



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
1201 NE Lloyd Boulevard, Suite 1100
Portland, OR 97232

August 5, 2014

Hannah F. Hadley
U.S. Army Corps of Engineers
CENWS-EN-ER
P.O. Box 3755
Seattle, Washington 98124-3755

Re: Comments on Draft Feasibility Report/Environmental Impact Statement for the Skagit River General Investigation.

Dear Ms. Hadley:

NOAA's National Marine Fisheries Service (NMFS), Oregon/Washington Coastal Area Office, is providing comments for the Draft Feasibility Report/Environmental Impact Statement (FR/EIS) for the Skagit River General Investigation (GI). The Army Corps of Engineers (COE) and their sponsor, Skagit County, are proposing projects to reduce flood damage and protect lives and property in the Skagit River Basin during the 50-year period from 2020 to 2070. NMFS supports those objectives. However, the construction of new levees in floodplains and reconstruction of existing levees will impact aquatic resources in waters of the United States, including waters of federally protected anadromous fish species in the Skagit River Basin. We believe the COE has underestimated the magnitude of the effects the project will have to those species and to the aquatic environment.

The FR/EIS is a detailed document covering an array of issues ranging from purpose and need to geomorphology, hydrology, economics, etc. However, the environmental section fails to adequately address significant effects of the project. The FR/EIS emphasizes short-term construction-related effects like turbidity and riparian loss, but the document lacks detailed analysis on permanent habitat impacts and interruption of habitat forming processes. While short-term construction-related effects are relevant, they are minor compared to the habitat losses and reduction in available habitat in the floodplains that will result from the proposed levee raising and construction of new levees. The project will result in permanent habitat loss that is not considered in your document. NMFS has written numerous biological opinions, comment letters, and white papers that referenced scientific publications, including Skagit-specific research that document the major effects of levee construction and maintenance. These effects include the elimination of channel migration opportunities, disconnection of off-channel habitat and floodplain connectivity, and floodplain constriction. NMFS recommends that the COE expand its analysis to adequately address the long term habitat loss and disruption of habitat forming processes associated with the proposal.



In 2008, the NMFS completed a consultation with the Federal Emergency Management Agency (FEMA) on the National Floodplain Insurance Program (NFIP) in Western Washington and concluded that program jeopardized the existence of Puget Sound Chinook salmon, Puget Sound steelhead, and Southern Resident killer whales, and adversely modified Puget Sound Chinook salmon critical habitat. The conclusions were based in part on a reduction of floodplain connectivity and access for juvenile Chinook salmon which reduces abundance and productivity of the species. We recommend that the COE work closely with FEMA to determine if the proposal is consistent with the FEMA NFIP Biological Opinion.

The COE proposes to use the Habitat Capacity Mitigation Tool (HCMT) to determine appropriate mitigation for the Skagit GI. NMFS helped develop this tool when a previous consultation found that maintenance of existing levees would jeopardize listed species and their habitats. In that consultation, (NMFS NWR 2011/00333), the COE agreed to monitor the performance of those mitigating measures (e.g., flow velocity near and downstream of logs) and determine if the different measures were providing the anticipated habitat benefits. Since completion of the project in 2011, we have not received any monitoring reports and have no assurance that the mitigation measures are producing additional habitat for juvenile salmon. Furthermore, we have received several complaints that the rebuilt banks extend farther into the Skagit River than originally proposed.

The HCMT did not mitigate for all of the effects of the previous project. It reduced effects of the proposed project from jeopardy to listed species in the action area and from adverse modification of critical habitat but did not compensate for all of the effects or out of kind mitigation actions were undertaken that do not fully compensate for lost habitat function. That project had a smaller effect on salmonid habitat and the hydrology of the system than the proposed GI because it was mostly rebuilding existing levees. This proposed project, on the other hand, has the potential to expand up to 9.2 miles toward the river and/or add 1-2 miles of new levees in the floodplain, which will constrict it even further. These large scale changes could severely affect the hydrology of the reach and eliminate a large amount of salmonid habitat, and cannot be mitigated with logs in the river or willow plantings.

We are concerned that the COE will underestimate their level of impacts and underfund their mitigation requirements. Qualifying statements in the document such as “whenever possible” is ambiguous and can have consequences to our listed species. Considering the estimated \$225 million cost for project, and only \$3.4M is assigned to mitigation, it does not appear the COE is considering overriding costs such as land acquisition, heavy machinery rental for creating side channels, or any type of habitat improvements other than placing relatively small logs in front of rock walls or willow planting. Similarly, the COE has estimated \$28M for real estate acquisition based on land purchases for the levee construction and utility moving. It does not mention any estimates for potential land purchases for levee setbacks. The COE should avoid such statements like “whenever possible”, identify how many miles they intend to extend the levee waterward of the levee, or procure enough funding to adequately mitigate project impacts.

In the Skagit basin, the COE has typically repaired levees and mitigated for their effects later, sometimes several years later. This creates disproportionate adverse effects to aquatic resources because effects occur immediately and persist without offsetting mitigation. Harm to listed

species persists when mitigation implementation is delayed. Considering the large amount of harm that is likely to occur from this proposed project, NMFS asks that mitigations occurs before existing levees are raised and new levees are placed.

In meetings, the COE have mentioned that they do not intend to conduct more studies regarding any part of the Skagit GI. This is concerning, with the level of uncertainty about so many aspects of this proposed project. In House Referendum Conference report number 697, the 96th Congress, 2nd session 12 (1979), the House cited that the action agency shall "...give the benefit of the doubt to the species, and... place the burden on the action agency to demonstrate to the consulting agency that its action will not violate section 7(a)(2) of the Act." Given all the uncertainty, we are concerned that this project may significantly delay or preclude recovery of listed species. As a result, the COE may have to conduct much more mitigation than it appears is budgeted for.

The hydrology model assumes that the raised levee is going landward. With words like "whenever possible", there is a good possibility that much of that levee will go waterward. The model may be wrong and may underestimate how much or what magnitude it would change.

In previous meetings, NMFS expressed concern with the hydrologic effects of each alternative, not only to the lower reaches where most of the action will occur but in neighboring reaches as well. In particular, the Comprehensive Urban Levee Improvement (CULI) alternative would raise levees and place new ones in floodplains. These new structures would either hold floodwater back further upstream, laterally into surrounding floodplains, or force it downstream where it can be more erosive and destructive. Your current report does not address how neighboring reaches are affected. This is concerning, since you may be underestimating the effects of your project if you are not studying the total effect of changed hydrology in the river system. Levees and bank hardening often begets additional bank hardening, with additional adverse effects.

We are concerned that new levees could devalue mitigation projects, recovery actions, or other existing natural areas that were set aside for salmon and aquatic habitat. Plans to connect the levee through Lions Park will reduce greenspace next to the river. This would eliminate large trees and good riparian habitat that is rare in this system. The map also indicates a levee modification in west Mount Vernon that may affect Edgewater Park (i.e., the forested side channel that was built for salmon restoration). New levees proposed in the Sterling Reach and Nookachamps River floodplain may also affect potential restoration projects that were identified in the Puget Sound Chinook Salmon Recovery Plan, and mitigation banks that were built to restore salmon habitat in the Nookachamps watershed. If the COE's new or modified levees make mitigation projects or natural areas less suitable for salmon, you must address those impacts and restore habitats elsewhere.

The proposed changes in flood storage at the Baker River dams will adversely affect Puget Sound Chinook salmon, Puget Sound steelhead, and other salmonids both upstream and downstream of the dams. The COE should identify these effects, quantify how many redds and individual fish will be affected, and propose measures to minimize the number of redds or fish harmed.

Because the proposed action will modify a stream or other body of water, NMFS will also provide recommendations and comments for the purpose of conserving fish and wildlife resources under the Fish and Wildlife Coordination Act (16 U.S.C. 662(a)) at a later date. NMFS looks forward to working with you throughout the EIS and ESA consultation process. If you have any questions or comments regarding this letter or NMFS' involvement with this subject, please contact Joel Moribe of the Washington State Habitat Office at (206) 526-4359, or by electronic mail at joel.moribe@noaa.gov.

Sincerely,



Kim W. Kratz, Ph.D.
Assistant Regional Administrator
Oregon Washington Coastal Area Office

cc: Evan Lewis, U.S. Army Corps of Engineers