*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:* **Lobster VRH RMZ** *Agreement #* **30-097606**

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

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

   **Northwest Region**
   **919 N. Township St.**
   **Sedro-Woolley, WA 98284**

   **Contact Person: Laurie Bergvall**
   **Telephone: (360) 856-3500**

4. Date checklist prepared: **09/13/18**

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

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

   a. *Auction Date:* **3/27/2019**
   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:*
**The VRH (Variable Retention Harvest) area 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 in the VRH portions of the proposal.**

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 SH-22, SH-2201 and SH-ML will continue to be used for future management activities.**

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

*Other:*
**Firewood from piled material, if available, may be sold following the completion of harvest activities.**

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):*
   **Whatcom Creek**
   ☒ *Landscape plan:* **Lake Whatcom Landscape Plan, January 2004**
   ☒ *Watershed analysis:* **Lake Whatcom Watershed Analysis, 1996**
   ☐ *Interdisciplinary team (ID Team) report:*
   ☒ *Road design plan:* **See the Lobster VRH RMZ Road Plan**
   ☒ *Wildlife report:* **See the State lands biologist memo, dated 10/03/2018**
   ☐ *Geotechnical report:*
   ☒ *Other specialist report(s):* **See the State lands geologist memo, dated 10/09/2018**
   ☐ *Memorandum of understanding (sportsmen's groups, neighborhood associations, tribes, etc.):*

☒*Rock pit plan:* **See the Lobster VRH RMZ Road 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 (RFRS), April 2006;**

**All documents are available upon request 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:*
**Proposal Area:**
**The proposal is a combination of variable retention harvest along with small areas of thinning occurring in some RMZs. The total estimated harvest volume is 3,482 mbf of timber on State managed trust lands. This proposal will utilize ground-based and cable yarding systems to remove the timber. New road construction through young conifer plantation will occur on adjacent privately owned forestland to facilitate permanent road access into the project area.**

**Approximately 125 acres were considered for this proposal; this has been reduced to 91.8 gross acres due to operational feasibility, landscape planning, potentially unstable slopes and stream buffers. The resulting net timber harvest area consists of two units and right-of-way totaling approximately 89.5 acres after deducting leave tree areas.**

**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. Timber stand description pre-harvest (include major timber species and origin date), type of harvest, overall unit objectives.*
**Pre-Harvest Stand Description:**
- **The harvest area presents a wide range of site quality, origin years, and species composition resulting in a variety of current forest conditions.**
- **According to agency data, the area has an origin ranging between 1925-1961.**
- **Dominant heights range from approximately 80 to 140 feet.**
- **Composed primarily of Douglas-fir and western hemlock with isolated pockets dominated with western redcedar, silver fir, and red alder.**

**Type of Harvests:**
- **Variable Retention Harvest (VRH): Even-aged harvest with a leave tree retention component.**
- **Commercial Thinning: Uneven-aged harvest selectively removing trees from the smallest diameter class to a residual stocking level of 160 trees per acre (16 feet x 16 feet). This activity is occurring in the RMZs as directed by the agency's RFRS.**
- **Conifer Release: Hardwood stems that are competing with conifers in the RMZ will be selected for removal as directed by the agency's RFRS.**

**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), Riparian Forest Restoration Strategy, Policy for Sustainable Forests, Lake Whatcom Landscape Plan, 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 |
|---|---|---|---|---|---|
| Permanent Construction | | 5,067 | 1.4 | --- | 55+ |
| Temporary Construction** | | 4,448 | 1.2 | --- | 55+ |
| Reconstruction | | --- | | --- | --- |
| Pre-haul Maintenance | | 41,763 | --- | --- | 55+ |
| Abandonment | | --- | --- | --- | --- |
| Bridge Install/Replace | --- | | | --- | --- |
| Culvert Install/Replace (fish) | --- | | | 0 | --- |
| Culvert Install/Replace (non-fish) | 6* | | | | |

***Culvert installs refer to typed water crossings and do not include all ditch relief culverts.**

****All or portions of the roads listed as Temporary Construction in the above table may or may not 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:*
**Sections 2, 3, 4, 5, 8, 10, 11, 15, 21, and 22, Township 38 North, Range 4 East, W.M.**

b. *Distance and direction from nearest town (include road names):*
**This proposal is located 4.5 miles east 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."*
**This proposal is located in Sub-basin 3 of the Lake Whatcom WAU**

*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.)*

**Future forest management activities in this WAU will include road building, rock pit expansion, silvicultural work and timber harvesting. Activities occurring on DNR managed land will follow the rules and guidelines contained in the Forest Practices Rules, HCP, RFRS, the Policy for Sustainable Forests, the Lake Whatcom Landscape Plan, and the Lake Whatcom Watershed Analysis – all policies designed to minimize environmental impacts. Future forest management activities on privately managed, non-DNR lands will be subject to Forest Practices Rules and Lake Whatcom Watershed Analysis. This information is based on the best available information as of August 09, 2018.**

**Lake Whatcom WAU**

| Land Manager | Acres | % of WAU |
|---|---|---|
| DNR | 6,936 | 19.1 |
| Other State | 8 | 0.0 |
| Other Land (Private & County) | 29,321 | 80.9 |

**The following table reports timber harvest activity in the WAU within the past seven years on both DNR managed lands and non-DNR lands. The data was compiled from the Department's Forest Practices' Geographical Information System (GIS) database. 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). This information is based on the best available information as of August 09, 2018.**

| Name of WAU | DNR Acres Even-aged Harvested in Last 7 years | DNR Acres Uneven-aged Harvested in Last 7 Years | DNR Expected Harvest Acres Within Next 7 Years* | Private Acres Even-Aged Harvested in Last 7 Years | Private Acres Uneven-aged Harvested in Last 7 Years |
|---|---|---|---|---|---|
| Lake Whatcom | 344 | 0 | 723 | 499 | 174 |

***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 Practice application has been approved for different harvests (salvage and even-age for example). Future harvest acres for non-DNR lands are difficult to determine and are not represented in the table.***

***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.***

***NOTE: * Acres include even-aged, uneven-aged and salvage. Expected harvest acres are gross acres and include multiple proposals that may not be feasible harvest areas but are simply scheduled for review and reconnaissance. No screening for slope stability, wildlife habitat, stream impacts, or other issues has been completed on these reported acres.***

**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.**

**Under the Interim Strategy for the marbled murrelet in the North Puget Planning Unit under the Department's HCP, department field staff are required to search for and delineate any "newly identified" marbled murrelet habitat in the vicinity of any proposed timber harvest. 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.) Field staff and the region biologist have determined that 6.6 acres of "newly identified" potential marbled murrelet nesting habitat exists in the vicinity of the proposal. This area has been deferred from harvest.**

## 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).*
**The Lake Whatcom WAU ranges in elevation from 305-3,364 feet and varies between steep slopes with sharp ridges and relatively smooth, gentle slopes. The climate is typical of the western slopes of the Cascade Range, with influences from Mt. Baker and the Fraser River Valley. The yearly precipitation is 40-60 inches throughout the WAU with a 10-year 24-hour storm event of 3 inches. Olsen, Smith and Austin creeks are the major streams draining into Lake Whatcom. The forest vegetation zone is the Puget Sound Douglas-fir Zone with the major timber type being Douglas-fir, with western redcedar and western hemlock as sub-species. A hardwood component of bigleaf maple, red alder, and cottonwood are present at lower elevations.**

2) *Identify any difference between the proposal location and the general description of the WAU or sub-basin(s).*
**Higher elevations in this proposal are dominated by western hemlock and silver fir.**

b. What is the steepest slope on the site (approximate percent slope)?
**80%**

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 |
|---|---|---|---|---|
| **0140** | **V.GRAVELLY SILT LOAM** | **50-90** | **High** | **High** |
| **6866** | **LOAM** | **30-60** | **Medium** | **Medium** |
| **2456** | **SILT LOAM** | **30-60** | **Medium** | **Medium** |
| **6170** | **LOAM** | **8-30** | **Low** | **Low** |

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

*1) Surface indications:*

**Steep, convergent topography is adjacent to the proposal. Inner gorge stream channels, bedrock hollows, deep-seated landslides, and orphan road fill failures are present in the vicinity of the proposal area.**

**The statewide landslide inventory (LSI) screening tool 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.**

**The LSI indicates one landslide polygon (#15203) and two landslide points (#15324 and #15326) are in the immediate vicinity of the proposal. Four landslide points (#15321, #15333, and #15348, and #15351) are downslope of the proposal.**

*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:*
**Inner gorge landforms, bedrock hollows, and convergent headwalls indicate a history of shallow debris flows and scour events.**

**Deep-seated landslides are present downslope of the proposal. For detailed discussion of these landslides, see the Slope Stability Information memorandum, dated October 9, 2018.**

*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:*
**Evidence of orphan road fill failures are present throughout the sub-basin.**

**It's unknown whether harvest activities may have initiated or exacerbated natural slope failure events.**

*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:*
**Road construction will be occurring on similar slope forms where orphaned roads have shown evidence of failure. Timber harvest will be occurring adjacent to steep slopes that show a history of shallow failures and scouring.**

*5) Describe any slope stability protection measures (including sale boundary location, road, and harvest system*

*decisions) incorporated into this proposal.*
**Areas discussed above (see. B.1.d.1.), located in and around the harvest units have been assessed by a Licensed Engineering Geologist. Field assessments with the engineering geologist were conducted on 05/30/18 and 9/12/18. Potentially unstable features and landforms with potential to deliver to typed waters have been identified and removed from the harvest area.**

**The landslides noted above are discussed in detail in the Slope Stability Information memorandum, dated October 9, 2018.**

**Regular maintenance of roads and ditch lines associated with this proposal is planned in order to minimize future slope failures. New road construction has been minimized to the extent practical. New roads on sustained slopes of 50% or more will be constructed "full bench" and excavated material will be end-hauled to a stable location. Full bench roads will be outsloped where appropriate to avoid concentrating water in sensitive areas.**

**Orphaned grades within the proposal that are intercepting and diverting water may be water-barred so that ground/surface water will be returned to its natural drainage.**

**See B.1.h.**

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:* **2.6 ac** *Approx. acreage new landings:* **1.6 ac** *Fill Source:* **Native fill or rock**

**Road construction will utilize standard cut and fill methodology and full bench construction with end-haul 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 5% 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.)*
**The following timing and access restrictions will be applied to the project:**
- **Road construction, timber/rock haul and ground-based timber harvesting/yarding will be restricted between November 1 and March 31 unless the operator formulates an adequate plan to prevent erosion from entering surface waters.**
- **In areas defined as ARS-4 (MWMU #4) in the Lake Whatcom Watershed Analysis, no road construction or timber/rock haul will be permitted between October 15 and May 1.**
- **During the operating seasons indicated above, none of these activities will occur during times of heavy precipitation and/or soil saturation unless the operator formulates an adequate plan to prevent erosion from entering surface waters.**

**The following strategies will be applied to proposed road work/maintenance:**
- **Soils that are exposed by road work will be revegetated the year road work is performed.**
- **Cross-drain culverts will be adequate in size and frequency to prevent concentration of road runoff to the extent that it would cause gullying of stream drainages. Cross drain culverts will be placed in order to minimize the amount of ditch water that flows into surface waters. Riprap will be utilized at culvert inlets and outlets as necessary to prevent erosion at these vulnerable points. Existing roads will be maintained so that drainage structures remain functional.**
- **Storm patrols will be conducted as necessary on existing roads to identify and address potential erosion problems.**
- **Soils exposed within 25 feet of streams that may deliver to typed water will be mulched or waterbarred.**

**Within ARS-4 (as defined in the Lake Whatcom Watershed Analysis):**
- **Full bench construction with material end-haul will be utilized.**
- **Roads will be designed to avoid concentrating or redirecting water outside of it's natural drainage.**
- **Construction will be supervised by a forest road engineer.**

**The following strategies will be applied to the proposed timber harvest:**
- **Riparian (RMZ) buffers as described in B.3.a.1.b. and B.3.a.1.c., will be retained.**
- **The leading end of logs will be suspended when being yarded to reduce soil disturbance.**
- **Standard ground-based yarding equipment will be restricted to operating on sustained slopes of 30% or less.**
- **Specialized self-leveling or tethered harvesting equipment may be approved for use on slopes steeper than 30%.**
- **Equipment trails will be water-barred as necessary.**

**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 these piles may be 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:*
**Lake Whatcom via Olsen Creek.**

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 | 4 | 7 | 100' |
| Unnamed | 5 | 13 | 33' |

a. *List RMZ/WMZ protection measures including silvicultural prescriptions, road-related RMZ/WMZ protection measures, and wind buffers.*
**No harvest will occur in the RMZs with the exception of that required for new road construction and riparian restoration activities. All new and existing roads through RMZs will be monitored during hauling to ensure ditchwater and road runoff will not enter or otherwise adversely affect water quality or RMZ function. Corrective action such as straw bales, silt fencing, rock-lined ditches, and sediment traps will be installed/constructed as necessary.**

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 outer edge of RMZs as described in the table in B.3.a.1.b.**

**In some areas, type 4 streams will have timber felled immediately adjacent to the 25-foot inner zone of the RMZ**

**to facilitate riparian forest restoration activities. Timber will be felled away from streams where safely practicable to avoid damage to residual trees within the RMZ and protect stream bank integrity with the exception of trees required for in-stream downed woody debris recruitment. All timber will have the leading end of the logs elevated during yarding to reduce soil disturbance near these features. There are 33-foot no-harvest buffers applied to all type 5 streams in the proposal as directed by the Lake Whatcom Landscape Plan.**

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 installations. Typed waters may be temporarily diverted if culvert replacement is deemed necessary through the course of operations on existing roads.**

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 on August 06, 2018. This data is not available by sub-basin.**

**Lake Whatcom WAU:**

| Erosion Potential | Acres | % in WAU | Mass Wasting Potential | Acres | % in WAU |
|---|---|---|---|---|---|
| High | 5744.7 | 15.8 | High | 5727.4 | 15.8 |
| Medium | 8991.6 | 24.8 | Medium | 8190.3 | 22.6 |
| Low | 14888.8 | 41.1 | Low | 1149.9 | 3.2 |
| Variable | 0.0 | 0.0 | Insignificant | 14741.8 | 40.7 |
| No Data | 64.2 | 0.2 | No Data | 64.2 | 0.2 |
| N/A | 184.2 | 0.5 | | | |

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:*
**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. Dam break floods are known to occur in the Olsen Creek drainage. Dam material is likely debris from mass wasting events in upslope channels.**

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 and erosion.**

**The protection measures identified in B.1.d.5 keep harvest activities away from potentially unstable slopes. RMZ 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:*
**That information is not available at the sub-basin level. The roads per square mile in the entire WAU across all ownerships is 5.0.**

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:*
**See B.3a.12 below for percentage of sub-basin(s) is in significant ROS zone.**

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?*

**Based on a GIS report generated in August 9, 2018:**

| WAU or sub-basin(s) | ROS acres: | % sub-basin in significant ROS zone | DNR hcp-managed forest land acres in ROS: | % DNR hcp-managed forest lands in ROS: | % DNR managed lands rated hydrologically mature |
|---|---|---|---|---|---|
| **Lake Whatcom sub-basin 3** | **1,274** | **53.11%** | **1,262** | **99.05%** | **90.23%** |

**No information is available for private ownerships.**

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):*
**Yes, the events described in B.3.a.8. are likely related to peak flows.**

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.*
**Significant reductions in forest canopy is likely to increase snow accumulation and the rate of snowmelt during rain-on-snow storms. The Olsen Creek sub-basin is managed for hydro-maturity as directed under the Lake Whatcom WA which limits the amount of hydrologically immature forest in the sub-basin. After this harvest, a surplus of 508 hydrologically mature acres will remain in the sub-basin. This proposal is not expected to contribute significantly to peak flows.**

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.15, 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 and ditches will be maintained so that they remain functional. Additional relief culverts will be installed on existing roads to disperse ditch water across the hillslope. On particular sensitive slopes, road running surfaces will be outsloped to further decrease the potential to concentrate/re-direct water. 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.
**Channelized water through ditches and culverts emptying out onto the forest floor may 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.*
**No specific protection measures are being applied.**

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.
**Run-off from the road surfaces will be collected in ditches and diverted to stable areas on the forest floor through the use of ditch-outs, culverts, and energy dissipaters. No run-off is expected to flow into surface waters.**

*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:
**Existing ditches, new cross-drain (relief) culverts, drain dips, and water bars may 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 typed water 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.**

**Roads that are being constructed across slopes sensitive to channelized and/or redirected water will be out-sloped to avoid concentration of run-off.**

*(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*, ☒*white 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.)*
**Second-growth conifer and hardwoods will be removed via VRH and thinning. Some immature trees and snags may be left unless they need to be felled for safety or operational reasons. This stand will retain snags, dominant and co-dominant and/or structurally unique trees via clumps and scattered trees to increase horizontal and vertical diversity over the landscape.**

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.")*
**The adjacent timber types are uniform mixed conifer stands, approximately 50-90 years of age.**

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

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

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 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 report indicates no known noxious weeds or invasive species. However, it is likely that Himalayan blackberry, bull thistle, Canadian thistle, or Scotch broom may be found on or near the site.**

**5. Animals**

a. List any birds and other animals *or unique habitats* which have been observed on or near the site or are known to be on or near the site. Examples include:

birds: ☒hawk, ☒heron, ☐eagle, ☒songbirds, ☐*pigeon*, ☒other: **barred owl**

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

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

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

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 report indicates no known threatened, endangered, or special concern species in or near the sale area.**

c. 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.**

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: **Fish Habitat**
Protection Measures: **Stream protection measures listed in B.3.a.1.b. and c., B.3.a.2.; soil protection measures in B.1.h.; slope stability protection in B.1.d.5; and peak flows protection in B.3.a.16.**

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

Species /Habitat: **Marbled Murrelet**
Protection Measures: **6.6 acres of newly identified suitable habitat was identified in the vicinity of the harvest area. This area contains greater than 10 platforms per acre and is classified as Criteria 2 as per the 2007 agreement with USFWS. This area has been deferred from harvest.**

e. 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 potential hazard from heavy equipment operations. There is a slight chance of hydraulic fluid 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 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 work 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.**

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 is 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?
**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 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?
**50 to 90-year-old forest will be converted to conifer stand with leave trees.**

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 may be visible from Bellingham, WA.**

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:* **State route 542 (Mt Baker Highway)**

3) *How will this proposal affect any views described in 1) or 2) above?*
**50 to 90-year-old forest will be converted to conifer stand with leave trees.**

c. Proposed measures to reduce or control aesthetic impacts, if any:
**Retention trees as described in B.4.b.2 and RMZ buffers as described in B.3.a.1.b will reduce the aesthetic impacts of the harvest. Seedlings will be planted within two years of harvest and will hasten the mitigation of aesthetic impacts.**

**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?
**No designated recreation exists. Informal recreational opportunities include hiking, mountain biking, hunting, ORV use, berry picking, and mushroom picking.**

b. Would the proposed project displace any existing recreational uses? If so, describe.
**Temporary displacement of recreational activities could occur during periods of active harvest operations.**

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 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.
**Measures include review of historic GLO and USGS maps, historic air photos and screening by a cultural resource technician. In addition, Lummi Nation, Nooksack Indian Tribe, Upper Skagit Indian Tribe and Swinomish Indian Tribal Community were notified of the proposal.**

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.
**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.**

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).
**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: _____

Name of signee **Kyle Galloway**

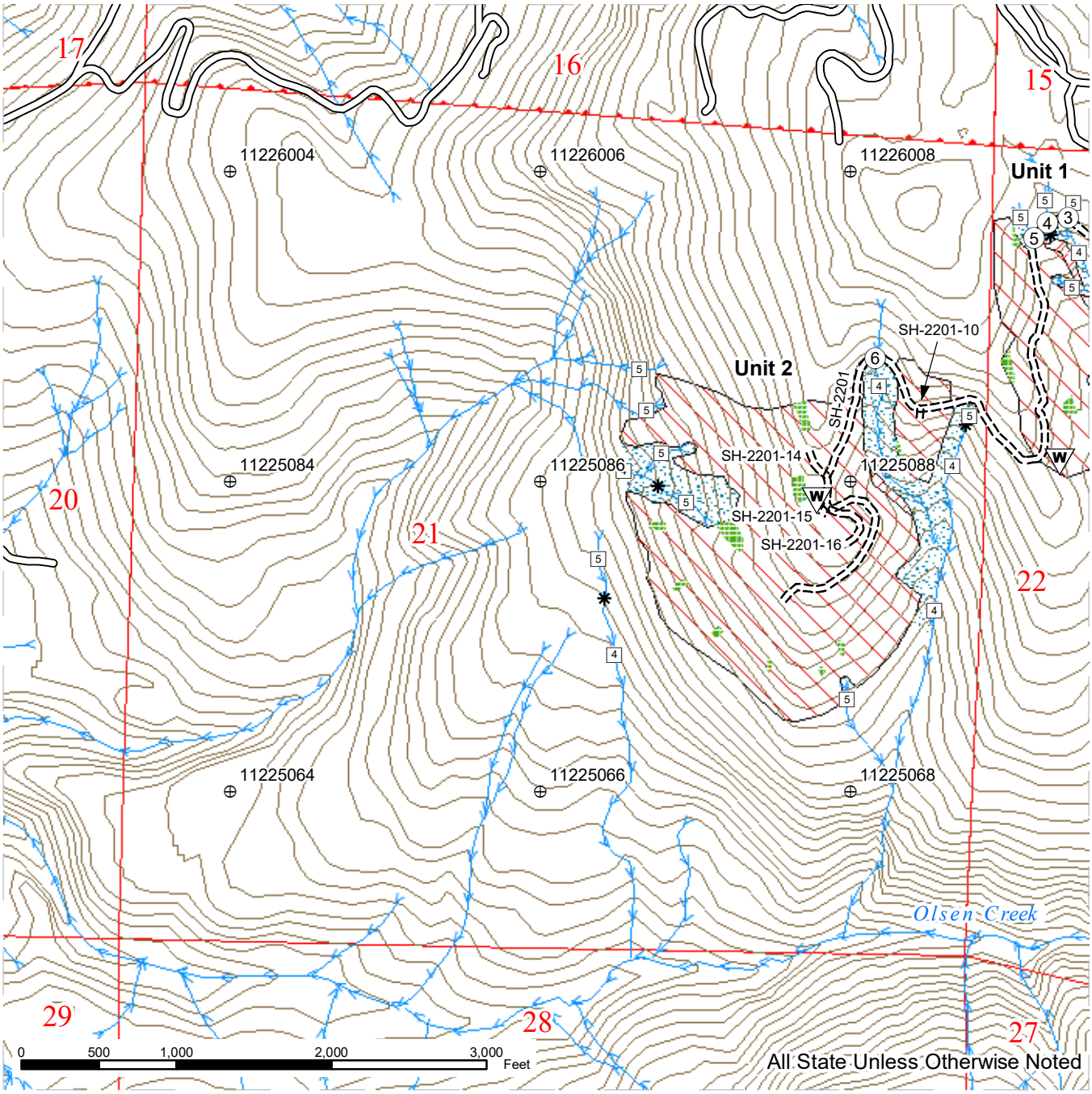
Position and Agency/Organization **Deming Unit Forester / WA DNR**

Date Submitted: _____

# FOREST PRACTICES ACTIVITY MAP

**SALE NAME:** LOBSTER
**APPLICATION #:** TBD by FP Staff

**COUNTY(S):** Whatcom
**TOWNSHIP(S):** T38R4E




Even-aged Harvest Area
Uneven-aged Harvest Area
Leave Tree Area
Riparian Mgt Zone
Existing Roads
New Construction
Typed Water Crossings
Streams
Stream Type
Stream Type Break

N

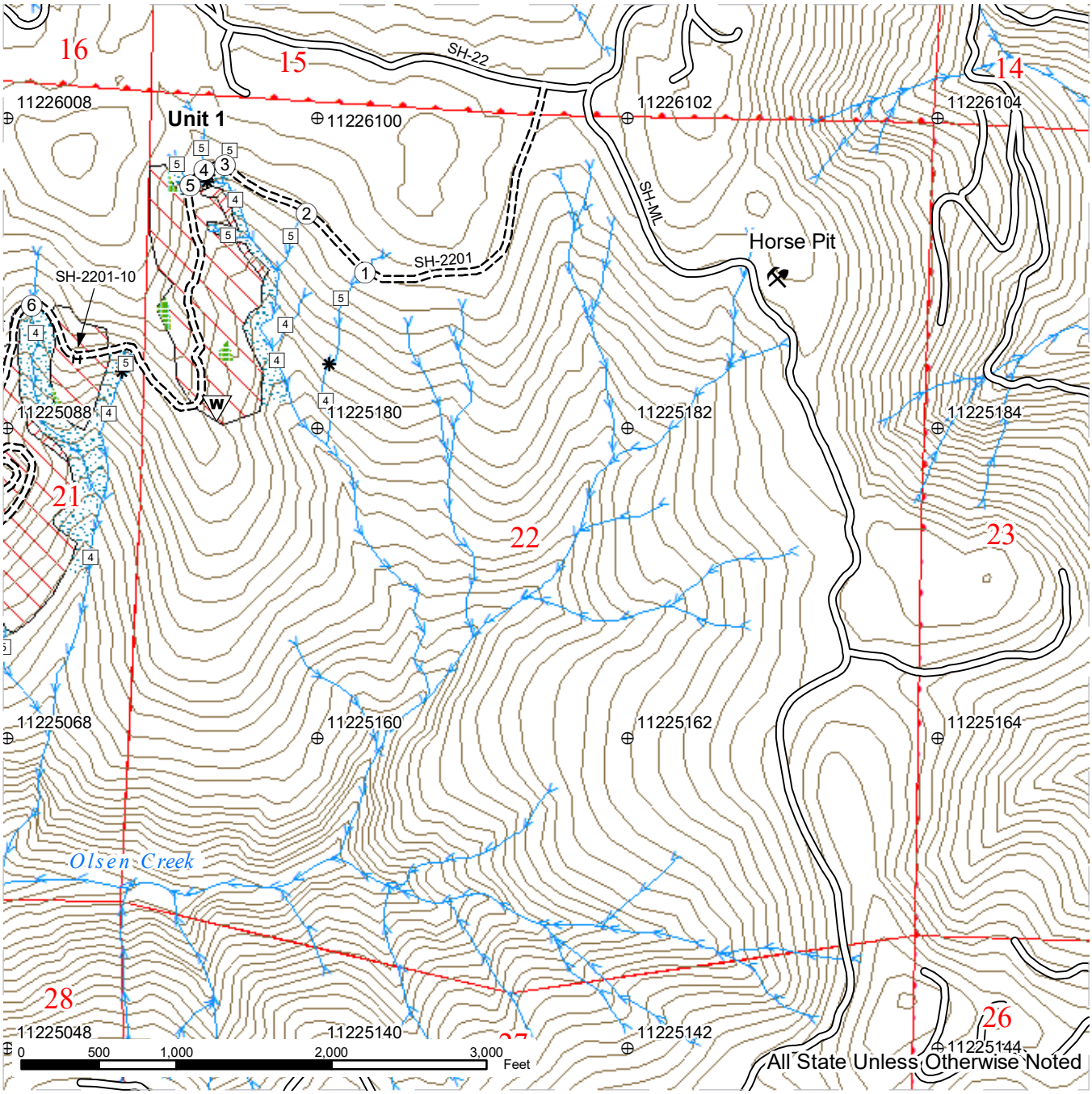
Prepared By: kgal490

Modification Date: kgal490 10/2/2018

# FOREST PRACTICES ACTIVITY MAP

**SALE NAME:** LOBSTER
**APPLICATION #:** TBD by FP Staff

**COUNTY(S):** Whatcom
**TOWNSHIP(S):** T38R4E




Even-aged Harvest Area
Uneven-aged Harvest Area
Leave Tree Area
Riparian Mgt Zone
Existing Roads
New Construction
Typed Water Crossings
Streams
Stream Type
Stream Type Break

N

Prepared By: kgal490

Modification Date: kgal490 10/2/2018