

I have reviewed this SEPA Checklist.
My comments are recorded in blue.

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Coordinator
Olympic Region DNR

11/8/2024

KP

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: **DUNGENESS AND DRAGONS**

Agreement # **30-105915** FPA 2618550

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

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

Cody Pagel
Department of Natural Resources
411 Tillicum Lane
Forks, WA 98331
(360) 374-2800

4. Date checklist prepared: **01/30/2024**

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

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

a. Auction Date:

01/29/2025

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

10/31/2026

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:

For all VRH units: assessments for treatments will occur after completion of harvest. Site preparation including a chemical herbicide application, may be used to ensure that planting is successful at acceptable levels to meet or exceed Forest Practice standards.

b. Regeneration Method:

All VRH units will be hand planted with native species seedlings following harvest.

c. Vegetation Management:

A continued assessment of units to determine future vegetation management strategy will be required. Treatments will be based on vegetative competition and will ensure a free-to-grow status that complies with Forest Practice standards. PCT needs will be assessed in 10 to 15 yrs. after planting in units.

d. Other:

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

Biomass not removed during harvest may be piled near roads and landings. After the project is complete, any remaining piles may be offered for public firewood cutting, burned, or sold.=

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: **Dungeness River**
 - temp
 - sediment
 - completed TMDL (total maximum daily load)
- Landscape plan:
- Watershed analysis:
- Interdisciplinary team (ID Team) report:
- Road design plan: **Dungeness and Dragons Road Plan 3/5/2024**
- Wildlife report:
- Geotechnical report: **Engineering Geologic Risk Assessment for the Dungeness and Dragons Timber Sale**
- Other specialist report(s): **WA DNR West Side Old Growth Assessment, Wetland Mitigation Memo, Stand Development Stage Assessment**
- Memorandum of understanding (sportsmen's groups, neighborhood associations, tribes, etc.):
- Rock pit plan: **Fitzgerald Pit**
- Other:

Geo report, slope stability maps, slope stability informational forms are available on FPARS with FPA 2618550.

The following analyses, policies, procedures, documents, and data layers directly pertain to or were reviewed as part of this proposal and are incorporated by reference:

- **DNR Policies and Implementation**
 - Policy for Sustainable Forests (PSF; 2006a)
 - Final Environmental Impact Statement on the Policy for Sustainable Forests (2006b)
 - Alternatives for the Establishment of a Sustainable Harvest Level for Forested State Trust Lands in Western Washington Final Environmental Impact Statement (2019)
 - Landscape Assessment to Identify and Manage Structurally Complex Stands to Meet Older-Forest Targets in Western Washington, May 2024 (Revised September 2024).
 - Identifying Mature and Old Forests in Western Washington by Robert Van Pelt (2007).
 - Silvicultural Rotational Prescriptions
 - Land Resource Manager Reports and associated maps
- **DNR Trust Lands Habitat Conservation Plan and Supplemental Information**
 - Final Habitat Conservation Plan (HCP; 1997)
 - Final (Merged) Environmental Impact Statement for the Habitat Conservation Plan (1998)
 - Long-Term Conservation Strategy for the Marbled Murrelet Final Environmental Impact Statement (2019)

- **Final State Trust Lands Habitat Conservation Plan Amendment: Marbled Murrelet Long-term Conservation Strategy**
- **Riparian Forest Restoration Strategy (RFRS; 2006)**
- **Spotted Owl Habitat GIS Layer**
- **Marbled Murrelet Habitat GIS Layer**
- **WAU Rain-On-Snow GIS Layer and Reports**
- **Biological Opinion on the HCP, USFWS; January 27, 1997**
- **Biological Opinion on the HCP, NMFS; January 29, 1997**
- **Biological Opinion on the HCP Marbled Murrelet Long-term Conservation Strategy Amendment, USFWS; November 7, 2019**
- **Reinitiated Biological Opinion on the Incidental Take Permit (PRT-812521), USFWS; March 21, 2024**
- **Forest Practices Regulations and Compliance**
 - **Forest Practices Board Manual**
 - **Forest Practices Activity Maps**
 - **Trust Lands HCP Addendum and Checklist**
- **Supporting Data for Unstable Slopes Review**
 - **State Lands Geologist Remote Review (SLGRR)**
 - **Lidar Data and Derivatives**
 - **Draft Landform Remote Identification Model (LRIM) screening tool**
 - **Published Landslide Inventories**
 - **Historic Aerial Photographs**
 - **Published Geologic Mapping**
- **Supporting Data for Cultural Resources Review**
 - **Historical Aerial Photographs**
 - **USGS and GLO maps**
 - **Department of Archaeology and Historic Preservation database for architectural and archaeological resources and reports (WISAARD)**
- **Additional Supporting Data for Policy Compliance**
 - **Weighted Old Growth Habitat Index (WOGHI)**
 - **State Soil Survey**
 - **Stand Development Stage Assessment form**

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.

2618550

- FPA #** **TBD**

 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 Dungeness and Dragons timber sale, agreement #30-105915, is located in Clallam County approximately 4 miles south and west of Sequim off of Lost Mountain Road, Cassidy Road, the PA-L-1100, and the PA-A-3000 road system. It encompasses approximately 250 gross acres with a cruised volume of 1,230 MBF. This sale consists of four variable retention harvest units, seven variable density thinning units and four right-of-way harvest units which are located in the Dungeness Valley and Siebert-McDonald WAUs. Within the proposal area, there are 24.2 acres of riparian management zone and unstable slopes protections, 2 acres of forested wetland, 9.5 acres of wetland management zone, 3.2 acres of area designated as Leave Tree Areas (LTAs), and 2.8 acres of pre-existing road. Overall, the net harvest acreage is 69.1 acres. Additionally, Unit 2 of the original proposal was removed from the timber sale due to the discovery of an old growth stand within the proposed unit boundaries. 139 acres of old growth was delineated and permanently deferred from harvest as part of this proposal. Approximately 2,896 feet of new road construction, 2,005 feet of road reconstruction and 13,280 feet of required pre-haul maintenance have been proposed to meet access needs to the sale area. The designated rock sources will be Fitzgerald Pit and/or commercial sources.

Harvest acreage is 68.8 per FPA 2618550 Q19.

FPA 2618550 Q16 proposes 4,930 feet of road construction.

FPA 2618550 also proposes 1,000 cy of spoils, 1 Ns crossing, and 0.25 acres of pit expansion.

Unit	Gross Proposal Acres	RMZ/ Unstable Slope Acres	WMZ Acres	Wetland Acres	Old Growth Protections	Existing Road Acres (within unit)	Leave Tree Area Acres	Net Harvest Acres
Unit 1 (VRH)	48.3	1.5	5.4	1.3	0	0.9	1.6	37.6
Unit 2 (N/A)	139	0	0	0	139	0	0	0
Unit 3 (VRH)	35.7	13.7	0	0	0	0.8	1.6	19.6
Unit 4 (VRH)	9.2	4.5	0	0	0	0.7	0	4
Unit 5 (VRH)	9.6	4.5	4.1	0.7	0	0.1	0	0.2
Unit 6 (VDT)	0.8	0	0	0	0	0	0	0.8
Unit 7 (VDT)	0.7	0	0	0	0	0	0	0.7
Unit 8 (VDT)	0.7	0	0	0	0	0	0	0.7
Unit 9 (VDT)	0.4	0	0	0	0	0	0	0.4
Unit 10 (VDT)	0.1	0	0	0	0	0	0	0.1
Unit 11 (VDT)	2.5	0	0	0	0	0	0	2.5
Unit 12 (VDT)	1.6	0	0	0	0	0	0	1.6
Unit 13 (ROW)	0.2	0	0	0	0	0	0	0.2
Unit 14 (ROW)	0.5	0	0	0	0	0.2	0	0.3
Unit 15 (ROW)	0.2	0	0	0	0	0.1	0	0.1
Unit 16 (ROW)	0.3	0	0	0	0	0	0	0.3
Totals	249.8	24.2	9.5	2	139	2.8	3.2	69.1

FPA 2618550 proposes 68.8 acres of harvest. The additional 0.3 acres of ROW harvest are included in a separate FPA.

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

Pre-harvest Stand Description:

Unit	Origin Date	Major Timber Species	MBF/acre	Slope %	Elevation Range
1	1975, 1977	Douglas-fir, Western redcedar, Western hemlock	15	77%	1035'-1390'
3	1874, 1921, 1930, 1950	Douglas-fir, Western redcedar, Grand fir, western hemlock	27	93%	705'-1135'
4	1951	Douglas-fir, Western hemlock, Red alder, Western redcedar	17	22%	590'-600'
5	1951	Douglas-fir	27	17%	560'-565'
6	1975	Douglas-fir, Western redcedar	10	42%	1045'-1100'
7	1975	Douglas-fir, Western redcedar	14	30%	1135'-1170'
8	1975	Douglas-fir, Western redcedar	18	35%	1095'-1135'
9	1975	Douglas-fir, Western redcedar	18	44%	1105'-1160'
10	1975	Douglas-fir, Western redcedar	26	23%	1095'-1115'
11	1951	Douglas-fir, Western redcedar, Western hemlock	20	56%	580'-605'
12	1951	Douglas-fir	20	32%	540'-560'
13	1975	Douglas-fir	16	30%	1135'-1170'
14	1990's	Douglas-fir, Western redcedar	18	38%	995'-1040'
15	1990's	Douglas-fir, Western redcedar	12	18%	965'-985'
16	1874, 1930	Douglas-fir, Western redcedar	15	93%	910'-960'

The stage of stand development for the harvest areas within this proposal on the stand level scoring using the Van Pelt guide (Van Pelt 2007) includes stands in the stages of Biomass Accumulation/Stem Exclusion in Units 1 and Units 6-10, along with stands in stage Maturation II in Units 3-5 and Units 11-12.

Harvest Type:

Unit	Harvest Type	Volume to be Harvested (MBF)	Volume to be Harvested (%)	Individual Leave Trees	Clumped Leave Trees	Total Leave Trees
1	VRH	582	95%	120	207	327
3	VRH	578	95%	87	103	190
4	VRH	67	95%	10	22	32
5	VRH	5	95%	2	0	2
6	VDT	2	25%	-	-	-
7	VDT	2	19%	-	-	-
8	VDT	3	20%	-	-	-
9	VDT	3	38%	-	-	-
10	VDT	1	33%	-	-	-
11	VDT	10	33%	-	-	-
12	VDT	14	27%	-	-	-
13	ROW	3	100%	-	-	-
14	ROW	5	100%	-	-	-
15	ROW	1	100%	-	-	-
16	ROW	16	100%	-	-	-

Per FPA 2618550 Q19, harvest volume for unit 16 is 5 mbf. Total mbf for FPA 2618550 is 1,224.

Overall Unit Objectives:

The overall objectives for this sale includes the production of saw logs and pulp material to generate 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 leave tree retention strategy and riparian management zones. These stands will be managed to protect site productivity and maintain the integrity and water quality of adjacent streams.

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

Economic - Generate revenue for the State trust beneficiaries.

Statute - Comply with the DNR's HCP, the Policy for Sustainable Forests, and Forest Practice Rules and Regulations.

Social - Accommodate dispersed informal recreational activities on DNR managed lands and identify and protect historical and archaeological sites consistent with state/federal law.

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.

Per FPA 2618550 Q16, 4,930 feet of construction is proposed.

Type of Activity	How Many	Length (feet) (Estimated)	Acres (Estimated)	Fish Barrier Removals (#)
Construction		2,896	1.3	0
Reconstruction		2,005		0
Maintenance		1,3280		0
Abandonment		0	0	0
Bridge Install/Replace	0			0
Stream Culvert Install/Replace (fish)	0			0
Stream Culvert Install/Replace (no fish)	1			
Cross-Drain Install/Replace	20			

Per FPA 2618550 Q14, 1 Ns Crossing is proposed.

Rock Pits: The designated rock sources will be Fitzgerald Pit and/or commercial sources.

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

a. Legal description:

T29-0N R04-0W S11 --- (Units 1, 6, 7, 8, 9, 10, 13 ROW and Fitzgerald Pit)
 T29-0N R04-0W S13 --- (Units 3, 14 ROW and 15 ROW)
 T30-0N R04-0W S29 --- (Units 4, 5, 11 and 12)

Proposal is located within Clallam County.

b. Distance and direction from nearest town:

Approximately 4 miles south and west of Sequim.

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 Dungeness Valley and Siebert-McDonald WAUs. Ownership across the WAUs includes large industrial forests, private landowners, 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. The number of forest practice activities shown on the WAU maps, along with observations within the WAUs indicate that the WAUs are intensively managed for timber production.

DNR analyzed carbon sequestration and carbon emissions from projected land management activities within its final environmental impact (FEIS) statement for the 2015-2024 Sustainable Harvest Calculation and the FEIS for the 2019 HCP Long-Term Conservation Strategy for the Marbled Murrelet. At the western Washington scale, land management activities on DNR-managed lands sequester more carbon than emitted. Individual activities, such as this proposal, are likely to emit some greenhouse gases, including CO₂; however, at the landscape scale, DNR's sustainable land management activities, including this proposal, sequester more carbon than they emit. Evaluating carbon sequestration at the western Washington scale is appropriate because a determination of net carbon emissions must consider both the carbon sequestered and the carbon emissions from management within the same analysis area (western Washington).

Recognizing the climate and carbon benefits of working forests in Washington's Climate Commitment Act (RCW 70A.45.005), the legislature found that Washington should maintain and enhance the state's ability to continue to sequester carbon through natural and working lands and forest products. Further, "Washington's existing forest products sector, including public and private working forests and the harvesting, transportation, and manufacturing sectors that enable working forests to remain on the land and the state to be a global supplier of forest products, is, according to a University of Washington study analyzing the global warming mitigating role of wood products from Washington's private forests, an industrial sector that currently operates as a significant net sequesterer of carbon. This value, which is only provided through the maintenance of an intact and synergistic industrial sector, is an integral component of the state's contribution to the global climate response and efforts to mitigate carbon emissions." RCW 70A.45.090(1)(a).

The legislature also found that the 2019 Intergovernmental Panel on Climate Change (IPCC) report "identifies several measures where sustainable forest management and forest products may be utilized to maintain and enhance carbon sequestration. These include increasing the carbon sequestration potential of forests and forest products by maintaining and expanding the forestland base, reducing emissions from land conversion to non-forest uses, increasing forest resiliency to reduce the risk of carbon releases from disturbances such as wildfire, pest infestation, and disease, and applying sustainable forest management techniques to maintain or enhance forest carbon stocks and forest carbon sinks, including through the transference of carbon to wood products" (2020 Washington Laws Ch. 120 §1(2)).

DNR is legally required (RCW 79.10.320) to periodically calculate a sustainable harvest level and manages state trust lands sustainably. DNR has also maintained (statewide) a forest management certificate to the Sustainable Forestry Initiative standard since 2006. In managing state trust lands sustainably, DNR sequesters more carbon than it emits while conducting land management activities such as this proposal.

The timber harvested from DNR-managed lands is used to produce climate-smart forest products. The climate impacts of DNR's land management are analyzed in multiple environmental impact statements that have informed the Board of Natural Resources' decisions and are consistent with the IPCC, which states that "meeting society's needs for timber through intensive management of a smaller forest area creates opportunities for enhanced forest protection and conservation in other areas, thus contributing to climate change mitigation."

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 DNR's Habitat Conservation Plan (HCP, 1997), the Policy for Sustainable Forests (2006), and Forest Practice Rules. The HCP is an agreement with the federal government that requires the DNR to manage the landscapes with the intent to preserve and enhance habitat. In accordance with its terms, the following applicable strategies are found to provide a conservation benefit for multiple species:

- **Deferring harvest from unstable slopes.**
- **Retaining Riparian Management Zones (RMZs) on typed waters. This includes a variable width interior core buffer on type 1, 2, 3, 4, unstable type 5 streams.**
- **Retaining Wetland Management Zones (WMZs) based on the of size of wetlands.**
- **Retaining a minimum of 8 leave trees per acre dispersed and clumped throughout VRH units.**
- **Designing, constructing, and maintaining a road system to minimize potential adverse effects on the environment.**
- **Implementing procedures pertaining to threatened and endangered species.**

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

The General Silviculture Strategy (policy) in the Policy for Sustainable Forests (PSF) emphasized that older-forest targets will be accomplished over time and that DNR intends to actively manage structurally complex forests to achieve older-forest structures (i.e. stands with older-forests identified by structural characteristics) across 10 to 15 percent of each western Washington HCP planning unit in 70 to 100 years from the adoption of the PSF.

In September 2024, the DNR revised a document titled ‘*Landscape Assessment to Identify and Manage Structurally Complex Stands to Meet Older-Forest Targets in Western Washington, May 2024*’ (landscape assessment). This document describes the background, historical analyses regarding attainment of older-forest conditions in western Washington, and updated data and modeling analyses showing when the various HCP planning units across western Washington are expected to attain a level of older-forest conditions through implementation of the HCP and other conservation objectives, and outlined as targets within the PSF.

This landscape assessment identifies the existing structurally complex stands, and additional suitable stands, to be managed for older-forest targets over time. The identified stands are located in conservation areas and deferred stands unavailable for regeneration harvest. These stands include areas identified as long-term forest cover under the marbled murrelet long-term conservation strategy, riparian areas, areas conserved under the multispecies conservation strategy, potentially unstable slopes, spotted owl nest patches, old growth, Natural Areas and Natural Resource Conservation Areas, and other conservation areas permanently deferred from regeneration harvest.

Some of these conservation areas are based on specific HCP strategies that are spatially fixed and conserved on the landscape, such as marbled murrelet occupied sites or spotted owl nest patches. However, other conservation areas are modeled and must be field verified based on HCP strategies, such as riparian areas or unstable slopes. There is naturally some adjustment to the location, absence, or presence of conservation areas upon field verification. This timber sale has been field verified for compliance with all conservation objectives and the planned harvest units are determined not to be regeneration harvest deferred and are available for harvest. These harvest areas also do not count towards the attainment of older-forests over time and have been excluded from the calculations and tables included in the landscape assessment. Conversely, when field verification identifies specific areas required for conservation, they will be protected from harvest and included in future conservation area modeling.

The landscape assessment demonstrates that while the Straits HCP Planning Unit does not currently contain 10 to 15 percent older-forest conditions, the structurally complex and other suitable stands designated to be managed for older-forest targets are projected to develop into older-forest structure that meets or exceeds this threshold by 2090 (Table A) through implementation of the HCP and other policies and laws. Stands identified to be managed toward older-forest targets, including currently older-forests and stands projected to develop older-forest structure in the future, are depicted in associated maps within the landscape assessment document for each western Washington HCP planning unit.

Table A. Percent area western Washington HCP planning units with older-forest stands in conservation areas by decade through 2120. With plot discounts and disturbance factor. Landscape Assessment to Identify and Manage Structurally Complex Stands to Meet Older-Forest Targets in Western Washington, May 2024 (Revised September 2024).

ADJUSTED QUERY OUTPUT (WITH PLOT DISCOUNT & DISTURBANCE FACTOR)											
HCP Planning Unit	Year										
	2021	2030	2040	2050	2060	2070	2080	2090	2100	2110	2120
COLUMBIA	1.0%	1.2%	1.4%	1.7%	2.4%	3.9%	6.2%	9.4%	13.3%	16.5%	18.2%
N. PUGET	3.2%	3.9%	4.9%	6.2%	7.9%	10.2%	13.2%	16.7%	20.5%	23.9%	25.0%
OESF	10.2%	10.7%	11.0%	11.7%	12.6%	13.9%	15.9%	20.0%	24.9%	28.3%	29.5%
S. COAST	0.2%	0.3%	0.6%	1.2%	2.1%	3.6%	5.9%	8.8%	12.2%	15.9%	18.6%
S. PUGET	1.7%	2.2%	2.7%	3.6%	4.6%	6.1%	8.4%	11.3%	14.4%	17.1%	18.7%
STRAITS	1.9%	2.6%	3.2%	4.3%	5.6%	7.4%	9.9%	12.6%	15.1%	18.0%	19.5%

DNR has designated forest stand acreage within regeneration harvest deferred areas in each HCP planning unit to meet or exceed the policy's 10% older-forest target. This identified acreage is designated in DNR's GIS database as the Westside Forest Cover (Conservation Areas) and Older-Forest in Conservation Areas layers.

The Dungeness and Dragons Timber Sale is not identified as one of those stands designated to meet older-forest targets over time. In the Dungeness and Dragons Timber Sale, approximately 70 net acres are being harvested, while 39 acres are being conserved from the overall area considered for harvest (35% of the proposal area) for potentially unstable slopes, riparian and wetland management zones plus leave tree areas that will contribute to older forests over time. This does not include the additional 139 acres of old growth forests that were recently discovered during field work for this proposal and are now permanently deferred from harvest. Following the timber sale, the variable retention harvest units will be replanted with native, conifer tree species that will be supplemented by natural regeneration expected to occur as a result of the conservation areas in and around the harvest units.

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

All mitigation measures are clearly outlined in the HCP. See B.1.d, B.3.c., B.4.d, B.5.d, and B.13. for more details. No additional mitigation measures have been developed for this proposal.

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

No, 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 Practice rules 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 generally defined as occurring within the next 7 years. This data was obtained from DNR's Land Resource Manager System on the date of processing this checklist and may be subject to change.

WAU Name	Total WAU Acres	DNR-managed 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
DUNGENSESS VALLEY	94764	5579	348	394	361
SIEBERT-MCDONALD	88238	9839	696	465	92

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

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:	DUNGENSESS VALLEY
WAU Acres:	94764
Elevation Range:	0 - 5992 ft.
Mean Elevation:	401 ft.
Average Precipitation:	18 in./year
Primary Forest Vegetation Zone:	Western Hemlock
WAU:	SIEBERT-MCDONALD
WAU Acres:	88238
Elevation Range:	0 - 5927 ft.
Mean Elevation:	486 ft.
Average Precipitation:	21 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)?

93%

Steepest slope % matches FPA 2618550 Q19.

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 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
1958	GRAVELLY SANDY LOAM
1959	GRAVELLY SANDY LOAM
3011	GRAVELLY SANDY LOAM
4331	GRAVELLY LOAM
4333	GRAVELLY LOAM

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

Geo report, slope stability form, slope stability maps, and CMZ form are available with FPA 2618550 on FPARS.

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.

Outer edges of meander bends, glacial deep-seated landslides, and other landforms displaying combined signs of potential slope instability have been excluded from harvest.

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

No Yes, describe the proposed activities:

Timber harvest and road construction will occur within 24% of a delineated

groundwater recharge area to a glacial deep-seated landslide. The proposed activities have been assessed by a Licensed Engineering Geologist and Qualified Expert who determined the risk of subsequent impacts to be low. See the Engineering Geologic Risk Assessment for the Dungeness and Dragons Timber Sale for additional details.

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

This proposal was remotely and field reviewed by a Licensed State Lands Geologist and qualified field staff. All areas with a moderate to high-risk potential of slope failure and delivery to a public resource have been excluded from the proposed harvest area.

The following proposal elements mitigate impacts to the groundwater recharge area:

- **86% of the groundwater recharge area is excluded from the proposal, including the deep seated landslide.**
- **Timber harvest is limited to a distal 1.2 acres, or 24% of the groundwater recharge area.**
- **Approximately 1.4 acres of smooth, forested terrain buffer the harvest area from the deep-seated landslide.**
- **The PA-A-3120 is engineered to convey runoff away from the groundwater recharge area through ditches and culverts.**

- 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 acre

Approx. acreage new landings: 0.1 acre

Fill Source: Fitzgerald Pit and/or commercial sources

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

Yes. Some erosion could occur as a result of building new roads, installing culverts, and hauling timber.

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

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

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

Harvesting and road construction will be restricted during periods of heavy rainfall 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 floors and/or into stable natural drainages. Best management practices will be utilized as necessary in proximity to live waters. Ground based operations will be suspended during periods of wet weather or wet soil conditions when rutting of skid or shovel roads begins.

Rock identified to be used out of a State lands rock pit shall meet specifications as identified within the Road Plan, which will be determined by the Contract Administrator. If the rock does not meet the specifications, a commercial source shall be used that does and at the Purchaser's expense.

2. Air

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

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

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

Carbon dioxide emissions associated with harvested wood products are analyzed in Alternatives for the Establishment of a Sustainable Harvest Level Final Environmental Impact Statement (2019) and the Long-Term Conservation Strategy for the Marbled Murrelet Final Environmental Impact Statement (2019).

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

Following harvest, native tree species will be planted on site at a level higher than existed prior to harvest resulting in regeneration of the forest stand and initiating carbon sequestration through forest stand growth.

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:

Water bodies downstream of the proposed sale area include the Dungeness River, Cassidy Creek, McDonald Creek, Bear Creek, Matriotti Creek, and unnamed tributaries. The Dungeness River and McDonald Creek all drain directly into the Strait of Juan de Fuca.

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	1	1	127 feet
Stream	3	2	153 feet
Stream	4	1	100 feet
Stream	5	8	30-foot equipment limitation zone
Forested Wetland	<1 acre	4	100 feet

RMZs were applied off of flood plain edges. WMZs were applied off of delineated wetland edges.

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

There are four forested wetlands less than one acre in size associated with this proposal. They are all protected with 100 foot no harvest buffers.

There is one type-1 stream associated with this timber sale: the Dungeness River. This stream is protected with a 127-foot site index buffer based on the Douglas-fir site potential height at age 100. However, due to the steep convergent topography directly adjacent to the stream, an additional buffer was applied. The nearest

harvest boundary is approximately 400 feet to the edge of the floodplain of this stream.

There are two type-3 streams associated with this timber sale. These streams are protected with an average 157 foot site index buffer based on the Douglas-fir site potential height at age 100.

There is one type-4 stream associated with this proposal. It is protected with a 100 foot no-harvest buffer.

There are eight type-5 streams associated with this project. They are each protected as a part of no-harvest zones, with leave tree areas, or with 30-foot equipment limitation zones. No harvest will occur on unstable slopes associated with the streams.

Units 6, 7, 8, 9, 10, 11 and 12 are variable density thinnings within portions of four forested WMZs and a Type 3 RMZ. Per the Department of Natural Resources HCP and Riparian Forest Restoration Strategy; greater than 120 square feet of basal area, 100 trees per acre, and 35 relative density will be maintained with this proposal. Additionally, for every acre of Type 3 RMZ thinning, 5 trees have been designated to be cut and felled towards the stream; and will be left on-site. These felled trees will be utilized as large woody debris for these streams. All of these are within the RMZ but not within the 25 foot no-harvest buffer. Outside of Units 11 and 12, no harvest will occur in the remaining Type 3 stream.

Harvest in Unit 13 ROW will infringe upon a WMZ for the wetland centered in Unit 1. As mitigation for the infringement, the buffer was adjusted with on-site and in kind mitigation to compensate for the loss of buffer acreage. There will be no loss of function to the WMZ. Consultation was conducted with a qualified expert and a memo was provided.

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 culverts and replacing culverts that will divert storm water onto stable forest floor. These actions will minimize the potential for delivery of sediment to streams. Soils exposed during road construction activities will be protected from erosion by grass seeding and mulching with hay.

- 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, yarding, and road maintenance and construction will occur within 200 feet of some of the described waters above. All activities will be done in accordance with the DNR's HCP and Forest Practice rules. Timber harvest will occur within 200 feet 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.

- 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

None.

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

No *Yes, description:*

All water flow may be temporarily diverted through bypass culverts or retained behind (or pumped around) coffer dams during culvert installation and replacement. Other typed waters may be temporarily diverted if additional culvert replacements are deemed necessary on existing roads.

- 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. 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)?*

DUNGENESS VALLEY = 2.5 (mi./sq. mi.)

SIEBERT-MCDONALD = 1.9 (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 WAUs intercept sub-surface flow and deliver surface water to streams, however current road work standards will be applied that address this issue by installing cross-drains to deliver ditch water to stable forest floors.

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

No Yes, describe observations:

There is evidence of changes to channels across the WAUs. These changes are a result of natural events such as spring runoff from snowmelt and significant storm events. Channel migration, scouring, and deposition of material can be seen in channels across the WAUs; this indicates those channels historically experience higher water levels and peak flows.

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 limits harvest unit size and proximity to other recent harvests, 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):

The Dungeness Hatchery lies approximately 2 miles downstream of Unit 3 along the Dungeness River.

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 and ditch-outs to release ditch water onto stable forest floors where flow energy can dissipate prior to reach stream channels. Maintaining RMZs on streams will aid bank stability, hydrologic functions, and provide recruitment of LWD. See B1.d.2, B.1.h, and B.3.a.1 for additional details on protections measures within this proposal.

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:

The Dungeness Hatchery lies approximately 2 miles downstream of Unit 3 along the Dungeness River.

- 4) *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:

This proposal includes timber harvest and road construction within 24% of a delineated groundwater recharge area to a glacial deep-seated landslide. The proposed activities have been assessed by a Licensed Engineering Geologist and Qualified Expert who determined the likelihood of subsequent impacts to be low. See the Engineering Geologic Risk Assessment for the Dungeness and Dragons Timber Sale for further detail.

Geo report is a
available on FPRAR
with FPA 2618550.

The Dungeness and Dragons Road Plan is designed to maintain natural hillslope hydrology through ditches and relief culverts.

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: **Horsetail, Red-osier dogwood**

Water plants:

Eelgrass Milfoil Water Lily

Other:

- Other types of vegetation: **Wild rose, Oregon grape, Blackberry, Stinging nettle**
 Plant communities of concern:

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

Per FPA 2618550 Q19, 68.8 acres of timber will be harvested.

Approximately 1,230 MBF of 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.)

Units 1, 6, 7, 8, 9, 10 and 13 ROW are bordered to the north and east by private timberland, to the east by private residence, and to the south by 46 year-old State timber.

Units 3 is bordered to the north by 121 year-old State timber, to the east by 135 and 74 year-old State timber, to the west by 10 year-old State regen and private timberland, and to the south by US Forest Service timberland.

Units 4 and 11 are bordered to the north by 46 year-old State timber, to the east by 36 year-old State timber, to the west by 84 year-old State timber, and to the south by private residence.

Units 5 and 12 are bordered to the north by 36 year-old State timber, to the east by 46 year-old State timber, and to the west and south by 84 year-old State timber.

Units 14 ROW and 15 ROW are surrounded by private timberland.

Units 14 & 15 are permitted under a separate FPA.

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

None found. FPRAM review of proposal indicates no conflict with T&E plant species.

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

Measures include retaining existing stands within bounded out areas throughout the proposal. Also retaining individual leave trees and leave tree clumps within harvest units (minimally 8 trees per acre of harvest), including structurally unique and/or of the largest diameter class. Specifically, trees larger than 60 inches in diameter or greater will remain on-site. All trees 60 inches in Diameter at Breast Height (DBH) and greater shall not be felled unless for safety reasons, which must be approved by the contract administrator. If trees 60 inches in DBH or greater need to be felled for safety reasons, trees will be left

where felled. Replanting with native conifer species in the VRH units will also occur following harvest. Other native conifer and deciduous species may regenerate naturally on-site.

All of the proposed Dungeness and Dragons timber sale units were reviewed by an Old Growth Designee as well as qualified field staff for the presence of old growth and older trees; including individuals and clumps greater than 5 acres per DNR policy. These units were also screened via ArcGIS spatial datasets to identify areas with a moderate or high probability of old growth occurrence (RS-FRIS Combined Origin Year raster layer, and Weighted Old Growth Habitat Index points and polygon layers). These units were also screened via old aerial photography.

Due to the above review, one old growth forest patch of 5 acres or more was delineated. No harvest will occur within or adjacent to this designated area as a part of this proposal. Remnant old growth trees identified within the proposed sale area have been marked for retention. In the event that one of these trees needs to be cut to facilitate road building or safe harvest operations, it will be left on site and serve as downed wood recruitment.

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

Scotch broom and 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: **Forested wetlands**

- 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
DUNGENESS AND DRAGONS U3	Northern Spotted Owl	Threatened	Endangered
DUNGENESS AND DRAGONS U3	Marbled Murrelet	Threatened	Endangered
DUNGENESS AND DRAGONS U1	Northern Spotted Owl	Threatened	Endangered
DUNGENESS AND DRAGONS U1	Marbled Murrelet	Threatened	Endangered

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

Explain:

FPRAM review indicates proposal is within MM detection, and within the 1.5 mile buffer of an occupied site.

HCP checklist for NSO included with FPA 2618550 indicates proposal is within parts of the Johnson Creek-Sequim Bay, Smith Knob, and Caraco Crk NSO management circles. FPRAM review indicates proposal is not in SOSEA and not in Best 70.

All of Washington State is considered part of the Pacific Flyway. No impacts are anticipated as a result of this proposal.

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

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

Species/Habitat: **Northern Spotted Owl (NSO)**

Protection Measures: **Harvest falls within the Caraco Creek, Schmith Knob and Johnson Creek-Sequim Bay status 1 owl circles. No activity will occur in NSO Best 70 acres.**

Species/Habitat: **Marbled Murrelet**

Protection Measures: **The proposal does not occur within Marbled Murrelet special habitat area, occupied sites, occupied site buffers, or Marbled Murrelet habitat (P-stage) that has been designated for metering. Previously modeled long term forest cover (LTFC) is being updated per this proposal. As previously stated, a portion of an RMZ and WMZs will be thinned from below. See below in "Wetland & Riparian" for further details. No other harvest will occur within verified LTFC. In guidance with our Habitat Conservation Plan, no special Marbled Murrelet protections are needed.**

Species/Habitat: **Wetland & Riparian**

Protection Measures: **Buffers have been applied to all type 1, 3 and 4 streams in addition to all four forested wetlands. Equipment limitation zones are on all typed waters as described in B.3.a.1)b). Riparian buffers are designed to protect the unstable portions of the stream banks and help to protect waters from siltation and increased temperature 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.

As previously stated, Units 6, 7, 8, 9, 10, 11 and 12 are variable density thinnings within portions of four forested WMZs and a Type 3 RMZ. Per the Department of Natural Resources HCP and Riparian Forest Restoration Strategy; greater than 120 square feet of basal area, 100 trees per acre, and 35 relative density will be maintained with this proposal. Additionally, for every acre of Type 3 RMZ thinning, 5 trees have been designated to be cut and felled towards the stream; and will be left on-site. These felled trees will be utilized as large woody debris for these streams. All of these are within the RMZ but not within the 25 foot no-harvest buffer. Outside of Units 11 and 12, no harvest will occur in the remaining Type 3 stream.

Species/Habitat: Uplands

Protection Measures: 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 8 trees per acre were retained individually and in clumps to provide habitat structures for wildlife species within VRH units. 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.

Species/Habitat: Old Growth

Protection Measures: Remnant old growth and older individual trees not constituting a stand (as defined by the DNRs HCP) within the harvest areas, have been marked for retention. In the event that one of these trees needs to be cut to facilitate road building or safe harvesting operations, it will be left on site to serve as downed wood recruitment. Please see Old Growth Assessment forms for additional details.

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

None identified.

6. Energy and natural resources

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

Petroleum fuel (diesel or gasoline) will be used for heavy equipment during active road building, timber harvest operations, and for transportation. No energy sources will be needed following project completion.

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

No.

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

None.

7. Environmental health

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste that could occur as a result of this proposal?
If so, describe.

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

None known.

- 2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.

None known.

- 3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.

Petroleum-based fuel and lubricants may be used and stored on site during the operating life of this project.

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

The Department of Natural Resources, private, and fire protection district suppression crews may be needed in case of wildfire. In the event of personal injuries, emergency medical services may be required. Hazardous material spills may require Department of Ecology and/or county assistance.

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

No petroleum-based products will be disposed of on site. If a spill occurs, containment and cleanup will be required. Spill kits are required to be onsite during all heavy equipment operations. The cessation of operations may occur during periods of increased fire risk. Fire tools and equipment, including pump trucks and/or pump trailers, will be required on site during fire season.

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

b. Noise

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

None.

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

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

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

No cutting, yarding or hauling on weekends or State recognized holidays unless approved by the contract administrator. No cutting from the hours of 2000-0600 unless approved by the Contract Administrator.

8. Land and shoreline use

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

The current use of adjacent properties is working forest land and/or small private landowners. This proposal will not change the use of or affect the current/long term land use of areas associated with this sale.

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

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

- 1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:
No.
- c. Describe any structures on the site.
None.
- d. Will any structures be demolished? If so, what?
No.
- e. What is the current zoning classification of the site?
Commercial forest.
- f. What is the current comprehensive plan designation of the site?
Commercial forest.
- g. If applicable, what is the current shoreline master program designation of the site?
Not applicable.
- h. Has any part of the site been classified as a critical area by the city or county? If so, specify.
No.
- i. Approximately how many people would reside or work in the completed project?
None.
- j. Approximately how many people would the completed project displace?
None.
- k. Proposed measures to avoid or reduce displacement impacts, if any:
Does not apply.
- l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:
This project is consistent with current comprehensive plans and zoning classifications.
- m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:
None.

9. Housing

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

10. Aesthetics

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

Adjacent private property and public roadways.

- 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:

Cassidy Road, Autumn Road, the PA-L-1100 and private residence.

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

Views from the prior listed properties and roadways may be impacted by resulting harvest activities.

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

All VRH units will be replanted with native species following harvest. Long term forest cover created as a result of harvest activities will provide visual breaks and the distribution of harvest units within the landscape will reduce the aesthetic impact of the view shed.

11. Light and glare

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

12. Recreation

- a. What designated and informal recreational opportunities are in the immediate vicinity?
Dispersed informal recreation in the form of hiking, hunting, fishing, berry picking, and sightseeing. Logging roads are also used for ATV/motorcycles, mountain bike riding, and horseback riding.
- 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:
Measures will include posting signs notifying users of the ongoing timber sale activities including cutting, yarding and hauling.

13. Historic and cultural preservation

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

No, this sale has been designed to avoid impacts to any cultural and/or historically significant resources.

FPRAM review indicates no conflict with historical sites or resources.

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

None.

FPRAM review indicates no conflict cultural sites or resources.

- 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 Historical Preservation (DAHP) database, historic USGS map on available GIS layer, and Land Resource Manager (LRM) Special Concerns Report was used to identify cultural resources in the proposed project area. Additionally, a Cultural Resource Technician was consulted.

- 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 presently unknown skeletal remains, cultural resources, or both become known during project operations, DNR will comply with the Discovery of Skeletal Remains or Cultural Resources procedure.

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, Taylor Cutoff Road, Fish Hatchery Road, Sherburne Road, Cassidy Road, Atterberry Road and Lost Mountain Road.

- 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 nearest transit spot is approximately 3.5 miles away.

- c. 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.

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

No.

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

Approximately 10 to 15 truck trips per day while the operation is active. Peak volumes would occur during the yarding and loading activities between 6:00 a.m. and 8:00 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.

- 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.

No.

- 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:

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: *Cody Pagel*

Name of signee **Cody Pagel**

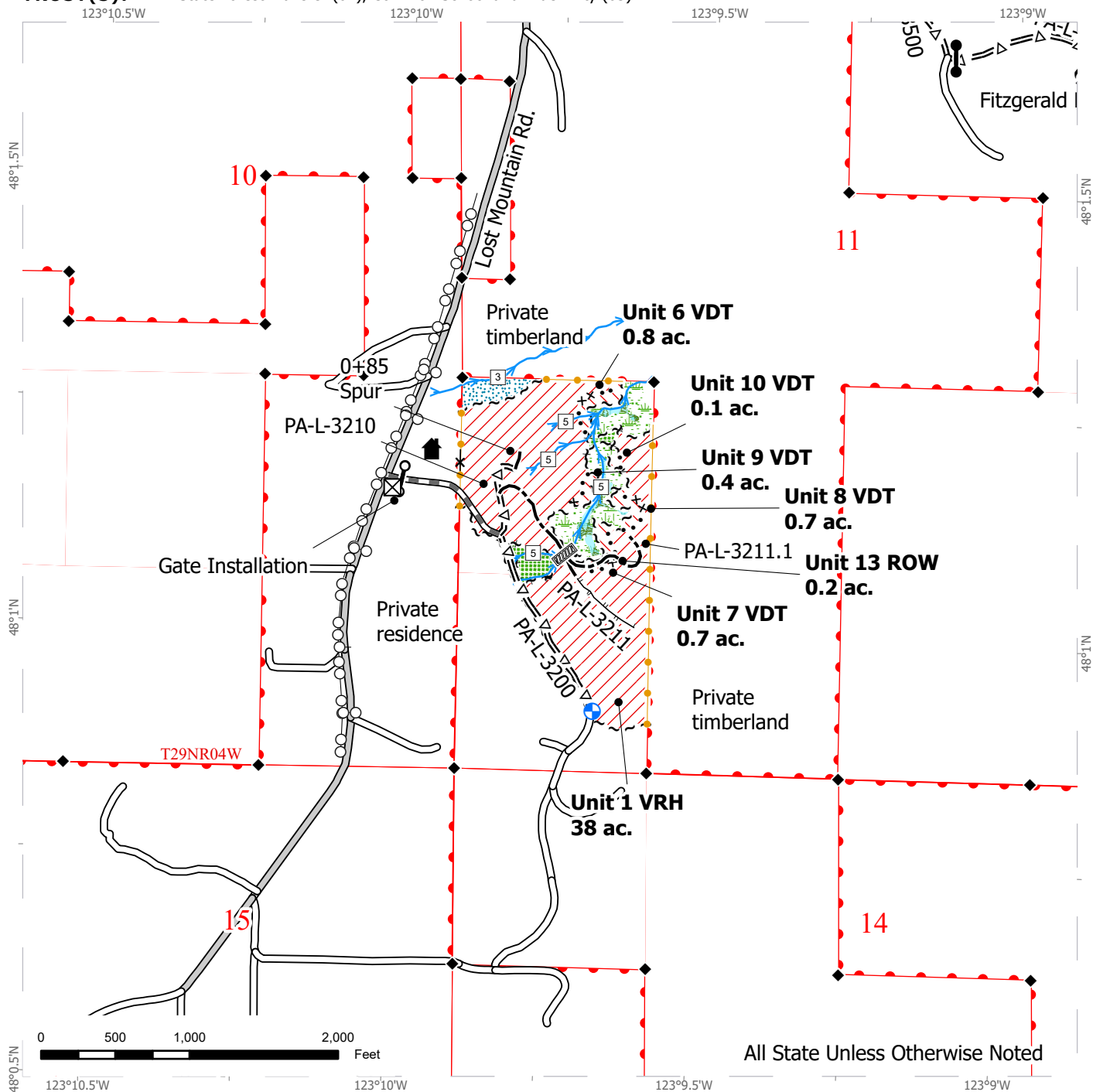
Position and Agency/Organization **Unit Coordinator – WA DNR**

Date Submitted: 10/30/2024

TIMBER SALE MAP

SALE NAME: DUNGENESS AND DRAGONS
AGREEMENT #: 30-105915
TOWNSHIP(S): T29NR04W, T30NR04W
TRUST(S): State Forest Transfer (01), Common School and Indemnity (03)

REGION: Olympic
COUNTY(S): Clallam
ELEVATION RGE: 540'-1390'



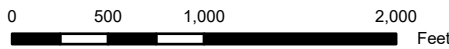
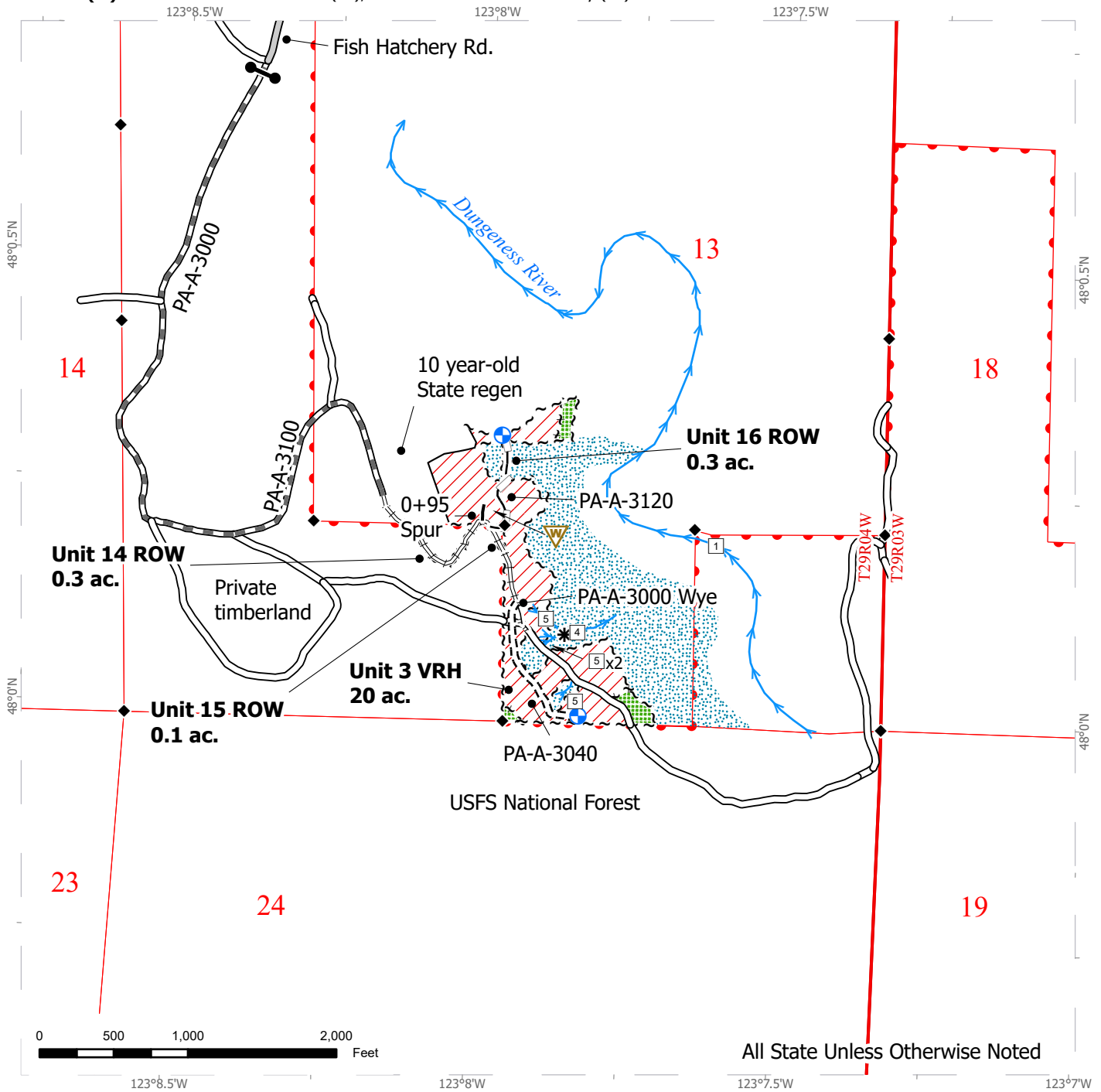
All State Unless Otherwise Noted

Variable Retention Harvest	Sale Boundary Tags	County Road	Streams	Underground Pipe
Variable Density Thinning	Leave Tree Tags	Existing Roads	Stream Type	Leave Tree Area <1/4-acre
Right-of-Way Harvest	Special Management Area	Required Pre-Haul Maintenance	Stream Break	Waste Area
Public Land Survey Townships	Right of Way Tags	Optional Pre-Haul Maintenance	Survey Monument	Landing - Proposed
Public Land Survey Sections	Timber Type Change	Required Construction	Gate (AA1)	Culvert Install
Leave Tree Area	Take / Removal Trees	Optional Construction	Gate Installation	Mailbox
Forested Wetland	Property Line	Required Reconstruction	Rock Pit	Signage
Wetland Management Zone	Fence	Optional Reconstruction	Utility Box	
Riparian Management Zone	Power Lines	Designated Skid Trail		
Hazard Abatement Area				

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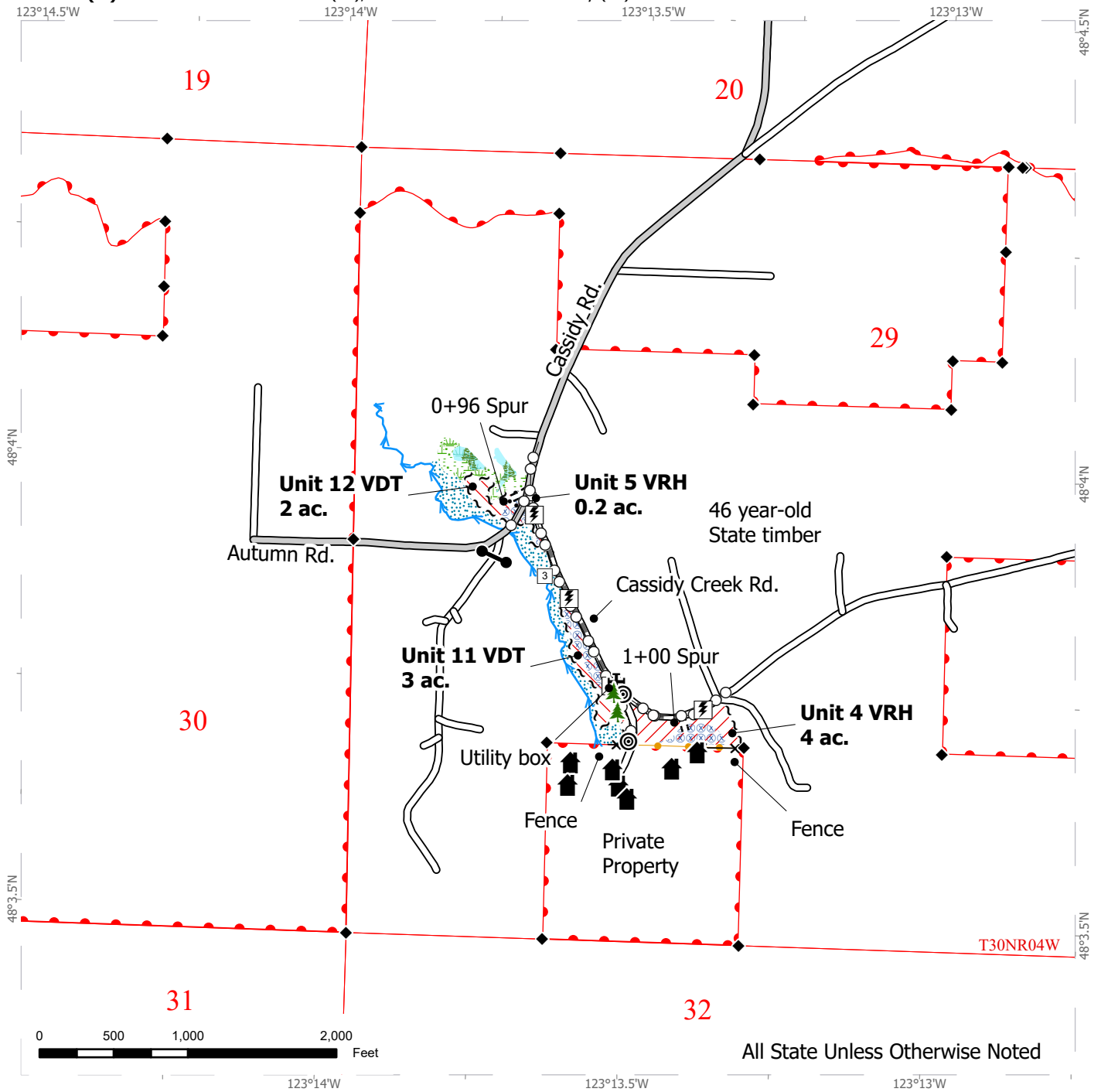
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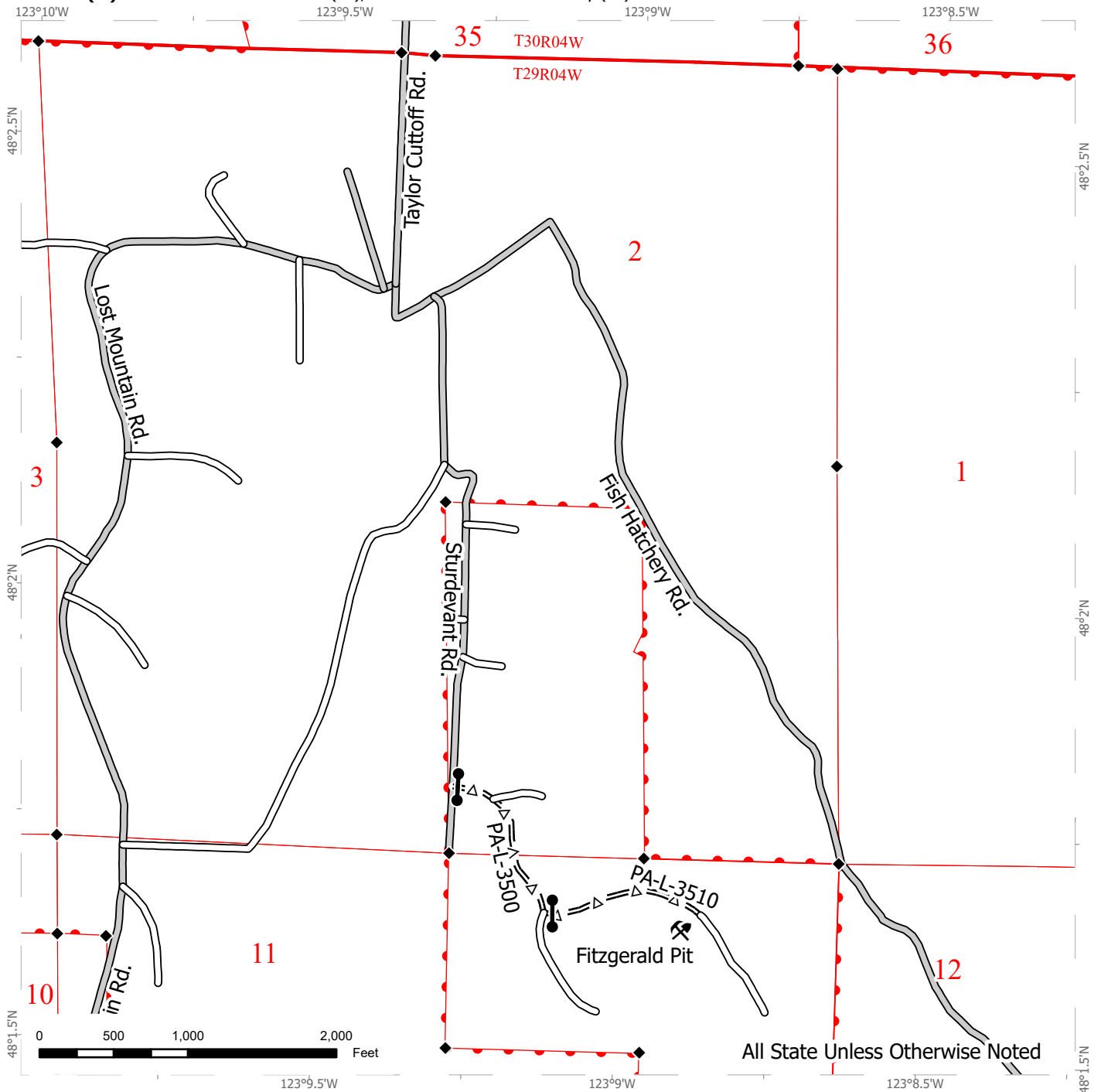
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	Forested Wetland		Fence		Required Reconstruction		Rock Pit		Signage
	Wetland Management Zone		Power Lines		Optional Reconstruction		Structure		
	Riparian Management Zone				Designated Skid Trail		Utility Box		
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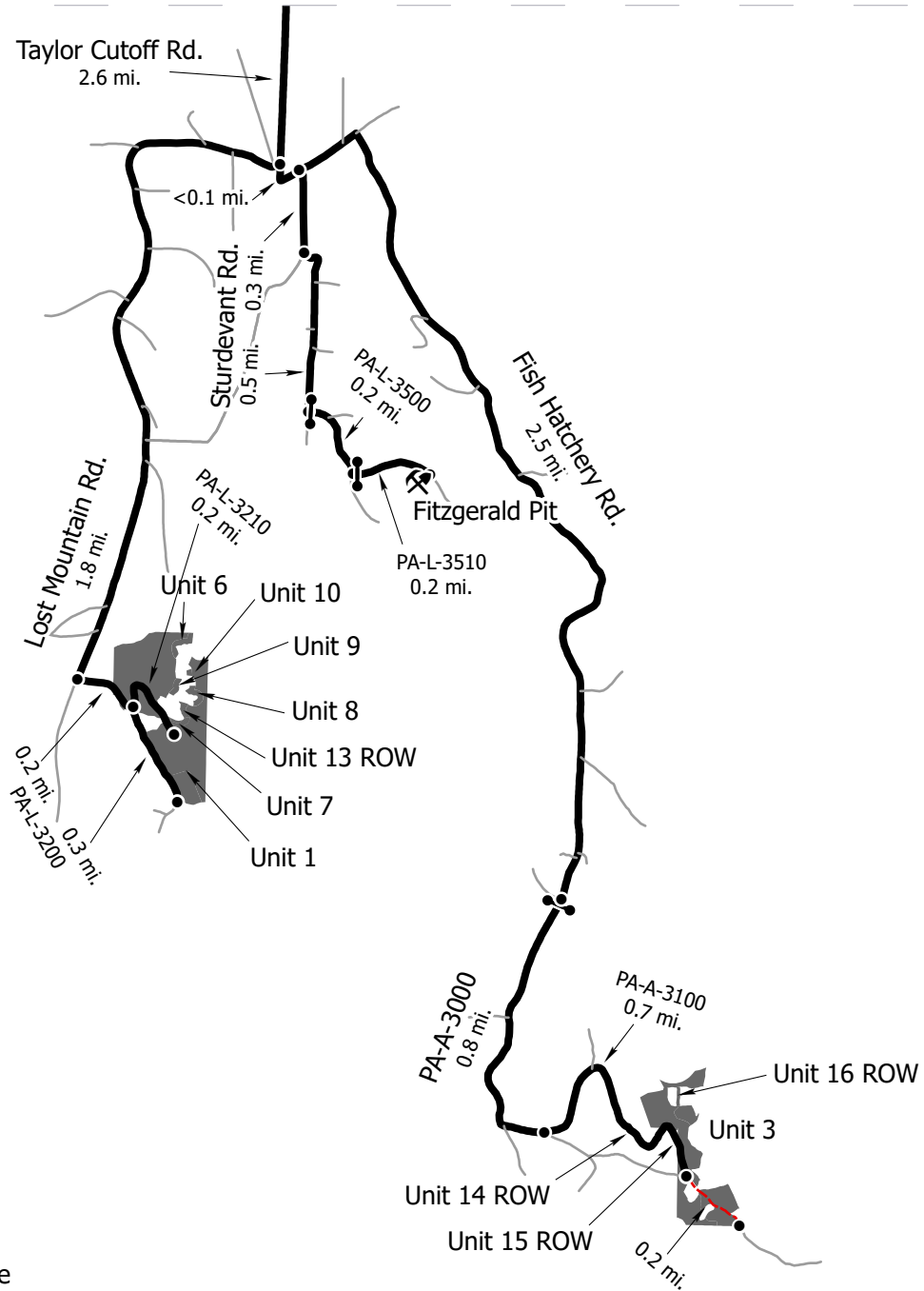
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DRIVING MAP

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Map may not be to scale

- Timber Sale Unit
- Highway
- Haul Route
- Other Route
- View Only Route
- Milepost Marker
- Distance Indicator
- Gate (AA1)
- Rock Pit

DRIVING DIRECTIONS:

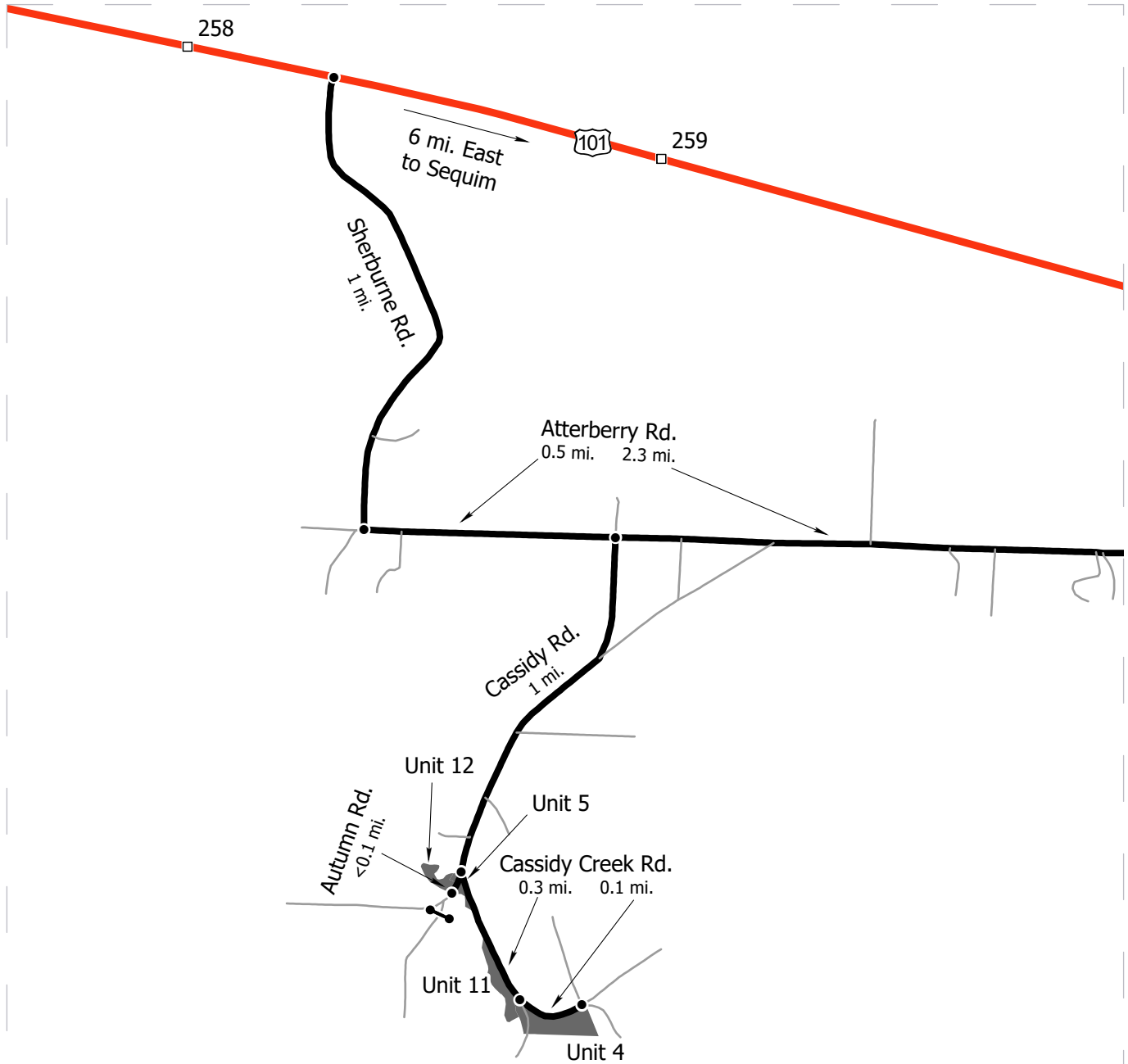
See attached document.



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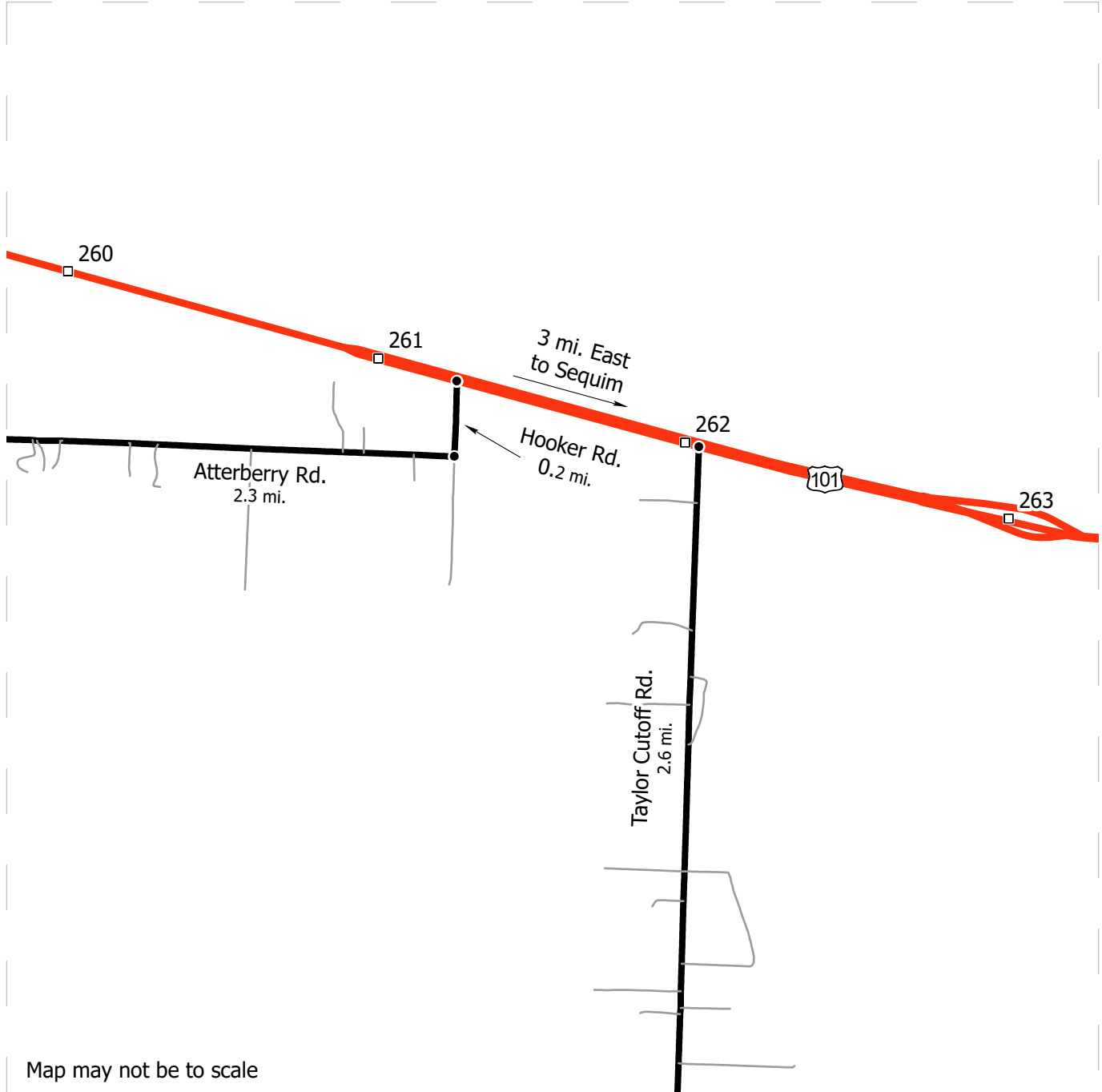
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DRIVING DIRECTIONS:

See attached document.



Dungeness & Dragons Driving Directions

Units 4, 5, 11 and 12: Turn south off of Hwy 101 onto Sherburne Rd. Proceed 1 mile before turning left on Atterberry Rd and continuing east for 0.5 miles. At the intersection, turn and proceed southwest on Cassidy Rd for 1 mile. Proceeding straight down Autumn Rd for less than a tenth of mile, both Units 5 and 12 will be directly adjacent to the road to the east and west. To reach Units 4 and 11, drive southeast for 0.3 miles on Cassidy Creek Rd from the intersection with Cassidy Rd. Unit 11 will be directly to the west of the following intersection. Unit 4 is adjacent to this intersection as well and can additionally be reached to the southeast by driving 0.1 miles further down Cassidy Creek Rd.

Units 1, 6, 7, 8, 9, 10, 13 ROW and Fitzgerald Pit: Turn south off of Hwy 101 onto Taylor Cutoff Rd. Drive for 3 miles before continuing southwest at the intersection with Fish Hatchery Rd onto Lost Mountain Rd. Drive for an additional 1.8 miles on Lost Mountain Rd before turning left onto the PA-L-3200. Past the gate, the PA-L-3200 is not currently drivable, so proceed on foot for 0.2 miles to reach Unit 1. Deeper portions of the unit can be reached by continuing southeast on the PA-L-3200 for 0.3 miles or by turning left onto the PA-L-3210 and walking for 0.2 miles. Units 7, 8, 9, 10 and 13 ROW are embedded within Unit 1, and can be reached by traversing through the unit.

Units 3, 14 ROW, 15 ROW and 16 ROW: From Taylor Cutoff Rd, veer onto Fish Hatchery Rd and proceed less than a tenth of a mile until you reach the intersection with Sturdevant Rd. Pass this intersection and continue driving on Fish Hatchery Rd for 2.5 miles. Continue past the gate onto the PA-A-3000 for 0.8 miles. Turn left onto the PA-A-3100 and proceed 0.7 miles east. Both Units 14 ROW and 15 ROW are along this road. Unit 16 ROW can be reached by traversing northeast through Unit 3 from Unit 16 ROW. The PA-A-3100 is not drivable past its initial connection with Unit 3. Deeper portions of this unit can be reached by continuing 0.2 miles southeast past the point where the PA-A-3100 reconnects with the PA-A-3000.

Fitzgerald Pit: From Fish Hatchery Rd, turn south onto Sturdevant Rd and drive for 0.3 miles. Veer left at the intersection and continue south on Sturdevant Rd for an additional 0.5 miles. Turn left onto the PA-L-3500 and drive for 0.2 miles. Again, turn left onto the PA-L-3510, drive past the gate, and continue for another 0.2 miles to reach Fitzgerald Pit.