

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: **BESSIE SORTS**
Agreement # **30-101720 (B)**

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

3. Address and phone number of applicant and contact person:
DNR Northwest Region Contact Person: Laurie Bergvall
919 N. Township Street Telephone: 360-856-3500
Sedro-Woolley, WA 98284

4. Date checklist prepared: **05/03/2021**

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

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

a. Auction Date:
05/25/2022

b. Planned contract end date (but may be extended):
03/31/2024

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

b. Regeneration Method: **Hand plant conifer seedlings within two years after completion of harvest.**

c. Vegetation Management: **Treatment to be assessed in 3-5 years. Competing vegetation may be treated by manual cutting and/or herbicide. Thinning treatment to be assessed in 10 to 15 years for pre-commercial thinning. A commercial thinning is possible in 25 to 45 years.**

d. Other:
Road maintenance assessments will be conducted and may include periodic ditch and culvert cleanout, and grading as necessary. Onsite rock may be used for road construction, if rock sources are discovered along haul routes or within the sale area.

All roads will continue to be used for future forest management activities.

The Doc Spratley pit will continue to be used for future timber sale road construction and road maintenance activities.

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

303 (d) – listed water body in WAU:

temp **Whatcom Creek at outlet of Lake Whatcom**

sediment

completed TMDL (total maximum daily load) Lake Whatcom

Landscape plan: **Lake Whatcom Landscape Plan, final EIS dated 01/30/2004**

Watershed analysis: **Dated 03/30/1998**

Interdisciplinary team (ID Team) report:

Road design plan: **Dated 04/21/2021**

Wildlife report: **Dated 05/27/2021**

Geotechnical report:

- Other specialist report(s):
- Memorandum of understanding (sportsmen's groups, neighborhood associations, tribes, etc.): **Inter-Jurisdictional Committee for Implementing the Lake Whatcom Landscape Plan Memo dated 08/02/2021**
- Rock pit plan:
- Other: **State Soil Survey, 1992; Policy for Sustainable Forests, December 2006; Final Habitat Conservation Plan (HCP) & Environment Impact Statement, September 1997; Riparian Forest Restoration Strategy, April 2006; Geologist Memorandum dated 06/04/2021, Unit 1 - West Side Old Growth Assessment dated 5/27/2021, Unit 2 - West Side Old Growth Assessment dated 5/17/2021**

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.

None known.

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

- FPA # **2818338** 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 proposal is a variable retention harvest (VRH) and a handful of small portions of road right-of-way across non-fish water courses expected to produce an estimated total volume of 6,391 MBF of timber.

All harvest is on State managed trust lands. The harvest removals may occur via ground-based, cable assisted and cable yarding systems. The proposal is surrounded by State managed land.

Approximately 700 acres were considered for this proposal; this has been reduced to 166.5 net acres of VRH; due to riparian management zones, wetland management zones, potentially unstable slopes above typed waters, patches of larger conifers retained under DNR retention tree policy, caves, and the need for better access routes; and 3.0 acres of right-of-way for new road construction. All of this proposal is in the Lake Whatcom WAU.

Rock pit will be utilized with this proposal. Rock pit name is listed in A.7.

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

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

Pre-harvest Stand Description:

The pre-harvest condition in Unit 1 is a plantation third growth stand, originating around 1988. The stand is predominantly Douglas-fir with a little bit of western hemlock and western redcedar. In a few areas, there are patches of alder. Some larger, mixed-conifer patches are present. Site productivity is site II ground.

The pre-harvest condition in Unit 2 is a second-growth stand, originating around 1900, via natural regeneration methods. The stand is largely a mixed conifer stand, Douglas-fir, with western hemlock and western redcedar. Some scattered hardwoods, mainly bigleaf maple are present. Site productivity is site II ground.

Overall Unit Objectives:

- **Generate revenue for the State trust beneficiaries.**
- **Protect water quality, maintain site productivity, minimize impact to soils and maintain wildlife habitat.**
- **This proposal meets or exceeds all guidelines set forth in the DNR Habitat Conservation Plan (HCP), Policy for Sustainable Forests, Forest Practices Rules and Regulations, the Lake Whatcom Watershed Analysis, and the Lake Whatcom Landscape Plan.**

- 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		11215	4.12	0
Reconstruction		0		0
Abandonment		0	0	0
Pre-Haul Maintenance		20840	7.65	0
Bridge Install/Replace	0			0
Stream Culvert Install/Replace (fish)	0			0
Stream Culvert Install/Replace (no fish)	15			
Cross-Drain Install/Replace	37			

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:*
Includes harvest units, rock pit, road work and pre-haul maintenance.
Sections 25, 26, and 36 of Township 37 North, Range 4 East, W.M.
Section 31 of Township 37 North, Range 5 East, W.M.
- b. *Distance and direction from nearest town:*
Proposal is located approximately 6 miles, by road, southwest of Acme, 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).
Small shallow slope failures are known to exist in the WAU, associated with over-steepened slopes and inner gorge stream channels. The potential for natural delivery of sediment to typed waters is present, especially during peak flow events. Larger, relict and deep seated landslides are known to be present within the WAU. The marbled murrelet has the potential to use suitable habitat within the WAU, and an occupied site is known in the WAU.

Runoff from road maintenance and construction activities occur in the WAU. The watershed is able to be viewed from Lake Whatcom and the City of Bellingham. Lake Whatcom is the public water supply for the City of Bellingham.

- 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's Habitat Conservation Plan (HCP) outlines strategies to protect Federally listed threatened and endangered species, and species that are in danger of being listed in the future, as well as uncommon habitat types found on forest lands in western Washington. HCP riparian buffers intended to protect salmon and trout habitat were applied to this proposal, and will be applied to all future sales in the vicinity. The HCP identifies large, structurally unique trees and snags as uncommon habitats that need to be protected. An average of 8 trees per acre will be left in the proposed harvest area. These trees will function for future snag and large structurally unique tree recruitment. Leave trees and riparian zones will help mitigate visual impacts.

This proposal meets the objectives of the Lake Whatcom Landscape Plan, which provides a set of management strategies that will ensure environmental and water quality protection on DNR-managed lands in the watershed. The proposal is in compliance with the Department's Long Term Conservation Strategy for Marbled Murrelets.

Development of older forests is an expected outcome of the 1997 Trust Lands Habitat Conservation Plan (HCP), and a policy objective stated in DNR's Policy for Sustainable Forests. Landscape assessments made in May 2021, demonstrate that through implementation of the HCP and other Policies and laws, older forest targets will be met in conservation areas over time. These conservation areas include identified long-term forest cover under the marbled murrelet long-term conservation strategy, riparian areas, areas conserved under the multispecies conservation strategy, potentially unstable slopes, spotted owl nest patches, and spotted owl habitat that must be maintained to comply with the northern spotted owl conservation strategy (within NRF and South Puget Planning Unit dispersal management areas). The North Puget HCP Planning Unit will meet at least 10% older forest within conservation areas by 2070.

Proposal complies with all Forest Practices Rules.

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

- Retaining Riparian Management Zones (RMZs) to protect water quality, stream bank integrity, stream temperatures, and provide down woody debris. RMZs will develop older riparian forest characteristics that, in combination with other strategies, will help support older riparian forest dependent wildlife and aquatic species.
- Retaining a minimum of 8 trees per acre (greater than 10 inches diameter at breast height) clumped and scattered throughout the units. This strategy will provide legacy elements for recruitment of future snags, coarse woody debris, multi-layered stands, and large diameter trees. In combination, these features will provide elements of older forest habitat characteristics within the new plantation.
- Analyzing, designing, and constructing roads to minimize effects on the environment.
- Remote and field reviews were conducted to ensure that all identified potentially unstable slopes that were interpreted as having potential to adversely impact public resources or public safety, were excluded from the harvest areas.

- Cross-drains and ditch-outs will be utilized to minimize the potential for mass wasting and slope failures associated with poor drainage by dispersing water onto stable forest floor.
- Skid trails may be water barred post harvesting activities, if necessary to avoid concentrating surface water runoff.

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 generally defined as occurring within the next 7 years. This data was obtained from DNR's Land Resource Manager System on the date of processing this checklist and may be subject to change.

WAU Name	Total WAU Acres	DNR-managed WAU Acres	Acres of DNR proposed even-aged harvest in the future	Acres of DNR proposed uneven-aged harvest in the future	Acres of proposed harvest on non-DNR-managed lands currently under active FP permits
LAKE WHATCOM	36265	7017	1147	96	754

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:	LAKE WHATCOM
WAU Acres:	36265
Elevation Range:	305 - 3370 ft.
Mean Elevation:	1018 ft.
Average Precipitation:	51 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)?
95%

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

Note: The following table is created from state soil survey data. It is an overview of general soils information for the soils found in the sale area. The actual soil conditions in the sale area may vary considerably based on land-form shapes, presence of erosive situations, and other factors.

State Soil Survey #	Soil Texture
7506	V.COBBLY LOAM
7508	V.GRAVELLY SILT LOAM
4791	GRAVELLY LOAM/V.COBBLY LOAM
6700	V.COBBLY LOAM
8724	V.GRAVELLY LOAM

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

No, go to question B-1-e.

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

Around and in the proposal are multiple dormant-indistinct deep-seated bedrock associated landslides that cover the northern flank of Alger Mountain

Around the proposal there are also steep inner gorge features along unnamed type 4 and 5 streams. These features are within type 4 and 5 RMZs, and no portion of these areas will be harvested.

The statewide landslide inventory (LSI) screening tool indicates the presence of two polygons mapped as landslides within the proposed harvest unit boundaries. These polygons, and additional information, are addressed in the slope form, appendix D, of the FPA.

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

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.

No timber harvest or road work will occur on known potentially unstable slopes with the potential to deliver debris to surface waters or other public resources. Roads were designed to minimize ground-based yarding distances to 400 feet or less and to access cable landing locations for areas requiring cable yarding.

- 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: 4.12 acres
Approx. acreage new landings: 0.3 acres
Fill Source: native fill

- 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.

- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

(Include protection measures for minimizing compaction or rutting.)

For road work, rock haul and log haul, appropriate drainage devices including proper culvert size and placement, drain dips, water bars, and ditching will be used as necessary to reduce surface erosion on roads. Energy dissipaters will be installed with culverts to reduce erosion. Relief pipes will be strategically placed to minimize the amount of road ditch water that enters surface waters. Slopes that are exposed of vegetative cover during road work activities will be revegetated or straw mulched to reduce erosion and sediment-laden runoff. Storm patrols may be conducted on roads to identify and address potential erosion problems. Ground-based equipment will be restricted to sustained slopes of 40% or less, self-leveling ground-based equipment will be restricted to sustained slopes of 55% or less. Tethered equipment may be utilized on this proposal.

Riparian buffers are being retained on type 3, 4 and 5 streams, and no equipment crossings over typed waters, except for new road construction, will be necessary with this proposal. Operations will not be allowed to occur from November 1-March 31. Any operations occurring between April 1 and May 31 will need approval from an agency contract administrator, with an appropriate mitigation plan in place by the operator.

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: **Anderson Creek and Lake Whatcom**

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	Type 3	7	175-188
Unnamed	Type 4	20	100
Unnamed	Type 5	39	33
Unnamed	Forested Wetland >1 acre	2	175-188
Unnamed	Forested Wetland >1/4 acre, <1 acre	3	100

- b. List any additional RMZ/WMZ protection measures including silvicultural prescriptions, road-related RMZ/WMZ protection measures and wind buffers.
RMZ/WMZ buffers as listed in B.3.a.1.b. as well as the proposed measures to reduce or control erosion described in B.1.h provide protection measures for the surface waters in the vicinity of the proposal area.

RMZs are no-harvest buffer. No wind buffers were applied to the type 3 streams as it was deemed unnecessary for this proposal. Right-of-way for new road construction through RMZs is limited within tagged Right-of-way road limits.

- 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): **Culvert(s) installation in typed water crossing(s), and associated Right-of-way clearing for new road construction. VRH adjacent to the RMZs and WMZs.**

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

Indicate the source of fill material.

None.

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

No

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

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

No

Yes, describe activity and location:

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

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

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

No Yes, describe:

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

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

LAKE WHATCOM = 4.7 (mi./sq. mi.)

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

No

Yes, describe:

It is likely some roads or road ditches within the WAU intercept sub-surface flow and deliver surface water to streams, however current road construction, 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.

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

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

No Yes, describe the water resource(s): **Lake Whatcom, the city of Bellingham's municipal water supply is ultimately downstream of the proposal, and within one mile downslope of the proposal area. Also about 7 miles downstream, including Lake Whatcom, is the Whatcom Creek Hatchery.**

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.

Leave tree areas were put in place along convergent areas of topography that funnel surface water drainage, and had not formed stream channels that require riparian buffers. Equipment specifications were designed to minimize soil impacts and delivery potential. Operations will not be allowed to occur from November 1-March 31. Any operations occurring between April 1 and May 31 will need approval from an agency contract administrator, with an appropriate mitigation plan in place by the operator.

b. Ground Water:

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

No water will be withdrawn or discharged.

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

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

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

No Yes, describe: **See B.3.a.12.**

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.

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

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

No Yes, describe:

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

Note protection measures, if any:

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

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

No changes to drainage patterns are expected.

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

See surface water, ground water, and water runoff sections above, questions B-3-a-1-c, B-3-a-13, B-3-b-3, and B-3-c-2.

4. Plants

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

Deciduous tree:

Alder Aspen Birch Cottonwood Maple Western Larch

Other:

Evergreen tree:

Douglas-Fir Engelmann Spruce Grand Fir Lodgepole Pine

Mountain Hemlock Noble Fir Pacific Silver Fir Ponderosa Pine

Sitka Spruce Western Hemlock Western Redcedar Yellow Cedar

Other: **Pacific Yew**

Shrubs:

Huckleberry Rhododendron Salmonberry Salal

Other: **Oregon Grape**

Ferns

Grass

Pasture

Crop or Grain

Orchards Vineyard Other Permanent Crops

Wet Soil Plants:

Bullrush Buttercup Cattail Devil's Club Skunk Cabbage

Other:

Water plants:

Eelgrass Milfoil Water Lily

Other:

Other types of vegetation:

Plant communities of concern:

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

As described in A.11, the overstory vegetation will be removed in the in the VRH portions of the proposal, with the exception of an average of eight+ trees per acre of 10 inches dbh or greater. This will ensure that a portion of

the live trees that are best suited to the site, and /or exhibits desirable wildlife habitat characteristics will be left on site. Most of the current shrubs and herbaceous plants will be disturbed to varying degrees during the timber removal process of this proposal.

1) Describe the species, age, and structural diversity of the timber types immediately adjacent to the removal area. (See "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.)

The adjacent areas' timber types range from young, uniform conifer stands, approximately 5 years of age to mature timber similar to the proposed removal area as described in A.11.b.

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

None found in corporate database.

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

An average of 8+ trees per acre in the variable retention harvest areas will be left as scattered leave trees and in clumps that are distributed across the proposal area. These clumps include all tree species currently found in the proposal area. Clumped and scattered leave trees primarily targeted older and structurally unique stems, but also are located around areas with downed woody debris, along convergent portions of slope, and large wind-firm conifer trees. These placements will contribute to the maintenance of biological diversity.

The site will be revegetated after harvest. See green tree retention plan in A.13.b, and regeneration method in A.7.b.

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

Himalayan blackberry and holly.

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

Owl was a barred owl, noted by call and visual identification.

other: crow

mammals:

bear beaver coyote cougar deer elk

other:

fish:

bass herring salmon shellfish trout

Cutthroat Trout found in adjacent type 3 stream.

other:

amphibians/reptiles:

frog lizard salamander snake turtle

other:

unique habitats:

balds caves cliffs mineral springs oak woodlands talus slopes

Caves -Nine caves were found in/around the proposal area. Four were assessed to be of 'low quality' and five were assessed to be of 'medium quality' based on physical characteristics and presence/absence of biological characteristics. Vegetative buffers were put in place around the caves, as well as road building restriction buffers.

Cliffs – features were assessed.

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
BESSIE 1	Marbled murrelet	Threatened	Endangered

Occupied site is known and proposal is outside of occupied site and associated site buffer.

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

Pacific flyway Other migration route:

Explain:

All of Washington State is considered part of the Pacific Flyway. No impacts are anticipated as a result of this proposal.

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

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

Species /Habitat: **Mature Forest Components and unique landscape features**

Protection Measures: **Retention tree plan described B.4.d. Proposal was assessed for older forest components and an old growth assessment was conducted. No old-growth stand was identified and the most mature components found in the sale area was retained via retention tree plan.**

Species /Habitat: **Caves**

Protection Measures: **Vegetative buffers, as well as road building exclusion area buffers have been put into place. These buffers are in place in order to protect microclimate conditions and minimize the potential impacts to structural integrity.**

Species /Habitat: **Cliffs**

Protection Measures: **Cliff areas lacked the structural complexity that provide habitat for wildlife. No protection measures were applied.**

Species /Habitat: **Marbled Murrelet Metered Habitat**

Protection Measures: **The sale overlaps areas that our predictive model indicates are "Possible" Long-term Forest Cover (LTFC) in the Marbled Murrelet Long-term Conservation Strategy (LTCS). LTFC are the combination of lands that provide marbled murrelet conservation throughout the landscape through other forest retention measures associated with the 1997 HCP (e.g. riparian management, unstable slopes, old-growth, northern spotted owl), as well as natural areas, gene pool reserves, and marbled murrelet specific conservation as outlined in the MMLTCS. "Possible" suggests that some feature which would require retention of forest cover (e.g. stream, unstable slope) may exist in those areas, but requires field verification to confirm the actual existence and map the specific location of such features. Following "verification", LTFC is maintained as applicable. This proposal excludes all verified LTFC and associated habitat and is consistent with the requirements of the MMLTCS.**

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

None known.

6. Energy and natural resources

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

Petroleum fuel (diesel or gasoline) will be used for heavy equipment during active road building, timber harvest operations, and for transportation. No energy sources will be needed following project completion.

- b. Would your project affect the potential use of solar energy by adjacent properties?
If so, generally describe.

No.

- c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

None.

7. Environmental health

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

- 1) Describe any known or possible contamination at the site from present or past uses.
None known.

- 2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.
None known.

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

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

b. Noise

- 1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?
None.
- 2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.
There will be short term, low level and high level noise created by the use of harvesting equipment and hauling operations within the proposal area. This type of noise has been historically present in this geographical area.
- 3) Proposed measures to reduce or control noise impacts, if any:
None.

8. Land and shoreline use

- 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: Current use of the site and most adjacent land types is as industrial forestry (both state and private). To the north of the proposal, but not immediately adjacent are smaller ownerships with homes on them, and lands owned by the Whatcom Land Trust. A utility corridor and an old rail grade corridor are also nearby.
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?
Forest Land.
- f. What is the current comprehensive plan designation of the site?
Industrial Forestry.

- g. If applicable, what is the current shoreline master program designation of the site?
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?
 - 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:
Portions of this proposal may be visible from portions of Lake Whatcom and Park Road. Leave tree patterns and Riparian Management Zones will help mitigate any visual impacts.
 - 2) *How will this proposal affect any views described above?*
This proposal will resemble previous timber harvests in the area and background view will change from a stand of mature timber to a view of a recent harvest with mature trees remaining scattered throughout the unit.
- c. Proposed measures to reduce or control aesthetic impacts, if any:
Timber harvesting is a normal occurrence in the vicinity of the proposal, and recent timber harvests are visible throughout the area. Within and around the proposal area, un-harvested stands, stream buffers, and leave tree clumps will remain to reduce the visual impact. These residual stands will break up the view of the harvested area considerably, and will help maintain the aesthetic quality of the area. Additionally, the proposal area will be revegetated.

Additional leave trees were left along rocky portions of the slopes visible from Lake Whatcom and Park Road, in order to provide visual mitigation and prevent unnecessary disturbance of features not well suited to industrial forestry.

11. Light and glare

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

12. Recreation

- a. What designated and informal recreational opportunities are in the immediate vicinity?
Informal recreational opportunities exist in the vicinity. These include horseback riding, hiking, mountain biking, hunting, berry picking, and mushroom picking.
Nearby lands owned by the Whatcom Land Trust have a trail that accesses DNR managed lands adjacent to the proposal, but this is not an area officially managed by the agency for recreation.
- 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.
None known.
- 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.
Yes. A DNR archaeologist has conducted a survey of the area and a site form has been submitted to DAHP. for #45WH01090
- 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.
Historic GLO maps and DAHP GIS layers were reviewed by an agency Cultural Resource Technician.
A meeting was held with representatives from various tribes on February 24, 2021 in order to provide more comprehensive information concerning this and other proposals. The Lummi Nation, Samish Indian Nation, Nooksack Indian Tribe, Swinomish Indian Tribal Community, and the Upper Skagit Indian Tribe were invited to attend. Finding of potential cultural items was brought up in the meeting by the DNR. No concerns have been raised as of the submittal of this document.
Field observations for cultural resources were a part of the field work done with the proposal. Found resources were assessed by a DNR archeologist.
- 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.
A DNR archaeologist has worked with forestry staff to develop a plan to avoid impacts to #45WH01090. A site form has been submitted to DAHP.

If a presently-unknown cultural resource is discovered during project operations, DNR will comply with the Cultural Resources Inadvertent Discovery Guidance dated March 2010 or its successor procedure.

14. Transportation

- a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.
Please see WAU and adjacency maps on the DNR website under "SEPA". There are no public streets or highways that serve the site. There will be no addition of public roads to access the site as a result of this proposal.
- b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?
No. Nearest transit spot is approximately 11 miles away.
- 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.
 - 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 10 to 15 truck trips per day while the operation is active. Peak volumes would occur during the yarding and loading activities between 4:00 a.m. and 4:00 p.m. of the operating period. The completed project will generate less than one vehicular trip per day. Estimates are based on the observed harvest traffic of past projects.
- 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

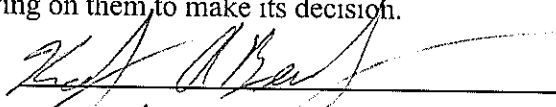
- a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.
No.
- b. Proposed measures to reduce or control direct impacts on public services, if any.
None.

16. Utilities

- a. Check utilities currently available at the site:
 electricity natural gas water refuse service telephone sanitary sewer
 septic system other:
- 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: Roddy A. Beesley

Position and Agency/Organization: Natural Resource Specialist 2 WA DNR

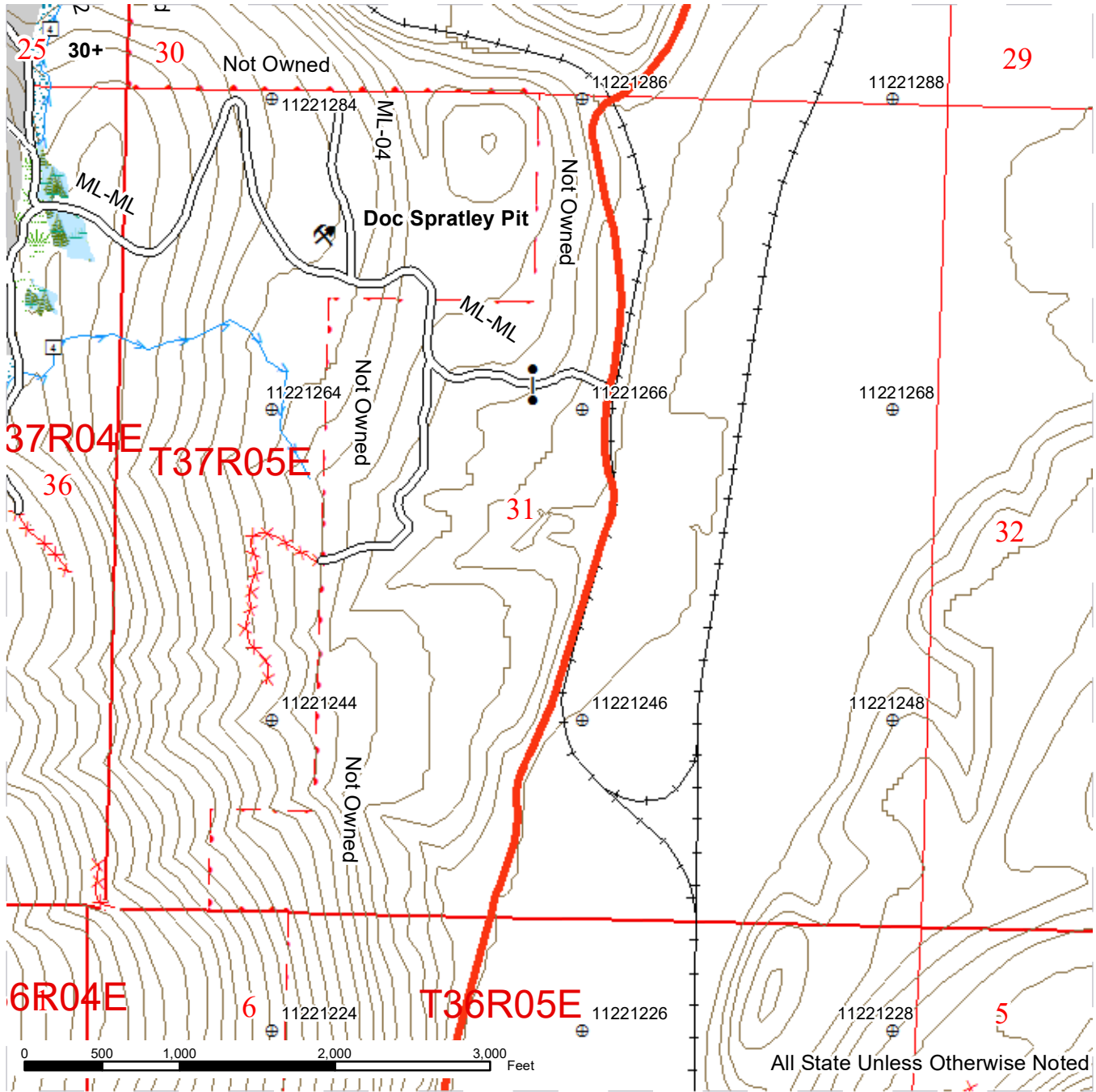
Date Submitted: _____

Bessie Sarts

FOREST PRACTICES ACTIVITY MAP

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

COUNTY(S): Whatcom
 TOWNSHIP(S): T37R4E

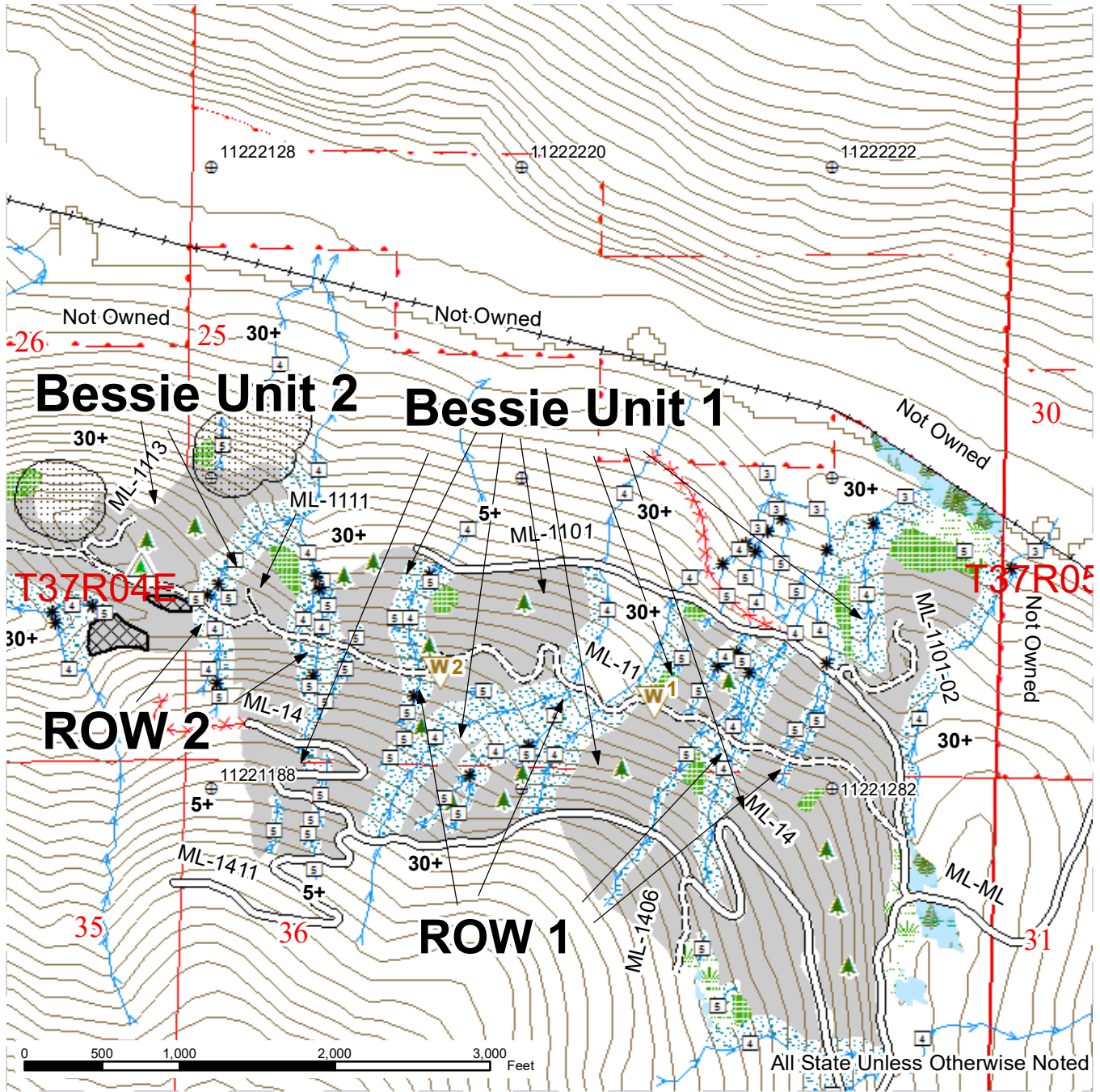


Sale Area	Stream Type
Riparian Mgt Zone	Stream Type Break
Forested Wetland	Gate
Wetland Mgt Zone	Rock Pit
Existing Roads	
New Construction	
Existing Abandon/Orphan Road	
Streams	

FOREST PRACTICES ACTIVITY MAP

SALE NAME: BESSIE SORTS
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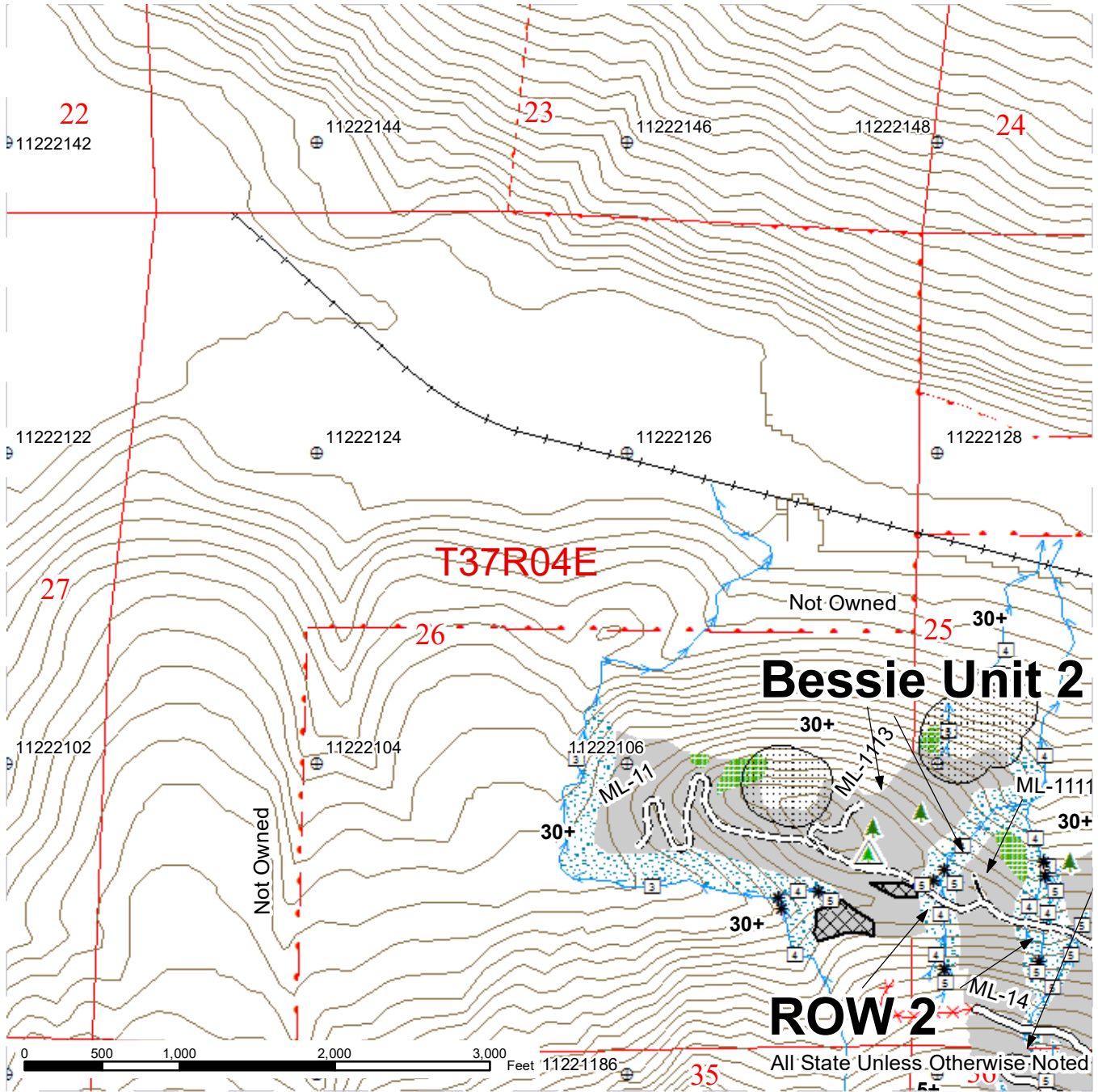
Sale Area	Construction
Non-Tradeable Leave Tree Area	Existing Abandon/Orphan Road
Leave Tree Area	Streams
Riparian Mgt Zone	Stream Type
Forested Wetland	Stream Type Break
Wetland Mgt Zone	Leave Tree Area <1/4-acre
Road Building Exclusion Area	Non-Tradeable Leave Trees <1/4-acre
Existing Roads	Waste Area
New Construction	



FOREST PRACTICES ACTIVITY MAP

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

COUNTY(S): Whatcom
 TOWNSHIP(S): T37R4E



Sale Area	Existing Abandon/Orphan Road
Non-Tradeable Leave Tree Area	Streams
Leave Tree Area	Stream Type
Riparian Mgt Zone	Stream Type Break
Road Building Exclusion Area	Leave Tree Area <1/4-acre
Existing Roads	Non-Tradeable Leave Trees <1/4-acre
New Construction	
Construction	