

**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: Singletary Agreement #: 30-089642

2. Name of applicant: **Department of Natural Resources (DNR)**

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

Northwest Region Contact Person: Laurie Bergvall
919 North Township St. Telephone: (360) 856-3500
Sedro - Woolley, WA 98284

4. Date checklist prepared: **January 14, 2013**

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

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

- a. *Auction Date: 6/18/14*
- b. *Planned contract end date (but may be extended): 9/30/17*
- c. *Phasing: Does not apply.*

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
- Site preparation:* **Harvest units may be treated with herbicides prior to planting. Assessment for treatment will occur after completion of harvest.**
 - Regeneration Method:* **Hand plant with conifer seedlings within the first two years after harvest.**
 - Vegetation Management:* **Treatment will be assessed in 3 to 5 years.**
 - Thinning:* **The need for a pre-commercial thin will be assessed in 10 to 15 years. A commercial thin is possible in 25 to 45 years.**

Roads and Rock pits:

The existing and proposed roads and the MY-2101, MY-0402 and MY-16 rock pits associated with this proposal will continue to be used and expanded for future timber sales. All new construction will be abandoned at contract termination with the exception of the MY-ML and a portion of the MY-21 Road. Onsite rock may be used for road construction, if rock sources are discovered along haul routes or within the sale area.

Other:

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: **Available at Northwest Region office.**
- Wildlife report: **Allen Estep, dated January 30, 2014; Lisa Egtvedt, dated January 22, 2014.**
- Geotechnical report:
- Other specialist report(s): **WMZ Mitigation Plan by Sabra Hull, dated March 10, 2014; Site Protection Plan for 45-SN-623, by M.L. Stilson, dated February 28, 2014.**
- Memorandum of understanding (sportsmen's groups, neighborhood associations, tribes, etc.):
- Rock pit plan: **Available at Northwest Region office.**
- Other: **State Soil Survey, 1992; Policy for Sustainable Forests, December 2006; Final Habitat Conservation Plan (HCP) & Environment Impact Statement, September 1997.**

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:

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 specific information on project description.)

a. *Complete proposal description:*

The Singletary timber sale is a three unit variable retention harvest (VRH) located approximately one mile northeast of Gold Bar, WA. The sale is bounded by DNR managed land, state parks land, and private land. Access is by the May Creek Mainline (MY-ML). The sale area will be harvested using ground-based and cable systems. Rock for road construction may come from the rock pits listed in A.7.

Unit 1.	Gross acres:	98.9
	Leave tree acres:	1.6
	Net acres:	97.3
Unit 2.	Gross acres:	77.6
	Leave tree acres:	2.7
	Net acres:	74.9
Unit 3.	Gross acres:	6.0
	Leave tree acres:	less than 0.1
	Net acres:	6.0
ROW	Gross acres:	11.2
	Deductions:	2.4
	Net acres:	8.8

Net Harvest Acres: 187.0
Total Volume: 6,898 MBF

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

Stand Description:

The proposed activity will take place in a mixed species stand primarily composed of Douglas-fir, western hemlock, western redcedar, and bigleaf maple. The stand age ranges between approximately 67 and 80 years of age. Woody debris is present throughout the stand.

Harvest:

The proposal is an even-age variable retention harvest. Both cable and ground-based operations will be utilized. There are a total of 1,464 leave trees (clumped and scattered) across the three units.

Overall Unit Objective:

Harvest objectives are to generate revenue for trust beneficiaries through sustainable forest management while adhering to Forest Practices rules and the Department's HCP. Specific objectives are to maintain site productivity while protecting water quality, wildlife habitat, and minimizing soil impacts.

Wildlife Objectives:

The general wildlife objective is to minimize immediate impact to current wildlife populations while retaining some unique characteristics for future wildlife habitat needs. Leave tree areas were designed to contain trees resistant to wind throw, while protecting relatively unique features such as snags, large down woody debris, large and structurally unique trees, and riparian areas. Many leave trees were selected for their future snag retention potential. Leave trees are representative of the proposed sale timber type, which consists predominately of conifer species. Snags will be left where possible and if they meet the Washington State Department of Labor and Industry Safety Guidelines. Road construction through NRF habitat will also allow future access and management of stands designated as Next Best within the Wallace River Spotted Owl Management Unit (SOMU). Future management objectives made possible through the construction of this road will include accelerating the conversion of Next Best stands to sub-mature NRF habitat.

c. *Road activity summary. See also forest practice application (FPA) for maps and more details.*

Type of Activity	How many	Length (feet) (Estimated)	Acres (Subgrade) (Estimated)	Fish Barrier Removals (#)	Steepest Side Slope Road Crosses
Construction		7882	3.0		55
Reconstruction		3380		N/A	20
Abandonment		0	0	N/A	N/A
Temporary construction		9142	3.5		70
Bridge Install/Replace	4	202			
Culvert Install/Replace (fish)	1				
Culvert Install/Replace (no fish)	7*				

*This refers to only typed stream crossings and does not include relief culverts.

**Of the length listed for Temporary Construction in the above table, zero feet up to the entire length listed may be built.

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:
Sections 33 and 34 of Township 28 North, Range 9 East, W.M.
Sections 10, 4 and 3 of Township 27 North, Range 9 East, W.M.

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

Travel 2.0 miles east on U.S. Highway 2 from Gold Bar. Turn left onto Reiter Road. Follow Reiter Road to where it intersects with May Creek Road at 0.8 miles. Bear right to continue on Reiter Road. Continue 1.2 miles on Reiter Road to reach the May Creek Mainline gate (MY-ML) on the left (north) of the road. Continue on the MY-ML for 0.4 of a mile and you will arrive at where road reconstruction will begin, shortly after passing the powerline clearing. You can continue driving on the MY-ML for another 0.5 miles. At the fork, veer right and continue 0.1 miles until the road ends at May Creek. From there, follow the staked line for approximately 1.2 miles to Unit 2.

d. *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	Gross Proposal Acres
Upper Wallace River	20,136	193.7
Subbasin 4	5,782	31.1
Subbasin 5	4,189	162.6

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.)*

WAU Name	Acres	DNR-Managed Acres	Other Acres	% DNR Managed Land	% Other Land	Gross Proposal Acres	% of Proposal in WAU
Upper Wallace River	20,136	5,454	14,682	27.1	72.9	193.7	100%

Past and Future DNR Activities in WAU

DNR Managed Lands – Past and Future Harvests

(This proposal included as part of the estimated acreage for future harvests.) Data from DNR Database – August 16, 2013

Upper Wallace River	Estimated Acreage Harvested in Past 7 Years	Est. Acreage for Future Harvests	Total Est. Acreage Past and Future
<i>WAU Acres</i>	87	2,930	3,017
<i>% of WAU</i>	0.4%	14.5%	14.9%
<i>% of DNR Acres in WAU</i>	1.6%	53.7%	55.3%

Future forest management activities in the WAU include road building, rock pit expansion, silvicultural work and timber harvesting. Activities occurring on DNR managed land will follow Forest Practices Rules, Habitat Conservation Plan (HCP) guidelines, and the Policy for Sustainable Forests – policies designed to minimize environmental impacts. Future forest management activities on privately managed, non-DNR lands will be subject to the Forest Practice Rules.

The Department's Habitat Conservation Plan (HCP) outlines strategies to protect Federally listed threatened and endangered species, and species that are in danger of being listed in the future, as well as uncommon habitat types found on forest lands in western Washington. HCP riparian buffers intended to protect salmon and trout habitat were applied to this proposal, and will be applied to all future sales in the vicinity. The HCP identifies large, structurally unique trees and snags as uncommon habitats that need to be protected.

The Interim Strategy for the Marbled Murrelet in the North Puget Planning Unit, under the Department's HCP, requires Department field staff to search for and delineate any "newly identified" marbled murrelet habitat in the vicinity of any proposed timber sales. These stands will be deferred from timber harvest throughout the remainder of the Interim Strategy (with occasional exceptions made to allow road and/or yarding access into non-habitat areas), and will be considered to be left un-harvested for a longer period of time under the Department's yet-to-be-developed Long-Term Strategy for marbled murrelets. A region biologist has verified field staff's determination that no "newly identified" marbled murrelet habitat was found and this proposal meets all requirements of the Interim Strategy.

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).*

Upper Wallace River WAU

The southern portion of the Upper Wallace River WAU starts at 154 feet above sea level in the Skykomish and Wallace River valleys. The northern portion becomes steep and mountainous to 5,202 feet elevation as it moves through the rolling topography of the Cascade foothills. The average elevation is 2,179 feet. The lower to middle elevations are dominated by Douglas-fir and western hemlock timber types. The higher elevations are dominated by Pacific silver fir and western hemlock. Rainfall averages 73 inches a year and snow persists at the higher elevations for prolonged periods of time. 22% of the WAU is in the peak rain-on-snow zone.

2) *Identify any difference between the proposal location and the general description of the WAU or sub-basin(s).*
The vicinity of the proposal is consistent with formations found throughout the WAU.

b. What is the steepest slope on the site (approximate percent slope)?
90%

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	% Slope	Mass Wasting Potential	Erosion Potential
99003	Elwell-Olomount-Rock Outcrop-Compelx	30-65%	Medium	Medium
106337	Elwell- Olomount-Rock Outcrop- Complex	30-65%	Medium	Medium
105787	Gravelly Loam	0-30%	Insignificant	Low
106188	Gravelly Loam	0-8%	Insignificant	Low
106313	Gravelly Loam	0-30%	Insignificant	Low
106540	Silt Loam	3-30%	Insignificant	Low

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

1) *Surface indications:*

One shallow landslide along Reiter Road initiated by the road cut for Reiter Road.

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:

Shallow failures have occurred along the lower banks and tributaries of the Wallace River, particularly below the initial bench upslope from the Wallace River.

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 no known slope failures attributable specifically to timber harvest and road activities. See B.1.d.2.

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.

No known unstable slopes are associated with this proposal. Full bench construction is required on the MY-ML through a section of wet ground to minimize the risk of creating an unstable area. Roads have been located to avoid steeper slopes where possible. Steeper slopes outside the western boundary of Unit 1, closest to Wallace River, were bounded out of the sale.

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

Approx. acreage new roads: 6.5 Approx. acreage new landings: 1.0 Fill source: Native soil or rock located within road construction prism or rock from any of the rock pits associated with this proposal.

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

Road construction and abandonment activities will expose bare soil. Road plan requirements include the use of grass seed or other re-vegetation/mulching methods to protect exposed soils from 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):

About 4% of the site will be covered with rock covered (gravel) roads.

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

(Include protection measures for minimizing compaction or rutting.)

All roads will be constructed to meet or exceed Forest Practices standards and the Habitat Conservation Plan guidelines. Appropriate drainage devices including proper culvert size and placement and ditching will be used as necessary to reduce surface erosion. All exposed soils resulting from road construction, or abandonment will be revegetated or a protective cover applied to prevent sediment from being transported. During construction road pioneering will not extend more than 500 feet beyond completed construction unless approved by the Contract Administrator; culverts will be installed concurrently with construction of the road subgrade, and culvert outlets will not terminate on unprotected soils.

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.

Minor amounts of engine exhaust from logging equipment, dust from vehicle traffic and logging equipment, and smoke from slash burning are expected while the project is active.

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:

All activities will be in adherence to the Washington State Smoke Management Act.

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:
Skykomish River, Wallace River.

b) Complete the following riparian & wetland management zone table:

Wetland, Stream, Lake, Pond, or Saltwater Name (if any)	Water Type	Number (how many?)	Avg RMZ/WMZ Width in Feet (per side for streams)
May Creek		1	165'
Un-named stream		4	165'
Un-named stream		5	100'
Un-named stream		9	30' equipment limitation zone
Un-named wetland	Forested	3	165'

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

New construction passing through existing RMZ/WMZs will have Best Management Practices applied during hauling to ensure that excessive ditchwater and runoff will not enter or otherwise adversely affect water quality or RMZ/WMZ function. Exposed soils will be grass seeded.

Road building and abandonment will take place within the WMZ's of 2 forested wetlands. A mitigation plan will be implemented for acre-for acre replacement of the WMZ area impacted by new road construction, which will be abandoned after completion of use.

- 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):
Yes. New road construction over typed waters make use of bridge installations, culvert installations, ditch relief culverts, road grading, or terrain to ensure that excessive ditchwater and runoff will not enter or otherwise adversely affect typed waters. See engineer's Road Plan and Specifications for this proposal (available upon request at the Northwest Region Office) for more information.
- Road building and abandonment will take place within the WMZ's of 2 forested wetlands. Mitigation plan available at Northwest Region office.**
- 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.
Native soil, native rock, and rock from the pits associated with this proposal may be used as back fill material over culverts placed at typed water crossings during construction. Best Management Practices will be applied to minimize sediment delivery and prevent this fill material entering the associated typed waters.
- 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:
It may be necessary to temporarily divert typed waters around culvert installation sites to minimize sediment delivery. This will happen during the HPA approved timing window, in accordance to procedures listed in the road plan.
- 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?*
According to the Department GIS database, the potential for mass wasting within the sub-basins range from insignificant to medium, and soil erosion potential is low to medium. Stream buffers and equipment limitation zones make for little potential for eroded materials to enter 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
At the WAU and sub-basin level there is some evidence of aggradations and channel scouring from naturally occurring erosion.
- 9) *Could this proposal affect water quality based on the answers to the questions 1-8 above?*
 No Yes, explain:
**This proposal includes both the harvest of timber and road work. The removal of overstory vegetation will temporarily reduce interception of water and increase infiltration and saturation of water into the forest floor which could temporarily increase overland flow.
The protection measures identified in B.1.d.5 keep harvest activities away from potentially unstable slopes. RMZ/WMZ buffers (see B.3.a.1.b) and other harvest-system control measures (see B.1.h) ensure**

that any overland flow from disturbed soil areas will filter through substantial amounts of forest-floor vegetation before entering any perennial stream channels.

Road work disturbs surface soils where some temporary surface erosion is likely to occur, especially with the first winter rains following road work at culvert installation locations and road abandonment related culvert removal locations. These installations and removals will follow forest practices rules and RMAP requirements to minimize any erosion-related water quality impacts. See question B.1.h, B.3.a.1.c, and B.3.d. for a partial listing of some of the specific erosion protection measures.

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

No Yes, describe:

WAU Name	Road miles per square mile
Upper Wallace River	3.1

- 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.

Approximate percent of sub-basin(s):

- 12) If the proposal is within the significant ROS zone, what is the approximate percentage of the WAU or sub-basin(s) within the significant ROS zone (all ownerships) that is (are) rated as hydrologically mature?

- 13) Is there evidence of changes to channels associated with peak flows in the WAU or sub-basin(s)?

No Yes, describe observations:

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

This proposal is not located in the significant rain-on-snow zone, and is not expected to contribute to a peak flow impact.

- 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 are domestic water sources downstream and downhill of the proposal. It is not likely that the water quality will be affected due to adequate stream buffers, but it is probable that there will be a slight increase in flow rates during low and high flow periods.

- 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.

Please refer to B.3.a.1.c.

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.

Channelized water from ditches and culverts emptying out onto the forest floor will increase surface saturation in localized areas, but is not expected to adversely affect ground water.

- 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.

Small amounts of oil and other lubricants could be discharged inadvertently as a result of heavy equipment use.

- 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:

Due to the nature of resource protection measures in the proposal area, there should be minimal impact on downslope or downstream ground water resources. See answers to question B.3.a.14., B.3.a.15., and B.3.d.

- a) *Note protection measures, if any.*
See answer to question B.3.d.

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.
Runoff from the road surfaces will be collected in ditches and diverted to stable areas on the forest floor through the use of ditches, culverts, and energy dissipaters.
- 2) Could waste materials enter ground or surface waters? If so, generally describe.
It is not anticipated that waste material will enter ground or surface water as a result of this proposal.

- a) *Note protection measures, if any.*
Please refer to B.3.a.1.c.

- 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.)
Constructed ditches, cross-drain culverts, drain dips, and water bars will be used to control runoff. Straw mulch, grass seeding, or other appropriate methods may be used on any soil exposed cut and fill slopes during the course of this proposal in order to prevent sediment movement. Roads and landings will be crowned to avoid water accumulation. Falling and yarding away from all seasonal streams will be applied where feasible. All activities associated with this proposal will meet or exceed Forest Practices standards and will follow the Habitat Conservation Plan.

4. Plants

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

- deciduous tree: alder, maple, aspen, cottonwood, western larch, birch, other:
evergreen tree: Douglas fir, grand fir, Pacific silver fir, ponderosa pine, lodgepole pine,
western hemlock, mountain hemlock, Englemann spruce, Sitka spruce,
red cedar, yellow cedar, other:
shrubs: huckleberry, salmonberry, salal, other:
grass
pasture
crop or grain
wet soil plants: cattail, buttercup, bullrush, skunk cabbage, devil's club, other:
water plants: water lily, eelgrass, milfoil, other:
other types of vegetation: **lichen (observed on bald)**
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.")*
The proposal is surrounded by other DNR managed land, private property, and Wallace Falls State Park. Adjacent DNR and state managed lands consist of similar timber in age, structure, and diversity, to the removal area. To the south are several parcels of residential private property.
- 2) *Retention tree plan:*
Each unit will have an average of eight wildlife and green recruitment leave trees per acre remaining on site upon completion of harvest activities. Unit 1 contains 397 clumped leave trees and 395 scattered leave trees. Unit 2 contains 396 clumped leave trees and 228 scattered leave trees. Unit 3 contains 16 clumped leave trees and 32 scattered leave trees. Retained trees will provide wildlife habitat, older forest components, and a seed source to surrounding areas. This will ensure that trees best suited to the site, and/or which exhibit desirable wildlife habitat characteristics will be retained. The site will be replanted with conifer seedlings at a stocking level that meets or exceeds Forest Practices standards.

- c. List threatened or endangered *plant* species known to be on or near the site.
None found in TRAX database search.
- d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:
- **An average of eight wildlife and green retention trees per acre will be clumped and scattered throughout the proposal.**
 - **RMZs will be retained on all type 3 and 4 streams.**
 - **WMZs will be retained on all forested wetlands.**
 - **Harvest areas will be replanted with native conifers.**
 - **Exposed soils adjacent to live waters, due to road construction, will be grass seeded.**

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: **spotted owl NRF**
 mammals: deer, bear, elk, beaver, other: **possibly cougar (scat observed on site)**
 fish: bass, salmon, trout, herring, shellfish, other:
unique habitats: talus slopes, caves, cliffs, oak woodlands, balds, mineral springs

Cliffs and balds were found located within the proposal area.

Road construction, reconstruction, and potential rock pit development will occur through a northern spotted owl “next best” (non-habitat) stand.

- b. List any threatened or endangered species known to be on or near the site (*include federal- and state-listed species*).
None found in TRAX database search.

- c. Is the site part of a migration route? If so, explain.
Pacific flyway Other migration route: *Explain if any boxes checked:*
All of Washington State is considered part of the Pacific flyway. No impacts are anticipated as a result of this proposal.

- d. Proposed measures to preserve or enhance wildlife, if any:
By designing this sale to comply with the State’s HCP, some wildlife habitat will be retained. An average of eight mature trees per acre will be left within the sale area. Larger diameter trees that have large limbs, open crowns, and broken tops will be left to maintain some current habitat needs and provide future habitat opportunities for many species. These trees will likely become snags and retention trees in future generations. These leave trees were also strategically placed for the protection of unique habitats such as cliffs and balds. To minimize impacts to balds within this proposal, equipment restrictions and requirements to fall and yard away from the bald features are in place where operationally feasible. Some large cliffs and a large bald were bounded out of one of the harvest units. Riparian Management Zones will maintain water quality, provide migratory corridors for wildlife, and maintain habitat for fish, amphibians, and other riparian-dependent species. All RMZs left along wetlands and type 3 and 4 waters are conducive to water quality and serve as protected areas for wildlife habitat.

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.
None.
- b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.
No.
- c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:
None.

7. Environmental Health

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

There is minimal environmental hazard due to heavy equipment operations. There is a potential fire hazard if operating in moderate fire weather conditions during the summer. The timber sale contract contains language that addresses hazardous material spill prevention, containment, control, cleanup, and reporting.

- 1) Describe special emergency services that might be required.
 - **Firefighting by the Department of Natural Resources, possibly supported by local fire districts.**
 - **Emergency medical and/or ambulance service for personal injuries.**
 - **Responses by the Department of Ecology if a spill were to occur.**
 - 2) Proposed measures to reduce or control environmental health hazards, if any:
 - **Compliance with state laws.**
 - **Fire suppression equipment will be required on site during fire season and operations will cease if relative humidity falls below 30%.**
 - **Public access may be restricted during times of high fire danger.**
- 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 long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from this site.
Noise from road construction and harvest activity will be present in the immediate vicinity of this proposal during operations. Noise from log hauling will be present along the haul routes during operations.
 - 3) Proposed measures to reduce or control noise impacts, if any:
None. Noise associated with harvest and road construction activity will be minimal anywhere but in the immediate vicinity of the proposal. Harvest activity and log hauling are ordinary activities in the area and noise should not be present above customary levels.

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.*)
The proposed site and much of the adjacent property is being used for forest management. There is also residential use on private property around this site, along with recreational use on site and on adjacent state park property.
- 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?
No.
- e. What is the current zoning classification of the site?
Commercial Forest Land.
- f. What is the current comprehensive plan designation of the site?
Commercial forestry.
- g. If applicable, what is the current shoreline master program designation of the site?
Resource.
- h. Has any part of the site been classified as an “environmentally sensitive” area? If so, specify.
No.
- i. Approximately how many people would reside or work in the completed project?
None.
- j. Approximately how many people would the completed project displace?

None.

k. Proposed measures to avoid or reduce displacement impacts, if any:
None.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:
This proposal is consistent with current land use designations and zoning regulations.

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:

Some views from the Reiter Non-Motorized trailhead and trail system will be visually altered. Portions of the harvested area will be visible from Gold Bar, as well as other residential areas along the US Highway 2 corridor. The proposal will also be visible from the Mount Index area and other high peaks in the vicinity of the area.

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:

US Highway 2, May Creek Road, Reiter Road.

3) *How will this proposal affect any views described in 1) or 2) above?*

This proposal will add to the existing matrix of multi-cohort forestland across the landscape. Within the vicinity of this proposal are many large tracts of State and privately managed forestland which have been actively managed for decades.

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

The placement of leave trees was intended, in part, to provide visual breaks and soften the visual impact of the variable retention harvest. Riparian and wetland management zones provide additional visual buffers. Along the trail system in Unit 1 of the proposal, leave trees were not marked with the traditional ring of blue paint. Instead, all trees to be harvested were marked with orange paint. In essence, after the completion of harvest, none of the remaining tree boles have any paint markings which helps to maintain the aesthetics of the site.

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?
None.

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?
A multi-use trail system, currently under construction, that is part of the Reiter Foothills Forest Recreation Plan is located within the proposed area. Also, the proposal area is adjacent to the boundary of Wallace Falls State Park.
- b. Would the proposed project displace any existing recreational uses? If so, describe:
During active harvest operations the trail system will be closed. Recreational access will be restored after the completion of the proposal.
- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:
See answer to B.10.c.

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.
Remnants of old rail road grades were identified within the proposal. An inventory of the railroad remnants was conducted by the Department Archaeologist.
- b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.
An inventory of the railroad remnants was conducted by the Department Archaeologist.
- c. Proposed measures to reduce or control impacts, if any:
(Include all meetings or consultations with tribes, archaeologists, anthropologists or other authorities.)
The old rail road grades have been documented. A site protection plan was developed in regards to the rail road remnants.

Forest Practices and DNR TRAX runs indicate no other known historical or archeological sites on or near the proposal. Any cultural resources identified during operations will be protected. Should archaeological material or cultural items be discovered during the course of operation, all work in the vicinity will be stopped and associated tribes and Department of Archaeological and Historic Preservation (DAHP) will be contacted.

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.
 - 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? If not, what is the approximate distance to the nearest transit stop?
No.
- c. How many parking spaces would the completed project have? How many would the project eliminate?
None.
- 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).
New forest roads will be constructed as part of this proposal. See question A.11.c.
 - 1) *How does this proposal impact the overall transportation system/circulation in the surrounding area, if at all?*
This proposal will have very little impact since all of the new road construction will be forest management roads that end on State managed land. All forest management roads to be utilized will be tributary to paved county roads, which already have truck traffic.
- e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.
No.

i. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.
It is estimated that 30 trips per day would occur during active logging operations. Once logging has been completed, no new vehicular trips will be necessary except for periodic road maintenance and stand assessments/maintenance.

g. Proposed measures to reduce or control transportation impacts, if any:
None.

15. Public Services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, 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. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.
None.

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

C. SIGNATURE

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: Jeani Schmol Boulder Unit Forester NRS-1 Date: 03/00/2014
Title