



DEPARTMENT OF
NATURAL RESOURCES

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June 24, 2020

Notice of Final Determination
SEPA File No. 20-051302
Forest Practices Application No. 2421642 (2421595)
Pertnear Timber Sale #30-099045

The Department of Natural Resources issued a Determination of Non-significance (DNS), Mitigated Determination of Non-significance (MDNS), Modified DNS/MDNS on **May 13, 2020** for this proposal under the State Environmental Policy Act (SEPA) and WAC 197-11-340(2).

This threshold determination is hereby:

Retained.

Modified. Modifications to this threshold determination include the following:

- Forest Practices Application/Notification (FPA/N) number 2421595 has been changed to 2421642.
- An Addendum to the Landslide Risk Analysis was added to address the following:
 - 1) The percentage of the ground water recharge area being harvested was amended from 28% to 44%;
 - 2) Figure 5 was updated to add the homes and structures located at the base of the adjacent steep slopes;
 - 3) Additional descriptions of the adjacent Rule Identified Landforms (RILs) were addressed.
 - 4) Additional information regarding the potential risk to public safety in regards to the RILs identified in Section 9 and Section 10 have been addressed.
- An HCP Checklist for Marbled Murrelet was added.
- Forest Practices Activity Map and Slope Stability Map updated to change the designation of the identified leave tree area in the SE portion of the sale to a non-tradeable leave tree area.
- The volume to be harvested in Unit 1 was decreased to 3,345 MBF¹. (FPA/N question 19 and SEPA Checklist question 11.a.)

All modified documents are available with FPA/N 2421642 in the Forest Practices Application Review System (FPARS).

Withdrawn.

Delayed. A final threshold determination has been delayed due to the following:

¹ MBF = thousand board feet

Summary of Comments and Responses (if applicable)

A total of nine comments were received during the SEPA comment period of May 13 – June 11. As a result to some of those comments, the proponent completed the above-mentioned modifications to the proposal. The proponent sent responses to comments to each individual commenters. A copy of the summarized responses is attached.

Responsible Official: Don Melton

Position/title: South Puget Sound Assistant Region Manager for Wildfire, Forest Practices & Camps

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Date: 6/24/20 Signature:  

There is no agency SEPA appeal.

Pertnear Timber Sale #30-099045
SEPA file No. 20-051302
FPA No. 2421642, previously No. 2421595

This is a compilation of the comments received during the SEPA comment period and responses to those comments for the Pertnear Timber Sale. The intent of including all comments in this single document is to address multiple interested parties that expressed the same or similar concerns and questions.

Comment 1: The SEPA comment period of May 13 through May 27, 2020 was insufficient to adequately review the provided information, especially since mailed notifications of the SEPA were not received until May 22. Additionally, the end of the comment period occurs prior to a site visit planned with some of the adjacent landowners and DNR on June 5. Requests were made to extend the comment period.

***Response:** Due to COVID-associated reduced mail schedules, notifications of the SEPA comment period were inadvertently sent out seven days later than intended. This issue was not known until comments were received. We apologize for the frustration this caused. It is important to us that interested parties have the full 14 day comment period to review the SEPA checklist and associated information, therefore the SEPA comment period was extended to June 11, 2020. Due to Forest Practices process regulations, it was necessary to submit a new Forest Practices Application (FPA) to facilitate the SEPA comment period extension. The new associated FPA No. is 2421642.*

Comment 2: Some landowners in the adjacent community of Upper Preston were not notified of planned activity.

***Response:** Although it is apparent from comments received that not all interested parties were reached, outreach to stakeholders and adjacent residents did occur with the intent to have direct communication and address questions or concerns prior to the SEPA comment period. Notification letters were mailed in early October 2019 to residents immediately adjacent to the planned harvest. Names and addresses used for that mailing were obtained from the King County parcel information. Unfortunately, in one instance the notification letter was mailed to the previous owners as the home was changing ownership at the time of the mailing. Additionally, the Snoqualmie Unit Forest Manager, Paul Footen, has been in direct communication since fall 2019 with several of the directly adjacent landowners regarding their questions and information about the proposal. It was Paul's understanding that one of these residents would pass on shared information with others in the community.*

Comment 3: Description of proposal in easily understandable terms/format.

***Response:** We understand that the SEPA checklist can be difficult to understand and it may be helpful to provide a little more information on State trust lands, which DNR manages. State trust lands are different than other publicly managed lands. They come with a legal responsibility to generate revenue for their designated beneficiaries, such as schools, counties, and critical local services.*

There are more than 2 million acres of forested state trust lands managed by the Washington State DNR under a Habitat Conservation Plan (HCP) for long-term timber production, specific

habitat objectives, and protection of clean water. These forests often provide public recreation opportunities, in addition to timber production, as is the case with Tiger Mountain State Forest. Tiger Mountain, including the area of the 'Pertnear' Timber Sale, has been actively managed for forest production for decades, as the DNR transitioned land to a more contiguous land block around the original sections granted at statehood.

The 'Pertnear' Timber Sale is planned on State trust land in a second growth stand. Although this proposal is an even-aged harvest, it is not a "clear-cut". Leave trees from the existing stand are marked within the harvest unit boundary that will remain following harvest at an average of eight trees per acre. The leave trees are marked primarily in groups with some individually marked throughout the unit and include some of the largest trees on site. These leave trees are in addition to the stream buffers. Under the DNR's HCP, both the number of leave trees and width of stream buffers exceed what is required by forest landowners under the Washington Forest Practices Rules. No harvest or equipment use will occur within the stream buffers.

The layout of the proposal took into consideration protection of the streams, identification and protection of potentially unstable slopes, screening and review for endangered or threatened species or unique habitats, cultural resources and minimizing new road construction. Operations during road construction and harvest will occur using best management practices to maintain natural drainage, minimize soil disturbance and prevent sediment delivery to streams.

Comment 4: Potential impacts to Marbled Murrelet under the DNR's long term conservation strategy were not addressed.

Response: *The area of the Pertnear Timber Sale is managed under the DNR's HCP Marbled Murrelet Long-term Conservation Strategy (MM LTCS). This proposal is not located in either 'Metered' stands or in 'Other Long-term Forest Cover'. These two types of habitat have been determined to contribute to the MM LTCS and would prohibit harvest, if existing on site. The fact that these habitat types do not exist within the planned harvest area is reflected in the State Trust Lands Habitat Conservation Plan (HCP) Addendum Implementation checklist for the Marbled Murrelet, 2019, which was completed for this proposal but unintentionally not submitted with the FPA. It is appreciated that this omission was brought to our attention! This checklist is attached for reference and submitted to Forest Practices, on file with Forest Practices Application No. 2421642.*

To provide a broader context of the proposal area in relation to Marbled Murrelet habitat other than what the checklist states, the nearest occupied site is located approximately 13.2 miles to the northeast and the nearest Pacific Seabird Group (PSG) protocol surveys, which resulted in no detections, were conducted approximately 0.4 miles to the south. Another PSG survey was done 3.3 miles to the northwest in the Tiger Mountain Natural Resources Conservation Area.

Comment 5: Concerns regarding potential impacts to the steelhead and salmon populations in the Raging River and tributary streams due to harvest.

Response: *The Raging River has resident cutthroat, summer and winter steelhead as well as coho and chinook salmon. No entry stream buffers, 200+feet from the Raging River, 187-foot average from Type 3 streams and 100 foot from Type 4 streams are in place beyond the harvest*

boundary to protect these streams from surface erosion and sedimentation, stream bank destabilization and water temperature changes. The stream buffers are compliant with the DNR's HCP and, as mentioned above, meet or exceed Forest Practices Rule buffer widths. Additionally, best management practices for new road construction and upgrades to the existing roads will ensure ditch water is deposited onto the forest floor and not allowed to flow directly into typed water. With the placement of these stream buffers on the Raging River and tributary streams, and implemented road drainage designs, it is anticipated that there will be no impacts to the fish populations.

Comment 6: Concern of impacts to downslope residential water sources. Request made to protect stream from being blocked or diverted during harvest.

Response: *It is anticipated that downslope water sources will not be impacted as a result of this proposal. All streams except Type 5 streams (the smallest streams) will have undisturbed buffers protecting them as described above. Type 5 streams within the harvest unit may have harvest occur up to the stream, but will not have equipment operating within or through the stream, other than to install the culvert on the proposed 7250 Road. This will leave all current drainage patterns in place, as well as protect stream bank integrity. No streams will be blocked by the harvest.*

Comment 7: Concern of herbicide impacts to bee populations.

Response: *All the herbicides currently being used have been tested and classified by the Environmental Protection Agency for honey bee safety. All currently used herbicides fall into the safest classification, "practically non-toxic" to honey bees. When we apply herbicides we do so under the direct supervision of trained and experienced DNR personnel. We rigidly follow state and federal laws for herbicide (a type of pesticide) as well as DNR policies regarding the careful use of herbicides.*

Comment 8: Concern that the harvest would contribute to slope instability and that assessments of the landslide potential did not properly capture increasingly heavy precipitation due to climate change, including recent precipitation events as seen during the January and February 2020 storm events.

Response: *A landslide risk assessment was completed by Susie Wisehart, State Lands Geologist-in-Training (GIT), Jennifer Parker, State Lands Licensed Engineering Geologist (LEG), Paul Footen, State Lands Snoqualmie Unit Forest Manager, and Zach Beebe, State Lands Forester. Eric Dasso, Forest Practices Forester and Aaron McMichael, Forest Practices LEG, agreed with the interpretations of State Lands after field review and review of the Engineering Geologic Risk Assessment, which was completed and submitted with the FPA. The Forest Practices assessment agreed with the conclusion that the proposed forest management activities pose a low risk to initiating landsliding in and around the proposed harvest area. This conclusion is based on understanding that the proposal excludes landforms (such as bedrock hollows, shallow landslides, and inner gorges) regulated by Forest Practices, which are known to be sensitive to forest practices activities. The proposal includes additional non-tradeable leave tree areas to increase buffer around these landforms.*

A relict glacial deep-seated landslide is also excluded from the proposed harvest. Its associated topographically-defined groundwater recharge area is mostly excluded from harvest as well. Approximately 44% of the upper TGRA is included in the harvest boundaries, which includes right-of-way access for a potential road. This DSL is interpreted to be at low risk of reinitiating due to timber harvest for the following reasons:

- The relict deep-seated landslide does not contain common stratigraphy of glacial deep-seated landslides with permeable outwash-derived sand on top of a relatively impermeable glacial lake-derived clay. This relict glacial DSL includes a veneer of cement-like glacial till over weathered volcanic bedrock. Therefore, the processes that formed this landslide are different from those that formed the landslides within the Raging River floodplain.*
- The proposed road has required culvert locations that direct water away from the groundwater recharge area and deep-seated landslide. Surface runoff from the harvest above the road will be diverted away from the deep-seated landslide.*
- The deep-seated landslide has intact, straight old growth stumps throughout the landslide scarp and body. The trees that formed these stumps likely started growing hundreds of years ago. Therefore, these stumps provide evidence that the landslide has remained stable through hundreds of years of climate fluctuations.*
- The relict deep-seated landslide has not moved despite the entire landslide and groundwater recharge area being harvested once before and the stream eroding away the toe buttressing the DSL.*

After the January-February 2020 storm events, State Lands and Forest Practices reviewed the potentially unstable slopes around the proposed harvest. During that field visit, Forest Practices agreed that the proposal poses a low risk to initiating landsliding. An addendum to the Engineering Geologic Risk Assessment was submitted by the State Lands GIT and LEG on June 23, 2020 and is attached for reference. This addendum further elaborates on the risk assessment for the slopes adjacent to homes and structures.

Shallow landslide processes such as those that have and can occur downslope of the proposed harvest are most sensitive to a) loss in root strength and b) surface and shallow surface flow from short, intense storm events. By protecting these slopes from harvest, the proposal maintains their rooting strength. The State Lands forest hydrologist assessed the precipitation history since the 1950s¹ in the proposed harvest area and potential runoff impacts from harvest. The hydrologist found that annual precipitation from long duration, low intensity storms have increased, but the amount of precipitation from short, intense storm events has not significantly increased.

In regards to increased precipitation due to climate change, the science is unclear about how mitigations should be adjusted to account for projected climate change. Forest Practices regulations use science-based rules to protect slopes known to be sensitive to forest management and these regulations are the same for both the Snoqualmie area as well as Forks,

¹ Oregon State University, PRISM Model, Data Explorer, <http://www.prism.oregonstate.edu/explorer/>, accessed May, 2020.

WA, which experiences approximately double the annual precipitation. Riparian management zone buffers, additional leave trees beyond these buffers, and planting new trees within two years of the harvest were used to mitigate potential harvest impacts.

Comment 9: Concern regarding potential impacts harvest may have on flooding potential and subsequent damage to property.

Response: *Timber harvest can alter hydrologic processes in lowland and rain-dominated forest terrain. Removal of canopy cover reduces both direct interception of precipitation and levels of evapotranspiration. Due to the loss of canopy interception, more precipitation is able to reach the forest floor, potentially increasing the amount of water infiltrating into the soil. When soil moisture contents increase (both long-term due to reduced evapotranspiration and short-term due to reduced interception during storms), there is a higher likelihood that precipitation during a storm event will exceed the infiltration capacity of the soil, resulting in an increase in surface runoff. Increases in surface runoff thus may result in increased peak streamflows.*

Studies in the Pacific Northwest show that if enough of a watershed is harvested, there can be a measurable increase in peak flows from low-intensity storms (< 6 year return interval)². At the same time, the effect of forest management is not measurable for high-intensity storms (> 6 year return interval) and is expected to be small. This is because trees can only intercept a fixed amount of precipitation. The low-magnitude peak flows from the small streams that drain the east-facing slopes may increase, but harvest is not expected to measurably increase the flows from high-intensity events.

The State Lands GIT and LEG reviewed the harvest history in an unnamed creek's watershed to evaluate the proposed harvest's potential effects on peak stream flows. The watershed drains to an alluvial fan with residential properties. Active alluvial fans are at a naturally high risk of flooding and sediment deposition, including debris flows. Empirical data from harvests in rain-dominated watersheds show that peak flow increases for low-intensity precipitation events can be detected once 40% of a basin is harvested. Peak flow increases from harvests in rain-on-snow watersheds are detectable at 15%³. The proposed Pertnear timber sale is located in a rain-dominated zone, which experiences occasional rain-on-snow events. Recovery of evapotranspiration to pre-harvest levels has been estimated to be 12 years after replanting⁴. The Booyah timber sale harvested approximately 5% of the basin draining toward the alluvial fan, southeast of the proposed harvest. Trees in the Booyah timber sale are approximately 7 years old. The proposed Pertnear timber harvest includes approximately 3% of the basin draining toward the alluvial fan. Based on the small area of the watershed that is in a harvested condition, the proposed Pertnear timber harvest is expected to have a de minimus impact on peak flows for the basin draining toward the alluvial fan.

² Grant, G. E., Lewis, S.L., Swanson, F.J., Cissel, J.H., McDonnell, J.J., 2008, *Effects of forest practices on peak flows and consequent channel response: a state-of- science report for western Oregon and Washington*, Gen. Tech. Rep. PNW-GTR-760, Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 76p.

³ Grant and others, 2008.

⁴ Jassal, R.S., Black, T.A., Spittlehouse, D.L., Brummer, D., Nestic, Z., 2009, *Evapotranspiration and water use efficiency in different-aged Pacific Northwest Douglas-fir stands*, *Agricultural and Forest Meteorology* 149, 11 p.

There are residential properties downslope of the eastern boundary that are in or directly adjacent to the floodplain of the Raging River⁵ and are at risk of flooding with or without harvest upslope. The proposed harvest is much less than 1% of the watershed contributing water to the Raging River, and will therefore have a de minimus impact on Raging River flooding.

Comment 10: Several animal and bird have been observed by residents but not accounted for in the SEPA checklist, specifically bobcats, coyotes, eagles, herons, and steelhead.

Response: *The plant and animal species mentioned in the SEPA checklist included those observed while DNR staff worked in the area, known by others who have been onsite and species that appear in DNR or Washington Department of Fish and Wildlife databases. It is not unusual for adjacent residence to observe more species than DNR staff due to the longer duration of time residents are onsite. It is appreciated that these additional species were brought to our attention. There are no regulations that restrict timber harvest due to the presence of these species.*

Comment 11: SEPA section B.8.a., residential wasn't mentioned as a current use of adjacent site.

Response: *This was an oversight. DNR does acknowledge that there are downslope residents adjacent to the planned timber harvest, as is evident in the associated landslide risk assessment and shown on maps created for the Pertnear Timber Sale.*

Comment 12: SEPA section B.10.b.1) does not address that the Pertnear Timber Sale would be visible from Highway 18 and some trails on Rattlesnake Ridge.

Response: *This was also an oversight. This project will be visible during brief moments while traveling southbound on Highway 18, particularly while on the Raging Bridge. The project is also likely to be visible from some trails on the south end of Rattlesnake Ridge.*

Comment 13: There was no mention of communication with Snoqualmie Tribe in SEPA section B.13.

Response: *Two contacts from the Snoqualmie Tribe are on the SEPA mailing list and received notification of this proposal. DNR has not received any comments or concerns from the Snoqualmie Tribe. Additionally, this area was screened by multiple parties for any cultural resource concerns using the Department of Archeology, Historic Preservation (DAHP) database. Also, the Snoqualmie Unit Forester, Paul Footen, sends out emails each year regarding upcoming planned timber harvests. The Snoqualmie, Tulalip and Muckleshoot Tribes are all recipients of these emails.*

Comment 14: Previous upslope harvest not addressed in considering cumulative effects of peak flow impacts.

Response: *The State Lands GIT and LEG assessed the previous upslope harvest as well as other harvests in the basins draining toward the eastern slopes and the alluvial fan around the proposed Pertnear Timber Sale. The details of this assessment are described at the end of*

⁵ FEMA Flood Map Service Center, Map Number 53033C1032G, <https://msc.fema.gov/portal/search?AddressQuery=Upper%20Preston%2C%20WA#searchresultsanchor>, accessed June, 2020.

response for comment 9. They conclude that the proposal is not expected to measurably increase peak flows in large storm events.

Additionally, the DNR's HCP and Policy for Sustainable Forests implements procedures to reduce the potential cumulative peak flow impacts in watersheds. These include limiting single harvest units to less than 100 acres and managing for hydrologic maturity levels in snow dominated and rain on snow zones. Forest Practices Rules regulations for green up of adjacent stands are also adhered to.