

STATE FOREST LAND
SEPA ENVIRONMENTAL CHECKLIST

Purpose of checklist:

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

Instructions for applicants:

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

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

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

Instructions for Lead Agencies:

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

Use of checklist for nonproject proposals:

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

A. BACKGROUND

1. Name of proposed project, if applicable:

Timber Sale Name: **COLD SPRINGS CH**

Agreement # **93483**

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

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

**Northwest Region
919 N. Township Street
Sedro-Woolley, WA 98284**

**Contact Person: Laurie Bergvall
Telephone: (360) 856-3500**

4. Date checklist prepared: **03/10/2016**

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

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

a. Auction Date: **10/26/2016**

b. Planned contract end date (but may be extended): **1/31/2017**

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.

***Roads:* The existing roads associated with this proposal will continue to be used and expanded for future management activities. All new construction will be abandoned at contract termination.**

***Rock Pits:* The MU-43, MU-53 and MU-84 hardrock pits will be used for future management activities.**

Timber Sale:

a. Site preparation:

Harvest units may be treated with herbicides prior to planting. Assessment for treatment will occur after completion of harvest.

b. Regeneration Method:

Hand plant with conifer seedlings within the first two years after harvest.

c. Vegetation Management:

Treatment to be assessed in 3-5 years. Competing vegetation may be treated by manual cutting and/or herbicide.

d. Thinning:

The need for a pre-commercial thinning will be assessed in 10 to 15 years. A commercial

thinning is possible in 25 to 45 years.

Roads: The MU-ML, MU-22, and MU-2217 roads will continue to be used for future timber sales and forest management activities. Required routine road maintenance on the haul route will be conducted at periodic intervals.

Rock Pits and/or Sale: The MU-43, MU-53 and MU-84 rock pits will continue to be used for future timber sale road construction and road maintenance activities. 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): Nookachamps Creek, East Fork Nookachamps Creek, Turner Creek, Otter Pond Creek, Unnamed Creek
- Landscape plan:
- Watershed analysis:
- Interdisciplinary team (ID Team) report:
- Road design plan: Available at Northwest Region Office
- Wildlife report: Available at Northwest Region Office
- Geotechnical report: Memorandum prepared by Northwest Region State Lands Engineering Geologist (March 16, 2016); Available at Northwest Region Office
- Other specialist report(s):
- Memorandum of understanding (sportsmen's groups, neighborhood associations, tribes, etc.): Agreement between the DNR and BPA, for managing impacts to state lands from BPA transmission lines and access road easement.
- Rock pit plan: Available at Northwest Region Office
- Other: Policy for Sustainable Forests, December 2006; Final Habitat Conservation Plan (HCP) and Environmental Impact Statement, September 1997; State Soil Survey, 1992

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

None are known.

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

- FPA # FHPA Burning permit Shoreline permit Incidental take permit
- Existing HPA Other:

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects

of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

a. *Complete proposal description:*

Proposal Area:

Approximately 75 acres were considered for this proposal; this has been reduced to 30.6 gross acres due to operational feasibility, stream buffers, wetland buffers, channel migration zone (CMZ) and potentially unstable slopes. The resulting timber sale, after deducting 0.7 acres for leave tree areas, consists of five variable retention harvest (VRH) units totaling 29.9 net acres with an estimated harvest volume of 1,169 MBF of timber on State managed trust lands.

All five harvest units border private property to the west. The harvest area is surrounded by State managed trust land to the north, east and south.

Rock pits will be utilized in this proposal. The rock pits names are listed in A.7.

Road work will be completed as part of this proposal, as listed in A.11.c.

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

Pre-Harvest Stand Description:

- Stand originated in 1930
- Overstory composed primarily of large Douglas-fir with western redcedar as a co-dominant species. Western hemlock, red alder, bigleaf maple and black cottonwood are also present in some areas.
- Understory mainly consists of sword fern, with salal and Oregon grape present in some areas

Type of Harvest:

This proposal is a variable retention harvest (VRH) on State managed trust lands. Harvest removals will occur using primarily ground-based systems, though cable systems may be utilized if needed.

Overall Unit Objectives:

- Generate revenue for the State trust beneficiaries
- Apply a leave tree strategy that will maintain site productivity, protect water quality, and maintain wildlife habitat
- Meet or exceed all guidelines set forth in the DNR Habitat Conservation Plan (HCP), Policy for Sustainable Forest, and Forest Practices Rules and Regulations.

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		0	0		NA
Reconstruction		0		0	NA
Abandonment		0	0	0	NA
Temporary construction		835**	0.3		10
Pre-haul Maintenance		40,254			
Bridge Install/Replace	0	0			
Culvert Install/Replace (fish)	0				
Culvert Install/Replace (no fish)	1*				

*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 the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

a. *Legal description:*

Timber sale harvest units: Sections 20 and 29 of Township 34 North, Range 05 East, W.M.

Rock pit: Sections 16, 21 and 27 of Township 34, Range 05 East, W.M.

Culvert Replacement: Section 17 of Township 34, Range 05 East, W.M.

Pre-haul Maintenance: Sections 5, 8, 16, 17, 20, 21 and 29 of Township 34 North, Range 05 East, W.M.

Proposed Temporary Roads: Sections 20 and 29 of Township 34 North, Range 05 East, W.M.

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

This proposal is located approximately 7 miles, by road, east of the Town of Clear Lake off of Janicki Road and Old Day Creek Road.

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

WAU Name	WAU Acres
NOOKACHAMPS	46,461

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

No cumulative change in the environment is expected from the combination of past and future activities with this proposal. This proposal as well as past and future activities either meet or surpass Forest Practice Rules by complying with the commitments of the HCP and as such protect water quality and mitigate environmental impacts. Data in the table below was reported in the Department's GIS database on February 3, 2016.

Nookachamps WAU

Land Manager	Acres	% of WAU
DNR	13,434	28.9
Other state (Non-DNR)	360	0.8
Other Land (Private & Other Public Land)	32,667	70.3

DNR Managed Lands – Future Harvests.

Future forest management activities in this WAU will 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 – all policies designed to minimize environmental impacts. Future forest management activities on privately managed, non-DNR lands will be subject to Forest Practices Rules.

Future harvest acres for non-DNR lands are difficult to determine and are not represented in the following table. This proposal is included in the future harvest acreage.

This table is based on the best available information as reported in the Department's GIS database on February 3, 2016.

WAU Name	Estimated Future Harvest Acres through 2020
NOOKACHAMPS WAU	478

DNR Managed Lands – Past Harvests.

The following table reports timber harvest activity in the WAU within the past seven years on both DNR managed lands and non-DNR lands. Data in the table below was reported in the Department's GIS database on February 3, 2016.

WAU	DNR harvest acres:	DNR harvest acres:	Non-DNR harvest acres:	Non-DNR harvest acres:

	Even-aged	Uneven-aged	Even-aged	Uneven-aged
Nookachamps	1,297	0	1,159	185

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 even-age for example).

NOTE: 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.

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. An average of 8 trees per acre will be left in the proposed harvest units. These trees will function for future snag and large structurally unique tree recruitment.

Under the Interim Strategy for the Marbled Murrelet in the North Puget Planning Unit under the Department's HCP, several stands in this WAU have been deferred from timber harvest to protect known murrelet nesting sites and to provide potential additional nesting habitat. This Interim Strategy also requires Department field staff to search for and delineate any "newly identified" marbled murrelet habitat in the vicinity of any proposed timber harvest. These stands may 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). The proposed harvest area and adjacent DNR-managed land were delineated and verified by a Northwest Region Biologist. No suitable marbled murrelet habitat was found.

B. ENVIRONMENTAL ELEMENTS

1. Earth

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

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

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

The Nookachamps WAU consists of rolling foothills, occasional rock outcrops, mountainous terrain, and valley bottoms. The boundaries of the WAU follow the ridgeline created by Cultus Mountain west to Devil's Mountain. A low valley formed by the two mountains drains a series of lakes north into the Skagit River via Nookachamps Creek. Cultus Mountain is the highest point of the WAU at 4,077 feet while the Nookachamps

Creek valley is near sea level. The average slope of the WAU is 35-45% and the average rainfall is 44 inches.

The primary cover-type is second growth conifer forests of Douglas-fir, western hemlock, and western redcedar. In moister areas, dominant timber types are red alder, cottonwood, and bigleaf maple. Higher elevations in the WAU contain conifer stands comprised of Pacific silver fir, western hemlock, and western redcedar.

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

None. The proposal area is consistent with the description of the WAU.

- b. What is the steepest slope on the site (approximate percent slope)? 70%
- c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

Note: The following table is created from state soil survey data. It is a roll-up of general soils information for the soils found in the entire sale area. It is only one of several site assessment tools used in conjunction with actual site inspections for slope stability concerns or erosion potential. It can help indicate potential for shallow, rapid soil movement, but often does not represent deeper soil sub-strata. The actual soils conditions in the sale area may vary considerably based on land-form shapes, presence of erosive situations, and other factors. The state soil survey is a compilation of various surveys with different standards.

State Soil Survey #	Soil Texture	% Slope	Mass Wasting Potential	Erosion Potential
1721	GRAVELLY LOAM	45-70	HIGH *	HIGH *
8724	V.GRAVELLY LOAM	30-65	MEDIUM	MEDIUM
0416	GRAVELLY LOAM	0-8	INSIGNIFIC'T	LOW
8105	GRAVELLY LOAM	8-15	INSIGNIFIC'T	LOW

*Areas with high mass wasting and erosion potential that are located near streams will be limited by riparian management zones and equipment limitation zones to minimize activity and disturbance.

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

1) Surface indications:

There are some surface indications of potentially unstable soils in the Nookachamps WAU but not within this proposal. Sale boundaries were designed to meet or exceed

Forest Practices standards and the Habitat Conservation Plan guidelines.

The statewide landslide inventory (LSI) screening tool indicates the presence of polygons mapped as landslides in the general area of the proposed harvest unit boundaries. This landslide database is maintained by the Washington Department of Natural Resources, Forest Practices Division. The LSI includes landslides mapped during many different projects including large-scale geologic mapping, watershed analyses, landscape planning, and landslide hazard zonation, in addition to other case studies and mapping efforts. A large majority of landslides identified by these projects are mapped by remote review with minimal field verification. In addition, dormant and ancient deep-seated landslides are mapped in many projects included in the LSI. A large number of the remotely identified landslides and deep-seated features have been mapped with a questionable, probable, or unknown certainty. As a result, the LSI database is meant to be used as a screening tool and field verification is a necessary step in confirming the absence, presence, and extent of mapped features, as well as their actual level of activity/instability.

The LSI identified a feature (#16342) with “unknown” probability east of the proposal. The northeast corner of Unit 1 is within 700 feet and Unit 2 is within 400 feet from the mapped boundary of this polygon.

Surface indications of potentially unstable slopes adjacent to the sale boundaries mainly occur in riparian areas and are in the form of excessive channel scouring and inner gorges. The LSI layer indicates that several inner gorges are present within the riparian zone of the East Fork of Nookachamps Creek, all of which are outside harvest boundaries.

Bank erosion and inner gorges were field identified along Cold Spring Creek between Units 1 and 2, and along the riparian zone of the unnamed stream between Units 2 and 3. These areas were excluded from the sale boundaries. A channel migration zone (CMZ) was also identified in the riparian zone of the East Fork of Nookachamps Creek, south of Unit 5. A no-harvest riparian buffer is in place around the CMZ.

The Northwest Region State Lands Licensed Engineering Geologist (LEG), who meets the Forest Practices definition of a ‘Qualified Expert’, performed office and field reconnaissance on all of the aforementioned potentially unstable landforms around the sale area. The LEG additionally noted that the LSI deep-seated landslide #16342 is incorrectly mapped, and the toe of this slide actually extends into the eastern boundary of Unit 1. The toe of this slide has a slope much less than 65% within the unit boundary. There are two possible sag ponds inside Unit 1 associated with this landslide. The LEG also determined that a landslide exists between Units 1 and 2. There is also an inactive slide west of the proposal. The forested wetland north of Unit 2 might be a sag pond associated with this slide. In addition, two small landslides were noted about 150 to 200 feet west of Unit 1 and another small possible landslide was noted about 400 feet southwest of Unit 2. All of these are outside of the proposed sale boundaries. They are discussed in some detail in the Engineering Geologic Memorandum, dated March 16, 2016.

- 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:

Failures of banks, terrace escarpments, and till slopes have resulted from river flows undercutting and destabilizing banks.

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:

Specific areas are not known, but due to terrain and landforms in the vicinity it is likely landslides have occurred. It is possible that some of these shallow failures were triggered by historic timber harvests and road construction activity.

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:

Some of the streams adjacent to this proposal have similar topography to streams that have experienced slope failures in the past. There are inactive landslides near the site. Road has been constructed and timber has historically been harvested on these landslides.

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

A Northwest Region State Lands Licensed Engineering Geologist, who meets the Forest Practices definition of a 'Qualified Expert', conducted a review of LSI mapped landslides near this proposal. These landslides are bounded out of the sale, except the toe of one extends into Unit 1 as described in B.1.d.1 above. A remote review and a field review were conducted to identify additional potentially unstable features within the proposal area. The Engineering Geologic Memorandum, dated March 16, 2016, discusses these landslides and other potentially unstable areas in some detail.

The landslide between Units 1 and 2 and the bank erosion and inner gorges located within the riparian areas of Cold Spring Creek are completely contained within no-harvest RMZ and WMZ buffers. The harvest boundary locations were modified to exclude the inner gorges in the riparian areas around the unnamed stream between Unit 2 and Unit 3. These sale boundary locations were determined by both the no-harvest RMZ buffer and the head of the scarp. The southern boundary of Unit 5 was determined by the no-harvest buffer associated with the CMZ along the East Fork of Nookachamps Creek to the south. The other field-identified landslides are

on private property and are not affected by this proposal. No Forest Practices rule-identified landforms exist within the sale boundaries.

Harvest boundaries were designed with the intent to utilize ground-based harvesting operations as the proposal is located on mainly flat to gentle topography, but cable systems may be utilized if deemed necessary. Roads are located on gentle terrain and have been located to avoid unstable slopes and stream crossings. The location of some leave tree areas were determined with intent to accommodate ground-based operations which are restricted to sustained slopes of 35% or less.

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

Approx. acreage new roads: Permanent roads = 0.0 acres.
Temporary roads = 0.3 acres.
Approx. acreage new landings: 0.0 acres.
Fill Source: Fill source will be native fill or rock.

Road construction will utilize standard cut and fill methodology to obtain grade and alignment. Native soil and rock will be excavated from the road prism and used for fill in the sub-grade and over cross drains.

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

Road construction will expose bare soil. Road plan requirements include the use of grass seed or other revegetation 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):*

Less than 1 percent of the site will be covered with permanent new 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, drain dips, water bars and ditching, will be used as necessary to reduce surface erosion. In areas adjacent to constructed roads where soil disturbances have occurred, straw mulch, grass seed or some other appropriate measure will be used to prevent sediments from being transported.

2. Air

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

Minor emissions are anticipated from equipment exhaust and road dust created by truck traffic. Following harvest, logging slash debris may be reduced by accumulating it into piles and then burned.

- 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:
If slash is burned it will be in adherence to the State's Smoke Management Program.

3. Water

- a. Surface Water:

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

- a. *Downstream water bodies:*

All streams associated with this proposal are ultimately tributaries to Nookachamps 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)
East Fork of Nookachamps Creek	1	1	187
Cold Spring Creek	3	1	187
Unnamed Stream	3	4	187
Unnamed Stream	4	3	100
Unnamed Stream	5	4	30-ft Equipment Limitation Zone
Unnamed Wetland (0.4 acre)	Forested	1	100

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

The no-harvest RMZ and WMZ buffers as listed in B.3.a.1.b, the East Fork of Nookachamps Creek no-harvest CMZ, as well as the proposed measures to reduce or control erosion described in B.1.h provide protection measures for the surface waters in the vicinity of the proposal area. Ditchwater will be diverted through relief culverts prior to stream crossing to keep sediment out of streams. All existing roads through RMZs/WMZs will have Forest Practices Best Management Practices applied during hauling to ensure that excessive ditchwater and runoff will not enter or otherwise adversely affect water quality. New construction was located to avoid crossing typed waters. Exposed soils will be grass seeded.

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

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

Description (include culverts):

Timber will be felled immediately adjacent to the RMZs/WMZs described in the table in B.3.a.1.b. Timber will be felled away from the RMZs/WMZs where practical in order to avoid damage to trees within the RMZs/WMZs. Logs may be placed in ground-based stream crossings to facilitate yarding and removed upon completion of yarding. On existing roads, ditchwater will be diverted through relief culverts or make use of topographic controls prior to stream crossings to keep sediment out of streams. Exposed soils will be revegetated. See Road Plan for this proposal (available at the Northwest Region Office) for more information. Equipment crossings may occur over type 5 waters. One culvert will be replaced in a type 5 stream, at an existing crossing.

- 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:* **All water flow may be temporarily diverted through bypass culverts or retained behind (or pumped around) coffer dams during culvert installations. Also, typed waters may be temporarily diverted, if culvert replacement is deemed necessary, through the course of operations, on typed water crossing on existing roads.**

- 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?

Yes. The following data was reported in the Department's GIS database in February 2016. This data is not available by sub-basin.

Nookachamps WAU: data may not be available for 100% of the WAU

Erosion Potential	Acres	% in WAU	Mass Wasting Potential	Acres	% in WAU
High	4,240.6	9.1	High	3,208.1	6.9
Medium	13,339.2	28.7	Medium	12,909.6	27.8
Low	23,706.7	51.0	Low	3,277.7	7.1
Variable	21.5	0.0	Insignificant	24,653.2	53.1
No Data	822.0	1.8	No Data	822.0	1.8
N/A	2,762.1	5.9			

- 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 level there is evidence of aggradation in low-gradient channel reaches and channel scouring in the upper reaches. These changes are associated with mass wasting and channelized debris flows. There is no evidence of significant channel movement.

There has been some stream channel widening from flooding and landslide events. During extreme flooding, Large Organic Debris (LOD) has been decreased in some stream channels. These events are natural but could also be caused by historic logging and road construction activities.

- 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.a.2.c keep harvest activities away from potentially unstable slopes. RMZ/WMZ buffers (see B.3.a.1.b) and other operation 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 Road Maintenance and Abandonment Plan (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)?

There are 5.5 miles of road per square mile in the Nookachamps WAU, based on a GIS report generated on February 3, 2016. This data is not available by sub-basin.

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:

11) Is the proposal within a significant rain-on-snow (ROS) zone? If not, **STOP HERE** and go to question B-3-a-13 below. Use the WAU or sub-basin(s) for the ROS percentage questions below.

No Yes, approximate percent of sub-basin(s) in significant ROS zone:

Or, approximate percent of WAU:

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 and sub-basin(s)?

No Yes, describe observations in the WAU and in the sub-basin(s):

Channel changes have occurred at the WAU level. It is difficult to separate the effects of peak stream flow increases from the effects of mass wasting in stream channels. The effects are interrelated and often occur during the same storm events (see B.3.a.8). The Region's LEG identified a channel migration zone in the riparian area of the East Fork of Nookachamps creek, south of the proposed 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.*

This proposal may slightly change the timing, duration, and amount of peak flow. Flow rates may increase slightly during low and high flow periods due to decreased transpiration and interception during the first decade of new forest growth. To minimize impacts, riparian buffers will be established and best management practices will be followed. Refer to B.3.a.1.c. and B.3.a.2. There should not be any significant change in peak flow in the WAU or sub-basin.

- 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:

The East Fork of Nookachamps Creek is a fish-bearing stream that is downslope of the sale. Inner gorge topography is present in several places along this stream. Because of the protective measures cited in B.3.a.1.c. and B.3.a.2., however, significant changes in water amount, quality, or movement should not occur.

- 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.*

This proposal is not expected to cause a damaging increase in peak flows. A no-harvest buffer greater than or equal to 187 feet around the channel migration zone south of Unit 5 has been implemented. In order to minimize the risk of road failures during peak flow events, all culverts utilized in road construction will be sized to withstand a 100-year flood event. Culverts and ditches will be maintained so that they remain functional. Storm patrols will be conducted as necessary on existing and newly constructed roads to identify and address potential erosion problems. See also B.3.a.14.

b. Ground Water:

- 1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.
Channelized water through ditches and culverts emptying out onto the forest floor will increase surface saturation in localized areas, but is not expected to 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.

Minor amounts of oil and lubricants could be inadvertently spilled as a result of heavy equipment use. No lubricants will be disposed of on site. See also B.7.a.

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: **Refer to B.3.a.15**

a. *Note protection measures, if any.*

Because of the RMZ buffers applied to the streams, no adverse impacts are expected. Type 3 and Type 4 streams have been protected with no-harvest riparian buffers as described in B. 3.a.1.b.

c. Water runoff (including stormwater):

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

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.

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

No waste material is anticipated to enter any water as a result of this proposal.

b. *Note protection measures, if any.*

Existing regulations and contract requirements regarding spill prevention and waste cleanup will be followed.

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

This proposal should not alter drainage patterns in the vicinity of the site.

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

On roads, constructed ditches, cross-drain culverts, drain dips, and water bars will be used to control road related runoff. Straw, 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. See also B.1.d.5 and B.1.h.

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

4. Plants

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

deciduous tree:

alder, maple, 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: **Oregon grape**

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:

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.)*

As described in A.11, the overstory of live vegetation will be removed, with the exception of a minimum of eight trees per acre of 10 inches diameter at breast height (DBH) or greater. This will ensure that a portion of the live trees that are best suited to the site, and/or exhibit desirable wildlife habitat characteristics will be left on site. Most of the current shrubs and herbaceous plants will be disturbed to varying degrees during the timber removal process of this proposal.

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

<http://www.dnr.wa.gov/sepa>

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

Timber types adjacent to the harvest area on State-managed lands range from young stands less than 20 years old to mature timber similar to the proposed removal area, as described in A.11.b. The adjacent powerline right-of-way does not contain any timber. The type, age class and structural diversity of timber on privately owned land adjacent to the proposed sale units are not known.

- 2) *Retention tree plan:*

The proposal will have no less than an average of eight wildlife and green recruitment leave trees per acre with diameters of 10 inches or greater remaining on site upon completion of harvest activities. Several leave tree clumps and individual leave trees have been scattered throughout the harvest units. Douglas-fir, western redcedar and red alder of various ages and DBHs have been marked as leave trees. The clumps allow for ground-based operational access and are located around features that will contribute to the maintenance of biological diversity such as snags, down logs, wet areas less than ¼ acre and large wind firm conifer trees. Retained trees will provide wildlife habitat, older forest components, and a seed source to surrounding areas.

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

DNR's TRAX system indicates no known threatened, endangered, or special concern plant species on or near the sale area.

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

The site will be planted with conifer seedlings after harvest. See green tree retention plan as described in B.4.b.2. above.

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

The DNR TRAX system indicates no known noxious weeds or invasive species. However, Himalayan and evergreen blackberry are present in road right-of-ways.

5. Animals

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

birds: hawk, heron, eagle, songbirds, pigeon, other: pileated woodpecker

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

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

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

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

TSU Number	FMU_ID	Common Name	Federal Listing Status	WA State Listing Status
5	94230	Steelhead	Threatened	Depressed

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:

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

Species /Habitat: **Mature Forest Components**

Protection Measures: **Retention tree plan described B.4.b.2**

Species /Habitat: **Fish Habitat**

Protection Measures: **Stream protection measures listed in B.3.a.1.b., B.3.a.1.c., B.3.a.2., soil protection measures listed in B.1.h., and peak flow protection in B.3.a.16.**

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

No invasive animal species were observed on the site.

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.

There is minimal anticipated hazard from heavy equipment operations. There is a slight chance of hydraulic or oil spills from equipment operating on the site. There is also a potential fire hazard if operations occur in moderate to severe fire weather conditions during summer months. The timber sale contract contains language that addresses hazardous materials spill prevention; hazardous material spill containment, control and cleanup; hazardous material release reporting. If any toxic or hazardous chemical spill occurs, or if past contamination is discovered, the Department of Ecology will be notified. The contract also contains language for operations during fire season.

- 1) Describe any known or possible contamination at the site from present or past uses.
No site contamination is known presently or from past uses.
- 2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.
Bonneville Power Administration transmission lines and towers are located within the powerline right-of-way to the east of the proposal boundary.
- 3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.
Other than equipment oil and fuel, there will be no hazardous chemicals associated with the project.
- 4) 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.**

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

Safe operation of all equipment will be encouraged. Industrial restrictions and precaution levels regarding forest fire protection will be enforced. The timber purchaser will be required to have fire suppression equipment on site during the restricted fire season while harvest activity is ongoing. Operations will cease if relative humidity falls below 30%.

b. Noise

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

None.

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

Noise from rock drilling/crushing machinery, rock blasting, road building, and logging equipment such as chain saws, yarding whistles, and log/dump trucks will increase noise levels during periods of operation, typically occurring between 4 a.m. and 5 p.m. on weekdays, on a short-term basis. 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:

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 historic 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? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe. (*Site includes the complete proposal, e.g. rock pits and access roads.*)

With the exception of the privately owned land west of the sale units and the powerline right-of-way, the entire area is designated for timber production. Land use on adjacent private property is not known. Current land uses will not be affected.

- b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres

in farmland or forest land tax status will be converted to nonfarm or nonforest use?

The project site is forestland. No conversions are planned.

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

9. Housing

- a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.
Does not apply.
- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.
Does not apply.
- c. Proposed measures to reduce or control housing impacts, if any:
Does not apply.

10. Aesthetics

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

- b. What views in the immediate vicinity would be altered or obstructed?

1) *Is this proposal visible from a residential area, town, city, developed recreation site, or a scenic vista?*

No Yes, viewing location:

Portions of this timber sale will be visible from the communities of Big Lake and Mount Vernon.

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: **Small portions of the timber sale may be visible from Interstate 5 and State Highway 9.**

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

Timber harvesting is a normal occurrence in the vicinity of the proposal. Recent timber harvests are visible throughout the area.

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

Within and around the proposal area, unharvested stands, stream buffers, and leave tree clumps will remain to reduce the visual impact. These residual stands will break up the view of the harvested area considerably, and will help maintain the aesthetic quality of the area. Additionally, the proposal area will be planted with conifer trees within two years of completion of harvest activities.

11. Light and glare

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

12. Recreation

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

Informal recreational activities include hiking, mountain biking, hunting, berry picking and mushroom picking. Unauthorized off-road vehicle (ORV) trails exist in the proposed harvest units.

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

Use of the proposal area by recreationists may be limited during the course of operations due to safety and security concerns. The unauthorized ORV trails will not be restored.

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

Recreationists will be directed to other state lands during road building and harvest activities. ORV users will be directed to the Walker Valley ORV Area for off-road recreation opportunities.

13. Historic and cultural preservation

- a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers located on or near the site? If so, specifically describe.

A known historic site was reported by the DNR TRAX database in the same section as a portion of this proposal. A Department of Archaeological and Historic Preservation (DAHP) database review by a State Lands Cultural Resource Technician determined that this site is not within or adjacent to the proposal area.

- b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material

evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.

Three culturally-modified western redcedar trees are present in Unit 1. Upon consultation with a Northwest Region Cultural Resources Technician and the State Lands Archaeologist these culturally modified trees were determined to be less than 50-years-old and therefore are not considered “historical”.

- c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

Forest Practices and DNR TRAX runs were consulted. A DAHP database review determined that no known cultural resources are located within or adjacent to the proposal area. The Swinomish Indian Tribal Community, Upper Skagit Indian Tribe, Sauk-Suiattle Indian Tribe and Stillaguamish Tribe of Indians along with the Skagit River System Cooperative were contacted in February 2016 regarding this proposal, and were also informed of the presence of culturally modified trees on the site. A notice that the area is within use and occupation of the Upper Skagit Tribe was received from the Tribe’s Natural Resources Director. A response was also received from the Stillaguamish Tribe’s Forest & Fish Biologist who forwarded the message to the Tribe’s Cultural Resource Department. No further communication has been received as of March 21, 2016.

- d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required. **The three non-historical culturally modified cedars in Unit 1 have been marked as non-tradeable leave trees. The DNR’s Cultural Resources Inadvertent Discovery Guidance will be followed should presently unknown cultural resources be identified during operations.**

14. Transportation

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

Please see WAU and adjacency maps on the DNR website under “SEPA CENTER”. The site is accessed via a gated DNR-maintained mainline. There will be no addition of public roads to access the site as a result of this proposal.

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

No.

- b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?

No.

- c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?

Does not apply.

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

Forest road maintenance will occur and temporary forest roads could also be constructed as a part of this proposal. See A.11.c.

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

Apart from log hauling traffic during the course of operations, this proposal will have minimal impact on the overall transportation system in the surrounding area.

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

No.

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

Up to 25 vehicular trips per day could occur during peak harvest activities. These trips would occur primarily between the hours of 4 a.m. and 5 p.m. on weekdays. The completed project will generate approximately 1-2 trips per year for management purposes, for the first 5-10 years after the completion of the proposal.

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

No.

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

Not necessary for this proposal.

15. Public services

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

No.

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

Not necessary for this proposal.

16. Utilities

a. Check utilities currently available at the site:

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

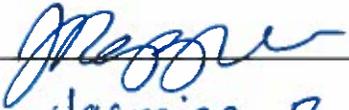
No utilities are currently available.

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

None.

C. SIGNATURE

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

Signature: 

Name of signee Jasmine Reppen

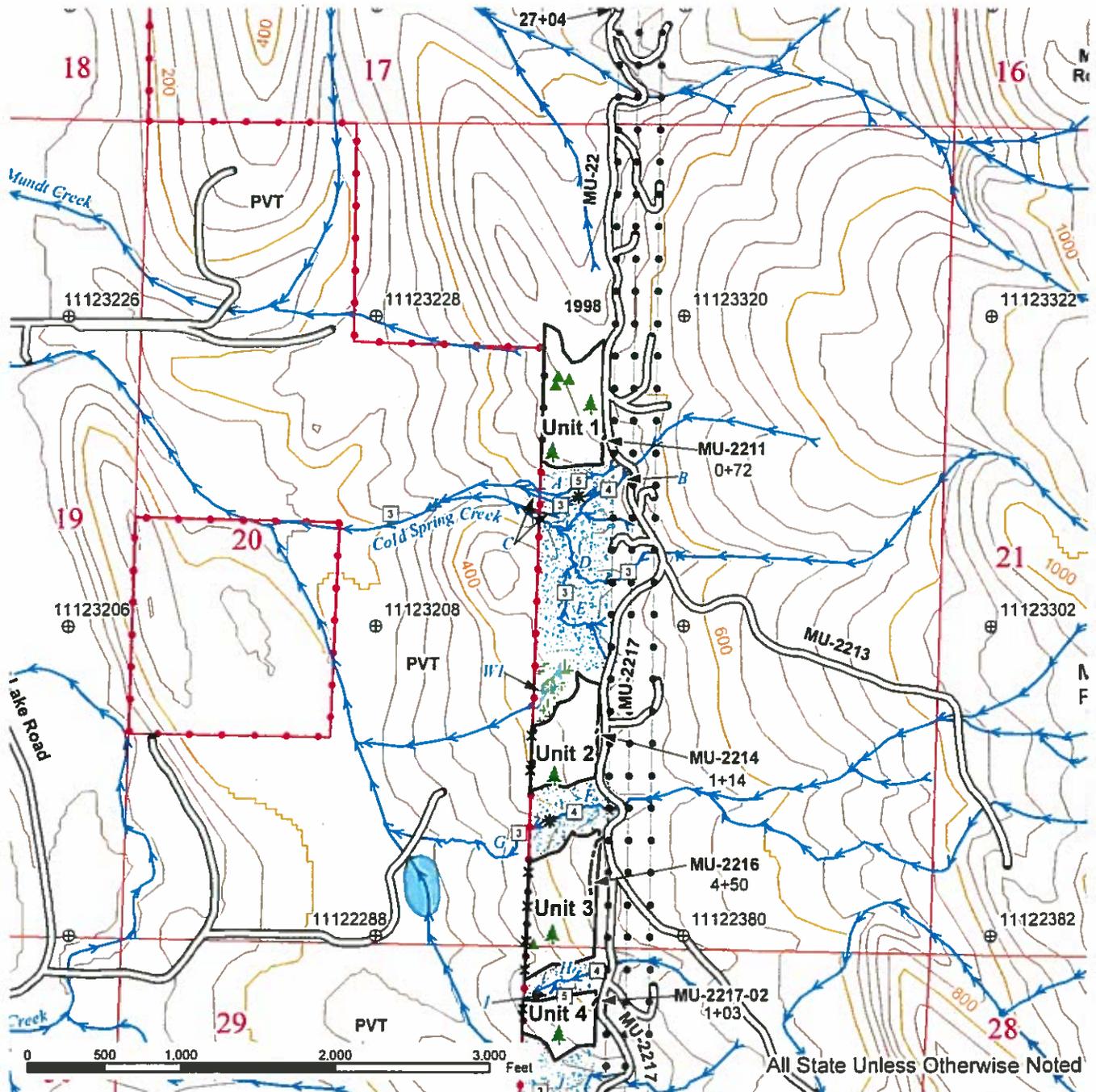
Position and Agency/Organization NRS 1 NW Region DVR

Date Submitted: 5/11/16

FOREST PRACTICES ACTIVITY MAP

SALE NAME: COLD SPRINGS CH
 APPLICATION #: Not Defined

COUNTY(S): SKAGIT
 TOWNSHIP(S): T34R05E

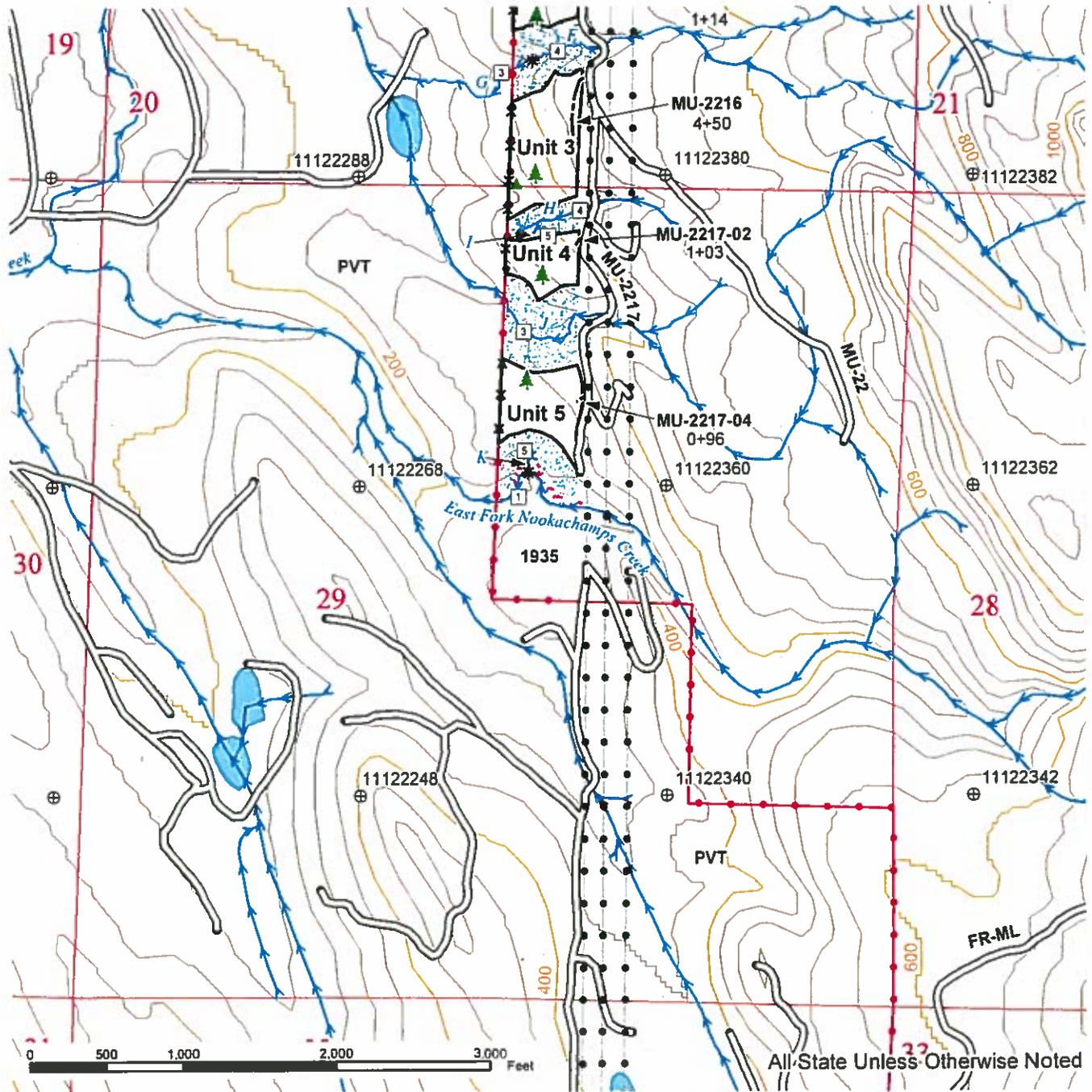


Timber Sale Unit	Fence	Forested Wetland
Culvert	Power Lines	Wetland Mgt Zone
Leave Tree Area	Existing Roads	Riparian Mgt Zone
Existing Rock Pit	Optional Construction	Stream Type
Leave Tree Area	Stream	Stream Type Break
Non-Tradeable Leave Tree	Channel Migration Zone	Tics - 2000' Interval
		Existing Rock Pit

FOREST PRACTICES ACTIVITY MAP

SALE NAME: COLD SPRINGS CH
 APPLICATION #: Not Defined

COUNTY(S): SKAGIT
 TOWNSHIP(S): T34R05E



Timber Sale Unit	Fence	Forested Wetland
Culvert	Power Lines	Wetland Mgt Zone
Leave Tree Area	Existing Roads	Riparian Mgt Zone
Existing Rock Pit	Optional Construction	Stream Type
Leave Tree Area	Stream	Stream Type Break
Non-Tradeable Leave Tree	Channel Migration Zone	Tics - 2000' Interval
		Existing Rock Pit

