

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: **GUNNAR VRH**
Agreement # **30-099314**

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

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

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

4. Date checklist prepared: **02/13/2019**

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

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

a. Auction Date:

11/19/2020

b. Planned contract end date (but may be extended):

10/31/2022

c. Phasing:

None

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

No, go to question 8.

Yes, identify any plans under A-7-a through A-7-d:

a. Site Preparation:

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

b. Regeneration Method:

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

c. Vegetation Management:

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

d. Other:

Road maintenance assessments will be conducted and will include periodic ditch and culvert cleanout, and grading as necessary. Extreme Fire Hazard Abatement will be completed to reduce the potential of wildfire hazard in Unit 1 along Deep Creek Road and adjacent to private structures.

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

303 (d) – listed water body in WAU:

temp

sediment

completed TMDL (total maximum daily load)

Landscape plan:

Watershed analysis:

Interdisciplinary team (ID Team) report:

Road design plan: **1/23/2020**

Wildlife report:

Geotechnical report:

Slope Stability additional information form:

Other specialist report(s):

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

Rock pit plan: **Included in Road Plan**

Other: Forest Practices Board Manual; Forest Practices Activity Maps; Policy for Sustainable Forests (PSF 2006); State Soil Survey; Habitat Conservation Plan (HCP 1997); DNR's State Trust Land Final Conservation Plan Amendment for the Marbled Murrelet Long-term Conservation Strategy (MM LTCS) (2019); HCP Checklist; Riparian Forest Restoration Strategy (RFRS); Land Resource Manager Reports and associated maps; Road Maintenance and Abandonment Plan (RMAP): #2502095. The following information is provided by DNR's GIS database: Weighted Old Growth Habitat Index (WOGHI); WAU Rain-On-Snow Layer; Marbled Murrelet Habitat Layer; Spotted Owl Habitat Layer; USGS and GLO maps; State Lands Geologist Remote Review (SLGRR); and Statewide Landslide Inventory (LSI) screening tool.

Referenced documents may be obtained from the Pacific Cascade Region office.

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

None known.

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

- FPA/FPHP # 2937847
- FPHP # _____
- Board of Natural Resources Approval
- Burning permit
- Shoreline permit
- Existing HPA
- Other:

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

a. Complete proposal description:

Gunnar is a two unit sale in the Deep Creek Block including approximately 3721 MBF. Rock will be obtained from a commercial source. This proposal will use both ground-based and cable harvesting methods.

Unit	Proposal Acres (gross)	RMZ/WMZ Acres	Potentially Unstable Slope Acres	Existing Road Acres (within unit)	Sale Acres	Leave Tree Clump Acres	Net Harvest Acres
1	46	6	0	5	40	3	32
2	92	31	0	0	61	5	56
Totals	138	37	0	5	101	8	88

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

Pre-harvest Stand Description:

Unit	Origin Date	Major Timber Species	Type of Harvest
1	1967	Douglas-fir, western hemlock, western red cedar, red alder, bigleaf maple.	Ground-based and Cable
2	1967	Douglas-fir, western hemlock, western red cedar, red alder, bigleaf maple.	Ground-based and Cable

Overall Unit Objectives:

The objective of this proposal is:

- 1) Produce revenue for the State Forest Transfer Trust (01) through the production of saw logs, poles, and pulp material.
- 2) Provide for wildlife and riparian habitat by developing vertical stand structure and age class distribution in the future stand.

c. Describe planned road activity. Include information on any rock pits that will be used in this proposal. See associated forest practice application (FPA) for maps and more details.

Type of Activity	How Many	Length (feet) (Estimated)	Acres (Estimated)	Fish Barrier Removals (#)
Construction		2310	1	
Reconstruction		745		
Abandonment		0	0	
Bridge Install/Replace	0			
Stream Culvert Install/Replace (fish)	0			
Stream Culvert Install/Replace (no fish)	0			
Cross-Drain Install/Replace	12			
Pre-haul Maintenance		9,725		

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist (See “WAU Map(s)” and “Timber Harvest Unit Adjacency Map(s)” as referenced on the DNR website: <http://www.dnr.wa.gov/sepa>. Click on the DNR region of this proposal under the Topic “Current SEPA Project Actions - Timber Sales.” Proposal documents also available for review at the DNR Region Office.)

a. Legal description:

- Unit 1: T14N R3W S18
- Unit 2: T14N R3W S07 & S18

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

All units of this proposal are located approximately 6 miles west of Centralia. Access to all proposed units is via SR-6 to Bunker Creek Road to Deep Creek Road.

13. Cumulative Effects

- a. Briefly describe any known environmental concerns that exist regarding elements of the environment in the associated WAU(s). (See WAC 197-11-444 for what is considered an element of the environment).

This proposal may temporarily affect elements of the environment to varying degrees including; earth, surface water movement/quantity/quality, soils, air quality, noise, aesthetic, plants and animals, and recreation.

- b. Briefly describe existing plans and programs (i.e. the HCP, DNR landscape plans, retention tree plans) and current forest practice rules that provide/require mitigation to protect against potential impacts to environmental concerns listed in question A-13-a.*

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

Applicable HCP strategies incorporated into this proposal include:

Retaining Riparian Management Zones (RMZs) averaging a minimum 100 feet along Type 4 streams. Retaining an average RMZ width of 190 feet along 3 streams.

Protecting forested wetlands greater than 1 acre with a 190 foot buffer. Protecting wetlands 0.25 acres to 1 acre with 100 foot buffer.

Evaluating proposal for potential slope instability.

Retaining a minimum of 8 trees per acre dispersed and aggregated throughout the harvest units.

After harvest, conifer will be planted to reforest the site and may be complemented by natural regeneration. Understory vegetation will be disturbed and/or reduced within the proposal harvest area as a result of timber felling, bucking, yarding and site prep activities which may affect vegetation growth and color. Most of the vegetation will robustly reestablish within 2 to 3 years.

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

None.

- d. Based on the answers in questions A-13-a through A-13-c, is it likely potential impacts from this proposal could contribute to any environmental concerns listed in question A-13-a?*

No.

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

WAU Name	Total WAU Acres	DNR-owned WAU Acres	Acres of DNR proposed even-aged harvest in the future	Acres of DNR proposed uneven-aged harvest in the future	Acres of proposed harvest on non-DNR-managed lands currently under active FP permits
BUNKER CREEK	65676	7648	1095	492	2378

Other management activities, such as stand and road maintenance, will likely occur within the associated WAU(s).

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site (check one):

Flat, Rolling, Hilly, Steep Slopes, Mountainous, Other:

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

WAU:	<u>BUNKER CREEK</u>
WAU Acres:	<u>65676</u>
Elevation Range:	<u>160 - 1587 ft.</u>
Mean Elevation:	<u>456 ft.</u>
Average Precipitation:	<u>44 in./year</u>
Primary Forest Vegetation Zone:	<u>Western Hemlock</u>

2. Identify any difference between the proposal location and the general description of the WAU or sub-basin(s).

This proposal is a representative example of the WAU at the same elevation and aspect.

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 an overview of general soils information for the soils found in the entire sale area. The actual soil conditions in

the sale area may vary considerably based on land-form shapes, presence of erosive situations, and other factors.

State Soil Survey #	Soil Texture
4713	LOAM
0650	SILT LOAM
4714	LOAM
2406	SILT LOAM

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

No, go to question B-1-e.

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

A DNR State Lands Geologist remotely reviewed the proposal area utilizing Lidar hillshade maps, Landslide Remote Identification Model (LRIM) tool, Forest Practices Statewide Landslide Inventory data and historic aerial photographs. LRIM is a screening tool which identifies areas of potentially unstable landforms using remote sensing techniques such as Light Detection and Ranging (LiDar) and slope. The results of the Geologist review, available in SLGRR (State Lands Geologist Remote Review), indicated the possible need for a Geologist field review pending a Forester field review. A field review was completed by a Forester with training in unstable slope identification. During this initial field review some potential unstable slopes were identified along the edges of deeply incised streams and at the headwalls of these same streams. All of these potential unstable slopes were within the no harvest RMZs and are excluded from the harvest.

There is evidence of shallow natural slope failures within the sub-basins. These are generally associated with slopes greater than 70% within convergent landforms such as bedrock hollows and inner gorges. These landforms, per local knowledge, typically occur within the RMZs, lower slopes of the main draws, and on headwalls at the top of steep draws. There were failures in the sub-basins associated with heavy rains and floods in 2007 and 2009. These specific failures occurred in locations that fit the above descriptions. Some occurred in harvested areas. There is evidence of deep-seated landslides within the sub-basins. These landforms typically form in colluvium and weathered bedrock and the slide toe occurs in creek valleys. Failures of sidecast material along active and inactive grades built prior to the Forest Practices rules (1974) have occurred.

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

No *Yes, describe the proposed activities:*

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

- **Roads will be constructed during dry weather conditions.**
- **Cross-drains and ditch-outs will be utilized to minimize the potential for mass wasting and slope failures associated with poor drainage.**
- **Some steeper Type 5 headwalls have leave tree clumps protecting them.**
- **Lead end suspension will be required on all cable settings.**

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.

None.

Approx. acreage new roads: 1.00

Approx. acreage new landings: ~1

Fill Source: Native

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.
Yes. Some erosion could occur as a result of building new roads, installing culverts, and hauling timber.

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

Approximately less than 1% of the site will remain as gravel roads and landings.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:
(Include protection measures for minimizing compaction or rutting.)

Erosion control and reduction measures are addressed in the sale layout and harvest system design.

- **The no harvest RMZs will function to protect streams and wetlands from sediment delivery.**
- **Leave tree clumps were left around the headwalls of some Type 5 streams.**
- **Harvested VRH areas will be replanted with conifer tree species to reestablish root bound soils.**
- **The proposal will be harvested utilizing lead end suspension to minimize soil disturbance.**
- **Areas of soil exposed through road construction may be revegetated.**

2. Air

- a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

Minor amounts of engine exhaust from logging and road construction equipment and dust from vehicle traffic on roads will be emitted during proposed activities. If landing debris is burned after harvest is completed, smoke will be generated. There will be no emissions once the proposal is complete.

- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

None known.

- c. Proposed measures to reduce or control emissions or other impacts to air, if any:

If landing debris is burned, it will be in accordance with Washington State’s Smoke Management Plan. A burn permit will be obtained before burning occurs.

3. Water

- a. Surface Water:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into. (See “WAU Map(s)” and “Timber Harvest Unit Adjacency Map(s)” as referenced on the DNR website: <http://www.dnr.wa.gov/sepa>. Click on the DNR region of this proposal under the Topic “Current SEPA Project Actions - Timber Sales.” Proposal documents also available for review at the DNR Region Office.)

No Yes, describe in 3-a-1-a through 3-a-1-c below

a. Downstream water bodies: **Deep Creek, Bunker Creek, and Chehalis River**

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

Wetland, Stream, Lake, Pond, or Saltwater Name (if any)	Water Type	Number (how many?)	Avg RMZ/WMZ Width in feet (per side for streams)
Deep Creek	3	1	190
Unnamed Stream	3	4	190
Unnamed Stream	4	7	100
Unnamed Stream	5	12	None

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

Leave trees were placed along portions of some Type 5 streams. RMZs are no harvest buffers. No wind buffers were applied with this proposal due to the observation of minimal windthrow in nearby RMZs (adjacent to recently harvested

units), streams being less than 5 feet in width and/or the prevailing wind direction being from the south/southwest.

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

No

Yes (See RMZ/WMZ table above and timber sale maps which are available on the DNR website: <http://www.dnr.wa.gov/sepa>. Timber sale maps are also available at the DNR region office.)

Description (include culverts):

Trees will be felled away from all streams. Trees may be cut in RMZs and WMZs for safety or operational needs, but will be left in place.

Timber harvest may occur within approximately 190 feet (required average RMZ width) to all Type 3 streams. Timber harvest may occur as close as 100 feet (required minimum RMZ width) to all Type 4 streams in the proposal area. Tailhold cables may be strung through Type 3 & 4 RMZs, however, no timber will be yarded through them. Type 5 streams may have tailhold cables strung over them and/or timber yarded across them.

- 4) 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.

- 5) 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:

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

No

Yes, describe activity and location:

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

None.

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

No Yes, describe:

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

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

BUNKER CREEK = 5.6 (mi./sq. mi.)

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

No Yes, describe:

It is possible some roads or road ditches within the WAU intercept sub-surface flow and deliver surface water to streams, however current road construction, reconstruction, and/or maintenance standards will be applied that address this issue by installing cross-drains and sediment dams to deliver ditch water to stable forest floors.

11) *Is there evidence of changes to channels associated with peak flows in the proposal area (accelerated aggradations, surface erosion, mass wasting, decrease in large organic debris (LOD), change in channel dimensions)?*

No Yes, describe observations:

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

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

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

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

No Yes, describe the water resource(s):

There are a few private wells and agricultural surface water intakes downstream from the proposal. Due to the ground water amounts, timing, and movements are

not expected to be changed by this proposal. Based on the protection measures outlined in B.1.d.5, and B.1.h, impacts to this area are not anticipated. There are no known areas of slope instability down stream.

a. Is it likely a water resource or an area of slope instability listed in B-3-12 (above) will be affected by changes in amounts, quality or movements of surface water as a result of this proposal?

No Yes, describe possible impacts:

14) Describe any protection measures, in addition to those required by other existing plans and programs (i.e. the HCP, DNR landscape plans) and current forest practice rules included in this proposal that mitigate potential negative effects on water quality and peak flow impacts.

- **Leave trees around type 5 streams, other sensitive areas, and wetlands less than ¼ acre in size.**

b. Ground Water:

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

No water will be withdrawn or discharged.

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

None.

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

No Yes, describe:

There are a few private wells downstream from the proposal. Based on the protection measures outlined in B.1.d.5, and B.1.h, impacts to this area are not anticipated. No known areas of slope instability have been identified downstream.

a. Is it likely a water resource or an area of slope instability listed in B-3-b-3 (above) could be affected by changes in amounts, timing, or movements of groundwater as a result this proposal?

No Yes, describe possible impacts:

Due to the distance from the proposal area, ground water amounts, timing, and movements are not expected to be changed by this proposal based on the protection measures outlined, impacts to this area are not anticipated.

Note protection measures, if any:

No additional protection measures were identified as necessary to protect these resources beyond those described in B-3-a-1-c, B-3-b-2, and B-3-c-1.

c. Water runoff (including stormwater):

1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

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

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

No Yes, describe:

None.

Note protection measures, if any:

None.

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

No changes to drainage patterns are expected.

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

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

4. Plants

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

Deciduous tree:

Alder Aspen Birch Cottonwood Maple Western Larch

Other:

Evergreen tree:

Douglas-Fir Engelmann Spruce Grand Fir Lodgepole Pine
 Mountain Hemlock Pacific Silver Fir Ponderosa Pine Sitka Spruce

- Western Hemlock* *Western Redcedar* *Yellow Cedar*
- Other:
- Shrubs:
 - Huckleberry* *Rhododendron* *Salmonberry* *Salal*
 - Other:
- Ferns*
- Grass
- Pasture
- Crop or Grain
 - Orchards* *Vineyard* *Other Permanent Crops*
- Wet Soil Plants:
 - Bullrush Buttercup Cattail *Devil's Club* Skunk Cabbage
 - Other:
- Water plants:
 - Eelgrass Milfoil Water Lily
 - Other:
- Other types of vegetation:
- Plant communities of concern:*

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

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

1) *Describe the species, age, and structural diversity of the timber types immediately adjacent to the removal area. (See “WAU Map(s)” and “Timber Harvest Unit Adjacency Map(s)” on the DNR website: <http://www.dnr.wa.gov/sepa>. Click on the DNR region of this proposal under the Topic “Current SEPA Project Actions - Timber Sales.” Proposal documents also available for review at the DNR Region Office.)*

Unit 1: To the north is a 52 year old mixed conifer RMZ. To the east is 18 year old and 2 year old reprod. To the south is private ownership. To the west is Deep Creek Rd and private ownership.

Unit 2: To the north is a 60 year old mixed conifer RMZ. To the east is 53 year old mixed conifer RMZ. To the south is 18 year old reprod. To the west is 18 year old reprod and a 52 year old mixed conifer RMZ.

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

None found in corporate database

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

Retention tree clumps are identified across the harvest area. Some clumps were selected for their species diversity of native flora. These clumps will provide a local seed source for native overstory and understory species. Some natural regeneration of native species will occur on site after harvest. Wildlife trees were left in areas to protect snags, large down logs, advanced regeneration, Type 5 streams, and potentially unstable slopes. Trees with defects such as split or broken tops, dominant crowns, large diameters and large limbs were favored as leave trees to enhance wildlife potential. Older legacy trees were identified and retained individually and in leave tree clumps.

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

Scotch broom has been observed on the site.

5. Animals

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

birds:

eagle hawk heron owls songbirds

other:

mammals:

bear beaver coyote cougar deer elk

other:

fish:

bass herring salmon shellfish trout

other:

amphibians/reptiles:

frog lizard salamander snake turtle

other:

unique habitats:

balds caves cliffs mineral springs oak woodlands talus slopes

other:

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

None found in corporate database

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

Pacific flyway Other migration route:
Explain:

This proposal is located in the Columbia River Flyway, which is part of the Pacific Flyway. Migratory waterfowl use the Columbia River Flyway; however, the area in which this proposal is contained is not generally the type of area used for resting or feeding by migratory waterfowl. While migrating through Pacific Northwest Forests, many Neotropical migratory birds are closely associated with riparian areas, cliffs, snags, and structurally unique trees. Riparian areas and special habitats are protected through implementation of the Department's Habitat Conservation Plan.

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

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

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

Species /Habitat: **Riparian Habitat** Protection Measures:

- **No harvest RMZs on Type 3 and 4 streams.**
- **No harvest WMZs**
- **Leave trees along portions of some type 5 streams**

Species /Habitat: **Upland Habitat** Protection Measures:

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

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

Invasive species have not been observed on or near the site.

6. Energy and natural resources

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

Petroleum fuel (diesel or gasoline) will be used for heavy equipment during active

road building, timber harvest operations, and for transportation. No energy sources will be needed following project completion.

- b. Would your project affect the potential use of solar energy by adjacent properties?
If so, generally describe.
No.
- c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:
None.

7. Environmental health

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste that could occur as a result of this proposal? If so, describe.
- 1) Describe any known or possible contamination at the site from present or past uses.
Slash accumulation from harvest operations will temporarily increase risk of ground fire in red slash. Fire hazard will be migrated through implementation of WAC-332-24. Overall risk of fire will decrease within 2 years of harvest competition.
 - 2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.
None known.
 - 3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.
Petroleum-based fuel and lubricants may be used and stored on site during the operating life of this project.
 - 4) Describe special emergency services that might be required.
The Department of Natural Resources, private, and fire protection district suppression crews may be needed in case of wildfire. In the event of personal injuries, emergency medical services may be required. Hazardous material spills may require Department of Ecology and/or county assistance.
 - 5) Proposed measures to reduce or control environmental health hazards, if any:
No petroleum-based products will be disposed of on site. If a spill occurs, containment and cleanup will be required. Spill kits are required to be onsite during all heavy equipment operations. The cessation of operations may occur during periods of increased fire risk. Fire tools and equipment, including pump trucks and/or pump trailers, will be required on site during fire season.

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

b. Noise

- 1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

None.

- 2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

There will be short term, low level and high level noise created by the use of harvesting equipment and hauling operations within the proposal area. This type of noise has been historically present in this geographical area.

- 3) Proposed measures to reduce or control noise impacts, if any:

None.

8. Land and shoreline use

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

Current use of site and adjacent land types: The state land surrounding the units is managed for timber production by the DNR. This proposal will not change the use of or affect the current/long term land use of areas associated with this sale.

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

This proposal site has been used as working forest lands. This proposal will retain the site in working forest lands.

- 1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:

No.

- c. Describe any structures on the site.

None.

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

No.

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

Forest Resource Lands.

- f. What is the current comprehensive plan designation of the site?
The comprehensive plan designation is resource lands, forest of long term significance.
- g. If applicable, what is the current shoreline master program designation of the site?
Not applicable.
- h. Has any part of the site been classified as a critical area by the city or county? If so, specify.
No.
- i. Approximately how many people would reside or work in the completed project?
None.
- j. Approximately how many people would the completed project displace?
None.
- k. Proposed measures to avoid or reduce displacement impacts, if any:
Does not apply.
- l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:
This project is consistent with current comprehensive plans and zoning classifications.
- m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any:
None.

9. Housing

- a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.
Does not apply.
- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.
Does not apply.
- c. Proposed measures to reduce or control housing impacts, if any:
None.

10. Aesthetics

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?
Does not apply.
- b. What views in the immediate vicinity would be altered or obstructed?

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

- 1) *Is this proposal visible from a residential area, town, city, recreation site, major transportation route or designated scenic corridor (e.g., county road, state or interstate highway, US route, river or Columbia Gorge SMA)?*

No *Yes, name of the location, transportation route or scenic corridor:*

Deep Creek County Road. An outreach letter was sent to all adjacent landowners to notify them of this proposal.

- 2) *How will this proposal affect any views described above?*

This proposal will resemble previous timber harvests in the area and views will change from a stand of mature timber to a view of a recent harvest with mature trees remaining around Type 3 and 4 streams and some Type 5 streams. There will also be clumps and individual leave trees scattered throughout. The view will change to one of a young plantation after seedlings are planted and the new trees continue to grow.

- c. Proposed measures to reduce or control aesthetic impacts, if any:

A minimum of 8 trees per acre will remain onsite as leave trees. Hand planting will take place following harvest to reestablish the stand.

11. Light and glare

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

12. Recreation

- a. What designated and informal recreational opportunities are in the immediate vicinity?

There is no designated recreation within the proposal area. However, hunting, hiking, horseback riding, mountain biking, mushroom and berry picking, and other informal outdoor recreation activities may occur within the proposal area.

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

There may be some disruptions to informal recreational use during periods of harvesting and hauling.

- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

None at this time.

13. Historic and cultural preservation

- a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers? If so, specifically describe.

No.

- b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.

No.

- c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

The site was remotely assessed by a DNR Cultural Resource Technician, reviewing GLO and Historic maps, and existing recorded historical sites that have been recorded by DAHP.

- d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.
If a presently-unknown cultural resource is discovered during project operations, DNR will comply with the March 2010 Cultural Resources Inadvertent Discovery Guidance.

14. Transportation

- a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.

Deep Creek Rd, Bunker Creek Rd, and HWY 6.

- b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?

No. Nearest transit spot is approximately 12 miles away.

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

None.

- d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).

Yes, see A-11-c.

- 1) *How does this proposal impact the overall transportation system/circulation in the surrounding area and any existing safety problem(s), if at all?*

This project will have minimal to no additional impacts on the overall transportation system in the area.

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

No.

- f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and non-passenger vehicles). What data or transportation models were used to make these estimates?

Approximately 10 to 15 truck trips per day while the operation is active. Peak volumes would occur during the yarding and loading activities between 4:00 a.m. and 4:00 p.m. of the operating period. The completed project will generate less than one vehicular trip per day. Estimates are based on the observed harvest traffic of past projects.

- g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

No.

- h. Proposed measures to reduce or control transportation impacts, if any:

None.

15. Public services

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.

No.

- b. Proposed measures to reduce or control direct impacts on public services, if any.

None.

16. Utilities

a. Check utilities currently available at the site:

None.

- electricity natural gas water refuse service telephone sanitary sewer
 septic system other:

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

None.

C. SIGNATURE

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

Signature: Maureen J Crabtree

FOR. Name of signee: Garrett Hanson Maureen Crabtree

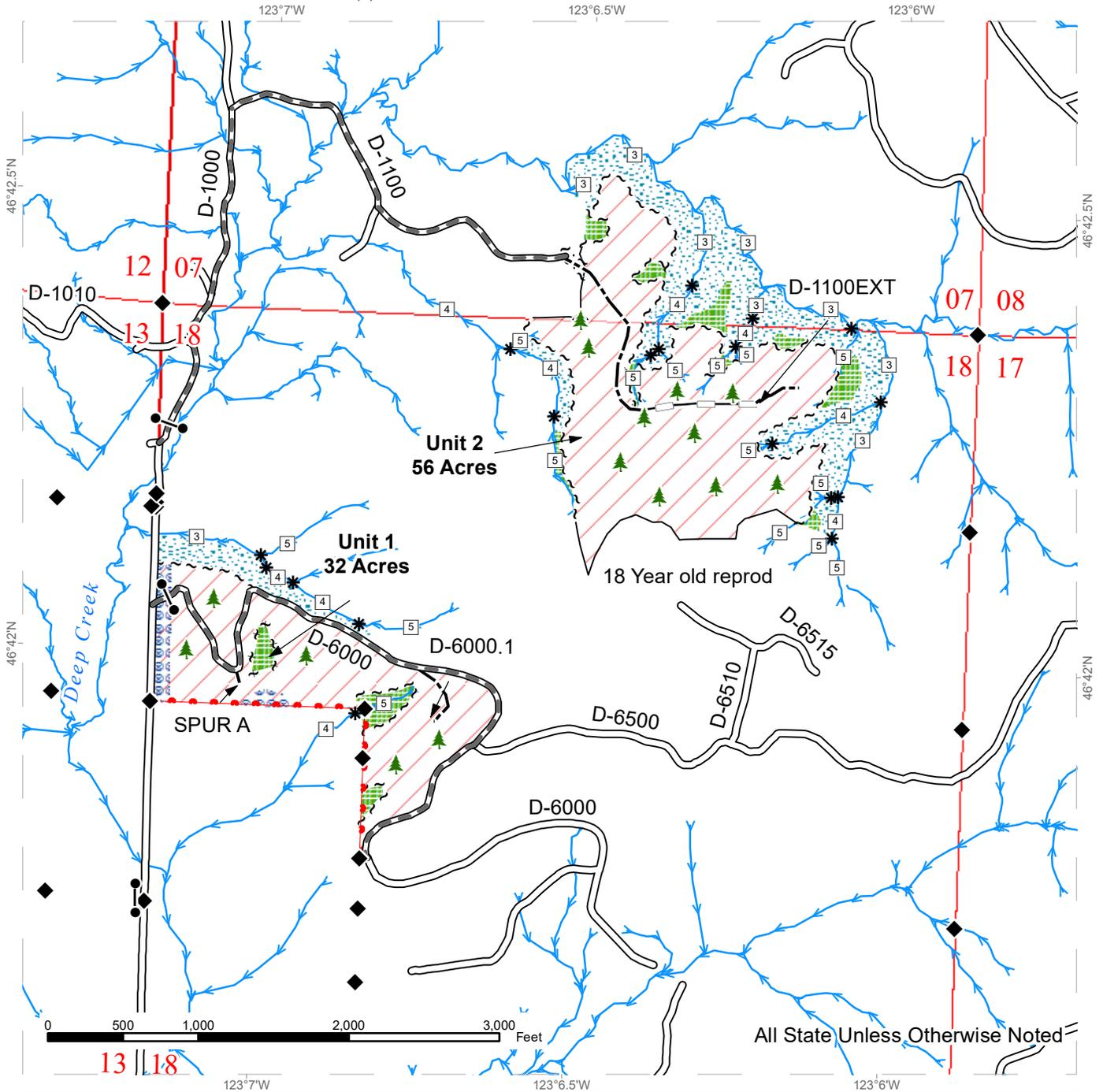
Position and Agency/Organization: NRS 2, DNR NRS 3, DNR

Date Submitted: 03/11/2020

TIMBER SALE MAP

SALE NAME: GUNNAR
AGREEMENT #: 30-099314
TOWNSHIP(S): T14R3W
TRUST(S): State Forest Transfer (1)

REGION: Pacific Cascade Region
COUNTY(S): Lewis
ELEVATION RGE: 290-649



Variable Retention Harvest	Sale Boundary Tags	Streams
Leave Tree Area	Leave Tree Tags	Stream Type
Riparian Mgt Zone	Right of Way Tags	Stream Type Break
Hazard Abatement Area	Property Line	Survey Monument
Existing Roads	Timber Type Change	Leave Tree Area <1/4-acre
Required Pre-Haul Maintenance		
Optional Construction		
Optional Reconstruction		

