

# DRAFT MEMORANDUM

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**Date:** Draft March 1, 2021  
**To:** Chehalis Basin Board  
**From:** Andrea McNamara Doyle, Office of Chehalis Basin Director  
**Re:** Draft outline of Board report on Long-term Strategy, with options for 2021-23 budget recommendations and request for additional Board guidance

## Overview

This memorandum includes preliminary options for funding the implementation of several projects next biennium and continuing to develop the scientific and programmatic information needed in the near-term for the Board to make longer-range decisions. It also includes a preliminary outline of a future report that will support the Chehalis Basin Board's deliberations and recommendations for the long-term strategy, and the 2021-2023 biennial budget funding level and allocations. Within the outline, several questions are posed to solicit Board direction that is needed for staff to complete the draft report to the governor and legislature for your review at a future Board meeting.

Also beginning at the March 4 and future meetings, OCB staff will be requesting Board guidance or decisions on the following questions:

1. Does the Board support the \$70 million funding level, and allocation provisos, in Governor Inslee's proposed 2021-2023 capital budget?
2. Does the Board agree that based on technical and feasibility analyses and deliberations to date from the Local Actions Program Advisory Groups, and work on the ability to avoid, minimize, or provide compensatory mitigation for the impacts of the proposed flood retention facility, there is not sufficient information available to determine if a suite of actions, with or without the flood retention facility, can achieve the Board's preferred flood damage reduction outcomes?
3. Which projects and program elements does the Board need additional information on to incorporate long-term objectives into near-term milestones and determine a more detailed funding allocation for the 2021-23 biennium and beyond?
4. Does the Board support advising the governor and legislature that it will determine 2021-2023 funding allocations and project lists by June 3, 2021?

Following the Board's guidance at the March 4 meeting, OCB staff will develop more detailed work plans for the projects and program elements you highlight as needing additional information for your further consideration. The work plans will focus on near-term outcomes that can be achieved in the 2021-2023 biennium, along with schedule and budget options for the Board to determine longer-range capital project and planning needs for the Chehalis Basin Strategy.

## Preliminary OCB Staff Options for Board’s 2021-2023 Budget Recommendations

The table below groups potential projects into three categories for purposes of building the Board’s 2021-2023 budget recommendations (Crosscutting/Integrated Work, Aquatic Species Habitat Restoration, and Flood Damage Reduction). Options for pathways that could be implemented in the 2021-2023 biennium for each of the projects are described in the Board Report Outline following the table.

<p><b><i>Crosscutting/Integrated Work (Projects and Analyses Advancing the Integration of Flood Damage Reduction &amp; Habitat Restoration Objectives)</i></b></p> <ul style="list-style-type: none"> <li>• Skookumchuck Dam Analysis</li> <li>• Erosion Management Guidance &amp; Pilot Project Development</li> <li>• Floodplain Acquisition Program Design</li> <li>• Floodplain Mapping and Modeling</li> <li>• Land Use Recommendations &amp; Guidance</li> <li>• Community Outreach/Engagement</li> </ul>	
<p><b><i>Aquatic Species Habitat Restoration</i></b></p> <ul style="list-style-type: none"> <li>• Restoration projects             <ul style="list-style-type: none"> <li>– Reach-scale project design/construction</li> <li>– Non reach-scale project design/construction (amphibian focused, barriers)</li> <li>– Ramp-up capacity (project development efforts)</li> </ul> </li> <li>• High quality/unique habitat acquisition projects</li> <li>• Implementation support             <ul style="list-style-type: none"> <li>– Sourcing project materials</li> <li>– Ramp-up capacity (Local implementation teams and project design review)</li> <li>– Monitoring and adaptive management</li> </ul> </li> </ul>	<p><b><i>Flood Damage Reduction</i></b></p> <ul style="list-style-type: none"> <li>• Flood Control Zone District Flood Damage Reduction Project</li> <li>• Flood Authority Projects</li> <li>• North Shore Levee Project</li> <li>• Other Structural Flood Protection Evaluations</li> <li>• Community Flood Assistance &amp; Resilience (CFAR)             <ul style="list-style-type: none"> <li>– Technical and financial assistance to local governments, tribes &amp; landowners</li> </ul> </li> </ul>

Information developed in the 2021-23 biennium from the cross-cutting and flood damage reduction categories will be used to determine if a suite of actions, with or without the flood retention facility, can achieve the Board's preferred flood damage reduction outcomes.

### ***Board Report Outline Purpose***

The purpose of this section of the memorandum is to outline and briefly summarize the content OCB staff proposes to include in the Board's draft report to the governor and legislature. Major sections of the draft report will include:

- Progress achieved over time by Board, OCB, and partners
- Current context of Board's work
- Board's recommendations for Chehalis Basin Strategy, in 2021-2023 biennium and longer-term

This part of the memorandum also includes several key questions the Board will need to consider to reach consensus on what actions are ready to be implemented, what elements need additional analysis before determining whether they should be implemented, and what elements should not move forward in the Board's recommended 2021-23 biennium budget and beyond.

### ***Summary of progress achieved over time by Board, OCB, and Partners***

Summarize the long arc of collaboration and results from 2012 to present:

1. Scientific understanding of freshwater environment, aquatic species, and impacts of climate change
2. Comprehensive restoration plan (Aquatic Species Restoration Plan [ASRP]) and projects
3. Technical understanding of flood flows, floodplain, and impacts to communities
4. Assessment and solutions for sea level rise damage in Aberdeen/Hoquiam
5. Protection of critical infrastructure, livestock and farm equipment, and homes
6. Acknowledgement that since 2012, over \$75 million has been invested across nearly 100 projects that benefit both people and aquatic species

### ***Current Context***

#### ***Summarize major process adjustment in 2020***

1. The Draft State Environmental Policy Act (SEPA) Environmental Impact Statement (EIS) released in February 2020 provided an evaluation of the environmental impacts of the proposed flood retention facility. It did not separate fisheries impacts of the project from the ongoing impacts of climate change predicted to occur without the project, and it evaluated impacts on aquatic species and habitat at a project-area level rather than a basin-wide level. The EIS concluded it was uncertain whether mitigation was technically feasible or economically practicable.
2. Tribes opposed the flood retention facility based on impacts in the Draft SEPA EIS and their assessment that impacts would be greater than estimated in the Draft SEPA EIS. Top concerns included severe impacts on salmon and aquatic species, an inadequate look at other

alternatives, absence of potential mitigation, damage to spiritually significant sites, and adverse impacts on tribal treaty rights.

3. The project proponent (Chehalis River Basin Flood Control Zone District, or Flood District) viewed the Draft SEPA EIS findings as overly conservative in that it did not consider avoidance, minimization, or compensatory mitigation measures.
4. Governor engaged in response to tribal concerns and requested additional evaluation of the overall Chehalis Basin Strategy and a report back from the Board by the end of March 2021.
5. The Draft National Environmental Policy Act (NEPA) EIS, released in September 2020, discussed the impacts of climate change separately from the project, and included some avoidance, minimization, and mitigation measures identified by the Flood District. It did not include evaluation of a local actions alternative.
6. Significant progress has been made since September 2020 including: Board outcomes for evaluating actions to address flood damage; more detailed application of climate change effects on flooding; evaluation of local government land use management; defining areas with the highest concentration of flood damage; initial analyses to avoid, minimize and provide compensatory mitigation for aquatic species impacts from the flood retention facility; potential benefits to aquatic species and flood damage reduction from the Skookumchuck dam and; refinement of the comprehensive ASRP.

### ***OCB Staff Recommendations***

OCB staff recommends that the Board:

- Support the \$70 million funding level included in Governor Inslee’s proposed 2021-2023 capital budget;
- Identify which priority projects and pathways or analyses staff should develop more detailed work plans for by May 2021; and
- Determine 2021-23 budget allocations and project lists by the June 3, 2021 Board meeting.

## **Preliminary OCB Staff Options for Board’s 2021-2023 Budget Recommendations and Long-Term Strategy**

### ***Crosscutting Issues***

The following crosscutting issues intersect between both flood damage reduction and aquatic species habitat restoration actions and priorities.

## **Evaluation of Skookumchuck Dam Understanding and Next Steps**

*Background on Skookumchuck dam and potential benefits for aquatic species and flood damage reduction*

*Potential analyses for 2021-23*

1. Analyses for Long-Term Options
  - A. Existing Dam + Operational Modifications
  - B. Modified Dam + Operational Modifications
  - C. Dam Removal
2. Analyses for Near-term Actions
  - A. Changes to Dam Operations for salmon and flood control
  - B. Acquire Water Right(s)

*Board direction provided on February 18, 2021: OCB staff should develop a 2021-2023 work plan and budget for the analyses listed above for the Board's consideration*

## **Bank Erosion Management Understanding and Potential Next Steps**

*Background on erosion management strategy, including summary of initial maps for up to 100 miles of high priority areas and erosion management approach recommended by Technical Advisory Group to evaluate reach-scale opportunities for reducing erosion damages while protecting and enhancing habitats and ecological processes.*

*Potential pathways for 2021-23*

1. Long-term option
  - A. Identify one or more pilot subbasins to outline how to develop a pilot technical assistance program for landowners with relative cost and staffing needed for a program (in coordination with staff from OCB and Washington Department of Fish and Wildlife [WDFW])
  - B. Potential to complete channel migration zone delineations in high priority areas

*Board direction needed: Should staff develop a work plan and budget for either or both of the long-term options listed above for the Board's consideration to include in the 2021-2023 biennium budget?*

## **Floodplain Acquisition Program Design Understanding and Potential Next Steps**

*Background on floodplain acquisition approaches and purposes*

*Potential pathways for 2021-23*

1. Add floodplain acquisition tools as part of the broader flood damage reduction toolbox, by developing a range of voluntary options to meet diverse landowner and community interests and needs such as acquisition of flood easements, fee simple buyouts, transfers of development

rights, water rights transfers, and other incentives to discourage expansion of high-density zoning, maintain low-density zoning and agricultural viability in rural areas, and prevent environmental and economic damage.

2. Be responsive to acquisition opportunities with willing landowners, especially in strategic locations or areas that can offer multiple benefits
3. Coordinate with ASRP on acquisition elements and priorities as well as landowner and local government engagement.
4. Coordinate with interested local government(s) to conduct initial master planning work or feasibility evaluations in strategic areas with potential relocation receiving opportunities (e.g., Davis Hill in Centralia)

***Board direction needed:** Should staff develop a work plan and budget for any or all of the options listed above for the Board's consideration to include in the 2021-2023 biennium budget?*

### **Floodplain Management and Modeling Understanding and Potential Next Steps**

*Background on modeling efforts, planning assumptions for flood events and damage, and analyses on creating additional floodplain storage*

*Potential pathways for 2021-23*

1. Conduct additional analyses to look at flood damage from more frequent events
2. Explore opportunities for additional floodplain storage benefits along tributaries, especially smaller tributaries
3. Identify synergies and align as feasible with ASRP goals and projects

***Board direction needed:** Should staff develop a work plan and budget for any or all of the options listed above for the Board's consideration to include in the 2021-2023 biennium budget?*

### **Land Use Current Understanding and Potential Next Steps**

*Background on process to develop land use recommendations*

*Potential pathways for 2021-23*

1. Board approves one or more of the following recommendations to Chehalis Basin local governments:
  - Two-pronged approach for using floodplain data:
    - Use the flood of record or modeled current 100-year floodplain (whichever is higher) for *regulating* the floodplain extent and depth
    - Use the 500-year floodplain or the 2080 (100-year) floodplain for *planning and outreach purposes* (e.g., future zoning, technical assistance and advice to property owners)
  - Support continuation of subdivision regulations for rural areas to prevent new lots wholly in floodplain

- Discourage upzones or urban growth area (UGA) expansion into flood-prone areas
  - Provide guidance to standardize implementation of zero rise policy and compensatory storage requirements
  - Establish an acquisition program to acquire development rights and/or use other incentives to discourage expansion of high-density zoning, maintain low-density zoning in rural areas, and prevent environmental damage
  - Consider implementing the other past floodplain management recommendations (CRBFA 2010 and French and Associates 2016) as appropriate for their jurisdictions
2. OCB works with local governments to develop options and approaches for implementing the land use recommendations.

*Board direction needed: Does the Board need more information on land use management in order to provide recommendations to local governments? Should OCB develop options on how to implement these recommendations for the Board's consideration to include in the 2021-2023 biennium budget?*

### **Community Outreach and Engagement Options and Potential Next Steps**

*Background on need for community outreach and engagement on all elements of the strategy*

#### *Potential pathways for 2021-23*

OCB, with Board, ASRP Steering Committee, and Local Actions Program Advisory Group members' input, has identified several possible pathways that would improve the reach and effectiveness of our community outreach and engagement, by better coordinating landowner, local government, stakeholder, and general public communications about the Chehalis Basin Strategy process, projects, programs, and results. Some of the expanded outreach and engagement needs that would require additional capacity include:

1. Conduct targeted outreach to local jurisdictions and residents in priority areas identified by the advisory groups on their interest and need for local actions, and at what flood protection levels.
2. Solicit input from local jurisdictions on any other potential areas to consider for local flood protection.
3. Expand formalized engagement with housing service providers and economic development organizations.
4. Develop a more inclusive public involvement strategy tailored to Environmental Justice communities, that addresses social and economic barriers to meaningful public engagement in the Chehalis Basin Strategy processes, such as language service needs, limited access to technology, and literacy and education levels.
5. Develop more cohesive messages, informational materials, and engagement expectations for use by all partners who are funded to interact with landowners and implement different elements of the Chehalis Basin Strategy.

*Board direction needed: Should OCB develop options for Board consideration on community outreach and engagement strategies in the 2021-23 biennium and beyond?*

## **Aquatic Species Habitat Restoration Options and Potential Next Steps**

*Background on refinement of ASRP since publication of the ASRP Phase 1 document.*

- ASRP Steering Committee Memorandum to the Board dated 3/1/2021 details ASRP goals, benefits, impacts, uncertainties, cost estimates, detailed program options/outcomes and 6-year funding strategies for Board consideration.

*Potential pathways for 2021-2027*

1. Shift program focus away from planning and toward implementation of the ASRP
2. Consider funding support for ASRP at \$33 million dollars for 2021-23 biennium
3. Develop 6-year funding strategy for ASRP based on 3 implementation levels proposed:
  - A. Level funding
  - B. Slow ramp-up
  - C. Fast ramp-up
4. Conduct 5-year (2026) program evaluation of ASRP to develop long term funding strategy based on Board goals for ASRP and results of initial ramp up of implementation

*Board direction needed: What additional information does the Board need to determine the funding levels for the 2021-23 biennium and to provide direction on a 6-year funding strategy and timing for a future program evaluation?*

## **Flood Damage Reduction Options**

### **Flood Retention Facility Options and Potential Next Steps**

*Background on project, benefits, impacts, mitigation, tribal and Flood Control Zone District perspectives*

*Potential pathways for 2021-23*

1. Flood Control Zone District develops and refines avoidance, minimization and compensatory mitigation (AMM) analyses in collaborative process with agencies and tribes
2. Fund agency cost-reimbursement to finalize SEPA and NEPA EISs to incorporate input from tribal and public comments, new information from Flood Control Zone District, and additional technical studies and analysis determined by Ecology and the US Army Corps of Engineers
3. Flood Control Zone District prepares preliminary permit application materials and supporting plans, e.g., finalize draft HPA/Aquatic Species Mitigation Plan for permitting, finalize draft Wetlands Mitigation Plan, develop draft AMM plans for recreation, land use, cultural resources, etc.

*Board direction needed: Should staff develop a work plan and budget for any or all of the pathways listed above for the Board's consideration to include in the 2021-2023 biennium budget?*

## **Structural Flood Protection (Levees) Options and Potential Next Steps**

*Background on structural options considered*

*Potential pathways for 2021-23*

OCB, with Local Actions Program Advisory Groups' input, has identified several possible pathways that could be followed to further identify and evaluate possible local flood damage reduction projects in order to better determine their potential to achieve the Board's approved outcomes:

1. Evaluate frequency of flooding and the sources of flooding at 14 potential priority areas
2. Identify the proportion of types of structures in priority areas (residential, commercial, etc.)
3. Identify existing and long-range land use, zoning, buildout, economic development and social justice considerations for jurisdictions
4. Consider identifying initial levee or other facility alignment possibilities (conceptual design level)
5. Conduct additional hydraulic modeling, if interest develops in analyzing further to help determine feasibility and costs

*Board direction needed: Should staff develop a work plan and budget to implement any or all of the analyses and actions above for the Board's consideration to include in the 2021-2023 biennium budget?*

## **Community Flood Assistance & Resilience (CFAR)**

*Background on CFAR*

*Potential Pathways for 2021-23*

1. Maintain or increase the current level of funding (\$3 million) to continue providing technical support and financial assistance to residents and business owners.
2. Provide technical support and financial assistance to local and tribal governments, including support for current and aspiring CRS communities with entering and maintaining the records required under the CRS program for their jurisdiction's property owners/residents to be eligible for reduced flood insurance rates.

*Board direction needed: Should staff develop a work plan and budget to maintain or expand the CFAR technical & financial assistance program?*

## ***North Shore Levee Options and Potential Next Steps***

### *Background on Aberdeen-Hoquiam North Shore Levee*

#### *Potential projects for 2021-23*

The cities of Aberdeen and Hoquiam have requested OCB's 2021-2023 budget recommendations include up to \$10 million for the next phase of the 6.2-mile North Shore Levee project. Previous funding allocations have been used for design and right-of-way acquisition and to leverage federal requests. This next phase would be to construct the Fry Creek Pump Station. Two additional phases are anticipated to complete construction of the full levee alignment, along with an ongoing phase of stormwater improvements that will be funded locally.

At this time, the cities are also seeking an additional \$4 million from the legislature through a separate appropriation to complete the final design and right-of-way acquisition of the West Segment of the North Shore Levee. The West Segment project is estimated to cost \$40 million to construct a separate 4.7-mile levee bordering the west side of the Hoquiam River and the western portion of the city.

*Board direction needed:* *What additional information does the Board need to determine the funding levels for the North Shore Levee in the 2021-23 biennium?*

## ***Flood Authority Local Projects Options and Potential Next Steps***

### *Background on Flood Authority local flood damage reduction projects*

#### *Potential projects for 2021-23*

The Flood Authority has requested OCB's 2021-2023 budget recommendations include funding for nine prioritized local project proposals totaling \$9,167,609. The project titles are provided below and more detailed information can be found [here](#):

1. Aberdeen – Fry Creek Restoration and Flood Reduction Phase IIIa Plan
2. Cosmopolis – Mill Creek Multi-Objective Implementation Plan
3. Lewis County – Boistfort Road Infrastructure Assessment Study
4. Port of Grays Harbor – Satsop Business Park Chehalis River Bank Stabilization Study
5. Lewis County Flood Control Zone District #1 – Chehalis Industrial Park Flood Conveyance, Evacuation Project
6. Grays Harbor County – Lower Satsop Restoration and Protection Program, Phase II (Habitat Connectivity and Reach-Scale Aquatic, Riparian and Floodplain Restoration)
7. Hoquiam – 10th Street Pump Station
8. Aberdeen – Farragut Street Pump Station
9. Hoquiam – Queen Avenue Pump Station

The Flood Authority has also requested the Board consider additional funding to evaluate whether implementation of regional floodwater management/maintenance/capitalization approaches are an appropriate and effective use of Chehalis Basin Strategy local project funding moving forward.

*Board direction needed: What additional information does the Board need to determine the funding levels for Flood Authority Local Projects in the 2021-23 biennium? Should staff develop a work plan and budget to evaluate implementation of regional floodwater management/ maintenance/ capitalization approaches for the Board's consideration to include in the 2021-2023 biennium budget?*

## **Conclusion**

At the March 4 Board meeting, OCB staff will request feedback on the staff recommendations in this memo and guidance or decisions on the following questions:

1. Does the Board support the \$70 million funding level, and allocation provisos, in Governor Inslee's proposed 2021-2023 capital budget?
2. Does the Board agree that based on technical and feasibility analyses and deliberations to date from the Local Actions Program Advisory Groups, and work on the ability to avoid, minimize, or provide compensatory mitigation for the impacts of the proposed flood retention facility, there is not sufficient information available to determine if a suite of actions, with or without the flood retention facility, can achieve the Board's preferred flood damage reduction outcomes?
3. Which projects and program elements does the Board need additional information on to incorporate long-term objectives into near-term milestones and determine a more detailed funding allocation for the 2021-23 biennium and beyond?
4. Does the Board support advising the governor and legislature that it will determine 2021-2023 funding allocations and project lists by June 3, 2021?