

Gary Morishima

See attached comment letter



Submitted via email

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Bobbak Talebi
Southwest Region Director
Washington Department of Ecology
300 Desmond Drive SE
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Re: Comments on Revised DEIS for Chehalis Flood Protection Project

Moriko LLC is a natural resource consulting company that has provided services focused on statistical analysis, computer simulation modeling, environmental assessments, natural resource management plans and monitoring systems for a wide variety of domestic and international Indigenous, governmental, and private clients for over 50 years.

As a scientist with a PhD in Quantitative Science and Environmental Management and long time resident of Washington I care deeply about responsible stewardship of the State's natural resources, lands and waters. I am disturbed and appalled by the quality of the November 2025 State Environmental Policy Act Revised Draft Environmental Impact Statement (RDEIS) for a Chehalis River Basin Flood Damage Reduction Project (CRBFRP). The RDEIS simply does not withstand rigorous scientific scrutiny or serve as a useful means to inform the public regarding potential impacts of the CRBFRP.

The RDEIS consists of over 2200 pages presented in a main report and over 20 appendices. In addition, it references numerous reports, several of which are not provided or readily available for examination. The 75 days allotted for public review over the holidays is far too short for such length and complexity.

More fundamentally, however, the RDEIS is egregiously fraught with ambiguities, caveats, inconsistencies, bald assertions, errors, and omissions. Many reported impacts are speculative and qualitative with a high degree of uncertainty. Sensitivity analyses are not provided to enable evaluation of assumptions or parameter values. Only a single alternative to the Proposed Action besides "No Action" is presented; the Local Action No Dam (LAND) alternative, but without substantive evaluation. The "Local Action" alternative is not substantively described or evaluated. Treatment of cumulative effects (Appendix 2) is superficial and woefully deficient. Methods employed for various "analyses" are frequently opaque and fail to utilize current science; some methods are inappropriate for subjects to be evaluated, others misapplied. The extensive use of jargon and inconsistent terminology is confusing and indicates problems with quality control in production. It reeks of a hurried effort to meet a procedural need to be able to check off an item on an administrative list rather than a genuine desire to seek thoughtful and substantive comment.

Climate change projections are based on an ensemble of outdated General Coupled Circulation Models (aka Global Climate Models) and downscaling methods. Climate Change assessment methods are based on a single high emissions Representative Concentration Pathway (RCP) scenario 8.5 which has the effect of biasing evaluation, presenting a best case for assertion of potential benefits of flood protection measures and a worst case for risks to fish under the No Action Alternative. Accounting for greenhouse gas emissions from the steel, concrete, quarrying, and transportation during construction is incomplete. Omissions, although partially disclosed in a footnote, are misleading when evaluating potentials to exceed Washington State's legally binding greenhouse gas (GHG) emission caps that are being implemented through the Climate Commitment Act. The accounting rules for the CCA do not properly account for cement purchased and used in batch plants. GHG associated with the production of all materials used in construction, including cement, still contribute to atmospheric accumulations and should be disclosed regardless of their source or whether or not they were produced directly by the applicant for construction of FRE. Transparency for full and fair disclosure of projected climate change impacts is lacking.

The so called "state of the art" design for the expandable flow through dam (FRE) has never been proven and its effectiveness is highly suspect. No similar structures of comparable size have ever been constructed and there are significant questions regarding geologic stability of supporting substrate at the proposed location

Assertions of potential benefits from the CRBFRP are vastly overstated while environmental, economic, and societal costs are greatly understated. The RDEIS does not include full consideration of alternatives for reducing or preventing flood damage and restoring aquatic species.

A credible net present value cost benefit analysis is essential for evaluation in public decision-making processes, but is not provided. Construction of the CRBFRP would very likely exceed the projected cost of \$2.3 billion to be largely borne by all the State's taxpayers. The RDEIS provides no information on the environmental and financial costs that would be incurred if the FRE would be expanded in the future. In addition, extensive and controversial federal, state, local, and tribal permitting, licensing, and approval processes would need to be undertaken; conditions for approval would require mitigation measures to try to ameliorate for significant, adverse damage to natural and cultural resources (it is doubtful that full mitigation would even be feasible). If the CRBFRP were to be constructed, expenses and capacity for maintenance and operation to sustain functionality would need to be funded (estimates for such costs are not provided). Entirely missing are considerations for facility end of life disposal or replacement, risks of failure, and expected opportunity loss (the difference between the benefits of CRBFRP and the largest benefits of all other alternatives).

Flood damage would be reduced for short, intermittent periods for a small number of properties in only a tiny fraction of the 2.8 million acre Chehalis Basin only if a major flood event happens to occur above the proposed dam site; the proposed dam would provide no protection for major flooding in other parts of the Chehalis Basin or anywhere within the entire Chehalis Basin in the event of catastrophic floods.

There are more efficient and effective ways to reduce flood damage than the FRE. Development could be restricted in flood prone areas to avoid future property damage and displacement of existing farms and homes; current structures could be flood proofed or assistance provided for property owners willing to relocate; hydrologic pathways could be restored through natural flood management measures; land use regulations and resource management practices could be revised to help avert risks of flooding. Such measures can be undertaken much more quickly with greater immediate effect and at less public expense than the FRE. Cost savings could be dedicated to restoration of ecological functions that would benefit aquatic resources and human communities.

In sum, relying on the FRE to reduce flood damage is a bad idea that does not merit continued exploration; its further consideration would delay or could even foreclose timely implementation of measures to restore ecological functions in the area and improve prospects for sustaining imperiled salmon subpopulations that are important contributors to genetic diversity and resilience to environmental stress. The Washington Department of Ecology should abandon efforts to continue pursuit of the FRE.

Thank you for the opportunity to comment



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