

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: **CHARLOTTE VRH RMZ**
Agreement # **30-100783**

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

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

Pacific Cascade Region
PO Box 280
Castle Rock, Washington 98611-0280
Phone: (360) 577-2025
Contact Person: Marcus Johns

4. Date checklist prepared: **04/25/2019**

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

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

a. *Auction Date:*
02/25/2021

b. *Planned contract end date (but may be extended):*
10/31/2022

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:*

Site preparation, including a chemical herbicide application, may be used to ensure that planting can be achieved at acceptable stocking levels to meet or exceed Forest Practices standards following harvest. Slash piles on landings may be burned during the fall before planting.

- An Additional FPA may be Required for Future Herbicide Application. -JCT

b. *Regeneration Method:*

The units will be hand-planted with conifer species or alder following harvest.

c. *Vegetation Management:*

Possible treatments, including a chemical herbicide application, could occur following harvest. Treatments will be based on vegetative competition, and will ensure a free-to-grow status that complies with Forest Practices standards.

d. Other:

Thinning:

Pre-commercial thinning needs will be assessed at approximately 7-10 years of age. Commercial thinning potential will be assessed at approximately 25 to 35 years of age. Thinning will be done as needed to meet desired density, stocking, species diversity, and growth.

Roads:

Road maintenance assessments will be conducted and will include periodic ditch and culvert cleanout, and grading as necessary. Construction, reconstruction, pre-haul maintenance and abandonment are associated with forest management activities.

Rock Pits and/or Sale:

Rock will be obtained from commercial sources for road and associated forest management activities.

Other:

Piled slash may be burned following harvest activities. Firewood permits for the sale area may be issued to the public after timber harvest activities are completed.

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: **Chehalis River**

temp

sediment

completed TMDL (total maximum daily load)

Landscape plan:

Watershed analysis:

Interdisciplinary team (ID Team) report:

Road design plan:

Wildlife report:

Geotechnical report: 8/11/2020

Appendix D. slope stability informational form:

Other specialist report(s):

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

Rock pit plan:

Other:

- Forest Practices Board Manual;

- Forest Practices Activity Maps;

- Policy for Sustainable Forests (PSF 2006);

- State Soil Survey; Habitat Conservation Plan (HCP 1997);

- HCP Checklist; Riparian Forest Restoration Strategy (RFRS);

- Land Resource Manager Reports and associated maps;

- Road Maintenance and Abandonment Plan (RMAP): PLAN NUMBER;

- DNR's State Trust Land Final Conservation Plan Amendment for the Marbled Murrelet Long-term Conservation Strategy (MM LTCS) (2019).

- Geotechnical Report is available with FPA# 2938244 on FPARS and at the Region office.
-JLT

The following information is provided by DNR's GIS database:

- Weighted Old Growth Habitat Index (WOGHI);
- WAU Rain-On-Snow Layer;
- Marbled Murrelet Habitat Layer;
- Spotted Owl Habitat Layer;
- USGS and GLO maps;
- State Lands Geologist Remote Review (SLGRR); and Forest Practices Statewide Landslide Inventory (LSI) screening tool.

Referenced documents may be obtained at the Pacific Cascade Region Office.

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 # _____
 FPHP
 Board of Natural Resources Approval
 Burning permit
 Shoreline permit
 Existing HPA
 Other:

- FPA# 2938244 is available on FPARS.
-JCT

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:

"Charlotte VRH RMZ" is a 3-unit, 159 acre variable retention harvest with 2 acres of RFRS hardwood conversion in the Lower Chehalis Block. The proposed area will be harvested using both ground-based and cable methods. This proposal will remove approximately 8,078 MBF of timber.

Unit	Proposal Acres (gross)	RMZ/WMZ Acres	Potentially Unstable Slope Acres*	Existing Road Acres (within unit)	Sale Acres	Leave Tree Clump Acres	Net Harvest Acres
1	145	53	13	5	85	12	75
1 RMZ HDWD	0	-1	0	0	1	0	1
2	71	21	8	0	50	7	42
2 RMZ HDWD	0	-1	0	0	1	0	1
3	72	24	16	0	48	6	42
Totals	287	97	36	5	186	26	160

*Of total unstable slope acres, 25 are bound out by RMZ while 11 are bound out in Leave Tree Areas

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	1943, 1945, 1953	Douglas-fir, western hemlock, western redcedar, red alder, bigleaf maple, black cottonwood	Variable Retention Harvest
1 RMZ HDWD	1953	Red alder, bigleaf maple, Douglas-fir	Hardwood Conversion
2	1946, 1953, 1962	Douglas-fir, western hemlock, western redcedar, red alder, bigleaf maple, black cottonwood	Variable Retention Harvest
2 RMZ HDWD	1962	Red alder, bigleaf maple, Douglas-fir	Hardwood Conversion
3	1944, 1946	Douglas-fir, western hemlock, western redcedar, red alder, bigleaf maple, black cottonwood	Variable Retention Harvest

Overall Unit Objectives:

The overall objectives of this proposal are:

- 1) Produce revenue for the State Forest Transfer (01), Common School and Indemnity (03), and Capitol Grant (07) Trusts through the production of saw logs, poles, and pulp material.
- 2) Provide for wildlife and riparian habitat by developing vertical stand structure and age class distribution in the future stand.
- 3) Restoring riparian forest to a conifer-dominated stand that will develop into an older forest condition by eliminating the current hardwoods and establishing a mix of site-adapted conifers.

- FPA# 2938244 indicates 160.6 acres of
Even-Aged Harvest and Hardwood Conversion.
(Removing Approximately 8074 MBF of Timber Volume)
12380 Feet of Road Construction, 870' Feet of
Abandonment, and 6000 cubic Yards of Spoils.
-JCT

b. 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		7880	3.4	n/a
Reconstruction		4500		n/a
Maintenance		47593		
Abandonment		870	0.4	n/a
Bridge Install/Replace	0			n/a
Stream Culvert Install/Replace (fish)	0			n/a
Stream Culvert Install/Replace (no fish)	0			
Cross-Drain Install Replace	21			

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:

Unit 1 is located in sections 29 and 32 of Township 16 North, Range 05 West, W.M. - The proposal is located

Unit 2 is located in section 29 of Township 16 North, Range 05 West, W.M. Within Grays Harbor County. -JCT

Unit 3 is located in section 25 and 36 of Township 16 North, Range 06 West, W.M.

b. Distance and direction from nearest town (see the driving map listed on the DNR website for further information):

This proposal is approximately 13 road miles west of Oakville, WA.

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 may temporarily affect elements of the environment to varying degrees including, Earth, Surface water movement/quantity/quality, Soils, Air quality, Noise, Aesthetic, Plants and Animals, Recreation, and Cultural Resources.

The 303 (d) stream in the Upper Chehalis Rock Creek WAU is listed as having a completed

TMDL; however, it is upstream from the proposal area (approximately 4.2 miles). Due to mitigation measures in this proposal, there should be no impact to listed waters, the Chehalis River.

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.

The Department of Natural Resources has a multi-species Habitat Conservation Plan (HCP) with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service concerning threatened and endangered species and their habitats, which requires the Department to manage landscapes to provide and sustain long-term habitat in exchange for an Incidental Take Permit. This agreement substantially helps the Department to mitigate for cumulative effects related to management activities. The Department follows Forest Practices Rules as applicable to roads and potentially unstable slopes. The Department follows Forest Protections related to fire hazard mitigation.

- DNR HCP is available at the Region Office and at www.dnr.wa.gov

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

No further mitigation measures have been specifically proposed other than those outlined in question A-13-b.

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?

No.

e. Complete the table below with the reasonably foreseeable future activities within the associated WAU(s) (add more lines as needed). Future is defined as occurring within the next 7 years.

WAU Name	Total WAU Acres	DNR-owned 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
UPPER CHEHALIS/ROCK CREEK	27245	14419	2738	12	1011

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:	UPPER CHEHALIS/ROCK CREEK
WAU Acres:	27245
Elevation Range:	35 - 1786 ft.
Mean Elevation:	433 ft.
Average Precipitation:	53 in./year
Primary Forest Vegetation Zone:	Western Hemlock

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)?
The estimated steepest slope on the net harvest area is 90%.
- c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any 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 entire 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
4719	SILT LOAM
0645	SILT LOAM
0646	SILT LOAM
0644	SILT LOAM
7385	SILT 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.

A DNR State Lands geologist remotely reviewed all units of the sale utilizing the review of

the historic aerial photographs, Forest Practices Statewide Landslide Inventory data, and Landslide Remote Identification Model (LRIM) tool. LRIM is a screening tool which identifies areas of potentially unstable landforms and is derived Light Detection and Ranging (LiDar) elevation data. The results of the geologist review, available in SLGRR (State Lands Geologist Remote Review), indicated the need for a Geologist field review. Field review was conducted by a field forester trained to identify unstable slopes and a State Lands Geologist, and the proposal area was found to have potential for areas of slope instability. Potentially Unstable Slopes which were not located in no-harvest RMZs were excluded from the proposal area with Leave Tree Areas.

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

No Yes, describe the proposed activities:

Yarding is planned over an inner gorge contained within an RMZ in Unit 2; minimal risk and potential for delivery was found from yarding across this feature with the results contained in the Geotechnical Report prepared by the State Lands Geologist and QE.

-Geotechnical Report is available with FPA #2938244 and at the Region Office. -SCT

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

Based on the geologist's and forester's field review of potentially unstable slopes and LSI mapped landform polygons (ID #s 24016, 24037, 24062, 24420, 24421, 24425, 24431, 24435, 24445, 24448, 24460, 24467, 24482, 24483, 24486, 24488, 24490), areas of potentially unstable slopes were identified and excluded from the sale area using "Timber Sale Boundary" tags and "Leave Tree Area" tags. This excluded area totaled approximately 36 acres. Other protection measures include (but are not necessarily limited to):

- Roads are located on ridge-tops where possible; road construction on side slopes over 55% will require full bench excavation.
 - The roads were designed and located to minimize the amount of full bench construction.
 - Cross-drains and ditchouts will be utilized to minimize the potential for mass wasting and slope failures associated with poor drainage.
 - Some steeper Type 5 headwalls have leave tree clumps protecting them.
 - When yarding over the feature described in B.1.d.1, the following are required:
 - Full suspension yarding
 - Minimizing the quantity of yarding corridors
 - Trees cut for corridors shall be felled parallel to contour and left on site
 - Lead end suspension will be required on all other cable settings
- 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: 3.4 acres Approx. acreage new landings: 1.6 acres

Fill Source: Native material

Approx. CY Fill: 6000 CY

Purpose: Removal of forest products

- 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 2% of the site will remain as gravel roads and landings.
- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:
(Include protection measures for minimizing compaction or rutting.)
Erosion control and reduction measures are addressed in the sale layout and harvest system design.
- **The no harvest RMZs will function to protect streams from sediment delivery.**
 - **Harvested areas will be replanted with alder and/or conifer tree species to reestablish root bound soils.**
 - **Areas of soil exposed through road construction will be re-vegetated.**
 - **The proposal will be harvested utilizing lead end suspension to minimize soil disturbance.**
 - **Leave tree clumps were left around the headwalls of some Type 5 streams**

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: **Williams Creek, Chehalis River**

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

Wetland, Stream, Lake, Pond, or Saltwater Name (if any)	Water Type	Number (how many?)	Avg RMZ/WMZ Width in feet (per side for streams)
Unnamed Stream	3	10	193
Unnamed Stream	3	1	165
Unnamed Stream	4	11	100
Unnamed Stream	5	16	0

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

Leave trees were placed along portions of some Type 5 streams. RMZs are no harvest buffers with the exception of two Hardwood Conversion areas as part of the Riparian Forest Restoration Strategy (RFRS). No wind buffers were applied with this proposal due to the observation of minimal windthrow in nearby RMZs (adjacent to recently harvested units), streams being less than 5 feet in width and/or the prevailing wind direction being from the south/southwest.

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):

RFRS Hardwood Conversion prescriptions are being applied to 1.6 acres in the outer zone of some Type 3 and Type 4 RMZs.

There will be full suspension yarding through the RMZ of a disconnected Type 4 stream; additional protection measures are listed in B.1.d.1. There will be no timber yarded through any other RMZ.

Trees will be felled away from all streams. Trees may be cut in RMZs for safety or operational needs, but will be left in place to provide large woody debris functions in the riparian area.

Tailhold cables may be strung through Type 3 and Type 4 RMZs.

Type 5 streams may have tailhold cables strung over them and/or timber yarded across them. Lead-end suspension is required at a minimum across all Type 5 streams.

- 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 proposal area includes many floodplains, however no work will occur near the floodplains of Type 3 or 4 streams.

- 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.

- 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)?*

The Upper Chehalis/Rock Creek WAU averages 4.6 miles of road per square mile.

- 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 possible some roads or road ditches within the WAU intercept sub-surface flow and deliver surface water to streams, however current road construction, reconstruction, and/or maintenance 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. This proposal utilizes mitigation measures designed to minimize changes in peak flows, including; limiting harvest size and proximity to recent harvests, minimizing the road network, road drainage that is disconnected from streams, and wide riparian buffers. Due to these mitigation measures, no significant changes to peak flows are expected due to this proposal.*

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):*

Agricultural sites a few miles downstream of this proposal may use surface water intakes. However, significant changes in surface water are not anticipated with this proposal. There are no known areas of slope instability downslope or downstream. Areas of slope instability within the proposal area are described in B.1.d.1.

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.*

See B.1.d.5. and B.1.h. for further 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 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.

None.

- 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:*

There are a few domestic wells downstream (approximately 0.5 miles) from the proposal. There are no known areas of slope instability downslope or downstream. Areas of slope instability within the proposal area are described in B.1.d.1.

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 additional protection measures were identified as necessary to protect these resources beyond those described in B.1.d.5. and B.1.h.

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:

Slash which enters any Type 5 stream and is identified by the Contract Administrator will be removed post-harvest. 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 significant 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: **cherry, cascara**

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: **Oregon grape, vine maple, elderberry, beaked hazelnut**

Ferns

Grass

Pasture

Crop or Grain

Orchards Vineyard Other Permanent Crops

Wet Soil Plants:

Bullrush Buttercup Cattail Devil's Club Skunk Cabbage

Other: **water-parsley, stink currant**

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).

All conifer and hardwood trees will be removed as part of this harvest proposal, except the wildlife leave trees, green recruitment trees and the vegetation within the RMZs (exclusive of where RFRS prescriptions are being applied). Understory vegetation will be disturbed and/or reduced within the proposed harvest area as a result of timber felling, bucking, yarding and site preparation operations. Most of the vegetation will re-establish within 2 – 3 years after forestry activities are complete.

- FPA # 2938244 indicates 160.6 acres of evenaged Harvest and Hardwood Conversion removing approximately 8077 MBF of timber volume. -SCT

- 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: to the north is a 4-year-old conifer plantation; to the east is a 3-year-old and a 14-year-old conifer plantation; to the south is a 23-year-old conifer plantation and a 1-year-old conifer plantation; to the west is a 4-year-old conifer plantation, a 9-year-old hardwood plantation, and a 66-year-old mixed conifer/hardwood stand.

Unit 2: to the north is a 14-year-old conifer plantation; to the east is a 77-year-old mixed conifer/hardwood stand and a 2-year-old conifer plantation; to the south is a 68-year-old and 75-year-old mixed conifer/hardwood stand; and to the west is a 3-year-old conifer plantation.

Unit 3: to the north is a 3-year-old conifer plantation; to the east is a 77-year-old mixed conifer/hardwood plantation; to the south is a 9-year-old hardwood plantation; to the west is a 79-year-old mixed conifer/hardwood plantation.

- c. List threatened and endangered *plant* species known to be on or near the site. *FPRAM Check Confirms No Conflict with T&E Plant Species.*
None found in corporate database *-SCT*
- d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:
Retention tree clumps are identified across the harvest area. Some clumps were selected for their species diversity of native flora. These clumps will provide a local seed source for native overstory and understory species. Some natural regeneration of native species will occur on site after harvest. Wildlife trees were left in areas to protect snags, large down logs, advanced regeneration, Type 5 streams, and potentially unstable slopes. Trees with defects such as split or broken tops, dominant crowns, large diameters and large limbs were favored as leave trees to enhance wildlife potential.
- e. List all noxious weeds and invasive species known to be on or near the site.
English holly is present in all units. Scotch broom and herb Robert have been observed along the haul route. Reed canary grass is present in the RMZs of Units 1 and 2. Goatsrue and 2 species of invasive thistles are present in Unit 1. English ivy is present in Unit 2.

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: grouse, corvids

- FPRAM Check Confirms No Conflict with Eagles.
-SCT

mammals:

- bear beaver coyote cougar deer elk
 other: bobcat, porcupine, chipmunk

fish:

- bass herring salmon shellfish trout
 other:

amphibians/reptiles:

- frog lizard salamander snake turtle
 other: newt

unique habitats:

- balds caves cliffs mineral springs oak woodlands talus slopes
 other:

- Northern spotted owls are within the vicinity. - JCT
 - FPRAM Chart shows that 3 is approximately 0.86 miles from NSD Site Center 645 (Blue Mountain), Outside a SOSEA. No Conflicts are Anticipated. - JCT

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

This proposal is located within a Status 1 Spotted Owl Circle Site (645). The Federal Listing Status for the Northern Spotted Owl on these sites is Threatened, and the State Listing Status is Endangered. This proposal is not within owl habitat, the best 70 site center, or Nesting, Roosting, Foraging (NRF) and Dispersal habitat; thus, our HCP northern spotted owl conservation strategy does not identify this area within its recovery strategy and does not apply to this activity.

- 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 significant impacts are anticipated as a result of this proposal.

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

This sale has been designed to comply with the Department's HCP and provides for the protection of wildlife and their habitats. Scattered and clumped leave trees provide nesting, roosting and foraging areas for avian species. Well engineered and constructed roads reduce potential water quality impacts for downstream fish populations. Revegetating exposed soil aids water quality and provides forage for ungulates. Large diameter leave trees, and leave trees with unique structure, will remain post-harvest to enhance the wildlife habitat value of the future stand. The regenerated stands will be composed of either red alder or mixed conifer species.

- ONR's HCP can be found at the Region office and at www.dnr.wa.gov
 - JCT

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

Riparian habitat:

- No harvest RMZs on Type 3 and 4 streams, except for where RFRS prescriptions are being applied.
- Where RFRS prescriptions are being applied, establishing a conifer-dominated stand that will develop into an older forest condition by

eliminating the current hardwoods and establishing a mix of site-adapted conifers.

- Some leave trees are located along portions of Type 5 streams.

Upland Habitat

- A minimum of 8 leave trees per acre were left clumped and scattered
- Snags will be left where operationally feasible
- Older large down woody debris will be left onsite
- Lead-end suspension required on all cable settings

- e. List any invasive animal species known to be on or near the site.
Eurasian collared dove

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. *- Any Hazardous Waste that is discovered or Toxic spill that occurs will be Reported to the dept of Ecology.*
Minimal hazards incidental to operation of heavy machinery these include the risk of fire or small amounts of oil and other lubricants being accidentally discharged. -SG

Slash accumulation from harvest operations will temporarily increase risk of ground fire in red slash. Fire hazard will be migrated through implementation of WAC-332-24. Overall risk of fire will decrease within 1-2 years of harvest competition.

- 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 as per WAC-332-24, Forest Protection requirements 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

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

Current use of site and adjacent land types:

The state land surrounding the units is managed for timber production by the DNR. The private properties 0.25 mile north of Unit 2 are rural residential with hobby farm/pasture.

This proposal will not change the use of or affect the current/long term land use of areas associated with this sale.

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

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.

- c. Describe any structures on the site.

None.

- d. Will any structures be demolished? If so, what?

No.

- e. What is the current zoning classification of the site?

91 – Undeveloped Land

- f. What is the current comprehensive plan designation of the site?

The comprehensive plan designation is resource lands, forest of long term significance

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

Not applicable.

- 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:

Does not apply.

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

This project is consistent with current comprehensive plans and zoning classifications.

- m. 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?

Views in the background will temporarily be altered by the removal of trees.

- 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:
Less than 5 acres of Unit 2 may be visible from rural residences along Williams Creek Road.

- 2) *How will this proposal affect any views described above?*
Since the majority of the landscape in this area is used for timber production (public and private), this proposal will generally blend in with the surrounding landscape. In addition, the retention tree plan discussed in B.4.b.2 will aid in mitigating the visual effects of the regeneration harvest, as well as the no harvest RMZ's.

- c. Proposed measures to reduce or control aesthetic impacts, if any:
None.

11. Light and glare

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?
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?
There is no designated recreation within the proposal area. Hunting, hiking, horseback riding, mountain biking, mushroom and berry picking, and other informal outdoor recreation activities may occur within the proposal area.
- 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:
None.

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. *- Units 1, 2, + 3 of the Proposal has a Historic railroad following the perimeter of the Harvest Area. Shown in USGS Historical map + FPRAM. No Conflict per DAHP Email dated 10/02/2020. JCT*
No.
- 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 known sites of archaeological/historical significance found on site. A site review of Unit 3 was conducted by a DNR archaeologist in November of 2017. Site review of Units 1 and 2 was conducted by a Cultural Resource Technician (CRT) in January of 2019.
- FPRAM, USGS Historical map and GEO Map check Confirm No Conflict with Archaeological or Cultural sites or Resources. - JCT
- 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.

The site was remotely assessed by a DNR CRT reviewing historical maps, LiDAR, and existing recorded cultural resources. Additionally, the site was visited and assessed by a Department of Natural Resources archaeologist and a CRT.

- 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 a presently-unknown cultural resource is discovered during project operations, DNR will comply with the March 2010 Cultural Resources Inadvertent Discovery Guidance.**

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. **SR 12 to State St, State St to Oakville Rd, from Oakville Rd to Garrard Creek Rd, and from Garrard Creek Rd to Brooklyn Rd provides access to the forest roads which access the harvest units.**
- 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 stOP is approximately 13 miles away in Oakville, WA.
- c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?
None.
- 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, see A-11-c.
- FPA # 2938244 indicates 12,380 feet of Forest Road Construction and 870' Feet of Forest Road Abandonment. -JCT
- 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.
- 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 to 25 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.

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:

- electricity natural gas water refuse service telephone sanitary sewer
 septic system other: **none**

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

C. SIGNATURE

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: (s) **Brady Dier** *for Keith Jones* _____

Name of signee **Brady Dier** *KEITH JONES* _____

Position and Agency/Organization **NRS2/DNR** _____

Date Submitted: ~~5/6/19~~ _____

10-1-2020

Reviewed By: *John Tapley - DNR Forest Practices* | *John Tapley* | JCT

Date: *10/07/2020*

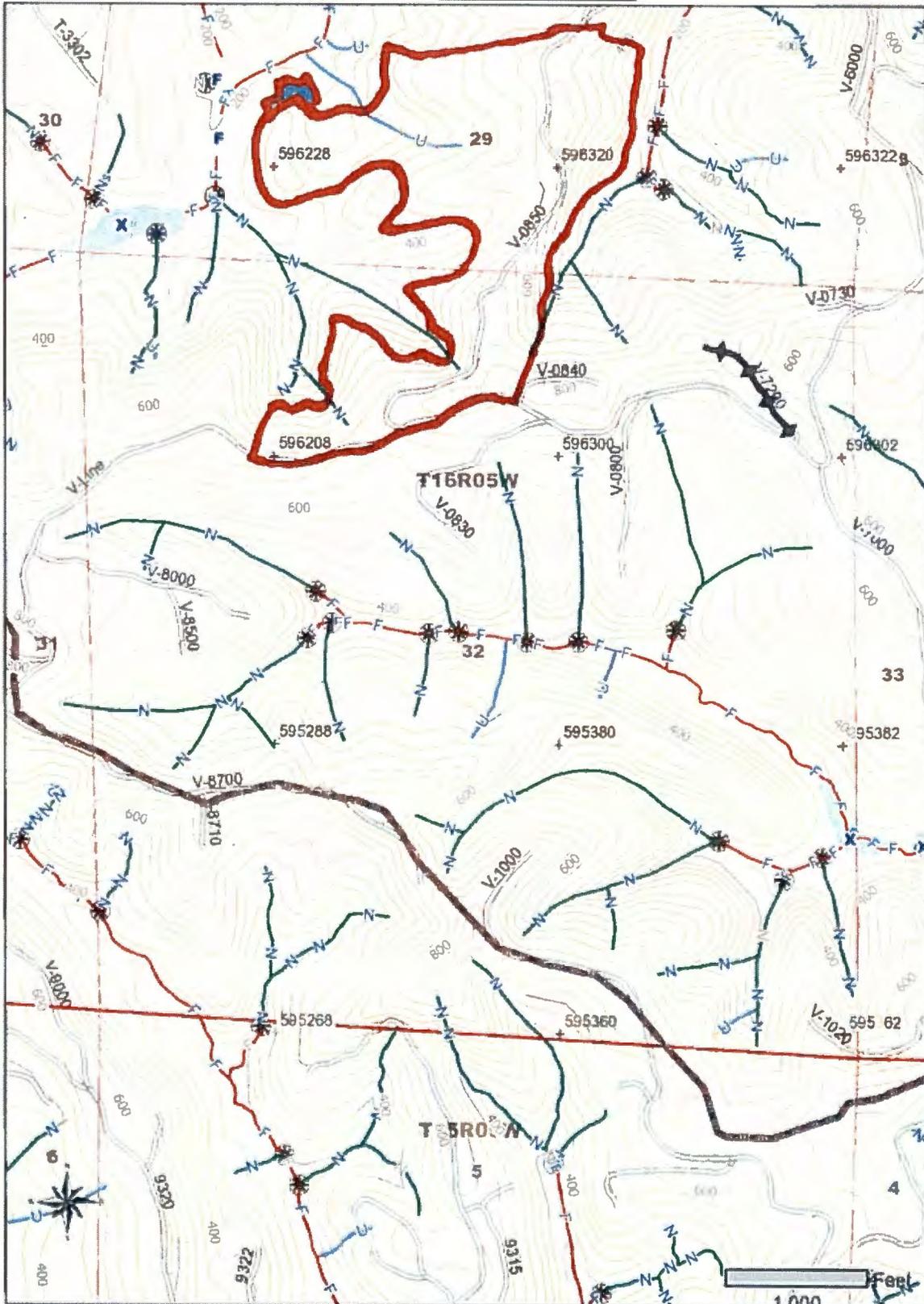
Forest Practice Activity Map

S29 T16.0N R05.0W, S32 T16.0N R05.0W, S25 T16.0N R06.0W

Charlotte

2938244

Application #: _____



-  Unit Boundary
-  RFRS Hardwood Conversion

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Contour Interval: 40 Feet

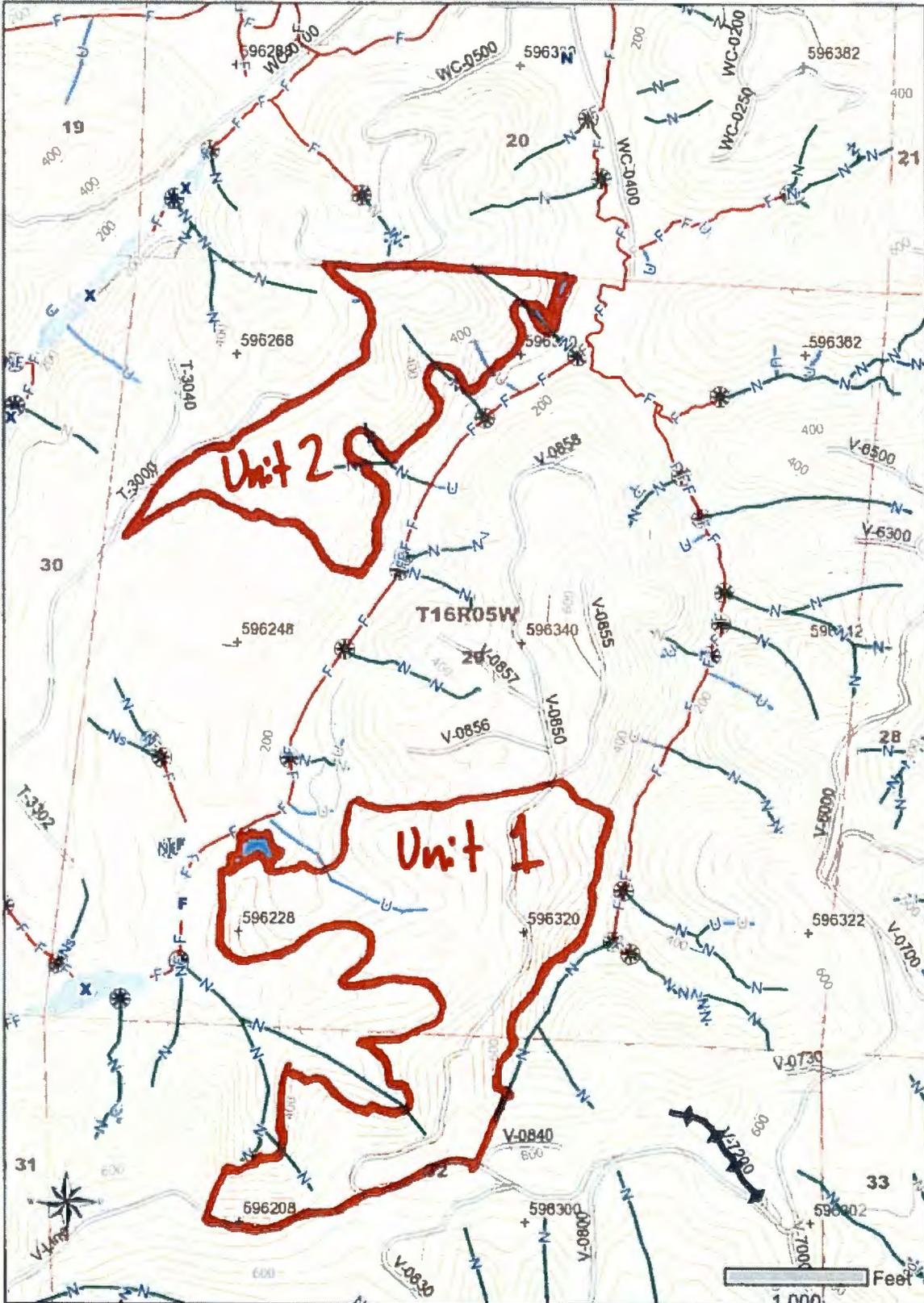
Forest Practice Activity Map

S29 T16 0N R05.0W, S32 T16 0N R05.0W, S25 T16.0N R06 0W

Charlotte

2938244

Application #:



- Unit Boundary
- RFRS Hardwood Conversion

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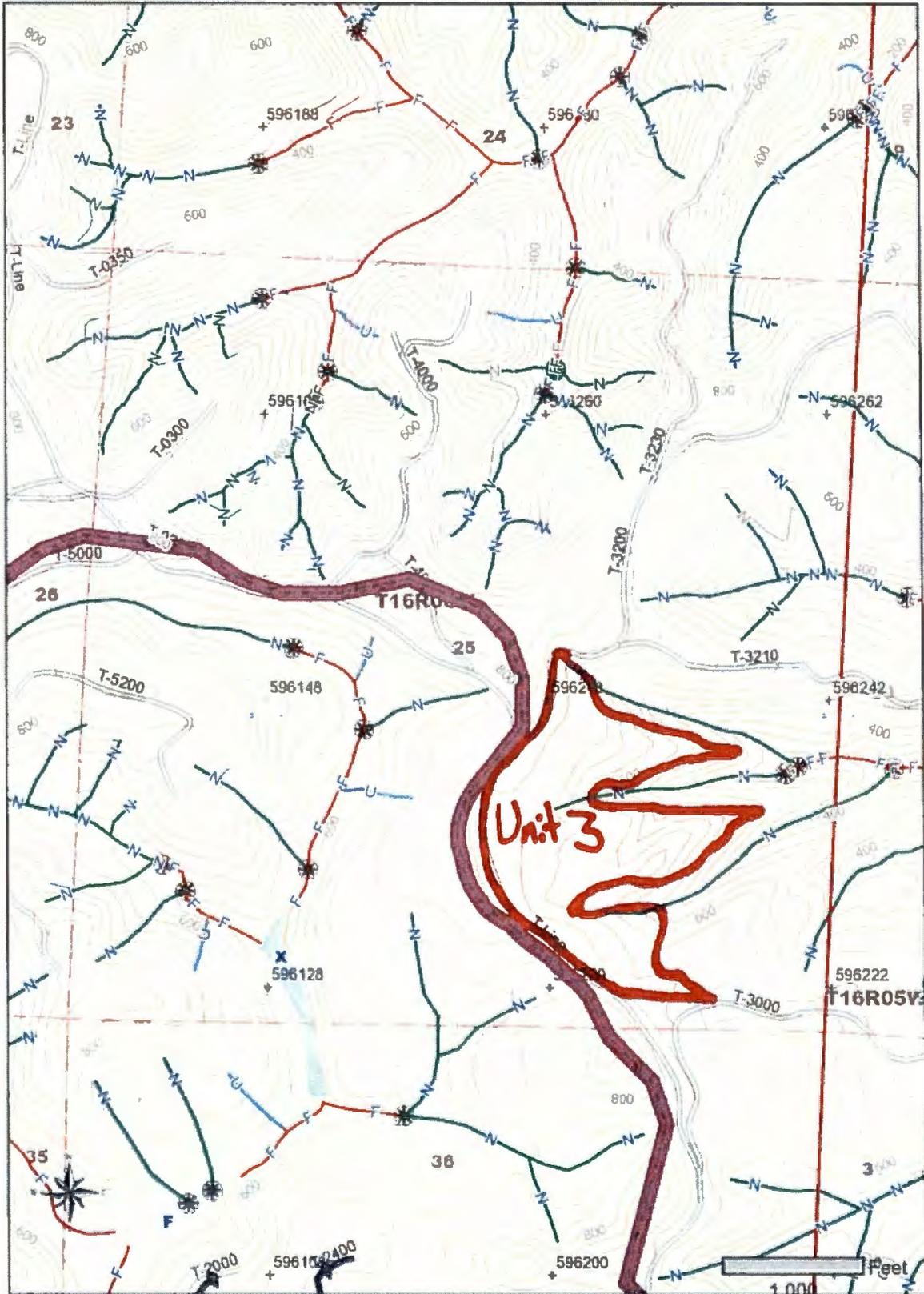
Forest Practice Activity Map

S29 T16.0N R05 0W, S32 T16 0N R05 0W, S25 T16.0N R06.0W

2938244

Charlotte

Application #: _____



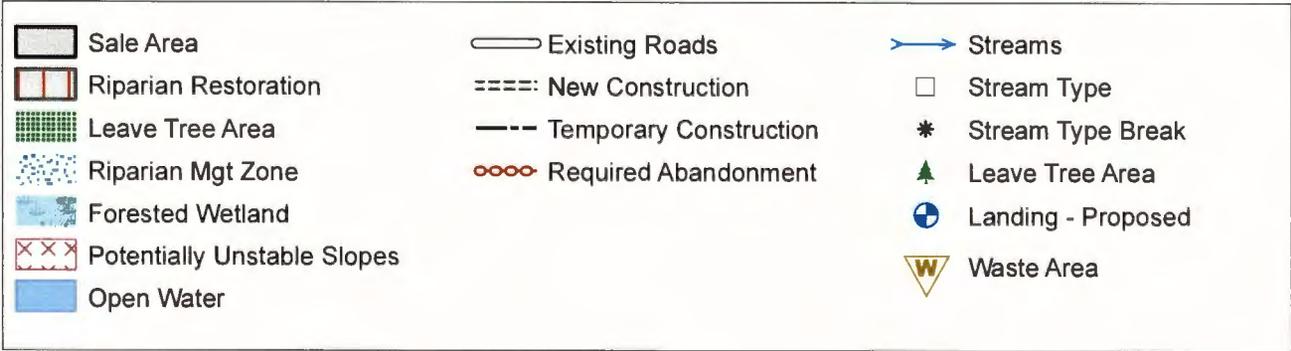
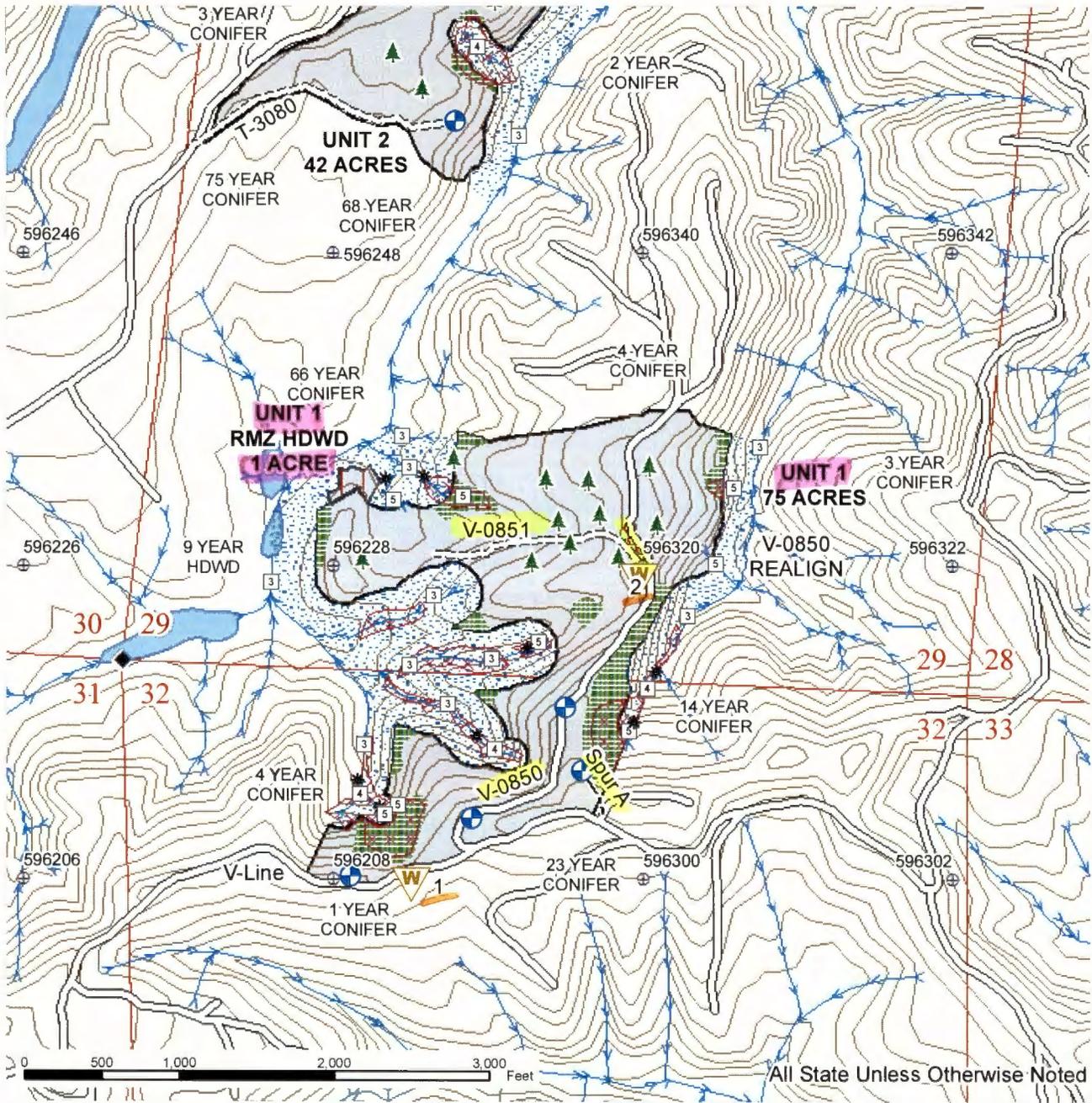
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FOREST PRACTICES ACTIVITY MAP

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APPLICATION #: TBD by FP Staff

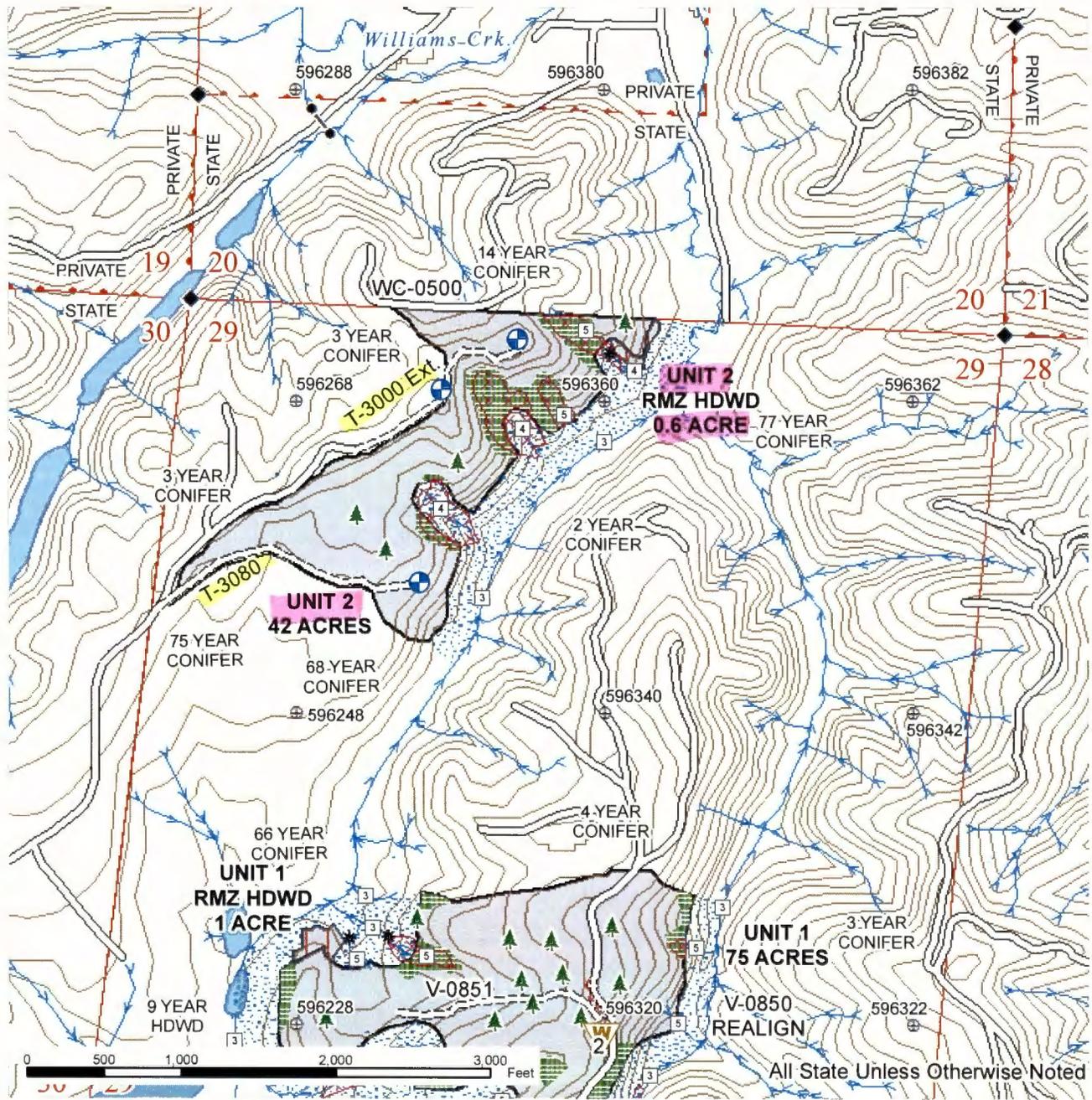
COUNTY(S): Grays Harbor
TOWNSHIP(S): T16R5W, T16R6W



FOREST PRACTICES ACTIVITY MAP

SALE NAME: CHARLOTTE VRH RMZ
APPLICATION #: TBD by FP Staff

COUNTY(S): Grays Harbor
TOWNSHIP(S): T16R5W, T16R6W



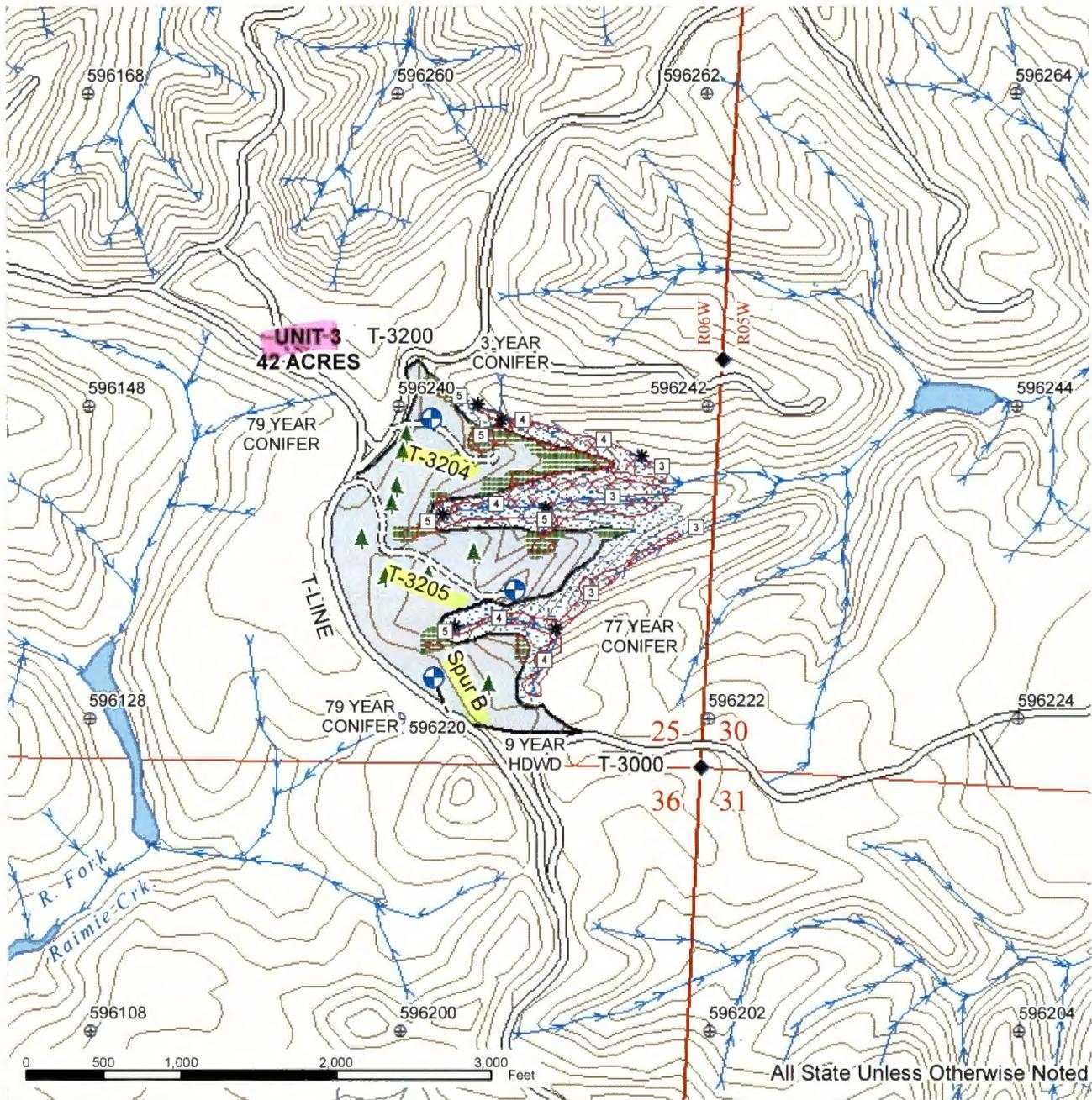
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	Riparian Restoration		New Construction		Stream Type
	Leave Tree Area		Required Abandonment		Stream Type Break
	Riparian Mgt Zone		Leave Tree Area		Landing - Proposed
	Forested Wetland		Waste Area		
	Potentially Unstable Slopes				
	Open Water				



FOREST PRACTICES ACTIVITY MAP

SALE NAME: CHARLOTTE VRH RMZ
APPLICATION #: TBD by FP Staff

COUNTY(S): Grays Harbor
TOWNSHIP(S): T16R5W, T16R6W



	Sale Area		Existing Roads		Streams
	Leave Tree Area		New Construction		Stream Type
	Riparian Mgt Zone		Temporary Construction		Stream Type Break
	Potentially Unstable Slopes				Leave Tree Area
	Open Water				Landing - Proposed



FOREST PRACTICES ACTIVITY MAP

SALE NAME: CHARLOTTE VRH RMZ
APPLICATION #: TBD by FP Staff

COUNTY(S): Grays Harbor
TOWNSHIP(S): T16R5W, T16R6W

