

# THE CHEHALIS BASIN STRATEGY

## Reducing Flood Damage and Enhancing Aquatic Species

For 80 years, little has come from efforts to reduce flood damage in the Chehalis Basin. Now, for the first time, there is a broadly-supported, Basin-wide process that is implementing long-sought local projects and leading to a comprehensive strategy to address flooding, while at the same time enhancing aquatic species across the Chehalis Basin.

The 2013 legislature funded a \$28 million program of capital investments that is building projects with immediate flood damage reduction and/or aquatic habitat benefits. The investment is also being used aggressively to fill data gaps, evaluate the feasibility of flood damage reduction actions, and create the first-ever plan for enhancing aquatic species in the Basin.



“Today, finally, we hold hope and see, for the first time, real efforts to mitigate the flooding that is sure to inundate the Chehalis River Basin again in the not-so-distant future.”

– Lewis County Chronicle Editorial

Photo courtesy of Pete Caster, *The Chronicle*

## The Challenge

Over the last century, major floods have occurred about twice per decade in the Chehalis Basin, causing loss of human life and livestock, and damage to homes, businesses, farms, roads, and railways. The worst floods on record have happened recently—in 1990, 1996, 2007, and 2009. The economic damages of the 2007 storm alone were estimated at over \$900 million, with a third of that damage coming from disruption and damage to the transportation system, Interstate 5, state highways, and rail lines.

At the same time, aquatic species in the Basin are significantly diminished from their historic level. Spring Chinook salmon are estimated to be less than 15% of their historic numbers. Other species, like the Oregon Spotted Frog, could soon be listed under the Endangered Species Act.



### FOR MORE INFORMATION

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<http://ruckelshauscenter.wsu.edu/ChehalisFlooding.html>  
[https://www.ezview.wa.gov/site/alias\\_\\_1492/33948/home.aspx](https://www.ezview.wa.gov/site/alias__1492/33948/home.aspx)

## A Local-State Partnership

There is broad agreement in the Basin that more can and should be done to reduce damages from large floods. The three most recent floods, coming so quickly on the heels of one another, prompted governments and residents of the Basin to re-commit to the task of flood damage reduction. In recognition that the time for action has come, and that durable solutions could only come from Basin residents themselves, the Governor requested, and five key leaders in the Basin agreed to serve on, a Governor's Chehalis Basin Work Group.

The Governor's Work Group, with the support of the Chehalis River Basin Flood Authority and the Chehalis Tribe, is now advising the Washington State Office of Financial Management (OFM) on implementation of the \$28 million investment program, and will make recommendations for next steps in the Chehalis Basin in November 2014. The William D. Ruckelshaus Center (a joint effort of the University of Washington and Washington State University that fosters collaborative public policy) is under contract to provide facilitation and project management support; Jim Kramer, a private consultant, is the project manager for the Center and facilitator of the Work Group.

# Basin-Wide Approach

The core of the strategy is a commitment to a Basin-wide approach that addresses both flood damage reduction and aquatic species enhancement.

A Basin-wide approach will maximize benefits and avoid or minimize adverse human and environmental impacts. It will ensure public safety, protect key community infrastructure, and maintain public services during emergencies. In a Basin-wide approach, investment in flood damage reduction will go hand-in-hand with improvements to the environmental health and resiliency of the Basin. It will ensure that harvestable fisheries resources and the aquatic habitat quality and productivity of the Basin are increased. A Basin-wide approach can't solve one community's flooding problems by making another community's problems worse.

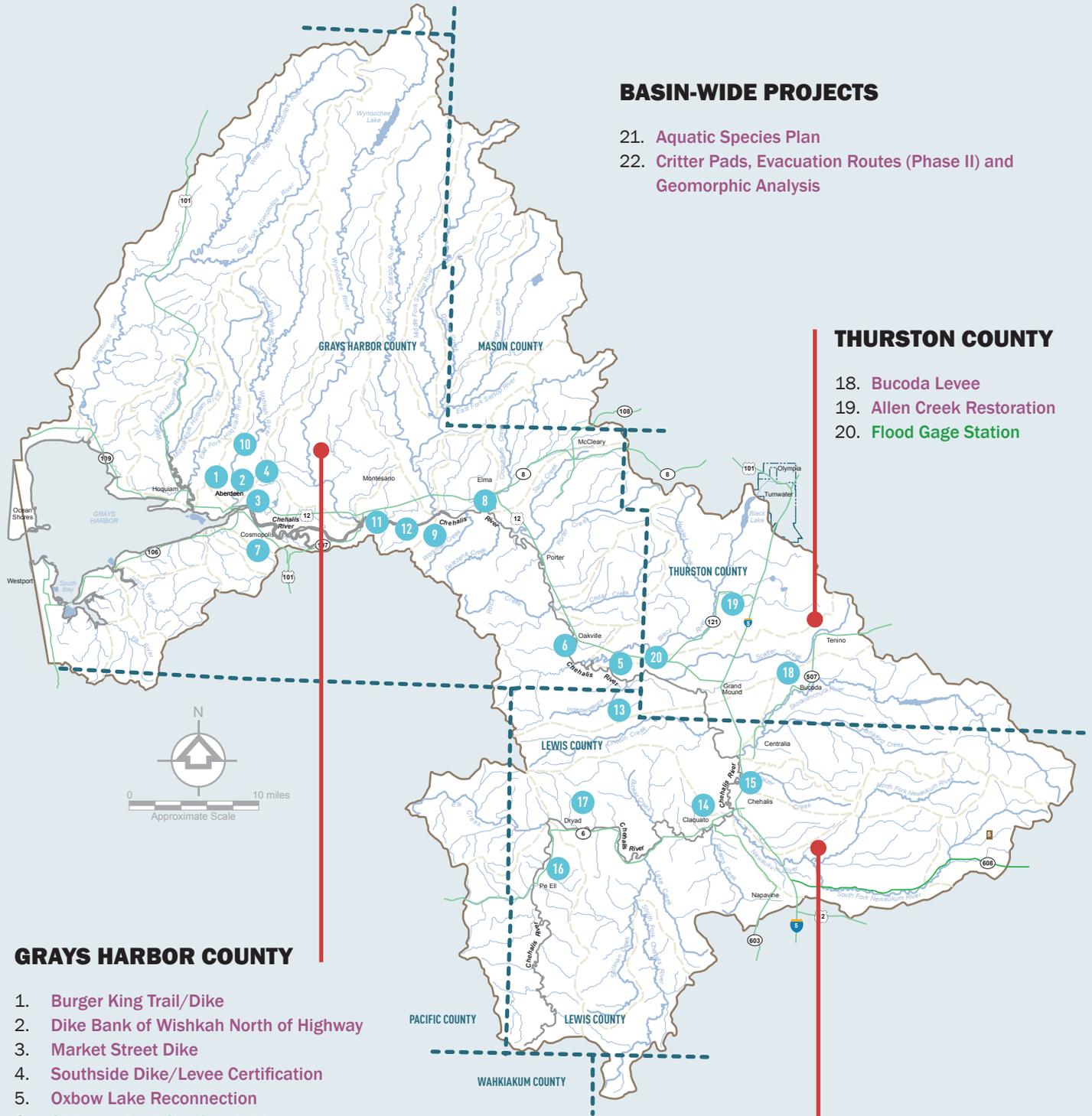
By November 2014, the following investments will be made in the Chehalis Basin.

- **Project construction:** a number of smaller flood-damage reduction and environmental enhancement projects will be constructed to protect key infrastructure and priority areas throughout the Basin.
- **Water retention:** by November 2014, information will be developed on dam safety, fish passage, benefit/cost, and other issues to determine whether water retention appears feasible to be part of the strategy for the future in the Chehalis Basin.
- **Salmon and other species enhancement:** an aquatic species enhancement plan focused on the Upper Chehalis will be completed, the first-ever such plan for this, the second largest watershed by area in Washington.
- **Flood risk management and floodplain structures:** there will be detailed information of what structures are at risk in the Chehalis floodplain to improve the consistency and effectiveness of floodplain management across the Basin.
- **Hydrology and hydraulic modeling:** the existing Chehalis Basin hydraulic model will be updated to provide more accurate predictive information on potential future flood damages and potential benefits of various flood-damage reduction projects.
- **Environmental assessment:** for the first time, there will be up-to-date information on aquatic and terrestrial species, water quality, and sediment transport to support future decision making.
- **Interstate 5 alternatives:** alternatives to protect the Interstate from flooding will be evaluated using both “with” and “without” a dam scenarios.
- **Updated flood damage reduction alternatives analysis:** with the new information, alternatives and cost benefit analyses will be updated, and a preliminary assessment of funding sources and strategies will be considered.

## The Work Group Members

- **David Burnett**, Chairman of the Chehalis Tribe
- **Vickie Raines**, Mayor of Cosmopolis and Chair of the Flood Authority
- **Karen Valenzuela**, Thurston County Commissioner and Vice Chair of the Flood Authority
- **J. Vander Stoep**, private attorney and Pe Ell Alternate to the Flood Authority
- **Jay Gordon**, dairy farmer and President of the Washington State Dairy Federation
- **Rob Duff**, Governor's Natural Resources and Environment Advisor
- **Keith Phillips**, Governor's Energy and Environment Advisor

# CURRENT PROJECTS UNDERWAY IN THE CHEHALIS BASIN



## BASIN-WIDE PROJECTS

- 21. Aquatic Species Plan
- 22. Critter Pads, Evacuation Routes (Phase II) and Geomorphic Analysis

## THURSTON COUNTY

- 18. Bucoda Levee
- 19. Allen Creek Restoration
- 20. Flood Gage Station

## GRAYS HARBOR COUNTY

- 1. Burger King Trail/Dike
- 2. Dike Bank of Wishkah North of Highway
- 3. Market Street Dike
- 4. Southside Dike/Levee Certification
- 5. Oxbow Lake Reconnection
- 6. Sickman-Ford Overflow Bridge
- 7. Mill Creek Dam Improvement
- 8. Elma-Porter Flood Mitigation
- 9. Satsop River Floodplain Restoration (Phase I)
- 10. Wishkah Road Flood Levee
- 11. Revetment for Montesano Road, Sewage Treatment
- 12. Satsop River Floodplain Restoration (Phase II)

## LEWIS COUNTY

- 13. Oxbow Reconnection at RM 78
- 14. Adna Levee
- 15. Airport Levee (Phase I)
- 16. Wastewater Treatment Plant Flood Prevention
- 17. Critter Pads, Evacuation Routes (Phase I)

STATUS: **Finished** / **Underway**