

MEMORANDUM

Date: June 22, 2021
To: Tyson Johnston, Policy Representative, Quinault Indian Nation
From: Andrea McNamara Doyle, OCB Director
Cc: Chehalis Basin Board Members
Re: Follow-up to Quinault Indian Nation Information Requests of June 7, 2021

Background

This memorandum responds to your requests of June 7, 2021 emailed to me and the Chehalis Basin Board for more information related to the Board's proposed 2021-23 biennium capital budget spending plan. For those items where the information is available, I have included or attached it here. In other cases, I have identified where I am seeking the additional information from and when I anticipate it being available.

Requests

- 1. You requested more detail explaining what each of 23 highlighted item in the table attached to your letter includes and whether and why it is specifically required to complete the EISs.***

I forwarded your request for more details about highlighted budget items to the Flood Control Zone District (FCZD), and to the Department of Ecology and Department of Fish & Wildlife SEPA staff.

Please see the memoranda and attached tables dated June 21, 2021, from Erik Martin, the Flood Control Zone District's Administrator (Attachment A). Also provided is a memorandum and attached table dated June 21, 2021, from Rich Doenges, Ecology's SEPA Responsible Official (Attachment B). I am also including a copy of a December 16, 2020 Summary of Topics and Concerns related to Mitigation Opportunities Assessment Report that was provided by WDFW to the FCZD (Attachment C).

- 2. You noted the Nation understands the agencies have requested some information that goes beyond what is necessary to complete the EISs and requested identification of specifically what items are included in that category. You noted that the Nation believes it is unreasonable that the agencies would make such requests that exceed their SEPA and NEPA authority and requested a justification for such costs.***

Representatives from Ecology and the US Army Corps of Engineers are scheduled to provide updates on the SEPA and NEPA process at the July 1, 2021 board meeting. Representatives from WDFW and DNR will also be available for questions about the information they have identified as important for evaluating the impacts of the project and feasibility of potential mitigation actions.

- 3. Your letter requested a reasonable cost estimate for development of a science-based, basin-wide program to address flood damage reduction in the absence of the flood retention project. Your letter stated that the Nation also highly recommends the Board consider developing and funding an organization structure similar to that of the ASRP for the flood damage reduction elements of the Strategy, and requested a cost estimate for establishing, at a minimum, a Steering Committee and a Science and Engineering Committee to support best available science and ensure integration and synergy across all Chehalis Basin Strategy efforts.**

OCB Staff is developing a preliminary cost estimate, and I hope to have that available before the July 1, 2021 board meeting. The preliminary estimate will include a range of costs to reflect the range of possible approaches, including an approach that uses a structure similar to that of the ASRP with a Steering Committee and a Science and Engineering Committee.

The cost estimates will be based on the experience of developing the science-based, basin-wide program ASRP over the past several years, and the costs associated with convening and supporting the Local Actions Advisory Group process from October 2020 through March 2021.

- 4. Your letter requested confirmation of whether implementation of a Local Actions Program would require SEPA or NEPA review, and if so, you requested a cost estimate for appropriate environmental review.**

It is unknown at this point what specific projects might be implemented as a result of a Local Actions Program, or whether programmatic review of the Local Actions Program would be required. Similar to the ASRP, the need for each specific project identified through a Local Actions Program to undergo SEPA environmental review would likely depend on the proposal and the permits needed.

According to Ecology's SEPA FAQ document:

Q: When is SEPA environmental review required?

A: Environmental review is required for any proposal which involves a government "action," as defined in the SEPA Rules (WAC 197-11-704), and is not categorically exempt (WAC 197-11-800 through 890). Project actions involve an agency decision on a specific project, such as a construction project. Nonproject actions involve decisions on policies, plans, or programs, such as the adoption of a comprehensive plan or development regulations, or a transportation plan.

Q: How much review is required at the planning stage for project impacts?

A: Lead agencies are responsible for considering the probable significant adverse impacts of planning actions such as adopting comprehensive plans and development regulations. If the proposed plans or regulations would allow activities to occur that are likely to have significant adverse impacts, those impacts must be addressed in the environmental review of the planning action. The more detailed the review at the planning phase, less review will be needed at the project stage.

Regarding the requirements for NEPA review, I forwarded your question to the Corps and received this response:

Actions require NEPA review when there is a federal nexus, usually associated with project funding, authorization, or siting, unless the action is categorically excluded from NEPA (<https://ceq.doe.gov/nepa-practice/categorical-exclusions.html>).

[It's not entirely clear] what all is implied by "implementation of a Local Actions Program", but if projects have a federal nexus and are not categorically excluded, they will require NEPA review.

I hope this information is helpful. Please let me know if you have additional questions I can help with.

Attachments

Attachment A:

A1-2021-2023 Biennium Budget Request – additional information



Erik P. Martin, P.E., District Administrator

*351 NW North St
Chehalis, WA 98532-1900*

June 21, 2021

Chehalis Basin Board

Andrea McNamara Doyle, Director Office of
the Chehalis Basin

RE: '21 – '23 Biennium Budget – Additional Information

The Office of the Chehalis Basins (OCB) has requested more information on the Flood Control Zone District's (the District) proposed 2021-23 biennium capital budget that is part of the OCB's 2021-23 budget for the overall Chehalis Basin Strategy. The District has prepared the attached table to provide the requested information. Contemporaneously, the Quinault Indian Nation submitted a letter to the OCB (June 7, 2021) listing 23 budget items in the OCB budget about which they requested further clarification regarding the scope and purpose of the expenditures. The attached table is organized to respond to the OCB's request and incorporates responses to the 23 items listed in the Quinault Nation letter. For each item the table lists the budget amount, the agency or agencies requesting the information, the purpose of the information and a summary description of the work to be performed. The tasks listed were developed in consultation with the listed agencies to provide additional project description and avoidance, minimization and mitigation information to assist the agencies in responding to comments on the Draft EISs as they prepare the Final SEPA and NEPA EISs. The District's budget has been designed to provide the best information possible within a reasonable timeframe for incorporation into the final EIS's. Work items that are not expressly intended to support preparation of the Final EISs are noted as such in the table. The specific information requests from DOE and USACE are also included as attachments to this letter for information and transparency.

*Sean D. Swope
Chair*

*Gary Stamper
Vice Chair*

*Lindsey R. Pollock, DVM
Member*

Table 1 – Additional Info for Items Highlighted in 06-07-21 Letter from Quinault Indian Nation

#	Agency / Organization	Task Description	Budget – High (\$)	Requesting Agency and Reasoning	Reference #	Description of Work to be Performed	Timeframe
36	FCZD / HDR FEIS/AMM support	Land Conversion Procedure	\$10,000	DOE, DNR and USACE; Updated information would affect land use analysis and findings	#7	This work will develop an approach for conversion of lands needed for the project. Issues that will be addressed include timing for conversion, approach for compliance with all applicable regulatory agencies, and approach to managing sensitive features under the critical areas ordinances and ecological functions identified in forest practices rules.	Will be developed for submission as part of FEISs
37	FCZD / HDR FEIS/AMM support	Confirm State Site Location Decision	\$50,000	DOE and USACE; This would inform alternatives analysis and cultural resources analysis	#6	This work will support rationale for selecting current site of FRE, information on any other feasible sites for the FRE, and information on other avoidance or minimization measures related to cultural resource impacts.	Will be developed for submission as part of FEISs
39	FCZD / HDR FEIS/AMM support	Recreation Plan	\$20,000	DOE and USACE; This information would inform recreation analysis	#16	This work will clarify the intent to provide recreational opportunities within lands that are associated with the proposed project to avoid and minimize recreation impacts. This task will summarize information about existing recreational use and clarify assumptions regarding future recreational use of the area following construction of the FRE facility.	Will be developed for submission as part of FEISs
41	FCZD / HDR FEIS/AMM support	Temporary Construction Facilities/Quarry Operations	\$110,000	DOE and USACE; This information would inform air quality and transportation analyses	#10	This work will develop additional project description information regarding the location and extent of the temporary construction facilities, construction equipment and equipment operations to refine impact assessments. It will also provide further refinement to the assumptions for the quarry site location and extent of quarry development and operations during construction.	Will be developed for submission as part of FEISs
42	FCZD / HDR FEIS/AMM support	Retention Facility Operations	\$80,000	Recommended by FCZD for consideration; This information would inform multiple resources, including water, earth, wildlife, fish, and land use and for the geomorphology model		This work will create a proposed plan for development of project operations manual and protocols. A thorough and detailed operations manual and protocols will not be completed at this stage but will continue to develop throughout the design and permitting stages of the project.	Will be developed for submission as part of FEISs
43	FCZD / HDR FEIS/AMM support	Update Air Quality Mitigation Commitment	\$ 5,000	DOE; This information would inform air quality analysis	#13	This work will review and update as necessary the Districts commitment to avoid and minimize air quality impacts by avoiding practices such as burning cleared vegetation use of electrified equipment and other measures.	Will be developed for submission as part of FEISs
45	FCZD / HDR FEIS/AMM support	Update Pe Ell Water supply pipeline engineering assessment commitment	\$ 5,000	DOE and USACE; This information would inform public services analysis	#14	This task will review and update as necessary the Districts commitment to assess and update Pe Ell water supply to avoid negative impacts to Pe Ell.	Will be developed for submission as part of FEISs
52	Ecology	Preliminary engineering (dam safety)	\$120,000	NA	NA	This budget item is for the Department of Ecology and we will defer to them to comment on the intended work scope	

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53	FCZD	FEIS Engineering/Permitting Management	\$600,000	NA	NA	This task is for required ongoing contractor/consultant project management and coordination with the District and other parties.	Work will proceed concurrently with FEIS process
54	WDFW	Preliminary engineering (fish passage)	\$106,461	NA	NA	This budget item is for the Department of Fish and Wildlife and we will defer to them to comment on the intended work scope	
56	FCZD / HDR Engineering	Airport Levee Phase 2	\$120,000	DOE and USACE; This would inform alternatives analysis and cultural resources analysis	#8	This work will clarify how the levee will be constructed to avoiding and/or minimizing impacts to jurisdictional wetlands.	Will be developed for submission as part of FEISs
57	FCZD / HDR Engineering	Conceptual Construction Fish Passage Design	\$150,000	DOE and USACE; This would be used to determine the survivability parameter in fish models.	#3	This work will perform an alternative analysis and recommend a preferred alternative; to develop a description of a likely preferred temporary fish passage alternative and develop justification for fish passage performance rates during construction.	Will be developed for submission as part of FEISs
58	FCZD / HDR Engineering	Access Roads	\$60,000	DOE and USACE; This information would inform transportation, land use, fish, wildlife, habitat, earth, and wetlands analyses	#9	This work will further define the project description related to permanent and temporary access roads in and around the FRE site and reservoir area. Locations of existing roads, potential for new roads, road usage and type, and materials needed will be among the information developed.	Will be developed for submission as part of FEISs
59	FCZD / HDR Engineering	Power/Transmission Lines	\$60,000	DOE and USACE; This information would inform land use and habitat analyses	#11	Options for providing power to the site include above ground or below ground distribution lines. This work will further refine project description options for power transmission and power facilities for providing power for construction and operation of the FRE facility	Will be developed for submission as part of FEISs
61	FCZD / HDR Engineering	Engineering Input to Draft HPA Permit Application	\$50,000	NA	NA	The preparation of the HPA permit is scheduled to occur after the Final EIS's are completed and further work is authorized to move forward with the FRE project by OCB.	Work will begin after completion of FEISs
63	FCZD / KA mitigation	Mitigation Site Identification/Design/Land Owner Agreements	\$1,200,000	DOE, WDFW and USACE; The information would inform air quality, land use, earth, fish and aquatic habitat, wetlands, wildlife and transportation analyses.	#15	This work responds to the WDFW's request to provide further information to assess the feasibility of avoidance, minimization and mitigation of aquatic impacts by developing a list of willing landowners of properties that are potential mitigation sites and to identify project types that are feasible at those sites.	Will be developed for submission as part of FEISs
65	FCZD / KA mitigation	Prepare preliminary draft HPA Permit application	\$120,000	NA	NA	The preparation of the HPA permit is scheduled to occur after the Final EIS's are completed, and further work is authorized to move forward with the FRE project by OCB.	Work will begin after completion of FEISs
66	FCZD / Land Acquisition	Land Valuation Coordination	\$250,000	NA	NA	This work will be done in coordination with project site land owners to obtain independent valuation of timber/land resources of the proposed project site and temporary reservoir area.	Work will begin after completion of FEISs

67	FCZD / Land Acquisition	Land Option Agreement Negotiation	\$310,000	NA	NA	This work will include negotiations with land owners and preparation of agreements for access to the property prior to purchase to undertake studies required for permitting that must be initiated during the final design and permitting phase.	Work will begin after completion of FEISs
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68	FCZD / Land Acquisition	Land Option Payment	\$1,800,000	NA	NA	The option payment to land owner will be to obtain access during project permitting for more detailed collection of site information in support of required permit applications.	Work will begin after completion of FEISs
70	FCZD / Mitigation demonstration (KA)	Implement Hyporheic Exchange Enhancement Demonstration	\$560,000	DOE, DFWF and USACE; this information would inform mitigation feasibility determination	#17	The intention of implementing this project is to demonstrate the efficacy of a hyporheic exchange location in the Chehalis River to assist the agencies in their assessment of this type of mitigation feasibility. This work will install pre-construction monitoring, initiate monitoring, and construct exchange structure.	Work will proceed concurrently with FEIS process
71	FCZD / Mitigation demonstration (KA)	Implement Wetlands Mitigation	\$50,000	DOE, WDFW and USACE; this information would inform mitigation feasibility determination	#15	The intention of this work is to obtain options for available wetland credits and demonstrate there are sufficient credits available.	Work will proceed concurrently with FEIS process
72	FCZD / HDR Engineering	Initial Phase - 60% design	\$6,000,000	NA	NA	We do not anticipate this work to begin until after the Final EIS's are completed, and the project is authorized to move forward by OCB. More information on the expectation of this work task is located in the FCZD letter to the OCB board dated 5/25/2021.	Work will begin after completion of FEISs

The FCZD submitted a budget proposal to the OCB totaling \$13.9M for the 2021-2023 biennium to advance the project through the Final EIS stage and into the permitting phase, which would be expected to occur after the Final EISs through the end of the biennium. The table below shows the totals of the budget line items categorized by timing. **Table 2 – Timing & Amounts of FCZD Budget Request for 2021-2023**

Timing of Work Element	Requested Budget Amount
Items for FEIS inclusion	\$1.08M
Concurrently with FEIS	\$2.32M
Could occur after FEIS	\$10.53
<i>Total '21-'23 Biennium</i>	<i>\$13.9M</i>



Chehalis River Basin
Flood Control Zone District

351 NW North St

Erik P. Martin, P.E., District

Administrator

Chehalis, WA 98532-1900



If you have any questions please contact Erik Martin or Betsy Dillin at the District.

Best Regards,

Erik Martin
District Administrator

Sean D. Swope
Chair

Gary Stamper
Vice Chair

Lindsey R. Pollock, DVM
Member

Information from FCZD Related to SEPA Final EIS

This document identifies information the applicant, the Chehalis River Basin Flood Control Zone District (FCZD), could provide to Ecology for use in the State Environmental Policy Act (SEPA) Environmental Impact Statement (EIS) process and dates when the information would be needed to be considered for evaluation. This document may also provide information for Ecology's Office of Chehalis Basin in the coordination of budgets and work for the Chehalis Basin Strategy. It may also provide information for the Washington Department of Fish and Wildlife (WDFW), Washington State Department of Natural Resources (DNR), and the US Army Corps of Engineers (Corps) for coordination purposes.

The table below includes:

- 1) Information the FCZD could provide to Ecology related to preparation of the SEPA Final EIS (FEIS) and dates when the information is needed to meet the SEPA timeline.
 - This information was identified by agency staff EIS reviewers and expert consultants based on comments on the SEPA Draft EIS (including comments from the FCZD), as well as from recent FCZD-led meetings.
 - The timeline is based on the assumption the SEPA FEIS work begins in June 2021.
 - The reason the information is needed by specific dates.
- 2) Information and dates provided by the FCZD for work they are planning related to the SEPA FEIS.
- 3) For coordination purposes, the table includes dates identified by the Corps for the FCZD to provide information for the National Environmental Policy Act (NEPA) FEIS per their April 26, 2021 and April 29, 2021 letters to the FCZD.

As the SEPA lead agency, Ecology is responsible for the SEPA EIS. The information identified by Ecology in this table is not required for preparing the SEPA FEIS. If no new information is provided for evaluation, then the project description and plans already provided by the FCZD will be used for the SEPA FEIS. If new information is provided, it may affect the evaluation of resources and impact findings or significance determinations, depending on the information received.

Finally, information provided by the FCZD as described in this document or others will be considered by Ecology, however, the ultimate determination on what information will be used for the SEPA FEIS will be made by Ecology

<i>Item</i>	<i>Date Needed for SEPA FEIS Schedule</i>	<i>Dates from Corps letter on NEPA FEIS*</i>	<i>Dates from FCZD on Information Availability*</i>	<i>FCZD Stated Intent of Information</i>	<i>Summary of Information Identified for SEPA FEIS</i>	<i>Purpose of Information for SEPA FEIS</i>	<i>Additional SEPA-related Details</i>
1. Riparian Vegetation Height Estimates	June 2021	June 1, 2021	Sept 2021 (for updated Vegetation Management Plan)	Draft updated Vegetation Management Plan that includes description of implementation and phasing of vegetation replacement and large woody debris management and disposition.	Information used to estimate heights in riparian zone	This information could be used for the vegetation height parameter in water modeling. This modeling occurs earliest in the timeline and so has the earliest date when information would need to be provided for it to be included.	<p>Information to provide support of the high and low estimates of tree height (within a range of 5 feet) in the riparian zone from the FCZD Water Quality Report (April 2021). The management plan should:</p> <ul style="list-style-type: none"> • Identify species, height, and percentage of expected canopy cover over time. • Identify survivability of inundation events by species using the frequencies, durations, and water depths in the DEIS and with consideration of local conditions (validated by a silviculture expert). • Describe plan for removal of vegetation in the riparian zone in the construction phase and in the operations phase after inundation events. • Include information on vegetation height expected before, during, and after inundation events. • Provide information on height based on the percentage of time present in the zone (i.e. include time for trees to grow to max height).

2. Slope Stabilization	June 2021	April 30, 2021	May 2021	Draft report describing planned measures to address stabilization of slopes in the temporary reservoir area	Description of planned measures to address stabilization of slopes in the temporary reservoir area	This information could inform earth, water and habitat analyses and models.	<ul style="list-style-type: none"> Information on slope stabilization plan for reservoir area, including how the plan aligns with drawdown rate/approach in project description. Identify expected soil stability after vegetation removal or change in canopy.
3. Fish Passage Design	July 2021	Sept 1, 2021	June 2022	Initial design of construction/operation description of construction phase fish passage facilities	Fish passage design for construction and operation	This could be used to determine the survivability parameter in fish models.	<p>Updated information on fish passage design for construction and operation.</p> <ul style="list-style-type: none"> For construction, include: <ul style="list-style-type: none"> Criteria for permanent fish passage, per WDFW. A design to at least the 10% level. Identification of all species or life stages used by the construction fish passage. If a picket weir will not be used, identify what method will be used with support for choosing the method. Clarify the design of FRE outlets to the channels and if a stilling basin below the outlets is planned. Clarify if a weir is included that submerges the outlets and its location relative to the CHTR entrances. How the weir will work in conjunction with the CHTR and facility for juvenile salmon and resident fish

4. Updated Vegetation Management Plan	July 2021	June 1, 2021	Sept 2021	Draft updated plan that includes description of implementation and phasing of vegetation replacement and large woody debris management and disposition.	Update plan using feedback from agencies during recent meetings. Provide sufficient information so that agencies can determine the feasibility of the plan. Identify how the plan will address ecological functions.	Could be used for analysis of multiple resources, including water, earth, wildlife, fish, and land use and for the geomorphology model	Updated Vegetation Management Plan for FRE facility and reservoir area. Include: <ul style="list-style-type: none"> • Description of actions during pre-construction, construction, and operation periods • Identifying species and percentage of expected canopy cover for different life stages • Silviculturist review of survivability of trees and understory in reservoir area (riparian and upland) based on water depth and duration (number of days inundated) as described in the DEIS • Plan for tree removal, including sequencing, location, numbers of acreages, and types of trees removed • Revegetation approach, including revised species, timing, distribution, and planting density • Describe how adaptive management will be implemented (including monitoring, identifying triggers, contingency plans) • Describe how invasive species management will be implemented
5. Large Woody Debris Management	July 2021	June 1, 2021	Sept 2021	Draft updated vegetation management plan that includes description of implementation and phasing of vegetation replacement and large woody debris management and disposition	Management plan for large woody debris during construction and operation	This information could inform water, earth, fish, and habitat analyses	<ul style="list-style-type: none"> • Description of how LWD debris will be managed if there are no trash racks upstream for the non-inundation time periods • Provide debris management plan to understand how large wood will be handled and disposed of for the project. • Identify, during high flow, non-flood retention events, how much LWD will pass through the outlets.

6. Site Selection	July 2021	May 29, 2021	On Apr 21, 2021 FCZD said they do not have an estimated date but have submitted a request for funding		Determine how the current site was selected and if other upper Chehalis site (or others) are feasible alternatives	This could inform alternatives analysis and cultural resources analysis	<ul style="list-style-type: none"> Rationale for selecting current site of FRE. Prior studies and geotechnical reports for the Flood Authority show another upper Chehalis site at approximately RM 106 was under consideration. Provide information to determine if this a feasible alternative site or not. Provide information on any other feasible sites for the FRE. Provide information on other avoidance or minimization measures related to cultural resource impacts.
7. Land Use	Aug 2021	June 1, 2021	Oct. 2021	Description of process for land purchase and change in jurisdiction from DNR to Lewis County	Include approach to FPAs	Updated information could affect land use analysis and findings	<p>Confirm approach with Lewis County for land conversions and FCZD's recommended mitigation to satisfy forest practices permits per Lewis County land use code. Include:</p> <ul style="list-style-type: none"> Timing for land conversion and future land use designation for the FRE structure, quarries, access roads and temporary reservoir Approach for compliance with Forest Practices Act for land conversions, including multiple Class IV general permit applications for various land conversion events Identify approach to manage sensitive features under critical areas ordinances and ecological functions identified in forest practices rules
8. Airport Levee Design	Aug 2021	June 1, 2021	None provided		Provide construction plan to widen levee or justification for not widening	This could inform wetlands and cultural resources analysis	<ul style="list-style-type: none"> Updated airport levee design showing design detail to widen levees that demonstrates no impact to wetlands or cultural resources

9. Roads	Aug 2021	June 1, 2021	Nov. 2021	Plan and cross-section descriptions of facility access roads including quarry sites	Address comments in Weyerhaeuser letter and provide additional information for roads which will be inundated	This information could inform transportation, land use, fish, wildlife, habitat, earth, and wetlands analyses	<p>Information on roads during construction and operation For forest roads, include:</p> <ul style="list-style-type: none">• Information on the existing forest road network and use• Location of any new forest roads, including estimated locations of water crossing features, needed to accommodate Weyerhaeuser traffic and operations,• Identify if changes to roads would affect public access• Identify quantity of materials needed for new road construction and road improvements, and availability of material from quarries <p>For roads in FRE facility and reservoir area, include:</p> <ul style="list-style-type: none">• Information on how the roads will be used• Number of truck trips for construction and operation, including overburden material and/or haul water during construction• Information on what will be done/contingency plans for inundated roads in the reservoir area for trap and haul operations, vegetation management• Identify availability of material from quarries for any new or modified roads
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<i>Item</i>	<i>Date Needed for SEPA FEIS Schedule</i>	<i>Dates from Corps letter on NEPA FEIS*</i>	<i>Dates from FCZD on Information Availability*</i>	<i>FCZD Stated Intent of Information</i>	<i>Summary of Information Identified for SEPA FEIS</i>	<i>Purpose of Information for SEPA FEIS</i>	<i>Additional SEPA-related Details</i>
10. Construction Facilities	Aug 2021	June 1, 2021	Dec. 2021	Site layout and operational quantification of batch plant, maintenance facilities, quarry and other ancillary construction facilities	Provide information on construction facilities and transportation needs	This information could inform air quality and transportation analyses	Updated information on construction facilities. Include: <ul style="list-style-type: none"> • Specific information on access routes and anticipated truck trips for quarries • Confirmation of quarry capacities against anticipated use, including any new road work • Details for concrete production facility construction and operations • Truck trip estimates, operations of concrete plant, quarries
11. Power Transmission Lines	Aug 2021	June 1, 2021	Dec 2021	Conceptual plan and cross section for right of way for power transmission access to the project site	Power line siting (location of lines, above or below ground, disturbance area)	This information could inform land use and habitat analyses	
12. Quarry Site Update	Sep 2021	June 1, 2021	April 2021	Report comparing 3 initial quarry site alternatives and selection of two alternatives for further planning	Statement that Huckleberry quarry is no longer proposed as part of project. No report needed.	This information could inform air quality, land use, earth, habitat, wetlands, and transportation analyses	
13. Air Quality	Nov 2021		April 2021	Measures to minimize air quality impacts during construction	Statement that trees removed and large woody debris will not be burned during construction and operation	This information could inform air quality analysis	

14. Pe Ell Water Supply Impact Mitigation	Nov 2021	June 1, 2021	April 2021	Proposed plan to assess impacts to Pe Ell water supply from Lester Creek and replace and upgrade facilities as necessary to continue a reliable water supply during construction and operation.	Plan on how impacts to Pe Ell water supply will be minimized/avoided	This information could inform public services analysis	
15. Mitigation and Management Plans	Nov 2021	Sept 1, 2021/ Nov 15, 2021	May 2021 (does not appear to include all mitigation plans identified in the DEIS)	Draft updated report to include effects of mitigation actions on species life stages and distribution	Needs to identify action items, not to site specific level, but more than concepts	The information could inform air quality, land use, earth, fish and aquatic habitat, wetlands, wildlife and transportation analyses.	<p><u>For all mitigation plans</u>, include information on:</p> <ul style="list-style-type: none"> – Specific criteria being used to mitigate impacts – How the plan meets that criteria – What ecological functions are being addressed – Alignment with impacts quantified in DEIS – Alignment with plan requirements in DEIS <ul style="list-style-type: none"> • Wetland and Wetland Buffer Mitigation Plan <ul style="list-style-type: none"> – WSDOT has said its wetland mitigation bank is not available. – Verify availability of credits from other bank(s). • Fish and Aquatic Species and Habitat Plan <ul style="list-style-type: none"> – Provide responses to WDFW’s comments on the Mitigation Opportunity Report. • Large Woody Material Management Plan • Surface Water Quality Mitigation Plan • Stream and Stream Buffer Mitigation Plan • Wildlife Species and Habitat Management Plan • Riparian Habitat Mitigation Plan • Recreation Mitigation Plan

16. Recreation	Nov 2021	June 1, 2021	Oct 2021	Draft conceptual plan to address recreation impacts to fishing and boating	Identify allowable recreation in the FRE and reservoir with future land use designation	This information could inform recreation analysis	Could be provided as a project description update or mitigation plan
17. Hyporheic Enhancement Demonstration Project	If included in mitigation plan, by Nov 2021	Sept 1, 2021/ Nov 15, 2021	Sept 2021	Demonstration project plan, potential site identification and implementation schedule			Understood this would be removed from mitigation plan and presented as future option, based on testing of the demonstration project.
18. AMM Data Base	NA		April 2021	Searchable data base of all proposed avoidance, minimization and mitigation measures.	Not needed for EIS		



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, SEATTLE DISTRICT
P.O. BOX 3755
SEATTLE, WASHINGTON 98124-3755

Regulatory Branch

April 26, 2021

Mr. Erik Martin
District Administrator
Chehalis River Basin Flood Control Zone District
351 Northwest North Street
Chehalis, Washington 98532-1900

Reference: NWS-2014-1118
Chehalis River Basin Flood
Damage Reduction Project
(Lewis County)

Dear Mr. Martin:

We are continuing to evaluate your proposal to construct a flood retention expandable facility (FRE) in the Chehalis River (River Mile 108.5) near the Town of Pe Ell, in Lewis County, Washington, and raise levees at the Chehalis-Centralia Airport in the City of Chehalis, Lewis County, Washington, to reduce damage from major flood events in the Chehalis Basin.

To support our evaluation of your proposal, in accordance with the National Environmental Policy Act (NEPA), the U.S. Army Corps of Engineers (USACE) published a draft environmental impact statement (EIS) on September 18, 2020. To support the continued development of the final EIS, we request the following information:

- By June 1, 2021: Any new or updated information about project activities, including:
 - Road work for construction and operation (new/maintenance, location, widths)
 - Quarry development and use (impact area extent, updates on quarry selection, access roads)
 - Power line siting (location of lines, above or below ground, disturbance area)
 - Pe Ell water system upgrades (relocation alignment, disturbance area, above/below ground)
 - Concrete production (location and disturbance area, including stockpile areas)

- By November 15, 2021: Information about mitigation measures and the mitigation plan, including:
 - Avoidance and minimization measures
 - Additional detail on compensatory mitigation (e.g. specific locations, activities, targeted functions, adaptive management)

During recent coordination meetings, including a meeting with your agent on March 10, 2021 to identify information needed to complete the final EIS, you indicated that you may be interested in providing additional information about impact assumptions presented in the draft EIS. To allow adequate time for the USACE to consider additional information in the development of the final EIS, we request that you provide any of the following information by the listed dates:

- By April 31, 2021: Information that may inform quantitative modeling (non-EDT), including:
 - Slope stability
 - Water quality modeling supporting documents (tree survival)
- By June 1, 2020: Information that may inform qualitative analyses, including:
 - Vegetation Management Plan
 - Airport Levee design (justification for not widening)
 - Large Woody Material management plan
 - Construction diversion plan for Mahaffey Creek
 - Standard road/road crossing design (example)
 - Land Conversion Plan (temporary reservoir)
 - Recreation plan
 - Plan for securing construction water right
- By September 1, 2021: Information to inform EDT modeling, including:
 - Rainbow Falls / Fisk Falls avoidance and minimization measures
 - Picket weir alternative / fish passage (construction and operation)

Please submit all of the requested information by the listed dates so that it may be considered in the development of the final EIS. If you have any questions or if you cannot meet the requested deadlines, please contact me at (206) 316-3164 or at brandon.c.clinton@usace.army.mil

Sincerely,



Brandon Clinton, Project Manager
Regulatory Branch

Cc:
Diane Butorac
Washington State Department of Ecology

Attachment B:

B1-Chehalis Basin Board Question on SEPA EIS Information- June 21, 2021

MEMORANDUM

Date: June 21, 2021
To: Chehalis Basin Board
From: Rich Doenges and Diane Butorac, Department of Ecology
Cc: Andrea McNamara Doyle, Office of Chehalis Basin Director; Erik Martin, Chehalis River Basin Flood Control Zone District; Evan Carnes and Brandon Clinton, U.S. Army Corps of Engineers
Re: Update on the SEPA EIS for the Proposed Chehalis River Basin Flood Damage Reduction Project

At the June 3, 2021 meeting, the Chehalis Basin Board requested an update on what information is being requested from the applicant, the Chehalis River Basin Flood Control District (FCZD), for the State Environmental Policy Act (SEPA) final Environmental Impact Statement (EIS).

The Department of Ecology (Ecology) has started development of the final EIS for the proposed Chehalis River Basin Flood Damage Reduction Project. This work includes considering comments provided on the SEPA draft EIS, preparing responses to comments, updating analyses, and finalizing the SEPA EIS. As part of this process, Ecology will consider information, projects, and studies which have been developed since the release of the draft EIS, such as: the Local Actions Program; additional design, reports, and mitigation proposed by the FCZD for their project; Quinault Indian Nation studies and information; and Chehalis Basin Board projects and studies.

The FCZD held multiple meetings in 2021 with Ecology and the Corps to discuss information they plan to provide to the agencies for the final EISs. In May 2021, Ecology provided the FCZD a table with detailed information that could be provided for the SEPA final EIS, how it would be used, and dates for it to be submitted in order to be included in the SEPA final EIS analysis. The FCZD, Corps, and Ecology continue to meet and the attached document provides details on information that the FCZD could provide for the SEPA final EIS.

This information would provide additional clarity about the project design and help to develop responses to comments. If no new information is provided for evaluation, then the information already submitted by the FCZD will be used for the SEPA final EIS.

The SEPA EIS is not a decision document; it provides information to help inform potential next steps for decision-makers such as the Chehalis Basin Board and permitting agencies and provides information for the FCZD to consider for future design or mitigation development. More detail is usually needed to support the permitting processes than is needed in the EIS process since an EIS is intended to be done early and does not include detailed design or mitigation measures. For permit issuance by state, local, and federal agencies, a permit decision factors in various sources of information, such as: the Programmatic EIS, the SEPA EIS, the NEPA EIS, proposed mitigation measures, changes to project design or operations, and other relevant studies and modeling.

Information from FCZD Related to SEPA Final EIS

This document identifies information the applicant, the Chehalis River Basin Flood Control Zone District (FCZD), could provide to Ecology for use in the State Environmental Policy Act (SEPA) Environmental Impact Statement (EIS) process. An earlier version of this document was provided to the FCZD in May 2021 and this version has been updated based on recent discussions. The table below includes information the FCZD could provide to Ecology related to preparation of the SEPA Final EIS (FEIS) and dates when the information would be needed to meet the planned SEPA timeline. The preferred dates are based on the assumption the SEPA FEIS work begins in July 2021.

As the SEPA lead agency, Ecology is responsible for the SEPA EIS. If no new information is provided for evaluation, then the project description and plans already provided by the FCZD will be used for the SEPA FEIS. Finally, information provided by the FCZD as described in this document or others will be considered by Ecology, however, the ultimate determination on what information will be used for the SEPA FEIS will be made by Ecology.

<i>Item</i>	<i>Date Preferred for SEPA FEIS Schedule</i>	<i>Summary of Information Identified for SEPA FEIS</i>	<i>Purpose of Information for SEPA FEIS</i>	<i>Additional SEPA-related Details</i>
1. Riparian Vegetation Height Estimates	August 2021	Information used to estimate heights in riparian zone	This information could be used for the vegetation height parameter in water modeling. This modeling occurs earliest in the timeline and so has the earliest date when information would need to be provided for it to be included.	Information to provide support of the high and low estimates of tree height (within a range of 5 feet) in the riparian zone from the FCZD Water Quality Report (April 2021). The management plan should: <ul style="list-style-type: none">Identify species, height, and percentage of expected canopy cover over time.Identify survivability of inundation events by species using the frequencies, durations, and water depths in the DEIS and with consideration of local conditions (validated by a silviculture expert).Describe plan for removal of vegetation in the riparian zone in the construction phase and in the operations phase after inundation events.Include information on vegetation height expected before, during, and after inundation events.Provide information on height based on the percentage of time present in the zone (i.e. include time for trees to grow to max height).

2. Slope Stabilization	August 2021	Description of planned measures to address stabilization of slopes in the temporary reservoir area	This information could inform earth, water and habitat analyses and models.	<ul style="list-style-type: none"> Information on slope stabilization plan for reservoir area, including how the plan aligns with drawdown rate/approach in project description. Identify expected soil stability after vegetation removal or change in canopy.
3. Fish Passage Design	August 2021	Fish passage design for construction and operation	This could be used to determine the survivability parameter in fish models.	<p>Updated information on fish passage design for construction and operation.</p> <ul style="list-style-type: none"> For construction, include: <ul style="list-style-type: none"> Criteria for permanent fish passage, per WDFW. A design to at least the 10% level. Identification of all species or life stages used by the construction fish passage. If a picket weir will not be used, identify what method will be used with support for choosing the method. Clarify the design of FRE outlets to the channels and if a stilling basin below the outlets is planned. <ul style="list-style-type: none"> Clarify if a weir is included that submerges the outlets and its location relative to the CHTR entrances. How the weir will work in conjunction with the CHTR and facility for juvenile salmon and resident fish
4. Site Selection	August 2021	Determine how the current site was selected and if the other upper Chehalis site (or others) are feasible and reasonable alternatives	This could inform alternatives analysis and cultural resources analysis.	<ul style="list-style-type: none"> Rationale for selecting current site of FRE. Prior studies and geotechnical reports for the Flood Authority show another upper Chehalis site at approximately RM 106 was under consideration. Provide information to determine if this a reasonable and feasible alternative site or not. Provide information on any other reasonable and feasible sites for the FRE. Provide information on other avoidance or minimization measures related to siting for cultural resource impacts.
5. Updated Vegetation Management Plan	September 2021	Update plan using feedback from agencies during recent meetings. Provide sufficient information so that agencies can determine the feasibility of the plan. Identify how the	Could be used for analysis of multiple resources, including water, earth, wildlife, fish, and land use and for the geomorphology model.	<p>Updated Vegetation Management Plan for FRE facility and reservoir area. Include:</p> <ul style="list-style-type: none"> Description of actions during pre-construction, construction, and operation periods. Identifying species and percentage of expected canopy cover for different life stages. Silviculturist review of survivability of trees and understory in reservoir area (riparian and upland) based on water depth and duration (number of days inundated) as described in the DEIS. Plan for tree removal, including sequencing, location, numbers of acreages, and types of trees removed.

<i>Item</i>	<i>Date Preferred for SEPA FEIS Schedule</i>	<i>Summary of Information Identified for SEPA FEIS</i>	<i>Purpose of Information for SEPA FEIS</i>	<i>Additional SEPA-related Details</i>
		plan will address ecological functions.		<ul style="list-style-type: none"> Revegetation approach, including revised species, timing, distribution, and planting density. Describe how adaptive management will be implemented (including monitoring, identifying triggers, contingency plans). Describe how invasive species management will be implemented.
6. Large Woody Debris Management	September 2021	Management plan for large woody debris during construction and operation.	This information could inform water, earth, fish, and habitat analyses.	<ul style="list-style-type: none"> Description of how LWD debris will be managed if there are no trash racks upstream for the non-inundation time periods Provide debris management plan to understand how large wood will be handled and disposed of for the project. Identify, during high flow, non-flood retention events, how much LWD will pass through the outlets.
7. Land Use	September 2021	Include approach to FPAs.	Updated information could affect land use analysis and findings.	<p>Confirm approach with Lewis County for land conversions and FCZD's recommended mitigation to satisfy forest practices permits per Lewis County land use code. Include:</p> <ul style="list-style-type: none"> Timing for land conversion and future land use designation for the FRE structure, quarries, access roads and temporary reservoir. Approach for compliance with Forest Practices Act for land conversions, including multiple Class IV general permit applications for various land conversion events. Identify approach to manage sensitive features under critical areas ordinances and ecological functions identified in forest practices rules.
8. Airport Levee Design	September 2021	Provide construction plan to widen levee or justification for not widening.	This could inform wetlands and cultural resources analysis.	<ul style="list-style-type: none"> Updated airport levee design showing design detail to widen levees that demonstrates no impact to wetlands or cultural resources.

9. Roads	September 2021	Provide additional information for roads which will be inundated.	This information could inform transportation, land use, fish, wildlife, habitat, earth, and wetlands analyses.	<p>Information on roads during construction and operation For forest roads, include:</p> <ul style="list-style-type: none"> • Information on the existing forest road network and use. • Location of any new forest roads, including estimated locations of water crossing features, needed to accommodate Weyerhaeuser traffic and operations. • Identify if changes to roads would affect public access. • Identify quantity of materials needed for new road construction and road improvements, and availability of material from quarries. <p>For roads in FRE facility and reservoir area, include:</p> <ul style="list-style-type: none"> • Information on how the roads will be used. • Number of truck trips for construction and operation, including overburden material and/or haul water during construction. • Information on what will be done/contingency plans for inundated roads in the reservoir area for trap and haul operations, vegetation management. • Identify availability of material from quarries for any new or modified roads.
10. Construction Facilities	September 2021	Provide information on construction facilities and transportation needs	This information could inform air quality and transportation analyses.	<p>Updated information on construction facilities. Include:</p> <ul style="list-style-type: none"> • Specific information on access routes and anticipated truck trips for quarries. • Confirmation of quarry capacities against anticipated use, including any new road work. • Details for concrete production facility construction and operations. • Truck trip estimates, operations of concrete plant, quarries.
11. Power Transmission Lines	September 2021	Power line siting (location of lines, above or below ground, disturbance area)	This information could inform land use and habitat analyses.	Power line siting (location of lines, above or below ground, disturbance area)
12. Quarry Site Update	October 2021	Quarry sites	This information could inform air quality, land use, earth, habitat, wetlands, and transportation analyses.	Written support of verbal statement that Huckleberry quarry is no longer proposed as part of project.
13. Pe Ell Water Supply Impact Mitigation	December 2021	Plan on how impacts to Pe Ell water supply will be minimized/avoided.	This information could inform public services analysis.	Plan on how impacts to Pe Ell water supply will be minimized/avoided.

14. Mitigation and Management Plans	December 2021	Need to identify action items, not to site specific level, but more than broad concepts, to determine feasibility.	The information could inform air quality, land use, earth, fish and aquatic habitat, wetlands, wildlife and transportation analyses and would be used to determine the feasibility of proposed mitigation for the impacts identified in the DEIS.	<p><u>For all mitigation plans</u>, include information on:</p> <ul style="list-style-type: none"> – Specific criteria being used to mitigate impacts. – How the plan meets that criteria. – What ecological functions are being addressed. – Alignment with impacts quantified in DEIS. – Alignment with plan requirements in DEIS. <ul style="list-style-type: none"> • Wetland and Wetland Buffer Mitigation Plan <ul style="list-style-type: none"> – Verify availability of credits from other bank(s). • Fish and Aquatic Species and Habitat Plan <ul style="list-style-type: none"> – Provide responses to WDFW’s comments on the Mitigation Opportunity Report. • Large Woody Material Management Plan • Surface Water Quality Mitigation Plan • Stream and Stream Buffer Mitigation Plan • Wildlife Species and Habitat Management Plan • Riparian Habitat Mitigation Plan • Recreation Mitigation Plan
15. Recreation	December 2021	Identify allowable recreation in the FRE and reservoir with future land use designation.	This information could inform recreation analysis.	Could be provided as a project description update or mitigation plan.

Attachment C:

WDFW Mitigation Assessment Report Comments- December 16, 2020

Summary of Topics and Concerns related to Mitigation Opportunities Assessment Report

(Comments prepared December 16, 2020)

These comments represent the Washington Department of Fish and Wildlife's (WDFW) preliminary input on the Flood Control Zone District's (FCZD) Mitigation Opportunities Assessment Report dated July 2020. WDFW appreciates the opportunity to engage with the FCZD on this issue. These comments do not attempt to capture the input of other agencies and tribes, who we recommend engaging as well.

The mitigation assessment is a good start toward an analysis of mitigation opportunities, but at this stage it is very conceptual, and lacks specifics that would allow us to make a clearer determination of the feasibility and effectiveness of implementation. WDFW recognizes that the purpose of this effort is "to make an early determination on mitigation feasibility by assessing whether sufficient opportunity exists to provide mitigation for anticipated project impacts at a reasonable cost" and the report is not a mitigation "plan" for permitting purposes. The assessment provides a useful framework for further refinement, but it does not, at this point, provide sufficient information and detail for WDFW to provide clear input on the feasibility of providing adequate mitigation for anticipated project impacts.

In addition, while this report focused on impacts and mitigation to aquatic and terrestrial resources, it does not address other resources that require mitigation, such as cultural resources, treaty rights, terrestrial wildlife and habitat, recreation, and water quality, among others. Similarly, a coordinated and defined process for engaging with other agencies and tribes to review and provide input has not been identified. WDFW can speak primarily to the fish and wildlife impacts that require mitigation, and not to the full suite of mitigation challenges that accompany this proposal.

Rather than providing a marked up or redline version of the PDF report, we present our feedback below by topic.

VSP Criteria, Limiting Factors, Life Stages and Species Linkages

- Habitat mitigation needs to be directly linked to species (fish, amphibians, etc.) and life stages (e.g., spawning, rearing, migration), functions and values, and address limiting factors for species such as spring Chinook salmon. For example, the proposed project could significantly impact high-quality spawning habitat. How do the mitigation concepts address replacement of spawning or other important habitat, and use of that replacement habitat? Similarly, the proposed reservoir area is a migration corridor to additional spawning grounds upstream of the project area. How do the mitigation concepts address impeded access to habitat that could ultimately eliminate spawning potential for all salmon and steelhead species and affect NOAA's Viable Salmonid Population (VSP) parameters?
- The mitigation assessment should address VSP criteria, which include abundance, productivity, diversity, and spatial structure for all affected salmon and steelhead species. Addressing impacts to VSP is essential because these criteria define the overall population health such as the size of the population, the ability of species to replace themselves, maintenance of genetic, physiological, morphological and behavioral diversity, and the geographic distribution of fish at all life stages. VSP criteria informs population viability such as a population's ability to protect against a catastrophic loss in one location, and the ability to recover and adapt to changing environmental conditions.

- Provide additional detail including quantification and discussion of the benefits provided by both on-site and off-site mitigation opportunities illustrated on Figure 3 – Initial aquatic habitat candidate site pool locations summed by sub-watershed. Are there “off-site” mitigation opportunities (e.g., in other river reaches or tributaries downstream of the confluence with the South Fork Chehalis River in WRIA 23) that could effectively mitigate the risk to affected salmon and steelhead species? If so, can it help account for VSP criteria/species resilience-related impacts from the proposed project? (WDFW is not implying that offsite mitigation would necessarily be acceptable, but we are interested in how it might affect whether the proposed project can be consistent with meeting basin-wide VSP criteria for all salmonid species. This is a key unknown when it comes to determining the feasibility of mitigation actions for the project and this assessment can help identify potential benefits of offsite mitigation).
- What considerations were given to other native fish and aquatic species, such as lamprey and amphibians? Additionally, what mitigation is being proposed for other semi-aquatic species and wildlife?

Analysis Tools and Engagement

- Assessment tools likely include modeling, qualitative analysis and quantitative analysis, but these are yet to be defined and described. WDFW recommends that any proposed approaches to analysis be agreed upon by relevant regulatory agencies and tribes prior to performing the analysis.
- The proposed project will impact a variety of resources managed and coordinated by other federal and state agencies and tribes. How are other agencies and tribes being engaged? What is the process and plan for obtaining needed review and input from other parties in a transparent and coordinated fashion?

Resources, Processes and Mitigation Quantity

- How are other processes and resources being mitigated for and integrated into the mitigation process? For example, water quality is a critical element to support healthy fish and aquatic species populations but it is not clear how increased turbidity from sediment released from the evacuation of the reservoir would be mitigated. Turbidity can be detrimental to egg incubation and development. More information is needed to determine the timing and duration associated with water quality impacts, particularly if unstable sediments have the potential to create chronic and long-term impacts on habitat and species. Specific examples, data and supporting analysis is needed.
- How will the project mitigate for downstream impacts to riverine and floodplain functions through the loss of natural episodic flood-forming and maintenance processes? How will the project mitigate for lost process-based functions? How will the project mitigate for the impairment of large woody material recruitment downstream? How will the project mitigate for the episodic transport of coarse and fine-grained sediments in the system? Specific examples, data, and supporting analysis is needed.
- The mitigation assessment anticipates an approximately 1:1 mitigation ratio for the project. However, a project of this scale and magnitude likely merits more mitigation to address uncertainty and to offset impacts from construction and operations over the life of the project. We would like to see clearly identified the uncertainty around each mitigation action, including

both from an ecological and an implementation perspective. This uncertainty should be paired with an explanation of why the amount of mitigation will adequately offset the impacts, keeping that uncertainty in mind.

- How is uncertainty addressed for mitigation effectiveness (i.e., adequate ratio to offset impacts throughout the life of the project, experimental mitigation actions, temporal loss), landowner willingness, maintenance of mitigation functions throughout the life of the project, monitoring to collect empirical data to inform a comprehensive mitigation approach, and adaptive management (sustained funding and plan for now and the future)? Specific details related to effectiveness (i.e., actual and measurable physical, chemical and biological functional improvement) and a robust contingency plan is necessary in the event that one or more components of mitigation are not effective.
- How were the estimated mitigation needs determined based on the quantitative and qualitative impact descriptions in the assessment report on Table 1? What metrics were used? Specific information is needed to support the quantities.
- There is a statement about changes in the movement of sediment, large wood, and water resulting in unquantified effects on fish habitat. This needs more scientific rigor. "Unquantified effects" is not an acceptable level of analysis to determine mitigation.
- All impacts (direct, indirect, temporary, permanent) associated with the proposed project, including upstream and downstream impact areas, should be clearly described and agreed upon by relevant regulatory agencies. This is a key element that should occur before detailed mitigation planning can proceed.
- Impacted and impaired instream habitat downstream as a result of the proposed project has not been quantified. It is unclear how the number of coldwater treatments correlates to the impaired downstream miles. For example, how many miles will it take before impaired water temperatures are restored? If the treatments are not constructed immediately downstream of the facility, there may be several miles of impaired habitat for salmonids that are not accounted for. Similar questions come up for sediment and large wood transport.
- Contiguous/interconnected habitat complexes (i.e., river, wetlands, riparian and upland) would be impacted by the proposed project and the mitigation approach would result in fragmentation and loss of functionality across the landscape. Can mitigation be conducted in a manner that provides for contiguous, interconnected and diverse habitats of the same function and quality as those displaced by the proposed project?

Proposed Mitigation Actions

- The hyporheic exchange enhancements and groundwater retention structures have the potential to serve as effective temperature mitigation actions, however, these actions are unproven in this river system and adequate analysis and connection to the project impacts is not sufficiently provided in the mitigation assessment. For example, what level of certainty (supported by empirical project data) is there that these mitigation actions will provide the intended function of offsetting and reducing an increase in water temperature over the decades it will take until riparian vegetation has established to provide sufficient shade? What are the existing water temperatures in the locations of these mitigation actions and how would their potential benefits be measured, if constructed? How were the proposed locations of these mitigation actions determined with respect to where identified needs are for reducing

temperature (i.e., what is the effectiveness of these actions in the locations currently identified)? These are just examples of questions that come to mind in which a connection between these mitigation actions and the necessary water temperature reductions is not established in the mitigation assessment report. Specific examples, data and supporting analysis is needed.

- WDFW policy 5002 requires that proven mitigation techniques are used. Although experimental techniques are allowable, the projects must be implemented and fully functional prior to the project impacts. This consideration should be factored into any proposed use of mitigation actions without a proven track record (i.e., addressing uncertainty of mitigation success).
- How were the wood loading calculations determined? What references are being used to replicate healthy quantities of wood in a large river system and inform the needed amount of mitigation?
- For riparian buffer expansion along waterways where existing vegetation is lacking or not optimally functioning, we appreciate the statement that it will take decades to achieve full ecological function of mitigated riparian habitat. However, the quantity proposed (roughly 1:1 ratio) does not seem adequate given the length of time to establish full functioning habitat and the temporal loss of habitat. Additionally, the location of any riparian mitigation should be directly connected to the type of habitat that will be impaired by the proposed project (i.e., upper watershed, spawning grounds, etc.) whenever possible. Also, how would riparian buffer expansion be combined with other mitigation actions such as floodplain reconnection or bank erosion to ensure that the riparian improvements reach their maximum potential benefit to the affected system. More analysis of this proposed mitigation action is needed for further evaluation.
- For buffer conservation, it is unclear how this constitutes a mitigation action as the intact buffers that exist along waterways are likely already under the protection of a state or local jurisdiction. Mitigation credit should not be given to existing functioning riparian habitat that would otherwise remain unaltered. For example, if a potential mitigation site contains an intact 100-foot riparian zone that is already protected under Shoreline Management Act regulations, how would mitigation “credit” be determined? And if this area was expanded and conserved, what additional water temperature reduction benefit would this provide in the short- and longterm once vegetation is mature? Additional information is needed to evaluate this proposed action.
- What impact will the mitigation have on agricultural or residential lands, where these mitigation concepts are primarily being proposed? What information is currently available to inform and characterize landowner willingness for mitigation on residential, agricultural and other lands?

Fish Passage

- Fish passage must provide for all species (salmonid and non-salmonids), life stages (juveniles and adults), and migration direction (upstream and downstream). Why isn’t more specific information related to passage from the SEPA Draft EIS included in this impact description on Table 1?
- How does replacement of five fish passage barriers compensate for what is described as a “temporary fish passage interruption...during construction”? What is meant by “temporary”? Impacts to fish passage over the five-year construction period will likely result in permanent

future impacts to fish species given that passage for all species at all life stages is not achievable as the project is currently proposed. Additional discussion and analysis is needed.

Connections to Other Programs, WDFW Perspective, and SEPA Draft EIS

- How will the loss of riverine and flood-forming processes reduce ASRP effectiveness of restoration actions to improve conditions for aquatic species throughout the basin (i.e., loss of habitat restoration potential)?
- Mitigation should address the effects of the proposed project for the 50+ year life span of the project. The mitigation assessment should incorporate projected future environmental conditions (i.e., climate change) to take into consideration the changing environment that fish and wildlife species, and human populations are experiencing now and will continue to experience and adapt to into the future.
- As stated in Director Susewind's June 2019 letter and former Director Anderson's November 2014 letter, committing to habitat restoration benefits that are well above and beyond impacts from flood damage reduction projects are, from WDFW's perspective, critical to advancing the Chehalis Strategy as a whole. WDFW would like to better understand how and when the mitigation assessment or related work products can integrate related Strategy elements and inform overall habitat improvements in the basin.
- The SEPA Draft EIS summarizes potential mitigation measures including a need for detailed maintenance, monitoring and adaptive management needs for the life of the proposed project. How have the SEPA Draft EIS avoidance, minimization and mitigation elements been incorporated into the conceptual framework and approach for mitigation?

Coordination Process Thoughts

As mentioned above, there is not a defined process for engaging with other agencies and tribes to review and provide input on mitigation. We recommend including of a roadmap for ongoing coordination and engagement of necessary entities beyond WDFW, along the lines of the more broad and structured engagement offered earlier this process. For example, several meetings were organized by the Office of Chehalis Basin and the FCZD in late 2019 and early 2020 to discuss process, work products, and timelines. However, these meetings ceased in summer of 2020 and have not been reinitiated. In light of this, WDFW offers the following thoughts on phasing and a coordination process for 2021 for your consideration and input. We understand that the Chehalis Basin Board and the Office of Chehalis Basin plays a major role in the timing of all projects considered and implemented under the Chehalis Strategy. We are putting the following timeline on the table for discussion purposes (not as a demand or presumptive outcome), as we believe it would provide sufficient time to cover a variety of topics necessary to advance mitigation discussions with the relevant parties. We start with some work already underway for context.

- 2020 (early engagement period led by FCZD and OCB) – FCZD shares conceptual ideas and seeks input by agencies and tribes, FCZD assesses opportunities for avoidance, minimization and mitigation
- 2021 (first quarter; early engagement continued, comprehensive coordination and process sharing) – continuation of early engagement period led by FCZD and OCB, FCZD continues to refine avoidance, minimization and mitigation options, FCZD rolls out key milestones and

deliverable schedule that reflects feedback and additional analysis from agency and tribal engagement

- 2021 (second quarter; coordination, ongoing analysis and dialogue) – FCZD addresses feedback received from agencies and tribes, FCZD and OCB schedule facilitated discussions with agencies and tribes every 6 weeks (or an agreed upon timeframe) to discuss topics raised during early engagement period
- 2021 (remainder of year or until final SEPA EIS is released) – FCZD and OCB continue to lead facilitated discussions