Conservation Northwest
Keeping the Northwest Wild

Mr. Gordon White
Program Manager
Shorelines and Environmental Assistance Program
Washington State Department of Ecology

and

Anchor QEA
1201 3rd Ave., Suite 2600 Seattle, WA 98101
(submitted via Department of Ecology website)

RE: Conservation Northwest Comments on SEPA Draft Environmental Impact Statement for the Chehalis Flood Damage Reduction Project

May 26th, 2020

Dear Mr. White and Anchor QEA,

Thank you for the opportunity to provide comments on this important State Environmental Policy Act (SEPA) Draft Environmental Impact Statement (EIS) for the Chehalis Flood Damage Reduction Project.

We are submitting these comments on behalf of Conservation Northwest (CNW). CNW is a non-profit environmental group based in Seattle, Washington with staff located on the ground in the areas where we work, including Thurston and Lewis Counties. Our mission is to protect, connect and restore the wildlands and wildlife of the Pacific Northwest. We focus on recovering native species and ensuring they have ample habitat in the right locations to thrive in the face of the human footprint on natural landscapes, as well as climate change. Habitat connectivity is therefore is a key piece of our work, and has been since our founding in 1989. We have an organizational program dedicated specifically to connectivity between the Cascades and Olympics (*https://www.conservationnw.org/our-work/habitat/cascades-to-olympics/*), which is one reason why the impacts of the proposed flood retention facility are of great interest to us.

We provide here technical comments on habitat connectivity, marbled murrelets, forest practices, impacts on hydrology and note others' technical comments on aquatic species and ecosystem processes. We also provide comments from a process perspective on the need to develop an additional alternative, and the impact on the process at this point of not having potential mitigation measures identified and described.

General Comments

First, we think the DEIS is innovative for integrating the impacts of climate change into how the alternatives are described and analyzed. While there are shortcomings to some technical aspects of the climate analysis, the overall approach helps the public understand that climate change is

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not something separate from the impacts of any proposed project but rather the day-to-day reality we all have to live with, and its severe impacts for which society has to plan, even in the face of aggressive national and global mitigation measures.

Second, we appreciate the unequivocal statements and identification of significant adverse impacts of building and operating the Flood Retention Expandable (FRE) facility (or dam) to fish, wildlife, wetlands, water quality, cultural resources, and potentially to human safety in the event of a dam failure. Even with the lack of adequate analysis of some of the impacts, the document leaves no doubt that proceeding with this proposed action would involve significant and potentially irreparable damages to natural systems and resources important to people in the Chehalis Basin and statewide.

We are however very concerned with the lack of analysis of the "expandable" aspect of the FRE facility and absence of any linkage to the purpose and need statement of the potential for increasing the capacity and footprint of a larger dam. While we understand that a new analysis and permitting process would be required to use the expandable capacity, it is a disservice to the public to propose a structure with additional capacity and not do an upfront analysis of what the additional impacts would be. Once a structure like that is in place, it tilts the future pathway towards a decision to use the additional capacity. As such, an analysis of the additional impacts should be included now. Such segmentation calls into serious question whether the DEIS meets the requirements of SEPA.

Third, from a process perspective, the public is left in an entirely unsettled place by having the mitigation for all significant impacts that were identified as the future development of mitigation plans. There is no way to have any understanding or confidence that mitigation could be possible or adequate so we are left to assume scenarios in which the public has to choose between the incomplete level of flood damage reduction provided by the FRE facility and loss of ecologically and culturally significant aspects of the natural environment. The damages from future flooding without some form of flood reduction work are also daunting and unacceptable to the people who would bear the brunt of those damages. The DEIS presents a no-win situation.

If further work occurs on analyzing the potential to build a dam, we recommend a much more thorough exploration of whether mitigation for the identified damages is possible (in addition to more specific items described below) in a supplemental EIS. We also recommend the development of another alternative or alternatives that explore additional means of reducing flood damage without building the FRE facility, additional flood reduction work throughout the Basin, and significant ecological restoration.

We understand that other avenues have been studied and have been dismissed, but the trade-offs laid out in the DEIS appear to set up a lose-lose scenario in which the public will not be well served. We are especially concerned about the heavy impact on the needs of the Chehalis and Quinault Tribes, and to residents in portions of the Basin who will not benefit from flood reduction, but will have to deal with the impacts of the dam. Given the information we have to date, we cannot support the approval of the proposed project.

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*Wildlife Habitat Connectivity Impac*ts

Habitat connectivity is an essential requirement for resilient wildlife populations. (For overviews of the importance of connectivity and recent research, see here and here). The term refers to the ability of wildlife species to move from one portion/patch of habitat to another in order meet daily and seasonal survival needs (feeding, resting, and breeding) and more medium and long-term requirements of colonizing new habitats when prior occupied areas no longer provide their survival needs, and for species to be able to maintain population numbers (demographic support and rescue) and genetic diversity over space and time to prevent extirpation and extinction. Maintaining connectivity is more difficult in landscapes where there has been habitat loss and degradation due to human land use activities (e.g. conversion of native forest to tree plantations or agricultural or urban uses), and when large barriers to movement such as highways have been constructed, e.g., the role of Interstate 5 (*https://www.conservationnw.org/wp-content/uploads/2020/01/Final_Stewart_CNW_Cascades_to_Olympics_Whitepaper_2019.pdf*) in blocking movement of wildlife between the Cascades, southwest Washington and the Olympics).

In addition to the challenges of navigating human-altered landscapes, wildlife populations are now needing to confront climate change. When overall climate conditions and the underlying vegetative composition, structure and function of habitats change due to climate driven differences in precipitation and temperature, many species need to migrate to new areas in order to survive. If the landscapes they need to cross are inhospitable or have barriers to movement, climate-induced migrations may be impeded and fail (WHCWG 2011, Krosby 2016. [*https://waconnected.org/wp-content/themes/whcwg/docs/Final%20Climate%20Gradient%20Corridors%20Report%20August%202011.pdf]).*

Conservation Northwest submitted scoping comments for the development of this Draft EIS noting the importance of analyzing the impacts of the proposed FRE facility and the airport levee on wildlife habitat connectivity corridors. We noted that the programmatic EIS (DOE 2017) discussed the potential impacts to elk migration using work from 2010 done by the Washington Wildlife Habitat Connectivity Working Group (*https://waconnected.org/*). We asked that the Draft EIS coordinate with that group as they, along with Cascades to Coast Landscape Collaborative (*https://www.ctoclc.org/*) are conducting updated analyses on wildlife connectivity corridors through the Chehalis Basin.

This work is on-going but has produced new landscape level connectivity maps (*https://databasin.org/maps/adf2a065528c42f892bd20883e6b0bd1*) showing the area around the FRE, temporary reservoir, quarries, and the airport levee to be within key "naturalness" linkage corridors, connecting protected areas and conserved areas between the Cascades, Olympics, Willapa Hills, and the coast. These linkages could be important pathways for a wide range of native species to meet a variety of life history needs and longer-term population connectivity and genetic exchange. Furthermore, the linkage overlapping the FRE site, and temporary reservoir area, is one of the widest intact corridors in the basin. Fragmenting this area further could

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potentially cause serious landscape-scale mobility issues for a wide range of native terrestrial and semiaquatic wildlife.

We are surprised to see that the DEIS contains no analysis nor even a mention of connectivity issues. While there is a brief mention of minor impacts to migration, this is not an adequate treatment of the connectivity issue as a whole. We think this is a major oversight and needs to be rectified in a Supplemental EIS if work continues on the project. The above mentioned workgroups are producing species specific connectivity maps (e.g., Pacific fisher and beaver) through the Chehalis Basin. These products should be available this year (2020) and should be incorporated into any supplemental analysis, and development of additional alternatives. Our assessment from the more general naturalness corridors and the impacts on changes in vegetation cover within the FRE facility footprint and temporary reservoir identified in the DEIS, is that a moderate or significant impact finding should be considered.

Marbled Murrelets

We concur with the DEIS assessment that there is potential for significant adverse impact to marbled murrelets. If nesting habitat is found in areas of planned forest removal, habitat of at least similar, if not better, condition that is at risk of being harvested should be permanently protected. Protecting habitat that is already under ESA restrictions would not sufficiently mitigate the loss because there would be no net gain. The Washington Department of Natural Resources recently completed an amendment (*https://www.dnr.wa.gov/publications/lm_mm_hcp_amendment_formatted.pdf*) to their federal Habitat Conservation Plan. Their incidental take permit allows for the harvest of suitable unoccupied habitat. We recommend that if the proposed project were to be built, that the proponents purchase or place an easement on suitable habitat on DNR lands that would otherwise be lost to harvest under their HCP. The habitat should be in southwest Washington and be close to other habitat and occupied sites so it can function in a manner to support murrelet recovery.

If suitable habitat is found in the footprint of the FRE facility or would be harvested in the temporary reservoir area, and that habitat is found to be occupied after the surveys proposed by the project proponent, we strongly oppose allowing an occupied stand being harvested. To date, we are unaware of USFWS allowing direct take of known occupied sites in Washington State given the declining status of the population (which the DEIS correctly notes). We do not think that just waiting until after the breeding season to remove the habitat and replacing it with suitable unoccupied habitat elsewhere is an acceptable impact to the species.

Forest Practices and Hydrological Regimes

The DEIS does not contain an adequate analysis of the role of forest harvest extent and timing on either the incidence of floods or problems with summer low flows, high water temperature and low dissolved oxygen on the Chehalis River and its tributaries. We note that a process is underway to conduct modeling on this topic but that it has yet to be completed. We think that

having such information is important to decision-making about both flood reduction and aquatic species restoration in the Chehalis Basin. The results of such an analysis should also serve as a basis for designing alternatives to the FRE facility which address flooding in a wider portion of the Basin, and for ensuring resilient aquatic and semi-aquatic species populations in the face of climate change.

There is recent research and modeling that shows that forested watershed managed on 50 year rotations or less result in substantially lower stream flows than either un-managed forests, or forests that are managed on longer (80 years or more) cutting cycles or through commercial thinning without final harvest (McKane et al, 2018, Perry and Jones 2017, Segura et al., 2020). It is especially important to note that Segura et al. (2020) found that standard forest riparian buffers did not significantly mitigate for reduced flows in harvested sub-basins, thus requiring an examination of whole watershed management on the ability of streams to meet state and federal standards for water quality and endangered species conservation. There is also the potential that having a larger proportion of the forested watersheds of the upper Chehalis Basin in older forests would dampen the frequency and intensity of floods, though this needs the benefit of the modeling effort that is planned.

Having increased older forest in the upper and lower Basin would improve overall habitat conditions and connectivity for several wildlife species. Such an outcome would store more carbon, thus contributing local solutions to mitigating climate change. We recognize that changes in practices like lengthening rotations on private lands would require voluntary financial incentives. Assessing how state and federal programs could accomplish adequate payment programs for longer rotations should be a part of broader solutions considered for meeting the purposes of the Chehalis Basin Strategy.

We recommend that the forest practices modeling work on peak and low flows be completed and incorporated into any subsequent analysis of a proposed dam, and used in the development of non-dam options for reducing flood damages and for restoring aquatic species.

Impacts on Aquatic Species, Ecosystem Processes, and Tribal Treaty Rights

We did not undertake our own analysis of the adequacy of the DEIS's treatment of impacts to salmon, steelhead, other aquatic species nor the suite of aquatic and related terrestrial ecosystem processes that would be affected by the dam. Several other groups have taken on that task. We are however very concerned about the facts that 1) the DEIS does identify significant and likely irreparable damages to aquatic species and ecosystem processes; and 2) The Quinault Indian Nation identifies in their formal comments (*https://static1.squarespace.com/static/5ea74f37fc31534cf56f0946/t/5eb9c991e85fc52b2fef48b3/1589234071989/FINAL+QIN+Chehalis+DAM+DEIS+comment+5_11_2020.pdf*) several materially significant short-comings in the quality of the analysis, leading to an underestimate of the already large impacts identified. These analytical shortcomings should be rectified in a supplemental analysis, should a decision to proceed with addition work to consider a dam be made. We also note the Quinault Indian Nation's assertion that their treaty rights would be violated by proceeding with this project. We cannot support such an outcome.

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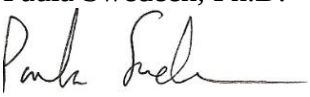
Conclusion

While we appreciate the effort that went into developing this DEIS, there are too many omissions and short-comings to be able use this document as a basis to approve the proposed project. We also fully understand that doing nothing in the face of future projected flooding in the Chehalis Basin is not an option. We strongly encourage the Department of Ecology to withhold any approval of the proposed FRE facility at this point in time.

We also strongly encourage the Chehalis Basin Board to go back to the drawing board and assemble, with the close input of as many stakeholders as possible, other scenarios for accomplishing its statutory purpose of reducing flooding impacts throughout the Basin and restoring aquatic ecosystems. The solutions are likely to require significant public funds so we also encourage the Board to look to federal agency partners and Congress to consider increased investment in both finding alternative pathways and funding the solutions, which will likely involve adapting and moving human infrastructure, in addition to building wildlife underpasses at key locations across major highways in the Basin. Such investments (*https://www.nytimes.com/2020/05/18/opinion/coronavirus-unemployment-youth.html*) would also have a positive stimulus effect on the economy, which is sorely needed at this time, and likely for some time into the future given the Covid-19 situation. The scale of the issues may not allow Washington State to be able to solve the problems of flooding and aquatic habitat restoration on our own.

Thanks again for the opportunity to comment.

Paula Swedeen, Ph.D.



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