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: ***NI3 Sorts*** *Agreement #* **30-099137**

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

3. Address and phone number of applicant and contact person:
Pacific Cascade Region
PO Box 280
Castle Rock, WA 98611-0280
Phone: (360) 577-2025
Contact Person: Marcus Johns

4. Date checklist prepared: **3/07/2019**

5. Agency requesting checklist: **Washington State Department of Natural Resources**
6. Proposed timing or schedule (including phasing, if applicable): **None**
a. *Auction Date:* **7/25/2019**

b. *Planned contract end date (but may be extended):* **9/30/2019**

c. Phasing: **Not Applicable**

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: **Not Applicable**

b. Regeneration Method: **Eight acres of gaps will be hand planted with 200 Western Red Cedar per acre following harvest to promote a healthy conifer forest with diversity of tree species.**

c. Vegetation Management: **Not Applicable**

d. Other: **Not Applicable**

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(s):*
☐ *temp:*
☐ *sediment:*
☐ *completed TMDL (total maximum daily load):*
☐ *Landscape plan:*

☐ *Watershed analysis:*
☐ *Interdisciplinary team (ID Team) report:*
☒ *Road design plan:*
☒ *Wildlife report:* **Fish and Wildlife Biologist Memo dated 3/29/2019**
☐ *Geotechnical report:*
☐ *Slope Stability additional information 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; Natural Areas Program Discussion on Outline, DNR 2014: State Soil Survey; Habitat Conservation Plan (HCP 1997); Archeologist Site Protection Plan and Wetland Evaluation; HCP Checklist; Riparian Forest Restoration Strategy (RFRS); Planning and Tracking Reports and associated maps; Road Maintenance and Abandonment Plan (RMAP): #2900196-4; A 2008 scientific report, titled, "Recommendations and Supporting Analysis of Conservation Opportunities for the Marbled Murrelet Long-term Conservation Strategy" (Raphael 2008) (Science Team Report). Draft Marbled Murrlet Long Term Conservation Strategy (MMLTCS) 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; and USGS and GLO maps.**
Referenced documents may be obtained at the 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.

No

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

☒ *FPA/FPHP #* **2936445** ☐ *FPHP #*_____ ☒ *Board of Natural Resources Approval*
☐ *Burning permit* ☐ *Shoreline permit* ☐ *Existing HPA*
☐ *Other:*

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

a. Complete proposal description:

The purpose of this proposal is an ecological thinning for habitat enhancement. The forest in these locations has a dense, single canopy overstory. The shrub and understory layers are very sparse, and the forest floor is dark and sterile. Downed woody debris is also sparse, comprised mostly of stumps from previous logging activity. The trees, height to diameter ratios, lack of significant crown ratios, and competition-induced mortality has resulted in a situation where development of late seral characteristics will be extremely slow. The proposed thinning activity will create openings in the canopy to allow light into the forest interior, which will encourage the development of multiple canopy layers and a healthy understory. Down woody debris will be left throughout the stand to provide habitat for small mammals and amphibians, and to further

promote a complex understory. Unit 1 will be the only unit with timber removal. Unit 1 contains 1600 ft. of existing road of which 500 ft. will be re-constructed. NI3 is a 4 unit sale with 2 units in the Niawiakum Natural Areas Program (NAP) and 2 units in the Elk River Natural Areas Resource Conservation (NRCA). Upon completion of Unit 1, 1,215' of road will be lightly abandoned. Optional spot rock will be obtained from a commercial source. This sale will use 100% ground-based harvest system. Approximate 406 MBF of timber will be removed as part of this proposal.

One gap in Unit #1 is three acres in size. This area of the stand is a 3 acre abandoned research site that contains approximately 1200 stems per acre of western hemlock that is suffering from suppression/competition mortality and resulting in height to diameter ratios not conducive to thinning without great risk. Most of the hemlock will be removed in this 3-acre gap with clumped leave tree retention and regeneration with planted western red cedar.

Unit	Proposal Acres	RMZ/WMZ Acres	Unstable Slope Acres	Existing Road Acres	Activity Acres	Leave Tree/ Enhancement Acres	Harvest Acres
	gross			*within unit*			*net*
U1	55	15	0	1	40	32	8
U2	79	9	0	3	32	32	0
U3	33	2	0	2	29	29	0
U4	44	21	0	1	23	23	0
Totals	211	47	0	7	124	116	8

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

Unit	Age	Species Composition
U1	40-years-old	**Overstory:** Sitka Spruce, western hemlock, red alder, Douglas-fir. **Understory:** sword fern, salal, salmonberry, elderberry, huckleberry.
U2	40-years-old	**Overstory:** Sitka Spruce, western hemlock, red alder, Douglas-fir. **Understory:** sword fern, salal, salmonberry, elderberry, huckleberry.
U3	35 to 40-years-old	**Overstory:** Douglas-fir, western hemlock, western redcedar, red alder, pacific silver fir, Sitka spruce **Understory:** sword fern, salal, Oregon grape, salmonberry, elderberry, huckleberry, skunk cabbage.
U4	35 to 40-years-old	**Overstory:** Douglas-fir, western hemlock, western redcedar, red alder, Sitka spruce. **Understory:** sword fern, salal, Oregon grape, salmonberry, elderberry, huckleberry, skunk cabbage.

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		0		
Reconstruction		1600		0
Abandonment		1215		0
Bridge Install/Replace				
Stream Culvert Install/Replace (fish)				
Stream Culvert Install/Replace (no fish)				
Cross-Drain Install/Replace				

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:
U1 is located in T13N-R10W Sec 9
U2 is located in T13N-R10W Sec 10, 11, 14. 15
U3, U4 are located in T16N-R11W Sec 25

b. Distance and direction from nearest town (see the driving map listed on the DNR website for further information):
U1 & U2 are located approximately 10 miles South of South Bend, WA.
U3 & U4 are located approximately 10 miles East of West Port, WA

b. Identify the names of all watershed administrative units (WAU). See also landscape/WAU map on DNR website: http://www.dnr.wa.gov/state-environmental-policy-act-sepa under the topic "Current SEPA Project Actions – Timber Sales."

Palix	37603	99
Elk River	33735	51

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, Geology, Surface water movements/ quantity/ quality, Soils, Air quality, Noise, Aesthetic, Plants and Animals, and Recreation. This proposal contains two units (U1, U2) within the Niawiakum Natural Area Preserve (NAP) and three units (U3, U4) within the Elk River Natural Resource Conservation Area (NRCA). Three of the units (U1, U2, U4) are within a ¼ mile of occupied Murrelet habitat. U1 and U2 also have boundaries against type 1 water/shoreline of the State.**

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.**

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

The objective of this thinning proposal will help the stand develop the structural complexity needed to advance late seral characteristics in the area.

Within the thinning matrix (skips and gaps), all trees will be felled in the gaps. Of the trees felled, many will be left on site to provide downed woody debris. The density varies per unit. In addition to the felling activities, standing snags will be created on a per acre basis. Again density varying per unit. Skips will also be present across the stands where no trees will be cut.

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
Palix WAU	37603	3615	0	0	1587
Elk River	33735	4576	0	0	2296

B. ENVIRONMENTAL ELEMENTS

1. Earth

General description of the site (check one):
☐ Flat, ☐ Rolling, ☐ Hilly, ☐ Steep Slopes, ☐ Mountainous, ☒ Other: **This proposals topography ranges from Flat , Rolling, to Hilly with in the proposal area.**

a.

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

WAU:	**Palix**
WAU Acres:	**37603**
Elevation Range:	**0 to 1207 ft.**
Mean Elevation:	**289 ft.**
Average Precipitation:	**86 inches/year**
Primary Forest Vegetation Zone:	**Sitka Spruce**

WAU:	**Elk River**
WAU Acres:	**33735**
Elevation Range:	**0 to 579 ft.**
Mean Elevation:	**163 ft.**
Average Precipitation:	**67 inches/year**
Primary Forest Vegetation Zone:	**Sitka Spruce**

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)?
40% in the harvest unit and up to 75% within no-harvest RMZs.

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
5332	**Loam**
0901	**Silt Loam**
5333	**Loam**
9122	**Silt Loam**
9619	**Loamy. FN. SND**
8771	**Silt Loam**
3983	**Silt Loam**
9119	**Silt Loam**
9122	**Silt Loam**
9118	**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.*

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

☒ *No* ☐ *Yes, describe the proposed activities:*

2) *Describe any slope stability protection measures (including sale boundary location, road, and harvest system decisions) incorporated into this proposal.* **None.**

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: **1**
Approx. acreage new landings: **1**
Fill Source: **Commercial rock**

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, 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 1% 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.)
Storm water runoff from road surfaces and intercepted subsurface flow will be collected by roadside ditches and diverted onto the forest floor via ditch-outs and cross drain culverts. Skid roads will be water bared post harvest.

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. 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:

None known.

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 B-3-a-1-a through B-3-a-1-c below*

a. Downstream water bodies: **Willapa Bay.**

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)
Willapa Bay	1	1	200
	3	8	192
	4	4	100
	5	13	25

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

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):

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. **Does not apply.**

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:*

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 floodplains, however no work will occur near the floodplains of Type 1, 3, or 4 streams.

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

☒ *No* ☐ *Yes, type and volume:*

6) *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:*

7) *What are the approximate road miles per square mile in the associated WAU(s)?*
Elk River WAU has 5.4 road miles per square mile
Palix WAU has 6.2 road miles per square mile

8) *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:*

9) *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:*
Normally, there are few significant changes associated with peak flows in the WAUs and sub-basins. During the winters of 1996, 2007, and 2009, (suspected) 100-year precipitation events occurred. Many channels in the WAUs were altered during these events due to high stream flows. In some cases the channels have been scoured down to bedrock, in others the increase in sediment loads and large woody debris delivery has changed channel locations and increased pool/riffle ratios.

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

The current proposal may slightly change the timing, duration, and/or magnitude of peak flows due to decreased evapotranspiration, but significant impacts are not anticipated.

11) 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-a-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:*

12) *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.*

No additional protection measures will be needed for 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.

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:*

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:

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.

Storm water runoff from road surfaces and intercepted subsurface flow 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.

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

☐ *No* ☒ *Yes, describe:*

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-h.**

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

Surface and subsurface flow may be intercepted by roads and associated cut banks and ditches. Any intercepted water will be diverted to the forest floor via ditch-outs and cross drain culverts. 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:
Storm water runoff from road surfaces and intercepted subsurface flow will be collected by roadside ditches and diverted onto the forest floor via ditch-outs and cross drain culverts.

4. Plants

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

☒ Deciduous tree:
☒ Alder ☐ Aspen ☐ *Birch* ☐ *Cottonwood* ☐ Maple ☐ *Western Larch*
☒ Other: **Cascara, Pacific Willow**

☒ Evergreen tree:
☒ *Douglas-Fir* ☐ *Engelmann Spruce* ☐ *Grand Fir* ☐ *Lodgepole Pine*
☐ *Mountain Hemlock* ☐ *Pacific Silver Fir* ☐ *Ponderosa Pine* ☒ *Sitka Spruce*
☒ *Western Hemlock* ☐ *Western Redcedar* ☐ *Yellow Cedar*
☐ Other:

☒ Shrubs:
☒ *Huckleberry* ☐ *Rhododendron* ☒ *Salmonberry* ☒ *Salal*

☒ *Other:* **Elderberry**

☒ *Ferns*

☒ Grass

☐ Pasture

☐ Crop or Grain

☐ *Orchards* ☐ *Vineyard* ☐ *Other Permanent Crops*

☒ Wet Soil Plants:

☐ Bullrush ☐ Buttercup ☐ Cattail ☐ *Devil's Club* ☐ Skunk Cabbage

☒ Other: **Sedge**

☐ Water plants:

☐ Eelgrass ☐ Milfoil ☐ Water Lily

☐ Other:

☒ Other types of vegetation: Sword fern, Deer fern

☐ *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).*

c. **A silvicultural treatment was designed to create vertical and horizontal diversity through recruitment of natural regeneration of tree and shrub species in the gaps while providing resources to the residual trees to increase the rate of development into late seral characteristics. The thinning treatment will favor retention of western red cedar, western hemlock, red alder, and Sitka spruce. The treatment includes snag creation, down woody debris distribution, skips (no management activity), and gaps (areas where trees are cut). These gaps will be approximately 0.15 to 0.50 acres in size, one gap in Unit #1 is three acres in size. Within Unit 1 approximately 20% of the stand volume will be removed. The gaps will provide growing space for remaining trees to develop height, diameter, and long crowns with large branch structure. Areas of native vegetation were set aside for animal foraging and eventual plant distribution after harvest.**

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.)

U1- To the north is salt marsh. To the west is an 80 year old private conifer plantation and salt marsh. To the south is a 40 year old private mixed conifer plantation. To the east is HWY 101 and a 100 year old mixed conifer stand.

U2- To the NW is a 5-7 year old Douglas Fir plantation. To the east is a 40 year old spruce and fir plantation. To the west is saltmarsh. To the NW is an 80 year old mixed conifer RMZ.

U3- To the north is a 35 year old Douglas Fir plantation. To the south is a 100 year old mixed conifer stand.

U4- To the east is a 70 year old mixed conifer RMZ. To the west is a 50 year old mixed conifer stand. To the SW is a 15 year old Douglas Fir plantation.

d. List threatened and endangered *plant* species known to be on or near the site.
None known.

e. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any: **Native plants and shrubs have been protected in leave areas to promote growth in the skips and gaps. Spruce, hemlock and alder seed trees were also retained around gaps to insure ingrowth.**

f. List all noxious weeds and invasive species known to be on or near the site.
English ivy and scotch broom have been seen on or near the site.

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: Marbled murelet
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
NI3	Marbled murrelet	Threatened	Endangered

c. Is the site part of a migration route? If so, explain.
☒*Pacific flyway* ☐*Other migration route:*
Explain: **This proposal is located in the Columbia River Flyway, which is part of the Pacific Flyway. Migratory waterfowl use the Columbia River Flyway; however, the area in which this proposal is contained is not generally the type of area used for resting or feeding by migratory waterfowl. While migrating through Pacific Northwest Forests, many Neotropical migratory birds are closely associated with riparian areas, cliffs, snags, and structurally unique trees. Riparian areas and special habitats are protected through implementation of the Department's Habitat Conservation Plan.**

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. The purpose of this proposal is habitat creation. Gaps will be created to promote tree diversity and allow sunlight to reach the forest floor to aid in growth of native shrubs and forbs for large animal forage. The gaps are a quarter to three acres in size. Large live trees will be left in gaps and snags will be created for bird to roost and forage. Trees will also be fell or pushed over to create large woody debris. Leave areas of native shrubs and forbs were protected to promote growth in areas devoid of vegetation due to the dense canopies.**

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

Species /Habitat: **Riparian habitat** Protection Measures: **No harvest RMZ's on Type 1 and 3 waters.**

Species /Habitat: **Marbled Murrelet** Protection Measures:

This proposal is consistent with the HCP and Interim Conservation Strategy for the Marbled Murrelet. Unit #1 is within an area considered for inclusion in the DNR's Marbled Murrelet Long-Term Conservation Strategy (MMLTCS). Specifically, the proposed variable density thinning is within a draft Marbled Murrelet management area however, it is not within current P-stage nor is it within the preferred alternative. The grant funded thinning is designed to enhance the stand to develop late seral stand structure in the Niawiakum Natural Area Preserve and meets the NAP's objectives. Unit 1 is within 0.25 miles of an occupied marbled murrelet site. If thinning occurs during the critical nesting season for murrelets, daily peak activity timing restrictions will be applied. A disturbance avoidance timing restriction will be observed during the marbled murrelet critical nesting season, which is April 1 through August 31. A daily activity timing restriction will be observed. Timber harvest, heavy equipment operation, or any other noise-generating activity will not occur one hour before to two hours after official sunrise, and one hour before to one hour after official sunset. See fish and wildlife biologist memo dated 3/29/19.

Species /Habitat: **Upland habitat** Protection Measures:
Habitat creation; gaps to mimic wind disturbance, snags will be created, leave areas of natural vegetation were set aside to promote spread into the gaps, tree will be pushed over or cut and left to add large down woody debris.

e. List any invasive animal species known to be on or near the site.
Invasive species have not been observed 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 and timber harvest operations.

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

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. **Minimal hazards incidental to operation of heavy machinery such as the risk of fire or small amounts of oil and other lubricants may be accidentally discharged as a result of heavy equipment use.**

a.

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 fuel and oil will be used during active road building and timber harvesting. Typically these substances are stored in small transfer tanks located in passenger vehicles. No toxic or hazardous chemicals will be stored on site following active operations.**
4) Describe special emergency services that might be required.

There are no special emergency services required at this time. In the event of a lubricant spill, the Purchaser will contact the Department of Natural Resources and the Department of Ecology.

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

The cessation of operations may occur during periods of time when the risk of fire is increased. Fire tools and equipment, including pump trucks and/or pump trailers, will be required on site during fire season. Quick response spill kits are required to be on site in case of smaller spills, as are larger spill kits if hazardous materials are going to be stored on site during operations. No oil or lubricants will be allowed to be disposed of on site.

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.

Log trucks will use forest roads, county roads, State Route 101, and/or Highway 6. This is normal activity for this area and is consistent with existing traffic. Noise will be increased during daylight hours generated from the operation of machinery and power tools.

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.)*

The state land surrounding the proposal is managed for habitat by the DNR. The private land adjacent to the proposal may be managed for timber production. This proposal will not affect the current land use on nearby or adjacent properties.

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

This proposal and its activities will maintain the site for DNR's Natural Resource Conservation Area and Natural Area Preserve.

c. 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:

This proposal is consistent with current and standard forestland harvest activities; there will be no effect on this or adjacent lands that would affect normal forest land business operations. Equipment access and timber harvesting are normal activities that would be expected on forest lands.

d. Describe any structures on the site. **There are no structures associated with this proposal.**

e. Will any structures be demolished? If so, what? **No.**

f. What is the current zoning classification of the site? **Natural Area Preserve (NAP) and Natural Resource Conservation Area (NRCA)**

g. What is the current comprehensive plan designation of the site? **The comprehensive plan designation is habitat conservation, forest of long term significance.**

h. If applicable, what is the current shoreline master program designation of the site? **The current shoreline master program designation of the site is Rural Conservancy.**

i. Has any part of the site been classified as a critical area by the city or county? If so, specify. **No.**

j. Approximately how many people would reside or work in the completed project? **None.**

k. Approximately how many people would the completed project displace? **None.**

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

m. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any: **This proposal is consistent with the Department's Habitat Conservation Plan and DNR Natural Areas Forested Restoration dated July 18, 2014 Final, as well as the county's comprehensive plan designation and zoning classification.**

n. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any: **This proposal is consistent with the Department's Habitat Conservation Plan and Washington Forest Practices Rules.**

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing. **None.**

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing. **None.**

c. Proposed measures to reduce or control housing impacts, if any: **None.**

10. Aesthetics

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed? **There are no structures associated with this proposal.**

b. What views in the immediate vicinity would be altered or obstructed? **None.**

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:* **Pacific Coast Highway 101**

2) *How will this proposal affect any views described above?* **This proposal will not affect any views. A no cut buffer was placed against the highway to mitigate potential wind throw.**

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. However, dispersed low impact recreation may occur within the proposal area.

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

Some types of informal recreation may be temporarily displaced during periods of active logging.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:
None at this time.

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.**

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.**

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 DNR archaeologist reviewed this project under Executive order 05-05 and is in the process of finalizing correspondence with DAHP. This review began with a review of DAHP records of historic properties, archaeological sites, the Statewide Archaeological Predictive Model (SAPM) and cultural resource reports on the WISAARD database, as well as historic GLO maps from the 1850s and USGS maps from the first half of the 20th Century. Analysis then focused on GIS resources that help refine SAPM expectations on the basis of landforms, terrain, geology, soils, hydrology, vegetation, and examination of high resolution orthophotos and LiDAR imagery. Based on these analyses and discussions on the techniques and likely ground disturbance and tree removal associated with the project, the DNR archaeologist surveyed parcels with moderate and high potential for cultural resources. Survey showed that areas where machinery will be used in thinning lack significant archaeological potential, and that shoreline setbacks and non-machinery operation areas exclude almost all potential for inadvertent discoveries.
Thinning these commercial plantings will create a healthier, more naturalistic landscape that will benefit flora and fauna with cultural value to tribes, and thus represents a cultural resource benefit, rather than impact.
The DNR archaeologist will report these finding to DAHP as part of the 05-05 review process, and the project manager will consult with interested tribes.

c. 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.

The 05-05 review's desktop and field investigations, as well as the decision to not use mechanical harvesting equipment in areas with higher potential to have subsurface archaeological resources effectively minimizes potential for archaeological impacts. The project will not remove mature cedars and other large trees that predate the last round of timber harvest, thereby eliminating potential to affect trees with cultural modifications not apparent from visible characteristics. The project will proceed according to DNR's Cultural Resources Inadvertent Discovery Guidance, which mandates work suspension and archaeological evaluation with appropriate tribal and DAHP consultation if finds occur during work.

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.

State Route 101, South Bend Palix Road, SR 105 and the Jones River Road in Pacific County, Washington.

c. 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. The nearest transit stop is approximately 10 miles away in the town South Bend.

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

None.

e. 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, the A-110, which is within the sale area will require 500 ft. of pre-haul maintenance.

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 sale will not impact the transportation system in the surrounding area.

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

No.

g. 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?

4-10 trips per day during harvesting activities with periodic trips post-harvest to conduct monitoring and timber stand improvements. Vehicle trips were estimated based on the proposed volume removal and amount of road construction. Vehicles are primarily dump trucks and logging trucks. Peak hours of operation are 0400-1500.

h. 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.

i. 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: _____

Name of signee Jeremy Homer

Position and Agency/Organization NRS2 / DNR

Date Submitted: 5/28/2019

2936445-

FOREST PRACTICES ACTIVITY MAP

SALE NAME: NI3 SORTS
APPLICATION #: TBD by FP Staff

COUNTY(S): PACIFIC, GRAYS HARBOR
TOWNSHIP(S): T13R10W, T16R11W

Snag Creation Unit
Gap (Patch Cut)
Leave Tree Area
Riparian Mgt Zone
Timing Restriction
Highway
Existing Roads
Required Abandonment
Required Reconstruction
Streams
Stream Type
Stream Type Break
Gate (PCP 1-1)
Landing - Proposed

N

Prepared By: jhom490

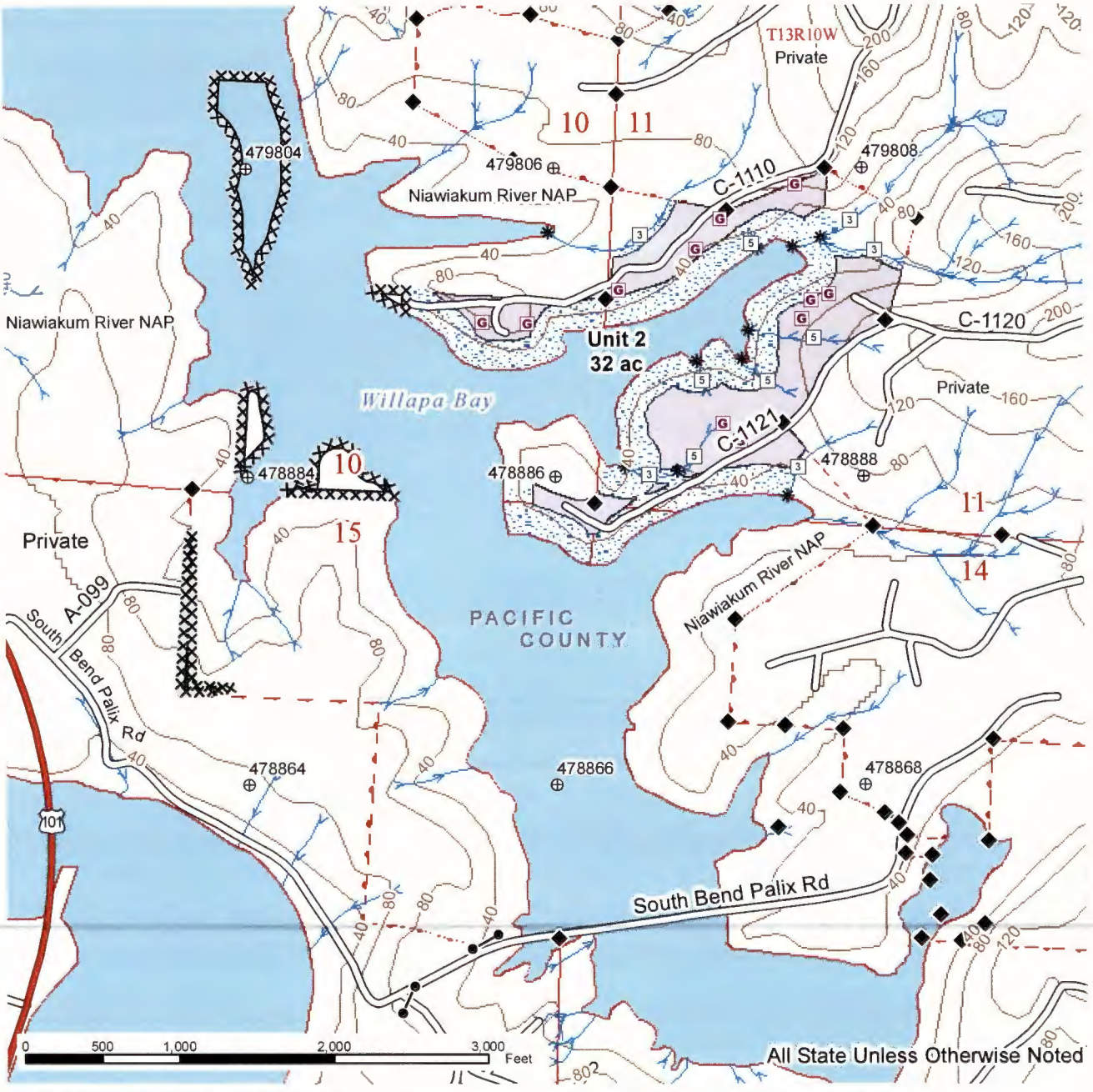
Modification Date: 5/22/2019

2936445-

FOREST PRACTICES ACTIVITY MAP

SALE NAME: NI3 SORTS
APPLICATION #: TBD by FP Staff

COUNTY(S): PACIFIC, GRAYS HARBOR
TOWNSHIP(S): T13R10W, T16R11W



Prepared By: jhom490

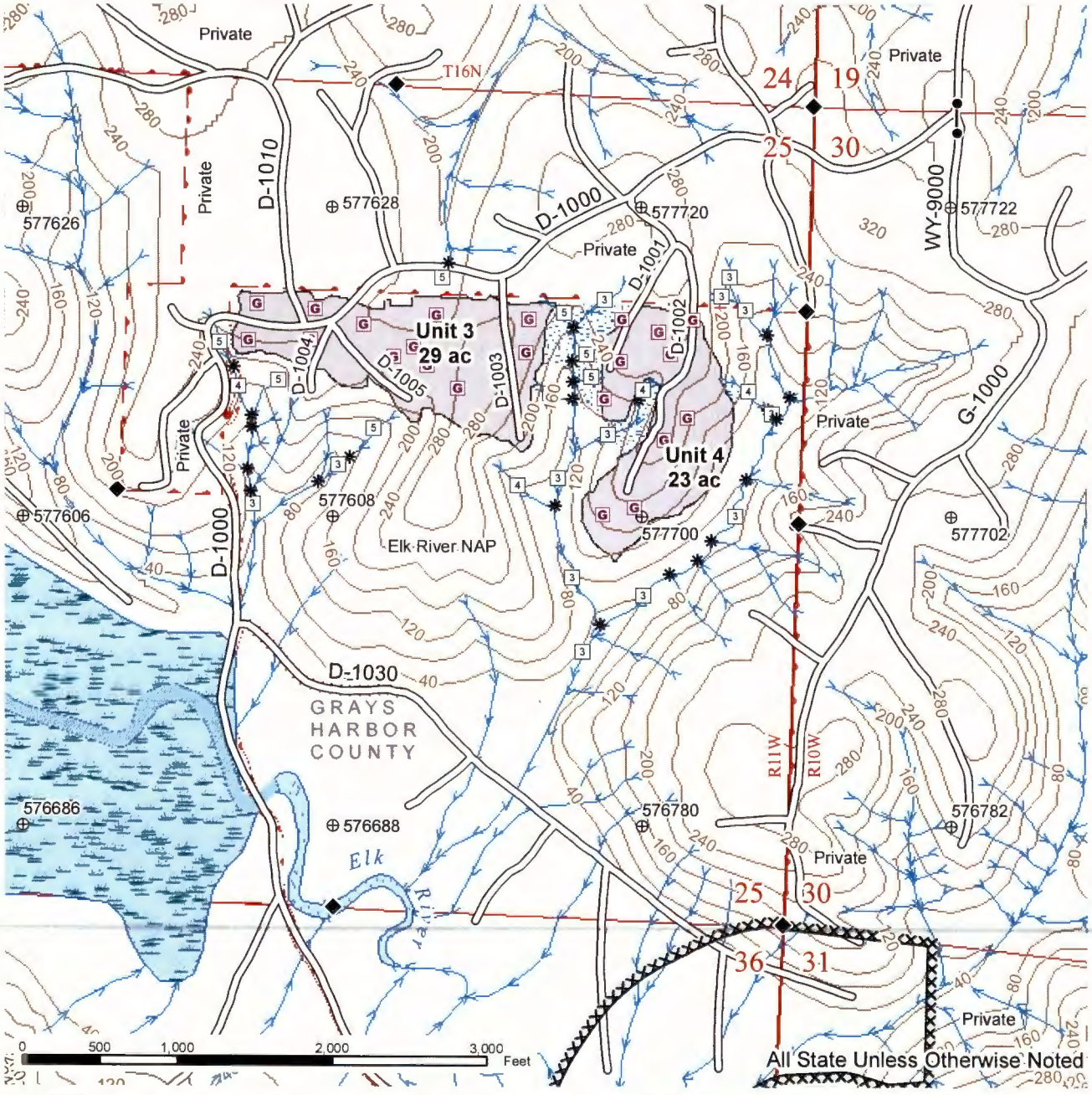
Modification Date: 5/22/2019

2936445-

FOREST PRACTICES ACTIVITY MAP

SALE NAME: NI3 SORTS
APPLICATION #: TBD by FP Staff

COUNTY(S): PACIFIC, GRAYS HARBOR
TOWNSHIP(S): T13R10W, T16R11W



Snag Creation Unit
Riparian Mgt Zone
Timing Restriction
Existing Roads
Existing Abandon/Orphan Road
Streams
Stream Type
Stream Type Break
Gap
N

Prepared By: jhom490

Modification Date: 5/22/2019