

4/18/2023

To WA DNR and Clallam County Commissioners:

I oppose the State logging in the Elwha River watershed, in particular, the "TCB23" timber sale (FPA #p2617880, Agreement #30-103864, SEPA 22-123001). The "TCB23" forest is an older, structurally mature, and naturally regenerated legacy forest. It is in close proximity to the Elwha River, playing an important part in watershed restoration. Logging these forests compromises efforts to restore endangered salmon habitat; threatens other endangered and recovering species; destroys essential carbon sinks; and threatens Port Angeles residents' drinking water, which comes solely from the Elwha river. It will clear-cut a large portion of the much loved Olympic Adventure Trail (OAT), impacting recreation and eco-tourism in Clallam County.

On October 26th, 2022, Superior Court Judge Keith Harper ruled in *Center for Sustainable Economy and Save the Olympic Peninsula v. Washington State Department of Natural Resources, Board of Natural Resources, and Commissioner of Public Lands Hilary Franz*¹ that DNR had violated the State Environmental Policy Act (SEPA) by failing to consider the climate impacts of two Olympic Region timber sales. I hereby incorporate by reference the administrative record (AR) for that case and append the index to that record as Exhibit A. I'm also attaching an expert declaration from Dr. Dominick DellaSala as Exhibit B, pointing out how the DNR is continuing to not take into account the greenhouse gas emissions from this sale. His CV is included as Exhibit C. There is nothing in the 2015-2024 SHC FEIS or HCP FEIS that can serve as a basis for concluding that the listed timber sale, individually, will not have significant climate impacts.

As a result, and with respect to climate impacts, the Determination of Nonsignificance (DNS) for the timber sale proposal identified in this letter is clearly erroneous and should be remanded back to DNR for further analysis.

1. The climate impacts of the timber sale proposal is significant, and long lasting.

The climate impacts of DNR's logging activities fall into three general categories discussed below: GHG emissions, loss of carbon sequestration capacity, and loss of climate resiliency. None of these effects were considered by DNR in the agency's evaluation of the climate impacts of the listed timber sale.

a. Greenhouse gas (GHG) emissions

Every time a new timber sale is approved, DNR is initiating a chain of activities that generate significant GHG emissions all along the wood products life cycle. These sources are well known and readily measurable by existing data and methods (AR REC 016617: 016695). They include the carbon removed from site minus whatever is stored long term in wood products. Numerous life cycle analyses have found that between 75% and 85% of the carbon stored in a timber sale will end up in the atmosphere in a relatively short period of time.

They include the emissions associated with the decay and combustion of logging residuals, and carbon released from disturbed soils. They include fossil fuel emissions associated with diesel and gasoline powered machinery used during logging and road building. They include the carbon lost to the atmosphere as logging residues decay or are burned. They include the fossil fuel emissions generated by transport, and during the manufacturing process.

Hudiburg et al. (2019) have provided one of the most comprehensive inventories of such GHG emissions associated with Washington's timber harvest activities, and concluded that between 2001 and 2016, emissions attributable to timber harvest activities were roughly 32 million metric tons CO₂ per year, making the logging and wood products sector the second greatest source of GHG emissions in the state.² During that same period, statewide timber harvests averaged 3,116,296 thousand board feet per year (mbf),³ which translates into an emissions factor of 10.27 tCO₂-e/mbf. Applying that factor to the estimated volume for the sale yields the sale-specific GHG emissions of ~1047 mbf * 10.27 tCO₂-e/mbf = **10,753 tons CO₂ emitted**.

For this sale, the emissions exceed the general significance threshold adopted by the Department of Ecology of 10,000 metric tons CO₂ (AR REC 016815: 016854). And as noted above, the cumulative effects of logging on DNR lands and all other federal, state, and private lands in Washington is so significant as to amount to the second largest source of GHG emissions in the state. As such, DNR's assertion that each of the timber sale proposals will emit a 'minor' amount of emissions has no basis in fact, especially since DNR did not even attempt to quantify those emissions as done here.

b. Loss of carbon sequestration capacity

Every new segment of logging roads constructed on DNR lands puts some of the most productive carbon capturing land in the world permanently out of commission. In addition, and for a period of 10-15 years after logging via clearcutting or variable retention harvest techniques, the land becomes a carbon emissions source and not a sink (AR REC 016675: 016695). Net ecosystem productivity – the best measure of carbon sequestration – goes negative during this time. And by reducing carbon sequestration capacity, DNR's logging program is helping to further increase GHG concentrations in the atmosphere and associated radiative forcing (DellaSala Declaration at par. 17).

In addition to 1,845 feet of new permanent logging roads, 7 acres of "TCB23" will not be reforested, resulting in a permanent loss of carbon sequestration from that area.

c. Loss of resiliency to climate change

In addition to driving climate change through significant GHG emissions, clearcutting, road building, and establishment of timber plantations is making the land more vulnerable to climate change. DNR is well aware of and has full access to the research connecting logging to increased wildfire risk, floods, landslides, harmful algae blooms, wind damage, water shortages, heat waves, and other stressors on the rise from climate change (AR REC 016855: 016904; DellaSala Declaration at par. 18, 19).

2. The discussion of climate impacts in the FEISs for the Sustainable Harvest Calculation and HCP cannot be used as a basis for determining that DNR's logging program as a whole, as well as individual timber sale projects, have no significant impacts.

a. The HCP and SHC FEISs base their evaluation on incremental, rather than absolute levels of logging related emissions.

While the SHC and HCP FEISs contain sections that purport to discuss the climate impacts of DNR's logging program, they don't actually contain that analysis. Instead, they compare the incremental change in a limited set of logging related emissions and carbon stored in forests, soils, and wood products associated with a broad set of management activities across seven alternatives, all which contain more or less the same high levels of logging that exist today.⁴ See also DellaSala Declaration at par. 14, 15, 16. The FEISs do not contain a 'no action' alternative without logging, an alternative that would represent the baseline forest carbon conditions that would exist if DNR forests were allowed to grow to their maximum ecological potential (proforestation).⁵

b. Invalid evaluation criteria for determining significance.

Moreover, the evaluation criteria adopted by these FEISs – whether DNR lands sequester more carbon than they emit – is irrelevant for determining whether or not the GHG emissions associated with DNR logging projects has significant climate impacts (DellaSala Declaration at par. 11, 12, 13). A useful analogy would be to imagine an analyst from the Bureau of Ocean Energy Management concluding that new oil and gas leases would have no climate impacts because the oceans still sequester more carbon than would be emitted by these projects.

Aside from the fact that sequestration by forests and oceans is not attributable to DNR or BOEM management activities (nature provides this service for free), the reality is that climate change is happening because the accumulation of GHG emissions associated with human activities, including logging, have long ago exceeded the Earth's capacity to fully absorb these emissions and are degrading that capacity further.⁶

Because of human activities, atmospheric concentrations of GHG gasses and radiative forcing (RF) continue to rise. All new sources of emissions and each new acre of foregone sequestration is contributing to the climate crisis (DellaSala Declaration at 12). Instead of comparing emissions associated with logging with carbon sequestered by forests, soils, and wood products in a given year, a credible climate impacts analysis would begin by evaluating the significance of logging related GHG emissions by themselves without reference to what is sequestered and stored elsewhere by ecosystems, wood products, or landfills (DellaSala Declaration at par. 13).

c. In western Washington, DNR forestlands actually emit more carbon than they take in.

But even if DNR's criteria is accepted – whether DNR forestland emit less carbon than they take in – is accepted as a legally or ecologically credible standard, the data do not support this conclusion. As a preliminary matter, it is important to point out that the data associated with the climate impacts analyses contained in the FEISs is outdated, and superseded by more recent data, such as the data contained in Washington's Forest Ecosystem Carbon Inventory⁷ or recent research such as Hudiburg et al. (2019)⁸. These more recent documents paint a drastically different picture about stocks and flows of carbon and logging-related emissions than what is represented by DNR in the environmental checklists.

Statewide, there is no statistically significant difference between the amount of carbon removed by timber harvest (removals) and sequestered (growth minus mortality) by DNR lands⁹, even after taking into account the amount of CO₂ removed by timber harvest and stored in long-lived wood products. As noted above, about 20% of that carbon can be credited as being stored in long lived wood products according to conventional methodologies. On the other hand, GHG emissions associated with the wood products life cycle associated with DNR logging projects extends well beyond just the carbon embodied in the trees and encompasses all of the direct, indirect, fossil and biogenic carbon sources noted above. So using unadjusted removals as a proxy for logging related emissions provides a reasonable estimate.

3. DNR has failed to consider reasonable alternatives and mitigation measures that can reduce climate impacts while still providing adequate supplies of timber.

There is nothing in the SHC FEIS, HCP FEIS, or environmental checklists to indicate that DNR considered reasonable alternatives and mitigation measures that would reduce the climate impacts of this timber sale or DNR's logging program as a whole (DellaSala Declaration at par. 22). As previously noted, the SHC and HCP FEISs did not consider a true 'no action' alternative that would represent what could be achieved if all DNR forestlands were managed for carbon storage and climate resiliency through proforestation – letting DNR forests grow and evolve to their maximum ecological potential.

Nor did DNR consider the climate benefits of no action alternatives in the context of the checklists. Nor do any of these documents include mention of any other alternative designed to reduce climate impacts, such as through prohibitions on logging mature and old growth trees, eliminating new road construction, or using variable density thinning and other low impact techniques instead of more intensive methods such as clearcutting and variable retention harvest.

Canceling this timber sale provides time to explore forward thinking solutions compatible with larger scale Elwha Watershed restoration efforts, including generating revenue from carbon markets, obtaining funds through emerging state programs, and transferring the lands out of state management such as to the County for park use.

Please halt the "TCB23" timber sale. Thank you for considering my comment, and I would appreciate a response.

Thank you,
Scott McGee
Port Angeles, WA

References:

- 1** *Center for Sustainable Economy and Save the Olympic Peninsula v. Washington State Department of Natural Resources, Board of Natural Resources, and Commissioner of Public Lands Hilary Franz*. No. 22-2-00015-16. In the Superior Court of the State of Washington in and for Jefferson County.
- 2** Hudiburg, T., Law, B.E., Moomaw, W.R., Harmon, M.E., Stenzel, J.E., 2019. Meeting GHG reduction targets requires accounting for all forest sector emissions. *Env. Res. Ltrs.* 14(2019): 095005.
- 3** Bureau of Business and Economic Research, University of Montana, 2022. Washington Timber Harvest. Available online at: <https://www.bber.umt.edu/FIR/HarvestWA.aspx>.
- 4** Final Environmental Impact Statement (FEIS) for the 2015-2024 Sustainable Harvest Calculation (SHC), pages 3-7 to 3-13; 4-6 to 4-17; FEIS for the 2019 HCP Long-Term Conservation Strategy for the Marbled Murrelet, pages 4-6 to 4-14.
- 5** Moomaw, W.R., Masino, S.A., Faison, E.K., 2019. Intact forests in the United States: Proforestation mitigates climate change and serves the greatest good. *Front. For. Glob. Change*, 11 June 2019, DOI: <https://doi.org/10.3389/ffgc.2019.00027>
- 6** Friedlingstein, P., O’Sullivan, M., Jones, M.W., et al. Global carbon budget 2022. *Earth Syst. Sci. Data*, 14, 4811–4900, 2022. <https://doi.org/10.5194/essd-14-4811-2022>.
- 7** Christensen, G.A., Gray, A.N., Kuegler, O., Siemann, D., 2020. Washington Forest Ecosystem Carbon Inventory:2002: 2016. Portland, OR: USDA Forest Service, Pacific Northwest Research Station.
- 8** Hudiburg et al., 2019, Note 2
- 9** Christensen et al., 2020, Table 4.12