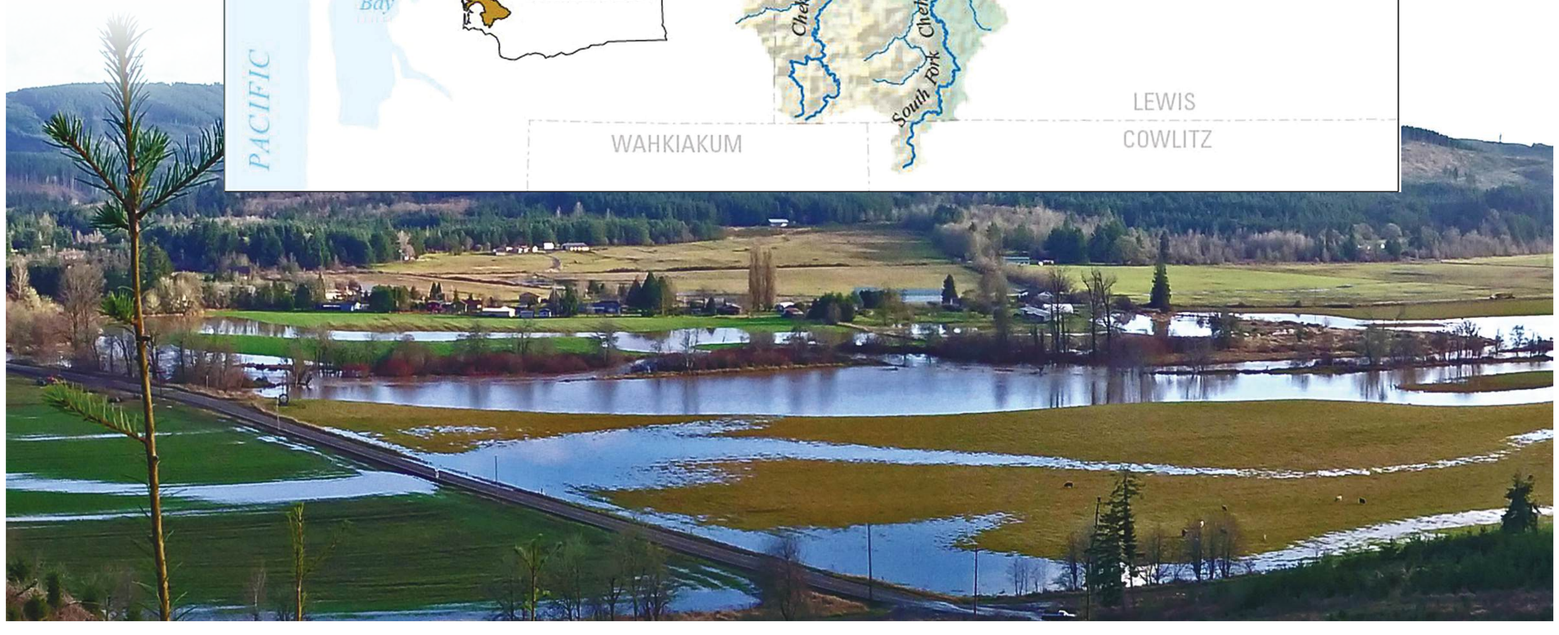
About the Chehalis Basin

Office of Chehalis Basin
Reducing flood damage and restoring aquatic life.

The Chehalis Basin is a 2,700 square mile area of forested hills, fertile farmland and valleys, and coastal estuaries.

Over the last century, the region has faced two major challenges: **bigger and more frequent floods** and a **dramatic decline of steelhead, Chinook, coho salmon**. Scientists predict both trends will continue.



What makes the basin unique?

People:

Approx. 200K residents and growing

Two Tribes: the Confederated Tribes of the Chehalis Reservation and the Quinault Indian Nation

Economy:

Farming, forestry, commercial and sport fishing

Transportation corridors (I-5, rail)

Ecology:

Second largest watershed in WA

Largest array of amphibians

About the Chehalis Basin Strategy

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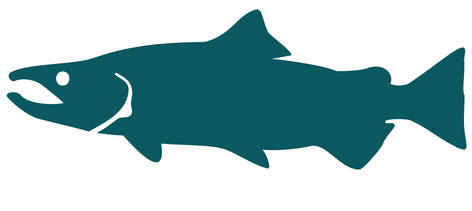
What is it?

The Chehalis Basin Strategy is a comprehensive **action plan** for reducing flood-related damage and restoring aquatic life that:

- Recognizes the **interconnected nature** of challenges
- Integrates **multi-benefit** solutions
- Focuses on **near-term implementation** and **long-term planning**

How do we take action?



Work with landowners to slow harmful erosion and restore habits for salmon and other aquatic life

Help residents and communities protect homes and businesses from flood damage

Prepare the region and its future generations for more frequent major and catastrophic flooding

What has been accomplished so far?

Since 2017, **over 140 projects** have been built, protecting every community across the basin and restoring hundreds of acres of habitat.

What's next?

In 2026, the Chehalis Basin Board will develop its recommended **long-term Chehalis Basin Strategy** to protect people and aquatic life for decades to come – with larger-scale, longer-term solutions.

Who's involved in the Chehalis Basin Strategy?

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The Chehalis Basin Board is a seven-member independent group representing Tribes, local governments, agricultural, economic, and environmental interests, and state agencies that:

- Bring together diverse interests and perspectives
- Lead and shape the Chehalis Basin Strategy
- Identify what projects to fund

The Office of Chehalis Basin (OCB) is housed within the Washington Department of Ecology and is the focal point for implementation of the Chehalis Basin Strategy and:

- Administers of state funds
- Leads a coalition of partners
- Provides resources for residents
- Supports the Board in their process

Basin partners, including local conservation districts, Tribes and local governments, state agencies, and land trusts, also play a critical role in implementing the Chehalis Basin Strategy.

The need for basin-wide aquatic restoration

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Declining salmon runs

The Chehalis Basin has nearly 3,400 miles of streams and rivers that provide critical habitat to some of the most culturally and ecologically important species in the region, including **steelhead, Chinook, coho and chum salmon**. Scientists estimate, however, that:

- Salmon populations are less than 50% of their historic runs
- Aquatic habitat has been reduced by 80% – 87% of its historic area

More than just fish

In addition to salmon, our waters also provide important habitat for other vital aquatic species and wildlife such as **lamprey**, the largest array of amphibians in the state (including the **Oregon spotted frog**), and the **western pond turtle**. The Oregon spotted frog and the western pond turtle are both federally listed as endangered or threatened species.

About the Aquatic Species Restoration Program (ASRP)

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The ASRP is a major initiative funded by OCB in collaboration with local, Tribal, and state partners. The science-informed plan that supports ASRP is designed to **improve and restore aquatic habitat** in the Chehalis Basin, as well as protect communities and landscapes from the predicted increase in flood damage.

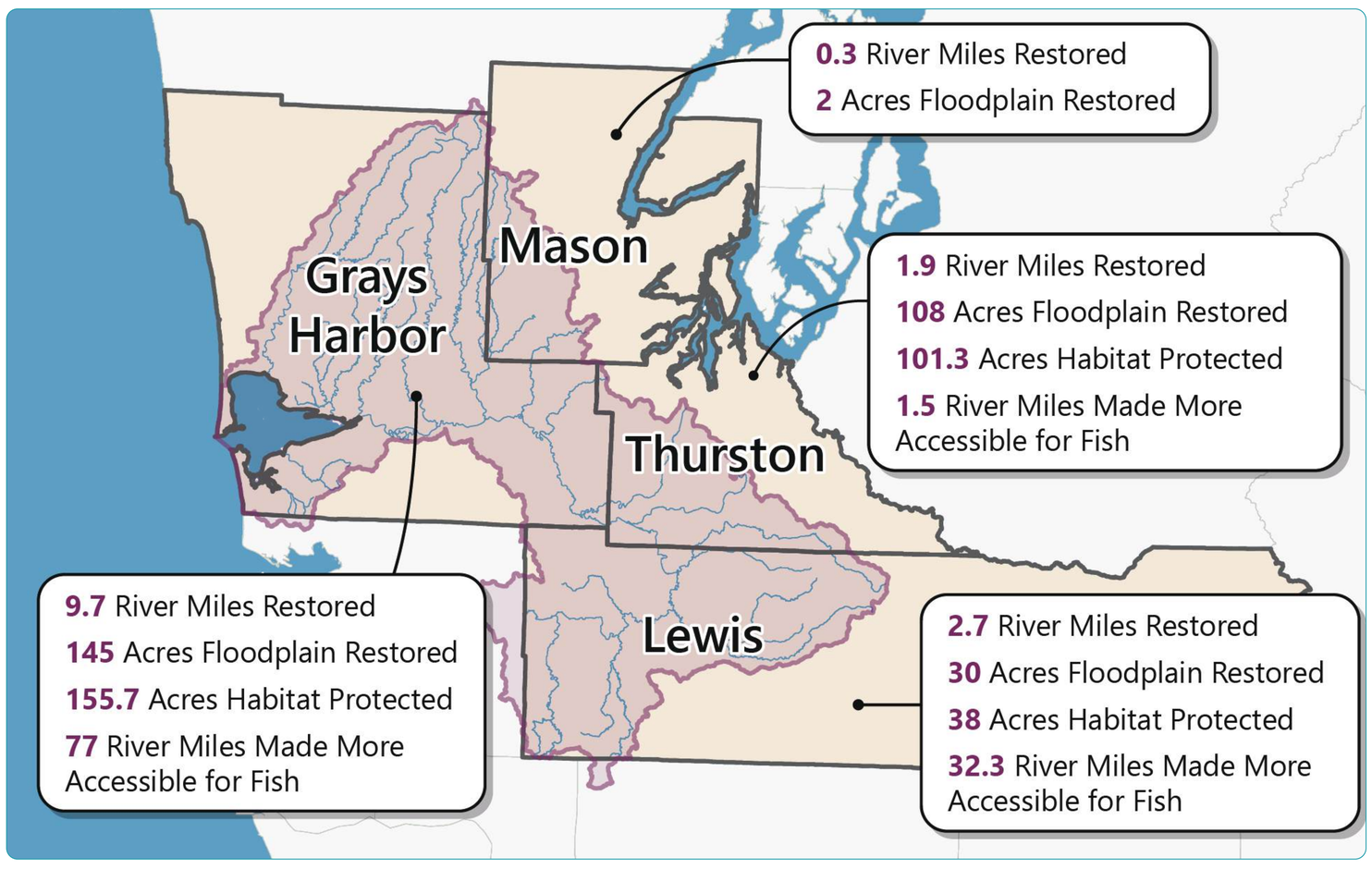
Results in Action

Since 2015, over 80 ASRP projects across the basin have resulted in *more than*:

285
Acres of habitat restored

295
Acres of habitat protected

17
River miles restored



ASRP's goals

Protect and restore **natural habitat forming processes**

Increase the **quality and quantity of habitat** for aquatic species in priority areas

Protect and restore **aquatic species viability**

Increase resiliency to climate change by protecting and improving natural water quantity, timing, and quality

Who's involved in ASRP?

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The ASRP is guided by a **Steering Committee**, which includes voting members from the Washington State Department of Fish and Wildlife (WDFW), Quinault Indian Nation, and the Confederated Tribes of the Chehalis Reservation.

The Steering Committee works with teams of **technical experts** to support monitoring and learning through project implementation.

Key implementation partners include:

- Lewis, Grays Harbor, Thurston, and Mason Conservation Districts
- Local land trusts
- Conservation and salmon recovery organizations
- Local governments
- Willing private landowners

Are you a landowner interested in restoration?

Scan to learn more about how to partner with ASRP.

ASRP project highlight

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Riverbend Ranch Reach-Scale Habitat Restoration

Project goals:

- Manage erosion of farmland at Riverbend Ranch and allow riparian vegetation to establish
- Increase the habitat quality for migrating spring and fall Chinook, coho, chum, and steelhead

Project design: Over 50 large wood structures were installed along 2.5 miles of the Skookumchuck River. The project was designed from the ground up with the landowner to ensure the ranch's needs were met.

Riverbend Ranch below Ford Crossing, before (left) and after construction (right) in 2024 – just one of several large wood structures installed at the site.

Project sponsor: Thurston Conservation District

Funding: $8.9 million made available through the ASRP using Chehalis Basin Strategy funds.

Future funding for ASRP

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As part of the long-term Chehalis Basin Strategy, the Chehalis Basin Board is considering two different scenarios (low and high) to optimize restoration investments in priority locations over the next several decades.

Investment Level	Low	High
Miles of river channel restored	222	555
River miles opened up with barrier removal	200	444
Riparian and floodplain acres restored	8,700	16,700
30-year cost range	$278 million - $964 million	$571 million - $2 billion

The Board's recommended investment level will depend on decisions it makes about other proposed projects and investments.

ASRP priority areas by funding scenario

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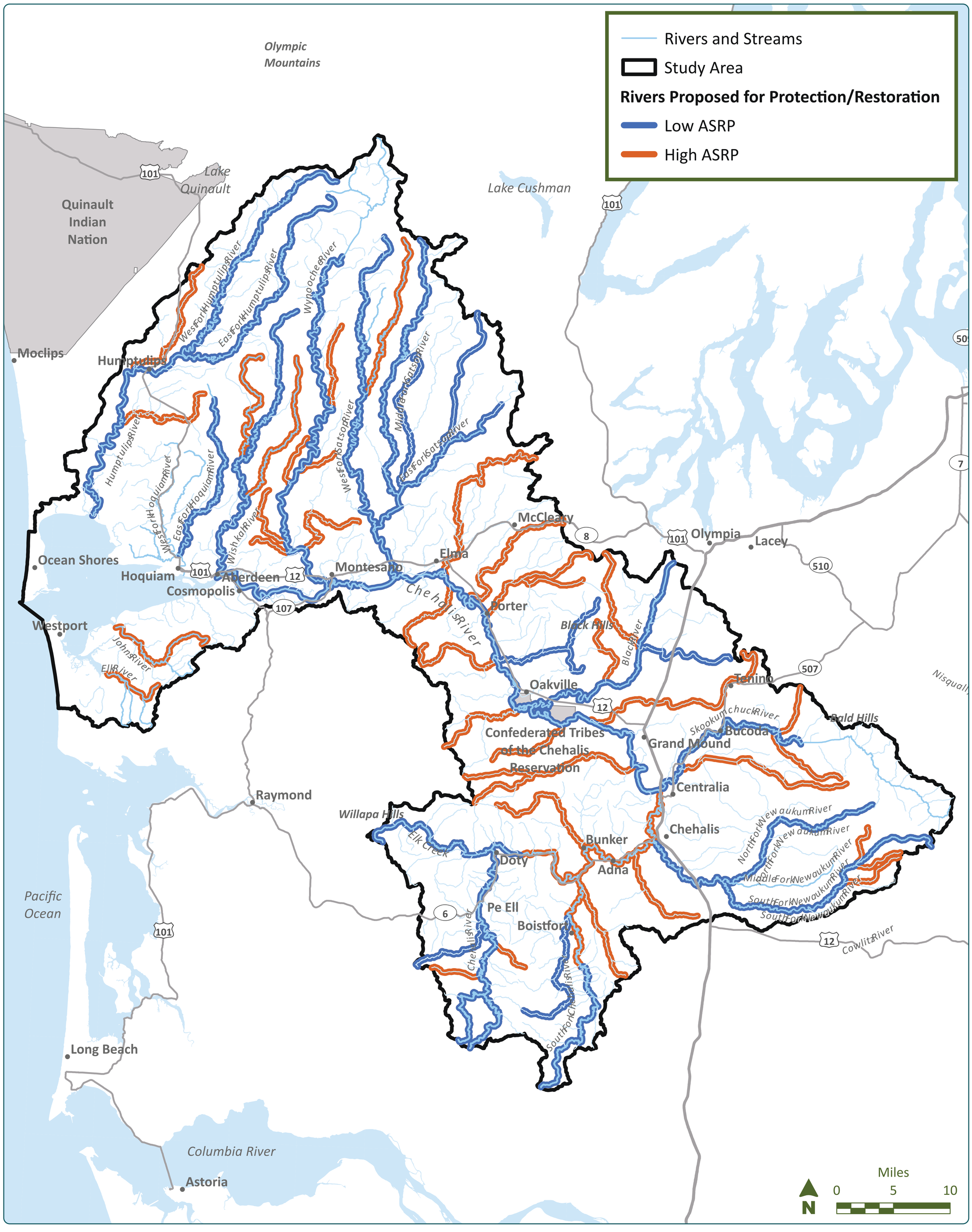

Flooding in the Chehalis Basin

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Flooding is part of life in the Chehalis Basin. The last 40 years have seen six of the largest flood events on record, however, and it is clear that the frequency and extent of flooding has changed.

Impacts of the 2007 and 2009 floods

Just 14 months apart, these catastrophic floods destroyed homes and farms, killed livestock, and inundated businesses and infrastructure—including Interstate-5, which was closed for several days. The 2007 flood alone caused over **$900 million** worth of damages, not to mention the emotional toll on basin residents.

Since then, investments across the basin have helped reduce flood-related damage and prepare the region for future flood risks. This progress has been achieved in large part through two Chehalis Basin Strategy-supported entities:

- **The Chehalis River Basin Flood Authority**
- **The Community Flood Assistance and Resilience (CFAR) Program**

The Chehalis River Basin Flood Authority

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Established after the 2007 flood, the **Chehalis River Basin Flood Authority** was formed to bring together 13 basin jurisdictions that share a mission to reduce flood hazards and minimize adverse impacts to people, property, and the environment.

One of the main roles of the Flood Authority is to administer **locally driven projects** that reduce flood-related impacts throughout the basin. Since 2008, it has invested in over 100 local projects, such as:

- Engineered flood protection technologies (e.g., pump stations)
- Floodproofing to keep waters from damaging homes
- Erosion management projects
- Local planning projects including the City and Port of Chehalis Flood Strategy and Investment Plan (FSIP) project

A key partner in reducing flood damage

The Chehalis Basin Board and Office of Chehalis Basin depend on a strong partnership with the Flood Authority. In fact, three of the seven voting Board members are appointed by the Flood Authority.

The Chehalis River Basin Flood Warning System

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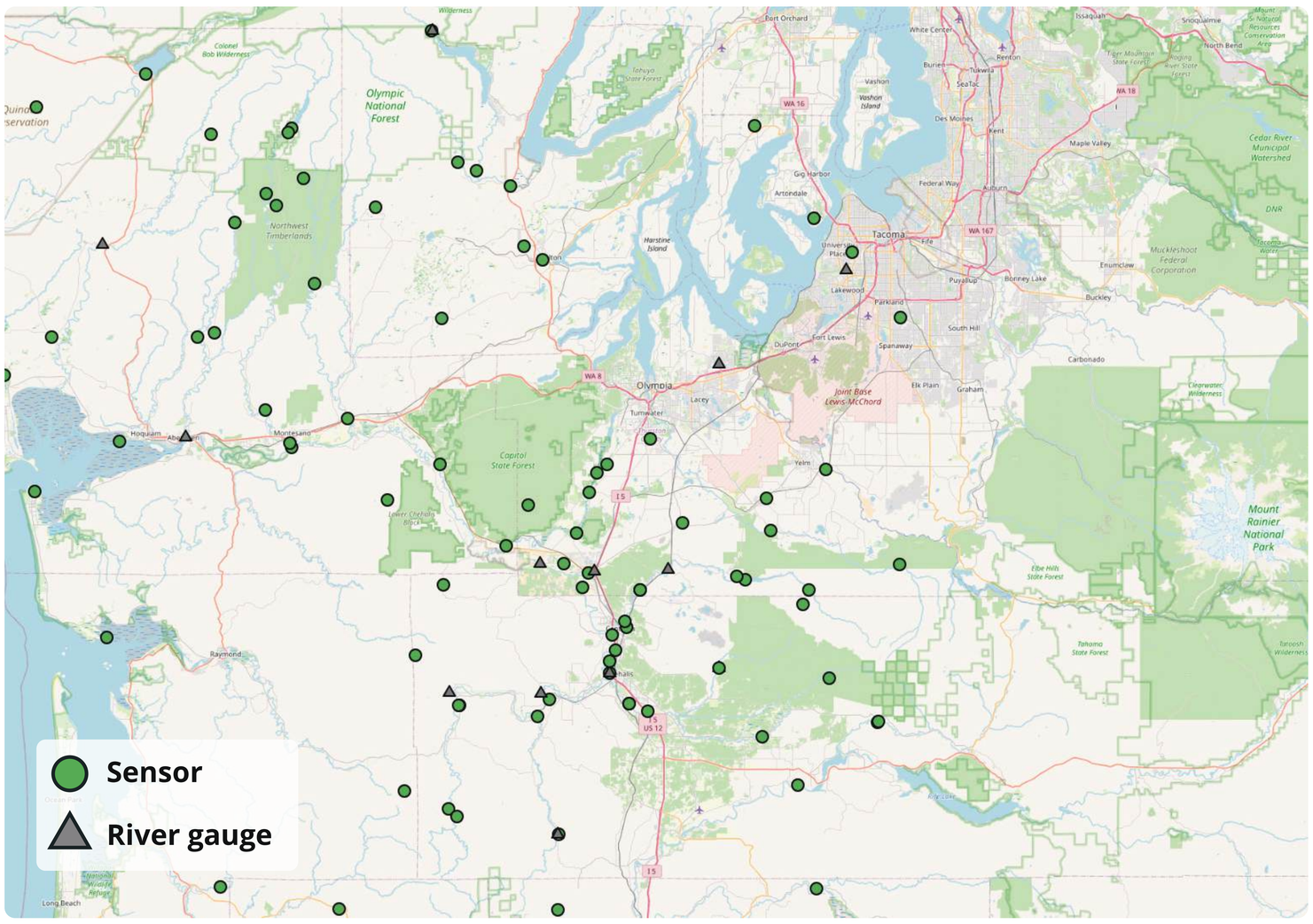
The Chehalis River Basin Flood Authority also administers the **Chehalis River Basin Flood Warning System**, which provides critical safety alerts to basin residents, including real-time information on rising rivers, weather forecasts, and road closures.

About the system:

- Over 300 data sensors
- 14 key river gages
- Funded by Lewis, Thurston, and Grays Harbor counties



A river status map from the Chehalis Basin Flood Warning System website: https://chehalis.onerain.com/map.

Want to sign up for alerts?

Scan the QR code below or go to chehalis.onerain.com.

The Aberdeen-Hoquiam Flood Protection Project

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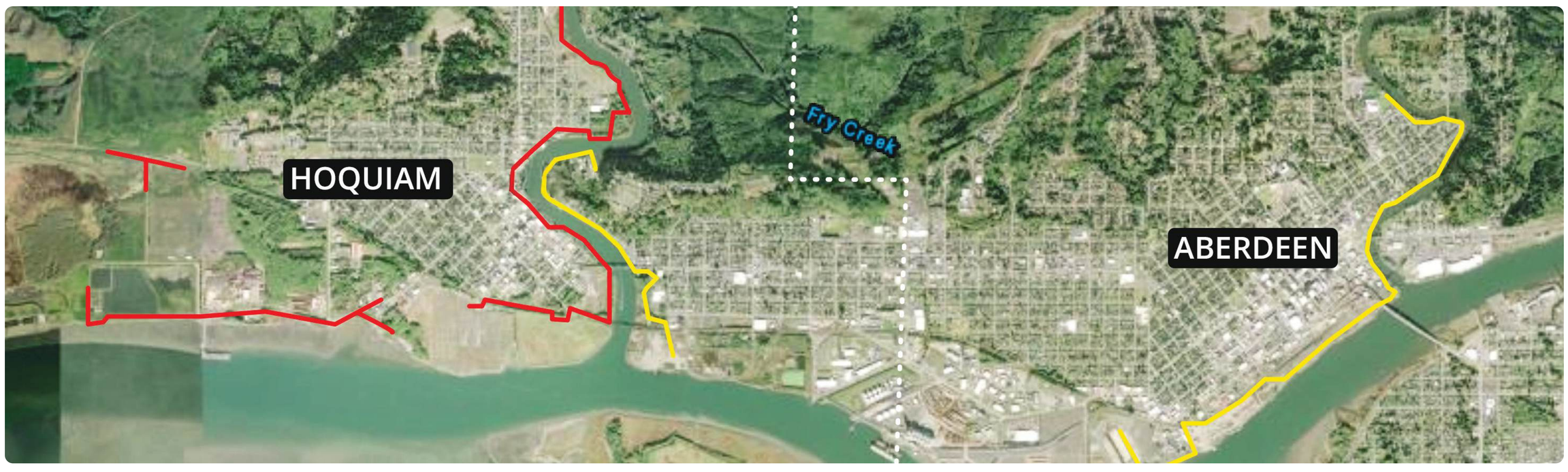
In the lower basin, the cities of Aberdeen and Hoquiam have partnered to protect their communities with two levees: the North Shore Levee and the North Shore Levee - West Segment.

Anticipated benefits: Once completed, these levees will protect over 3,000 properties, encourage economic vitality, and could save homeowners and businesses an estimated $2.2 million annually in required FEMA flood insurance premiums.



The North Shore Levee (yellow) and the North Shore Levee - West Segment (red).

Current status:

- The North Shore Levee – West Segment will be ready to bid for construction by late 2025.
- The North Shore Levee will complete design, permitting and right of way, for construction starting in 2028.

Funding:

- $17 million from the WA State Legislature (2025-27 capital budget)
- $97 million from a federal grant for construction *(status uncertain)*

Community Flood Assistance and Resilience (CFAR) Program

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Administered through OCB, the **Community Flood Assistance and Resilience (CFAR) Program** provides technical and financial assistance for a wide range of small-scale projects and actions to reduce flood-related damage throughout the basin.

Anyone, including homeowners, renters or businesses living or operating in the Chehalis Basin, may be eligible for CFAR's flood damage reduction assistance.

Looking to protect your home or business?

Scan the QR code to submit a request for assistance. CFAR can:

- Recommend ways to reduce flood damage to your property
- Help fund and implement home elevations
- Explain flood insurance policies and rates

CFAR also supports Tribal and local governments through technical assistance related to floodplain management, technical analyses, and identifying funding opportunities for projects.

Example Flood Damage Reduction Projects

Home elevation in progress

Completed home elevation

Engineered flood vent

The proposed Chehalis River flow-through dam for flood control

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The Chehalis River Basin Flood Control District is proposing to construct a flow-through dam and temporary reservoir on the Chehalis River near Pe Ell. The proposed flow-through dam would:

- Allow the Chehalis River to flow freely during normal conditions and rainfall
- Close gates temporarily during major floods to hold back and later release floodwaters
- Allow fish to swim upstream and downstream until the gates are closed, when a trap-and-haul facility would be used to pass fish upstream

Potential benefits

If built, the project would:

Reduce floodwater on **nearly 4,000 acres**

Protect approx. **1,300 homes and businesses**

Reduce closures to I-5 and the airport

Save hundreds of millions of dollars from reduced flood damage and transportation interruptions

Preliminary cost estimate:
$1.3 - $2.3 billion

The proposed flow-through dam project vicinity map

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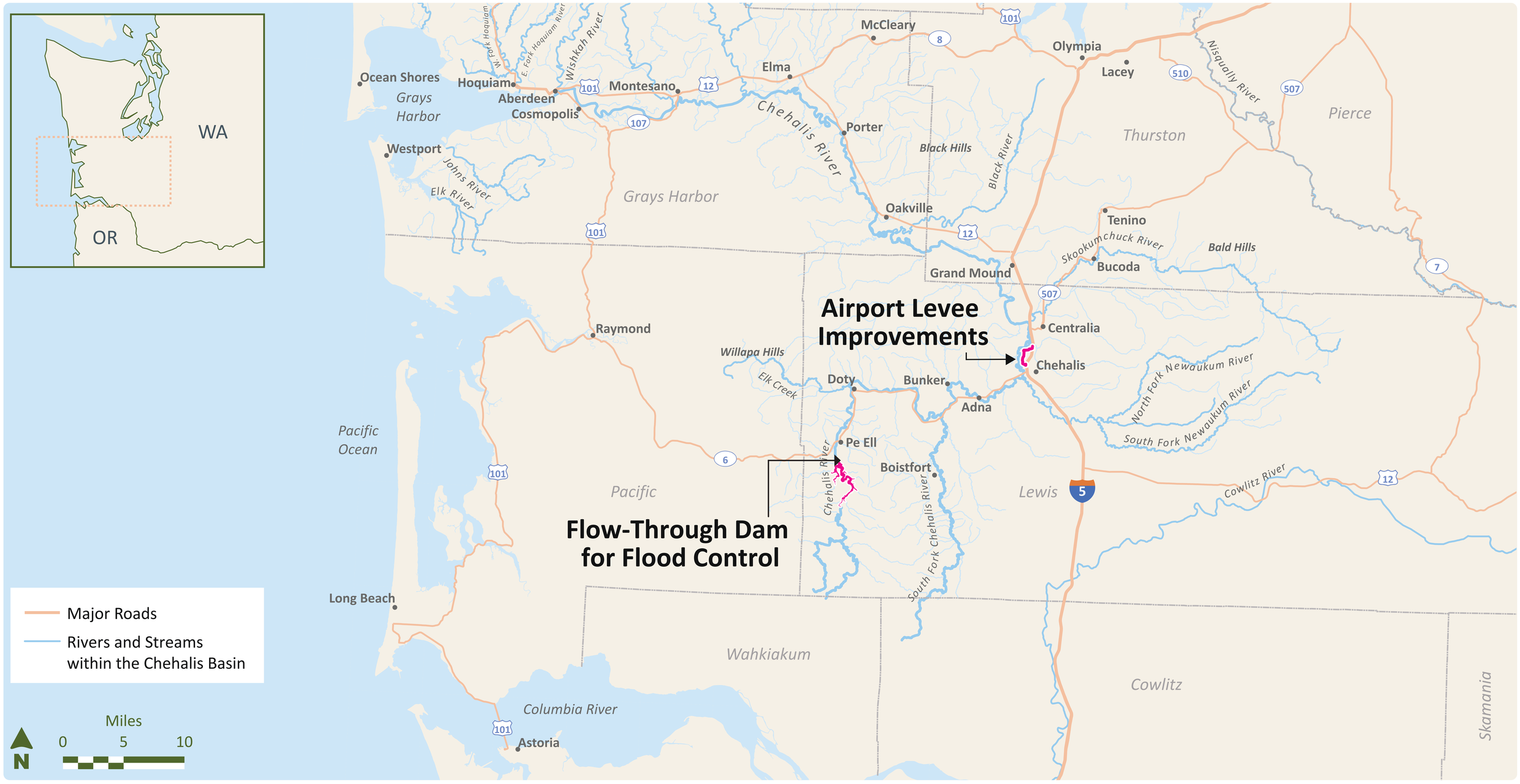

Environmental review and mitigation

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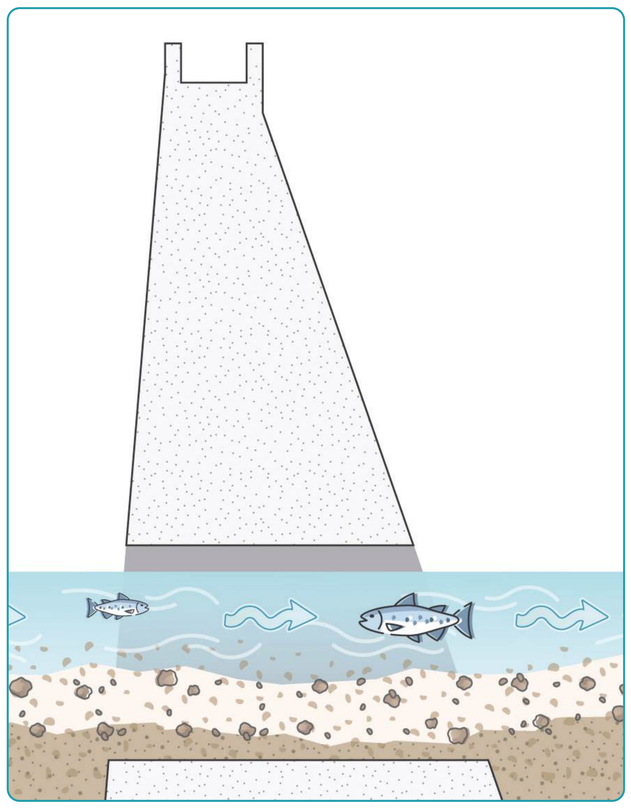
In 2020, state and federal environmental review showed that construction and operation of the proposed project could result in significant potential impacts to salmon, wildlife, the surrounding habitat, Tribal and cultural resources, and recreation.

To address these findings, the Flood Control Zone District:

- **Revised the project design** to update the location, construction, operation, and fish passage features
- **Developed a draft mitigation plan** intended to offset impacts to salmon and improve habitat



What are SEPA and NEPA? The State and National Environmental Policy Acts, or SEPA and NEPA, require state and federal agencies to evaluate proposed government decisions or projects by identifying and analyzing associated environmental impacts. No permit decisions can be made until after the review process is complete.

Current status: The Washington Department of Ecology and the U.S. Army Corps of Engineers are now conducting environmental review of the revised project proposal. Ecology's revised Draft Environmental Impact Statement is expected to be released in late 2025 and will have its own public comment period.

The proposed system of levees and floodwalls

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A proposed system of levees and floodwalls (also known as the **Local Actions Non-Dam Alternative, or LAND)** would build new and expanded levees, floodwalls, and drainage improvements primarily in and around Centralia and Chehalis to reduce flood-related damage in the upper basin.

The Chehalis Basin Board is considering **all, some, or no segments** of the proposed project alongside other flood protection measures, including the proposed flow-through dam.

Potential benefits

If fully built, the project would:

Protect almost **2,000 homes and businesses**

Maintain and enhance **emergency routes** and road bypasses during floods

Create a **new recreational trail system** that improves access to the river and could connect to existing and proposed parks

Lower **flood insurance** premiums for landowners

Provide **room for the river** to follow natural processes

Preliminary cost estimate:
$900 million – $1.6 billion

Preliminary concept design

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The design of the levees and floodwalls system includes groups which can be **implemented fully or partially**, at once or incrementally over time.

While general areas for the proposed flood protection structures have been identified, it is still too **early in design** to know where the exact alignments would be.

Refining the design

If the Chehalis Basin Board recommends some or all of the proposed system, more steps would need to be completed before anything could be built, such as:

- Additional technical studies to advance design and cost estimates
- Community engagement to refine location of flood structures
- Identification of project sponsor and funding sources
- Environmental review and permitting

Preliminary concept alignments

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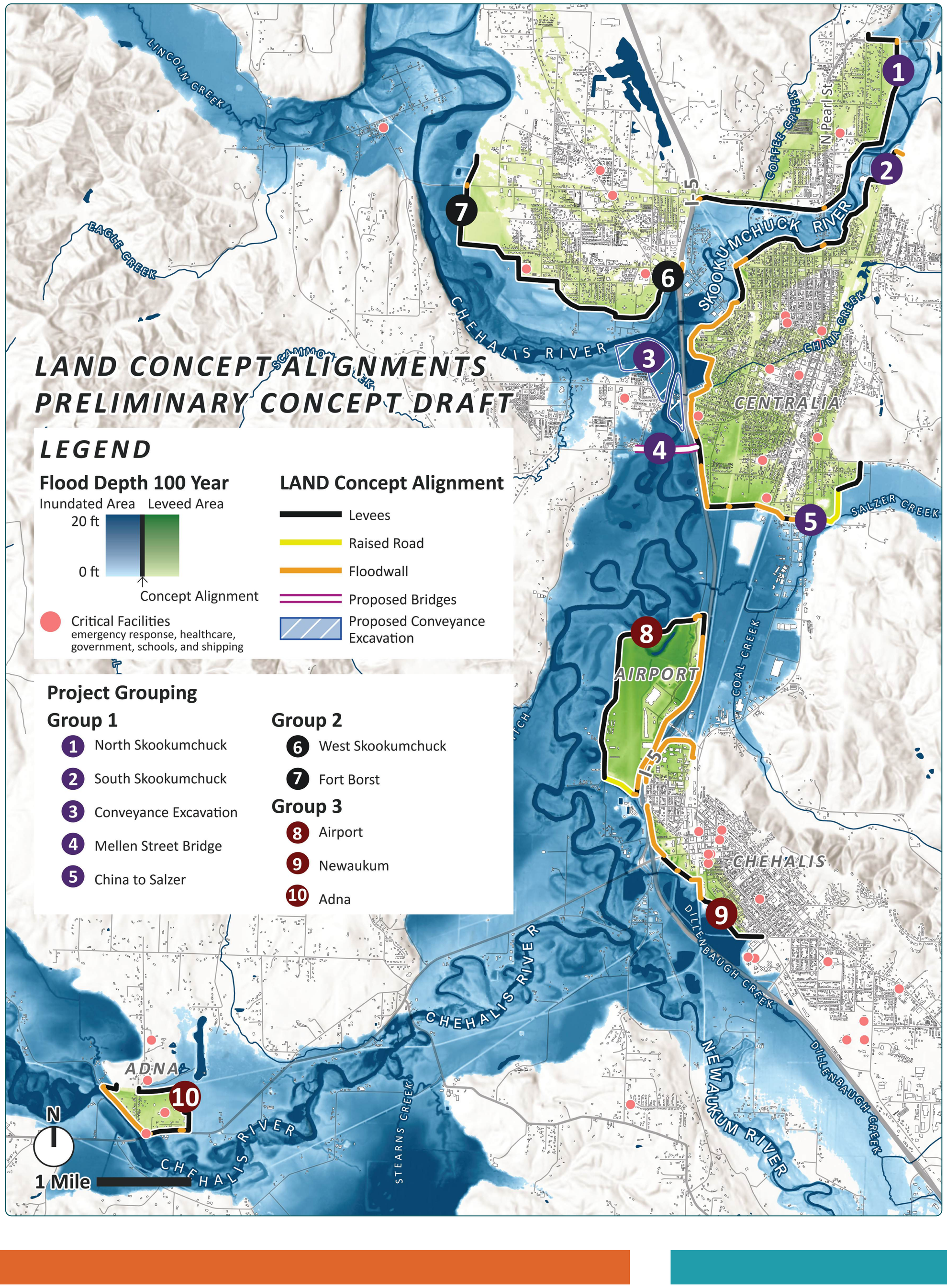

Potential pathways for the Skookumchuck Dam

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The Chehalis Basin Board is considering future pathways for the Skookumchuck Dam, including **modifying** or **removing** it, or taking **no action** at all.

Why the Skookumchuck Dam?

The Board took interest in the dam after learning that TransAlta, the dam's owner, will be closing its Centralia steam generation plant in 2025. The dam, which has stored water for the facility since 1970, could be modified to reduce downstream flood damage and improve fish passage.

Any further action would require an agreement with TransAlta and additional design, environmental review, and permits.

Modifying the dam could:

Significantly reduce flooding in Bucoda and Centralia

Improve survival of steelhead and coho salmon

Impact some nearby water users

Removing the dam could:

Substantially improve survival of steelhead, coho, and spring and fall Chinook

Impact nearby water users

Comparison of pathways for the Skookumchuck Dam

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	Fish Abundance	Flood Effects*	Water Rights**	Cost Estimate
No action	No change	No change	No change	N/A
Dam modification	Steelhead + Coho + Spring Chinook – Fall Chinook –	Substantial reductions in flooding for Bucoda and Centralia	Small change, but increased risk of water rights being curtailed in drought years	$50 million
Dam removal	Steelhead ++ Coho + Spring Chinook + Fall Chinook +	Small increase in flooding for Bucoda and Centralia	Higher risk of water rights being curtailed in drought years	$25-35 million

** Less benefit with increases in flooding predicted by 2080.*

***Off-channel water storage options have been studied to maintain water supply for nearby water users using the existing water bank. If impacted, water users would be compensated.*

Long-Term Strategy Options

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In June 2025, the Chehalis Basin Board developed **six different long-term strategy options** to evaluate further. These long-term options:

- Represent a **broad range** of potential pathways for the future of the basin
- **Combine individual projects and investments** in a way that considers how they interact with each other
- Reflect Board members' interest in gaining the most information on **relative costs and benefits**
- **May change** based on what's learned from the technical evaluation and community input

A baseline "no strategy" option will also be evaluated to provide information on how the basin would be affected if OCB's investments went away completely.

Dam-and-partial-levee-system options

- Option A
- Option B

Levee-centered options

- Option D
- Option E
- Option F

Non-structural flood protection option

- Option C

Long-Term Strategy Options

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Long-term Options	Proposed new investments			Existing programs to be scaled up or maintained						
	Proposed Flow-through Dam & Airport Levee	Proposed Levee System (LAND)	Skookumchuck Dam	Basin-wide Aquatic Restoration (ASRP)	Floodproofing, Elevation & Acquisition	Flood Authority local projects	Flood Warning System	Floodplain Mgt, Land Use, & Transportation Planning	Erosion Management	Multi-Benefit Acquisition
Option A	✓	✓ (Group 1*)	**Modify**	✓++	✓	✓	✓	✓	✓	✓
Option B	✓	✓ (Group 1**)	**Remove**	✓++	✓	✓	✓	✓	✓	✓
Option C				✓	✓++	✓++	✓+	✓	✓	✓
Option D		✓++ (Groups 1-3)	**Remove**	✓	✓+	✓	✓	✓	✓	✓
Option E		✓++ (Groups 1-3)		✓++	✓+	✓	✓	✓	✓	✓
Option F		✓+ (Group 1 + Airport Levee)		✓	✓++	✓++	✓+	✓	✓	✓

KEY:

✓	Included
✓+ or ✓++	Included with a greater level of investment/implementation
☐	Not built or no action
Modify or Remove	Skookumchuck Dam only

Group 1:	North Skookumchuck, South Skookumchuck, Improved Chehalis River Conveyance, Mellen Street Bridge Replacement, China to Salzer Creek, and China Creek Improvements
Group 2:	West Skookumchuck, Fort Borst
Group 3:	Airport, Newaukum, Adna

*North & South Skookumchuck only
**North & South Skookumchuck and China-Salzer only, China Creek improvements

The role of existing programs

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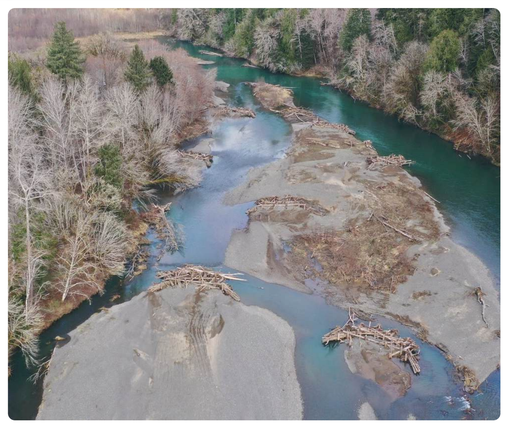
The long-term Chehalis Basin Strategy will also continue supporting:

- The Aquatic Species Restoration Program (ASRP)
- Flood Authority local projects and the Flood Warning System
- The Community Flood Assistance and Resilience (CFAR) Program and other future programs like it that will protect homes and businesses
- Floodplain management, land use planning, and transportation planning assistance to Tribes and local governments
- Bioengineered erosion management solutions with willing landowners
- Voluntary acquisitions for habitat, flood protection, and working lands

These programs will be maintained or scaled up depending on the Board's recommendations about the proposed flow-through dam, the proposed levee system, and the Skookumchuck Dam.



Evaluating the options

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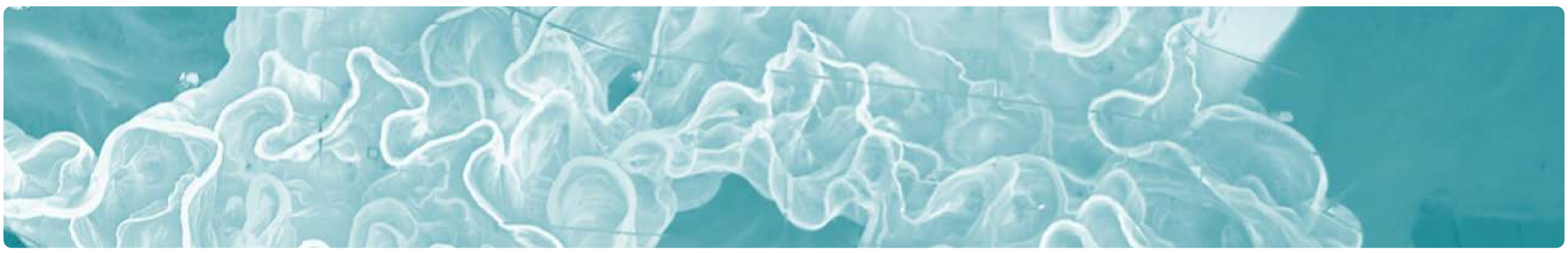
Now through early 2026, a technical team of economists, hydrologists, and fish biologists is evaluating the costs, benefits and tradeoffs of the different long-term options, using several evaluation categories.

Both **qualitative and quantitative data** will be used to assess and compare the potential beneficial and negative effects of the long-term options.



The evaluation will look at factors such as:

Environment:
Salmon and steelhead, aquatic habitats and other aquatic species, and land-based species and habitats

Social/cultural:
Health and safety, community cohesion, culturally important sites and resources, and recreation

Economic:
Built infrastructure damages, transportation infrastructure, economic activity, agriculture and timber lands, and commercial fishing

Additional considerations:
Feasibility, implementation costs, effects on vulnerable populations

Long-term Chehalis Basin Strategy timeline

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2025

Spring

Chehalis Basin Board develops several long-term strategy options

Webinar on the strategy basics

Summer

Fall

The long-term options are evaluated by technical experts

Community events

Informational open houses (in-person & virtual) on the long-term options

2026

Final Board deliberations on the long-term options

Webinar and **virtual open house** on key technical findings

Survey & listening sessions

Input compiled

The Board finalizes its recommended long-term Chehalis Basin Strategy

Briefings with local governments, basin groups, and organizations

Comment form for ongoing feedback

Community input

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Your voice matters

The Chehalis Basin Board is considering input from Tribes, local governments, organizations, and community members as it develops the long-term Chehalis Basin Strategy. Input collected will be compiled for the Board to consider during its final deliberations, alongside the results of technical evaluation.

Stay informed and engaged

In 2026, once the technical evaluation results are available, OCB will provide several ways to learn what the analysis revealed and provide more specific feedback on the long-term options via a survey, listening sessions, and more.

Get the latest updates

Scan the QR code to subscribe to our monthly email newsletter.

What do you want the Chehalis Basin Board to know?

We're currently collecting open-ended feedback about what community members want the Board to know or consider as it weighs the long-term Chehalis Basin Strategy options.

Use a **comment form** to provide your feedback today.