the road rights of way, road construction and partial cutting of select trees.

- b. 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?

Does not apply.

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

Does not apply.

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

Does not apply.

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

Does not apply.

12. Recreation

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

On-site and nearby informal recreational opportunities include hiking, bird watching, and hunting. Motorcyclists, mountain bike riders and horseback riders use the logging roads and 'unsanctioned' trails in the area. In addition to these uses there is a trail network in Unit 1 permitted by an "adopt-a-trail" agreement, constructed, maintained and used by the mountain bike group "Olympic Dirt Society". The Olympic Discovery Trail is located within and along the west boundary of Unit 2.

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

Yes, the proposal would temporarily displace on-site recreational activity. The area will not be available to recreational use during harvest activities to ensure the safety of the public.

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

The extensive network of bicycle trails and structures will be disturbed and/or destroyed by road construction and harvest activities in Unit 1. The user group has been informed that avoidance of these trails and structures is not feasible and that reconstruction or repair will be not required by the contract. New skid trails and roads to be constructed as part of this proposal will provide future routes for new trails after timber harvest. In Unit 2 the Olympic Discovery Trail will be protected and cleaned of logging debris by contract clause immediately after harvest. .

13. Historic and Cultural Preservation

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

None.

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

None.

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

(Include all meetings or consultations with tribes, archaeologists, anthropologists or other authorities.)

Does not apply.

14. Transportation

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

Unit 1 is serviced by U.S. Route 101 and Walkabout Road. Unit 2 is serviced by SR 112 and Piedmont Road. Access to these roads will be via State and private forest roads.

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

No.

- b. Is site currently served by public transit? No.

If not, what is the approximate distance to the nearest transit stop?

Two miles.

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

Does not apply.

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

All work is on public roads unless otherwise noted.

26,755 feet of required pre/post-haul maintenance (approximately 10,500 feet of this is on private roads)

2,922 feet of required new construction.

330 feet of abandonment.

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

The roads for this proposal have been planned as part of a larger transportation network to serve future management needs in the area. Such planning will provide for efficient use of the road system and eliminate unnecessary road construction.

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

No.

- f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

A minor number of trips will be generated in association with normal land management activity.

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

15. Public Services

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

No.

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

Does not apply.

16. Utilities

- a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.

Does not apply.

- 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.

Completed by: Mike Cronin – Olympic Region temporary Forester 2 Date: November 17, 2008
Title