2616167

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: **SHUWAGAIN**
Agreement # **30-099285**

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

3. Address and phone number of applicant and contact person:
Andrew Gorbett
Department of Natural Resources
411 Tillicum Lane
Forks, WA 98331
(360) 374- 2800

4. Date checklist prepared: **05/14/2019**

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

6. Proposed timing or schedule (including phasing, if applicable):
a. *Auction Date:*
09/25/2019

b. *Planned contract end date (but may be extended):*
10/31/2020

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:

TSU NO. 1: GROUND HERBICIDE 08/15/21; 64 Acres

b. Regeneration Method:

TSU NO. 1: HAND PLANT 01/15/2022; 64 Acres
TSU NO. 2: HAND PLANT 01/15/2022; 2 Acres

c. Vegetation Management:
Continuing assessment of units to determine future vegetation management strategy will be required. PCT needs will be assessed in 10 to 15 years after planting in Units 1 and 2.

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:* **OESF Forest Land Plan (FLP)**
☒ *Watershed analysis:* **Sol Duc Valley**, Upper Sol Duc, Sol Duc Lowlands ASG
☐ *Interdisciplinary team (ID Team) report:*
☒ *Road design plan:* **08/06/2019**
☐ *Wildlife report:*
☒ *Geotechnical report:* **Addendum to "Engineering Geologic Risk Assessment, Shuwah Thin Timber Sale" dated February 11, 2016; Addendum dated August 8, 2019**
Geo report is available on FPARS w/ FPA SP 8-14-19
☒ *Appendix D. slope stability informational form:*
☐ *Other specialist report(s):*
☐ *Memorandum of understanding (sportsmen's groups, neighborhood associations, tribes, etc.):*
☒ *Rock pit plan:* **Mary Clark Pit (July 2019)**
☒ *Other:*
Final Habitat Conservation Plan (September 1997), Forestry Handbook (August 1999), Sustainable Harvest Calculation (Sept 2004), Forest Practices board manual, Policy for Sustainable Forests (PSF 2006), HCP Checklist, Land Resource Manager (LRM) and data cubes, Road Maintenance and Abandonment Plan (RMAP) for the Upper Sol Duc administrative unit: #2690012. The following documents are generated from Department GIS databases: Weighted Old Growth Habitat Index (WOGHI), OESF Marbled Murrelet Habitat Model, NSO Best 70 Map, and Marbled Murrelet Habitat Proximity Map.

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 #* _____	☒ *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 Shuwagain timber sale is a 2 unit sale with 1 unit of Variable Retention Harvest (VRH) and 1 unit of Right-Of-Way harvest (ROW) with a total cruised volume of 1,030 MBF. It encompasses approximately 79 gross proposal acres. Of the 79 gross proposal acres, there are 64 acres of Variable Retention Harvest (VRH), 2 acres of Right-of-way harvest (ROW), 4 acres of unstable slope protection and Riparian Management Zones (RMZs), 3 acres of Leave Tree Areas (LTAs), and 6 acres of existing roads. Approximately 34,255 feet of pre-haul maintenance is proposed to provide access to the sale area. Rock will be obtained from the Mary Clark Pit. This proposal will use ground-based harvesting methods. This sale is located in the Upper Sol Duc, Sol Duc Valley, and Sol Duc Lowlands WAUs.

Unit	Proposal Acres (*gross*)	RMZ/Unstable Slopes Protection/WMZ Acres	Existing Road Acres *(within unit)*	Leave Tree Clump Acres	Ground-based Harvest (%)	Net Harvest Acres
1	77	4	6	3	100	64
2	2	-	-	-	100	2
Totals	79	4	6	3	100	66

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	Age	Major Timber Species	Type of Harvest	Slope Range	Elevation Range (ft)
1	**40**	**Douglas-fir, western hemlock**	**Variable Retention Harvest**	**0-45%**	**610-840'**
2	**84**	**Douglas-fir, western hemlock**	**Right-of-Way**	**0-20%**	**1130-1150'**

Type of Harvest:

Unit	Harvest Type (VDT/VRH/etc)	Volume to be Harvested (mbf)	Volume to be Harvested (%)	Individual Leave Trees	Clumped Leave Trees	Total Leave Trees
1	**VRH**	**969**	**99%**	**64**	**448**	**512**
2	**Right-of-Way**	**61**	**100%**	**0**	**0**	**0**

Overall Unit Objectives:

Overall Objectives: The overall objectives for this sale includes the production of saw logs and pulp material for trusts while expediting the development of a more diverse multi-storied canopy layer in the future stand. This will be accomplished through the retention of wildlife trees, legacy trees and riparian management zones (RMZ). Approximately 7 acres (9%) have been set aside for unstable slopes, RMZs and LTAs. In addition, these stands will be managed to protect site productivity and maintain the integrity and water quality of adjacent streams.

Ecological- VRH to promote diverse forest structure across the landscape while preserving ecological integrity and function.

Economic- Generate revenue for State Forest Transfer Lands (01) and Scientific School (10) Trusts.

Statute- Comply with the OESF FLP, Forest Practice rules, and implement the Policy for Sustainable Forests.

Social- Accommodate dispersed informal recreational activities on DNR managed lands.

Specific objectives are to provide riparian protection, protection of moderate or high risk of slope failure and delivery to a public resource, protection of soils and habitat conservation for threatened and endangered species. Riparian protection measures were designed for all waters in and adjacent to this proposal in accordance with DNR's OESF Riparian strategy.

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		-	-	-
Reconstruction		-		-
Abandonment		-	-	-
Bridge Install/Replace	-			-
Stream Culvert Install/Replace (fish)	-			-
Stream Culvert Install/Replace (no fish)	-			
Cross-Drain Install/Replace	2			

Approximately 34,255 feet of pre-haul maintenance is planned. Pre-haul maintenance will consist of grading, shaping, ditching, brushing, cleaning erosion control devices and culverts, and installing cross drains on exist forest roads. The designated rock source will be Mary Clark Pit.

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.)*

FPA confirms location other location is pit. CP 8-14-19

a. Legal description: **T30N R12W S32, T29N R13W S11, T30 R10W S23**

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

Unit 1 of the proposed timber sale is located approximately 16 miles east from Forks, WA and is located on the B-2132 road. Unit 2 of the proposed timber sale is located approximately 27 miles northeast of Forks, WA on Highway 101.

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 is located within the Sol Duc Lowlands, Sol Duc Valley, and Upper Sol Duc Watershed Administrative Units (WAUs). The uplands are mainly managed for timber production. Ownership includes large industrial forests, federal lands, and Department of Natural Resources managed forests. Forested stands within the WAUs appear to be primarily second and third growth stands with some old growth stands located on federal land. The numbers of forest practice activities shown on the WAU maps referenced in question 12 along with observations within the WAUs indicate that the WAUs are intensively managed for timber production, including variable retention harvest, thinning, and partial cuts.

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.

This proposal and all future management activities on DNR lands will be conducted in accordance with the State's Habitat Conservation Plan (HCP, 1997), Policy for Sustainable Forests (2006), and Forest Practices Rules. The HCP is an agreement with the federal government that requires the DNR to manage landscapes in accordance with its terms that include the following applicable strategies that were found to provide a conservation benefit for multiple species:

- **Deferring harvest on unstable slopes with moderate to high risk of failure.**

- **Retaining Riparian Management Zones (RMZ's) on typed waters. This includes a variable width interior core buffer on type 3, 4, and unstable type 5 streams. Equipment limitation zones (ELZs) are required on all streams.**
- **Retaining a minimum of 8 leave trees per acre dispersed and clumped throughout the VRH unit.**
- **Designing, constructing, and maintaining a road system to minimize potential adverse effects on the environment;**
- **Implementing procedures pertaining to threatened and endangered species.**

In concert, the HCP strategies for spotted owl, marbled murrelet, and riparian conservation will contribute to the retention and development of older forests, while the leave tree procedure will enhance the structural diversity of forests across the landscape. Road maintenance standards will improve the quality of the existing road network and reduce potential impacts on the environment.

c. Briefly describe any specific mitigation measures proposed, in addition to the mitigation provided by plans and programs listed under question A-13-b.
Specific mitigation in regards to unstable slope includes excluding from proposed harvest the features that were recognized during the geologic evaluation as potentially unstable with the potential to deliver to a public resource, including the entire topographic recharge area of the glacial deep-seated landslide identified as LS-B1 in the associated geotechnical report. The majority of the topographic groundwater recharge areas for other glacial deep-seated landslides identified in the associated geotechnical report have also been excluded from harvest.

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?
If there are any shallow failures due to the proposed activities, there is some likelihood that sediment and debris will be delivered to a public resource, however, the likelihood of delivery of sediment or debris to a public resource or in a manner that would threaten public safety is low due to the mitigation measures described in question A-13-c. It is not likely potential impacts from this proposal will contribute to the environmental concerns listed in question A-13-a. DNR's HCP, the Policy for Sustainable Forests, and the forest practices rules and HCP substantially helps the Department to mitigate for cumulative effects related to management activities. These strategies have been incorporated in this proposal.

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
SOL DUC VALLEY	45673	14332	1080	48	365
SOL DUC LOWLANDS	22229	4588	187	94	886
UPPER SOL DUC	56668	1749	2	0	189

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:	SOL DUC VALLEY
WAU Acres:	45673
Elevation Range:	265 - 3133 ft.
Mean Elevation:	963 ft.
Average Precipitation:	101 in./year
Primary Forest Vegetation Zone:	Western Hemlock

WAU:	SOL DUC LOWLANDS
WAU Acres:	22229
Elevation Range:	27 - 1850 ft.
Mean Elevation:	443 ft.
Average Precipitation:	105 in./year
Primary Forest Vegetation Zone:	Sitka Spruce

WAU:	UPPER SOL DUC
WAU Acres:	56668
Elevation Range:	702-6104 ft.
Mean Elevation:	2494 ft.

Average Precipitation:	94 in./year
Primary Forest Vegetation Zone:	Western Hemlock

2. *Identify any difference between the proposal location and the general description of the WAU or sub-basin(s).*
   This proposal is a representative example of the WAUs at the same elevation and aspect.

b. What is the steepest slope on the site (approximate percent slope)?
45%

matches FPA Q19 CD 8-14-19

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	Number of Acres within the Proposal
5733	SILT LOAM	77
4347	V. GRAVELLY SANDY LOAM	2

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.*
This proposal is located gentle slopes ranging from 0-45%. It is immediately adjacent to incised stream channels with actively slumping banks evidenced by over-steepened slopes and exposed bare soil. There are multiple head-scarps of deep-seated landslides in the area and signs of mass wasting events.

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

☐ *No* ☒ *Yes, describe the proposed activities:*
Portions of the recharge areas of two glacial deep-seated landslide complexes were identified within the proposal.

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

All areas with moderate or high risk of slope failure and delivery to a public resource have been excluded from harvest.

Remote and field reviews of the timber sale area were conducted by both a State Lands Forester and a State Lands Geologist. Harvest will occur on portions of the groundwater recharge areas of two relict glacial deep-seated landslide complexes in Unit 1. A geotechnical report was prepared for this location along with an addendum for this proposal includes an investigation on the possible effects of the harvest on the relict deep-seated landslides within the harvest area. All proposed activities were determined to have a low likelihood of causing slope movement and a low likelihood of sediment delivery to a public resource.

A review of the statewide landslide inventory (LSI) screening tool indicates that there are portions of Unit 2 located on mapped polygons (LSI unique ID 16506). The LSI 16506 polygon is a relict bedrock deep-seated landslide which includes the majority of Unit 2. This feature does not meet the definition of a rule-identified landform. This landslide database is maintained by the Washington Department of Natural Resources, Forest Practices Division. The LSI includes landslides mapped during many different projects including large-scale geologic mapping, watershed analyses, landscape planning.

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: **<1**
Approx. acreage new landings: **<1**
Fill Source: **Mary Clark Pit**

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe. AJG
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 1% 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.)
Harvesting will be restricted during periods of heavy rainfall when rutting and surface erosion may occur. Roads will be maintained with properly located ditches, ditch outs and cross drains to divert water onto stable forest floor and/or into stable natural drainages. Ground based operations may be suspended during periods of wet weather or wet soil conditions when rutting of skid or shovel roads begins.

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 maintenance 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:
Unnamed perennial streams, Shuwah Creek, Sol Duc River, Quillayute River, Pacific Ocean

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)
Stream	**3**	**1**	**Variable width interior core buffer of 100-140'**
Stream	**4**	**3**	**Variable width interior core buffer of 100-140'**
Stream	**5**	**6**	**Variable width interior core buffer around unstable slopes of 15-40' and a 30' equipment limitation zone**

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

In accordance with the Habitat Conservation Plan, on typed waters, all floodplains and unstable slopes are protected with variable width interior core buffers based on site specific conditions. Additionally, no harvest will occur on rule identified potentially unstable slopes.

Type 3 streams are protected with a variable width interior core buffer of 100'-140' from the floodplain.

Type 4 streams are protected with a variable interior core buffer of 100'-140'.

Type 5 streams are protected with variable width interior core buffers (15-40') encompassing stream associated unstable slopes. Additionally, all typed waters have a 30-foot equipment limitation zone.

The OESF Windthrow Probability Model identified low risk of severe endemic windthrow, thus no exterior wind buffers were applied.

The work detailed in the road plan has been designed to improve surfacing on the haul roads, and provide for better drainage by installing additional, and replacing inadequate culverts that will divert storm water onto stable forest floor. These actions will minimize the potential for delivery of sediment to streams.

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):

Timber felling, bucking, and road maintenance will occur within 200 feet of all the described waters above. Equipment crossings may occur over Type 5 waters listed above. All activities will be done in accordance with the DNR's HCP and Forest Practice rules. Timber harvest will occur within 200' of typed waters, but no closer than described above in questions B.3.a.1.b and B.3.a.1.c. Culvert work listed in A.11.C will occur within 200 feet of the described waters above. See attached timber sale maps and FP application with accompanying maps for more details.

No harvest will occur within interior core on type 3, type 4 or unstable type 5 streams.

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

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

☒ *No* ☐ *Yes, description:*

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

☒ *No* ☐ *Yes, describe activity and location:*

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

It is not likely that any waste materials will be discharged into the surface water(s). However, minor amounts of oil, fuel, and other lubricants may inadvertently be discharged to the adjacent surface water(s) as a result of heavy equipment use or mechanical failure. All spills are required to be contained and cleaned up. 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)?*

SOL DUC VALLEY = 4.1 (mi./sq. mi.), SOL DUC LOWLANDS = 4.9 (mi./sq. mi.), UPPER SOL DUC = 2.1 (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:*
Yes, areas within the WAUs show evidence of changes to stream channels. Some steep drainages in the WAUs show evidence of debris torrent events which have increased the dimensions of affected drainage channels, exposed native bedrock which now forms the floor along segments of channels, and decreased the overall amount of large woody debris in the streams. These events may be attributed to past road construction techniques, inherently unstable slopes, soil composition or significant amounts of precipitation in short time periods.

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

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

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

☒ *No* ☐ *Yes, describe the water resource(s):*

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.*
Restricting timber harvest and road maintenance activities during peak rain events

will allow for increased resource protection. Road development and maintenance standards will minimize impacts by using cross drains to release ditch water onto stable forest floors where flow energy can dissipate prior to reaching stream channels. Maintaining RMZ's on streams will aid bank stability, hydrologic functions and provides recruitment of LWD.

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:*

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:*

Confirmed via Q.19 in FPA CD 8-14-19

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 1,030 MBF of 40-84 year old timber will be harvested with this proposal.**

1) *Describe the species, age, and structural diversity of the timber types immediately adjacent to the removal area. (See "WAU Map(s)" and "Timber Harvest Unit Adjacency Map(s)" on the DNR website: http://www.dnr.wa.gov/sepa. Click on the DNR region of this proposal under the Topic "Current SEPA Project Actions - Timber Sales." Proposal documents also available for review at the DNR Region Office.)*
Unit 1 is bordered to the north by 40 year old state timber, to the east by 20-40 year old state timber, to the south by privately-owned timber, and to the west by 21-28 year old state timber. The state-owned timber is primarily comprised of Douglas-fir and western hemlock, with components of Sitka spruce throughout.

Unit 2 is bordered to the north by Highway 101, to the east by National Forest mature timber, to the south by a privately-owned recent regeneration harvest, and to the west by privately-owned 10-15 year old regeneration.

FPARS indicates no T+E plant spp. conflict. CD 8-14-2019

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 of leave tree areas within the harvest units, and existing stands within the bounded out areas will occur throughout the proposal. Replanting of native conifer species will occur within both units following harvest. Other native conifer and deciduous species may regenerate naturally onsite.

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

Scotch broom, Himalayan blackberry

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:

Eagles were observed in flight, no nests are known within 660' of the sale area.

FPARS indicates in SOSEA habitat for N. Spotted owl. Also, marbled murrelet detection area. CD. 8-14-19

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

TSU Number	Common Name	Federal Listing Status	State Listing Status
SHUWAGAIN U1	Northern Spotted Owl	Threatened	Endangered
SHUWAGAIN U1	Marbled murrelet	Threatened	Endangered
SHUWAGAIN U2	Northern Spotted Owl	Threatened	Endangered
SHUWAGAIN U2	Marbled murrelet	Threatened	Endangered

c. Is the site part of a migration route? If so, explain.
☒*Pacific flyway* ☐*Other migration route:*
Explain: **This site is part of the Pacific flyway but is not used extensively for resting or feeding by waterfowl.**

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

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

Species/Habitat: Spotted Owl – The DNR mitigates for the potential of significant adverse environmental impacts to northern spotted owls in the OESF by implementing the HCP strategy. This strategy established threshold percentages for spotted owl habitat on DNR-managed lands for Landscape Planning Units (LPU). Each LPU is managed to achieve and maintain at least 20% Old Forest Habitat and at least 40% of Old and Young Forest (or Structural) Habitat types taken together according to a schedule of habitat enhancement and harvest activities developed within the Forest Land Plan (FLP). Currently 34.02% of the Upper Sol Duc LPU is habitat. Unit 1 is not considered habitat according to the OESF NSO Habitat Model. Unit 2 is considered Structural Habitat. This 2 acre right-of-way adjacent to Highway 101 has been identified as posing a hazard to public safety following the harvest of adjacent privately-owned timber. This harvest of Structural Habitat has been approved through consultation with the HCP and Scientific Consultation Section of the DNR. Following harvest 34.01% of the Upper Sol Duc LPU will be habitat.

Species/Habitat: Marbled Murrelet – The proposal area was evaluated for habitat protection or other marbled murrelet conservation opportunities. Portions of Unit 1 are within a ¼ mile, but not 100 meters of unsurveyed old forest. Updated information from

the US Fish and Wildlife Service (USFWS Ref # 13410-F-0388) indicated 100 meters as the threshold distance for significant murrelet behavior responses. For this reason, the region biologist does not recommend timing restrictions for this sale unit. Unit 2 is not within 0.25 miles of any occupied site(s) or OESF unsurveyed old forest. There are no utilized roads located within 100 meters of an occupied site, therefore timing restrictions on heavy equipment operation are not necessary. All units within the proposal are non-habitat according to the OESF marbled murrelet habitat model.

Species /Habitat: Riparian– Interior core buffers have been applied to all Type 3, Type 4 waters, and unstable Type 5's, as well as equipment limitation zones on all typed waters as described in B.3.a.1)b). Buffers are designed to protect the unstable portions of the stream banks, protect waters from siltation, and decrease water temperatures by providing shade and cover. Buffers also allow the natural occurrence of woody debris that provides pools and eddies for fish habitat along stream banks. Furthermore, these buffers will develop old-forest characteristics that, in combination with the owl and murrelet strategies, will help support old-forest dependent wildlife. The Windthrow Probability model has also been applied to four typed streams, which are modeled to have a high potential for severe endemic windthrow. The Windthrow Probability Model did not identify any areas at high risk of severe endemic windthrow.

Species /Habitat: Upland –
Harvest will not occur in areas with moderate or high risk of slope failure or delivery to a public resource. Wind-firm, dominant, and structurally unique trees were targeted for retention. A minimum of eight trees per acre were retained individually and in clumps to provide habitat structures for wildlife species within VRH Unit 1. Timber removal will temporarily create open environments that provide valuable foraging and potential habitat for a variety of wildlife species associated with early-stage forest environments.

e. List any invasive animal species known to be on or near the site.
There are no known invasive animal species 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 maintenance, 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.)*
State and commercial forest lands are adjacent to the sale. 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 as working forest lands. No portion of this proposal will not be converted to non-forest use.

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?
Commercial Forest Land

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

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:
The DNR's long-term strategy for State Lands within and adjacent to this sale is to maintain it as commercial forest land. The design of this project is consistent with current comprehensive plans, procedures, and zoning classifications pertaining to DNR's Habitat Conservation Plan, OESF Forest Land Plan and the State Forest Practices Act.

m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:
See 8.1 above.

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:*
Unit 2 is adjacent to Highway 101.

2) *How will this proposal affect any views described above?* **Views will be altered by standing trees being harvested within Unit 2.**

Adjacent to Pacific Coast Scenic Byway CB 8-14-14

c. Proposed measures to reduce or control aesthetic impacts, if any: **Units 1 and 2 will be reforested as soon as possible after the contract expires.**

11. Light + 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?
Dispersed informal recreation in the form of hunting, hiking, fishing, berry picking, mushroom picking, sightseeing, etc.

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.
Yes. Sites CA00647 and Site CA00772 are adjacent to the proposed project area. The site has been evaluated and determined ineligible to be listed on the National Register and requires no protection.

FPRAM check confirms no conflict w/ cultural/historical sites. CO 8-14-19

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.
See 13a above.

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.
A check of the Department of Archaeology and Historic Preservation (DAHP) database and Land Resource Manager (LRM) Special Concerns Report was used to identify cultural resources in the proposed project area. During timber sale preparation, trained foresters found no evidence on or near the site to indicate any

potential cultural resource.

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.
Highway 101, Mary Clark Rd., LTSP Main, FS-2902, B-2100, B-2130, B-2132, B-2132.1, B-2132.2, B-2132.3, and B-2132.4.

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?
N/A

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 harvesting 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: Andrew J. Gorbett

Name of signee **Andrew Gorbett**

Position and Agency/Organization **NRS3/Deparment of Natural Resources**

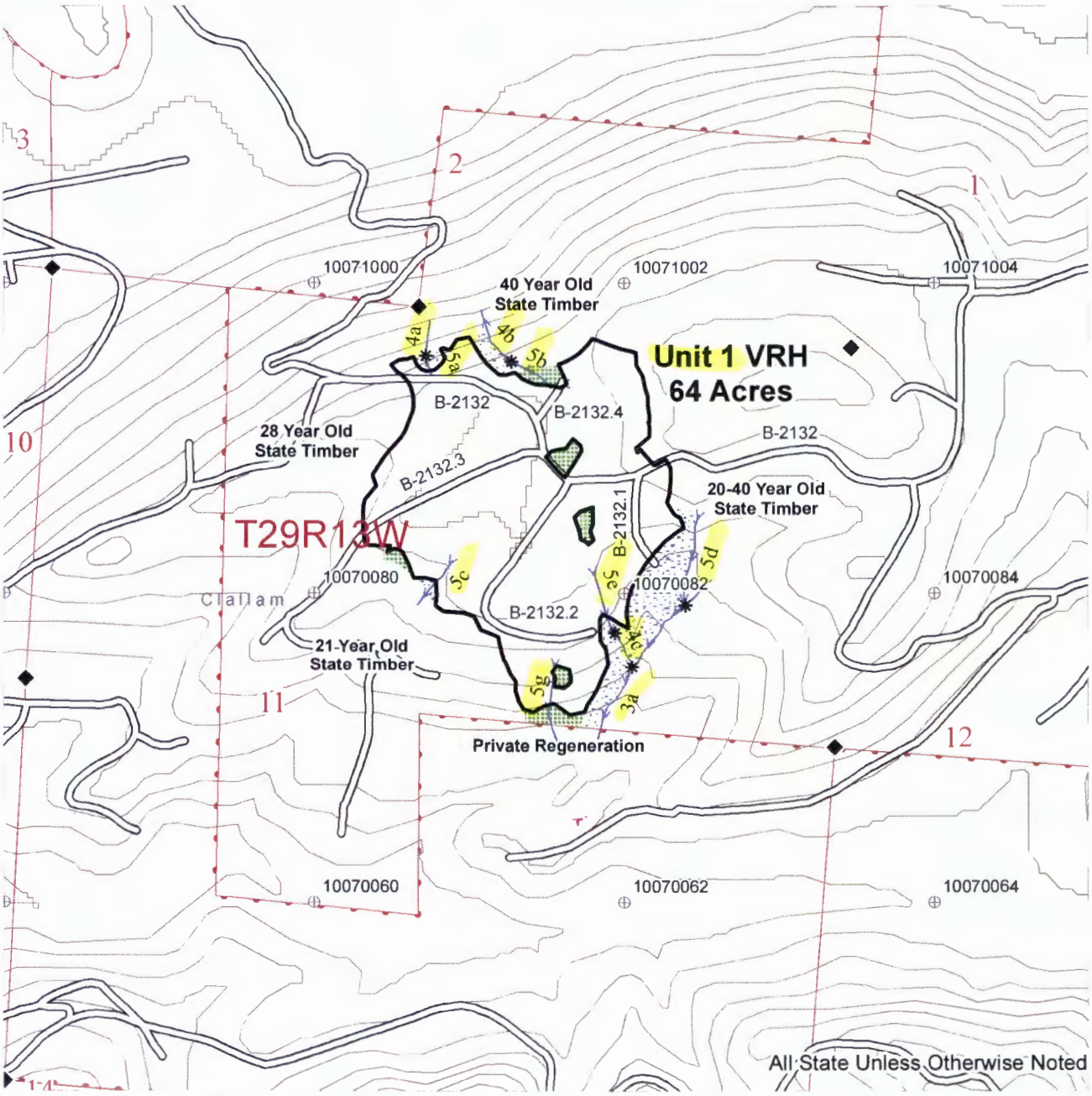
Date Submitted: 8/9/19

2616167

FOREST PRACTICES ACTIVITY MAP

SALE NAME: SHUWAGAIN
APPLICATION #:

COUNTY(S): Clallam
TOWNSHIP(S): T29R13W



Timber Sale Boundary
Existing Roads
Streams
Leave Tree Area
Riparian Mgt Zone
Public Land Survey Sections
DNR Managed Lands
Tics - 2000' Interval
Contours 40-foot
Survey Monument
Stream Type Break
N

0 500 1,000 2,000 3,000 Feet

Prepared By: LKOM490

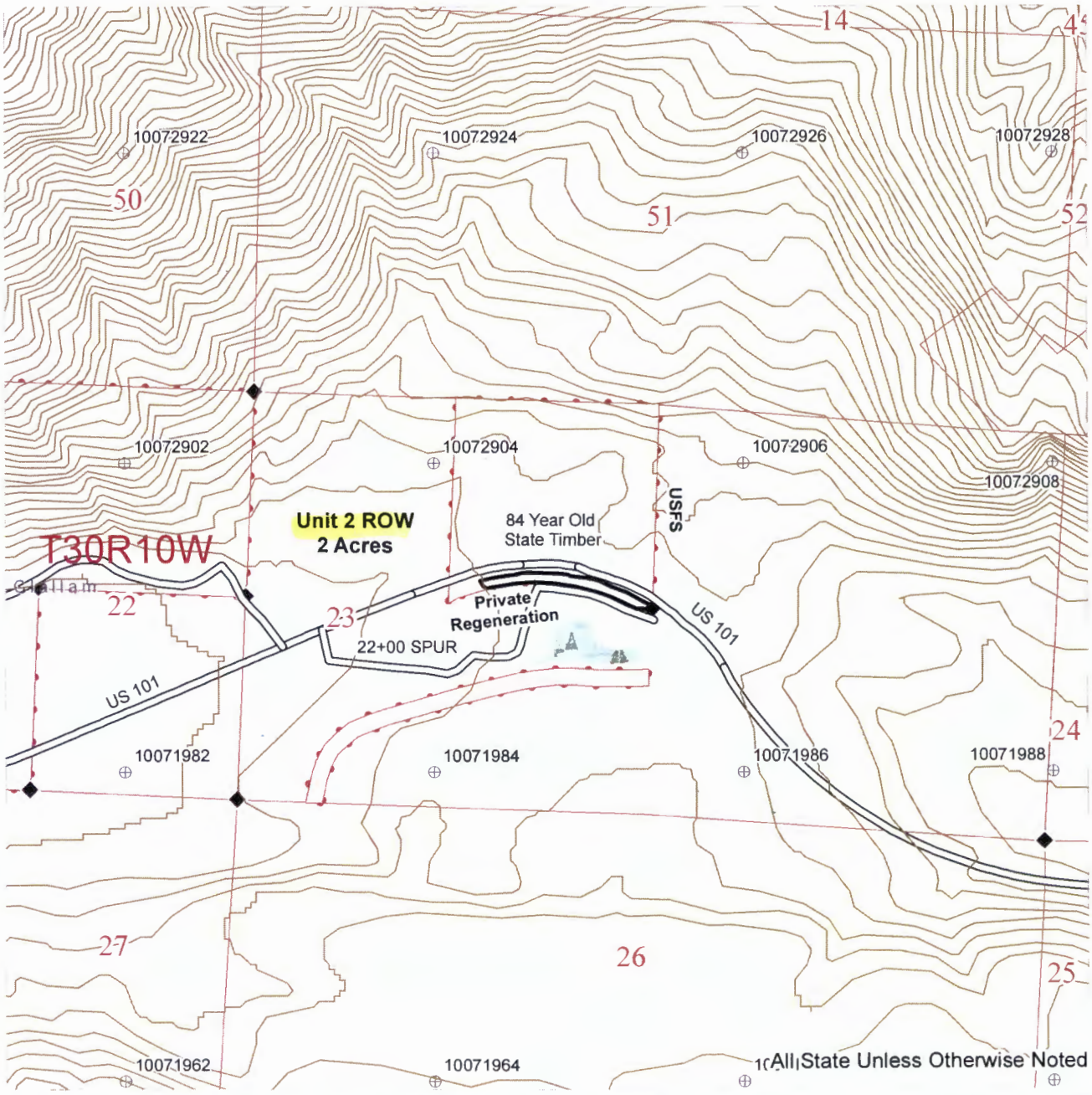
Modification Date: LKOM490 7/19/2019

FOREST PRACTICES ACTIVITY MAP

2616167.3

SALE NAME: SHUWAGAIN
APPLICATION #:

COUNTY(S): Clallam
TOWNSHIP(S): T30R10W



Timber Sale Boundary
Forested Wetland
Public Land Survey Sections
DNR Managed Lands
Tics - 2000' Interval
Survey Monument
Contours 40-foot
Existing Roads

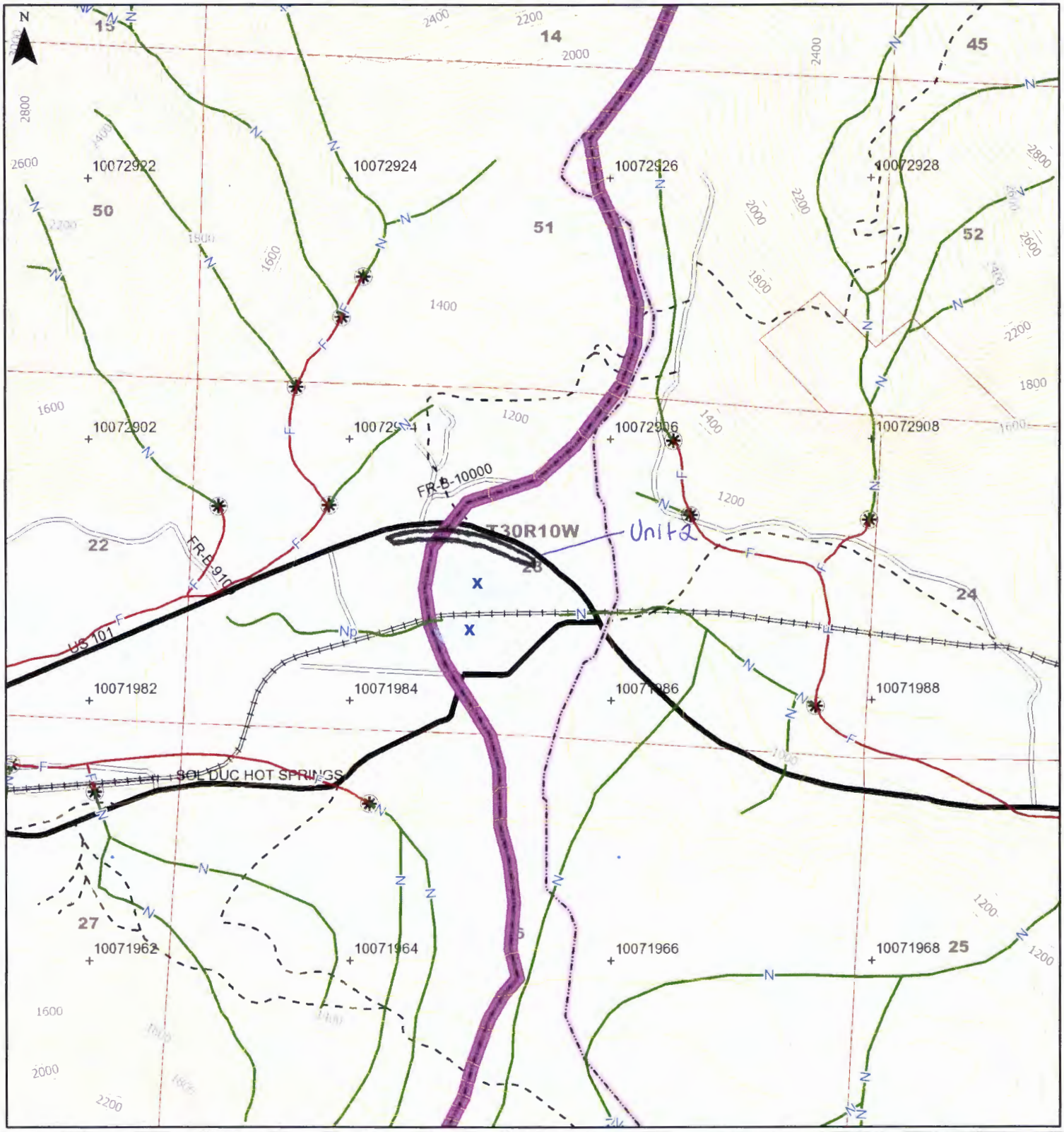
N

0 1,000 2,000 4,000 6,000 Feet

Prepared By: LKOM490

Modification Date: LKOM490 7/19/2019

Forest Practices Activity Map - Application # 2616167



Map Symbols

- Harvest Boundary
- Road Construction
- Stream
- RMZ / WMZ Buffers
- Rock Pit
- Landing
- Waste Area
- Clumped WRTS/GRTS
- Existing Structure

Additional Information

Legal Description

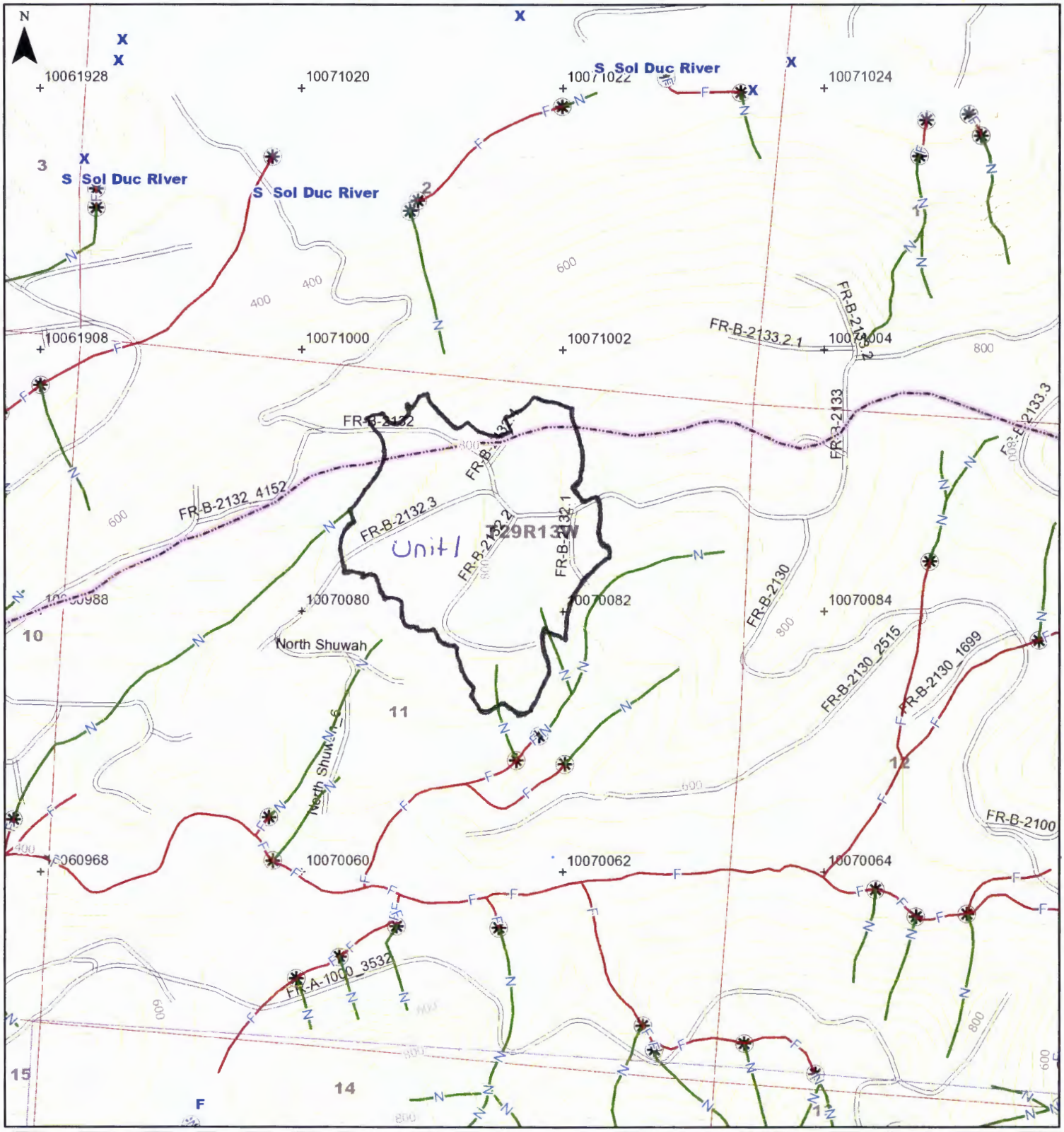
S0null T30.0N R10.0W, S27 T30.0N R10.0W
S26 T30.0N R10.0W, S24 T30.0N R10.0W
S52 T30.0N R10.0W, S15 T30.0N R10.0W
S22 T30.0N R10.0W, S50 T30.0N R10.0W
S23 T30.0N R10.0W, S14 T30.0N R10.0W
S51 T30.0N R10.0W, S45 T30.0N R10.0W
S25 T30.0N R10.0W

WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES

0 0.25 Miles

Date: 8/9/2019 Time: 10:58:23 AM

Forest Practices Activity Map - Application # 2616167



Map Symbols		Additional Information	Legal Description
Harvest Boundary	Landing		S14 T29.0N R13.0W, S01 T29.0N R13.0W
Road Construction	Waste Area		S13 T29.0N R13.0W, S12 T29.0N R13.0W
Stream	Clumped WRTS/GRTS		S11 T29.0N R13.0W, S02 T29.0N R13.0W
RMZ / WMZ Buffers	Existing Structure		
Rock Pit			

WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES

Extreme care was used during the compilation of this map to ensure its accuracy. However, due to changes in data and the need to rely on outside information, the Department of Natural Resources cannot accept responsibility for errors or omissions, and therefore, there are no warranties that accompany this material.

0 0.25 Miles

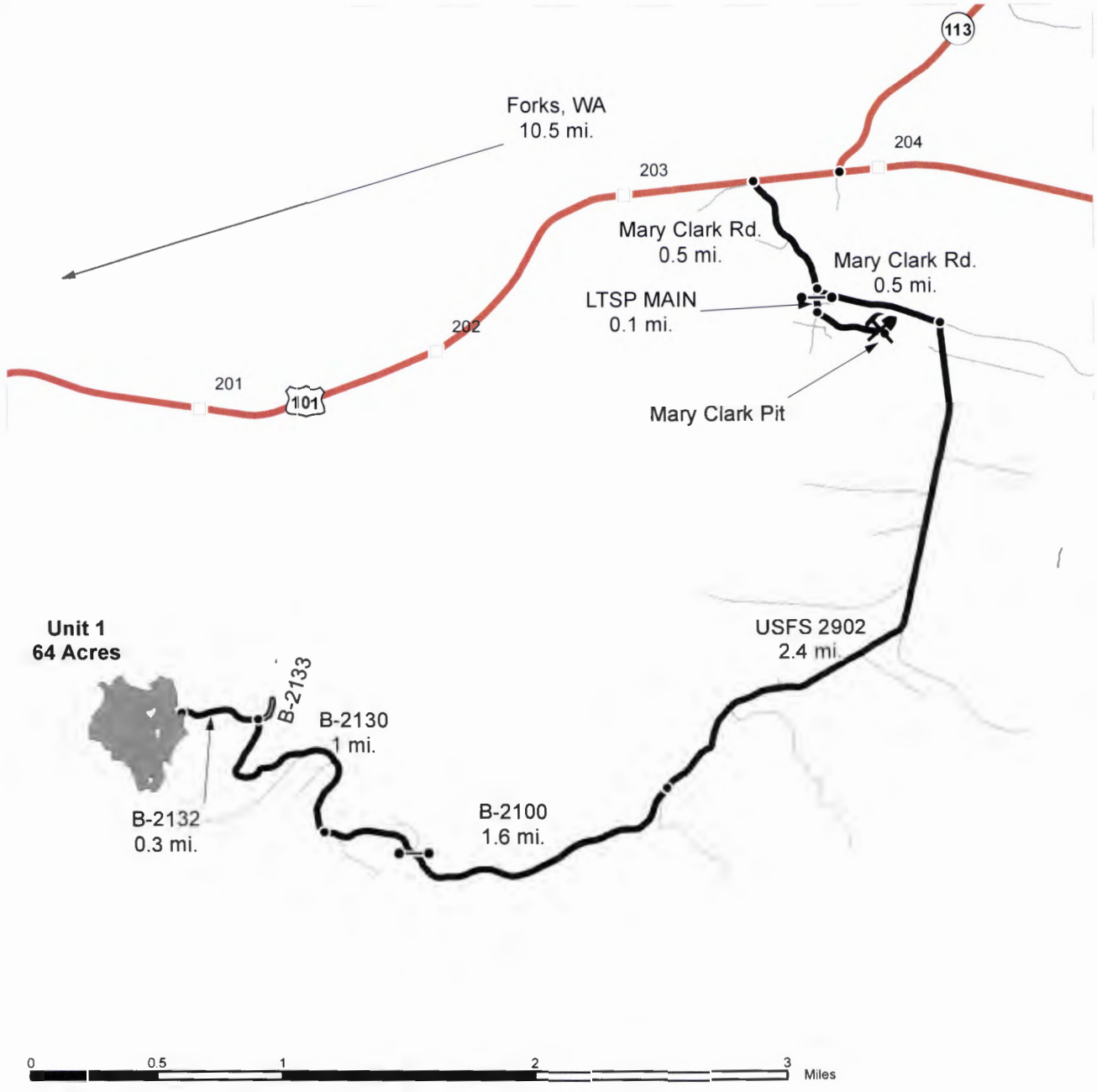
Date: 8/9/2019 Time: 10:53:45 AM

2616167

DRIVING MAP

SALE NAME: SHUWAGAIN
AGREEMENT#: 30-099285
TOWNSHIP(S): T29R13W
TRUST(S): State Forest Transfer(01)

REGION: Olympic Region
COUNTY(S): CLALLAM



Timber Sale Unit	DRIVING DIRECTIONS:
Existing Road	Unit 1: From Forks, WA, travel east on US 101 10.5 mi. to the Mary Clark Rd. Turn right onto the Mary Clark Rd. Continue on Mary Clark Rd. for 1 mi. Turn right onto the USFS 2902 and drive 2.4 mi. From the USFS 2902, turn right onto the B-2100 and drive 1.6 mi. to continue onto the B-2130. Drive 1 mi. on the B-2130 to the B-2132/B-2133 junction,and turn left on the B-2132. Drive 0.3 mi. to arrive at Unit 1.
Haul Route	
Highways	
Existing Rock Pit	
Distance Indicator	
Gate (AA1 Key)	
Milepost Markers	

N

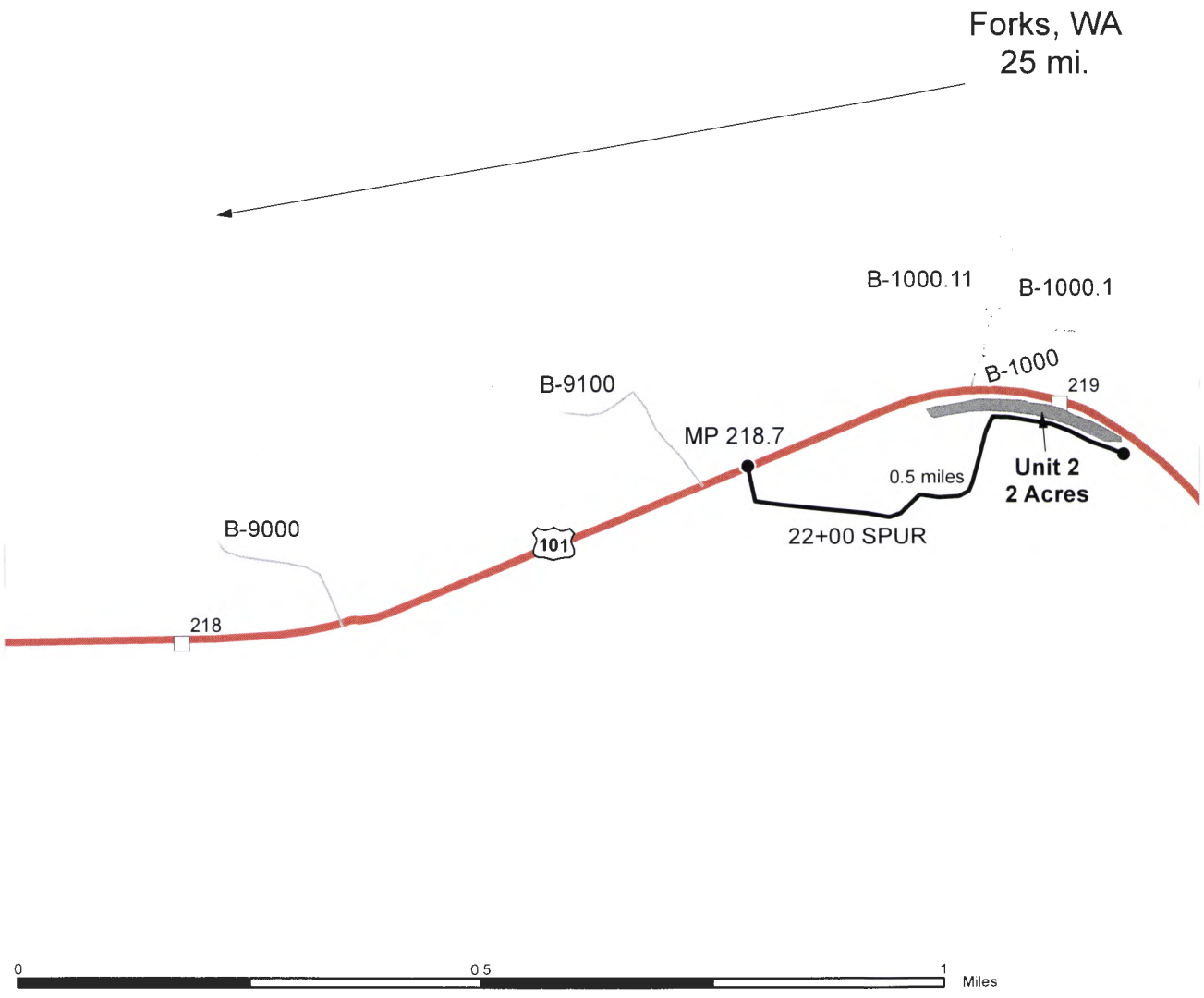
Prepared By: LKOM490 Creation Date: 6/06/2019 Modification Date: 6/06/2019

2616167

DRIVING MAP

SALE NAME: SHUWAGAIN
AGREEMENT#: 30-099285
TOWNSHIP(S): T30R10W
TRUST(S): Scientific School (10)

REGION: Olympic Region
COUNTY(S): CLALLAM



Timber Sale Unit Haul Route Existing Road Highways Milepost Markers Distance Indicator	DRIVING DIRECTIONS: Unit 2: From Forks, WA, travel east on US 101 24.5 mi. to milepost 218. From milepost 218, travel 0.7 miles to turn right onto the 22+00 Spur road. Travel 0.5 miles on the 22+00 Spur road to access Unit 2.

N

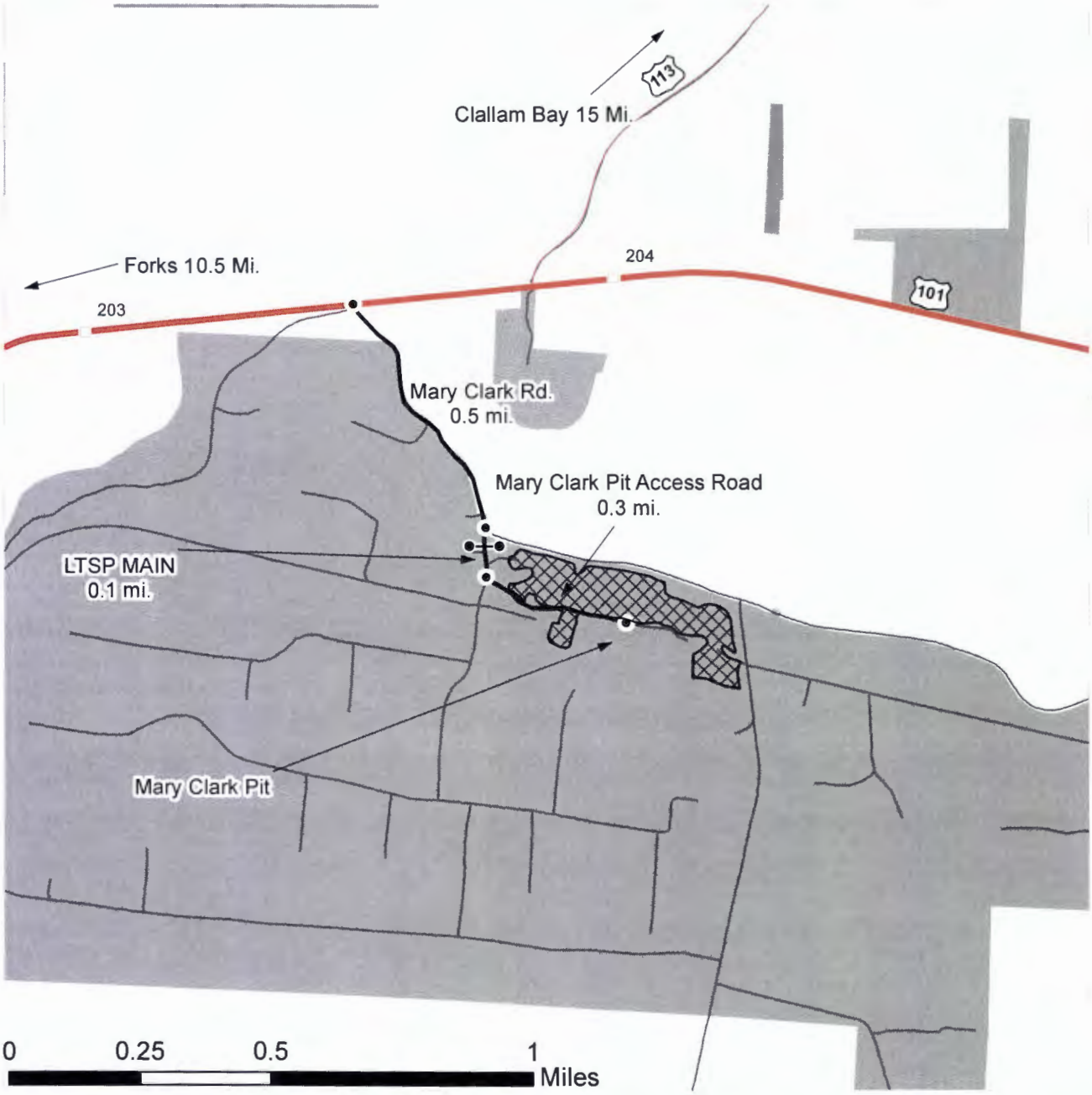
Prepared By: LKOM490 Creation Date: 6/06/2019 Modification Date: 6/06/2019

2616167

DRIVING MAP

SALE NAME: SHUWAGAIN
AGREEMENT#: 30-099285
TOWNSHIP(S): T30R12W

REGION: Olympic Region
COUNTY(S): CLALLAM



- Haul Route
- Existing Road
- Milepost Markers
- Distance Indicator
- Gate (AA1)
- DNR Managed Land
- Mary Clark Pit

DRIVING DIRECTIONS:
From Forks, WA, travel north on US 101 10.5 mi.Turn right on Mary Clark Rd.
Continue for 0.5 mi., then turn right on LTSP Main road. After 0.1 mi., turn left on the Mary Clark Pit Access Road and continue for 0.3 mi. to the Mary Clark Pit.

N

Prepared By: bsis490 Creation Date: 01/19/2016 Modification Date: 3/13/2018