

# The Chehalis River Flow-Through Dam for Flood Control

Proposed by the Chehalis River Basin Flood Control Zone District

The Chehalis River Basin Flood Control Zone District (Flood District) is seeking to construct a flow-through dam and temporary reservoir on the Chehalis River near Pe Ell and make improvements to the levee around the Chehalis-Centralia Airport.

Now through 2026, the Chehalis Basin Board (the Board) is evaluating whether to include the flow-through dam as part of its recommended long-term Chehalis Basin Strategy. The Board is currently considering long-term options that include the Flood District's proposed flow-through dam and airport levee project.

## About the Flood District

Following the devastating floods of 2007 and 2009, the Lewis County Board of County Commissioners formed the Chehalis River Basin Flood Control Zone District (Flood District) to find solutions to reduce flood risks, protect basin communities, and preserve the ecosystem benefits the Chehalis River system provides. The Flood District developed a proposal for a new flow-through dam for flood control to address major floods in the upper Chehalis Basin between Pe Ell and Centralia.



**An aerial view of the proposed flow-through dam near Pe Ell.** Image credit: Chehalis River Basin Flood Control Zone District

## What is the proposed project?

Under the Flood District's proposal, the Chehalis River would flow freely through the proposed flow-through dam structure unless a major flood is forecasted to occur in the upper Chehalis River Basin, triggered by rainfall in the Willapa Hills. The dam would then close its gates to temporarily hold back floodwaters, and water would be safely released later.

Normal Condition  
Water and Fish Flow Through the Dam

Flood Condition  
Dam Holds Back Water

**A schematic showing how the flow-through dam works under normal and flood conditions.** Image credit:

*Chehalis River Basin Flood Control Zone District*



With this design, fish would be able to swim upstream and downstream of the facility most of the time. During a flood event when water is being retained, a trap-and-haul facility would be used to pass various fish species upstream.

The Flood District's proposed project also includes airport levee improvements to protect the Chehalis-Centralia Airport, local businesses, and area transportation from major flood damage. In addition to raising the existing levee around the airport, about 1,700 feet of Airport Road would also be raised.

### What is the FRE?

You may have heard the flow-through dam referred to as the "FRE." FRE stands for "Flood Retention Expandable" and is the technical name for the flow-through dam for flood control on the Chehalis River. This is how the facility is referred to in the draft State and National Environmental Policy Act documents.

## Potential benefits

If constructed, the project would reduce the extent of flood damage to people, homes, businesses, farms, and transportation in the basin. Early estimates from the Flood District anticipate that the flow-through dam would:

- Reduce floodwater on nearly 4,000 acres during major and catastrophic floods
- Eliminate flooding for approx. 1,300 homes and businesses
- Reduce the likelihood and duration of I-5 and airport closures
- Save hundreds of millions of dollars by reducing damage to structures, farms, and businesses and preventing transportation interruptions

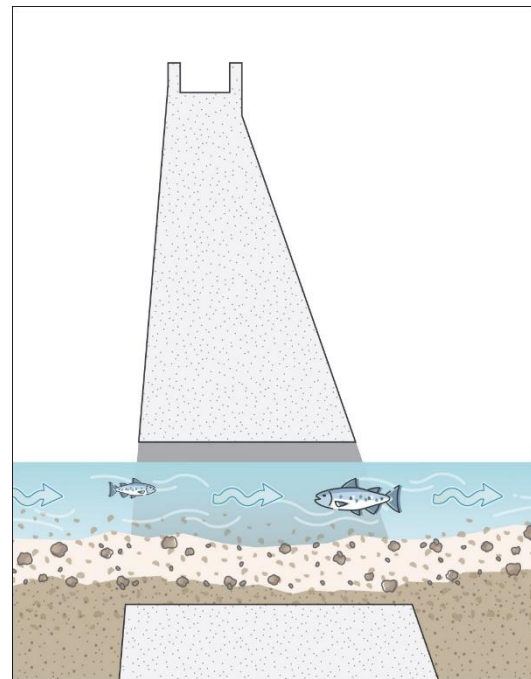
Just like with the proposed levee system (the Local Actions Non-Dam Alternative, or LAND), it won't be possible to protect all homes and businesses with the dam, however the recommended long-term Chehalis Basin Strategy will include support from the Office of Chehalis Basin to floodproof, elevate, or relocate any structures that would still experience some flooding.

## Environmental review, updated design, and mitigation measures

In 2020, under the State Environmental Policy Act (SEPA) and National Environmental Policy Act (NEPA), the Washington State Department of Ecology and the U.S. Army Corps of Engineers each conducted an environmental review of the proposed project and released two separate Draft Environmental Impact Statement (DEISs). Both analyses described significant potential impacts from the construction and operation of the flow-through dam – to salmon, wildlife, and the surrounding habitat, to Tribal and cultural resources, and to recreational opportunities.

In 2023, to address these findings, the Flood District:

- **Revised the project design** to update the location, construction, operation, and fish passage features of the proposal – as shown in the images in this handout.
- **Developed a draft mitigation plan** that includes a suite of actions intended to offset impacts to salmon and other aquatic species and improve habitat function – such as planting native trees and shrubs along the stream bank to increase shade and cool the water, increasing habitat complexity by creating side pools, and opening fish access to blocked habitats by removing barriers.



**Fish passage features in the revised design.**

*Image credit: Chehalis River Basin Flood Control Zone District*

### What is SEPA and NEPA?

The State and National Environmental Policy Acts require state and federal agencies to systematically evaluate proposed governmental decisions or projects by identifying and analyzing associated environmental impacts. This is referred to as the environmental review process. Agencies must conduct and publish a formal study, or EIS, if a decision or project is determined to likely have significant adverse environmental impacts. No permit decisions can be made until after the environmental review process is complete.

## Preliminary cost estimate

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Based on the updated design, the Flood District estimates that the project could cost between \$1.3 - \$2.3 billion. This preliminary cost estimate factors in construction of the flow-through dam, levee improvements around the Chehalis-Centralia Airport, and mitigation measures. For context, damage and disruption from the 2007 flood is estimated to have cost \$900 million.

## Next steps

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Ecology and U.S. Army Corps of Engineers are now conducting an environmental review of the revised project proposal. Ecology's revised Draft EIS is expected to be released in late 2025, after public comment process and before the Final EIS is issued (estimated in 2026). This comment period is separate from the feedback OCB is collecting on the long-term Chehalis Basin Strategy options.

A team of technical experts is currently evaluating the project for costs, benefits, and tradeoffs. In 2026, the Chehalis Basin Board will determine whether to recommend the flow-through dam as part of their recommended long-term Chehalis Basin Strategy. The Board will use the findings in the environmental review, as well as other information, to inform their recommendations.



## For more information

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Learn more at <https://officeofchehalisbasin.com/proposed-chehalis-river-dam/>  
Questions? Email [info@officeofchehalisbasin.com](mailto:info@officeofchehalisbasin.com)



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