

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: **BARRED ENTRY**
Agreement # **30-104801**

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

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

Mike Potter
360-640-0722
411 Tillicum lane
Forks, WA

4. Date checklist prepared: **02/20/2024**

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

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

a. *Auction Date:*
06/19/2024

b. *Planned contract end date (but may be extended):*
10/31/2026

c. *Phasing:*
None

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

No, go to question 8. *Yes, identify any plans under A-7-a through A-7-d:*

a. *Site Preparation:*

Assessment will occur after completion of harvest. Site preparation including a chemical herbicide application, may be used to ensure that planting is successful at acceptable levels to meet or exceed Forest Practice standards.

b. *Regeneration Method:*

Sale will be planted with native conifer seedlings following harvest.

c. *Vegetation Management:*

A continued assessment of units to determine future vegetation management strategy will be required. Treatments will be based on vegetative competition and will ensure a free-to-grow status that complies with Forest Practice standards.

d. Other:

Road maintenance assessments will be conducted and may include periodic ditch and culvert cleanout, and grading as necessary.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal. *Note: All documents are available upon request at the DNR Region Office.*

303 (d) – listed water body in WAU:

temp

sediment

completed TMDL (total maximum daily load)

Landscape plan: **OESF Forest Land Plan**

Watershed analysis:

Interdisciplinary team (ID Team) report:

Road design plan: **Barred Entry Timber Sale Road Plan (Jan 29, 2024)**

Wildlife report:

Geotechnical report: **Barred Entry Geotechnical Report (April 3, 2024)**

Other specialist report(s): **WOGHI Memo**

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

Rock pit plan: **Dry Creek pit plan, North Winfield pit plan, Red Creek Quarry plan, Virginia Falls pit plan**

Other: **NSO Best 70 Map**

Geo report is available on
FPARS with FPA
2618363.

Referenced documents may be obtained at the Olympic region office responsible for this proposal.

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 known.

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

FPA # 2618363 FPHP Board of Natural Resources Approval

Burning permit Shoreline permit Existing HPA

Other:

FPHP drawings are available with
FPA 2618363 on FPARS.

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.)

The Barred Entry timber sale application #30-104801 is a 7 unit Variable Retention Harvest (VRH) proposal with a cruised volume of 6,303MBF and is comprised of 397 acres. Of the 397 gross acres, there are 245 acres of VRH, 117 acres of unstable slope protection and Riparian Management Zones (RMZs), 4 acres of wetlands and Wetland Management Zones (WMZs), 10 acres of Leave Tree Areas (LTAs), and 21 acres of existing roads.

Acreage and MBF match
FPA 2618363 Q19.

Approximately 68,143 feet of pre-haul maintenance, 300 feet of new construction, 504 feet of reconstruction, and 2,019 decommissioning is proposed to provide access to the sale area. Rock will be obtained from Dry Creek pit, North Winfield pit, Virginia Falls pit, and Red Creek Quarry. This proposal will be harvested using both ground and cable-based logging methods. This sale is located within the Middle Hoh Watershed Administrative Unit.

a. Complete proposal description:

Proposed road construction/reconstruction matches FPA 2618363 Q14, road construction.

Unit	Proposal Acres (gross)	Riparian Management Zone/Unstable Slope Protection Acres	Wetland Management Zone Acres	Existing Road Acres (within unit)	Leave Tree Clump Acres	Net Harvest Acres
1	90	8	3	4	4	71
2	151	51	0	10	3	87
3	35	22	0	2	1	10
4	36	16	0	0	1	19
5	18	3	0	1	1	13
6	52	14	0	3	0	35
7	15	3	1	1	0	10
Totals	397	117	4	21	10	245

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

Pre-harvest Stand Description:

Unit	Origin Date	Major Timber Species	Type of Harvest
1	1986	Douglas Fir / Western Hemlock	VRH
2	1930 (5%), 1978 (85%), 1982 (10%)	Douglas Fir / Western Hemlock	VRH
3	1978	Douglas Fir / Western Hemlock	VRH
4	1930 (25%), 1982 (75%)	Douglas Fir / Western Hemlock	VRH
5	1964 (50%), 1982 (50%)	Douglas Fir / Western Hemlock	VRH
6	1945 (17%), 1970 (28%), 1975 (55%)	Douglas Fir / Western Hemlock	VRH
7	1964	Douglas Fir / Western Hemlock	VRH

Overall Unit Objectives:

The overall objectives for this sale include the production of saw logs and pulp material to generate 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 leave tree retention strategy and riparian management zones (RMZ). Approximately 132 acres (33%) have been set aside for unstable slopes, RMZs, WMZs and LTAs. These stands will be managed to protect site productivity and maintain the integrity and water quality of adjacent streams.

Ecological - Promote diverse forest structure across the landscape while preserving ecological integrity and function.

Economic - Generate revenue for the Common School and Indemnity (03) Trust.

Statute- Comply with Washington DNR’s HCP, OESF FLP, the Policy for Sustainable Forests, and Forest Practice Rules and Regulations.

Social- Accommodate dispersed informal recreational activities on DNR managed lands while also identifying and protecting historical and archaeological sites consistent with state/federal law.

Specific objectives are to provide riparian protection, protection of moderate or high risk of slope failure and delivery to a public resource, and protection of soils and habitat conservation for threatened and endangered species. Riparian protection measures were designed for all waters in and adjacent to this proposal in accordance with DNR’s OESF Riparian strategy.

c. Describe planned road activity. Include information on any rock pits that will be used in this proposal. See associated forest practice application (FPA) for maps and more details.

Type of Activity	How Many	Length (feet) (Estimated)	Acres (Estimated)	Fish Barrier Removals (#)
Construction		300	.25	0
Reconstruction		504		0
Maintenance		68,143		0
Abandonment		0	0	0
Bridge Install/Replace	0			0
Stream Culvert Install/Replace (fish)	2			1
Stream Culvert Install/Replace (no fish)	7			
Cross-Drain Install/Replace	13			

Construction/reconstruction matches FPA 2618363 Q16. Per FPA Q14, 4 Ns, 12 Np, and 2 F crossings are proposed.

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 (See “WAU Map(s)” and “Timber Harvest Unit Adjacency Map(s)” as referenced on the DNR website: <http://www.dnr.wa.gov/sepa>. Click on the DNR region of this proposal under the Topic “Current SEPA Project Actions - Timber Sales.” Proposal documents also available for review at the DNR Region Office.)

- a. Legal description:
 - T27N R10W S32 – Unit 7
 - T27N R10W S29 – Unit 7, Virginia Falls
 - T27N R11W S34 – Red Creek Quarry
 - T27N R12W S35 – North Winfield pit
 - T27N R11W S36 – Unit 5, Unit 6

Per FPA 2618363 Q7, 10(26-11W) is included in the proposal.

T26N R11W S02 – Unit 1, Unit 2
 T26N R11W S01 – Unit 2, Unit 3, Unit 4, Unit 5
 T26N R11W S11 – Unit 2
 T26N R11W S12 – Unit 2, Unit 3
 T25N R11W S15 – Dry Creek pit

b. *Distance and direction from nearest town:*

All units in the Barred Entry timber sale proposal are located in Jefferson County, approximately 26 road miles southeast of Forks, WA on the H-1000 road system.

13. *Cumulative Effects*

a. *Briefly describe any known environmental concerns that exist regarding elements of the environment in the associated WAU(s). (See WAC 197-11-444 for what is considered an element of the environment).*

This proposal is located within the Middle Hoh WAU. Ownership across the WAU includes large industrial forests, private landowners, federal lands, and Department of Natural Resources managed forests. Forested stands within the WAU appear to be primarily second and third growth stands with old growth stands scattered across the landscape. The number of forest practice activities shown on the WAU maps, along with observations within the WAU indicate that the WAU is intensively managed for timber production.

DNR analyzed carbon sequestration and carbon emissions from projected land management activities within its final environmental impact (FEIS) statement for the 2015-2024 Sustainable Harvest Calculation and the FEIS for the 2019 HCP Long-Term Conservation Strategy for the Marbled Murrelet. At the western Washington scale, land management activities on DNR-managed lands sequester more carbon than emitted. Individual activities, such as this proposal, are likely to emit some greenhouse gases, including CO₂; however, at the landscape scale, DNR's sustainable land management activities, including this proposal, sequester more carbon than they emit. Evaluating carbon sequestration at the western Washington scale is appropriate because a determination of net carbon emissions must consider both the carbon sequestered and the carbon emissions from management within the same analysis area (western Washington).

Recognizing the climate and carbon benefits of working forests in Washington's Climate Commitment Act (RCW 70A.45.005), the legislature found that Washington should maintain and enhance the state's ability to continue to sequester carbon through natural and working lands and forest products. Further, "Washington's existing forest products sector, including public and private working forests and the harvesting, transportation, and manufacturing sectors that enable working forests to remain on the land and the state to be a global supplier of forest products, is, according to a University of Washington study analyzing the global warming mitigating role of wood products from Washington's private forests, an industrial sector that currently operates as a significant net sequesterer of carbon. This value, which is only provided through the maintenance of an intact and synergistic industrial sector, is an integral component of the state's contribution to the global climate response and efforts to mitigate carbon emissions." RCW 70A.45.090(1)(a).

The legislature also found that the 2019 Intergovernmental Panel on Climate Change (IPCC) report “identifies several measures where sustainable forest management and forest products may be utilized to maintain and enhance carbon sequestration. These include increasing the carbon sequestration potential of forests and forest products by maintaining and expanding the forestland base, reducing emissions from land conversion to non-forest uses, increasing forest resiliency to reduce the risk of carbon releases from disturbances such as wildfire, pest infestation, and disease, and applying sustainable forest management techniques to maintain or enhance forest carbon stocks and forest carbon sinks, including through the transference of carbon to wood products” (2020 Washington Laws Ch. 120 §1(2)).

DNR is legally required (RCW 79.10.320) to periodically calculate a sustainable harvest level and manages state trust lands sustainably. DNR has also maintained (statewide) a forest management certificate to the Sustainable Forestry Initiative standard since 2006. In managing state trust lands sustainably, DNR sequesters more carbon than it emits while conducting land management activities such as this proposal.

The timber harvested from DNR-managed lands is used to produce climate-smart forest products. The climate impacts of DNR’s land management are analyzed in multiple environmental impact statements that have informed the Board of Natural Resources’ decisions and are consistent with the IPCC, which states that “meeting society’s needs for timber through intensive management of a smaller forest area creates opportunities for enhanced forest protection and conservation in other areas, thus contributing to climate change mitigation.”

- b. *Briefly describe existing plans and programs (i.e. the HCP, DNR landscape plans, retention tree plans) and current forest practice rules that provide/require mitigation to protect against potential impacts to environmental concerns listed in question A-13-a.*

This proposal and all future management activities on DNR lands will be conducted in accordance with the DNR’s Habitat Conservation Plan (HCP, 1997), the Policy for Sustainable Forests (2006), and Forest Practice Rules. The HCP is an agreement with the federal government that requires the DNR to manage the landscapes with the intent to preserve and enhance habitat. In accordance with its terms, the following applicable strategies are found to provide a conservation benefit for multiple species:

- Deferring harvest from unstable slopes
- Retaining Riparian Management Zones (RMZs). This includes a variable width interior core buffer on types 1, 2, 3, 4, and unstable type 5 streams.
- Retaining Wetland Management Zones (WMZs). This includes a 2/3 site index buffer on two small wetlands.
- Retaining a minimum of 8 leave trees per acre dispersed and clumped 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 Northern 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. In

addition, road construction and maintenance standards will improve the quality of the existing road network and reduce impacts on the environment.

Development of older forests is an expected outcome of the 1997 Trust Lands Habitat Conservation Plan (HCP), and a policy objective stated in DNR's Policy for Sustainable Forests. Landscape assessments made in May 2021, demonstrate that through implementation of the HCP and other Policies and laws, older forest include identified long-term forest cover under the Marbled Murrelet long-term conservation strategy, riparian areas, areas conserved under the multispecies conservation strategy, potentially unstable slopes, spotted owl nest patches, and spotted owl habitat that must be maintained to comply with the northern spotted owl conservation strategy. The Olympic Experimental State Forest HCP Planning Unit meets at least 10% older forest within conservation areas presently.

- c. *Briefly describe any specific mitigation measures proposed, in addition to the mitigation provided by plans and programs listed under question A-13-b.*

All mitigation measures are clearly outlined in the HCP. No additional mitigation measures have been developed for this proposal.

- d. *Based on the answers in questions A-13-a through A-13-c, is it likely potential impacts from this proposal could contribute to any environmental concerns listed in question A-13-a?*

It is not likely potential impacts from this proposal will contribute to the environmental concerns listed in question A-13-a. DNR's HCP, the Policy for Sustainable Forests, and the Forest Practice rules substantially helps the Department to mitigate for cumulative effects related to management activities. These strategies have been incorporated in this proposal.

- e. *Complete the table below with the reasonably foreseeable future activities within the associated WAU(s) (add more lines as needed). Future is generally defined as occurring within the next 7 years. This data was obtained from DNR's Land Resource Manager System on the date of processing this checklist and may be subject to change.*

WAU Name	Total WAU Acres	DNR-managed WAU Acres	Acres of DNR proposed even-aged harvest in the future	Acres of DNR proposed uneven-aged harvest in the future	Acres of proposed harvest on non-DNR-managed lands currently under active FP permits
MIDDLE HOH	54352	39559	3647	33	323

Other management activities, such as stand and road maintenance, will likely occur within the associated WAU(s).

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 associated WAU(s) or sub-basin(s) within the proposal (landforms, climate, elevations, and forest vegetation zone).*

WAU:	<u>MIDDLE HOH</u>
WAU Acres:	<u>54352</u>
Elevation Range:	<u>177 - 3651 ft.</u>
Mean Elevation:	<u>1046 ft.</u>
Average Precipitation:	<u>123 in./year</u>
Primary Forest Vegetation Zone:	<u>Western Hemlock</u>

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

This proposal is a representative example of the WAUs at the same elevation and aspect.

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

100%

Steepest slope matches
FPA 2618363 Q19.

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 an overview of general soils information for the soils found in the sale area. The actual soil conditions in the sale area may vary considerably based on land-form shapes, presence of erosive situations, and other factors.

State Soil Survey #	Soil Texture
7437	V.GRAVELLY LOAM
2966	GRAVELLY SILT LOAM/V.GRAVELLY LOAM
0902	SILT LOAM
3805	LOAM
3970	V.GRAVELLY LOAM

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

No, go to question B-1-e.

Yes, briefly describe potentially unstable slopes or landforms in or around the area of the proposal site. For further information, see question A-8 for related slope stability documents and question A-10 for the FPA number(s) associated with this proposal.

This proposal is located on a range of slopes and is immediately adjacent to incised stream channels with actively slumping banks evidenced by over steepened slopes and exposed bare soil. Inner gorges associated with incised streams were identified by trained forestry staff. Several deep-seated landslides were identified in the vicinity of the proposed harvest and field-verified by the state lands geologist.

SSIF form, SSIF map, CMZ form, and geo report are available on FPARS with FPA 2618363

- 1) Does the proposal include any management activities proposed on potentially unstable slopes or landforms?

No Yes, describe the proposed activities:

Multiple glacial deep-seated landslides were identified adjacent to Owl and Maple creeks. A small percentage of the groundwater recharge areas associated with these DSLs will be harvested.

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

Inner gorges, bedrock hollows, and a shallow landslide were excluded from the harvest.

- 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: **0.25 acres**

Approx. acreage new landings: **0.5 acres**

Fill Source: **Red Creek Quarry, North Winfield pit, Dry Creek pit, Virginia Falls pit**

- f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe. **Yes. Some erosion could occur as a result of building new roads, installing culverts, and hauling timber.**

- 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 5% of the site will remain as 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.)

Harvesting, hauling and road construction will be restricted during periods of heavy rainfall when rutting and surface erosion may occur. Roads will be constructed with properly located ditches, ditch-outs, and cross-drains to divert water onto stable forest floors and/or into stable natural drainages. Best management practices will be utilized as necessary in proximity to live waters. Ground based operations will be suspended during periods of wet weather or wet soil conditions when rutting of skid or shovel roads begins.

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 amounts of engine exhaust from logging and road construction equipment and dust from vehicle traffic on roads will be emitted during proposed activities. If landing debris is burned after harvest is completed, smoke will be generated. There will be no emissions once the proposal is complete.
- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.
None known.
- c. Proposed measures to reduce or control emissions or other impacts to air, if any:
If landing debris is burned, it 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 "WAU Map(s)" and "Timber Harvest Unit Adjacency Map(s)" as referenced on the DNR website: <http://www.dnr.wa.gov/sepa>. Click on the DNR region of this proposal under the Topic "Current SEPA Project Actions - Timber Sales." Proposal documents also available for review at the DNR Region Office.)

No Yes, describe in 3-a-1-a through 3-a-1-c below

- a. Downstream water bodies:

Unnamed perennial streams, Owl creek, Maple creek, Hoh river, Pacific ocean.

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

Wetland, Stream, Lake, Pond, or Saltwater Name	Water Type	Number	Avg RMZ/WMZ Width in feet (per side for streams)
Stream	1	2	Variable width between 150' and 220'
Stream	3	6	Variable width between 70' and 120'
Stream	4	20	Variable width between 100' and 230'
Stream	5	41	Variable width between 0' and 150'
Wetland	Forested	2	Two small (<5 acre) wetlands were given a 2/3 site index buffer of 108'

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

In accordance with the Habitat Conservation Plan, all typed waters, floodplains and unstable slopes are protected with variable width interior core buffers based on site specific conditions. Additionally, no harvest will occur in areas of moderate or high risk of slope failure or delivery to a public resource.

Wind-throw probability modeling assessments were carried out on the sale area and determined to have little to no risk of severe endemic wind-throw.

The work detailed in the road plan has been designed to improve surfacing on the haul roads, and provide for better drainage by installing additional, and replacing inadequate culverts that will divert storm water onto stable forest floor. These actions will minimize the potential for delivery of sediment to streams.

- 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 maps which are available on the DNR website: <http://www.dnr.wa.gov/sepa>. Timber sale maps are also available at the DNR region office.)

Description (include culverts):

Timber felling, bucking, yarding, road maintenance and construction will occur within 200 feet of all the described waters above. Timber harvest will occur within 200 feet of typed waters, but no VRH will occur closer than described above in questions B.3.a.1.b and B.3.a.1.c. Culvert work listed in A.11.C will occur within 200 feet of the described waters above. All activities will be done in accordance with the HCP and Forest Practice Rules.

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

None.

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

No Yes, description:

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

No Yes, describe activity and location:

The riparian management zones (RMZs) of unit 1 and 2 encompass the 100-year floodplain of Maple Creek and Owl Creek, respectively. These RMZs were designed so that no harvest will occur within 150' of the 100-year floodplain.

- 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.

It is not likely that any waste materials will be discharged into the surface water(s). However, minor amounts of oil, fuel, and other lubricants may inadvertently be discharged to the adjacent surface water(s) as a result of heavy equipment use or mechanical failure. No lubricants will be disposed of on-site.

- 7) *Is there a potential for eroded material to enter surface water as a result of the proposal considering the protection measures incorporated into the proposal's design?*

No Yes, describe:

Soils and terrain susceptible to surface erosion are generally located on slopes steeper than 70%. The potential for eroded material to enter surface water is minimized due to the erosion control measures and operational procedures outlined in B-1-h.

- 8) *What are the approximate road miles per square mile in the associated WAU(s)?*

MIDDLE HOH = 4.2 (mi./sq. mi.)

- 9) *Are there forest roads or ditches within the associated WAU(s) that deliver surface water to streams, rather than back to the forest floor?*

No Yes, describe:

It is likely some roads or road ditches within the WAU intercept sub-surface flow and deliver surface water to streams, however current road work standards will be applied that address this issue by installing cross-drains to deliver ditch water to stable forest floors.

10) *Is there evidence of changes to channels associated with peak flows in the proposal area (accelerated aggradations, surface erosion, mass wasting, decrease in large organic debris (LOD), change in channel dimensions)?*

No Yes, describe observations:

There is evidence of changes to channels across the WAU(s). These changes are a result of natural events such as spring runoff from snowmelt and significant storm events. Channel migration, scouring, and deposition of material can be seen in channels across the WAU(s); this indicates those channels historically experience higher water levels and peak flows

11) *Describe any anticipated contributions to peak flows resulting from this proposal's activities which could impact areas downstream or downslope of the proposal area.*

It is not likely the proposed activity will change the timing, duration, or volume of water during a peak flow event. This proposal limits harvest unit size and proximity to other recent harvests, minimizes the extent of the road network, incorporates road drainage disconnected from stream networks, and implements wide riparian buffers which all have mitigating effects on the potential for this proposal to increase peak flows that could impact areas downstream or downslope of the proposal area.

12) *Is there a water resource (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or downslope of the proposed activity?*

No Yes, describe the water resource(s):

a. Is it likely a water resource or an area of slope instability listed in B-3-12 (above) will be affected by changes in amounts, quality or movements of surface water as a result of this proposal?

No Yes, describe possible impacts:

13) *Describe any protection measures, in addition to those required by other existing plans and programs (i.e. the HCP, DNR landscape plans) and current forest practice rules included in this proposal that mitigate potential negative effects on water quality and peak flow impacts.*

Restricting timber harvest/hauling, road construction, and maintenance 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. Maintaining RMZs on streams will aid bank stability, hydrologic functions, and provide recruitment of LWD. See B.1.d.2, B.1.h, and B.3.a.1 for additional details on protections measures within this proposal.

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 water will be withdrawn or discharged.

- 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, fuel, and other lubricants may inadvertently be discharged to the ground as a result of heavy equipment use or mechanical failure. No lubricants will be disposed of on-site. All spills are required to be contained and cleaned-up. This proposal is expected to have no impact on ground water.

- 3) *Is there a water resource use (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or downslope of the proposed activity?*

No Yes, describe:

a. Is it likely a water resource or an area of slope instability listed in B-3-b-3 (above) could be affected by changes in amounts, timing, or movements of groundwater as a result this proposal?

No Yes, describe possible impacts:

Note protection measures, if any: **No harvest will occur on areas that have been identified as potentially unstable.**

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.

Water runoff, including storm water, from road surfaces will be collected by roadside ditches and diverted onto the forest floor via ditch-outs and cross drain culverts.

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

No Yes, describe:

Waste materials, such as sediment or slash, may enter surface water.

Note protection measures, if any:

No additional protection measures will be necessary to protect these resources beyond those described in B-1-d-2, B-1-h, B-3-a-2, and B-3-a-13.

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

No changes to drainage patterns are expected.

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-13, B-3-b-3, and B-3-c-2.

4. Plants

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

Deciduous tree:

Alder Aspen Birch Cottonwood Maple Western Larch

Other:

Evergreen tree:

Douglas-Fir Engelmann Spruce Grand Fir Lodgepole Pine

Mountain Hemlock Noble Fir Pacific Silver Fir Ponderosa Pine

Sitka Spruce Western Hemlock Western Redcedar Yellow Cedar

Other:

Shrubs:

Huckleberry Rhododendron Salmonberry Salal

Other:

Ferns

Grass

Pasture

Crop or Grain

Orchards Vineyard Other Permanent Crops

Wet Soil Plants:

Bullrush Buttercup Cattail Devil's Club Skunk Cabbage

Other:

Water plants:

Eelgrass Milfoil Water Lily

Other:

Other types of vegetation:

Plant communities of concern:

- b. What kind and amount of vegetation will be removed or altered? (Also see answers to questions A-11-a, A-11-b and B-3-a-2).

Approximately 6,303 MBF of 38–94 year-old timber will be harvested.

Per FPA 2618363 Q 19, approximately 245 acres will be harvested.

- 1) Describe the species, age, and structural diversity of the timber types immediately adjacent to the removal area. (See “WAU Map(s)” and “Timber Harvest Unit Adjacency Map(s)” on the DNR website: <http://www.dnr.wa.gov/sepa>. Click on the DNR region of this proposal under the Topic “Current SEPA Project Actions - Timber Sales.” Proposal documents also available for review at the DNR Region Office.)

Unit 1 is bordered by private timber to the north, 10 year-old state timber to the east, thinned 40-year-old state timber to the south, and 30-year-old timber to the west.

Unit 2 is bordered by 60-70-year-old state timber to the west, unit 4 of this proposal (and associated RMZ) and 45-year-old state timber to the north, unit 3 of this proposal (and associated RMZ) to the east, and the Owl creek RMZ to the south.

Unit 3 is bordered by unit 2 of this proposal (and associated RMZ) to the west, 45-year-old state timber to the north, 40-year-old state timber to the east, and the Owl creek RMZ to the south.

Unit 4 is bordered by 70-year-old state timber to the west, 95-year-old state timber to the north, 40-year-old state timber to the east, unit 2 of this proposal (and associated RMZ) and 45-year-old state timber to the south.

Unit 5 is bordered by 10-year-old state timber to the west, 40-year-old state timber to the north, 35-year-old state timber to the east, and 95-year-old state timber to the south.

Unit 6 is bordered by 55-year-old state timber to the west, 55-year-old state timber and 80-year-old state timber to the north, 50-year-old state timber to the east, and 40-year-old state timber to the south.

Unit 7 is bordered by 10-year-old state timber to the southwest, and private timber to the north and east.

- c. List threatened and endangered *plant* species known to be on or near the site.
None found in corporate database

FPRAM review indicates no potential conflict with T&E plant species.

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

Retaining existing stands within bounded out areas throughout the proposal, leave tree areas within harvest units, and replanting with native tree species in the VRH units following harvest. Other native species may regenerate naturally onsite.

- e. List all noxious weeds and invasive species known to be on or near the site.
Evergreen blackberry, Himalayan Blackberry, Scotch Broom

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:

eagle hawk heron owls songbirds

other:

mammals:

bear beaver coyote cougar deer elk

other:

fish:

bass herring salmon shellfish trout

other:

amphibians/reptiles:

frog lizard salamander snake turtle

other:

unique habitats:

balds caves cliffs mineral springs oak woodlands talus slopes

other:

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

TSU Number	Common Name	Federal Listing Status	State Listing Status
BARRED ENTRY U3	Marbled murrelet	Threatened	Endangered
BARRED ENTRY U7	Northern Spotted Owl	Threatened	Endangered

FPRAM review indicates proposal is within the West Twin Creek, Kunamakst Creek, Willoughby Ridge, Owl Creek NSO median home range circles. Proposal is in SOSEA, not habitat.

Proposal is within MM detection area, within 1.5 mi occupied buffer, and within .25 mi of occupied site.

Proposal contains T&E/Sensitive species site-Golden Eagle.

Proposal is within waterfowl priority habitat.

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

Pacific flyway Other migration route:

Explain:

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) **Species/Habitat: Northern Spotted Owl: The DNR mitigates the potential for significant adverse environmental impacts to northern spotted owls (NSO) in the OESF by implementing the HCP strategy. This strategy established threshold percentages for spotted owl habitat on DNR-managed lands in several spotted owl management units (SOMUs). Each SOMU is managed to achieve and maintain at least 20% old forest habitat and at least 40% 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.

This sale is located within the Willy-Huel SOMU, which is currently 47.7% NSO habitat, and 20.3% old forest habitat. Following the planned harvest of 163 acres of young forest habitat (structural, sub-mature), total NSO habitat will remain well above the 40% threshold. The remaining sale acres are non-habitat. No harvest of old forest habitat is proposed.

Unit 1 is located within both the Willoughby Ridge and Owl Creek owl circles. It is 2.4 miles from the Willoughby Ridge best 70, and 2.3 miles from the Owl Creek best 70.

Unit 2 is located within the Kunamakst Creek and Owl Creek circles. It is 2.5 miles from the Kunamakst Creek best 70, and 1.3 miles from the Owl Creek best 70.

Units 3, 4, and 5 are located within the Owl Creek circle, but are at least 1.2 miles from the best 70.

Unit 6 is located within the Willoughby Ridge, Owl Creek, and West Twin Creek owl circles. It is 2.5 miles from the Willoughby Ridge best 70, 1.9 miles from the Owl Creek best 70, and 2.4 miles from the West Twin Creek best 70.

Unit 7 is located within the West Twin Creek owl circle, but is 1.2 miles from the best 70.

Species/Habitat: Marbled murrelet – The proposal area was evaluated for habitat protection or other marbled murrelet conservation opportunities. Previously modeled potential long term forest cover (LTFC) is being updated as a result of layout fieldwork. The proposal does not occur within a marbled murrelet special habitat area or occupied site, and does not contain murrelet habitat (P-stage) that has been designated for metering. Road maintenance and right-of-way harvest is proposed within 100 meters of occupied murrelet habitat. Timber harvest and heavy equipment operations within 100 meters of occupied murrelet habitat will be subject to marbled murrelet timing restrictions of two hours after sunrise to two hours before sunset from April 1 through September 23.

Species /Habitat: Riparian/Wetland - Interior core buffers have been applied to all type 1, 3, 4, and unstable 5 waters, as well as equipment limitation zones on all typed waters, as described in B.3.a.1)b). Wind-throw probability modeling assessments were carried out on the sale area and determined to have little to no risk of severe endemic wind-throw, thus no additional wind buffers have been placed on RMZs. Wetland Management Zones have been retained around two forested wetlands. Buffers are designed to protect the unstable portions of the stream banks, protect waters from siltation, and decrease water temperatures by providing shade and cover. Buffers also allow the natural occurrence of woody debris that provides pools and eddies for fish habitat along stream banks. Furthermore, these buffers will develop old-forest characteristics that, in combination with the owl and murrelet strategies, will help support old-forest dependent wildlife.

Species /Habitat: Upland - Harvest will not occur in areas with moderate or high risk of slope failure or delivery to a public resource. Wind-firm, dominant, and

structurally unique trees were targeted for retention. A minimum of eight trees per acre were retained individually and in clumps to provide habitat structures for wildlife species within VRH units. Timber removal will temporarily create open environments that provide valuable foraging and potential habitat for a variety of wildlife species associated with early-stage forest environments.

- e. List any invasive animal species known to be on or near the site.
There are no known invasive animal species on or near 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.
Petroleum fuel (diesel or gasoline) will be used for heavy equipment during active road building, timber harvest operations, and for transportation. No energy sources will be needed following project completion.
- b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.
No.
- c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:
None.

7. Environmental health

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste that could occur as a result of this proposal? If so, describe.
- 1) Describe any known or possible contamination at the site from present or past uses.
None known.
 - 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 known.
 - 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.
Petroleum-based fuel and lubricants may be used and stored on site during the operating life of this project.

- 4) Describe special emergency services that might be required.
The Department of Natural Resources, private, and fire protection district suppression crews may be needed in case of wildfire. In the event of personal injuries, emergency medical services may be required. Hazardous material spills may require Department of Ecology and/or county assistance.
- 5) Proposed measures to reduce or control environmental health hazards, if any:
No petroleum-based products will be disposed of on site. If a spill occurs, containment and cleanup will be required. Spill kits are required to be onsite during all heavy equipment operations. The cessation of operations may occur during periods of increased fire risk. Fire tools and equipment, including pump trucks and/or pump trailers, will be required on site during fire season.

NOTE: If contamination of the environment is suspected, the proponent must contact the Department of Ecology.

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.
There will be short term, low level and high level noise created by the use of harvesting equipment and hauling operations within the proposal area. This type of noise has been historically present in this geographical area.
- 3) Proposed measures to reduce or control noise impacts, if any:
None.

8. Land and shoreline use

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.*)

The site and surrounding area consist of both state and private timber lands. This proposal will not change the use of or affect the current/long term land use of areas associated with this sale.

- a. 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?
This proposal site has been used as working forest lands. This proposal will retain the site in working forest lands.

- 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.
- b. Describe any structures on the site.
None.
- c. Will any structures be demolished? If so, what?
No.
- d. What is the current zoning classification of the site?
Commercial Forest Land
- e. What is the current comprehensive plan designation of the site?
Commercial Forest
- f. If applicable, what is the current shoreline master program designation of the site?
Not applicable.
- g. Has any part of the site been classified as a critical area by the city or county? If so, specify.
No.
- h. Approximately how many people would reside or work in the completed project?
None.
- i. Approximately how many people would the completed project displace?
None.
- j. Proposed measures to avoid or reduce displacement impacts, if any:
Does not apply.
- k. 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 classifications.
- l. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:
None.

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:

None.

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?

Removal of timber will enhance views from forest roads for the next 10-15 years.

- 1) *Is this proposal visible from a residential area, town, city, recreation site, major transportation route or designated scenic corridor (e.g., county road, state or interstate highway, US route, river or Columbia Gorge SMA)?*

No *Yes, name of the location, transportation route or scenic corridor:*

- 2) *How will this proposal affect any views described above?*

Does not apply.

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

None Proposed

11. Light and glare

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

None.

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

No.

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

None.

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

None.

12. Recreation

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

Dispersed informal recreation in the form of camping, hiking, hunting, fishing, berry/mushroom picking, and sightseeing. Logging roads are also used for ATV/motorcycles, mountain bike riding, and horseback riding.

- b. Would the proposed project displace any existing recreational uses? If so, describe.
There may be some disruptions to recreational use during periods of harvesting and hauling.
- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:
A bypass route will be opened while work is underway on several culvert replacements on the H-1000 road.

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? If so, specifically describe.
No. FPRAM review indicates no conflict with cultural or historical sites or resources.
- 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. FPRAM review indicates no conflict with archaeological or cultural sites or resources.
- c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

A check of the Department of Archaeology and Historic Preservation (DAHP) database, Land Resource Manager (LRM) Special Concerns Report, and historical maps were used to identify cultural resources in the proposed project area. During timber sale preparation, trained foresters found no evidence 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.
If presently-unknown skeletal remains, cultural resources, or both become known during project operations, DNR will comply with the Discovery of Skeletal Remains or Cultural Resources procedure.

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, Hoh-Clearwater Mainline.
- 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. Nearest transit spot is approximately 22 miles away.

- c. 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, see A-11-c.

- 1) *How does this proposal impact the overall transportation system/circulation in the surrounding area and any existing safety problem(s), if at all?*

This project will have minimal to no additional impacts on the overall transportation system in the area. Several culverts on the H-1000 road will be replaced due to age and fish possibility as a part of this proposal. While this pipe-work is being carried out, a bypass road will be opened for local and recreational traffic

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

No.

- e. 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 10 to 15 truck trips per day while the operation is active. Peak volumes would occur during the yarding and loading activities between 4:00 a.m. and 4:00 p.m. of the operating period. The completed project will generate less than one vehicular trip per day. Estimates are based on the observed harvest traffic of past projects.

- f. 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.

Forest products will not be able to be hauled out the H-1000 while culvert work takes place. This work should be completed in 2-5 days.

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

Bypass route will be opened for light vehicle traffic during pipe work on the H-1000.

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:

- 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.

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: Michael Potter

Name of signee Michael Potter

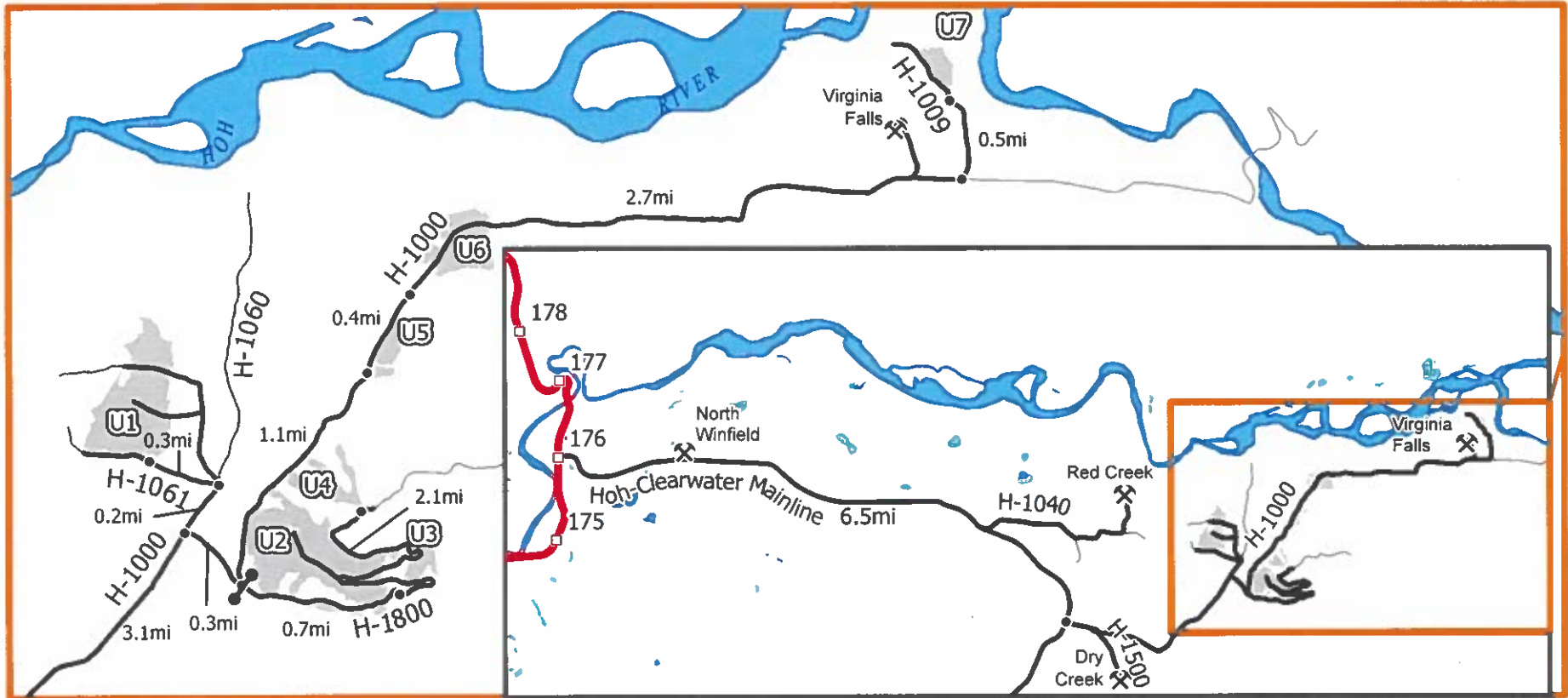
Position and Agency/Organization DNR/Olympic Region

Date Submitted: 5/8/24

DRIVING MAP

SALE NAME: BARRED ENTRY
AGREEMENT#: 30-104801
TOWNSHIP(S): T26R11W, T27R10W, T27R11W
TRUST(S): Common School and Indemnity (3)

REGION: Olympic Region
COUNTY(S): Jefferson
ELEVATION RGE: 460-1620



Map may not be to scale

DRIVING DIRECTIONS:

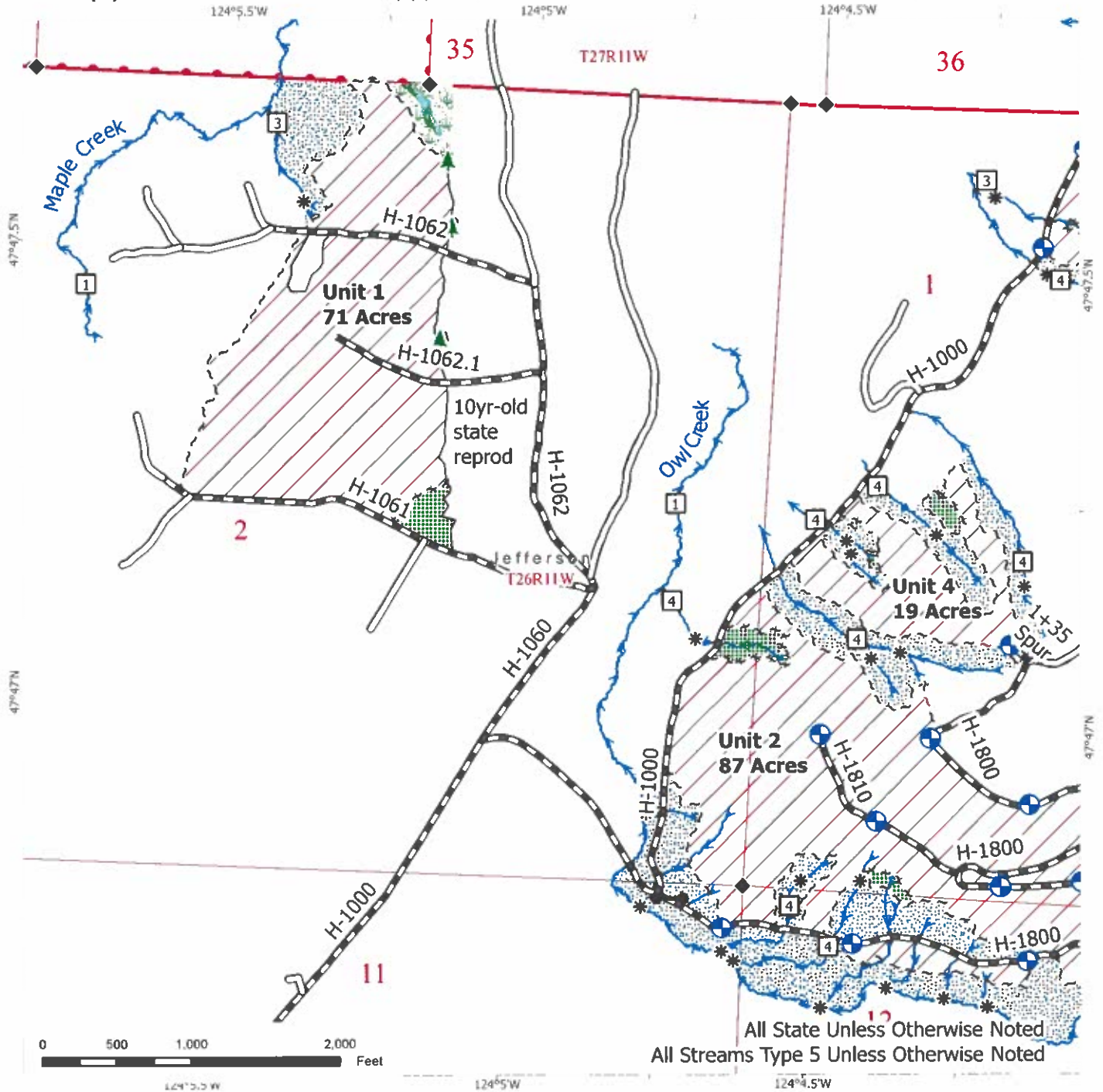
- Unit 1:** Drive South on HWY 101 from Forks, WA for 15 miles. Turn left onto Hoh-Clearwater Mainline. Continue for 6.5 miles and turn left onto H-1000. Drive 3.1 miles, then keep left onto H-1060. Continue for 0.2 miles and take the first left onto H-1061. Drive 0.3 miles.
- Unit 2:** From H-1060 JCT, Continue east on H-1000 for 0.3 miles. Keep right onto H-1800 and arrive.
- Unit 3:** From Unit 2, continue on H-1800 for 0.7 miles.
- Unit 4:** From Unit 3, continue on H-1800 for 2.1 miles.
- Unit 5:** From H-1800 JCT, continue on H-1000 for 1.1 miles.
- Unit 6:** From Unit 5, continue on H-1000 for 0.4 miles.
- Unit 7:** From Unit 6, continue on H-1000 for 2.7 miles and turn left onto H-1009. Continue for 0.5 miles.
- North Winfield Pit:** Turn left at MP1.5 Hoh-Clearwater Mainline
- Red Creed Quarry:** Turn left at MP4.5 Hoh-Mainline. Drive 1 mile, and continue straight onto H-1043. Drive 0.6 miles and turn left onto H-1044. Drive 0.5 miles.
- Dry Creek Pit:** Drive 0.5 miles on H-1500 from JCT H-1000.
- Virginia Falls Pit:** From Unit 6, continue on H-1000 for 1.8 miles. Turn left on Virginia Falls Pit road. Drive 0.5 miles.



TIMBER SALE MAP

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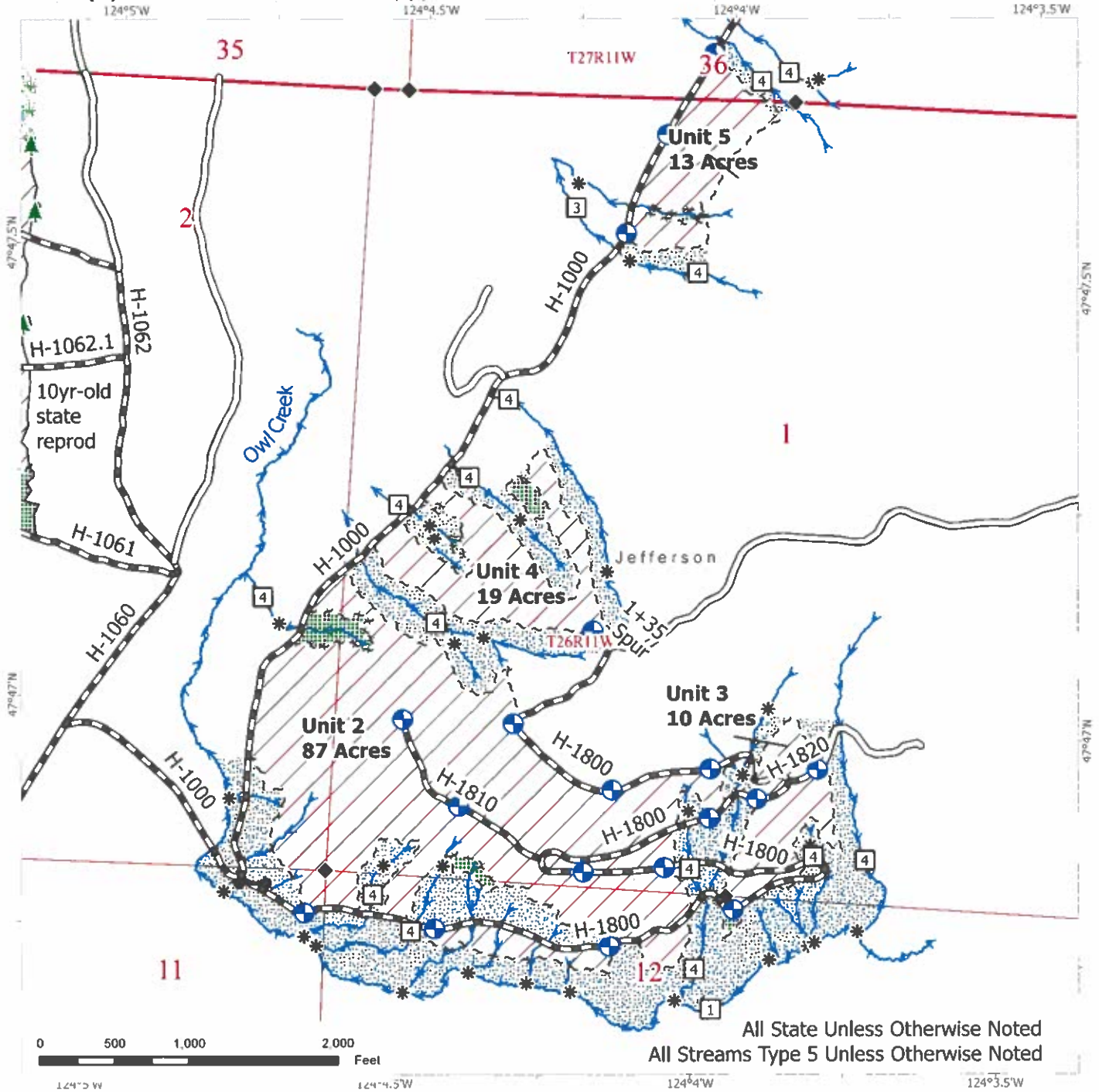


Variable Retention Harvest	Timber Type Change	Landing
Leave Tree Area	Streams	Existing Road
Forested Wetland	Stream Type	Required Pre-haul Maintenance
Wetland Mgt Zone	Stream Break	Public Land Survey Sections
Riparian Mgt Zone	Leave Tree Area <1/4-acre	Public Land Survey Townships
Sale Boundary Tags	Rock Pit	DNR Managed Lands
Leave Tree Tags	Gate	Survey Monument

TIMBER SALE MAP

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ELEVATION RGE: 460-1620



All State Unless Otherwise Noted
 All Streams Type 5 Unless Otherwise Noted

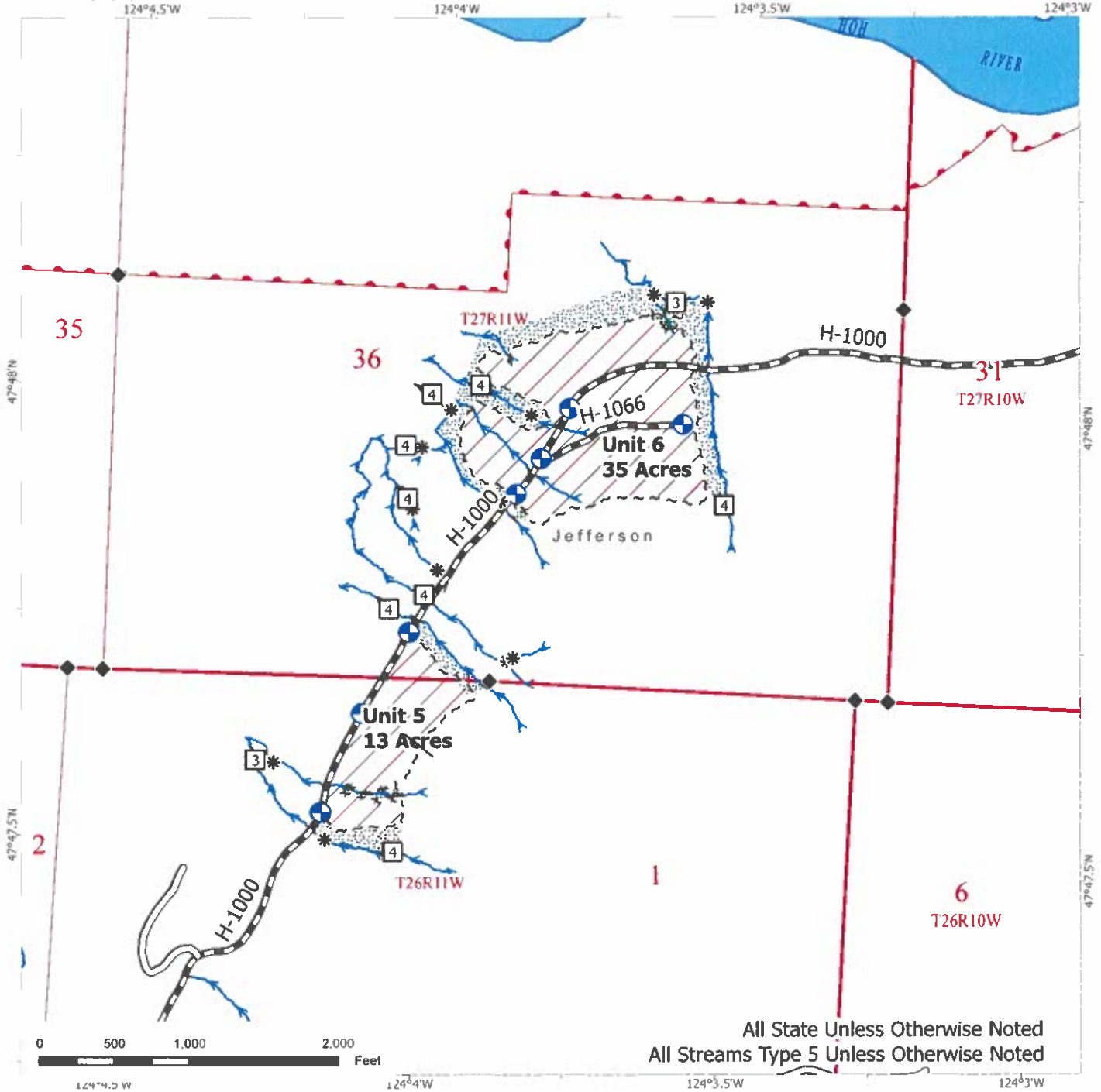
	Variable Retention Harvest		Timber Type Change		Landing
	Leave Tree Area		Streams		Existing Road
	Forested Wetland		Stream Type		Required Pre-haul Maintenance
	Wetland Mgt Zone		Stream Break		Public Land Survey Sections
	Riparian Mgt Zone		Leave Tree Area <1/4-acre		Public Land Survey Townships
	Sale Boundary Tags		Rock Pit		DNR Managed Lands
	Leave Tree Tags		Gate		Survey Monument



TIMBER SALE MAP

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All State Unless Otherwise Noted
 All Streams Type 5 Unless Otherwise Noted

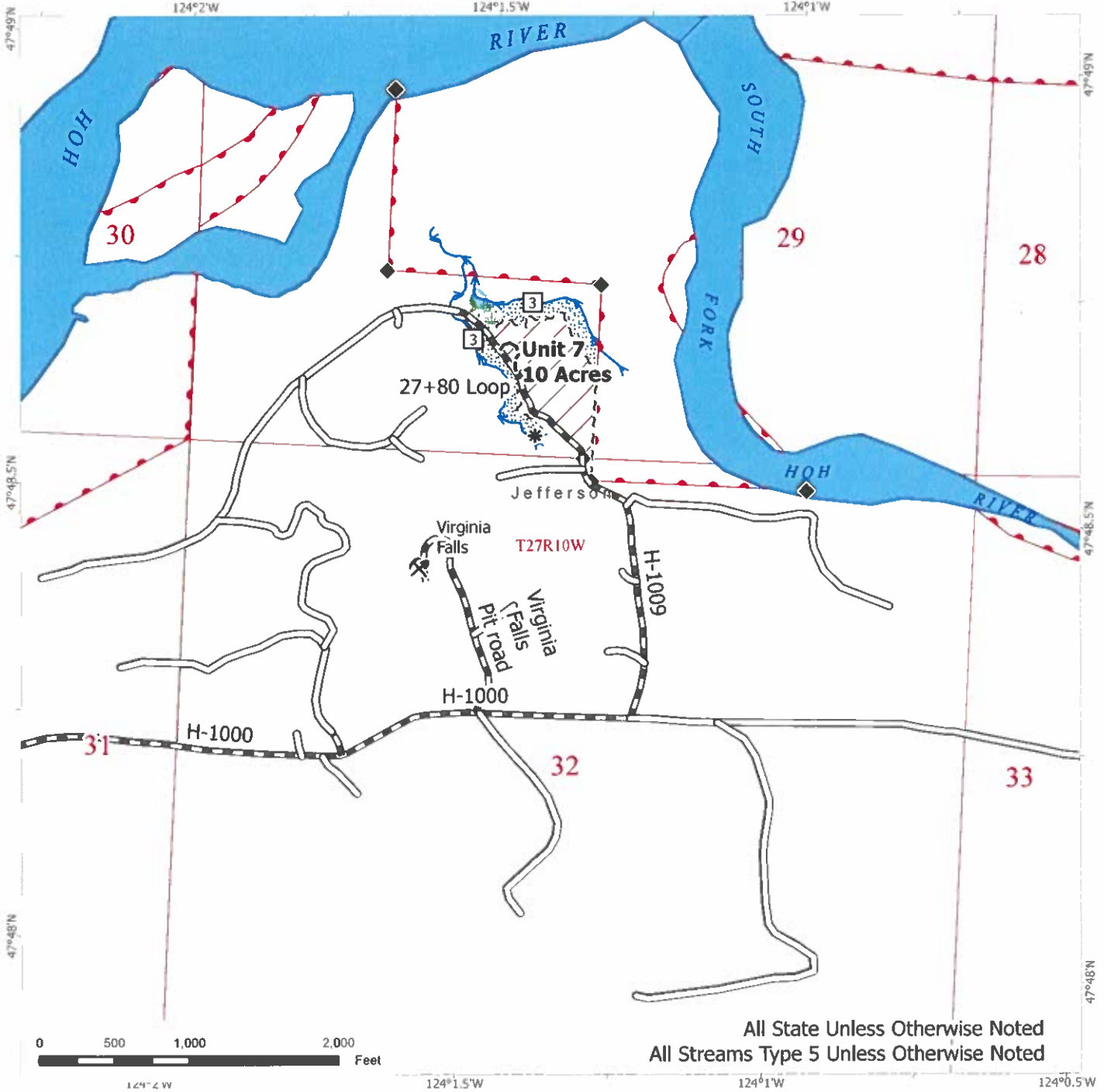
	Variable Retention Harvest		Stream Type		Required Pre-haul Maintenance
	Leave Tree Area		Stream Break		Public Land Survey Sections
	Riparian Mgt Zone		Rock Pit		Public Land Survey Townships
	Sale Boundary Tags		Gate		DNR Managed Lands
	Leave Tree Tags		Landing		Survey Monument
	Streams		Existing Road		



TIMBER SALE MAP

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All State Unless Otherwise Noted
 All Streams Type 5 Unless Otherwise Noted

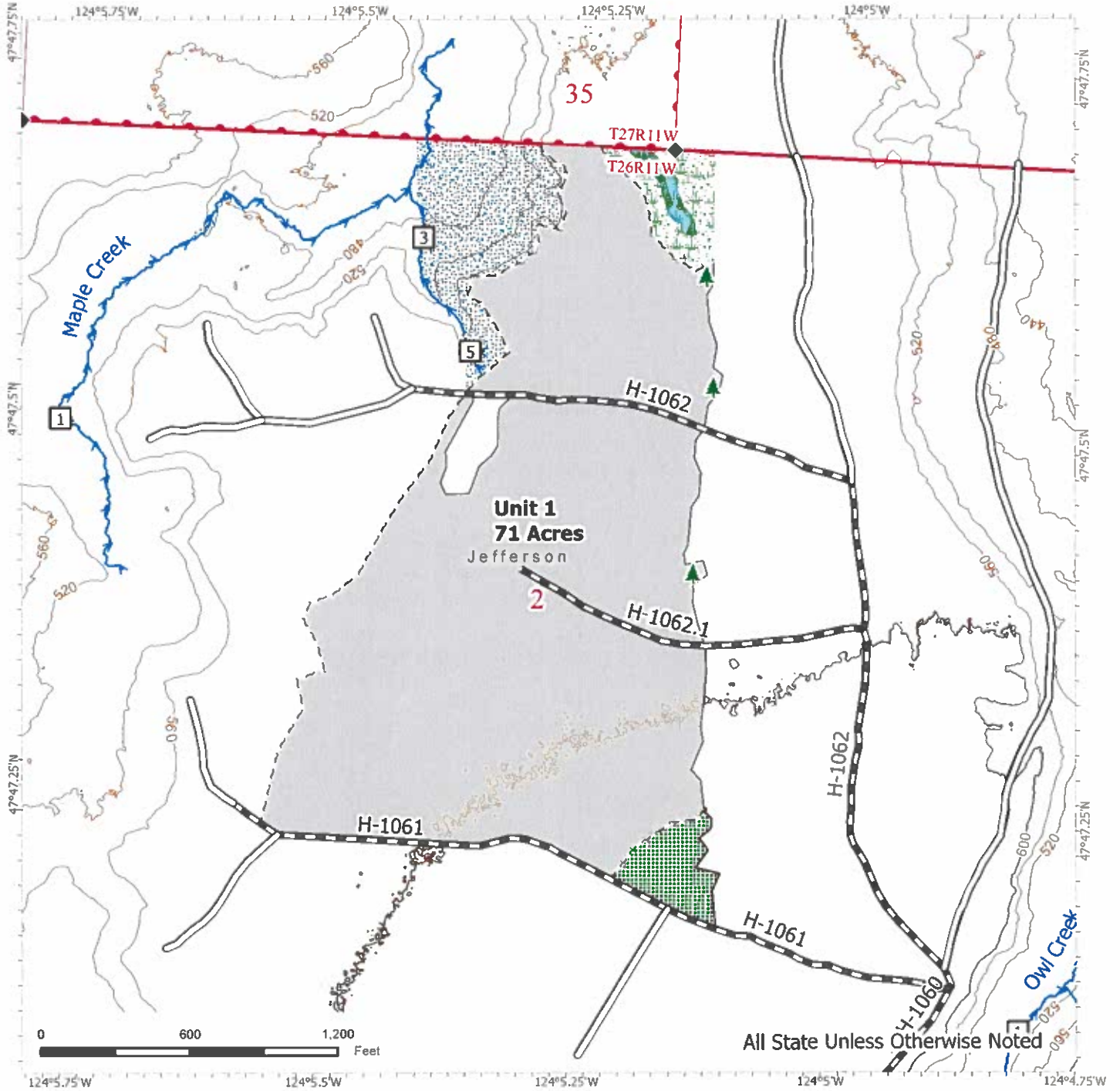
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|----------------------------|-----------------------|-------------------------------|
| Variable Retention Harvest | Stream Type | Required Pre-haul Maintenance |
| Forested Wetland | Stream Break | Public Land Survey Sections |
| Wetland Mgt Zone | Rock Pit | Public Land Survey Townships |
| Riparian Mgt Zone | Gate | DNR Managed Lands |
| Sale Boundary Tags | Existing Road | Survey Monument |
| Streams | Optional Construction | |



LOGGING PLAN MAP

SALE NAME: BARRED ENTRY
AGREEMENT#: 30-104801
TOWNSHIP(S): T26R11W, T27R10W, T27R11W
TRUST(S): Common School and Indemnity (3)

REGION: Olympic Region
COUNTY(S): Jefferson
ELEVATION RGE: 460-1620



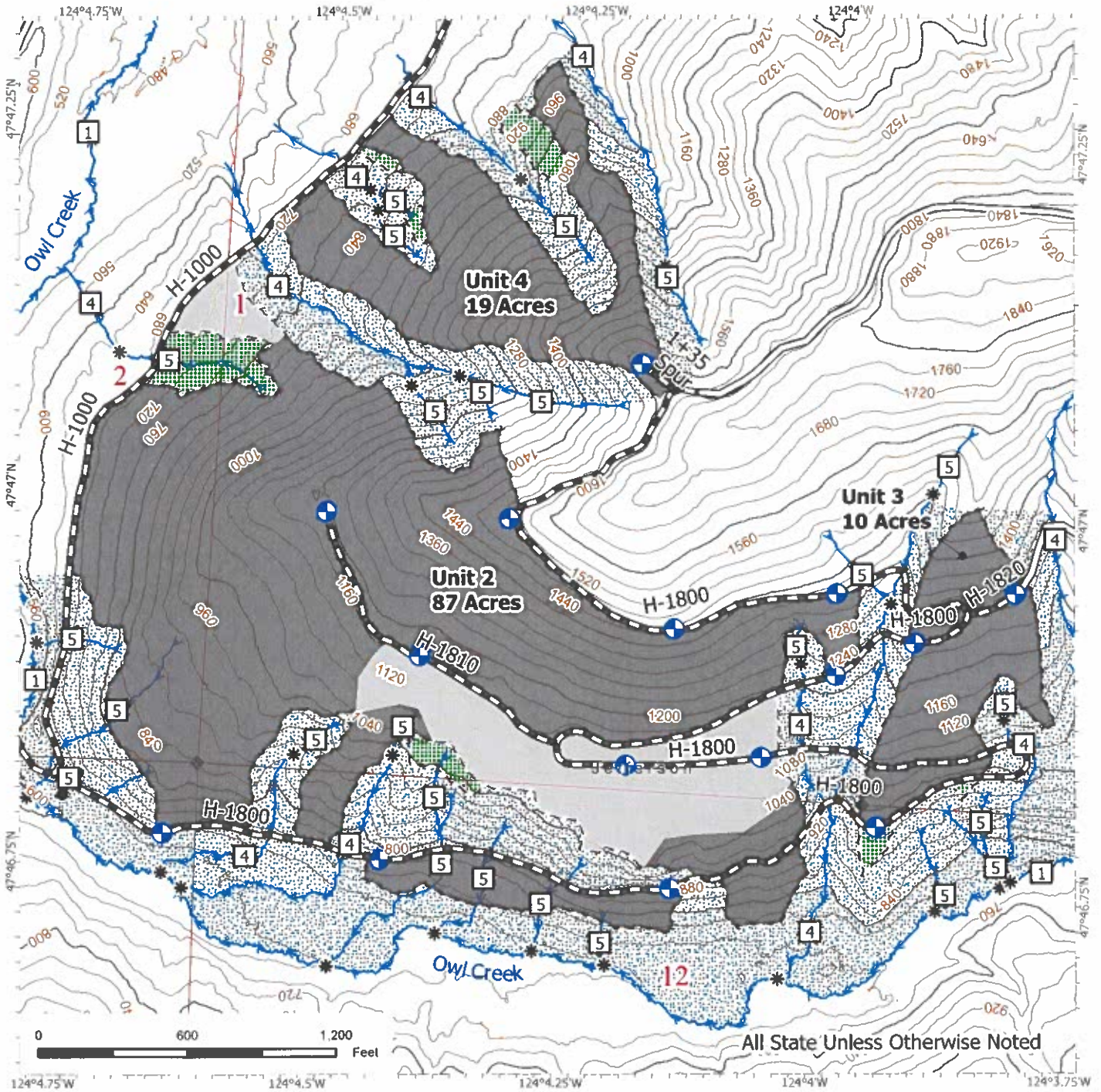
Ground VRH	Leave Tree Area <1/4-acre	Survey Monument
Leave Tree Area	Sale Boundary Tags	Contours 200ft
Forested Wetland	Leave Tree Tags	Contours 40ft
Wetland Mgt Zone	Timber Type Change	Public Land Survey Sections
Riparian Mgt Zone	Streams	Public Land Survey Townships
Existing Road	Stream Type	DNR Managed Lands
Required Pre-haul Maintenance	Stream Break	



LOGGING PLAN MAP

SALE NAME: BARRED ENTRY
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TOWNSHIP(S): T26R11W, T27R10W, T27R11W
TRUST(S): Common School and Indemnity (3)

REGION: Olympic Region
COUNTY(S): Jefferson
ELEVATION RGE: 460-1620



All State Unless Otherwise Noted

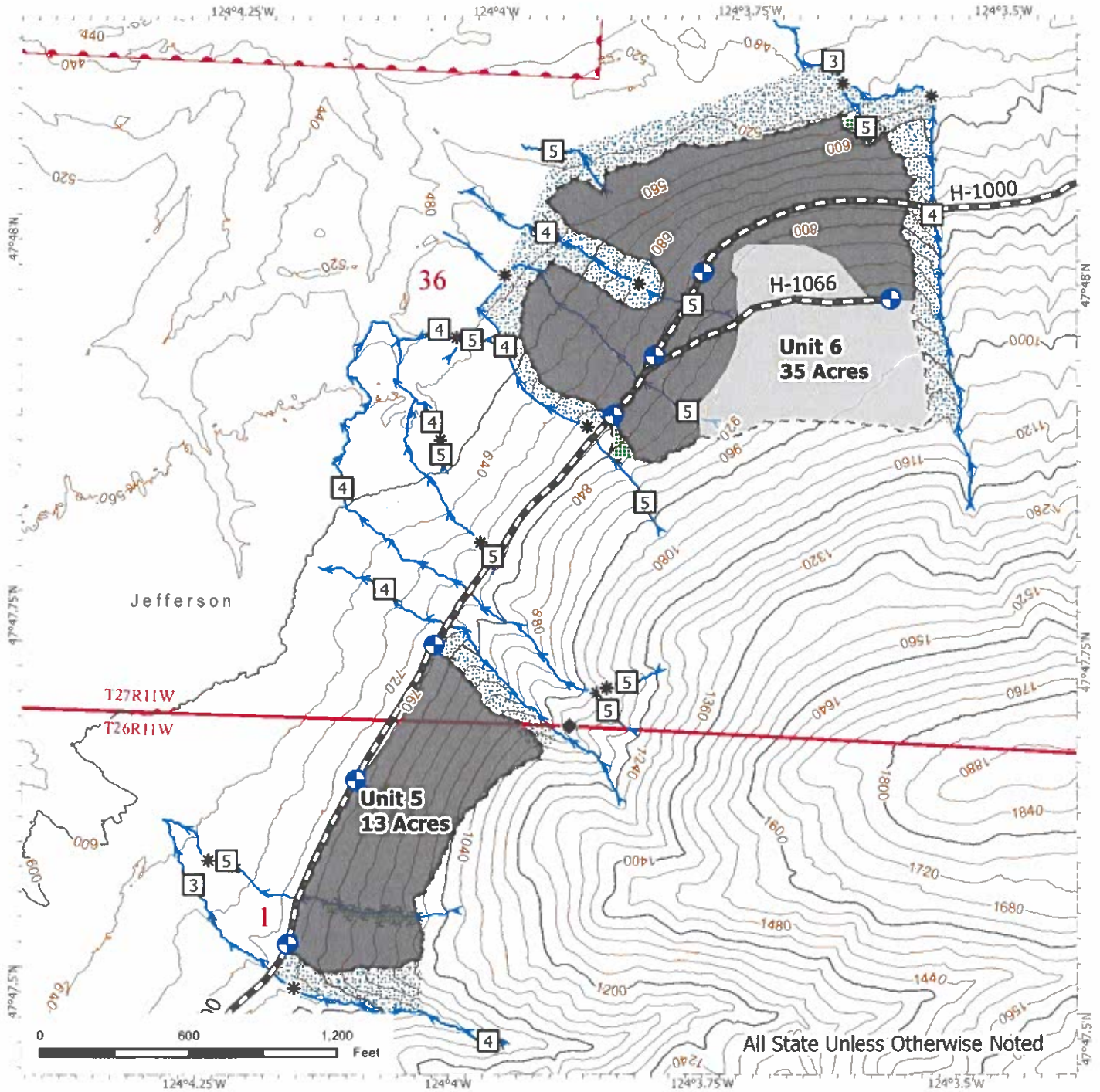
Cable VRH	Sale Boundary Tags	Contours 200ft
Ground VRH	Leave Tree Tags	Contours 40ft
Leave Tree Area	Streams	Public Land Survey Sections
Riparian Mgt Zone	Stream Type	Public Land Survey Townships
Existing Road	Stream Break	DNR Managed Lands
Required Pre-haul Maintenance	Landing	
Gate (AA1)	Survey Monument	



LOGGING PLAN MAP

SALE NAME: BARRED ENTRY
AGREEMENT#: 30-104801
TOWNSHIP(S): T26R11W, T27R10W, T27R11W
TRUST(S): Common School and Indemnity (3)

REGION: Olympic Region
COUNTY(S): Jefferson
ELEVATION RGE: 460-1620



All State Unless Otherwise Noted

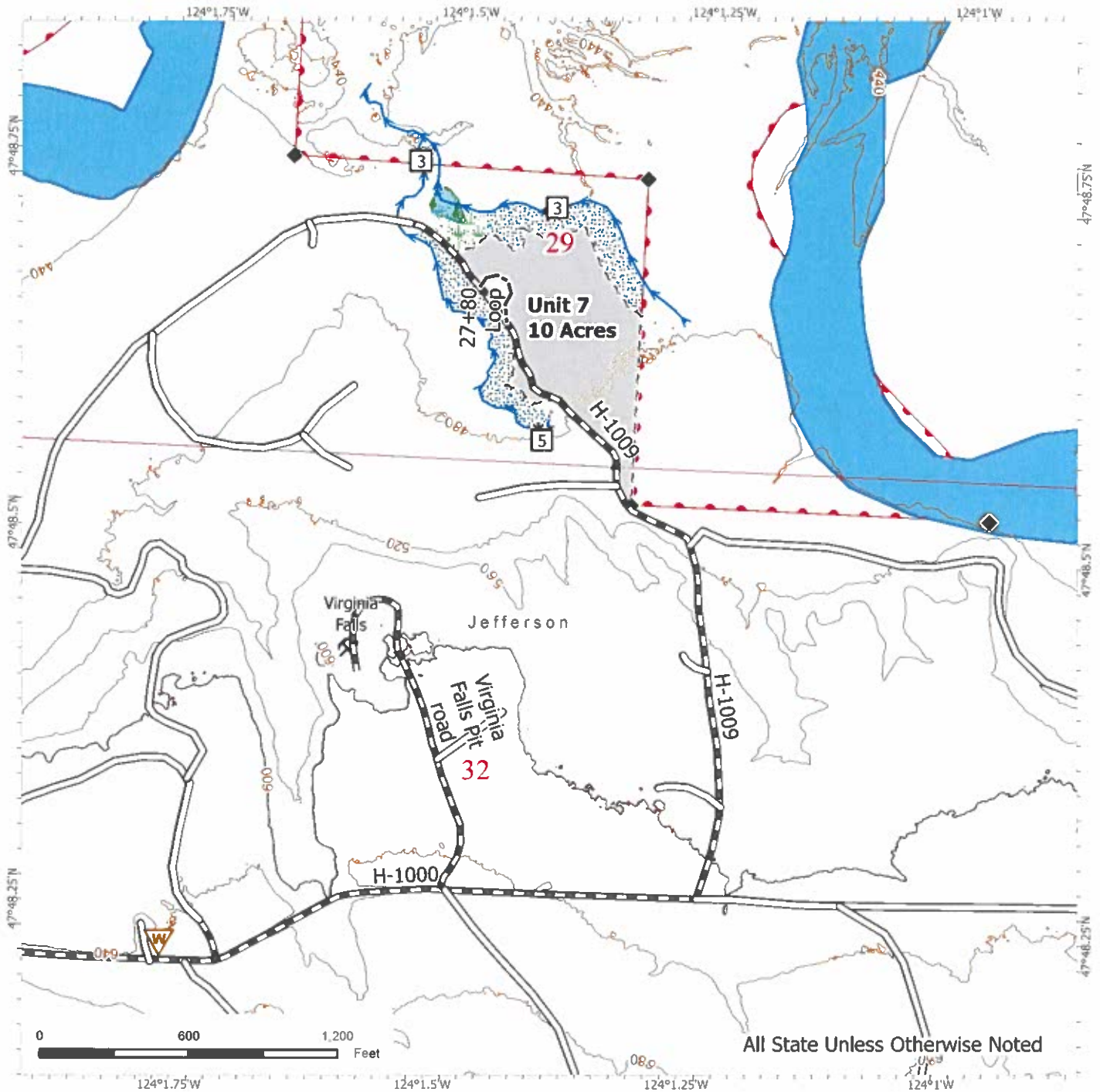
Cable VRH	Sale Boundary Tags	Survey Monument
Ground VRH	Leave Tree Tags	Contours 200ft
Leave Tree Area	Streams	Contours 40ft
Riparian Mgt Zone	Stream Type	Public Land Survey Sections
Existing Road	Stream Break	Public Land Survey Townships
Required Pre-haul Maintenance	Landing	DNR Managed Lands



LOGGING PLAN MAP

SALE NAME: BARRED ENTRY
AGREEMENT#: 30-104801
TOWNSHIP(S): T26R11W, T27R10W, T27R11W
TRUST(S): Common School and Indemnity (3)

REGION: Olympic Region
COUNTY(S): Jefferson
ELEVATION RGE: 460-1620



All State Unless Otherwise Noted

Ground VRH	Sale Boundary Tags	Contours 200ft
Forested Wetland	Streams	Contours 40ft
Wetland Mgt Zone	Stream Type	Public Land Survey Sections
Riparian Mgt Zone	Stream Break	Public Land Survey Townships
Existing Road	Rock Pit (Corporate)	DNR Managed Lands
Optional Construction	Waste Area	
Required Pre-haul Maintenance	Survey Monument	

