

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: **CROW BAIT**
*Agreement #***30-099066**

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

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

Washington Department of Natural Resources
South Puget Sound Region
Enumclaw, WA 98022
Audrey Mainwaring
(360) 825-1631

4. Date checklist prepared: **11/12/2019**

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

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

a. *Auction Date:*
11/17/2020

b. *Planned contract end date (but may be extended):*
10/31/2023

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:*
None

b. *Regeneration Method:*
Units 1, 2, and 3: Hand plant with native conifer species. Units will be planted at a density that meets or exceeds Forest Practice standards.

c. *Vegetation Management:*
Units 1, 2, and 3: Competing vegetation management needs may be assessed from plantation ages three to eight and management activities will occur as needed.

d. *Other:*

Road maintenance assessments will be conducted and may include periodic ditch and culvert cleanout, and grading as necessary.

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: **Final EIS South Puget Sound Planning Unit Forest Land Plan**

Watershed analysis: **Mineral and North Fork Mineral Creek**

Interdisciplinary team (ID Team) report:

Road design plan: **Included in the Road Plan, dated 4/4/2020**

Wildlife report:

Geotechnical report:

Other specialist report(s):

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

Rock pit plan: **Included in the Road Plan, dated 4/4/2020**

Other:

1) Land Resource Manager Forest Management Activity Special Concerns data

2) Remote reviews and communications with region biologist and geologist-in-training

Referenced documents may be obtained at the region office responsible for this proposal.

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

None known.

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

FPA # **2421790**

FPHP

Board of Natural Resources Approval

Burning permit

Shoreline permit

Existing HPA

Other:

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

a. Complete proposal description:

The Crow Bait timber sale consists of three variable retention harvest (VRH) units and two right-of-way units located in the NF Mineral Creek Watershed Administrative Unit (WAU). The original proposal area was approximately 164 acres, reduced to 136 gross acres and 130

net acres after deducting leave tree areas and existing roads, and RMZ areas. Approximately 4,342 MBF of mixed conifer and hardwoods will be harvested.

Each unit’s approximate net acreage is as follows:

Unit 1 VRH: 63

Unit 2 VRH: 25

Unit 3 VRH: 41

Unit 4 Right-of-Way: 0.8

Unit 5 Right-of-Way: 0.7

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	1957, 1964	Douglas-fir, western hemlock	Variable Retention Harvest
2	1964	Douglas-fir, western hemlock	Variable Retention Harvest
3	1964	Douglas-fir, western hemlock	Variable Retention Harvest
4	1964	Douglas-fir, western hemlock	Right-of-Way
5	1964	Douglas-fir, western hemlock	Right-of-Way

Overall Unit Objectives:

Short-term objectives:

- 1) Create revenue for trust beneficiaries through timber harvest.
- 2) Provide legacy trees for the future stands. In VRH Units 1, 2, and 3 residual trees will be well distributed throughout the harvest unit and will create structural diversity over time and will provide habitat for various species of animals and plants.
- 3) In Units 1, 2, and 3 native conifer stands will be established within two years of harvest. The growth of these trees may be enhanced and managed by altering the density of the plantation through pre-commercial thinning in order to produce future high quality timber and Northern Spotted Owl (NSO) dispersal habitat.
- 4) Type 4 streams will be protected in riparian management zones (RMZs). Type 5 streams within the harvest boundary will be protected with a 30 foot Equipment Limitation Zone.

Long-term objectives:

- 1) The primary objective of the treatment will be to stimulate wood production, generate trust revenue, create new canopy layers, and enhance important structural components to produce stand conditions associated with older stands.
- 2) In VRH Units 1, 2, and 3, Timber stand Improvement: a series of intermediate cuttings will be scheduled as needed during the development of the new stands.
- 3) Resource Protection: the protection of soil productivity and water quality will remain

priorities. Each harvest prescription will be crafted to prevent soil erosion and limit compaction. Large course woody debris and recruitment snags will be left to contribute to site productivity. Management activities within the established RMZs will be designed to maintain protection of water quality and create older forest characteristics in streams adjacent stands.

- 4) Create a sustainable source of revenue for trust beneficiaries.
- 5) Maintain hydrologic maturity across DNR managed lands.

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		706	0.3	0
Reconstruction		4285		0
Abandonment		0	0	0
Bridge Install/Replace	0			0
Stream Culvert Install/Replace (fish)	0			0
Stream Culvert Install/Replace (no fish)	2			
Cross-Drain Install/Replace	13			

Routine maintenance will occur on all roads used throughout the life of this proposal

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: **Sections 26, 27, 34 and 35 of Township 14 North, Range 06 East, W.M.**

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

From Mineral, drive east on Mineral Creek Rd. for 1.2 miles. Turn right onto the SPI 1 road and follow for 11.5 miles. Turn left onto the 12 road and follow for 3.4 miles to reach Unit 1. To reach Unit 2, bear right onto the DNR 1 road and follow for 1.0 miles to the start of the reconstruction and walk in from there. To reach Unit 3, from the 12 road bear left on the 2 road and follow for 0.7 miles. To reach Griffin Pit, from the 12 road bear right onto the DNR 1 road and follow for 2.2 miles. Turn right onto the 17 road and follow for 0.7 miles to the pit

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).

The NF Mineral Creek WAU include potentially unstable slopes, Tahoma Spotted Owl Management Unit (SOMU), and cultural resources.

- 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 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. The applicable Habitat Conservation Plan (HCP) strategies incorporated into this proposal include:

- **Retaining Riparian Management Zones (RMZ) to protect water quality, stream bank integrity, stream temperatures, and provide down woody debris. RMZs will develop older riparian forest characteristics that, in combination with other strategies, will help support older riparian forest dependent wildlife and aquatic species.**
- **Retaining a minimum of 8 trees per acre (greater than 10 inches diameter at breast height) clumped and scattered throughout the units. This strategy will provide legacy elements for recruitment of future snags, coarse woody debris, multi-layered stands, and large diameter tree. In combination, these features will provide elements of older forest habitat characteristics within the new plantation. Some of these leave trees are placed in locations within harvest units to minimize soil displacement and surface erosion.**
- **Maintaining and enhancing northern spotted owl dispersal habitat within designated Spotted Owl Management Units.**
- **Maintaining a specified level of hydrologically mature forests within rain-on-snow zones of DNR-managed watershed sub basins to reduce impacts of timber harvest operations to peak flow rates.**

Agency policies and guidelines from the Policy for Sustainable Forest incorporated into this proposal include:

- **Generally limiting even-aged harvests to less than 100 acres per unit.**

Current Forest Practice Rules also require that:

- **Potentially unstable slopes and landforms are evaluated and rule-identified landforms with the potential to deliver to public resources are excluded from the sale area.**
- **Allowing green-up (regenerated stands that are either 4 feet tall or 5 years of age) of adjacent stands to minimize impacts to watershed hydrology.**
- **Best management practices for road construction and maintenance is implemented to prevent sediment delivery to typed waters and avoid improper drainage patterns that may create slope failures.**
- **After harvest, tree seedlings will be planted to reforest the site and may be complemented by the natural regeneration that is expected to occur.**

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

All potentially unstable landforms were evaluated and those determined to be rule-identified landforms according to the Forest Practice Board Manual were excluded from the sale.

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
NF MINERAL CREEK	17545	13862	1483	380	167

The data above obtained on 2/5/2020 from DNR’s Land Resource Manager system and is subject to change.

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

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:	NF MINERAL CREEK
WAU Acres:	17545
Elevation Range:	1431 - 5230 ft.
Mean Elevation:	3031 ft.
Average Precipitation:	97 in./year
Primary Forest Vegetation Zone:	Pacific Silver Fir

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
0988	V.CINDERY LOAMY SAND
1186	V.CINDERY SANDY LOAM
1187	V.CINDERY SANDY LOAM
0487	V.CINDERY LOAMY SAND
1320	V.CINDERY SANDY 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.

There are inner gorges present in most of the drainages adjacent to the harvest units. There is a rule-identified inner gorge in Unit 4 where road reconstruction will take place. Reconstruction will occur only on the existing road prism through Unit 4. There are bedrock hollows located within the riparian management area that have been excluded from the harvest area. There is a shallow-seated landslide category E rule-identified feature that has been excluded from the sale area with a non-tradeable leave tree area.

- 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.

Rule-identified potentially unstable slopes are excluded from the harvest area or are protected within non-tradeable leave tree areas. Tailholds will not be allowed inside rule-identified features during harvest operations. One shallow landslide is excluded from the harvest boundary by an at least two crown-width buffer.

- 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: 0.3

Approx. acreage new landings: 2

Fill Source: On site and Griffin Pit

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

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

Approximately 2% of the site will remain as gravel roads.

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

The timber sale contract, including a detailed Road Plan, ensure the following:

- **Roads will be crowned or in-sloped and cross drained to provide for water drainage.**
- **Cross drains will be properly spaced, installed and maintained.**
- **Protection measures to avoid sediment delivery will be addressed as needed during operations and may include the use of water bars, catch basins or silt traps.**
- **There will be periodic maintenance and inspection of the road system to ensure proper drainage.**
- **From November 1st to May 15th, the Purchaser may be required to provide further protection of water, soil, roads and forest assets at the Purchaser's expense. Preventative measures must be in place prior to commencing any operations during this period.**
- **A detailed plan of operations will be developed by the Purchaser and approved by the Contract Administrator prior to commencing operations.**
- **Ground based yarding will be restricted to certain slopes to reduce soil impact.**
- **The lead end of logs will be suspended during yarding operations.**

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:

North Fork Mineral Creek, Mineral Creek, Nisqually River, Alder Lake

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)
North Fork Mineral Creek	Type 1	1	130-foot no harvest buffer
Stream	Type 3	2	130-foot no harvest buffer
Stream	Type 4	4	100-foot no harvest buffer

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

The streams adjacent to this proposal were identified during field reconnaissance. The stream types were determined using physical stream characteristics according to DNR’s Trust Forestland Habitat Conservation Plan (HCP) water typing system. Refer to the timber sale map for stream types and locations.

Road-related protection measures for this proposal include preventing silt-bearing runoff

from entering any streams and prohibiting organic debris or waste material from being placed within 50 feet of a live stream.

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

No

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

Description (include culverts):

Type 4 streams:

Culverts will be installed at 2 Type 4 stream road crossings. Timber will be removed within the road right-of-way clearing within 200 feet of Type 4 streams.

Type 5 streams:

There are seven Type 5 streams associated with this proposal that will be protected with a 30-foot equipment limitation zone or excluded from the harvest area. Type 5 stream crossings may be allowed with approval by the Contract Administrator.

Harvest will occur within 200 feet of some streams but beyond the buffer distance listed in the table above.

- 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:

Streams will be temporarily diverted around road crossing locations during culvert installations.

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

No

Yes, describe activity and location:

Work will occur within the 100-year floodplain at Type 4 stream culvert installation locations on the 1-23 Road during reconstruction.

- 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.

Minor amounts of oil, fuel, and other lubricants may inadvertently be discharged to the adjacent surface water(s) as a result of heavy equipment use or mechanical failure. No lubricants will be disposed of on-site.

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

No Yes, describe:

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

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

NF MINERAL CREEK = 4.5 (mi./sq. mi.)

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

No Yes, describe:

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

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

No Yes, describe observations:

There is some evidence of changes to the stream channels in the WAU and sub-basins. These changes can be attributed to shallow mass wasting events and adjacent to streams and accelerated stream erosion and aggradation potentially as a result of peak flow during large storm and rain-on-snow events.

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

This proposal is in the same general area as other recent harvest activities. There is no indication that past, current, or foreseeable proposals working in combination with the proposal will contribute to a water runoff problem within the North Fork of Mineral Creek WAU. This conclusion is based upon examination of past logging and harvesting activities within the WAU.

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

No Yes, describe the water resource(s):

North Fork Mineral Creek, Mineral Creek, Nisqually River, Alder Lake

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

No Yes, describe possible impacts:

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

Nothing in addition to what is stated in A.13. above.

b. Ground Water:

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

No water will be withdrawn or discharged.

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

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

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

No Yes, describe:

North Fork Mineral Creek, Mineral Creek, Nisqually River, Alder Lake

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

No Yes, describe possible impacts:

Note protection measures, if any:

c. Water runoff (including stormwater):

- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow?

Will this water flow into other waters? If so, describe.

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

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

No Yes, describe:

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

Note protection measures, if any:

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

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

No changes to drainage patterns are expected.

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

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

4. Plants

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

Deciduous tree:

Alder Aspen Birch Cottonwood Maple Western Larch

Other:

Evergreen tree:

Douglas-Fir Engelmann Spruce Grand Fir Lodgepole Pine

Mountain Hemlock Noble Fir Pacific Silver Fir Ponderosa Pine

Sitka Spruce Western Hemlock Western Redcedar Yellow Cedar

Other:

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*).

Approximately 4,342 MBF of primarily Douglas-fir and western hemlock will be removed. The age of the timber is between 56 and 64 years old. Some understory vegetation within the harvest units will be disturbed or damaged during the felling and yarding process.

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

The stands immediately adjacent to the proposed harvest units are DNR managed State trust lands within the NF Mineral creek WAU and are similar to the proposal area. These stands are typically second-growth range in age from 50-65 year old and are dominated by Douglas-fir.

- 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:

Retaining existing stands within RMZs and leave trees within harvest units 1, 2, and 3 (retained at a density of eight leave trees per acre). Replanting of native conifer species at a density that meets or exceeds Forest Practice standards within two years following harvest.

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

None are known or were 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:

All of Washington is within the Pacific flyway, although no migratory birds have been observed onsite. It is possible that some migratory birds do use the area as a stopping over point.

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

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

Species /Habitat: **Upland**

Protection Measures: **Clumped leave trees at a rate of 8 trees per acre in Units 1, 2, and 3. Leave trees retained are wind firm and well-formed dominant and co-dominant trees representing the original diversity of species. Additionally, individual species and tree types known to have high wildlife use have been retained. Trees with unique characteristics such as forked or damaged tops have been incorporated within many of the leave tree groups throughout the proposal to provide current and future habitat for a variety of wildlife species. Large hard and soft snags with high evident use and cavities will also be retained when possible.**

Species /Habitat: **Riparian**

Protection Measures: **HCP RMZ Buffers. This timber sale proposal conforms to commitments under the 1997 DNR Habitat Conservation Plan (HCP). Specific to this proposal is the riparian strategy to conserve and protect habitat for species that are dependent on aquatic and riparian habitat, and preserve long-term site productivity through the maintenance of forest processes.**

Species /Habitat: **Northern Spotted Owl**

Protection Measures: **The Crow Bait proposal consisting of 129.6 net harvest acres is located within the Tahoma Spotted Owl Management Unit (SOMU), which is within a designated Dispersal Management Area within the South Puget HCP**

planning unit. The Tahoma SOMU is currently at 55.9 percent total NSO Habitat. Units 1, 2, and 3 are majority designated movement plus habitat and will be Variable Retention Harvests. The sale will remove 125 acres of habitat. The SOMU will be 54.5 percent total NSO habitat post-harvest as of 6/2/2020. This proposal is consistent with DNR's HCP and PR 14-004-120 Northern Spotted Owl Management (Westside) and PR 14-001-03 Settlement Agreement.

- e. List any invasive animal species known to be on or near the site.
Barred owl (*Strix varia*)

6. Energy and natural resources

- a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.
Petroleum fuel (diesel or gasoline) will be used for heavy equipment during active road building, timber harvest operations, and for transportation. No energy sources will be needed following project completion.
- b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.
No.
- c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:
None.

7. Environmental health

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste that could occur as a result of this proposal? If so, describe.
- 1) Describe any known or possible contamination at the site from present or past uses.
None known.
 - 2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.
None known.
 - 3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.
Petroleum-based fuel and lubricants may be used and stored on site during the operating life of this project.

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

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

b. Noise

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

8. Land and shoreline use

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

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 oversized 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 Resources Zone

f. What is the current comprehensive plan designation of the site?

Timber Production

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 in compliance with the DNR's HCP and Policy for Sustainable Forests and is consistent with current comprehensive plans and zoning classifications.

m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:

None.

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

Does not apply.

- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

Does not apply.

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

None.

10. Aesthetics

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

Does not apply.

- b. What views in the immediate vicinity would be altered or obstructed?

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

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

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

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

None.

11. Light and glare

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

None.

- b. Could light or glare from the finished project be a safety hazard or interfere with views?

No.

- c. What existing off-site sources of light or glare may affect your proposal?

None.

- d. Proposed measures to reduce or control light and glare impacts, if any:

None.

12. Recreation

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

There are informal recreational activities such as hiking, fishing, and hunting in and around the proposal site.

- b. Would the proposed project displace any existing recreational uses? If so, describe.
There may be some disruptions to recreational use during periods of harvesting and hauling.
- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:
None.

13. Historic and cultural preservation

- a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers? If so, specifically describe.
None known.
- b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.
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.
The Department of Archaeology and Historic Preservation's database was checked for any potential impacts. GLO and historic maps were reviewed.
- 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.
The haul route will utilize DNR forest roads within the Tahoma State Forest.
- 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 40 miles away.
- c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?
None.

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

Yes, see A-11-c.

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

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

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

No.

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

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

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

No.

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

None.

15. Public services

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

No.

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

None.

16. **Utilities**

a. Check utilities currently available at the site:

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

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

None.

C. SIGNATURE

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

Signature: 

Name of signee **Audrey Mainwaring**

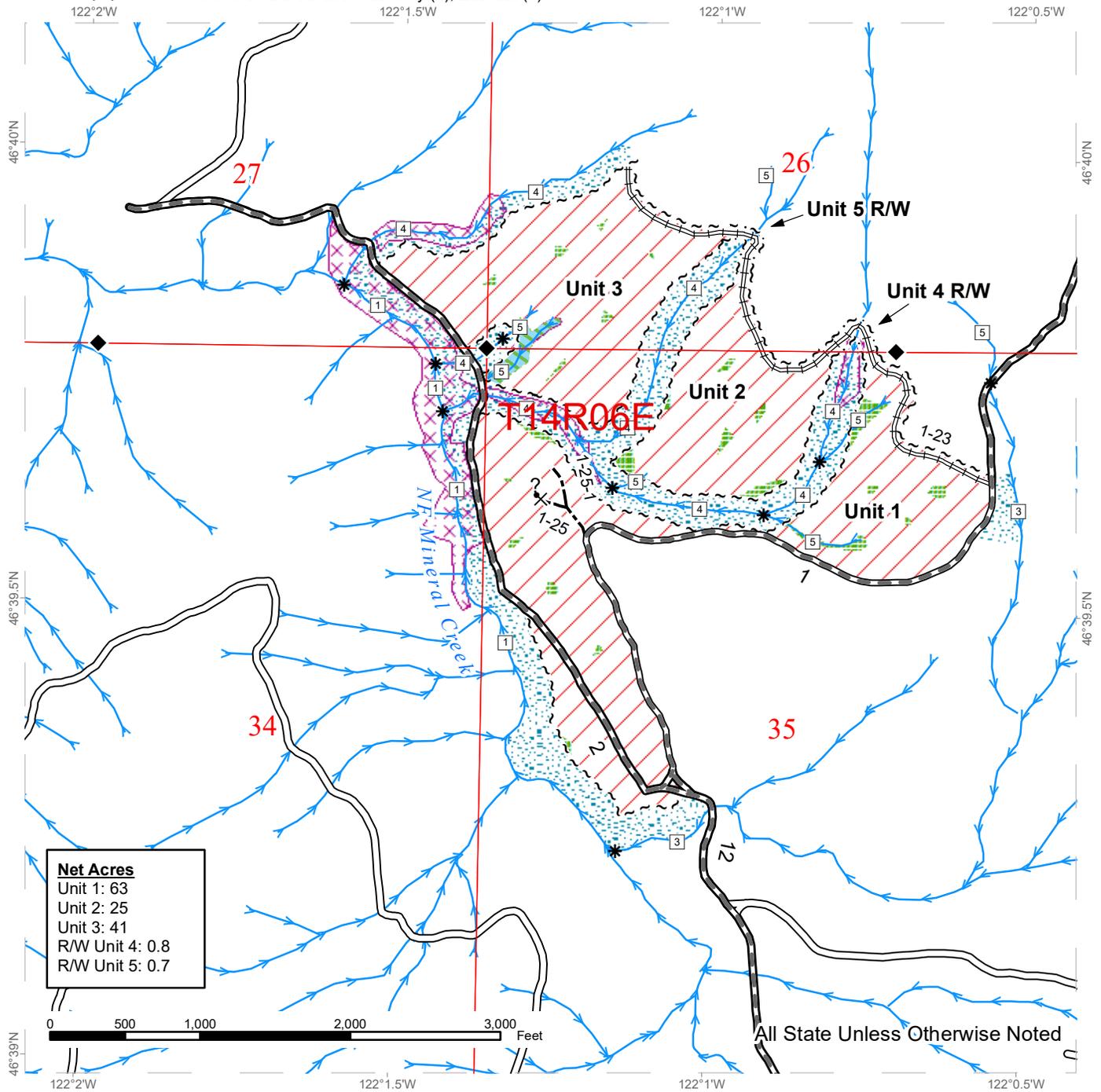
Position and Agency/Organization **Management Forester, SPS Region DNR**

Date Submitted: **8/17/2020**

TIMBER SALE MAP

SALE NAME: CROW BAIT
AGREEMENT #: 30-099066
TOWNSHIP(S): T14R6E
TRUST(S): Common School and Indemnity (3), Escheat (9)

REGION: South Puget Sound Region
COUNTY(S): Lewis
ELEVATION RGE: 2,760 - 3,400



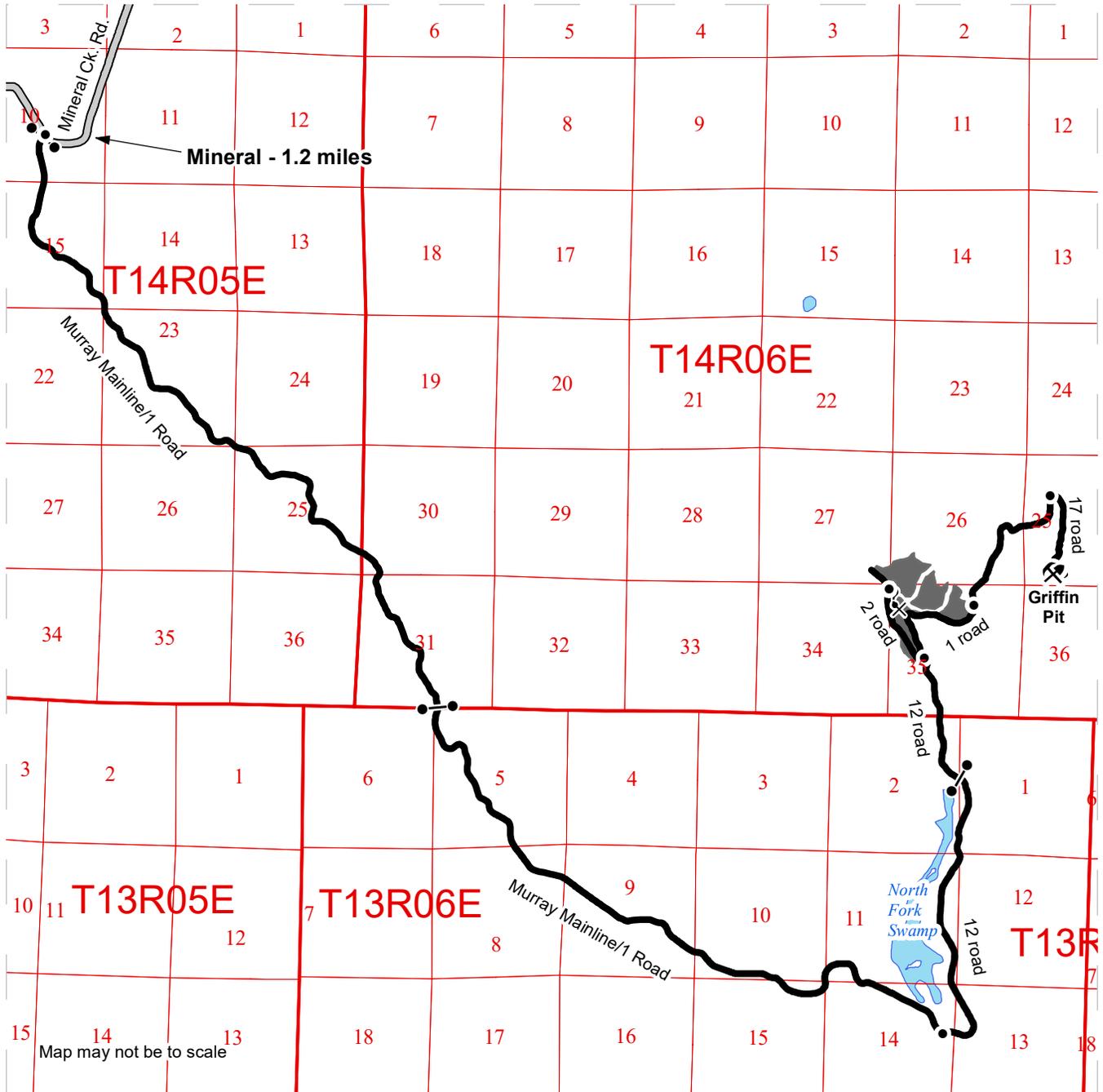
Net Acres	
Unit 1:	63
Unit 2:	25
Unit 3:	41
R/W Unit 4:	0.8
R/W Unit 5:	0.7

Variable Retention Harvest	Optional Construction	Stream Type
Sale Boundary Tags	Leave Tree Area	Stream Type Break
Right of Way Tags	Riparian Mgt Zone	Survey Monument
Existing Roads	Tailhold Restriction Area	Potential Rock Source
Required Pre-Haul Maintenance	Non-Tradeable Leave Trees	Public Land Survey Sections
Required Reconstruction	Streams	

DRIVING MAP

SALE NAME: CROW BAIT
AGREEMENT#: 30-099066
TOWNSHIP(S): T14R6E
TRUST(S): Common School and Indemnity (3), Escheat (9)

REGION: South Puget Sound Region
COUNTY(S): Lewis
ELEVATION RGE: 2,760 - 3,400



Map may not be to scale

- Distance Indicator
- Gate (CJ-18)
- ⊗ Potential Rock Source
- ⊗ Rock Pit
- Haul Route
- Timber Sale Unit

DRIVING DIRECTIONS:

"From Mineral, drive east on Mineral Creek Rd. for 1.2 miles. Turn right onto the Murray Mainline/1 road and follow for 11.5 miles. Turn left onto the 12 road and follow for 3.4 miles to reach Unit 1. To reach Unit 2, bear right onto the DNR 1 road and follow for 1.0 miles to the start of the reconstruction and walk in from there. To reach Unit 3, from the 12 road bear left on the 2 road and follow for 0.7 miles. To reach Griffin Pit, from the 12 road bear right onto the DNR 1 road and follow for 2.2 miles. Turn right onto the 17 road and follow for 0.7 miles to the pit."

