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May 27, 2021

Mona Griswold, DNR Olympic Region Manager Via: SEPA Center P.O. Box 47015 Olympia, Washington 98504-7015 sepacenter@dnr.wa.gov

Re: On the Line timber sale – SEPA comments (File No. 21-051301)

Dear Ms. Griswold,

Thank you for the opportunity to comment on the "On the Line" timber sale. Unit 1 of the above referenced timber sale includes an 8-acre stand of virgin Douglas fir forest that has never been logged. Approximately one out of the 8 acres is contained within leave tree areas and therefore excluded from harvest. The timber sale maps indicate that the other 7 acres are to be clearcut. In addition, there are numerous, un-marked legacy trees exceeding five feet in diameter scattered throughout Unit 1 that would be harvested as part of the timber sale (see attached photographs). Unit 1 overall is vertically and horizontally complex and includes wet areas, patches of younger trees, and large areas with multiple cohorts of Douglas fir with hemlock and western redcedar present in the mid-story and understory. The unit also includes dozens of ancient cedar snags measuring up to 12 feet in diameter.

The SEPA checklist indicates that Unit 1 was harvested between 1934 and 1946. However, DNR's old growth assessment, conducted in 2007, states that Unit 1 was last harvested around 1880. Many short rail lines were constructed by timber interests between Port Crescent and Joyce west to Lake Ozette in the late 1800s to transport timber to the mill in Discovery Bay. Because Unit 1 is only a mile from the coastline, it seems likely that it would have been one of the first areas to have been logged. The surviving 8-acre patch of older Douglas fir is clearly visible in the 1939 aerial photo, as part of a larger, mature 20-acre stand of trees with large crowns that were probably at least 60 to 80 years old at the time. Numerous large legacy trees are also visible in the aerial photo, scattered throughout Unit 1. It is unlikely that the loggers would have left so many large trees behind in 1934 or 1946. No roads or skid trails are evident in the 1939 aerial photo, and the unit looks more like a post-fire landscape than a forest that has been recently logged. It is likely that the unit was logged in the late 1800's, and that the larger fir trees that currently occupy the area emerged following an earlier fire that occurred before the area was logged. There is no evidence of subsequent logging in the 1951 or 1956 aerial photos.

The abundance of large Douglas fir legacy trees and fire-scarred cedar snags suggests that many of the old growth cedar trees that were present in the original stand were killed in a fire sometime in the mid-1800's, creating open spaces large enough for the Douglas fir trees to become established. The earlier fire appears to have burned the unit unevenly, however, as some cedar trees obviously survived the fire to be harvested. The remnant stand of Douglas fir and other young, regenerating fir trees were likely ignored by the early loggers in 1880, probably because the trees were too small to be useful to them.

A number of trees were apparently cored by DNR in 2007 in an attempt to verify the origin date of the unit. The authors of the old growth assessment claim that Unit 1 is dominated by a cohort of Douglas fir trees that are all about the same age, and that trees sampled from the dominant cohort ranged between 95 and 140 years old. Obviously, both of these statements cannot be true. The old growth assessment further states that the dominant cohort of Douglas fir ranged between 40 to 56 inches dbh in 2007. Based on our measurements, most of the trees in the dominant cohort now exceed 60 inches dbh. Any 140-year old trees that were cored in 2007 would be 154 years old today, and would have originated in 1867. The old growth assessment does not indicate how many trees were cored or where the trees that were cored are located within the unit. LiDAR data indicates that the Douglas fir trees in the remnant 8-acre patch are approximately 200 feet tall on average, which exceeds the average tree height of other verified patches of old growth on the north end of the Olympic Peninsula.

The old growth assessment claims that there was a stand-initiating fire that occurred after the unit was logged. The fire that produced the cedar snags that are abundant throughout this unit clearly occurred before the unit was logged. It seems unlikely that the unit was burned after it was logged, because at least some of the fir trees currently present within the unit originated prior to 1880, based on DNR's own analysis. All of the old cut stumps in the unit appear to be cedar, and comparable in size to the standing dead cedar snags. The remnant 8-acre patch of older Douglas fir does not contain cut stumps. Prior to 1900, the fire regime was highly variable and often resulted in a complex mosaic of stands of variable ages and tree mortality ratios. Morrison and Swanson (1990) found that most stands originating between 1800 and 1900 were less than 10 hectares (20 acres) in size.¹ It is possible that the 20-acre patch of Douglas fir and other legacy trees visible in the 1939 aerial photo were a product of a spatially varied fire regime; and that some of the larger Douglas fir legacy trees survived the earlier fire that produced the large, fire-scarred cedar snags, are well over 154 years old, and would qualify for protection under DNR's Old Growth Timber Harvest Deferral and Protection policy (PR 14-004-045).

The 1939 aerial photo provides evidence of the later fire that likely burned parts of Unit 1 in the early 1930's. Large patches of bare ground, and young, emerging \sim 5-10 foot tall conifers are visible in the aerial photo. This fire could have caused some of the fire scars that are evident on the cedar cut stumps in Unit 1. If there was a fire in the early 1930's, the larger Douglas fir trees in Unit 1 were obviously unaffected, as they are still visible in the 1956 aerial photo.

eter H. Morrison and Frederick J. Swanson, Fire History and Pattern in a Cascade R

¹ Peter H. Morrison and Frederick J. Swanson, *Fire History and Pattern in a Cascade Range Landscape,* USFS Pacific Northwest Research Station, PNW-GTR-254, May 1990.

The three units of this sale together contain up to 203 acres of 85 year old and older native (unplanted or non-industrial), structurally complex forest. Native forests have virtually disappeared from the North Olympic coastal area. Converting these native forests to plantations would permanently alter the character of the land and surrounding forest, and the genetic and biological diversity of the region as a whole. This and other similar timber sales undermine DNR's ability to meet the objectives of the Policy for Sustainable Forests and 1997 Habitat Conservation Plan (HCP), which require DNR to conserve biodiversity and provide long-term forest cover for a range of species associated with structurally complex forests.

DNR is obligated under the Policy for Sustainable Forests, the Department's procedures for Identifying and Managing Structurally Complex Forests (PR 14-004-046), and the Multi-species Conservation Strategy of the HCP to work toward maintaining "fully functional forests" on 10 to 15 percent of lands covered by the HCP. DNR commonly refers to the 10 to 15 percent target as the "older forest target". In the Policy for Sustainable Forests FEIS, the Board's preferred alternative "emphasizes that the 10 to 15 percent older-forest targets will be accomplished" within 70 to 100 years.

PR 14-004-046 directs DNR to develop landscape level management strategies to achieve the 10 to 15 percent older forest targets during the forest land planning process that will be conducted for each HCP planning unit. *Only after the 10 to 15 percent target is met* may structurally complex forest stands be considered for harvest activities.³

According to the HCP (Table IV.14), at least 150 years is required for a stand to reach the "fully functional" development stage. An analysis of the most recent combined origin forest resource information dataset indicates that *less than one-half of one percent (0.4%)* of lands managed by DNR within the Straits planning unit currently meet this threshold.

It is commonly assumed, and has been stated previously by the Olympic Region Office, that old growth stands and structurally complex forests located in special ecological management areas (EMAs) such as protected spotted owl and marbled murrelet habitat, NRCAs, natural areas, gene pool areas, and riparian management zones (RMZs), will provide the fully functional habitat necessary to satisfy the 10 to 15 percent older forest target. There are about 16,400 acres in the Straits HCP planning unit that are protected within one or more EMAs, and another 30,000 acres contained within RMZs. However, according to DNR's combined origin resource inventory data, only 7,021 acres are old enough to contribute to the 10 to 15 percent target within the Straits HCP planning unit by 2097. This means that less than 6% of lands managed by DNR within the planning unit are both capable of contributing to this target *and* protected within an EMA or RMZ.

The combined origin data, which is based to a large extent on the FRIS 2.0 DAP-based data, may under-estimate stand age for some forest inventory units, and is known to under-represent the contribution of riparian areas to older forest targets. To calculate an upper estimate of the maximum potential contribution of the EMAs and RMZs to the 10 to 15 percent target, we merged

² Based on FRIS combined origin polygon data, updated in October, 2020.

³ See Policy for General Silvicultural Activity, p. 46, *in* Policy for Sustainable Forests (DNR, 2006).

the combined origin polygons with the old plot-based data and newer 2017 DAP-based raster dataset (FRIS 3.0), by first converting the raster dataset to polygons using a pattern recognition routine in ArcGIS, and then taking the maximum value of each of the three datasets for each raster cell. Results suggest that up to 17,844 acres of land within an EMA or RMZ, representing approximately 14% of the planning unit as a whole, may be capable of reaching the fully functional stage of development by 2097. The actual attainment value probably falls somewhere between 6% and 14%.

Based on these results, it is **not at all clear** that existing EMAs and RMZs are sufficient to meet older forest targets for the Straits planning unit. PR 14-004-046 dictates that:

The identification and review of landscape level management strategies to achieve the 10 to 15 percent older forest target will be completed during the forest land planning process that will be conducted for each HCP planning unit.

To date, no forest land plan has been completed for the Straits planning unit. In the interim, PR-004-046 dictates that any proposal to harvest structurally complex forests *must be accompanied by:* a) an assessment of forest conditions using readily available information; b) an analysis of the known landscape management strategies and; c) role of the structurally complex stand in meeting older forest targets. DNR made no attempt, in its SEPA checklist or elsewhere, to document how and why this sale complies with these procedures.

The FPA indicates that the units of this sale are to be treated as even-aged harvest units.

PR 14-004-046 dictates that:

Harvest activities in older forest and other structurally complex stands designated as suitable to meet older forest targets must enhance the older forest condition.

Much of the forest canopy in the proposed sale is already complex and multi-layered. Unit 1 in particular contains dozens of large diameter trees and large diameter snags, few of which have been marked as leave trees. The timber sale as presented in the FPA and SEPA checklist will not enhance older forest conditions or contribute to the development of fully functional forests.

The Policy for Sustainable Forests and associated HCP implementation procedures constitute DNR's plan for implementing the HCP, and also serve as mitigation for timber harvest on lands covered by the HCP. Commercial harvest of the oldest and most biologically diverse native forests remaining in the North Olympic coastal lowlands is clearly at odds with Board of Natural Resources approved policies and procedures intended to preserve and promote biodiversity and the development of fully functional forests. Although DNR has not designated the lands targeted for harvest by this timber sale as suitable to meet older forest targets, they obviously have the potential to contribute to the attainment of the 10 to 15 percent fully functional forest target in the Straits HCP Planning Unit. For all of the reasons cited above, it is clear that this timber sale, and other similar timber sales in the Straits HCP planning unit, have probable, significant impacts to the environment necessitating preparation of an EIS. Because no forest land plan has been completed for the planning unit, and the SPEA checklist includes no analysis of the direct, indirect, or cumulative

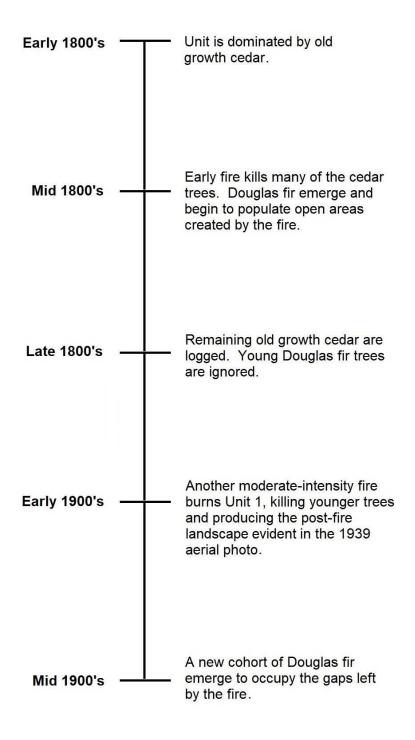
impacts of this and other planned timber sales in the Straits HCP planning unit on DNR's ability to meet the 10 to 15 percent target, DNR has failed to comply with its substantive obligations under SEPA.

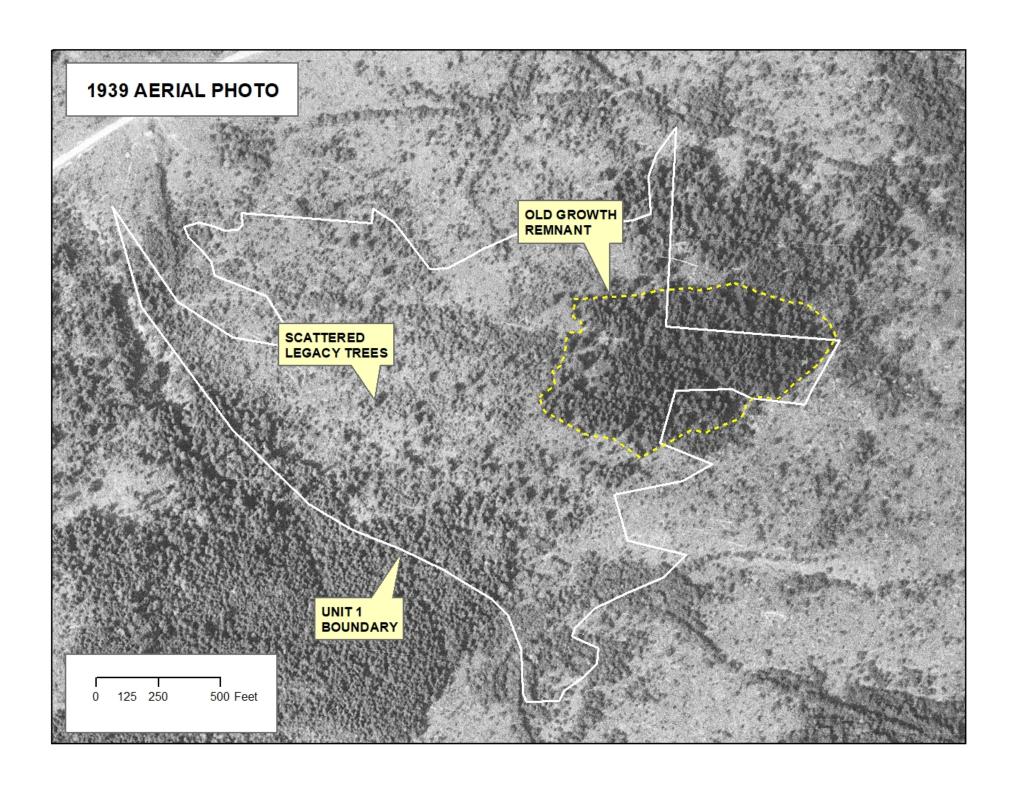
In the absence of a plan to meet older forest targets in the planning unit, the forest practices application for the proposed project should be withdrawn. Instead of logging the oldest and most structurally complex forests that remain in the planning unit, we recommend that DNR focus on developing a management strategy to generate revenue for trust beneficiaries that preserves older forests, accelerates the development of fully functional forest stands, and is consistent with the requirements of the Habitat Conservation Plan, PR 14-004-046, and the Policy for Sustainable Forests.

Respectfully,

Stephen Kropp Director

Probable History of Unit 1





Photos of Unit 1







