

*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/state-environmental-policy-act-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:* **CALYPSO**

*Agreement #* **30-093648**

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

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

**Gary McLaughlin**  
**411 Tillicum Lane**  
**Forks, WA 98331**  
**(360)374-2800**

4. Date checklist prepared: **07/07/2016**

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

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

*a. Auction Date:* **02/22/2017**

*b. Planned contract end date (but may be extended):* **10/31/2018**

*c. Phasing:*

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

*Timber Sale:*

*a. Site preparation:*

**Landing piles may be removed for biofuels upon completion of harvest.**

*b. Regeneration Method:*

<b>TSU NO :1</b>	<b>HAND PLANT</b>	<b>01/15/2018</b>	<b>85 Acres</b>
<b>TSU NO :2</b>	<b>HAND PLANT</b>	<b>01/15/2018</b>	<b>50 Acres</b>
<b>TSU NO :3</b>	<b>HAND PLANT</b>	<b>01/15/2018</b>	<b>3 Acres</b>
<b>TSU NO :5</b>	<b>HAND PLANT</b>	<b>01/15/2018</b>	<b>1 Acres</b>

*c. Vegetation Management:*

Needs to be assessed five to seven years after harvest

d. *Thinning:*

Needs to be assessed ten to twelve years after harvest.

Roads: This proposal includes road construction, and reconstruction. Road maintenance, which will includes rocking, grading, ditch cleanout, and installation or replacement of culverts, will occur as necessary on existing roads. New roads and existing roads that receive pre-haul maintenance will be used to access the area for future management activities.

Rock Pits and/or Sale: Rock will be removed from the State Place pit located in Sec 33, T31N R07W and the newly developed PA-I-2140 Pit located in Sec 17, T30N R07W, or from commercial sources.

Other: None

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

303 (d) – listed water body in WAU:  temp  sediment  completed TMDL (total maximum daily load):

Landscape plan:

Watershed analysis:

Interdisciplinary team (ID Team) report:

Road design plan: **Dated 06/16/2016**

Wildlife report: **See memo from wildlife biologist dated 05/24/2016**

Geotechnical report:

Other specialist report(s): **Memo from geologist dated 07/18/2016; WHOGI report dated 03/23/2016**

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

Rock pit plan: **PA-I-2140 Pit development plan and Place pit development plan located in the Road Design Plan.**

Other: **Policy For Sustainable Forests (PSF) dated December 2006; State Soil Survey; Washington State Department of Natural Resources Habitat Conservation Plan (HCP) dated September 1997; ESA listed Salmonid Species Map from Forest Practices, dated 1999; Special Concerns Reports and TRAX Report. Documents are available for review at the Olympic Region Office during the SEPA comment period.**

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 at this time.**

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

FPA #     FHPA     Burning permit     Shoreline permit     Incidental take permit      
Existing HPA     Other: **Board of Natural Resources approval**

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

*a. Complete proposal description:*

**Proposal area (includes acreage set aside for existing roads, stream RMZs, soil protection, and leave tree areas) –170 acres**

**Net harvest area – 142 acres (Net acres = proposal acres – (riparian/wetland management zones + occupied marbled murrelet habitat buffers + identified unstable slopes + leave tree area acres + right-of-way acres with no timber).**

**Following is a list of units with net acres: Unit 1: 85.8 acres, Unit 2: 44.6 acres, Unit 3: 2.8 acres, Unit 4: 2.4 acres, Unit 5: 0.4 acres. There are two right-of-ways that will require timber removal: Unit 6 R/W (privately owned): 2.5 acres, and Unit 7 R/W: 3.4 acres.**

**The harvest will generate approximately 4,694 thousand board feet (mbf) of timber. Included in this number is 16 mbf of timber in a private right-of-way.**

**This proposal consists of timber harvest, approximately 5,908 feet of new road construction, 7,942 feet of reconstruction, and 27,240 feet of pre-haul maintenance. A new pit will be developed within Unit 1 on the PA-I-2140 road. A bridge will be installed on private land to replace a culvert on a Type 3 stream.**

**Units may be salvaged for biofuels after harvest.**

**In addition, 104 acres of wetland and riparian management zones (WMZ/RMZ), 95 acres of occupied marbled murrelet habitat buffer, 4.5 acres of old growth, and 9.4 acres of unstable slopes were identified. These areas were excluded from the proposal and will be protected as per Forest Practices, the Habitat Conservation Plan, and Department of Natural Resources guidelines.**

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

**The Calypso timber sale is a timber harvest consisting of Douglas-fir with scattered western red cedar, western hemlock, grand fir, red-alder, Sitka spruce, grand-fir and big-leaf maple. The proposal includes three variable retention harvest units, two units to be thinned, and two road right-of-ways.**

The origin dates are Unit 1 – 1915, 1936; Unit 2 – 1929; Unit 3 – 1936; Unit 4 – 1936, Unit 5 – 1936; Unit 6 R/W – 1991, 1938; Unit 7 R/W – 1915, 1985, 1991, 1993. Ground cover includes sword fern, salal, pacific ninebark, red huckleberry, and Oregon grape. Salmonberry, red elderberry, skunk cabbage and devils club are found in wet areas.

**Type of Harvest:** 133.2 acres of variable retention harvest, 2.8 acres of thinning, and 4.7 acres of right-of-way clearcut. Individual scattered leave trees and leave tree areas have been marked in the variable retention units. Unit 1 has 0.2 acres set aside in a leave tree area, Unit 2 has 1.0 acre set aside in a leave tree area. Units 3 has only individual leave trees, and Units 4 and 5 have only take trees marked. Yarding methods include cable, shovel, and tracked skidder, and self-leveling equipment.

**Overall Objectives:** The overall objectives for this sale includes the production of saw logs, poles, pulp material, and biofuels revenue 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, wetland and riparian management zones (RMZ). Approximately 86.0 acres (35 percent of the proposal) have been set aside for unstable slopes, RMZs, and leave tree areas. In addition, these stands will be managed to protect site productivity and maintain the integrity and water quality of adjacent streams.

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

Type of Activity	How Many	Length (feet) (Estimated)	Acres (Estimated)	Fish Barrier Removals (#)
Construction		5908	2.2*	0
Reconstruction		7942		0
Abandonment		0	0	0
Bridge Install/Replace	1**			1
Culvert Install/Replace (fish)	0			0
Culvert Install/Replace (no fish)	0			

27,240 feet of pre-haul maintenance

Post-haul maintenance of all forest roads used during operations.

Ditch relief cross drains: install or replace 16 culverts

\*with 16 foot subgrade

\*\*on private land

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 site plan and topographic maps on DNR website: <http://www.dnr.wa.gov/state-environmental-policy-act-sepa> Click on the DNR region under “Current SEPA Actions – Timber Sales.”)

a. Legal description: :

T30N R7W S16  
T30N R7W S17  
T30N R7W S19  
T30N R7W S20  
T31N R7W S33

Located in Clallam County.

b. Distance and direction from nearest town (include road names):

From Port Angeles, drive 4.5 miles, turn right (northwest) onto State Route 112 and drive 2.2 miles to Dan Kelly/Place Road.

Place Pit: Turn right (north) on Place Road, drive 1.2 miles and turn left (west) onto the PA-I-2600/2610 road (gate). Drive 0.5 miles to Place Pit.

Units 2, 3 & 4: From State Route 112, turn left (south) onto Dan Kelly Road and drive 1.2 miles and turn left (south) onto Karpen Road. Drive 0.4 miles to the PA-I-1000 (gate).

Continue 2.9 miles on the PA-I-1000 road to Units 3 and 4 and another 0.8 miles to Unit 2.

Units 1, 5 & 6R/W: On Dan Kelley Road continue west past the Karpen Road turnoff for 0.4 miles and turn left (south) onto the PA-I-2300 road (private gate). Unit 6R/W starts at the gate. Drive to the end of the road and walk 500 feet to the northern portion of Unit 1 or walk east along the north sale boundary to Unit 5.

Units 1 & 7R/W: On Dan Kelley Road continue west past the PA-I-2300 road turnoff for 1.1 miles and turn left (south) onto the PA-I-2100 road (gate). Drive 1.1 miles to the PA-I-2140 road, turn left (east) and drive 0.5 miles to the end of the road. From end of road, walk 3250 feet along Unit 7R/W to west side of Unit 1.

c. Identify the names of all watershed administrative units (WAU). (See also landscape/WAU map on DNR website <http://www.dnr.wa.gov/state-environmental-policy-act-sepa> under the topic "Current SEPA Project Actions – Timber Sales" for a broader landscape perspective.)

WAU Name	WAU Acres	Proposal Acres
SUTHERLAND-ALDWELL	49624.50	56
SALT CREEK	28404.60	84

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

This proposal is located within the Salt Creek and Sutherland-Aldwell WAU.

**Salt Creek WAU-** The DNR manages 12,500 acres of forestland within the WAU, which equates to 44 percent of the WAU’s acres. 56 percent of the WAU is managed by private and other public land management entities. Known future State activities not associated with this proposal include other variable retention harvests and RMAPS work. The following additional harvest activities are planned using variable retention methods in the

next five years:

**Planned Sales within Salt Creek WAU.**

Year	Sale Name	Total FMU Acres
2016	Kari Makwa Sorts	77
2019	Sutherland Sorts	358
2019	Agate Bay	827
2020	Piedmont Hill	46
2020	Slim Chance	318
2020	Striped Peak	41
2020	Power Plant SHWD	176
2020	Murdock Place CT	44

**Sutherland-Aldwell WAU** – The DNR manages 7,563 acres of forestland within the WAU, which equates to 15.2 percent of the WAU’s acres. 63.5 percent of the WAU is federally managed, 0.3 percent is managed by other state non-DNR entities, and 20.9 percent is managed by private and other public land management entities. Known future State activities not associated with this proposal include other variable retention harvests and RMAPS work. The following additional harvest activities are planned using variable retention methods in the next five years:

**Planned Sales within Sutherland-Aldwell WAU.**

Year	Sale Name	Total FMU Acres
2017	Little Foot	242
2017	Foot Trail	85
2019	Sutherland Sorts	74
2019	Agate Bay	101
2020	Slim Chance	82
2020	Power Plant SHWD	176

Future Department of Natural Resources' (DNR) managed stands in this WAU will be scheduled for variable retention, commercial thinning and partial cut harvests as they meet the department’s financial and ecological policies and mandates. All current and future DNR activities will be conducted according to the State’s Habitat Conservation Plan (HCP), Policy for Sustainable Forestry and State Forest Practices rules, and are expected to mitigate for potential adverse cumulative effects. The HCP is designed to protect and promote fish and wildlife species and their habitats over a broad regional area. All future activities will be completed while protecting unstable soils and wildlife habitats.

The following measures have been taken while assessing this proposal, and will be taken when assessing future proposals, to reduce the risk of negative environmental impacts:

- Assessments to evaluate the potential use of the proposal area by threatened and endangered species, and to ensure their protection.
- Typing and protection of waters and wetlands in accordance with the HCP procedures.
- Verification of compliance with HCP agreements for spotted owls and marbled murrelets.

- For a detailed description of marbled murrelet habitat mitigation see B.5.d. below.
- Measures to analyze, design, construct, and maintain the road system in order to minimize the amount of road construction needed and to ensure the quality of existing and newly constructed roads. These measures will minimize potential adverse effects on the environment by reducing the potential for off-site movement of sediments.
  - Analysis of G.I.S landscape reports to evaluate the location of the proposal relative to the rain-on-snow (ROS) zone mapping units and the forest inventory based Weighted Old Growth Habitat Index (WOGHI) assessment.
  - Application of timing restriction(s) to the use of ground yarding equipment in sensitive areas in order to prevent impacts to water quality.
  - Assessment of potentially unstable slopes and landforms in association with the proposal to insure that proposed management activities will not significantly increase the risk of mass wasting in the general area (B.1.d.1-5).

Over the past five to ten years, the private industrial forestlands scattered within the WAU's have reached rotation age and are currently being harvested on an estimated rotation cycle of 40 to 60 years in accordance with forest practice laws. Some of these industrial forestlands will likely be converted to industrial and private landowner development. Future activities planned by small private forestland owners within the WAU are largely unknown except as noted in the table below.

Below are tables of Forest Practice Approved Applications for Harvest Activities within the WAUs.

Salt Creek WAU			
Harvest Type	Acres on DNR Land	Acres on Non-DNR Land	Acres on All Lands
Even-Age	202	383	585
Salvage	19	46	65
Uneven-Age	5	602	607

Sutherland-Aldwell WAU			
Harvest Type	Acres on DNR Land	Acres on Non-DNR Land	Acres on All Lands
Even-Age	205	161	366
Uneven-Age	2	165	167

*NOTE: This information is derived from activity locations collected by varying methods ranging from hand drawn maps to precise GPS collection. No verification of map accuracy or activity completion is conducted. Totals may not be the sum of all harvest types due to overlapping activities. The same land may be counted more than once if, in the past seven years, more than one forest practice application has been approved for different harvests (salvage and even-age for example). All acreages are approximate. Rounding to the nearest 10 or even to the nearest 50 acres may be appropriate. Totals may not be the sum of all harvest types due to overlapping activities.*

*Data Source & Description: DNR Forest Practices Application Review System (FPARS) data. Table shows the last seven years of proposed harvest areas, some of these areas may not have actually been harvested. Data are continuously updated.*

## B. ENVIRONMENTAL ELEMENTS

### 1. Earth

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

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

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

**The two WAU's are located on the Olympic Peninsula along the Strait of Juan de Fuca. Lower elevations are found along the north end, where US Highway 101 runs through each WAU. Traveling inland to the south the elevation and relief steadily increases. The steep and more mountainous terrain is located on the south end of the WAU's within the Olympic National Park (ONP). Sub-basins are oriented north to south flowing from the mountains to the Straits. Residential neighborhoods are scattered throughout the WAU's, even up to the foothills at the edge of the ONP. The lower elevations contain a variation of flat to steep terrain features. The upper elevations contain some steep, mountainous terrain.**

**Salt Creek WAU: The WAU ranges in elevation from sea level to 2,513 feet. The WAU varies in precipitation received from 35- 60 inches per year. This is a *Tsuga heterophylla* plant community with the major timber types present being Douglas fir, western hemlock, western red cedar, and red alder. The majority of lower elevation forests were harvested and burned in the past, and have been reforested with Douglas fir. Approximately 8.8 percent of the WAU is in the peak rain-on-snow zone. Landforms vary from gentle to hilly and moderately steep slopes. Steeper slopes are found in the south quarter of the WAU.**

**Sutherland-Aldwell WAU: The WAU ranges in elevation from sea level to 2,030 feet. The WAU varies in precipitation received from 30 to 70 inches per year. This a *Tsuga heterophylla* plant community with the major timber types being Douglas fir, western hemlock, western red cedar, and red alder. The majority of the lower elevation forests were harvested and burned in the past, and have been reforested with Douglas fir and/or succumbed to urban sprawl. Approximately 37.9 percent of the WAU is in the peak rain-on-snow zone. Landforms vary from gentle to hilly and moderately steep slopes. Steeper slopes are found in the northern third of the WAU, and in the southern portion of the WAU.**

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

**None.**

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

**95%**

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

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

State Soil Survey #	Soil Texture	% Slope	Acres	Mass Wasting Potential	Erosion Potential
<b>8047</b>	<b>V.GRAVELLY SANDY LOAM</b>	<b>30-65</b>	<b>67</b>	<b>LOW</b>	<b>HIGH</b>
<b>4334</b>	<b>V.GRAVELLY LOAM</b>	<b>2-15</b>	<b>33</b>	<b>INSIGNIFICANT</b>	<b>LOW</b>
<b>8049</b>	<b>TERBIES-ROCK OUTCROP-COMPLEX</b>	<b>65-85</b>	<b>20</b>	<b>No Data</b>	<b>No Data</b>
<b>1959</b>	<b>GRAVELLY SANDY LOAM</b>	<b>15-35</b>	<b>18</b>	<b>LOW</b>	<b>LOW</b>

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

1) *Surface indications:* **Debris-fans at outlet of inner gorges.**

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

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

**Both deep-seated and shallow failures.**

*Associated management activity:*

**Slope failures on the Olympic Peninsula typically have occurred where road construction has been performed on extremely steep unstable slopes. Road failures are primarily associated with older, poorly constructed sidecast roads. Typically, past failures due to harvest operations resulted from poor road locations and the standard road building practices and harvest methods employed before the 1950s.**

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

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

*Associated management activity:*

**Natural slope failures occur within incised draws and inner gorge features where streams undercut the toe of the slope, causing some slides to begin. Slope failures also occur on steep slopes underlain by unstable, glacial soils, or on very steep slopes where unconsolidated material overlays the bedrock. These events usually occur during periods of extreme saturation. These conditions do not exist within the proposal area. There are no known deep-seated landslides within the proposal area or downstream of the proposal area.**

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

No  Yes, describe similarities between the conditions and activities on these sites:

**Shallow landslides are common along steep, channel-adjacent slopes in the sub-basin.**

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

**At the recommendation of the state geologist, the bedrock hollows, inner gorges, and shallow debris slides, and all typed waters have been bounded out of the proposal in these unstable areas.**

- 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: 1.7      Approx. acreage new landings: 0.1*

*Fill Source: Place pit and PA-I-2140 pit, commercial pits may also be used at purchaser's expense.*

- f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

**A small amount of surface erosion incidental to freshly exposed soils is anticipated until the site has revegetated. Exposed slopes near streams and on steep road cuts will be grass seeded to reduce runoff.**

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

**Less than 1 percent of the proposal will be covered with additional road running surface as defined by compacted surfacing. This is based on the subgrade widths of newly constructed roads and associated landings.**

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

**Seasonal restrictions will apply to new road construction, reconstruction, pre/post-haul maintenance, road abandonment, rock haul, timber haul, and harvest operations unless operations are approved by the contract administrator. Additionally, new road construction will be restricted during periods of heavy rain fall when rutting and surface erosion may occur. Roads will be constructed with properly located ditches, ditch outs and cross drains to divert water onto stable forest floor and/or into stable natural drainages. Harvest operations shall be suspended during periods of wet weather or wet soil conditions when rutting of skid roads may occur. Additional guidelines for soil protection will include: proper distribution of surface runoff during road construction, managed usage of roads to minimize erosion and sediment delivery, and pullback of any landing debris on or near the tops of the steep slopes. Waterbars will be installed on skid trails and logging spurs as necessary to control erosion.**

## 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.

**Insignificant amounts of engine exhaust from road and harvest operations along with dust from passage of rock and log trucks.**

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

**No.**

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

**Probable post-harvest biofuel grinding of the sale units will reduce the need to burn the logging slash. This would prevent smoke emissions resulting from the need to burn slash for site prep.**

## 3. Water

- a. Surface Water:

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

**Unit 1 has a type 4/5 stream running along the west boundary, an isolated type 3 stream within a WMZ in the northern portion, which turns into a type 5 stream south of the WMZ.**

**Unit 2 has two type 5, and one type 4/5 stream running north south through the unit.**

- a. *Downstream water bodies:*

**Units 2, 3, and 4 flow into Indian Creek. Unit 1 flows into Colville Creek.**

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

Wetland, Stream, Lake, Pond, or Saltwater Name (if any)	Water Type	Number (how many?)	Avg RMZ/WMZ Width in feet (per side for streams)
Wetland	B	2	157
Wetland	A*	2	157
Wetland	Forested	2**	100/157
Stream	3	3	157
Stream	4	3	100
Stream	5	5	None***

\*There is a large Type A wetland (approximately 22.6 acres) south of Unit 2, it is associated with a forested wetland. The other Type A wetland (approximately 1.7 acres) is located south of units 3 and 4.

\*\*One forested wetland in the northeast portion of Unit 1, this is a grouping of forested wetlands less than a quarter acre with an average buffer of 100'. There is a larger forested wetland located to the south of Unit 2 which is greater than a quarter acre, this has a site index buffer.

\*\*\*T5 Streams north of unit 1 have been bounded out to protect Type 5 streams.

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

**A 100 foot buffer protects the Type 4 stream to the west of Unit 2 and in the north east region of unit 2. A 157 foot buffer protects the isolated Type 3 stream in the northern portion of Unit 1 and a 100 foot buffer protects the Type 4 stream to the west of Unit 1.**

**A Type 3 stream with an existing culvert passes under the PA-I-2300 road at station 18+33. The culvert is currently inadequately sized to allow fish passage. This culvert will be replaced with a bridge over a Type 3 stream following HPA guidelines.**

**Unit 1 has a Type B wetland that is protected with a site index buffer of 157 feet. The PA-I-2300 road goes through the northwestern portion of the WMZ. Despite this passage, site index exceeds the minimum basal area threshold of 120. Additionally, in Unit 1, there is a mosaic of forested wetlands which are managed as a whole, protected with a 100-foot buffer.**

**A Type A wetland is located to the south of Unit 2 and extends south into Indian Creek, it is protected with a 157-foot site index buffer.**

**A Type B wetland is located to the south of Units 3 and 4 and is managed with a site index buffer of 157 feet.**

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

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

*Description (include culverts):*

**The Type 3 culvert replacement with a bridge on the PA-I-2300 road.**

- 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.

**A small amount of dredge and fill material will be moved during installation.**

**Source of fill material will be native soils and rock from the Place pit, the PA-I-2140 Pit, or commercial sources.**

- 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:

**Water diversion may be necessary during stream culvert removal and bridge installation work. Diversions will be made using Forest Practices guidelines, restrictions, and as described in the HPA. Water will be directed back into stream channel to ensure continued flow downstream of diversion. Stream work will be during the dry season to minimize the diversion of water flow.**

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

No  Yes, describe location:

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

No  Yes, type and volume:

- 7) *Does the sub-basin contain soils or terrain susceptible to surface erosion and/or mass wasting? What is the potential for eroded material to enter surface water?*

**The potential for surface and/or mass erosion exists in the headwaters of the WAU, typically in headwalls with steep slopes of 60 percent or greater and/or where unstable soils are present. A majority of these sites occur near watercourses with deeply incised channels and steep headwall areas. A storm event could result in eroded material entering surface water. The potential for eroded material to enter**

*January 2016*

surface water based on this proposal is low due to erosion control measures that will be included in the proposal. Furthermore, the terrain in the WAU is heavily vegetated and limits the occurrence of soil erosion; therefore, it is unlikely that a significant amount of eroded material will enter surface water. All active unstable soils were excluded from the sale by the State geologist and forester.

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

No             Yes, describe changes and possible causes:

**There have been changes to channels in area streams due to past slides. Due to the hilly terrain in the area, most of these channel movements were restricted to the existing narrow flood plains of the streams. These narrow flood plains and steeper stream side slopes often resulted in streams returning to their original channels.**

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

No             Yes, explain:

**There may be a temporary minimal effect to the water quality during the placement of the bridge in live streams.**

- 10) *What are the approximate road miles per square mile in the WAU and sub-basin(s)?*

**There are 4.8 road miles per square mile in the Salt Creek WAU and 2.1 road miles per square mile in the Sutherland- Aldwell WAU. The approximate road miles per square mile in the sub-basins are unknown.**

*Are you aware of areas where forest roads or road ditches intercept sub-surface flow and deliver surface water to streams, rather than back to the forest floor?*

No             Yes, describe:

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

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

**Or, approximate percent of WAU:**

**Salt Creek 6.17%**

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

rated as hydrologically mature?

**The approximate percentage of the sub-basin within the ROS zone is 63.18%. However, the rain on snow and snow dominated zones is only 6.17%. Since this number is less than 33.33%, the procedure does not apply.**

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

No       Yes, describe observations in the WAU and in the sub-basin(s):

**Within the WAU many streams experience exceptionally high flows during the major storms resulting in channel scour, deposition, and changes in channel location within their flood plains.**

*Based on your answers to questions B-3-a-10 through B-3-a-13 above, describe whether and how this proposal, in combination with other past, current, or reasonably foreseeable proposals in the WAU and sub-basin(s), may contribute to a peak flow impact.*

**Past, current, or reasonable foreseeable proposals may slightly change the timing, duration, and/or amount of peak flow, and flow rates may increase slightly during low flow periods due to decreased transpiration and interception. However, the unit size, WMZs, RMZs and green-up policies should limit contributions to peak flow problems.**

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

No       Yes, possible impacts:

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

**Establishing RMZs along Type 3 and 4 streams should help maintain bank stability and supply large organic debris, which helps control the rate of stream flow. Providing for green-up before harvesting adjacent DNR stands will help decrease potential peak flow/flooding impacts.**

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.**

- 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.

**Does not apply.**

- 3) *Is there a water resource use (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or down slope of the proposed activity that could be affected by changes in groundwater amounts, timing, or movements as a result this proposal?*

No       Yes, describe:

**The Department of Ecology lists groundwater rights in section 19, however there groundwater rights are not actively used as there are no homes in this area.**

*a. Note protection measures, if any.*

**The bedrock hollows, shallow debris slides, and inner gorges noted in B.1.d.1) are north of Unit 2 and west of Unit 1. These geologic features have been excluded from the proposal area. Any movement of these features would have minimal impact to the noted water resources downstream, due to the distance and nature of the resources in relation to Salt Creek (springs and wells).**

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.

**Storm water runoff will be collected by road ditches and diverted onto the forest floor. Existing culverts and ditchouts have been placed to minimize the amount of ditch water that may enter into stream channels.**

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

No       Yes, describe:

**No lubricants will be intentionally disposed of on site, but insignificant amounts of oil and other lubricants could be inadvertently discharged as a result of heavy equipment use.**

a. Note protection measures, if any.

**If contamination is suspected, discovered, or occurs during the proposed timber harvest and road construction, testing of the potentially contaminated media will be conducted. If contamination of soil or groundwater is readily apparent, or is revealed by testing, the Washington Department of Ecology will be notified. Contact will be made with the Environmental Report Tracking System Coordinator in the Southwest Regional Office (SWRO). For assistance and information about subsequent cleanup and to identify the type of testing that will be required, Connie Groven with the SWRO, Toxic Cleanup Program will be contacted at the above phone number.**

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

**No.**

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-16, B-3-b-3-a, and B-3-c-2-a.)*

#### 4. Plants

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

deciduous tree:

alder, maple, aspen, cottonwood, western larch, birch,  
other:

evergreen tree:

Douglas fir, grand fir, Pacific silver fir, ponderosa pine, lodgepole pine, western hemlock, mountain hemlock, Englemann spruce, Sitka spruce, red cedar, yellow cedar, other: *Pacific yew, western white pine.*

shrubs:

huckleberry, salmonberry, salal, other: *Pacific ninebark, Oregon grape*

grass

pasture

crop or grain

wet soil plants:

cattail, buttercup, bullrush, skunk cabbage, devil's club,  
other: *Red elderberry, salmonberry*

water plants:

water lily,  eelgrass,  milfoil,  other:  
 other types of vegetation:

*plant communities of concern*: **Areas in and adjacent to Units 1 and 2 were surveyed for patches of old-growth forest as defined by DNR policy because of forest inventory indicators near Unit 2 and during reconnaissance for Unit 1. No old-growth was found near unit 2. A complex-shaped 8.2 acre patch dominated by residual old-growth Douglas-fir was identified and excluded from Unit 1.**

b. What kind and amount of vegetation will be removed or altered? (*See answers to questions A-11-a, A-11-b, B-3-a-1-b and B-3-a-1-c. The following sub-questions merely supplement those answers.*)

1) *Describe the species, age, and structural diversity of the timber types immediately adjacent to the removal area. (See color landscape/WAU and adjacency maps on the DNR website: <http://www.dnr.wa.gov/state-environmental-policy-act-sepa> (Click on the DNR region under the Topic “Current SEPA Project Actions - Timber Sales.”))*

**All units are surrounded by stands similar in composition – predominately single story Douglas fir, western hemlock, red alder, and grand fir. Origin years of adjacent stands are as follows:**

**Unit 1 and 5: north- origin date is unknown, private property, but has previously been harvested; east- 1917 and 2000, south 1917 and 1915; west- 1915 and 1992.**

**Unit 2: north and east - 1970; west – 1929 and 2000; south- 1929.**

**Unit 3 and 4: north- 1991; east- 1991 and 2011; south- 2011 and 1936; west- 2001 and 1991.**

2) *Retention tree plan:*

Unit #	Individual Trees	# of Clumps	Clumped	Leave Trees
1	712	1	52	764
2	359	1	70	429
3	32	0	0	32

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

TSU Number	FMU_ID	Common Name	Federal Listing Status	WA State Listing Status
None Found In Database Search				

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

**Units 1 thru 3 will be planted with a mix of conifers the first planting season after final harvest. Approximately 350 trees per acre will be planted.**

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

**Scotchbroom, holly, Canada thistle, Herb Robert.**

### 5. Animals

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

birds: hawk, heron, eagle, songbirds, pigeon, other: woodpeckers, barred owls

mammals: deer, bear, elk, beaver, other: cougar, mountain beaver

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

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

**Several rocky areas within the sale were found to provide unique habitat values and were protected with unit boundary design and leave tree placement as described in the memo by Scott Horton dated 5/24/2016.**

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

TSU Number	FMU_ID	Common Name	Federal Listing Status	WA State Listing Status
4	74897	SPOTTED OWL: Site:43-MCDONALD MTN	THREATENED	ENDANGERED
4	74897	SPOTTED OWL: Site:742-LAKE ALDWELL	THREATENED	ENDANGERED
1	78395	SPOTTED OWL: Site:43-	THREATENED	ENDANGERED

		<b>MCDONALD MTN</b>		
<b>1</b>	<b>78395</b>	<b>SPOTTED OWL: Site:742-LAKE ALDWELL</b>	<b>THREATENED</b>	<b>ENDANGERED</b>
<b>2</b>	<b>89956</b>	<b>SPOTTED OWL: Site:54- MT BALDY</b>	<b>THREATENED</b>	<b>ENDANGERED</b>
<b>2</b>	<b>89956</b>	<b>SPOTTED OWL: Site:742-LAKE ALDWELL</b>	<b>THREATENED</b>	<b>ENDANGERED</b>
<b>2</b>	<b>89956</b>	<b>SPOTTED OWL: Site:94- BEAR VALLEY</b>	<b>THREATENED</b>	<b>ENDANGERED</b>
<b>3</b>	<b>95425</b>	<b>SPOTTED OWL: Site:43- MCDONALD MTN</b>	<b>THREATENED</b>	<b>ENDANGERED</b>
<b>3</b>	<b>95425</b>	<b>SPOTTED OWL: Site:742-LAKE ALDWELL</b>	<b>THREATENED</b>	<b>ENDANGERED</b>
<b>5</b>	<b>95426</b>	<b>SPOTTED OWL: Site:742-LAKE ALDWELL</b>	<b>THREATENED</b>	<b>ENDANGERED</b>

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

Pacific flyway       Other migration route:      Explain if any boxes checked:

**This proposal is located in the Pacific flyway. Migratory waterfowl use the Pacific flyway, but the harvest area for this proposal is not generally of the type used for resting or feeding by migratory waterfowl. Riparian areas and special habitats are protected through implementation of DNR's Habitat Conservation Plan.**

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: **Multi-species**

Protection Measures: **Professionally designed roads protect water quality for downstream aquatic and riparian wildlife. Grass seeding exposed soils should protect water quality and provide forage. Large diameter leave trees will enhance wildlife habitat value throughout development of the future stand. RMZs along**

**Type 3 and 4 streams and associated wetlands will protect water quality, provide mature forest habitat, and maintain habitat for fish, amphibians, and other riparian obligate species. Riparian Management Zones (RMZs) with protected unstable slopes are 157 feet for Type 3 streams and 100 feet along Type 4 streams.**

Species /Habitat: **marbled murrelet**

Protection Measures: **Potential impacts to marbled murrelets were analyzed. The northeast portion of Place Pit is within 100 meters from an occupied site.**

Species /Habitat: **northern spotted owl**

Protection Measures: **Potential impacts to owls were minimized and mitigated by implementing HCP procedures statewide. Harvest areas are non-habitat and are located out of the best 70-acre core for McDonald Mountain, Lake Aldwell, Mt. Baldy and Bear Valley.**

Species /Habitat: **Taylor's Checkerspot Butterfly**

Protection Measures: **Potential impacts to butterflies were analyzed. Harvest areas are non-habitat and are located outside habitat and the 300 foot habitat buffer.**

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

**None.**

## **6. Energy and natural resources**

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

**Does not apply.**

- b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

**Does not apply.**

- c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

**Does not apply.**

## **7. Environmental health**

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.

**Minimal hazards incidental to operation of heavy machinery, such as the risk of fire or small amounts of oil and other lubricants, may be accidentally discharged as a result of**

**heavy equipment use.**

- 1) Describe any known or possible contamination at the site from present or past uses.

**None.**

- 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.**

- 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.

**Fuel trucks may be used for heavy equipment.**

- 4) Describe special emergency services that might be required.

**Pump trucks and/or pump trailers will be required on site during fire season. In the event of a lubricant spill the Contractor will contact DNR and the Department of Ecology and follow proper clean up requirements.**

- 5) Proposed measures to reduce or control environmental health hazards, if any:

**Contract language will require that preventative measures be taken to avoid on-site disposal, or spilling of hazardous materials. The reporting and cleanup of any found past or present spills of petroleum based products or other waste will also be required.**

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.

**Minimal noise levels associated with logging operations and truck traffic during working hours.**

- 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.*)

**Commercial forest.**

- 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?

**Proposal site is forest land. None of the proposal will be converted to other uses.**

- 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.**

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

**Forest management.**

- g. If applicable, what is the current shoreline master program designation of the site?

**Does not apply.**

- h. Has any part of the site been classified as a critical area by the city or county? If so, specify.

**No.**

i. Approximately how many people would reside or work in the completed project?

**None.**

j. Approximately how many people would the completed project displace?

**None.**

k. Proposed measures to avoid or reduce displacement impacts, if any:

**None.**

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

**None.**

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:

**Does not apply.**

## **10. Aesthetics**

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

**Does not apply.**

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

1) *Is this proposal visible from a residential area, town, city, developed recreation site, or a scenic vista?*

No  Yes, viewing location:

**Various locations along US Highway 101 and 112 can see the upper portions of Unit 1 from remote distances and from adjacent residents.**

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

No  Yes, scenic corridor name: **Highway 101, State Route 112, and Dan Kelley Road.**

3) *How will this proposal affect any views described in 1) or 2) above?*

**The remote views noted above will consist of scattered voids in the tree canopy coverage created by timber harvest until newly planted trees grow and fill in voids. Leave trees are distributed throughout the unit to maintain tree cover.**

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

**764 trees have been scattered or clumped throughout the variable retention harvest units to help with aesthetics. See B.4.b. for details.**

## 11. Light and glare

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

**Lights from vehicles will be present during morning and evening operations, especially during winter months.**

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?

**Use of the Olympic Discovery Trail (ODT) adventure route, hiking, hunting, berry picking, equestrian activities.**

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

**The project will temporarily restrict recreational activities. The ODT will be closed during logging operations.**

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

**None.**

## 13. Historic and cultural preservation

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

**No. This proposal was screened for potential archaeological sites or artifacts using the P&T special concerns report, historical GLO maps, and during the pre-sales phase.**

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

**No.**

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

**Not applicable.**

- d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.

**Any cultural resources identified during operations will be protected. Should archaeological materials or cultural items be discovered during the course of operations, all work in the vicinity will be stopped and associated tribes and Department of Archaeological and Historic Preservation (DAHP) will be contacted.**

#### 14. Transportation

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

**This proposal is served by Highway 112, Dan Kelly road, Karpen road, the PA-I-1000 road, the PA-I-2100 road, the PA-I-2140 road, the PA-F-2800 road, and the PA-I-2300 road.**

- 1) *Is it likely that this proposal will contribute to an existing safety, noise, dust, maintenance, or other transportation impact problem(s)?*

**No.**

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

**No. The approximate driving distance to a transit stop is 1.2 miles via Highway 112.**

- 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).

**See A.11.c for new construction. In addition, all forest roads used during operations will have post-haul maintenance. The PA-I-2300 road is private to station 24+68, all other roads are public.**

- 1) *How does this proposal impact the overall transportation system/circulation in the surrounding area, if at all?*

**None is expected due to light public traffic use.**

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

**No.**

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

**A minor number of trips will be generated in association with normal land management activity.**

- f. 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.

**None.**

- g. 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:

**Does not apply.**

- 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.

**Does not apply.**

**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 **Nichole Studevart**

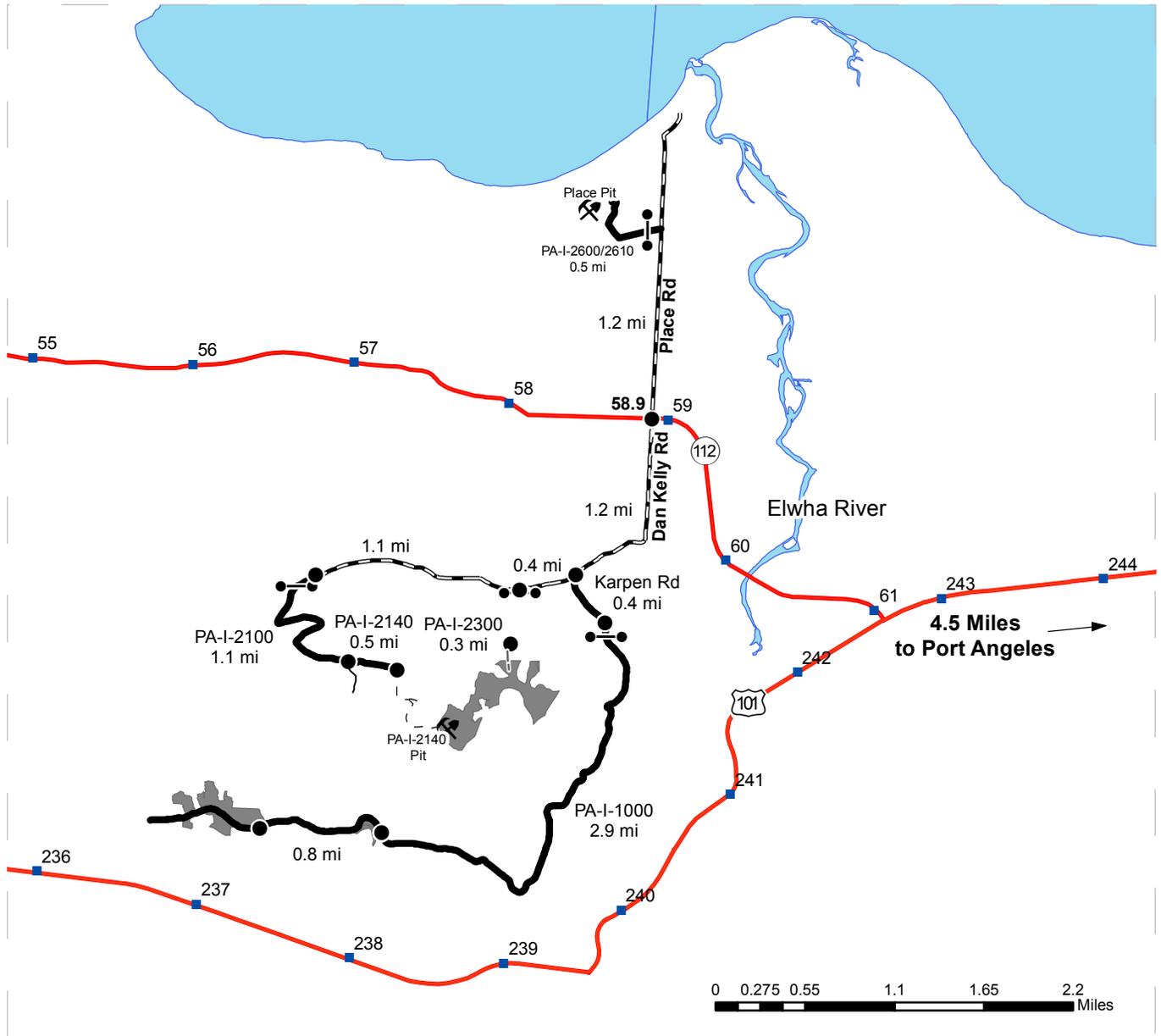
Position and Agency/Organization **Forester 1, Department of Natural Resources**

Date Submitted: \_\_\_\_\_

# DRIVING MAP

**SALE NAME:** CALYPSO  
**AGREEMENT#:** 93648  
**TOWNSHIP(S):** T30R07W, N31R07W  
**TRUST(S):** State Forest Transfer(1), Common School and Indemnity(3)

**REGION:** Olympic Region  
**COUNTY(S):** CLALLAM  
**ELEVATION RGE:** 400-1890



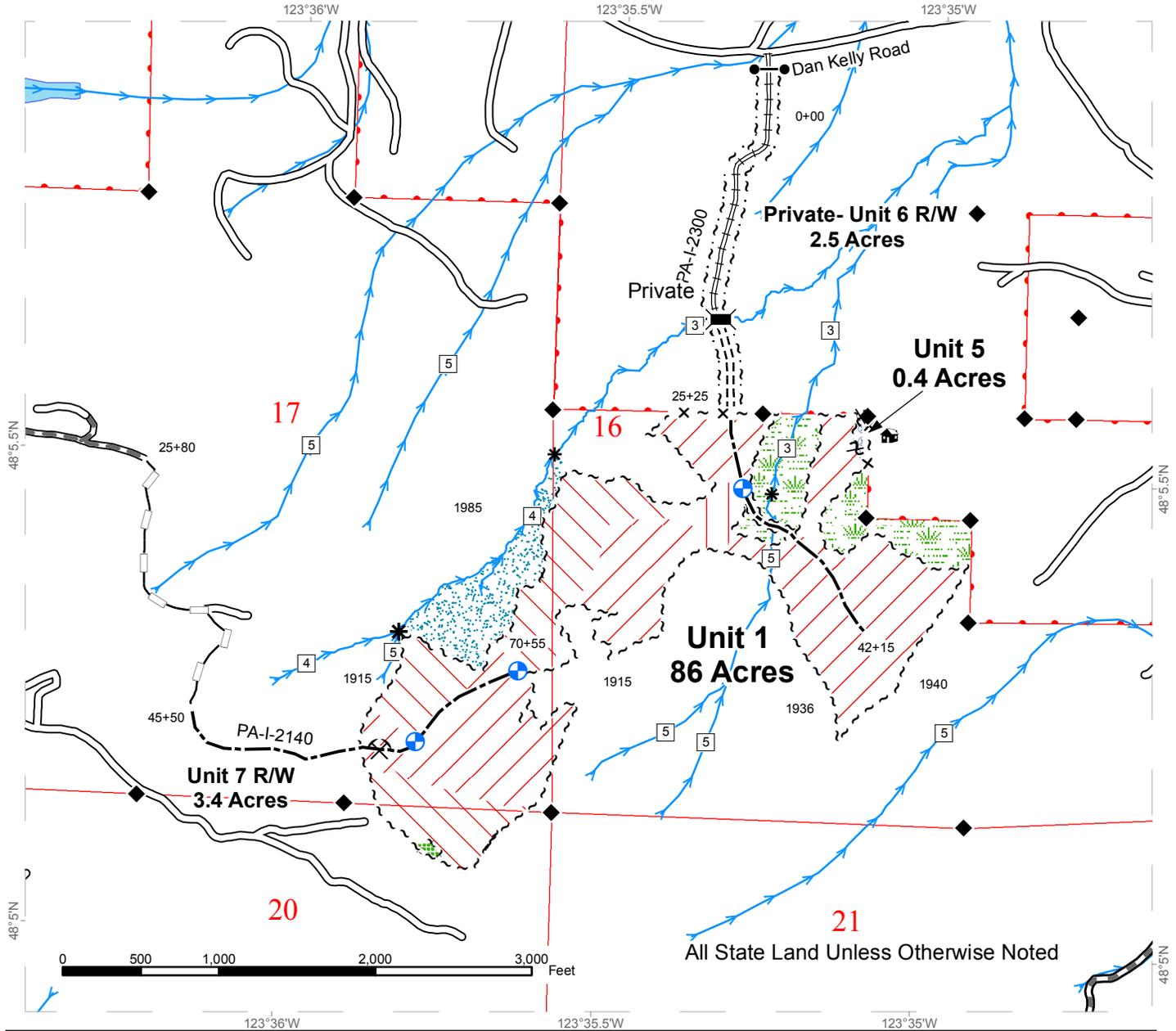
<ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: gray; margin-right: 5px;"></span> Sale Area</li> <li><span style="display: inline-block; width: 15px; border-bottom: 2px solid red; margin-right: 5px;"></span> Highway</li> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: blue; margin-right: 5px;"></span> Milepost Marker</li> <li><span style="display: inline-block; width: 15px; border-bottom: 1px dashed black; margin-right: 5px;"></span> County Road</li> <li><span style="display: inline-block; width: 15px; border-bottom: 3px solid black; margin-right: 5px;"></span> Haul route</li> <li><span style="display: inline-block; width: 15px; border-bottom: 1px dashed black; margin-right: 5px;"></span> Walk-in</li> <li><span style="display: inline-block; width: 10px; height: 10px; background-color: black; border-radius: 50%; margin-right: 5px;"></span> Distance Indicator</li> <li><span style="display: inline-block; width: 10px; height: 10px; background-color: black; border-radius: 50%; border: 1px solid black; margin-right: 5px;"></span> Gate</li> </ul>	<p><b>DRIVING DIRECTIONS</b></p> <p>From Port Angeles, drive 4.5 miles, turn right (northwest) onto State Route 112 and drive 2.2 miles to Dan Kelly/Place Road.</p> <p>Place Pit: Turn right (north) on Place Road, drive 1.2 miles and turn left (west) onto the PA-I-2600/2610 road (gate). Drive 0.5 miles to Place Pit.</p> <p>Units 2, 3 &amp; 4: From State Route 112, turn left (south) onto Dan Kelly Road and drive 1.2 miles and turn left (south) onto Karpen Road. Drive 0.4 miles to the PA-I-1000 (gate). Continue 2.9 miles on the PA-I-1000 road to Units 3 &amp; 4 and another 0.8 miles to Unit 2.</p> <p>Units 1, 5 &amp; 6R/W: On Dan Kelley Road continue west past the Karpen Road turnoff for 0.4 miles and turn left (south) onto the PA-I-2300 road (private gate). Unit 6R/W starts at the gate. Drive to the end of the road and walk 500 feet to the northern portion of Unit 1 or walk east along the north sale boundary to Unit 5.</p> <p>Units 1, 7R/W and PA-I-2140 pit: On Dan Kelley Road continue west past the PA-I-2300 road turnoff for 1.1 miles and turn left (south) onto the PA-I-2100 road (gate). Drive 1.1 miles to the PA-I-2140 road, turn left (east) and drive 0.5 miles to the end of the road. From end of road, walk 3250 feet along Unit 7R/W to west side of Unit 1.</p> <p>Note: All gates have AA-1 locks. Do not use the PA-I-2100 road beyond the PA-I-2140 road junction. That portion of the PA-I-2100 road is within protected habitat.</p>
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# TIMBER SALE MAP

**SALE NAME:** CALYPSO  
**AGREEMENT #:** 93648  
**TOWNSHIP(S):** T30R07W  
**TRUST(S):** State Forest Transfer(1), Common School and Indemnity(3)

**REGION:** Olympic Region  
**COUNTY(S):** CLALLAM  
**ELEVATION RGE:** 400-1890



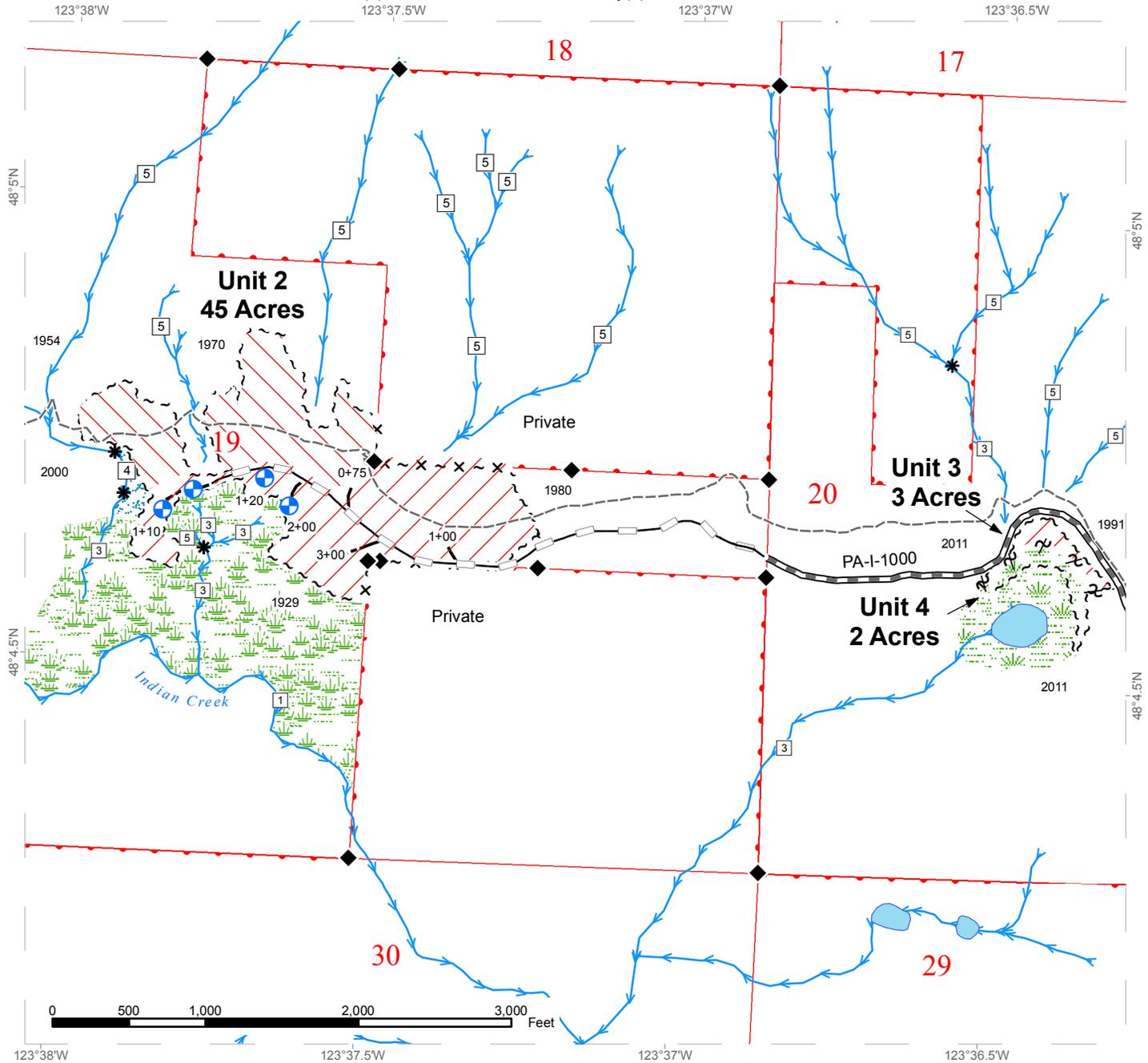
All State Land Unless Otherwise Noted

~~~~ Timber Sale Boundary Tags	⊕ Cable Landing	🏠 Residence
~~~~ Right of Way Boundary Tags	⊗ Pit	◆ Monumented Corner
•••• Property Line	⚓ New Bridge	⊗ Hazard Abatement
⌘⌘ Special Mgmt Unit Boundary Tags	--- Optional Construction	□ Stream Type
x~x Private Property with Tags	- - - Optional Reconstruction	* Stream Type Break
/// Ground	==== Required Construction	➡ Stream
Cable Only	==== Required Reconstruction	🌳 Leave Tree Area
\\ Self-Leveling Equipment or Cable	==== Required Prehaul Maintenance	🌿 Riparian Mgt Zone
	● Gate	🌿 Wetland Mgt Zone

# TIMBER SALE MAP

**SALE NAME:** CALYPSO  
**AGREEMENT #:** 93648  
**TOWNSHIP(S):** T30R07W  
**TRUST(S):** State Forest Transfer(1), Common School and Indemnity(3)

**REGION:** Olympic Region  
**COUNTY(S):** CLALLAM  
**ELEVATION RGE:** 400-1890



~ ~ ~ Timber Sale Boundary Tags	⊕ Cable Landing	----- Olympic Discovery Trail
~ · ~ · ~ Right of Way Boundary Tags	◆ Monumented Corner	➡ Stream
· · · · Property Line	--- Optional Construction	□ Stream Type
⌘ ⌘ Special Mgmt Unit Boundary Tags	— Optional Reconstruction	* Stream Break
x ~ x Private Property with Tags	----- Required Construction	▒ Leave Tree Area
\\ \\ Self Leveling Equipment or Cable	▬▬▬ Required Prehaul Maintenance	▒ Riparian Mgmt Zone
\\ \\ Ground	▬▬▬ Required Reconstruction	▒ Wetland Mgmt Zone

