

Chehalis Basin habitat restoration and flood control



OVERVIEW

The Chehalis River basin is the second largest watershed in Washington. The river is 125 miles long and drains about 2,700 square miles in southwest Washington, primarily in Grays Harbor, Lewis, Mason, and Thurston counties.

The watershed includes some of the most extensive and environmentally diverse floodplains in the state. The basin contains salmon and steelhead and a diverse array of amphibians. The Chehalis and its tributaries support recreational, commercial, and tribal fisheries that are vital to the economies and cultures of dozens of communities throughout the region.

Over the past 100 years, the watershed's health has significantly declined and the basin has experienced increasingly extensive floods. The Chehalis's five largest floods have occurred during the past 30 years.

To address these challenges, former Gov. Chris Gregoire created the Governor's Chehalis Basin Work Group in 2012 to investigate options for improved flood control and habitat restoration throughout the basin. Since then:

- **The Legislature appropriated \$28.2 million** in the 2013-15 state capital budget to enable the work group to develop recommendations to address flooding and aquatic species enhancement.
- **In November 2014**, the work group recommended extensive habitat restoration throughout the watershed, a flood-control dam on the upper Chehalis River, and other measures to reduce flooding and restore aquatic species in the basin.
- **Gov. Jay Inslee** has proposed spending \$30 million in the 2015-17 capital budget for the next phases of the project.

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WDFW PARTICIPATION and ROLE

WDFW was one of several state agencies that received funding in 2013-15 to participate in the work group process. Department staff reviewed technical analyses, conducted field studies, developed models, and participated in development of the aquatic species enhancement plan.

In November 2014, WDFW Director Phil Anderson sent a letter to Governor Inslee outlining the department's perspective on the work group's recommendations.

In January 2015 WDFW staff provided a memo to the work group addressing key technical issues.

WDFW PERSPECTIVE

Director Anderson's letter and the WDFW technical memo address several key points:

- The Chehalis Basin is a unique watershed, and its natural resources are of irreplaceable value to Washington State.
- The work group's recommendations – to combine an aggressive restoration program with construction of a dam and other flood-proofing measures – represent an innovative approach, but one that also comes with many challenges. Meeting these challenges will require continued data collection and improved modeling; establishment of clear restoration goals and targets; a large investment in restoration planning infrastructure; local community support; and restoration of habitat and ecological functions above and beyond any dam impacts.
- Based on the current analyses and knowledge of existing water retention structures, putting a dam on the Chehalis would have negative effects on fish and wildlife and their habitat.
- Habitat restoration is needed to reverse the decades-long decline in salmon populations, and this work should begin immediately. The department believes necessary restoration actions will likely require more than the \$120 million currently outlined in the work group's recommendations. Further, given expected changes in climate and land-use intensity through time, efforts will be required for more than 20 years to monitor and maintain the watershed's health.
- An aggressive monitoring program will be needed to track progress and success and to guide changes in restoration activities.
- The modeling effort and findings were predicated on some key assumptions about salmon and steelhead habitat use and survival, semi-aquatic species life history, and off-channel habitat use and function in the basin. Additional data collection and model refinement is needed to verify and adjust the models.
- The existing climate change analyses resulted in dire findings, especially for Spring Chinook. Given the potential implications for fish and wildlife in the basin, climate change needs further analyses, review, and consideration by the broader scientific community, including climate change experts from around the region.
- WDFW's role will be to ensure that a high standard of science is used throughout the process. This work will increase the level of certainty in restoration actions and measures, and will document outcomes.

