

# Chehalis Basin Strategy: Reducing Flood Damage and Restoring Aquatic Species Habitat



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Figure 1: Andrea McNamara Doyle

## Chehalis Basin Strategy blends actions and projects

Local, tribal, and state leaders are developing the Chehalis Basin Strategy—a collection of near- and long-term actions, as well as small- and large-scale projects to reduce catastrophic flood damages and restore aquatic species habitat in the Chehalis River Basin. To fund and implement the Strategy, the 2016 Washington Legislature created an independent Chehalis Basin Board (Board) and established a new Office of Chehalis Basin (OCB) within the state Department of Ecology. Both became operational in July 2017.

## Board oversees Strategy, recommends funding levels

The seven-member Board is responsible for “aggressively pursuing” a long-term investment plan and funding for an integrated strategy that addresses both flood damage and aquatic species habitat goals in the Chehalis River Basin and developing budget recommendations to the Governor. The Board is the successor to the effort formerly led by the “Governor’s Chehalis Basin Work Group” out of the Office of Financial Management.

The Board typically meets the first Thursday of each month. Members include Board chair Vickie Raines; Harry Pickernell, Confederated Tribes of the Chehalis Reservation; Tyson Johnston, Quinault Indian Nation; J. Vander Stoep; Steve Malloch; Edna Fund; and Jay Gordon. There are five non-voting Board members representing Washington State agencies. Meeting agendas, presentations, and other documents are available [here](#).

## McNamara Doyle leads Office of Chehalis Basin (OCB)

The OCB administers state and federal funding to implement the Strategy and provides staff support to the Board. In April 2018, Andrea McNamara Doyle was selected to be the first OCB Director. Prior to joining Ecology, Andrea had served as executive director for the Washington Wildlife & Recreation Coalition, Washington Public Disclosure Commission, and State Environmental Hearings Office, and advised legislators on environmental matters as a staff attorney for the Washington State Senate.

## Building basin flood resiliency and improving habitat



Figure 2: Pe Ell WWTP dike project



Figure 3: Construction sign for Bucoda 2014 wellhead project

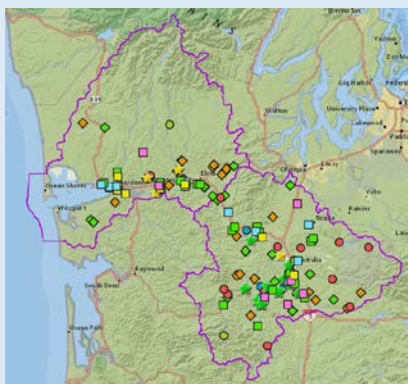


Figure 4: Interactive project map shows flood damage reduction and habitat restoration projects in Chehalis River Basin

## Nearly 40 local flood damage reduction projects finished or underway

With funding from the Chehalis Basin Strategy, the Chehalis River Basin Flood Authority maintains the Chehalis River Basin Flood Warning System that alerts residents and businesses when river levels rise based on real-time data from stream gauges in the basin.

Besides maintaining the Flood Warning System, the Flood Authority:

- Prioritizes and oversees local-scale flood damage reduction projects.
- Works with local governments on floodplain management regulations and flood insurance issues.

Since 2012, the Flood Authority has guided investment of over \$40 million of Chehalis Basin Strategy funds to study, design, and construct local-scale flood damage reduction projects in the Chehalis Basin to protect homes, businesses, and critical infrastructure like roads, sewers, water supplies, and wastewater treatment plants. The Flood Authority has:

- Completed: 24 local flood damage reduction projects (\$16.3 million).
- In progress: 15 more local projects scheduled for completion by July 2019 (\$24 million).

Local governments contributed another \$12 million for these projects. Working with local conservation districts, the Flood Authority has also invested \$740,000 to establish evacuation routes and install raised farm pads at 26 basin locations to safeguard farms, livestock, and farm equipment. Farm pad projects provide an estimated 14:1 return-on-investment.

## Next phase of funding sought for Flood Authority projects

The Flood Authority has requested \$6.9 million through the Chehalis Basin Board to invest in another eight local projects in both the upper and lower parts of the basin through July 2021.

The Flood Authority includes representatives from Grays Harbor, Lewis, and Thurston counties, and ten basin towns and cities.

## Monitor projects using new mapping tool

The OCB recently launched a new interactive web map with details about local-scale flood damage reduction and aquatic species habitat restoration projects from 2012 through 2021. The map is intended to provide a visual means of viewing completed, in-progress, and proposed local-scale flood damage reduction, floodproofing, farm pad, and aquatic species habitat restoration projects, as well as gage locations that inform the Chehalis River Basin Flood Warning System. The map can be accessed online by clicking [here](#).



### Expanding basin fish access



Figure 5: "Before" photo of fish passage barrier on Sand Creek



Figure 6: "After" photo of construction of barrier corrections to improve fish passage on Sand Creek. Project implemented by Chehalis Basin Fisheries Task Force.



Figure 7: Spawning and rearing habitat opened on Taylor Creek

### Restoration projects improve basin fish habitat

The Chehalis Basin does not currently have any federally-listed endangered salmon species, which is rare in Washington. However, fish in the basin are still in trouble. Many wild salmon runs are only a fraction what they were 100 years ago. Local, tribal, and state officials are working to restore basin aquatic habitat for fish and other aquatic species.

Since 2015, the Chehalis Basin Strategy has completed 23 habitat restoration projects and another 31 are underway. A total of 34 fish passage barriers have been corrected, opening more than 90 miles of habitat for multiple steelhead and salmon species, including more than 55 miles that support adult and juvenile spring Chinook salmon. Additional restoration work has been done for the benefit of multiple aquatic species, including 7 acres over 6 miles of restored riparian function and improved water quality in an important Chinook area of the lower basin.

### Pivotal streams opened in Grays Harbor and Lewis counties

This year, with funding from the Chehalis Basin Strategy, the Chehalis Basin Fisheries Task Force oversaw habitat improvements that will open up 15 miles of stream habitat in Bush, Geissler, and Sand creeks in Grays Harbor County. The Grays Harbor Conservation District will also use Chehalis Basin Strategy funding to re-open 4.1 miles of Chehalis River tributary habitat that has long been unavailable due to flowing under a farm crossing near Oakville.

In Lewis County, habitat improvement projects funded by the Chehalis Basin Strategy will open 13 miles of habitat. The Port of Chehalis and Lewis County Conservation District are improving culverts so fish can access 4.7 miles of Berwick Creek while Lewis County is replacing culverts and realigning stream channels to open 3.5 miles of Frase Creek and 4.9 miles of Prairie Creek.

### Refinements continue to improve restoration plan

Local, tribal, and state officials continue to develop and refine the Chehalis Basin Aquatic Species Restoration Plan (ASRP) which aims to:

- Protect and restore over 200 miles of riverside habitat in the basin.
- Support basin habitat functions and ecosystem processes to boost populations of fish and other aquatic species such as frogs, toads, and salamanders.
- Create flood- and climate-resilient systems that support human needs.

During 2018 and 2019, large-scale restoration projects are also being designed in five sub-basins of the Chehalis River Basin. These sub-basins were chosen because of their great potential to increase salmon abundance with restoration actions.

## Continuing progress

The success achieved in the Chehalis Basin has been driven by consensus for action. While success may seem more expensive in the short run, failure to act aggressively now will be more costly in the long run. Maintaining the momentum and bi-partisan support for this carefully integrated, balanced effort is critical for the long-term success of both objectives.



Figure 8: Board members and state legislators on site tour of the Chehalis River Basin

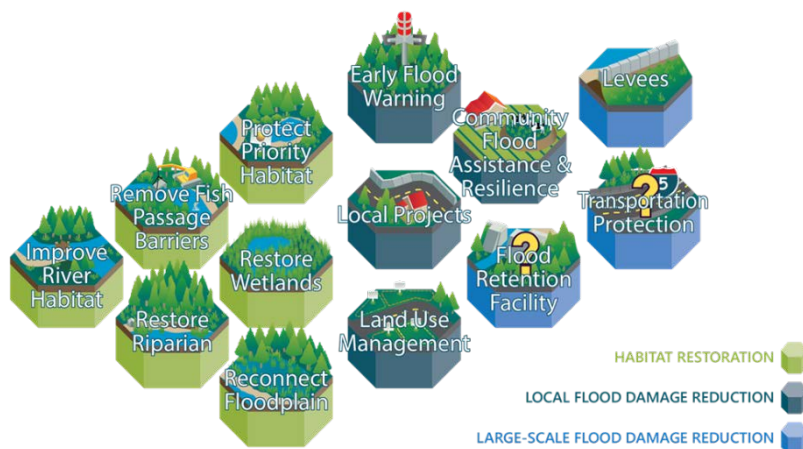
## Board Recommends \$73.2M for 2019-2021 Capital Budget

The Chehalis Basin Board unanimously agreed on a \$73.2 million 2019-2021 Capital Budget recommendation reflecting its priorities for what is needed to continue aggressively pursuing the Chehalis Basin Strategy. It is a recognition of the progress that has been made to date and the readiness of the effort to further advance more elements of the strategy from the study and analysis phase into on-the-ground actions that protect our communities, natural resources, and critical infrastructure. More details on the recommendation are available [here](#).

## Chehalis Basin Strategy

Over the past six years, the Chehalis Basin Strategy – through collaboration and cooperation between agencies, tribes, local governments, the leadership and partnership of the local restoration community, and support from the Governor and legislature – has already resulted in great progress on-the-ground. About 80 different projects have been completed since 2012, or are currently underway, in the Basin under the umbrella of the Chehalis Basin Strategy. The Strategy includes a variety of different actions designed to reduce catastrophic flood damage while restoring aquatic species habitat.

Figure 9: Chehalis Basin Strategy includes range of local and large-scale actions



## Environmental review starts for proposed Chehalis River Basin Flood Damage Reduction Project

The Chehalis River Basin Flood Control Zone District has proposed constructing a new floodwater retention facility and temporary reservoir near the town of Pe Ell, and levee improvements around the Chehalis-Centralia Airport. The proposal, formally called the Chehalis River Basin Flood Damage Reduction Project, is designed to reduce flood-related damages from major floods in the basin.

Ecology and U.S. Army Corps of Engineers (USACE) determined the proposal could have significant adverse environmental impacts and will require formal studies through separate state and federal Environmental Impact Statement (EIS) processes. Ecology is using the State Environmental Policy Act to prepare an EIS while USACE will complete a separate EIS under the National Environmental Policy Act. Each EIS will evaluate likely impacts, project alternatives, and mitigation approaches. Public meetings to help inform the scope of the environmental review were held in October, and drafts of the EISs are expected to be released for public comment in early 2020.

No permit decisions can be made until after the final EIS is issued. For more information about the proposed Chehalis River Basin Flood Damage Reduction Project, including how to stay updated during development of the EISs, visit <http://chehalisbasinstrategy.com/eis/>.