

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: **SNAHAPISH VDT**

Agreement # **30-094289**

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

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

**Mike Potter
Department of Natural Resources
411 Tillicum Lane
Forks, WA 98331
(360) 374-2800**

4. Date checklist prepared: **06/21/2016**

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

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

- a. *Auction Date:* **02/22/2017**
- b. *Planned contract end date (but may be extended):* **10/31/2019**
- c. *Phasing:* **N/A**

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

Timber Sale:

- a. *Site preparation:*
None anticipated.
- b. *Regeneration Method:*
Hand Plant: Unit 1 Gap: 2 acres
Hand Plant: Unit 5 11 acres
- c. *Vegetation Management:*
None anticipated.
- d. *Thinning:*
Unit 5: Pre-commercial thinning needs will be assessed 10-12 years after planting.
Units 1, 2, 3, 4, 6, and 7: No additional commercial thinning is anticipated.

Roads:

Road maintenance, periodic ditch and culvert cleanout, and grading as necessary.

Rock Pits and/or Sale:

South Winfield Pit and Copper Pit will be used as a rock source for the sale.

Other:

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

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

- 303 (d) – listed water body in WAU: temp sediment completed TMDL (total maximum daily load):
- Landscape plan: **OESF Forest Land Plan (FLP) 2016**
- Watershed analysis:
- Interdisciplinary team (ID Team) report:
- Road design plan: **08/04/2017**
- Wildlife report:
- Geotechnical report:
- Other specialist report(s):
- Memorandum of understanding (sportsmen's groups, neighborhood associations, tribes, etc.):
- Rock pit plan: **South Winfield Pit and Copper Pit**
- Other: **Final Habitat Conservation Plan (September 1997), State Soil Survey, Forestry Handbook (August 1999), Sustainable Harvest Calculation (Sept 2004), Spotted Owl Habitat Mapping, Forest Practices board manual, Forest Practices Activity Maps, WAU Map for Rain-On-Snow areas, Policy for Sustainable Forests (PSF 2006), HCP Checklist, Planning and Tracking reports and associated maps, Road Maintenance and Abandonment Plan (RMAP) for the Willy Huel and Upper Clearwater administrative unit: #2610029. The following documents are all generated by Department GIS databases: Weighted Old Growth Habitat Index (WOGHI), OESF Habitat Marbled Murrelet Habitat Model, USGS maps, Marbled Murrelet Habitat Proximity Map and GLO maps.**

Documents available at the Olympic Region office during SEPA review.

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.

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

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

a. Complete proposal description:

The Snahapish VDT timber sale proposal encompasses approximately 553 acres with an approximate sale volume of 4,077 mbf. The sale is approximately 17-33 miles south of Forks, WA accessed on the Hoh-Clearwater Mainline, Allen Mill Cutoff Road, the C-2700, and C-2800 road systems. Of the 553 gross acres there are approximately; 404 Variable Density Thinning (VDT) harvest acres, 1 acre of even-aged harvest gaps, 11 variable retention harvest (VRH) acres, 0.2 Leave Tree Area (LTA) acres, 23.8 acres of existing roads, and 114 acres have been left as Skip. Skip consists of Riparian Management Zones (RMZ), Wetland Management Zones (WMZ), unstable slope and potential sensitive area protection. Using thinning, skips, and gaps together will increase the complexity of the forest structure, promote stand diversity, and create openings for wildlife use. In Unit 5 individual leave trees and trees in the one LTA total 96 trees.

The sale is dominated by western hemlock, Sitka spruce, and Douglas-fir with components of western red cedar and red alder. The diameter at breast height averages 14 to 20 inches. The sale will be harvested using 100% ground-based logging methods. Leave trees were selected both individually and in LTA's in Unit 5. This proposal was designed under the guidelines of the HCP.

Approximately 28,065 feet of pre-haul maintenance, 910 feet of new construction, 1,070 feet of reconstruction, and 1,070 feet of deactivation are proposed to meet the needs of the timber sale. The designated rock source for this proposal South Winfield pit and Copper Pit. Pit work will include one acre of stripping at Copper Pit.

All area of potential slope instability associated with this proposal were appropriately buffered and have been deferred from harvest.

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

The overall objectives for the Snahapish VDT timber sale includes the production of saw logs, and pulp material revenue for trusts while expediting the development of a more diverse multi-storied canopy layer in the future stand. This will be accomplished through the retention of wildlife trees, legacy trees, RMZ's and WMZ's. Approximately 114 acres (21% of the proposal) have been set aside as protection for unstable slopes, RMZ's, WMZ's, and/or as LTA's. In addition, these stands will be managed to protect site productivity and maintain the integrity and water quality of adjacent streams

Unit #	Unit Gross	Acres					Primary Tree Spp. * ₂	Orig. Year	Slope %		Elevation		Harvest Type	
		LTA	Road	RMZ/ WMZ/ Unstable	Gap Harv. * ₁	Total Harvest			Min.	Max	Min.	Max	Ground %	Cable %
1	47	0	2.0	5	1	40	WH, SS DF, RA	1966-1987	0	20	370	465	100	0
2	36	0	3.0	1	0	32	WH, SS DF	1971	0	30	505	593	100	0
3	71	0	3.0	23	0	45	WH, SS DF, RA	1956-1979	0	20	636	733	100	0
4	263	0	10.0	61	0	192	DF, SS, WH	1969-1978	0	50	593	766	100	0
5	12	0.2	0.8	0	0	11	DF, WH	1976	0	10	626	643	100	35
6	66	0	4.0	11	0	51	DF, WH	1975	10	55	558	758	100	35
7	58	0	1.0	13	0	44	WH, DF, WRC	1975	0	40	602	826	100	60

*₁- Gap harvest acres are included in gross harvest acres.

*₂- Primary Tree Species (Spp): DF=Douglas-fir, WH=western hemlock, SS=Sitka spruce, RA=red alder, WRC=western red cedar.

Overall unit objectives.

Ecological- To promote diverse habitat throughout the landscape by integrating skips and gaps into the thinning design. This creates a variety of functioning habitats including a diverse canopy and downed woody debris for multiple species use.

Economic- Generate revenue for trust beneficiaries: Common School and Indemnity (03) and Capitol Grant (07).

Statute- Comply with the OESF HCP, Forest Practice rules, and implement the Policy for Sustainable Forests.

Social- Facilitate research and monitoring opportunities and accommodate recreational activities on DNR managed lands.

Specific objectives are to thin units to a basal area range of 160-180 sqft/acre to promote maximum growth. Other specific stand objectives include riparian protection, wetland protection, protection of unstable slopes, protection of soils, and habitat conservation for threatened and endangered species. Riparian protection and wetland protection measures were designed for all waters in and adjacent to this proposal in accordance with DNR's OESF Riparian strategy.

Contract language and equipment limitations will help to reduce soil impacts. Harvest operations will be suspended during periods of wet weather conditions when rutting may occur.

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

Type of Activity	How Many	Length (feet) (Estimated)	Acres (Estimated)	Fish Barrier Removals (#)
Construction		910	0.6	0
Reconstruction		1,070		0
Abandonment		0	0	0
Bridge Install/Replace	0			0
Culvert Install/Replace (fish)	0			0
Culvert Install/Replace (no fish)	4			

Additionally, approximately 28,065 feet of pre-haul maintenance is scheduled with the road activities for this sale. Pre-haul maintenance will include grading, ditching, brushing, cleaning culverts, and installing cross-drains on existing forest roads. Upon completion of harvest, approximately 1,070 feet of road deactivation.

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:

Unit 1	T27N R12W S34
Unit 2	T26NR11W S5, 6
Unit 3	T26N R11W S20, 29
Unit 4	T26N R11W S20, 29, 30, 32
Unit 5	T26N R11W S29
Unit 6	T25NR11W S5
Unit 7	T25NR11W S4, 5, 8, 9
South Winfield Pit	T27N R12W S35
Copper Pit	T25N R11W S18

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

The Snahapish VDT timber sale is approximately 17-33 miles south of Forks, WA accessed on the Hoh-Clearwater Mainline, Allen Mill Cutoff Road, the C-2700, and C-2800 road systems.

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

WAU Name	WAU Acres	Proposal Acres
MIDDLE HOH	54352.20	62
UPPER CLEARWATER	58138.70	353

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.)

Middle Hoh:

Land Manager	Acres	% of WAU
DNR	39164	72.1
Federal	2236	4.1
Other State (Non-DNR)	N/A	N/A
Other Land (Private & Other Public Land)	12952	23.8

Upper Clearwater:

Land Manager	Acres	% of WAU
DNR	57219	98.4
Federal	308	0.5
Other State (Non-DNR)	N/A	N/A
Other Land (Private & Other Public Land)	612	1.1

Activities within the past seven years, and those proposed for the near future are summarized for the Middle Hoh and Upper Clearwater WAUs in the following tables. In the future, stands will be selected for regeneration, thinning, and partial cut harvests as they meet the Department’s financial requirements, ecological policies and mandates. It is unknown what future plans other landowners have within these WAU’s.

Within the past seven years the DNR has harvested 646 acres of even-aged timber and 1460 acres of uneven-aged timber in the Middle Hoh WAU. The DNR has planned 701 acres of even-aged harvest and 47 acres of uneven-aged harvest in the Middle Hoh WAU.

Middle Hoh	Even-aged Harvest acres within the last seven year	Uneven-aged Harvest acres within the last seven year	Planned Even-aged Harvest	Planned Uneven-aged Harvest	Salvage
DNR Managed Land	646	1460	701 (Estimated)	47 (Estimated)	1
Non-DNR Managed Land	Unknown	Unknown	127 (Estimated)	99 (Estimated)	118
Total	646	1460	828 (Estimated)	146 (Estimated)	119

Within the past seven years the DNR has harvested 419 acres of even-aged timber and 315 acres of uneven-aged timber in the Upper Clearwater WAU. The DNR has planned 830 acres of even-aged harvest and 406 acres of uneven-aged harvest in the Upper Clearwater WAU.

Upper Clearwater	Even-aged Harvest acres within the last seven year	Uneven-aged Harvest acres within the last seven year	Planned Even-aged Harvest	Planned Uneven-aged Harvest	Salvage
DNR Managed Land	419	315	830 (Estimated)	406 (Estimated)	0
Non-DNR Managed Land	Unknown	Unknown	1 (Estimated)	0 (Estimated)	0
Total	419	315	831 (Estimated)	406 (Estimated)	0

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

- Retaining Riparian Management Zones (RMZ's) on Type 1, 2, 3, 4 and, unstable Type 5 waters, and maintaining equipment limitation zones adjacent to all streams;
- Deferring harvest on unstable slopes;
- Retaining a minimum of 8 leave trees per acre dispersed and aggregated throughout VRH units;
- Designing, constructing, and maintaining a road system to minimize potential adverse effects on the environment;
- Implementing procedures pertaining to threatened and endangered species.

In concert, the HCP strategies for spotted owl, marbled murrelet, and riparian conservation will contribute to the retention and development of older forests, while the leave tree procedure will enhance the structural diversity of forests across the landscape. Road network planning,

maintenance, and abandonment will reduce the amount of roads needed for management and improve the quality of existing roads to reduce their impacts on the environment.

Thinning prescriptions will retain the larger dominant and co-dominant trees, and retain stand structure in skips such as snags and multi-layered intermediate trees.

The even-aged gap in Unit 1 and the Unit 5 VRH will be replanted within two years of harvest with native conifer species.

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).*

Middle Hoh WAU

Elevation Range: 177'-3637' with a Mean elevation of 1047'

Weighted average precipitation: 123 inches/year

Forest Vegetation Type: western hemlock and Sitka spruce

Peak Rain on Snow Zone: 27.2% of the WAU

Upper Clearwater WAU

Elevation Range: 252' -3812' with a mean elevation of 1443'

Weighted average precipitation: 133 inches/year

Forest Vegetation Type: western hemlock and Sitka spruce

Peak Rain on Snow Zone: 46.6% of the WAU

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

There are no portions of the Snahapish VDT timber sale located within the peak Rain-on-Snow zone of any of the WAUs. The sale elevation ranges from 370'-826'.

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

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in the sale area may vary considerably based on land-form shapes, presence of erosive situations, and other factors. The state soil survey is a compilation of various surveys with different standards.

State Soil Survey #	Soil Texture	% Slope	Acres	Mass Wasting Potential	Erosion Potential
3975	KLONE-HOKO-COMPLEX	0-15	96	No Data	No Data
8018	SLT.CLY.LOAM	0-5	84	INSIGNIFIC'T	LOW
0902	SILT LOAM	0-15	79	LOW	LOW
3970	V.GRAVELLY LOAM	0-15	52	INSIGNIFIC'T	LOW
3976	KLONE-HOKO-COMPLEX	15-40	54	No Data	No Data
5733	SILT LOAM	5-35	21	LOW	LOW
2961	GRAVELLY SILT LOAM	5-20	17	INSIGNIFIC'T	LOW
5224	SILT LOAM	30-65	4	MEDIUM	MEDIUM
2962	GRAVELLY SILT LOAM	20-40	3	MEDIUM	LOW
6400	SILT LOAM	0-5	2	INSIGNIFIC'T	LOW
3971	V.GRAVELLY LOAM	15-30	1	LOW	LOW
7647	V.GRAVELLY LOAM	40-90	1	HIGH	HIGH
2963	GRAVELLY SILT LOAM	40-65	1	MEDIUM	MEDIUM

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

1) *Surface indications:*

All units are characterized by primarily flat to hilly topography. Units are immediately adjacent to incised stream channels with some evidence of slumping, spots of over steepened slopes and exposed bare soils.

All areas of potential slope instability associated with this proposal were appropriately buffered and have been deferred from harvest.

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

No Yes, type of failures (shallow vs. deep-seated) and failure site characteristics: **Within the upper reaches of the WAU's there are areas of shallow landslides and mass wasting. These are primarily associated with incised stream channels and headwall areas. All rule-identified potentially unstable landforms associated with this proposal have been identified and deferred from harvest.**

3) Are there slope failures in the sub-basin(s) associated with timber harvest activities or roads?

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

Associated management activity:

There are areas within the WAUs where slope failures have occurred; which are primarily associated with early logging and road construction practices.

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

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

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

Remote and field reviews of the timber sale area were conducted by a trained State Lands Forester and a remote review was conducted by a State Lands Geologist. After review all areas of moderate to high potential slope instability associated with this proposal were appropriately buffered and have been deferred from harvest. Forest Practices landslide inventory questionable polygons (numbers 42875 and 42879) mapped within units 3 and 4 were remote reviewed by a state lands geologist and field reviewed by trained state lands foresters. Areas of these polygons within the harvest units were determined to not be Forest Practice Rule Identified Landforms.

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: 0.6 Approx. acreage new landings: <0.5 Fill Source: South Winfield Pit and Copper Pit

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe. **Yes, a small amount of incidental surface erosion could occur during the activities associated with road construction and timber harvest. However, prudent road location, construction, maintenance, timber harvest practices, and the mitigating measures outlined in B.1.h below will minimize and aid in control of any possible erosion.**

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

Approximately 4% of the harvest area will be covered in landings and 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.)*

Timber harvest and road construction activities will be restricted during periods of heavy rainfall when rutting and surface erosion are more likely to occur. Roads will be constructed with properly located ditches, ditch outs, and cross drains to divert water flow onto stable forest floor and/or into stable natural drainages. Ground based operations will be suspended

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during periods of wet weather or wet soil conditions when rutting of skid or shovel roads begins. The even-aged gap and VRH unit will be reforested within one growing season of the contract expiration date. Harvest activities in forested wetlands will be restricted from October 15th to June 15th unless approved by contract administrator. All road construction and pre-haul maintenance activities will be restricted from October 15th to April 15th unless approved by the contract administrator. Installation and use of temporary yarding bridges over Type 3 waters will be restricted between October 15st and June 15th in accordance with the blanket Hydraulic Project Application (HPA). Temporary yarding bridges must be installed and removed within the same hydraulic season.

2. Air

- a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.
Engine exhaust from logging equipment and dust from log haul are the only foreseeable emissions to the air. Logging slash, if burned, will be burned adhering to the State's smoke management plan.
- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.
No
- c. Proposed measures to reduce or control emissions or other impacts to air, if any:
Landing debris if burned will be in accordance with Washington State's Smoke Management Plan. A burn permit will be obtained before burning occurs.

3. Water

- a. Surface Water:
 - 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into. *(See timber sale map available at DNR region office, or forest practice application base maps.)*
 - a. *Downstream water bodies:*
Snahapish River, Clearwater River, Hoh River, Winfield 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)
Snahapish River	1	1	An average interior core buffer width of 50' with an average 200' exterior wind buffer.
Stream	3	46	An average interior core buffer width of 15' with an average 150' exterior wind buffer.
Stream	4	10	An average interior core buffer width of 15' with an average 50' exterior wind buffer.
Stream	5	47	On unstable Type 5 waters an average interior core buffer width of 10' with an average 50' exterior wind buffer.
Wetland	Forested	10	All wetlands from ¼ to 5 acres have a 2/3's site index buffer of 101'. Wetlands >5 acres have an full site index buffer of 150'.

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

In accordance with the HCP, all floodplains and unstable slopes associated this typed waters are protected with variable width interior core buffers passed on site specific conditions. No harvest will occur within the interior core. Type 1 streams have an average 50' interior core buffer and 200' exterior wind buffer, type 3 streams have an average 15' interior core buffer and 150' exterior wind buffer, type 4 streams have an average 15' interior core buffer and 50' exterior wind buffer, and unstable type 5 streams have an average 10' interior core buffer and 50' exterior wind buffer. Exterior wind buffers will be

thinned to the same prescription as the surrounding unit. Thinning of the exterior buffer of type 1 and 3 streams will maintain a minimum Forest Practices shade requirement. All typed waters have a 30' equipment limitation zone. Unit 3 is an average 150' away from the one type 1 stream. In accordance with County regulations no more than 1/3 of the trees within 200' of the type 1 stream will be removed from the harvest area.

Wetlands were protected by removing them from the harvest area. However, there are 4 acres of forested wetland that will be thinned. All wetlands from 1/4 to 5 acres have a 2/3's site index buffer of averaging 101'. Wetlands >5 acres have an full site index buffer averaging 150'. The buffers and four acres of forested wetland will be thinned to the same prescription as the surrounding unit and will not reduce the residual basal area below 120sqft.

The work detailed in the road plan has been designed to improve surfacing on the haul roads, and to maintain proper drainage. Three permanent culverts and one temporary culvert will be installed in typed waters; two will be in Type 4 waters and two in Type 5 waters. Other work may include multiple cross-drains, ditch-outs, and proper ditches that will divert storm water onto the stable forest floor. These actions will minimize the potential for delivery of sediment to streams. Soil exposed during road construction activities will be protected from erosion by hay and grass seed application.

- 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 felling, bucking, yarding, and road construction will occur within 200 feet of Type 3, 4, and 5 waters. Pre-haul maintenance will occur within 200' of forested wetlands. Pre-haul includes grading, compacting, rock application, grubbing and ditching of existing road surfaces. Three permanent culverts and one temporary culvert will be installed in typed waters; two will be in Type 4 waters and two in Type 5 waters.

- 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.

N/A

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

No Yes, description:

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

No Yes, describe location:

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

No Yes, type and volume:

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

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

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), and change in channel dimensions)?

No Yes, describe changes and possible causes:

All associated WAU's display evidence of changes to channels. Steep drainages in the WAU's show evidence of debris torrent events, natural headwall progression, and natural sidewall erosion which has increased the dimensions of effected channels, exposed native bedrock along segments of channels, and has introduced LWD to channels. These events may be attributed to unstable slopes, soil composition, significant amounts of precipitation, and/or early timber harvest and road construction techniques.

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

No Yes, explain:

This proposal will have minimal effects on water quality. Measures described in B.1.d, B.1.h, and B.3.a.1.b on road activities, harvest activities and stream and wetland protection will aid in reducing the potential of impacting water quality.

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:

Middle Hoh WAU

Land Owner	Miles of Road	Miles per Square Mile
Non-DNR	84.8	1.0
DNR	266.4	3.1
Total	351.2	4.1

Upper Clearwater WAU

Land Owner	Miles of Road	Miles per Square Mile
Non-DNR	6.8	0.1
DNR	352.4	3.7
Total	359.2	3.8

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):
There is evidence of slope failures that caused shift(s) in stream channel(s). Also, some stream segments show cutting and scouring which can be attributed to the natural erosion of the soil type, and peak flow events; Refer to B.3.a.8.

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

15) Is there water resource (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or downslope of the proposed activity that could be affected by changes in surface water amounts, quality, or movements as a result of this proposal?

No Yes, possible impacts:

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

Restricting timber harvest and road activities during peak rain events will allow for increased resource protection. Road development and maintenance standards will minimize impacts by using cross drains and ditch-outs to release ditch water onto stable forest floors where flow energy can dissipate prior to reaching stream channels. All road construction and pre-haul maintenance will be restricted from October 15th to April 15th unless approved by the contract administrator. Maintaining proper RMZ's and WMZ's on streams and wetlands will aid bank stability, hydrological functions and provides recruitment of LWD. See B.1.d.5, B.1.h, B.3.a.1, and A.13 for additional protection measures.

b. Ground Water:

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

No

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

N/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:

a. Note protection measures, if any.

c. Water runoff (including storm water):

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

Storm-water will be collected using roadside ditches directly, and as road runoff. Ditch-outs and cross-drains will divert storm-water away from roads and streams onto stable forest floors. This will allow storm-water to enter stream channels as

subsurface flow.

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

No Yes, describe:

a. Note protection measures, if any.

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

No

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

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

4. Plants

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

deciduous tree:

alder, big-leaf maple, black cottonwood

evergreen tree:

Douglas fir, Pacific silver fir, western hemlock, Sitka spruce,
 western red cedar,

shrubs:

huckleberry, salmonberry, salal, other: vine maple

grass

wet soil plants:

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

Other types of vegetation: Oregon oxalis, sword fern, lady fern, deer fern, horsetail

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

Approximately 4,077 mbf of 29-60 year old timber will be harvested within 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.”)

Unit 1: is bordered to the north, west, and east by similarly aged state timber. The south and south west are bordered by newly planted state reprod.

Unit 2: is bordered to north, west, northeast, and south are bordered by similarly aged state timber. The southeast is bordered by newly planted state reprod.

Unit 3: is bordered to north and west by similarly aged state timber. The south is mature timber. The east is bordered by similar aged state timer, state reprod, and the Hoh-Clearwater Mainline.

Unit 4: is bordered to the north, west and south by similarly aged state timber. The east is bordered by timber of a similar age, old forest, or older mature timber. Is also boarded internally by Unit 5.

Unit 5: is bordered on all sides by Unit 4/similarly aged state timber

Unit 6: is bordered to the north, south and portions of the east by similarly aged state timber. The portions of the remaining boundary is bordered by similar aged state timber and mature forest.

Unit 7: is bordered to the north by similarly aged state timber, to the west by reprod, to the east by reprod and forested wetland, and to the south by 23yr old state timber.

- 2) *Retention tree plan:*

Unit Thinning Target Table

Unit	Acres	Stems/acre	BA	Approx. Spacing	Relative Density
1	40	110	180	20' X20'	40
2	32	110	160	20' X 20'	40
3	45	105	175	20' X 20'	40
4	192	120	180	19' X 19'	40
6	51	100	180	21' X 21'	40
7	44	170	180	16' X 16'	45

Unit 5 has 33 individual marked leave trees and one leave tree area with 63 trees equaling a total 96 leave trees.

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

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

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

Native conifer species will be planted following the regeneration harvest of Unit 5 and the Unit 1 even-aged gap. Other native conifer and deciduous species may regenerate naturally on the site. Native grass seed will also be used on areas of exposed mineral soil during road building operations. A minimum of eight leave trees per acre will be scattered and/or clumped throughout Unit 5. See A.7.a.b.c.d and B.4.b.2 above.

e. List all noxious weeds and invasive species known to be on or near the site.
Scotch broom, Canadian thistle

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, eagle, songbirds, waterfowl
mammals: deer, bear, elk, mountain beaver, other: mountain lion,
fish: salmon, trout

Eagles have been observed in flight in this vicinity. There are no known nest sites within 660 feet of the harvest proposal.

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

TSU Number	FMU_ID	Common Name	Federal Listing Status	WA State Listing Status
1	95395	SPOTTED OWL: Site:1-WILLOUGHBY WEST	THREATENED	ENDANGERED
3	95397	MARBLED MURRELET: Reference No: 50416	THREATENED	THREATENED
3	95397	MARBLED MURRELET: Reference No:	THREATENED	THREATENED

		50428		
3	95397	SPOTTED OWL: Site:1061-SNAHAPISH RIVER	THREATENED	ENDANGERED
3	95397	Steelhead	Not Warranted	Healthy
4	95398	SPOTTED OWL: Site:1061-SNAHAPISH RIVER	THREATENED	ENDANGERED
4	95398	Steelhead	Not Warranted	Healthy
5	95399	SPOTTED OWL: Site:1061-SNAHAPISH RIVER	THREATENED	ENDANGERED
6	95400	SPOTTED OWL: Site:1061-SNAHAPISH RIVER	THREATENED	ENDANGERED
6	95400	Steelhead	Not Warranted	Healthy
7	95401	SPOTTED OWL: Site:1061-SNAHAPISH RIVER	THREATENED	ENDANGERED

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

Pacific flyway Other migration route: Explain if any boxes checked: **The site is not extensively used for resting or feeding by waterfowl.**

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: Northern Spotted Owl

The DNR mitigates for the potential of significant adverse environmental impacts to northern spotted owls in the OESF by implementing the HCP strategy. This strategy established threshold percentages for spotted owl habitat on DNR-managed lands for Landscape Planning Units (LPU). Each LPU is managed to achieve and maintain at least 20% Old Forest Habitat and at least 40% of Old and Young Forest (or Structural) Habitat types taken

together according to a schedule of habitat enhancement and harvest activities developed within the Forest Land Plan (FLP). The proposal is within the Willy Huel and Upper Clear water LPU's. The LPU's consist of approximately 25% and 29.5% total suitable NSO habitat respectively. Forest Land Planning has been initiated but not implemented. No northern spotted owl habitat will be harvested with this proposal. The proposed VDT can enhance habitat development.

Species/Habitat: Marbled Murrelet

The timber sale and surrounding areas were evaluated for marbled murrelet conservation opportunities. Five acres of the eastern side of Unit 3 are within the 100 meter of an occupied site.

After consultation the State Lands biologist timing restrictions will be in place on those five acres of Unit 3. Harvest activities will be restricted during the Marbled Murrelet peak activity periods within their critical nesting season. These restriction periods are from one hour before official sunrise to two hours after official sunrise and from one hour before official sunset to one hour after official sunset between April 1st and September 23rd.

Species/Habitat: Upland

This thinning will improve stand quality and habitat conditions by decreasing competition, increasing forest complexity while retaining wind-firm, dominant, and structurally unique trees. Timber removal in gaps and the VRH unit will temporarily create open environments that provide valuable forage for deer and elk as well as habitat for a variety of wildlife species associated with early-seral environments.

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

6. Energy and natural resources

- a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.
N/A
- 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:
N/A

7. Environmental health

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

proposal?

If so, describe. **Yes, minimal hazard created by operation of heavy equipment operations.**

- 1) Describe any known or possible contamination at the site from present or past uses.
None
- 2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.
None
- 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.
None
- 4) Describe special emergency services that might be required.
Fire suppression, hazardous waste clean-up, and emergency medical services.
- 5) Proposed measures to reduce or control environmental health hazards, if any:
The timber sale contract requires purchaser to minimize risk of fire, spills, and does not allow for disposal of any waste on State or any other lands. Pump trucks and/or pump trailers will be required on site during fire season. Spill cleanup kits for hazardous materials must be on site. If any toxic or hazardous material spill occurs or if past contamination is discovered, the Department of Ecology will be notified.

b. Noise

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

8. Land and shoreline use

- a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe. *(Site includes the complete proposal, e.g.*

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rock pits and access roads.)

Commercial Forest Lands are adjacent to the sale. The proposal will not impact any current land uses nearby or on adjacent properties.

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

The current use of the project site is working forest. No portion of this proposal will be converted to non-forest use.

- 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.

N/A

- 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 Forest Land

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

N/A

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

No

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

None

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

None

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

N/A

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

The design of this project is consistent with current comprehensive plans and procedures pertaining to DNR's OESF Habitat Conservation Plan, and the state Forest Practices Act.

- m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands

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of long-term commercial significance, if any:
See L above

9. Housing

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

10. Aesthetics

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?
N/A
- b. What views in the immediate vicinity would be altered or obstructed? **None**
 - 1) *Is this proposal visible from a residential area, town, city, developed recreation site, or a scenic vista?*
 No Yes, viewing location:
 - 2) *Is this proposal visible from a major transportation or designated scenic corridor (county road, state or interstate highway, US route, river, or Columbia Gorge SMA)?*
 No Yes, scenic corridor name:
 - 3) *How will this proposal affect any views described in 1) or 2) above?*
N/A
- c. Proposed measures to reduce or control aesthetic impacts, if any:

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:

N/A

12. Recreation

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

Dispersed informal recreation in the form of hunting, hiking, fishing, berry picking, sightseeing, and more similar activities.

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

No

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

N/A

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 review of TRAX shows none for this location.

- 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.

No

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

A review of the Department of Archaeology and Historic Preservation database and TRAX using a Planning and Tracking Special Concerns report shows no known cultural resources on or near the site. A review of the cultural resources layer on the State Upland viewing tool shows no cultural resources on or near the site. During timber sale preparation, trained foresters found nothing on or near the site to indicate any potential cultural resources.

- 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.

N/A

14. Transportation

- a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.
Highway 101
 - 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?
N/A

- d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).
Yes, approximately 28,065 feet of pre-haul maintenance, 910 feet of new construction, 1,070 feet of reconstruction, and 1,070 feet of deactivation are proposed to meet the needs of the sale.

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

- e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.
No
- f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and non-passenger vehicles). What data or transportation models were used to make these estimates?
Approximately 5-10 trips per day thru peak harvest times. Peak harvest times are morning through early afternoon. Estimates are based on harvest traffic of similar sales.
- g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.
No
- h. Proposed measures to reduce or control transportation impacts, if any:
None

15. Public services

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

No

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

None

16. Utilities

a. Check utilities currently available at the site: N/A

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

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

N/A

C. SIGNATURE

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

Signature:



Name of signee: Mike Potter

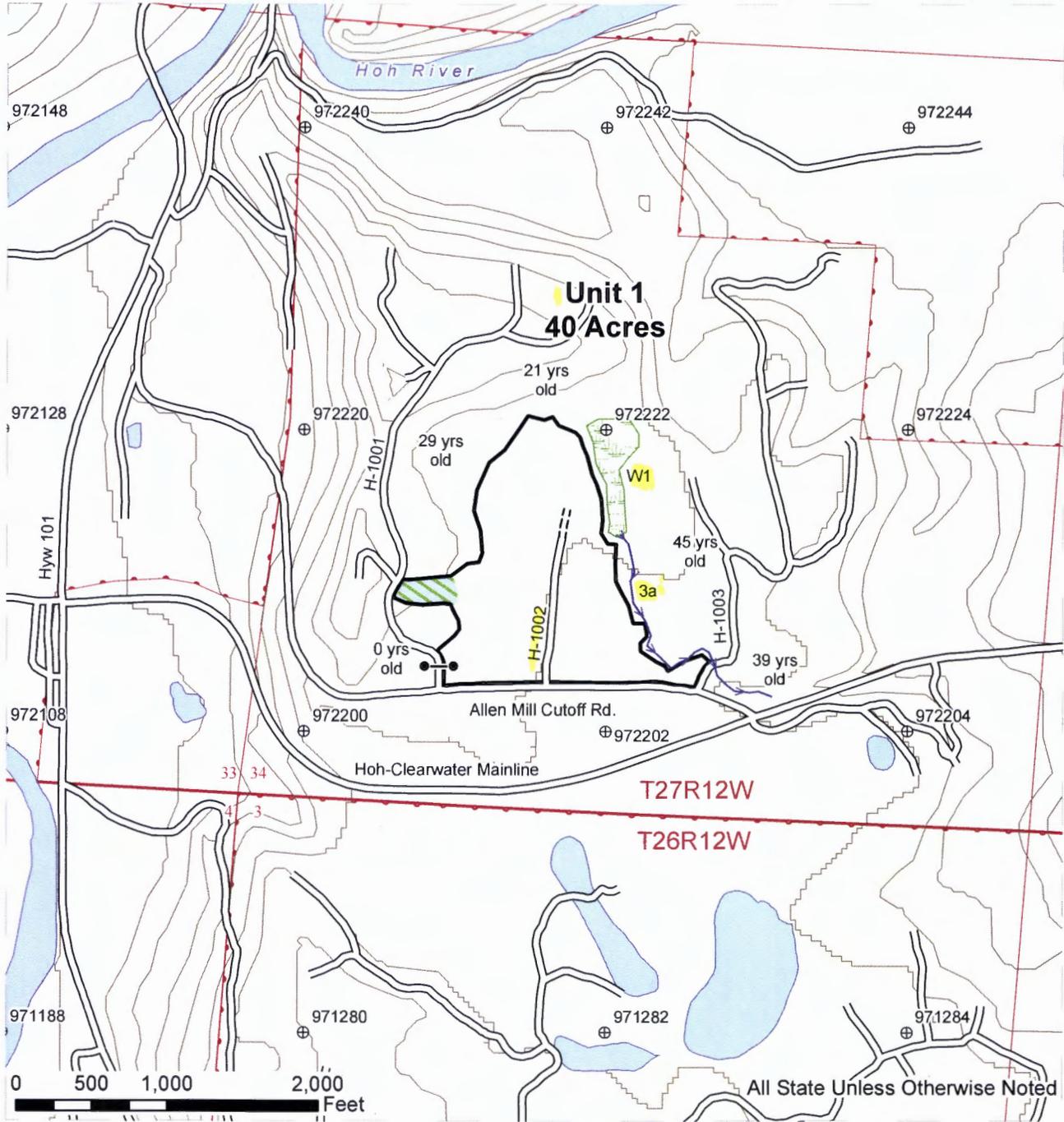
Position and Agency/Organization: Forester 2

Date Submitted: _____

FOREST PRACTICES ACTIVITY MAP

SALE NAME: SNAHAPISH VDT
APPLICATION #: None

COUNTY(S): JEFFERSON
TOWNSHIP(S): T25R11W, T26R11W, T27R12W

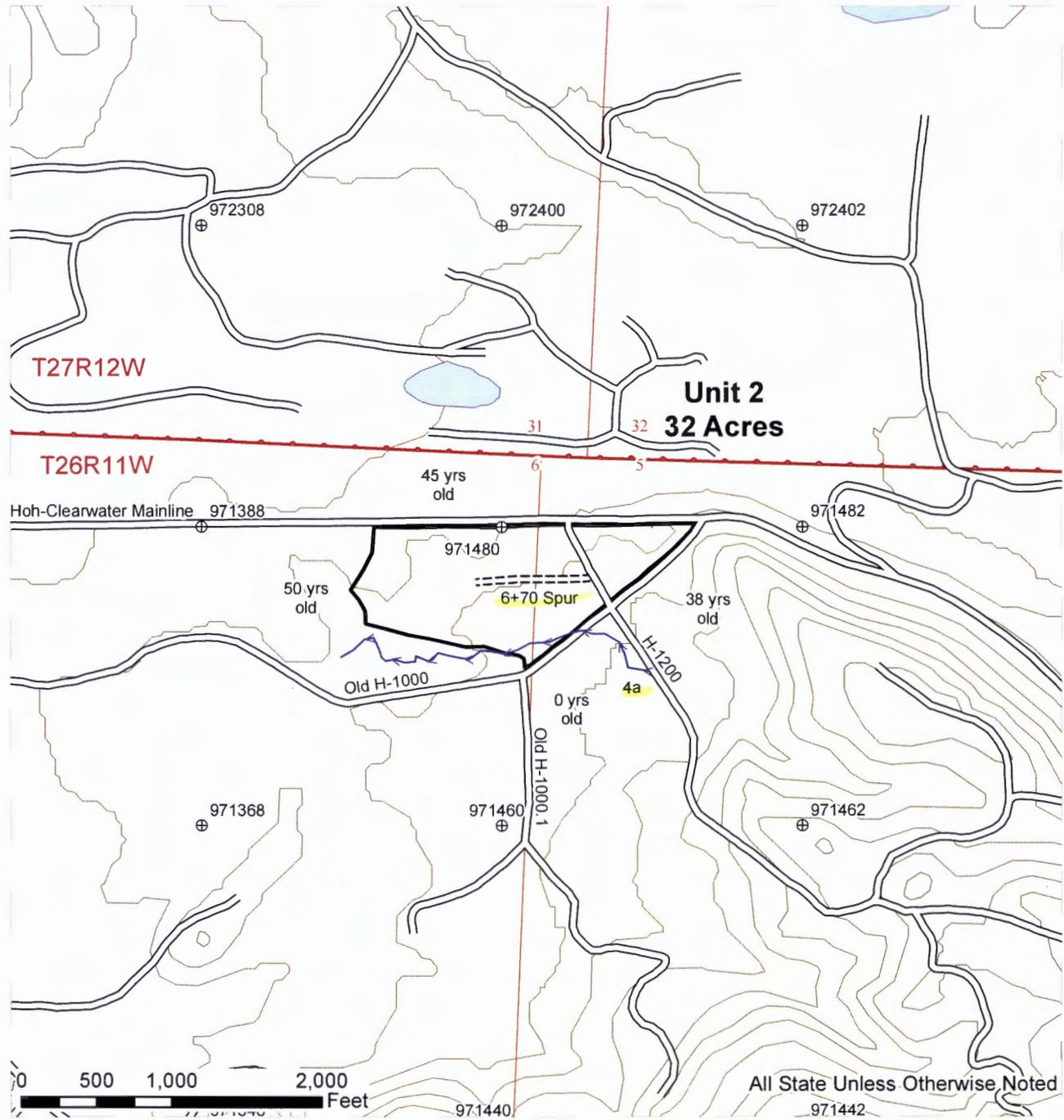


Unit Boundary	Culvert	Construction
Gap	Waste Area	Public Land Survey Sections
Leave Tree Area	Gate (AA-1)	Public Land Survey Townships
Skip	Streams	DNR Managed Lands
Wetland	3a Stream Type	Open Water
Landing	Stream Type Break	Tics - 2000' Interval
	Existing Roads	40 ft. Contours

FOREST PRACTICES ACTIVITY MAP

SALE NAME: SNAHAPISH VDT
APPLICATION #: None

COUNTY(S): JEFFERSON
TOWNSHIP(S): T25R11W, T26R11W, T27R12W

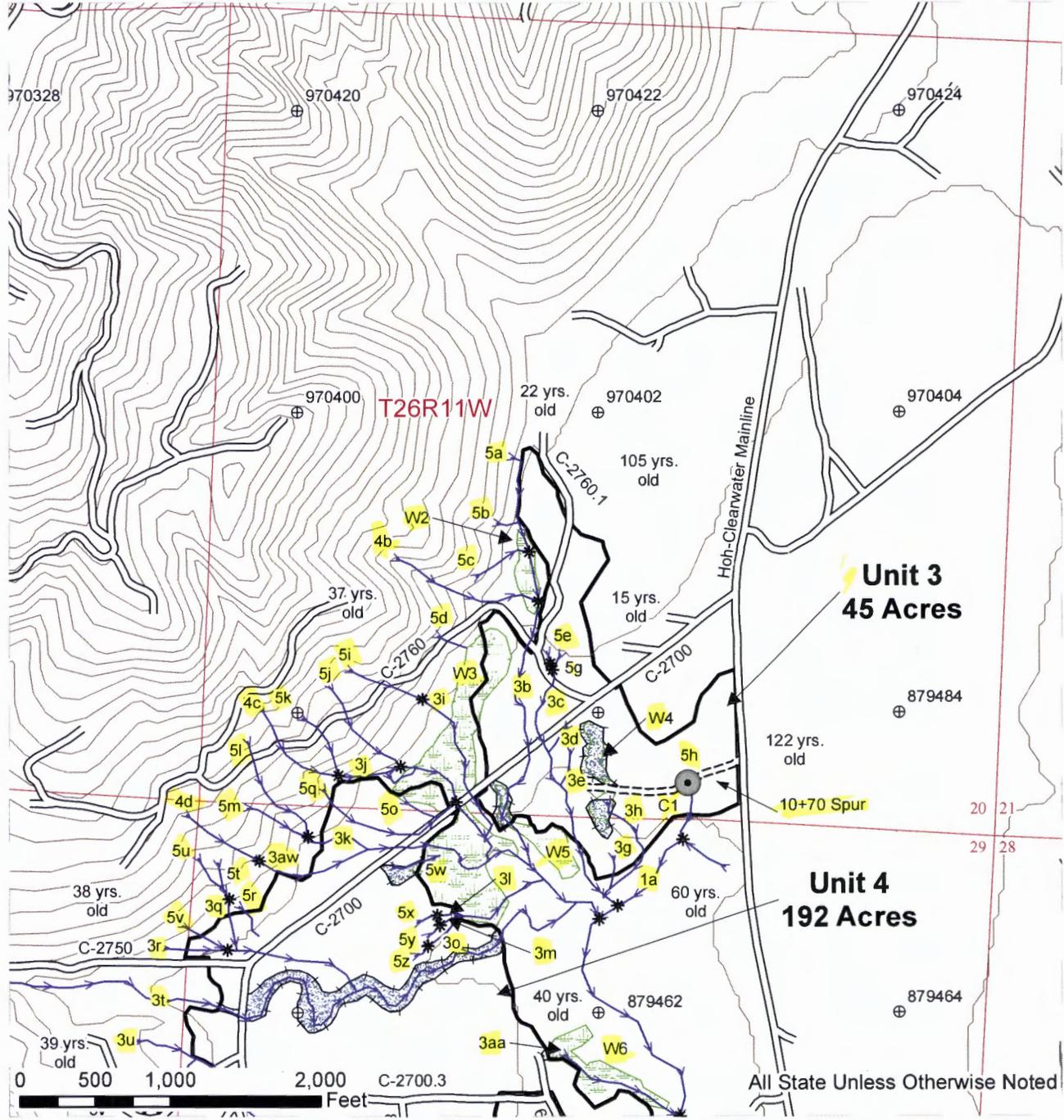


Unit Boundary	Culvert	Construction
Gap	Waste Area	Public Land Survey Sections
Leave Tree Area	Gate (AA-1)	Public Land Survey Townships
Skip	Streams	DNR Managed Lands
Wetland	3a Stream Type	Open Water
Landing	Stream Type Break	Tics - 2000' Interval
	Existing Roads	40 ft. Contours

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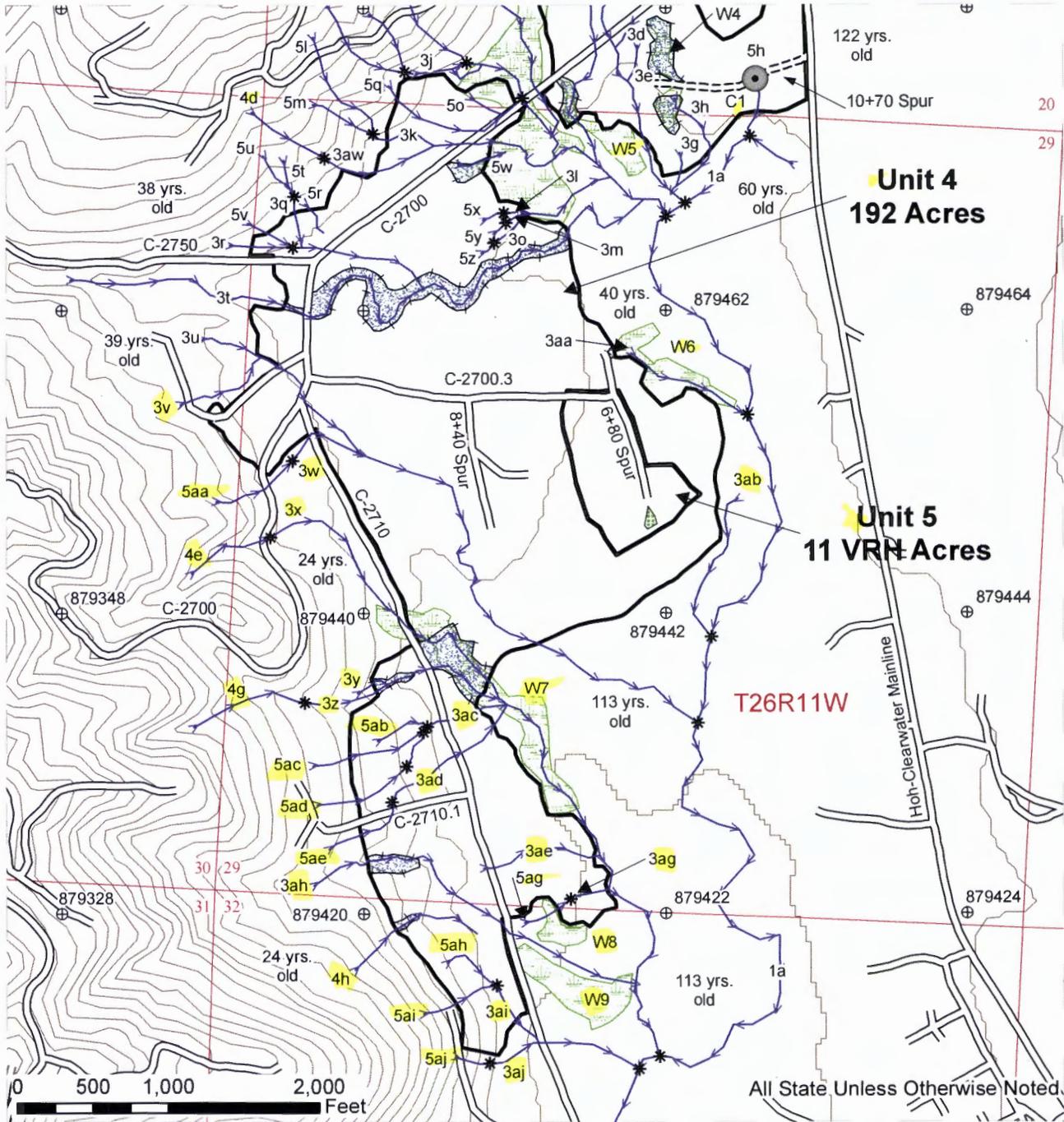




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 APPLICATION #: None

COUNTY(S): JEFFERSON
 TOWNSHIP(S): T25R11W, T26R11W, T27R12W

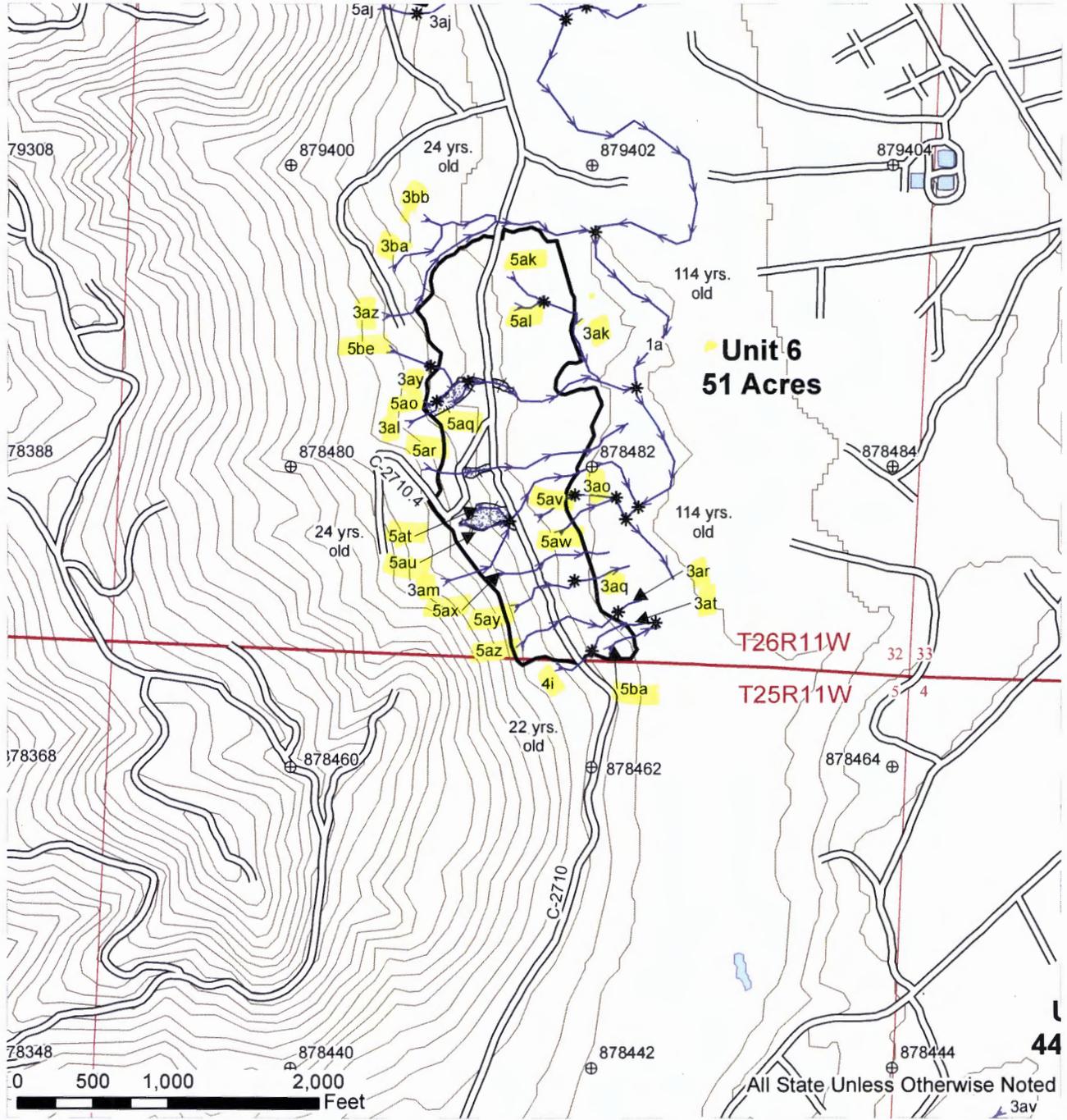


Unit Boundary	Culvert	Construction
Gap	Waste Area	Public Land Survey Sections
Leave Tree Area	Gate (AA-1)	Public Land Survey Townships
Skip	Streams	DNR Managed Lands
Wetland	3a Stream Type	Open Water
Landing	* Stream Type Break	Tics - 2000' Interval
	Existing Roads	40 ft. Contours

FOREST PRACTICES ACTIVITY MAP

SALE NAME: SNAHAPISH VDT
 APPLICATION #: None

COUNTY(S): JEFFERSON
 TOWNSHIP(S): T25R11W, T26R11W, T27R12W



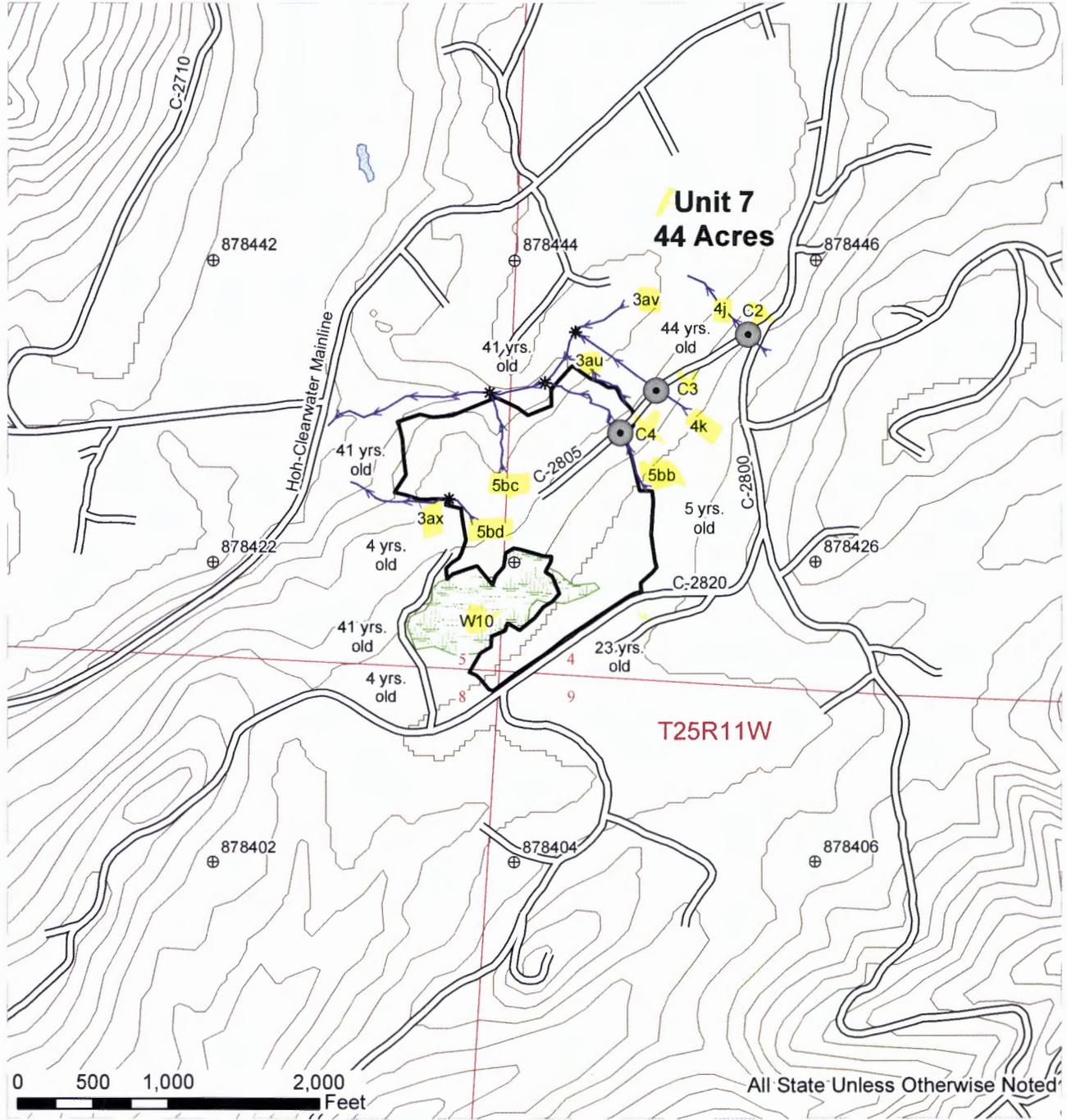
Unit Boundary	Culvert	Construction
Gap	Waste Area	Public Land Survey Sections
Leave Tree Area	Gate (AA-1)	Public Land Survey Townships
Skip	Streams	DNR Managed Lands
Wetland	3a Stream Type	Open Water
Landing	Stream Type Break	Tics - 2000' Interval
	Existing Roads	40 ft. Contours



FOREST PRACTICES ACTIVITY MAP

SALE NAME: SNAHAPISH VDT
APPLICATION #: None

COUNTY(S): JEFFERSON
TOWNSHIP(S): T25R11W, T26R11W, T27R12W



Unit Boundary	Culvert	Construction
Gap	Waste Area	Public Land Survey Sections
Leave Tree Area	Gate (AA-1)	Public Land Survey Townships
Skip	Streams	DNR Managed Lands
Wetland	3 a Stream Type	Open Water
Landing	* Stream Type Break	Tics - 2000' Interval
	Existing Roads	40 ft. Contours

