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: **Firefly CH** *Agreement #* **30-096714**

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

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

   DNR Northwest Region
   919 North Township Street
   Sedro-Woolley, WA 98284
   (360) 856-3500
   Contact person: Laurie Bergvall

4. Date checklist prepared: **01/18/2018**

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

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

   a. *Auction Date:* **01/30/2019**
   b. *Planned contract end date (but may be extended):* **3/31/2021**
   c. *Phasing:* **Does not apply.**

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

Timber Sale:

a. *Site preparation:* **Harvest units 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 the VRH portion of the proposal 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.**

d. *Thinning:* **Treatment to be assessed in 10 to 15 years for pre-commercial thinning. A commercial thinning is possible in 25 to 45 years.**

Roads: **The CX-ML, CX-28, BL-ML and BL-12 roads will be used for future management activities.**

Rock Pits and/or Sale: **The Macadamia Pit will be used for future management activities. Onsite rock may be used for road construction, if rock sources are discovered along haul routes or within the sale area.**

Other: **None.**

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

☐ *303 (d) – listed water body in WAU:* ☐ *temp* ☐ *sediment* ☐ *completed TMDL (total maximum daily load):*
☐ *Landscape plan:*
☐ *Watershed analysis:*
☐ *Interdisciplinary team (ID Team) report:*
☒ *Road design plan:*
☒ *Wildlife report:*
☐ *Geotechnical report:*
☐ *Other specialist report(s):*
☐ *Memorandum of understanding (sportsmen's groups, neighborhood associations, tribes, etc.):*
☐ *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; ICN#130598; Geologist Memorandum dated 02/23/2018.**

Above Documents available at Northwest Region office.

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.
None known.

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

☒ *FPA #* _____ ☐ *FHPA* ☐ *Burning permit* ☐ *Shoreline permit* ☐ *Incidental take 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), with riparian management zone (RMZ) thinning, expected to produce a total of 1,780 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 adjacent to private commercial timberland to the north and WA state parks across an RMZ to the east, but otherwise is surrounded by State managed land.

Approximately 130 acres were considered for this proposal; this has been reduced to 72 net acres due to operational feasibility, existing roads, wetland management zones, and no-harvest riparian management core zones.

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.

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

Pre-Harvest Stand Description:

The pre-harvest condition is a third-growth stand, originating in the 1960s. The stand is mainly composed of Douglas-fir with western hemlock. A small section of the stand contains primarily grand fir. The stand has small components of hardwood scattered within, as well as some western redcedar.

Approximately 33 acres of the harvest area burned with low to moderate degrees of intensity in a fire in August, 2017.

Approximately 50 acres of the harvest area were commercially thinned in 2005.

Type of Harvest:

- **Variable Retention Harvest (VRH), even-aged, with a leave tree retention component.**
- **Riparian Management Zone (RMZ) thinning in order to meet department Riparian Desired Future Conditions (RDFC).**

Overall Unit Objectives:

- **Generate revenue for the State trust beneficiaries.**
- **Protect water quality, maintain site productivity, and maintain wildlife habitat through a leave tree retention strategy.**
- **This proposal meets or exceeds all guidelines set forth in the DNR Habitat Conservation Plan (HCP), Policy for Sustainable Forests, and Forest Practices Rules and Regulations.**

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

Type of Activity	How Many	Length (feet) (Estimated)	Acres (Estimated)	Fish Barrier Removals (#)	Steepest Side Slope Road Crosses
Construction		0	0	---	---
Reconstruction		0		---	---
Abandonment		0	0	---	---
Pre-Haul Maintenance		29,037	12.84	0	70
Temporary Construction		802**	0.29	0	30
Bridge Install/Replace	0			---	---
Culvert Install/Replace (fish)	0			---	---
Culvert Install/Replace (no fish)	0*				

***This refers to only typed stream crossings and does not include relief culverts.**
****Of the length listed for Temporary Construction in the above table, zero feet up to the entire length listed may be built. Temporary Construction is defined under Forest Practices as forest road that is constructed and intended for use during the life of an approved forest practices application/notification.**

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 maps on DNR website: http://www.dnr.wa.gov/state-environmental-policy-act-sepa. Click on the appropriate region under "Current SEPA Actions – Timber Sales.")*

a. *Legal description:*
Section 36 of Township 37 North, Range 2 East.
Section 31 of Township 37 North, Range 3 East.
Section 5, 6, 11, 12 and 14 of Township 36 North, Range 3 East.
Includes harvest units, rock pits, road work and pre-haul maintenance.

b. *Distance and direction from nearest town (include road names):*
The proposal located approximately 7 miles south of Bellingham, WA.

c. *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."*

WAU Name	WAU Acres
SAMISH BAY	**13,208**

13. Discuss any known future activities not associated with this proposal that may result in a cumulative change in the environment when combined with the past and current proposal(s). (See digital ortho-photos for WAU and adjacency maps on DNR website http://www.dnr.wa.gov/state-environmental-policy-act-

sepa for a broader landscape perspective.)

No cumulative change in the environment is expected from the combination of past and future activities with this proposal. This proposal as well as past and future activities either meet or surpass Forest Practices Rules by complying with the commitments of the HCP and as such protect water quality and mitigate environmental impacts. Data in the table below was reported in the Department's GIS database on January 18, 2018.

Samish Bay WAU

Land Manager	Acres	% of WAU
DNR	4,092	31.0
Federal	4	0.0
Other State (Non-DNR)	1,390	10.5
Other Land (Private & Other Public) Land)	7,722	58.5

Past and Future DNR Activities in WAU

The table below reports Forest Practices approved applications for harvest activities during the last seven years of proposed harvest areas on Department lands and private lands within the Samish Bay WAU. Information based on a Samish Bay WAU report generated from the Department's GIS database on January 18, 2018.

Harvest Type	Acres on DNR Land	Acres on Non-DNR Land	Acres on All Lands
EVEN-AGE	315	169	484
UNEVEN-AGE	77	109	186

Note: This information is derived from activity locations collected by varying methods ranging from hand drawn maps to precise GPS collection. No verification of map accuracy or activity completion is conducted. Totals may not be the sum of all harvest types due to overlapping activities. The same land may be counted more than once if, in the past seven years, more than one Forest Practices Application has been approved for different harvests (salvage and even-age for example).

Note: All acreages are approximate. Rounding to the nearest 10 or even to the nearest 50 acres may be appropriate. Totals may not be the sum of all harvest types due to overlapping activities.

DNR Managed Lands – Future Harvests.

The following data is based on current plans for harvests in the Samish Bay WAU. The current proposal acreage is not included in the future harvest calculations.

Samish Bay WAU	Estimated Sale Acres through 2025
13,208 Acres	~400

Future forest management activities in this WAU include road building, rock pit expansion, silvicultural work and timber harvesting. Activities occurring on DNR managed land will follow Forest Practices Rules, Habitat Conservation Plan (HCP) guidelines, and the Policy for Sustainable Forests – policies designed to minimize environmental impacts. Future forest management activities on privately managed, non-DNR lands will be subject to Forest Practices Rules.

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 were applied to this proposal with the intent of protecting salmon and trout habitat, 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 VRH portion of the harvest area. These trees will function for future snag and large structurally unique tree recruitment.

Under the Interim Strategy for the Marbled Murrelet in the North Puget Planning Unit, under the Department's HCP, several stands in this WAU have been deferred from timber harvest to provide habitat. The Interim Strategy also requires Department field staff to search for and delineate any "newly identified" marbled murrelet habitat in the vicinity of any proposed timber harvests. These stands may be deferred from timber harvest throughout the remainder of the interim strategy (with occasional exceptions made to allow road and/or yarding access into non-habitat areas), and may be considered to be removed from harvest rotation for a longer period of time under the Department's yet-to-be-developed long-term strategy for marbled murrelets. Field staff have determined that no "newly identified" marbled murrelet habitat exists in or near the proposal. This has been verified by a region biologist. Therefore, the proposal meets all requirements of the Interim Strategy.

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site (check one):
☐Flat, ☐Rolling, ☒Hilly, ☐Steep Slopes, ☐Mountainous, ☐Other:

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

SAMISH BAY
The Samish Bay WAU ranges from flat to mountainous topography, and consists of approximately 13,208 acres and has an elevation range from sea level to 2,299 feet. Climate is moderate with 30 to 40 inches of average annual precipitation.

A majority of the WAU is within the Douglas-fir forest vegetation zone. The major timber types are second and third-growth planted Douglas-fir stands and natural stands of mixed hardwood and mixed conifer ranging in age from 0 to 75 years. The lower elevations along the southern end of the WAU are experiencing rural residential development.

2) *Identify any difference between the proposal location and the general description of the WAU or sub-basin(s).*
The proposal area is consistent with the WAU description above.

b. What is the steepest slope on the site (approximate percent slope)?
90% with a few road cuts in rock and small bands of sandstone with near vertical slope.

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

Note: The following table is created from state soil survey data. It is a roll-up of general soils information for the soils found in the entire sale area. It is only one of several site assessment tools used in conjunction with actual site inspections for slope stability concerns or erosion potential. It can help indicate potential for shallow, rapid soil movement, but often does not represent deeper soil sub-strata. The actual soils conditions in the sale area may vary considerably based on land-form shapes, presence of erosive situations, and other factors. The state soil survey is a compilation of various surveys with different standards.

State Soil Survey #	Soil Texture	% Slope	Mass Wasting Potential	Erosion Potential
1723	**GRAVELLY LOAM**	**45-70**	**HIGH**	**HIGH**
1085	**GRAVELLY LOAM**	**30-65**	**MEDIUM**	**MEDIUM**
1084	**GRAVELLY SILT LOAM**	**3-30**	**LOW**	**LOW**

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

1) Surface indications:

Two inner gorge areas are present along non-fish bearing waters. One area, bound out of the proposal area, was done so because of evidence of natural slope failure. Instability is likely due to a steep slope overlain with thick colluvial soil. Soil stability has been reduced in part of the proposal area, and an area adjacent to the proposal, due to the removal of understory vegetation during a fire in August of 2017.

The statewide landslide inventory (LSI) screening tool is not available for the Samish Bay WAU.

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

☐*No* ☒*Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:* **Shallow slope failures are likely to have occurred in the sub-basin.**

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

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

Associated management activity: **A small portion (less than 100 feet) of the Fragrance Lake Road, in Larrabee State Park, failed after a heavy rain event in early February 2018. There was no known delivery to typed water. Further specific areas are not known, but due to terrain and landforms in the vicinity it is likely landslides have occurred. It is possible that some of these shallow failures were triggered by historic timber harvests and road construction activity.**

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

☐*No* ☒*Yes, describe similarities between the conditions and activities on these sites:* **Some of the streams within and adjacent to this proposal have similar topography to streams that have experienced slope failures in the past. Portions of the proposal area have slopes similar to that which were removed from the proposal, but exhibited less signs of instability, and did not have the same potential to deliver to water or public resource.**

5) 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 potentially unstable slopes with the potential to deliver debris to surface waters or other public resources.

Field reconnaissance of identified areas of potential instability was done by a State Lands Licensed Engineering Geologist and State Lands Forester. Further field review was conducted with the accompaniment of a Forest Practices Licensed Engineering Geologist and Forest Practices Forester on January 24, 2018. See ICN # 130598 and Geologist Memo.

An area that was originally in the proposal was removed from the proposal boundaries due to evidence of instability and potential to deliver to a non-fish, seasonal stream (DNR type 5). Inner gorge portions of non-fish (DNR type 4) streams were removed from the proposal area, and will not be thinned. Harvest equipment restrictions within the burned areas of the harvest proposal, prohibit the use of rubber-tired or tethered machinery, where surface vegetation was removed in the fire in August 2017. Ground-based skidding is also limited to sustained slopes of less than 15% in the burned areas of the harvest proposal.

Roads were designed to minimize ground-based yarding distances to an average of 600 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.
No new permanent roads are to be constructed with this proposal.

Approx. acreage new temporary roads: **0.29** *Approx. acreage new landings:* **2.0**
Fill Source: **Native material and rock from existing and proposed rock pits described in A.12.a.**

Road construction will utilize standard cut and fill methodology, full bench construction with end haul or side cast (if necessary and given approval), to obtain grade and alignment. Native soil and rock will be excavated from the road prism and used for fill in the sub-grade and over cross drains and stream crossings.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.
Minor erosion may occur from freshly exposed soils along road cut slopes and embankment slopes. Erosion could result from road and landing construction during periods of heavy rainfall or as a result of yarding during periods of saturation. Additionally, erosion could result if ditches and culverts are not properly installed and maintained during and after the harvest operation. Road use during unfavorable weather conditions may contribute to an increased potential for surface erosion.

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

Less than 2% of this site will be covered with semi-impervious surfaces (forest gravel roads) after project construction.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any: *(Include protection measures for minimizing compaction or rutting.)*
Measures are in place to help reduce and control erosion.
Riparian (RMZ) and Wetland (WMZ) buffers as described in B.3.a.1.b and c. will be retained.

For harvest activities, ground-based operations will be limited to sustained slopes generally 40% or less. However, if self-leveling ground-based equipment is authorized, it may be used on sustained slopes 55% or less. In addition, tethered ground-based equipment may be utilized. The lead end of the logs will be suspended during yarding to reduce soil disturbance. Whole tree yarding will be required on sensitive slopes, in addition to lead end suspension. Skid trails will be water-barred as necessary.

To mitigate erosion in the burned area, where surface vegetation was removed by the burn, additional restrictions are in place. Rubber-tired machinery is restricted within the burn area, as well as tethered ground-based equipment. Ground-based skidding is restricted to sustained slopes of less than 15% in the burned areas of the proposal.

To control road related erosion, road pioneering will generally not extend more than 500 feet beyond completed construction, culverts will be installed concurrently with construction of the road subgrade, and culvert outlets will not terminate on unprotected soils. All exposed soils resulting from road construction will be revegetated.

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.

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 equipment and dust from vehicle traffic and logging equipment are expected while the project is active. Following harvest, logging slash debris may be reduced by accumulating it into piles and then burned.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.
Does not apply.

c. Proposed measures to reduce or control emissions or other impacts to air, if any:
If slash is burned, it will be burned in adherence to the State's Smoke Management Plan.

3. Water

a. Surface Water:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into. *(see timber sale map available at DNR region office, or forest practice application base maps.)*

a. Downstream water bodies: **Samish 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)
Unnamed	Type 4	2	100
Unnamed	Type 5	9	30-foot Equipment Limitation Zone
Unnamed	Forested Wetland (greater than 1 acre)	1	185
Unnamed	Forested Wetland (greater than 1/4 acre, less than 1 acre)	1	100

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

Any existing roads through RMZs and WMZs will be monitored during hauling to ensure ditchwater and road runoff will not enter or otherwise adversely affect water quality or RMZ and WMZ function. Ditchwater will be diverted through relief culverts prior to stream crossing to keep sediment out of streams. Newly installed culverts will be sized appropriately and exposed

soils will be revegetated. Corrective action such as straw bales, silt fencing, rock-lined ditches, and sediment traps will be installed/constructed if necessary. RMZ and 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.

Two type 4 RMZs will be thinned in accordance with the Department's Riparian Forest Restoration Strategy. Additionally, part of the WMZs will be thinned, where overlapping an adjacent RMZ. The WMZs will be thinned up to the wetland edge while the RMZs will be thinned up to the 25-foot core zone. Felling in the RMZ/WMZ thin areas will be done so as to minimize damage to residual trees and felled away from the 25-foot core in RMZs to avoid tree damage.

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

☐*No* ☒*Yes (See RMZ/WMZ table above and timber sale map available at DNR region office.)*

Description (include culverts): **Timber will be felled immediately adjacent to the RMZs described in the table in B.3.a.1.b. Harvest will occur up to the 25-foot core zone in two type 4 RMZs. Timber will be felled away from the RMZs where practical in order to avoid damage to trees within the RMZs Logs may be placed in skid trail stream crossings of type 5 streams to facilitate yarding and removed upon completion of yarding. Where yarding over type 5 streams is necessary, the leading edge of logs will be suspended to avoid disturbing the stream banks.**

3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.
None.

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

☒*No* ☐*Yes, description:*

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

☒*No* ☐*Yes, describe location:*

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

☒ *No* ☐ *Yes, type and volume:*

7) *Does the sub-basin contain soils or terrain susceptible to surface erosion and/or mass wasting? What is the potential for eroded material to enter surface water?*
Yes. The following data was reported in the Department's GIS database in January 18, 2018. This data is not available by sub-basin.

Soil data may not be available for 100% of the WAU.

Samish Bay WAU		
Erosion Potential	**Acres**	**% in WAU**
High	1,719.6	13.0
Medium	3,624.6	27.4
Low	5, 368.9	40.6
Variable	0.0	0.0
No Data	536.9	4.1
N/A	1,432.4	10.8
Mass Wasting Potential	**Acres**	**% in WAU**
High	1,719.6	13.0
Medium	3,624.6	27.4
Low	146.6	1.1
Insignificant	6,654.7	50.4
No Data	536.9	4.1

8) *Is there evidence of changes to the channels in the WAU and sub-basin(s) due to surface erosion or mass wasting (accelerated aggradations, erosion, decrease in large organic debris (LOD), change in channel dimensions)?*

☐ *No* ☒ *Yes, describe changes and possible causes:*
At the WAU level there is evidence of aggradation in low-gradient channel reaches and channel scouring in the upper reaches. These changes are associated with mass wasting and channelized debris flows. There is no evidence of significant channel movement.

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

☐ *No* ☒ *Yes, explain:*

This proposal includes both the harvest of timber and road work. The removal of overstory vegetation will temporarily reduce interception of water and increase infiltration and saturation of water into the forest floor which could temporarily increase overland flow.

The protection measures identified in B.1.d.5 keep harvest activities away from potentially unstable slopes. RMZ/WMZ buffers (see B.3.a.1.b) and other operation control measures (see B.1.h) ensure that any overland flow from disturbed soil areas will filter through substantial amounts of forest-floor vegetation before entering any perennial stream channels.

Road work disturbs surface soils where some temporary surface erosion is likely to occur, especially with the first winter rains following road work at culvert installation locations and road abandonment related culvert removal locations. These installations and removals will follow Forest Practices Rules and RMAP requirements to minimize any erosion-related water quality impacts. See question B.1.h, B.3.a.1.c, and B.3.d. for a partial listing of some of the specific erosion protection measures.

10) What are the approximate road miles per square mile in the WAU and sub-basin(s)? Are you aware of areas where forest roads or road ditches intercept sub-surface flow and deliver surface water to streams, rather than back to the forest floor?

☒*No* ☐*Yes, describe:*

Based on GIS report generated January 18, 2018: The Samish Bay WAU has 4.2 road miles per square mile. Data was not available for sub-basins.

11) Is the proposal within a significant rain-on-snow (ROS) zone? If not, ***STOP HERE*** *and go to question B-3-a-13 below. Use the WAU or sub-basin(s) for the ROS percentage questions below.*

☒*No* ☐*Yes, approximate percent of sub-basin(s) in significant ROS zone:*

Or*, approximate percent of WAU:*

12) If the proposal is within the significant ROS zone, what is the approximate percentage of the WAU or sub-basin(s) within the significant ROS zone (all ownerships) that is (are) rated as hydrologically mature?

13) Is there evidence of changes to channels associated with peak flows in the WAU and sub-basin(s)?

☐*No* ☒*Yes, describe observations in the WAU and in the sub-basin(s):*
Channel changes have occurred at the WAU level. It is difficult to separate the effects of peak stream flow increases from the effects of mass wasting in stream channels. The effects are interrelated and often occur during the same storm events (see B.3.a.8).

14) Based on your answers to questions B-3-a-10 through B-3-a-13 above, describe whether and how this proposal, in combination with other past, current, or reasonably

foreseeable proposals in the WAU and sub-basin(s), may contribute to a peak flow impact.

The acreage to be harvested with this sale is not located in a rain-on-snow or a snow-dominated zone in the WAU. Therefore the proposal is not expected to contribute to a peak flow impact.

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

☒ *No* ☐ *Yes, possible impacts:*

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

As stated in B.3.a.14, this proposal is not expected to cause a significant increase in peak flows. In order to minimize the risk of road failures during peak flow events, all culverts utilized in new road construction will be sized to withstand a 100-year flood event. Culverts and ditches will be maintained so that they remain functional. Storm patrols will be conducted as necessary on existing and newly constructed roads to identify and address potential erosion problems.

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 from a well.

Channelized water through ditches and culverts emptying out onto the forest floor will increase surface saturation in localized areas, but is not expected to affect ground water.

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 and lubricants could be inadvertently spilled as a result of heavy equipment use. No lubricants will be disposed of on site. See also B.7.a.

3) *Is there a water resource use (public, domestic, agricultural, hatchery, etc.), or area of*

slope instability, downstream or down slope of the proposed activity that could be affected by changes in groundwater amounts, timing, or movements as a result this proposal?

☒*No* ☐*Yes, describe:*

a. *Note protection measures, if any.* **Does not apply.**

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.

Runoff from the road surfaces will be collected in ditches and diverted to stable areas on the forest floor through the use of ditches, culverts, and energy dissipaters.

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

☒*No* ☐*Yes, describe:* **No waste material is anticipated to enter any water as a result of this proposal.**

a. *Note protection measures, if any.* **Existing regulations and contract requirements regarding spill prevention and waste cleanup will be followed.**

3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe. **This proposal should not alter drainage patterns in the vicinity of the site.**

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any: **On roads, constructed ditches, cross-drain culverts, drain dips, and water bars will be used to control road related runoff. Straw, grass seeding, or other appropriate methods may be used on any soil exposed cut and fill slopes during the course of this proposal in order to prevent sediment movement. Roads and landings will be crowned to avoid water accumulation. Falling and yarding away from all seasonal streams will be applied where feasible. All activities associated with this proposal will meet or exceed Forest Practices standards and will follow the Habitat Conservation Plan. See also B.1.d.5 and B.1.h.**

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

4. Plants

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

☒deciduous tree:
☒alder, ☒maple, ☐aspen, ☐*cottonwood,* ☐*western larch,* ☐*birch,* ☐other:

☒evergreen tree:
☒*Douglas fir,* ☒*grand fir,* ☐*Pacific silver fir,* ☐*ponderosa pine,* ☐*lodgepole pine,* ☒*western hemlock,* ☐*mountain hemlock,* ☐*Englemann spruce,* ☐*Sitka spruce,* ☒*red cedar,* ☐*yellow cedar,* ☐other:

☒shrubs:
☒*huckleberry,* ☒*salmonberry,* ☒*salal,* ☐*other:*

☐grass
☐pasture
☐crop or grain
☒wet soil plants:
☐cattail, ☐buttercup, ☐bullrush, ☒skunk cabbage, ☒*devil's club,* ☐other:

☐water plants:
☐water lily, ☐eelgrass, ☐milfoil, ☐other:

☐other types of vegetation:
☐*plant communities of concern:*

b. What kind and amount of vegetation will be removed or altered? *(See answers to questions A-11-a, A-11-b, B-3-a-1-b and B-3-a-1-c. The following sub-questions merely supplement those answers.)*
As described in A.11, the overstory vegetation will be removed in the VRH portion 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 color landscape/WAU and adjacency maps on the DNR website:*
http://www.dnr.wa.gov/sepa

(Click on the DNR region under the Topic "Current SEPA Project Actions - Timber Sales.")
In adjacent areas, timber types range from a newly planted stand that recently burned over to mature timber similar to the proposed removal area as described in A.11.b and older stands on adjacent State Park Land.

2) *Retention tree plan:* **An average of 8 trees per acre will be left in scattered leave trees and clumps that are distributed across the VRH portion of the proposal area. These clumps include all tree species currently found in the proposal area. These clumps were located around features that will contribute to the maintenance of biological diversity such as small wetlands (less than 0.25 ac), snags, down logs, areas with extensive understory development, and large wind firm conifer.**

c. List threatened and endangered *plant* species known to be on or near the site.
DNR's Special Concerns Reports indicate no known threatened, endangered, or special concern species on or near the sale area.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:
The site will be planted with conifer seedlings in the VRH portion of the proposal, after harvest. See green tree retention plan in B.4.b.2.

e. List all noxious weeds and invasive species known to be on or near the site.
The DNR Special Concerns Reports indicate no known noxious weeds or invasive species. However, it has been observed that Himalayan blackberry, butterfly bush and holly are found on and 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: ☐hawk, ☐heron, ☒eagle, ☐songbirds, ☐*pigeon*, ☐other:

mammals: ☒deer, ☐bear, ☐elk, ☒beaver, ☐other:

fish: ☐bass, ☐salmon, ☐trout, ☐herring, ☐shellfish, ☐other:

unique habitats: ☐*talus slopes*, ☒*caves*, ☐*cliffs*, ☐*oak woodlands*, ☐*balds*, ☐*mineral springs*

A recorded bald eagle nest site is located on adjacent WA State Parks land, near the hauling route utilized by the proposal.

One small cave was found outside of the proposed timber sale boundaries. This cave was assessed by a region wildlife biologist and determined to be 'medium quality' based on physical characteristics and presence/absence of animal sign. It is located sufficiently far from the timber sale that no conservation measures were necessary to protect this feature.

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

DNR's Special Concerns Reports indicate no known threatened, endangered, or special concern species on or near the sale area.

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

☒*Pacific flyway* ☐*Other migration route:* *Explain if any boxes checked:*

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

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

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

Species /Habitat: **Mature Forest Components**
Protection Measures: **Retention tree plan described B.4.b.2**

Species /Habitat: **Eagle Nest** Protection Measures: **While no eagle nest or roosts were found on or within 660 feet of the proposal's harvest area, an eagle nest has been identified within 660 feet of the CX-ML, on WA State Park's land. A restriction will be in place on road maintenance between Jan. 1 and Aug. 15, on the section of the CX-ML within 660 feet of the nest location. A blasting restriction will be put in place between Jan. 1 and Aug. 15 as well, in any area within a half mile of the nest location.**

If a region biologist is able to determine that the nest site is not occupied or that the juveniles have fledged early, these restrictions may be dropped or modified

d. List any invasive animal species known to be on or near the site.
No invasive animal species are known to be 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.
Does not apply.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.
Does not apply.

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:
Does not apply.

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.
There is minimal anticipated hazard from heavy equipment operations. There is a slight chance of hydraulic or oil spills from equipment operating on the site. There is also a potential fire hazard if operations occur in moderate to severe fire weather conditions during summer months. The timber sale contract contains language that addresses hazardous materials spill prevention; hazardous material spill containment, control and cleanup; hazardous material release reporting. If any toxic or hazardous chemical spill occurs, or if past contamination is discovered, the Department of Ecology will be notified. The contract also contains language for operations during fire season.

1) Describe any known or possible contamination at the site from present or past uses.
No site contamination is known presently or from past uses.

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.
No existing hazardous conditions are present in the vicinity.

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.
Other than equipment oil and fuel, there will be no hazardous chemicals associated with the project.

4) Describe special emergency services that might be required.

- **Firefighting by the Department of Natural Resources, possibly supported by local fire districts.**
- **Emergency medical and/or ambulance service for personal injuries.**
- **Responses by the Department of Ecology if a spill were to occur.**

5) Proposed measures to reduce or control environmental health hazards, if any:
Safe operation of all equipment will be encouraged. Industrial restrictions and precaution levels regarding forest fire protection will be enforced. The timber purchaser will be required to have fire suppression equipment on site during the restricted fire season while harvest activity is ongoing and operations will cease if relative humidity falls below 30%.

b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?
None.

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.
Noise from rock drilling/crushing machinery, rock blasting, road building, and logging equipment such as chain saws, yarding whistles, and log/dump trucks will increase noise levels during periods of operation, typically occurring between 4 a.m. and 5 p.m. on weekdays, on a short-term basis. Noise from road construction and harvest activity will be present in the vicinity of this proposal during operations. Noise from log hauling will be present along the haul routes during operations.

When possible, proposal activities will not occur on weekends and holidays.

3) Proposed measures to reduce or control noise impacts, if any:
Noise associated with harvest and road construction activity will be minimal anywhere but in the vicinity of the proposal. Harvest activity and log hauling are historic activities in the area and noise should not be present above customary levels.

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 entire area is designated for timber production, which will not be affected.**

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? **The proposal area is forest land. No conversion it planned.**

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? **Industrial forestry.**

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? **Does not apply.**

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? **Does not apply.**

j. Approximately how many people would the completed project displace? **Does not apply.**

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 regulations.**

m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any: **Does not apply.**

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: **Does not apply.**

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, developed recreation site, or a scenic vista?*

☐ *No* ☒ *Yes, viewing location:* **Portions of this proposal will be seen by recreation users hiking along the Burnout Road from Larrabee State Park's Fragrance Lake Road, and may be visible from the Samish Bay. Leave tree patterns, Wetland Management Zones and Riparian Management Zones will**

help mitigate visual impacts.

2) *Is this proposal visible from a major transportation or designated scenic corridor (county road, state or interstate highway, US route, river, or Columbia Gorge SMA)?*

☒*No* ☐*Yes, scenic corridor name:*

3) *How will this proposal affect any views described in 1) or 2) above?*
Although this proposal will be visible to the public, the large part of the landscape where this proposal will occur is managed as commercial forest land, and as such consists of forest stands with a wide range of age classes, including recently harvested areas.

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 planted with conifer trees within two years of completion of harvest activities.**

11. Light and glare

a. What type of light or glare will the proposal produce? What time of day would it mainly occur? **Does not apply.**

b. Could light or glare from the finished project be a safety hazard or interfere with views? **Does not apply.**

c. What existing off-site sources of light or glare may affect your proposal? **Does not apply.**

d. Proposed measures to reduce or control light and glare impacts, if any: **Does not apply.**

12. **Recreation**

a. What designated and informal recreational opportunities are in the immediate vicinity? **Designated and informal recreational opportunities exist in the vicinity. These include hiking, mountain biking, hunting, ORV use, berry picking, and mushroom picking. The CX-ML is a part of the Fragrance Lake Road and Burnout Road that begin at the Lost Lake Trailhead parking area of Larrabee State Park. While these roads are closed to public vehicle traffic, they are used by biking and hiking recreationalists on a regular basis.**

Public recreationalists utilize the BL-ML for recreation access, where rock haul will occur.

b. Would the proposed project displace any existing recreational uses? If so, describe.
Temporary displacement of recreational activities will occur during periods of active harvest operations. The Fragrance Lake Road, and connected Burnout Road will be closed to recreational users during harvest and hauling activities.

There will be an increase in truck traffic on the BL-ML, but this should not displace recreation activities in that area.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any: **Communication is in place with Larrabee State Park, so that closure notices and signs can be put up, before and during harvest operations along the Fragrance Lake Road and at the Lost Lake Parking area, where the Fragrance Lake Road begins, for recreational users of the site.**

When possible proposal activities will not occur on weekends and holidays. Dust abatement measures will occur on the CX-ML and the BL-ML roads.

13. **Historic and cultural preservation**

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers located on or near the site? If so, specifically describe.
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.
None known.

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.
GIS review, analysis of DNR Special Concerns reports, and monitoring for signs of areas of cultural importance during field assessment of site were done for the proposal area.

The Nooksack Indian Tribe, Skagit River Systems Cooperative, Upper Skagit Indian Tribe and the Lummi Indian Nation were notified of this proposal on February 19, 2018. A meeting was held with representatives from various tribes on February 27, 2018 in order to provide more comprehensive information concerning this and other proposals. No concerns

have been raised as of the submittal of this document.

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. **Forest Practices and DNR Special Reports runs indicate no known historical or archeological sites on or near the proposal. Any cultural resources identified during operations will be protected. Should archaeological materials or cultural items be discovered during the course of operations, all work in the vicinity will be stopped and associated tribes and Department of Archaeological and Historic Preservation (DAHP) will be contacted.**

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 CENTER". 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.**

1) *Is it likely that this proposal will contribute to an existing safety, noise, dust, maintenance, or other transportation impact problem(s)?* **No.**

b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop? **No. Nearest transit stop is a bus stop, 7 miles north in Bellingham, WA**

c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate? **Does not apply.**

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).
Temporary new forest roads may be constructed as part of the proposal. See A.11.c.

1) *How does this proposal impact the overall transportation system/circulation in the surrounding area, if at all?* **Apart from log hauling traffic during the course of operations, this proposal will have minimal impact on the overall transportation system in the surrounding area.**

e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe. **Does not apply.**

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 nonpassenger vehicles). What data or transportation models were used to make these estimates?

The completed project will generate approximately 1-2 trips per year for management purposes, for the first 5-10 years after the completion of the proposal. Up to 25 vehicular trips per day could occur during peak harvest activities. These trips would occur primarily between the hours of 4 a.m. and 5 p.m. on weekdays.

g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe. **No.**

h. Proposed measures to reduce or control transportation impacts, if any: **None.**

15. **Public services**

a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe. **No.**

b. Proposed measures to reduce or control direct impacts on public services, if any. **None.**

16. **Utilities**

a. Check utilities currently available at the site:
☐electricity ☐natural gas ☐water ☐ refuse service ☐telephone ☐sanitary sewer
☐septic system ☐other:
None.

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

C. SIGNATURE

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

Signature: Rody A Beesley

Name of signee Rody A Beesley

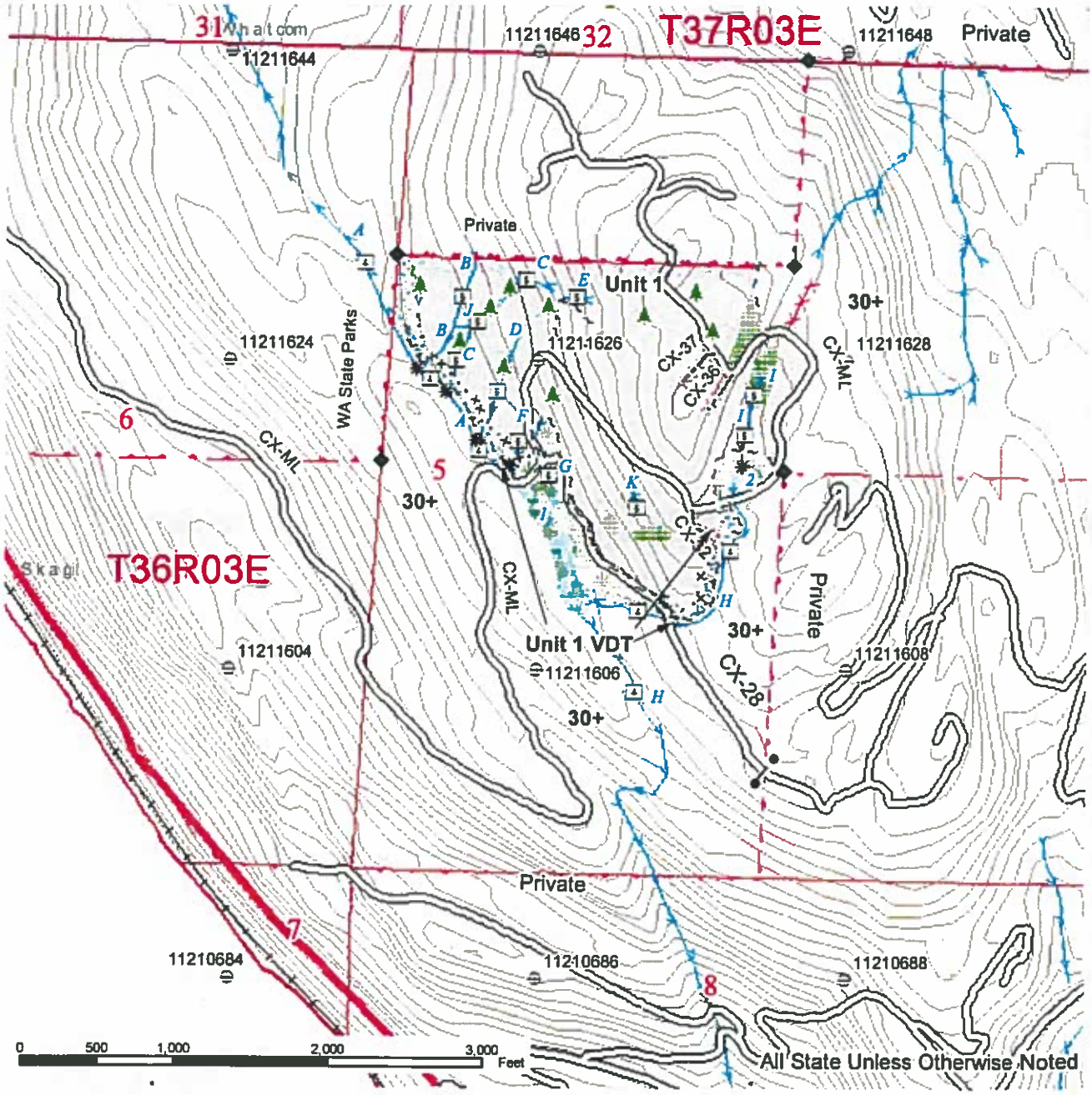
Position and Agency/Organization NRS2 WA DNR

Date Submitted: _____

FOREST PRACTICES ACTIVITY MAP

SALE NAME: FIREFLY CH
APPLICATION #: TBD by FP Staff

COUNTY(S): Skagit
TOWNSHIP(S): T36R3E



Sale Area	Existing Roads	Streams
Leave Tree Area	Temporary Construction	Survey Monument
Riparian Mgt Zone	Existing Abandon/Orphan Road	Stream Type
Forested Wetland		Stream Type Break
Wetland Mgt Zone		
Sale Boundary Tags		
Special Mgmt Area		
Property Line		

Type 5 Streams protected by 30ft Equipment Limitation Zone

N

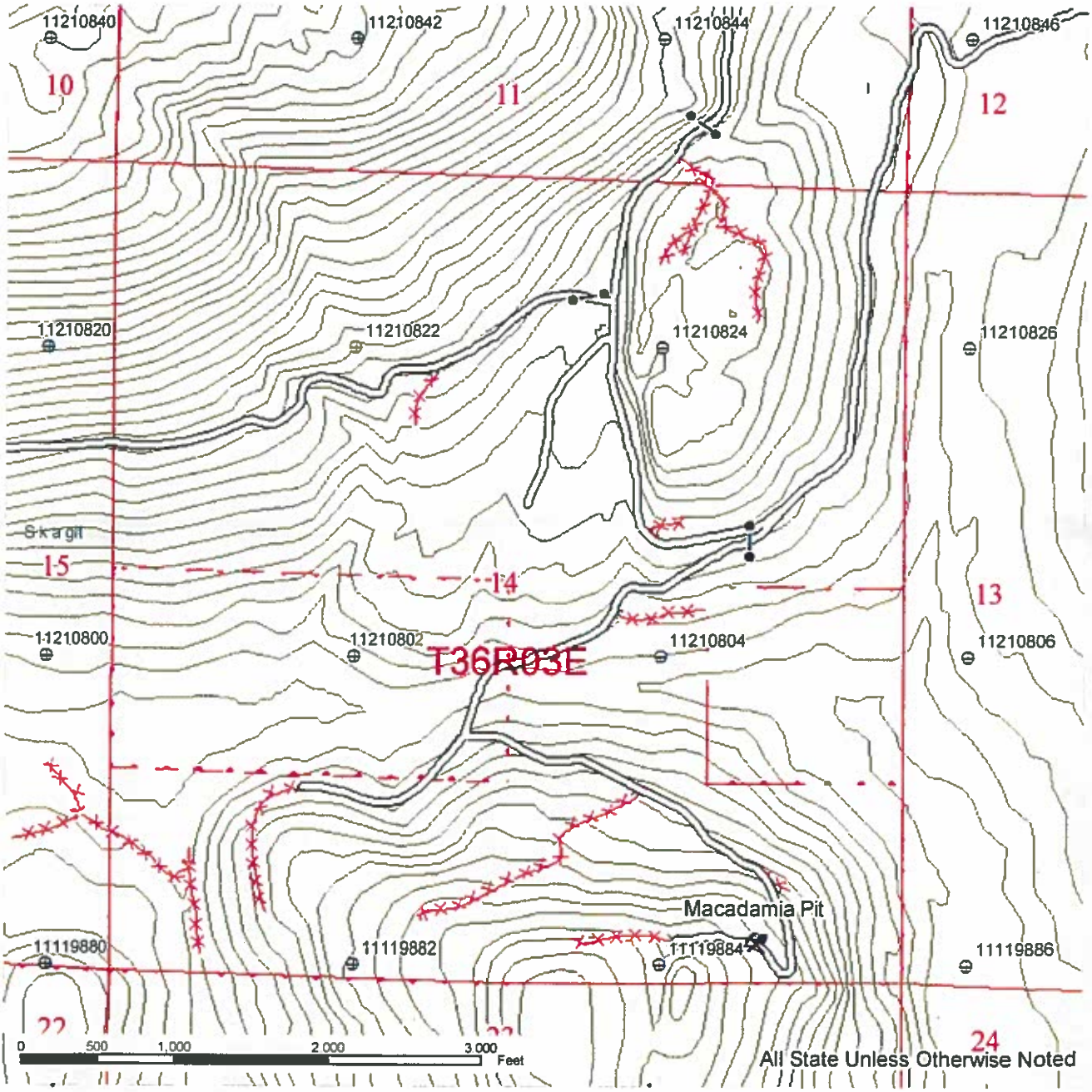
Prepared By: kbly490

Modification Date: kbly490 3/8/2018

FOREST PRACTICES ACTIVITY MAP

SALE NAME: FIREFLY CH
APPLICATION #: TBD by FP Staff

COUNTY(S): Skagit
TOWNSHIP(S): T36R3E



- Existing Roads
- Existing Abandon/Orphan Road
- Rock Pit
- Gate
- Stream Type
- Stream Type Break

N

Type 5 Streams protected by 30ft Equipment Limitation Zone

Prepared By: kbly490

Modification Date: kbly490 2/12/2018

WASHINGTON STATE DEPT OF
NATURAL RESOURCES

Forest Practices
Informal Conference Note

ICN No.	Legal Subdivision	Section	TWP	RGE E/W	Application / Notification #	Class
130598	NW 1/4	5	36	3E	N/A	N/A

Landowner	Timber Owner	Operator
WA Dept. of Natural Resources	Same as Landowner	Same as Landowner
Mailing Address 919 N. Township St	Mailing Address	Mailing Address
City, State /Province), Zip /Postal Code) Sedro-Woolley, WA 98284	City, State /Province), Zip /Postal Code	City, State /Province), Zip /Postal Code)

Meeting Location	Telephone Conference ☐	Date	Time	Region
On Site		1/24/18	8.30 AM	Northwest

Subjects Discussed:

A pre-application review of the "Firefly" timber sale was conducted to evaluate potential rule identified landforms and class IV special triggers.

Jenn Parker, State Lands Geologist, had previously reviewed the site with Kody Beesley, State Lands Forester, and believed that an approximately 2 acre area may be a category E landform as described in Section 16, Forest Practices Board Manual. Kody subsequently hung flagging deliniateing the area that had potential to deliver to public resources.

Garth Anderson, Forest Practices Geologist, Chris Hankey, State Lands District Manager, and I walked this area along with Jenn and Kody. We observed indicators of soil creep including swept and pistol-butted conifers, exposed fine roots, and isolated areas of exposed soil.

Decisions Made:

Garth and I agreed with Jenn's assessment that in areas where there was potential to deliver sediment to public resources, the combination of indicators of soil creep constitute a category E landform.

We concluded that any trees to be cut within the flagged area that had potential to deliver to a downslope type-5 stream would be a class IV special trigger. We agreed with the flagging location delineating this area.

We also concluded that the same slope that extends to the southeast (outside the flagged area), shows less signs of soil creep, but regardless has no potential to deliver to public resources. Therefore trees to be cut on this portion of the slope would not be a class IV special trigger.

It should be noted that public safety is not at risk on this site due to it's remote location from any development.

PRINT Participants' Names	*SIGNATURES of Participants	Representing	Copies Mailed
Garth Anderson	Reviewed Electronically	DNR, Forest Practices	☐
Kody Beesley		DNR, State Lands	☐
Chris Hankey		DNR, State Lands	☐
Jenn Parker		DNR, State Lands	☐
			☐
			☐

Position No.	Signature & Title of DNR Representative	Date	Work Phone
5299	[signature]	1/25/18	360.770.9802

*** (Participant signature means Note is correct for subjects discussed and decisions made at the meeting.)**
Did not attend -- mail copies to: FPARM.FPDM, FPCOORD, CHK30
☐ Timber Owner ☒ Landowner ☒ Others: SKCO, ECY, DOR, DFW, Nooksack, Lummi

QQ38
Rev. 11/04

E-mailed 1/25/18 BM