



Chehalis River Basin

*Reducing Flood Damage and
Restoring Aquatic Species*

10:30 a.m.

April 3, 2017

City of Chehalis



Today's Presentation . . .

- Provide update, encourage discussion.

- Key messages . . .

1. **Broad agreement** -- For first time in a century there is progress across the Basin on next steps to reduce flood damage and enhance salmon, aquatic species.

2. **Basin-wide strategy** -- An action-oriented, multi-phased Basin-wide strategy is needed to protect communities along the river and to enhance aquatic species.

3. **Collaboration is key** -- WA Legislature, Governor's Office, Governor's Chehalis Basin Work Group, Chehalis River Basin Flood Authority, and WA Agencies all working together = Action!

4. **Fundamental principle** -- Solving one's problems doesn't increase another's.



Action . . .



↑
Photo Source: THE CHRONICLE →

April 2017

“Chehalis River Basin Flood Authority”

- **Formed in 2008**

- **Formal body focused on:** (1) flood hazard mitigation throughout the Basin; and (2) decision-making that is . . .

- informed by science.
- protective of Basin residents/communities.
- environmentally appropriate.

- **Basin jurisdictions represented**

- ▶ Grays Harbor County

- City of Aberdeen
- City of Cosmopolis
- City of Hoquiam
- City of Montesano
- City of Oakville

- ▶ Lewis County

- City of Centralia
- City of Chehalis
- City of Napavine
- Town of Pe Ell

April 2017

- ▶ Thurston County

- Town of Bucoda



"Governor's Chehalis Basin Work Group"

- **Appointed by Gov. Gregoire (2012); Re-confirmed by Gov. Inslee (2013).**
- **Role = Develop/oversee Basin-wide strategy, funding authorizations (2017-19).**
 - Flood Retention Dam in paired with Airport Levee Improvements.
 - Basin-wide Aquatic Species Restoration.
 - High-priority, small-scale Local Flood Damage Reduction Projects.
 - Local Land Use Management and Local Floodproofing.
- **Members are:**
 - Vickie Raines (Grays Harbor Commissioner, Chair Flood Authority).
 - Karen Valenzuela (Former Thurston County Commissioner, Former Vice-Chair Flood Authority)
 - Don Secena (Chair Chehalis Tribe).
 - Larry Goodell Jr. (Quinault Indian Nation).
 - J. Vander Stoep (Private Attorney, Pe Ell Alternate Flood Authority).
 - Steve Malloch (Western Water Futures)
 - Jay Gordon (President Washington Dairy Federation and Chehalis Farmer).
 - Rob Duff (Governor's Natural Resources and Environment Advisor).

Background . . .

- 2007 Storm -- \$938M Basin-wide damage, \$300M lost economic activity (WA).



Exit 77 (I-5) in Chehalis
STEVE RINGMAN / SEATTLE TIMES



City of Centralia
STEVE RINGMAN / SEATTLE TIMES



← Photos Source: LEWIS COUNTY,
DIVISION OF EMERGENCY
MANAGEMENT



**State Route 6,
West of Adna**
MIKE
SALSBURY /
AP



Background . . .

- 2007 Flood -- I-5 and Hwy 507 Interchange looking South.

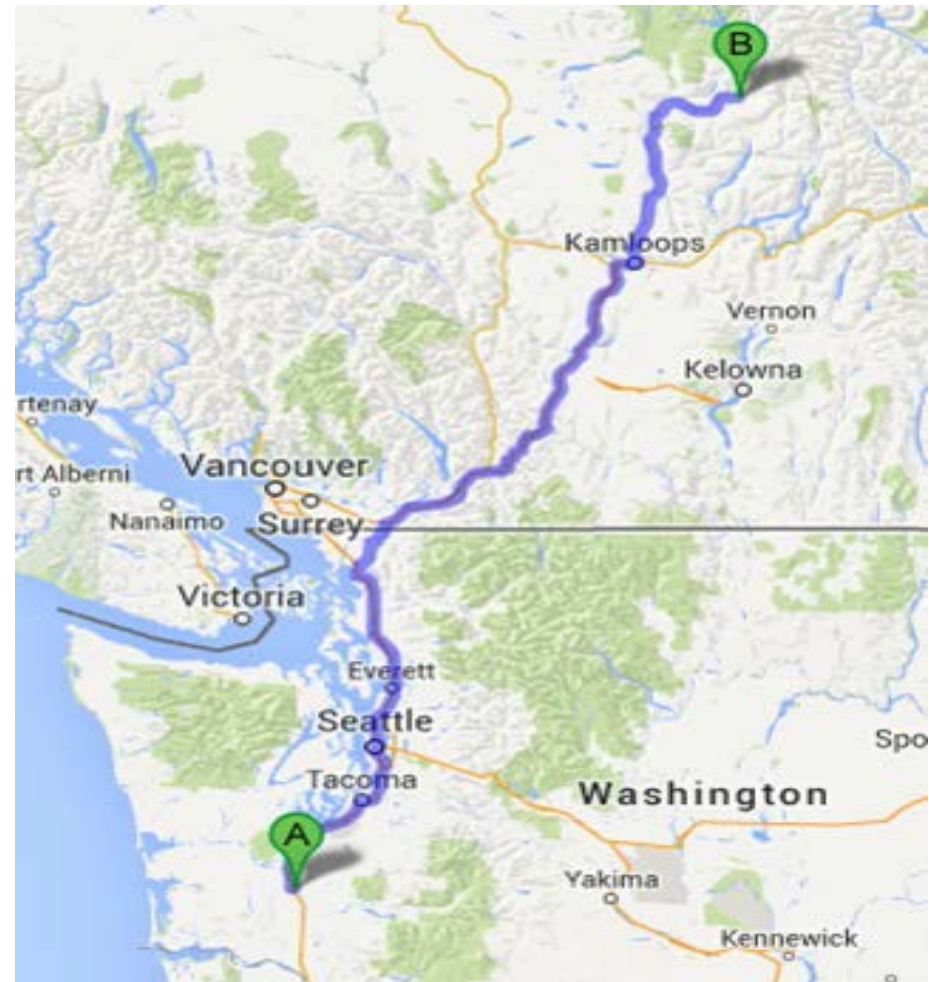


City of Centralia and I-5
STEVE RINGMAN /
SEATTLE TIMES

April 2017

Background . . .

- 289,983 acre feet of measured water (12/03-08/2007).
- Equivalent to covering roadway between Chehalis and North of Kamloops with 1 foot of water 1-mile wide or covering . . .
 - 80% of Kitsap County.
 - 69% of Clark County.
 - 59% of Thurston County.

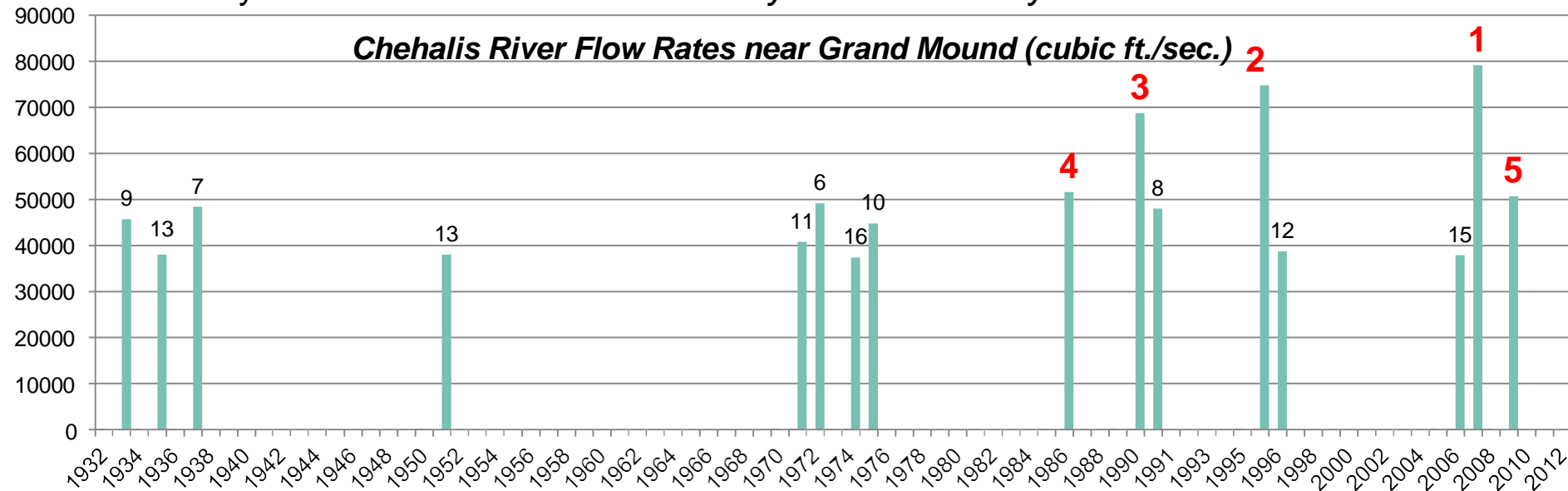


Background . . .

■ Ranked high flow events (1932 - 2012) . . .

- I-5 closed 1990, 1996, 2007, 2009.
- Five largest events since 1986 -- *Frequent floods are getting worse and damage is increasing . . .*
- 100 year flood estimate -- *Increased by 33% in last 30 years.*

Chehalis River Flow Rates near Grand Mound (cubic ft./sec.)



Background . . .

- Chehalis is the second largest river basin in the state, rich in natural resources . . .
- Salmon populations are 15-25% of historic levels.
- TMDL for the basin (<http://www.ecy.wa.gov/programs/wq/tmdl/ChehalisRvrTMDLSummary.html>).



Upper Chehalis (5/31/2010)
 JAMES E. WILCOX / WILD GAME FISH
 CONSERVATION INTERNATIONAL

CHEHALIS BASIN SALMON & TROUT

OCEAN PHASE		SPAWNING PHASE
Chinook Coho Steelhead Bull trout Cutthroat	<p>The salmonid lifecycle involves adults maturing in the ocean, migrating back to their home streams and spawning, embryos incubating, fry emerging, juveniles growing, and smolts migrating to the estuary to acclimate to saltwater and moving out into the ocean</p> <p>WHAT SALMON NEED IN FRESHWATER HABITAT</p> <p>Cool, clean water</p> <p>Appropriate water depth, quantity and flow velocities</p> <p>Upland and riparian (stream bank) vegetation to stabilize soil & provide shade</p> <p>Clean gravel for spawning and egg-rearing</p> <p>Large woody debris to provide resting and hiding places</p> <p>Adequate food</p> <p>Varied channel forms</p>	Chinook Coho Steelhead Bull trout Cutthroat

www.chehalisbasinpartnership.org

Background . . .

Salmon-habitat potential

Species	Current Spawner	Habitat Degradation
Spring Chinook Salmon	2,300	78%
Fall Chinook Salmon	24,317	45%
Coho Salmon	42,000	69%
Winter-run Steelhead	8,700	44%

Source: Chehalis Basin Strategy: Reducing Flood Damage and Restoring Aquatic Species; Pe Ell Public Meeting; 10/14/2014; Page 13.

Solution = Basin-wide Approach

Action-oriented, Multi-phased Approach

1. Basin-Wide Relationships
2. Hydraulic Understanding
3. Master Strategy (Game Plan)
4. Large Capitol Projects
5. Small-Scale Local Projects
6. Land Use, Floodplain Management
7. Restore Salmon and Aquatic Species
8. Early Flood Warning
9. Outreach, Education and Communication

Chehalis Basin Strategy: Reducing Flood Damage and Restoring Aquatic Species

For the first time—after over a century of catastrophic floods and hundreds of studies—Inland agreement is building on a comprehensive strategy to reduce flood damage, restore salmon populations, and support the prosperity of communities in the Chehalis Basin.



The problems in the Chehalis Basin are real and action is being taken now to protect communities and restore aquatic species.

Frequent Floods Are Getting Worse and Damage is Increasing. The five largest floods in the Chehalis Basin's history were caused by big, wet and cold storms, causing unprecedented damage to homes, property, businesses, public facilities, roads, and bridges. Each of the worst floods struck in the days of a large charge outside from the thousands of warnings of possible significant increases in sea level rise over the next century, and coastal communities face larger estimates that the cost of future floods will exceed \$10 billion in the next 50 years if steps are taken.



Salmon Populations Are Seriously Degraded and Continue to Decline. The natural resources of the Chehalis Basin have experienced historic declines for centuries and continue to struggle to do both in the wild and in hatcheries around the basin. The Chehalis Basin supports the smallest of salmon runs in the world, including the most diverse collection of species in the Pacific Northwest. At the same time, the river is seriously degraded, with habitat conditions at 15% of their historic levels. It is very possible that the current trajectory, coupled with the potential impacts of climate change, would lead to the extinction of local runs and a catastrophic loss of cultural values for tribal, community, and recreational fisheries. Industry corporations and other users of the basin have also experienced a loss of cultural values for tribal, community, and recreational fisheries. Industry corporations and other users of the basin have also experienced a loss of cultural values for tribal, community, and recreational fisheries.

Changing the History of Inaction. For a long time, there has been a failure to meaningfully address the real problems of catastrophic flooding and significant degraded and degraded resources in the Chehalis Basin. One of the most important actions to address flood damage have been recognized, with no real change in action. The Chehalis Basin Basin Flood Action Plan is a catalyst for a number of such actions to reduce flood damage and restore the basin.

7/2/2015

Implementing a Comprehensive, Integrated Approach for Fish and Floods. An extensive evaluation of the potential of a comprehensive, integrated approach for fish and floods. A November 2014 report by the Governor's Chehalis Basin Work Group. It is supported by the Governor, state agencies, and the Chehalis Basin Basin Flood Action Plan. It is a key document for the basin and provides a clear path forward for flood damage reduction and aquatic species restoration. These recommendations include:

- A concrete flood retention dam on the upper Chehalis River, paired with investments to the Chehalis Central Mainstem Restoration.
- Restoration of over 200 miles of Spring Chinook spawning and rearing habitat, removal of priority fish passage barriers, restoration of 100 miles of riparian habitat, and a comprehensive strategy to address riparian restoration.
- Investments in high-priority, low-cost flood damage reduction projects, with a specific emphasis on low-cost solutions.
- Local government land use management actions to protect existing floodplain functions, to provide for homes and floodproofing businesses and public structures to provide additional protection for residents and structures that are already located in floodways.

Over the next two years, the Washington State Department of Ecology—in consultation with the Work Group, Governor's office, and other agencies and stakeholders—will set an agenda and set the terms and cost of the recommended packages of flood damage reduction and aquatic species restoration actions through implementation of the Chehalis Basin Basin Flood Action Plan (BAP). The BAP will be implemented through the Washington State Department of Ecology and the Washington State Department of Ecology. The implementation of the BAP will be a key component of the basin's flood damage reduction and aquatic species restoration actions and will be a key component of the basin's flood damage reduction and aquatic species restoration actions.

There is a second opportunity for public input on this programmatic plan:

- October 2015: public meeting and formal public comment period on the draft BAP document.
- August 2016: public meeting and formal public comment period on the draft BAP document.
- November 2016: public meeting and formal public comment period on the draft BAP document.

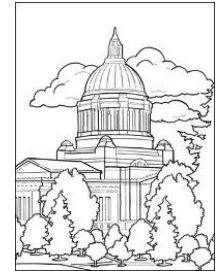
The development of a programmatic plan is a process that involves agencies, stakeholders, and other interested parties with a broad and diverse portfolio in which to evaluate the interests to meet flood damage reduction and aquatic species restoration goals. The BAP will be a key component of the basin's flood damage reduction and aquatic species restoration actions and will be a key component of the basin's flood damage reduction and aquatic species restoration actions.



We are happy to answer questions or provide further information about the work in the Chehalis Basin. We can be reached through Facebook or Twitter at (206) 844-2245 or @washingtonstateecology.

7/2/2015

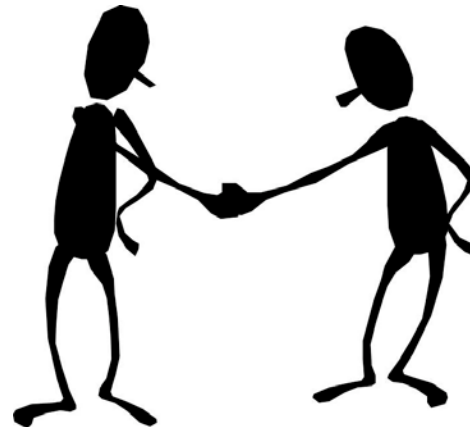
1. Basin-Wide Relationships



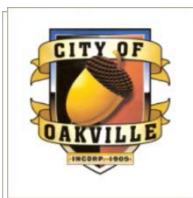
TOWN of BUCODA



WASHINGTON STATE
CONSERVATION
COMMISSION



WASHINGTON STATE DEPARTMENT OF
Natural Resources



Office of Financial Management

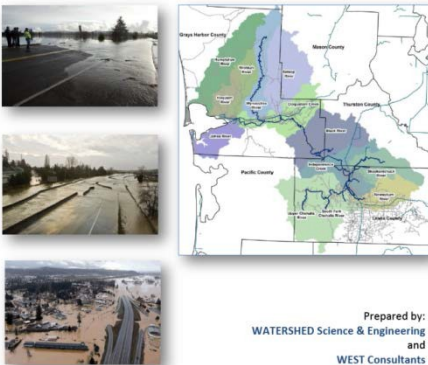
Better information. Better decisions. Better government.

April 2017

2. Hydraulic Understanding

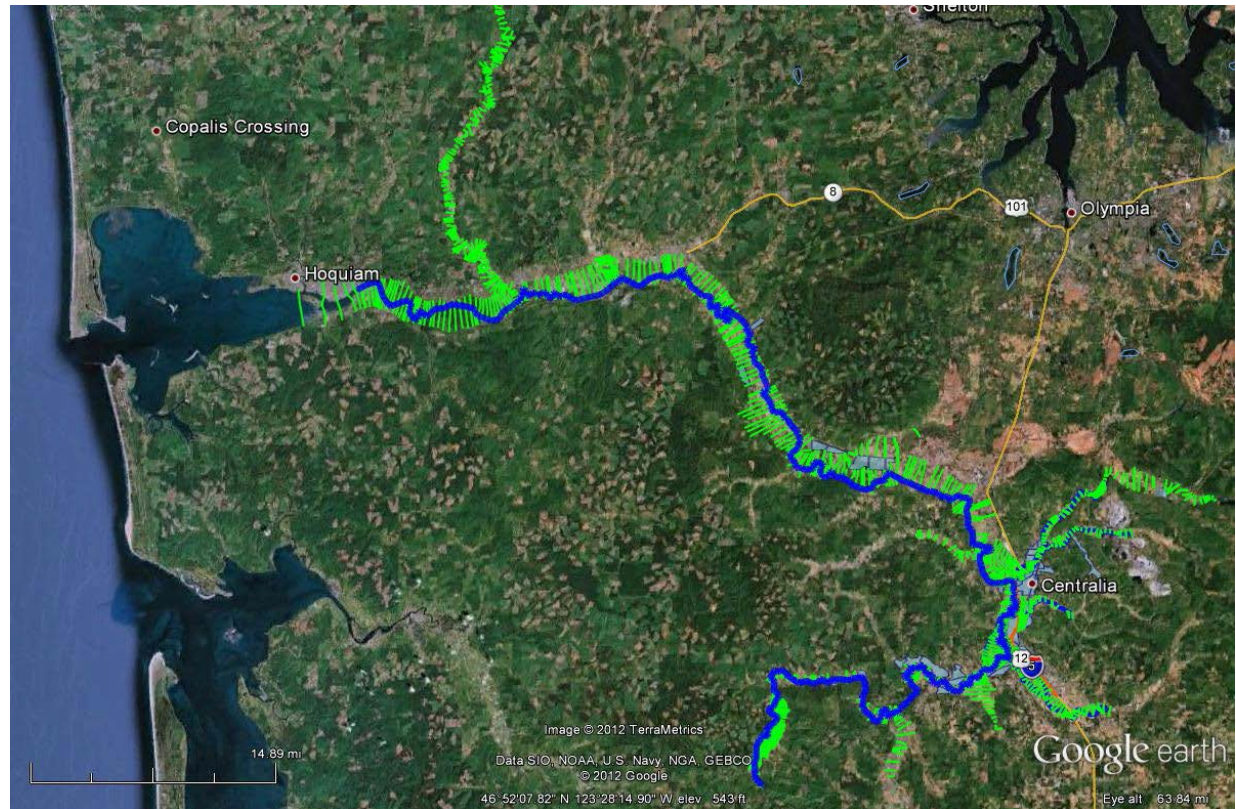
- **Science-based model** -- To inform decision-makers on hydraulic effects of potential flood relief options (at basin-wide and localized scales).
- **108 miles** -- Mouth of Chehalis River upstream to Pe Ell (108 miles).

Draft Report - Chehalis River
Hydraulic Model Development Project



Prepared by:
WATERSHED Science & Engineering
and
WEST Consultants
Prepared for:
Chehalis River Basin Flood Authority

July 23, 2012



2. Hydraulic Understanding

- **Example: Basin-wide effects analysis**
(Governor's Chehalis Basin Workgroup, 2014 Recommendations Report, 11/25/2014)

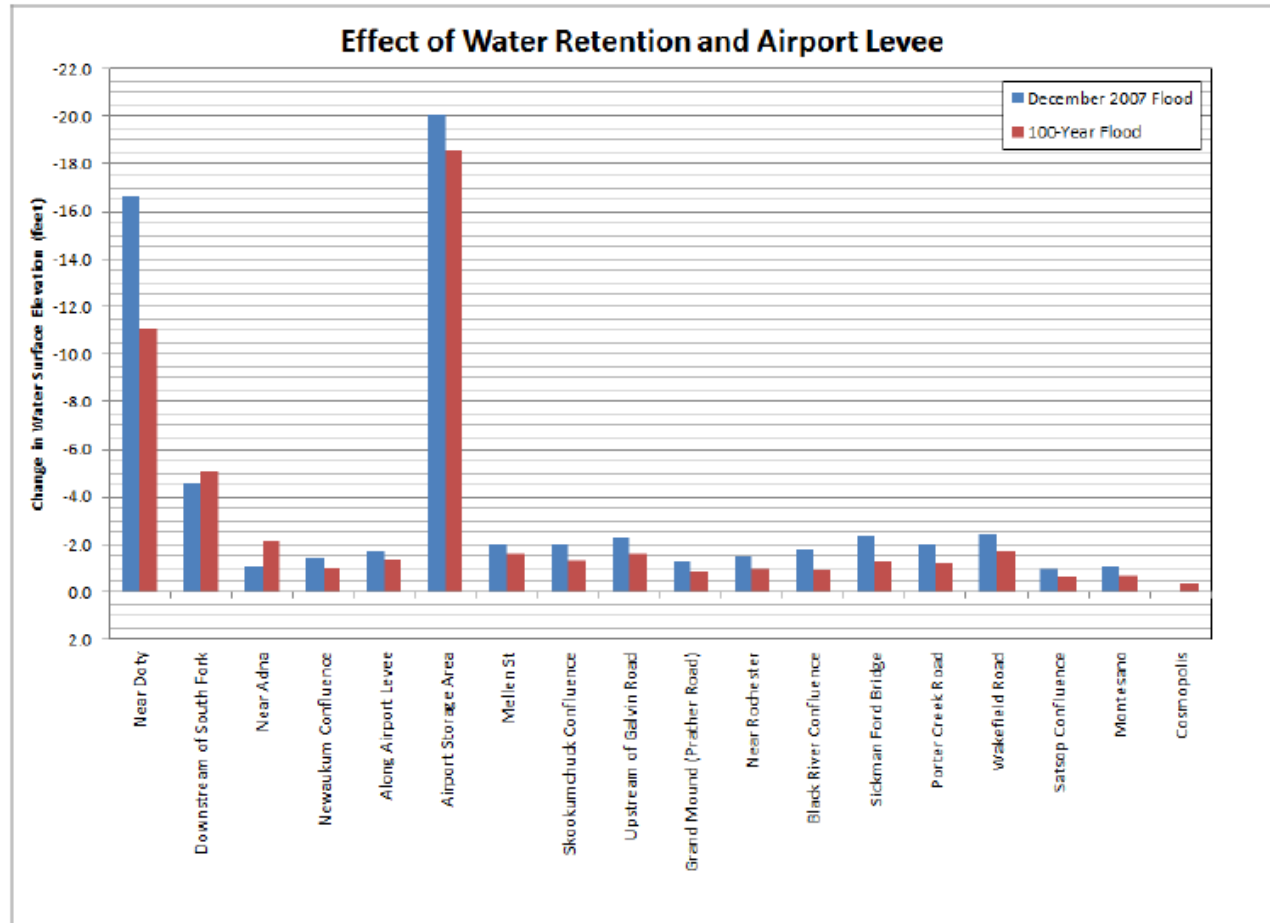


Figure 2: Predicted Changes in Water Surface Elevations from Water Retention and Airport Levee

For 60 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.

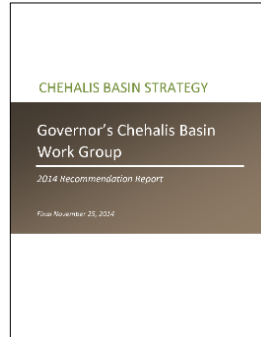


The 2013 legislature funded a \$26 million program of

3. Master Strategy (Game Plan)

2012, 2013-15 – Framework and Recommendations.

Key elements:



1. Concrete Flood Retention Dam on upper Chehalis River.
2. Chehalis-Centralia Municipal Airport Levee Improvements.
3. Basin-wide Aquatic Species Restoration (100+ miles spawning/rearing habitat).
4. Local Flood-damage Reduction Projects, including raising homes, floodproofing businesses and public structures.
5. Local actions to Protect Floodplain Functions, ensure development doesn't exacerbate harm.
6. Cost = \$500-600M; Benefit = \$720M (100 yrs.); No Action = \$3.5B (100 yrs.).



2015-17 -- \$50M for formal environmental review, implementation of local early-action (projects, floodproofing, etc.).

4. Large Capitol Projects

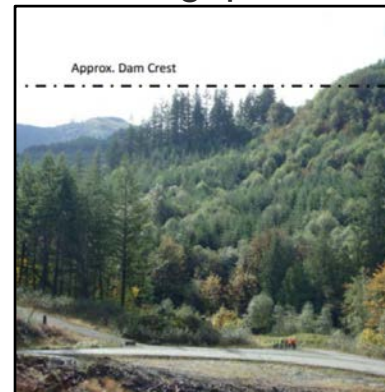
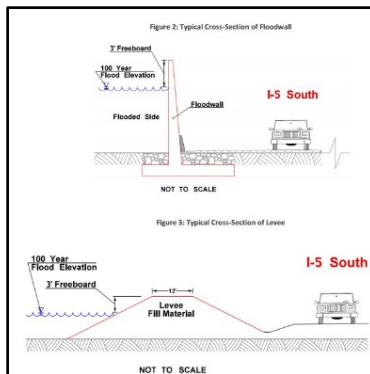


2013-15:

- ❑ Technical team developed baseline knowledge on safety, feasibility of Flood Retention Dam alternatives -- field visits, site and design considerations, world-wide research, etc.
 - Permanent reservoir (w/ fish passage) or Run-of-the-river (no permanent reservoir).
 - Roller compact concrete or Earthen fill.
 - Flood-control only or Multi-purpose.
- ❑ WSDOT evaluated I-5 Protection alternatives -- levees, walls, raise road, etc.

2015-17:

- ❑ Formal environmental review (Programmatic EIS) will be conducted to evaluate alternatives and inform Governor's Workgroup on next steps – funding, permitting, etc.



← Photo source:
ANCHOR QEA



Pe Ell Wastewater Treatment Plant
Flood Protection Dike

Aberdeen Proposed Northside
Dike/Levee



5. Small-Scale Local Projects

2012 Supplemental Capital Budget:

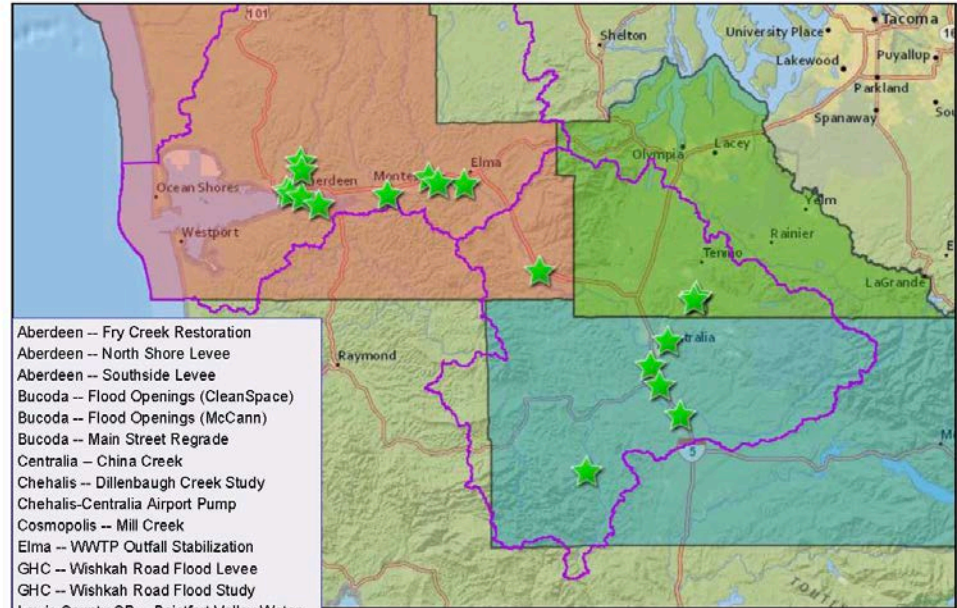
- \$5.0M -- Local projects.

2013-15 Capital Budget:

- \$15.1M -- Local projects, aquatic species enhancement.

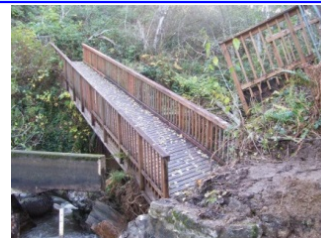
2015-17 Capital Budget:

- \$23.2M -- Local projects, habitat restoration.



- Aberdeen -- Fry Creek Restoration
- Aberdeen -- North Shore Levee
- Aberdeen -- Southside Levee
- Bucoda -- Flood Openings (CleanSpace)
- Bucoda -- Flood Openings (McCann)
- Bucoda -- Main Street Regrade
- Centralia -- China Creek
- Chehalis -- Dillenbaugh Creek Study
- Chehalis-Centralia Airport Pump
- Cosmopolis -- Mill Creek
- Elma -- WWTP Outfall Stabilization
- GHC -- Wishkah Road Flood Levee
- GHC -- Wishkah Road Flood Study
- Lewis County CD -- Boistfort Valley Water
- Montesano -- WWTP Protection Study
- Napavine -- Kirkland Road Study
- Oakville -- Flood Relief Study
- WCC -- Farm Pads & Evacuation Routes
- WDFW -- Lower Satsop Relic Channel

2015-17 Underway Local Capital
Construction Projects
www.ezview.wa.gov/chehalisfloodauthority



Another Chehalis Basin Flood Protection Project
Wastewater Treatment Plant Flood Prevention Dike

Schedule → February 2014 to April 2014
Budget → \$511,153
Benefit → Protecting essential public infrastructure for all Basin residents

www.ezview.wa.gov

STELLAR J
An American owned company
Parametrix

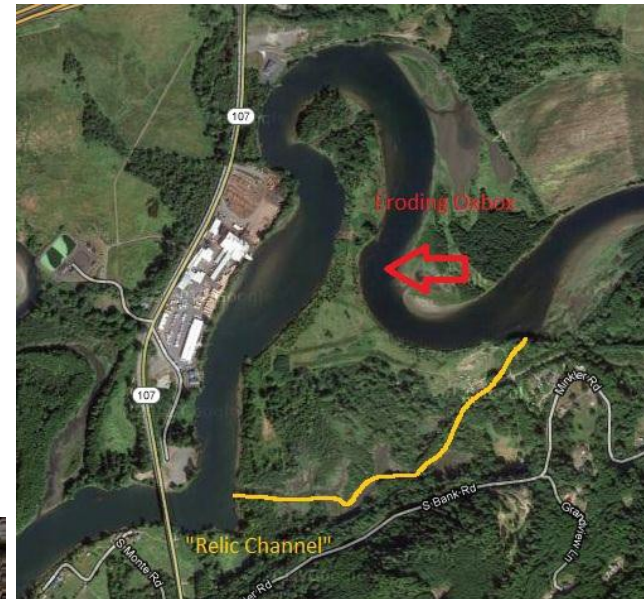



5. Small-Scale Local Projects




■ Mary's River Lumber Bank Stabilization Wall and WWTP Flood Prevention Dike

- ❑ Mary's River Lumber = 120 family wage jobs.
- ❑ State Highway (SR 107) = At risk of damage.
- ❑ Montesano WWTP = Risk of overtopping.
- ❑ Solutions and Alternative = Balance time, cost, results.
- ❑ Project [website](#).






CHEHALIS RIVER BASIN FLOOD AUTHORITY



City of Montesano
Home of the Tree Farms
www.montesano.com



Another Chehalis Basin Flood Protection Project


Wastewater Treatment Plant Flood Prevention Dike

Schedule → February 2014 to April 2014

Budget → \$511,153

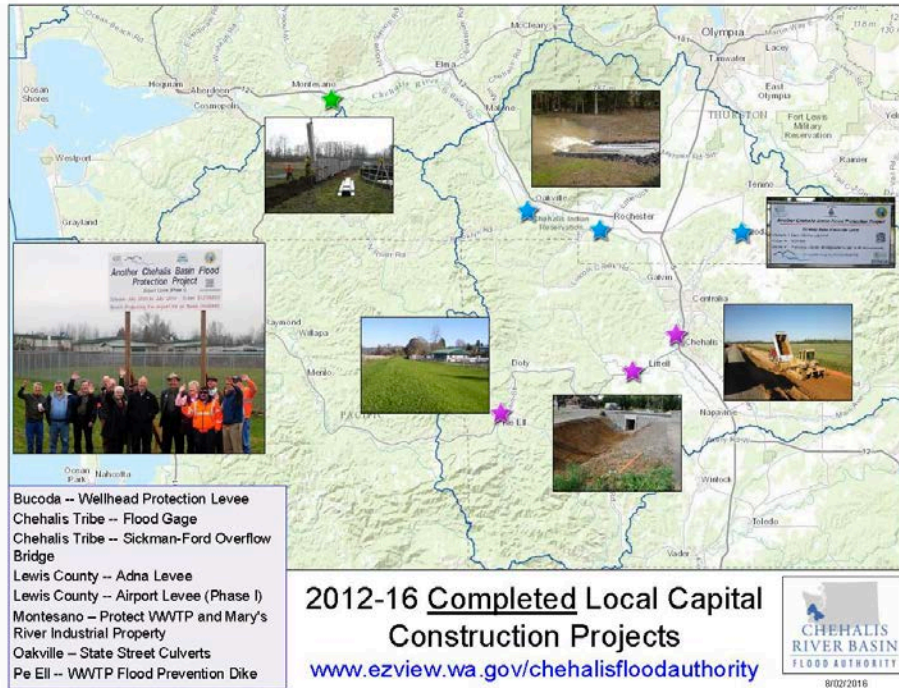
Benefit → Protecting essential public infrastructure for all Basin residents

www.ezview.wa.gov



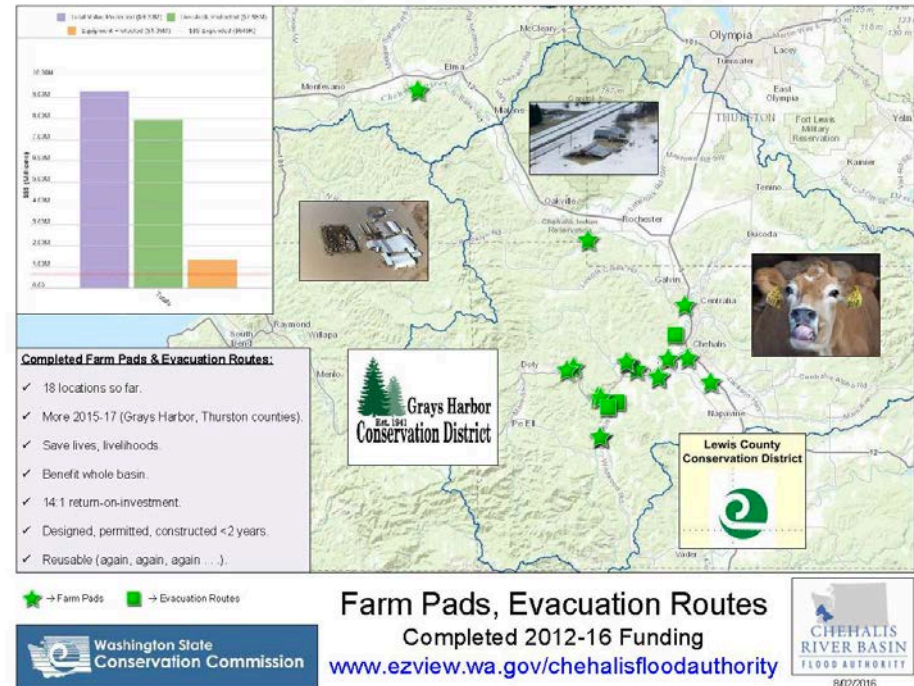
STELLAR J
An employee owned company
Parametrix

5. Small-Scale Local Projects

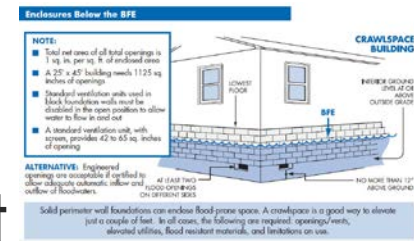


**Projects Completed
Local Protection!**

**Projects Completed
14:1 Return-on-investment!**



6. Land Use, Floodplain Management



❑ French and Associates under contract.




❑ 2013-15: Analyzed local floodplain management programs.

- Do they protect existing homes/businesses?
- Do they ensure new development does not increase flood hazard risk?
- Are there ways to reduce flood insurance rates?
- Are there repeatedly flood damaged properties that should be addressed?

❑ 2015-17: Advise Flood Authority, Governor's Workgroup, and Basin communities on:

- Retrofitting buildings to meet flood opening criteria.
- Identify home elevation projects.
- Improving local floodplain management programs.

**Chehalis River Basin
Basin-Wide Floodplain
Management Assessment**



November 30, 2014

F French & Associates, LTD.
2601 Havlicek Court
Steilacoom, WA 98588



7. Restore Salmon and Aquatic Species

Salmon:

- At 15-25% historic levels.
- Habitat substantially degraded.

2013-15:

- Collected data (aquatic species, water quality, hydrologic, etc.).
- Analyzed/modelled data to understand relationships (fish, wildlife, water quality, sediment, streamflow, flooding, etc.).
- Developed “Aquatic Species Enhancement Plan“ (8/29/2014).

2015-17:

- Convene broad group to identify, implement early actions
 - Remove barriers to fish passage.
 - Restore off-channel habitat.
 - Address bank erosion.

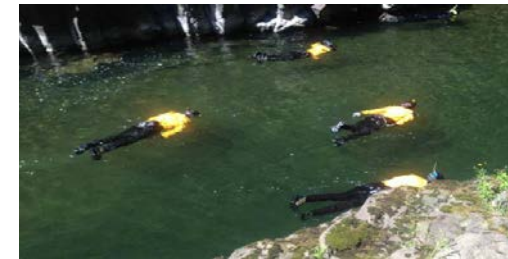
Chinook Salmon
- Learn more -



Coho Salmon
- Learn more -



Steelhead
- Learn more -



Snorkel Surveys



Seine Collections

7. Restore Salmon and Aquatic Species

Other Fish and Aquatic Species



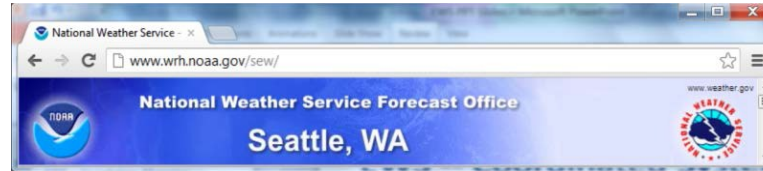
8. Early Flood Warning

- www.chehalisriverflood.com

- Front-facing website.

- Data collection, data synchronization.

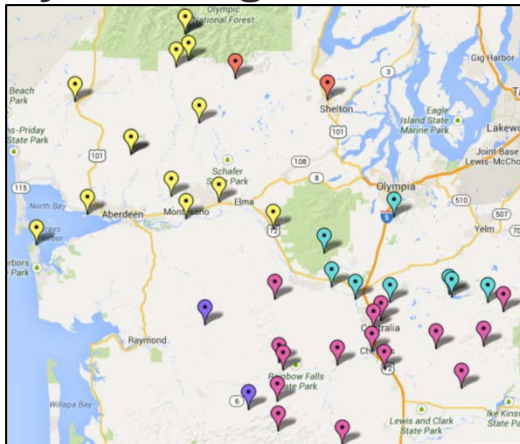
- Improved forecasting, early-warning.



Home <http://www.chehalisriverflood.com>

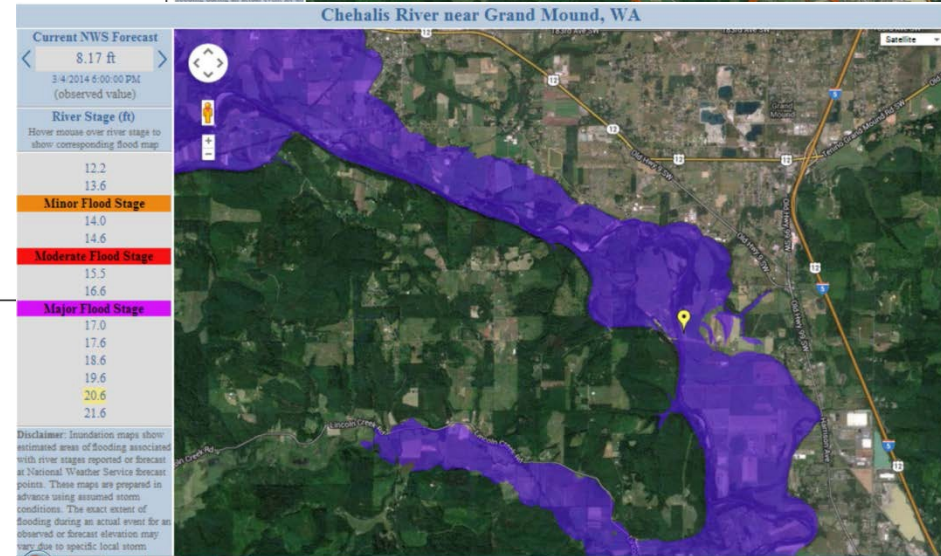
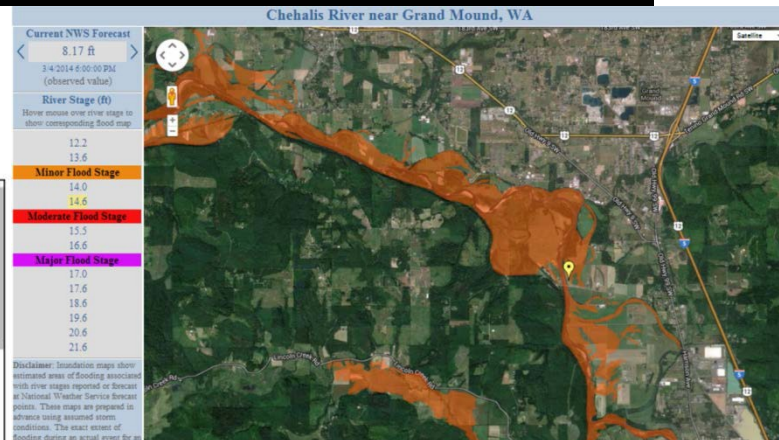
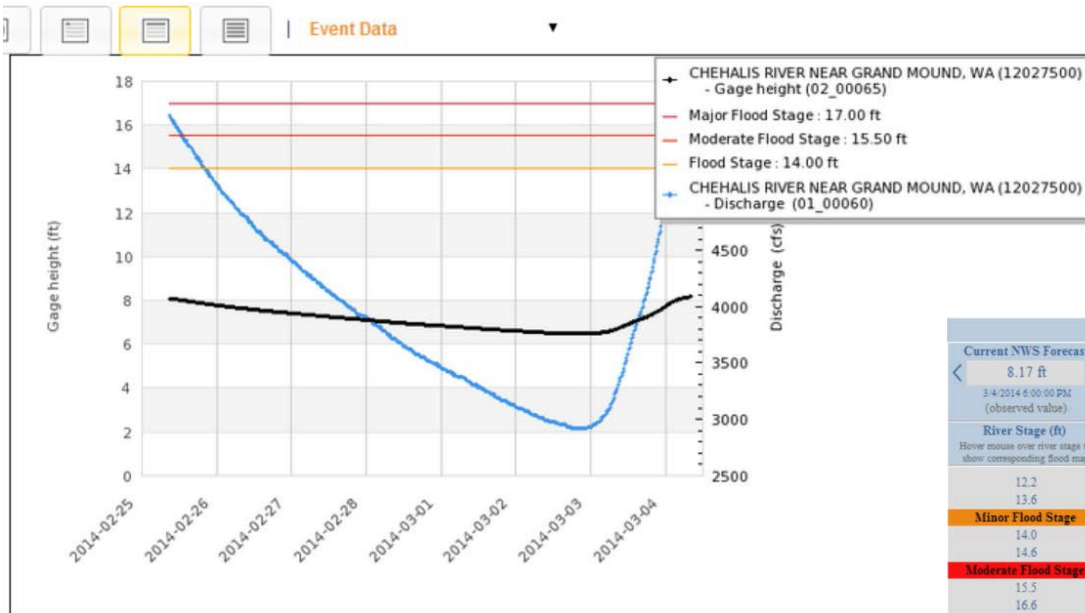
Chehalis River Basin Flood Authority

 Weather Forecast	 Rainfall Forecast	 River Forecast	 Flood Maps	 Gage Data Graphs
 Gage Data Maps	 Flood Authority News	 Road Conditions	 USGS Gages	 Help



8. Early Flood Warning

Localized tracking, forecasting . . .

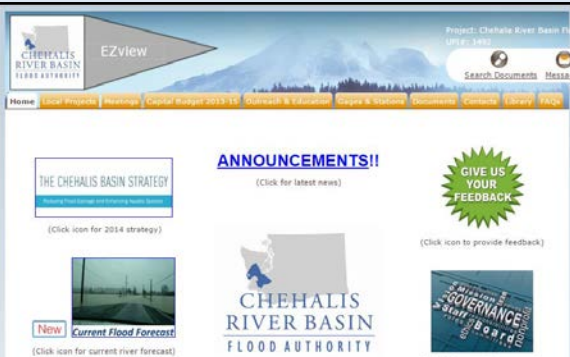


Daily discharge, cubic feet per second -- statistics for Mar 4 based on 84 years of record [more](#)

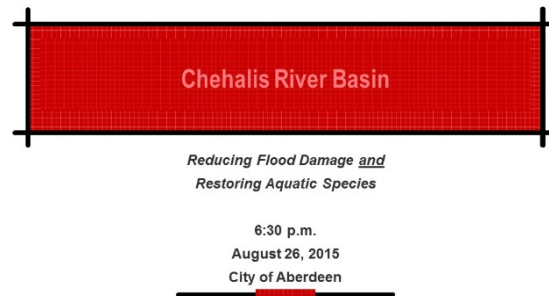
Min (2005)	25th percentile	Median	Mean	Most Recent Instantaneous Value Mar 4	75th percentile	Max (1987)
903	2340	3260	4670	5830	6340	22700

9. Outreach, Education and Communication

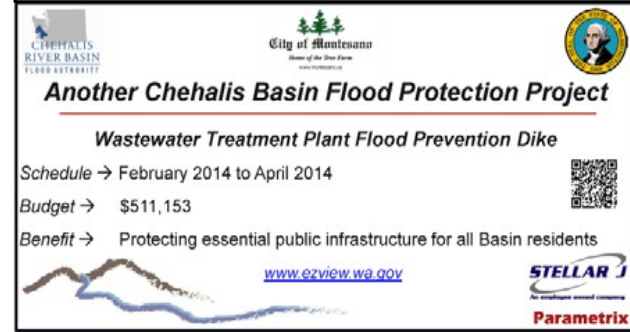
Website



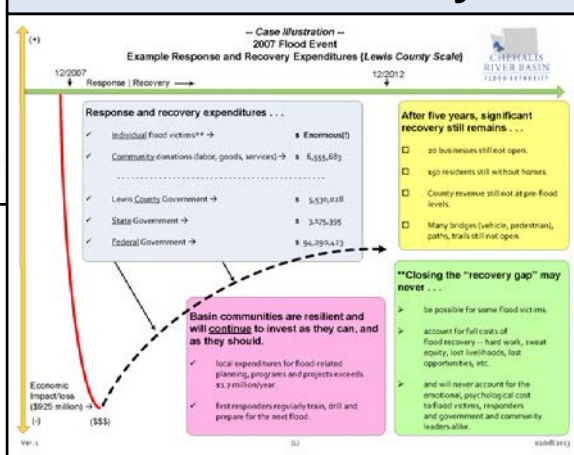
Outreach Visits



Project Signs



Informational Analyses



Chehalis Basin Flood Stories

Chehalis Basin Flood Stories

- [Farm Pads & Evacuation Routes](#)
- [Flood Warning System](#)
- [Local Capital Construction Projects](#)



9. Outreach, Education and Communication

<http://ruckelshauscenter.wsu.edu/projects/current-projects/chehalisfloodingfish/du/ChehalisFlooding.html>

WASHINGTON STATE UNIVERSITY

THE WILLIAM D. RUCKELSHAUS CENTER

UNIVERSITY OF WASHINGTON

Chehalis Basin Strategy

Chehalis Basin Work Group Recommendations Report

The Chehalis Basin Work Group has released its [2014 Recommendations Report](#), along with the [Technical Reports](#) referenced in the Work Group's 2014 Recommendations Report.

Read the [press release](#).

Read the [endorsement](#).

Project Description

The Chehalis River Basin has experienced significant degradation and a failure to address the

[Documents and Resources](#)

[Group Recommendations](#)

www.chehalisbasinstrategy.com

Chehalis Basin Strategy
Reducing Flood Damage and Restoring Aquatic Species

HOME STRATEGY ENVIRONMENTAL REVIEW GET INVOLVED CURRENT ACTIONS RESOURCES

Watch this short presentation on the Chehalis Basin Strategy

Draft EIS Available for Review
To submit comments on the EIS, click here

Chehalis Basin Strategy
Challenges and Opportunities

0:00 / 3:58

www.ezview.wa.gov/chehalisfloodauthority

CHEHALIS RIVER BASIN FLOOD AUTHORITY

EZview

Project: Chehalis River Basin Flood Authority UPT#: 1492

Search Documents Message

Home Local Projects Meetings Capital Budget 2013-15 Outreach & Education Gages & Stations Documents Contacts Library FAQs

ANNOUNCEMENTS!!
(Click for latest news)

GIVE US YOUR FEEDBACK
(Click icon to provide feedback)

THE CHEHALIS BASIN STRATEGY
Reducing Flood Damage and Enhancing Aquatic Species
(Click icon for 2014 strategy)

Current Flood Forecast
(Click icon for current river forecast)

CHEHALIS RIVER BASIN FLOOD AUTHORITY

CRBFA Governing Documents

www.chehalisriverflood.com

Home

Information

Flood inundation maps for the Nooksack River near Chehalis are now available. Chehalis - 01/07/2014 @ 09:31:00
Click on the Flood Maps icon to see new flood inundation maps for the Centralia, Chehalis, Orly, and Skookum areas. Maps for Grand Mound and Puyallup will be available soon.

Links

WWSU Interactive River Site Map
NRF: Flood Authority Projects
NRF: Chehalis River Basin Flood Authority Website
NRF: Lower Chehalis Flood Hazard Analysis Report
NRF: Skookum County, Everett, Pacific
Linnik County Area - Park
Chehalis Basin Basin
CRBFA Chehalis Basin

Weather Forecast
Basin Forecast
River Forecast
Flood Maps
Open Data Center

Open Data Maps
Flood Authority News
Road Conditions
EIS/IS
Help

Closing – 2007 Flood Damage . . .



Chehalis
River near
Doty
USGS

Closing – 2007 Flood Damage . . .



**Clearing Mud in
Curtis, WA**
STEVE RINGMAN /
SEATTLE TIMES

April 2017

Closing – 2007 Flood Damage . . .

**Curtis, WA, Aftermath
of 7 Feet of Water**
STEVE RINGMAN /
SEATTLE TIMES



Closing – 2007 Flood Damage . . .



**Chandler Road Bridge
near Doty, WA**
STEVE RINGMAN /
SEATTLE TIMES

April 2017

Closing – 2007 Flood Damage . . .



April 2017

Closing – 2007 Flood Damage . . .



April 2017

Closing – 2007 Flood Damage . . .

I-5 Under Water
BRUCE ELY /
OREGONIAN



April 2017

Closing – 2007 Flood Damage . . .

Chehalis, WA
STEVE RINGMAN /
SEATTLE TIMES



April 2017

Closing – 2007 Flood Damage . . .



April 2017

Closing – 2007 Flood Damage . . .

**Jackson Street,
Centralia, WA**
STEVE RINGMAN /
SEATTLE TIMES



April 2017

Closing – 2007 Flood Damage . . .



I-5 Under Water
BRUCE ELY / OREGONIAN

Closing – 2007 Flood Damage . . .



Photos Source:
WSDOT

April 2017

Closing – 2007 Flood Damage . . .



April 2017

Closing – 2007 Flood Damage . . .



Closing – 2007 Flood Damage . . .



**Wakefield Road,
Elma, WA**
GREG GILBERT /
SEATTLE TIMES

April 2017

For Further Information . . .

Vickie Raines, *Grays Harbor County Representative*

Chair, Chehalis River Basin Flood Authority
Member, Governor's Chehalis Basin Work Group
360/249-3731
vraines@co.grays-harbor.wa.us

Edna Fund, *Lewis County Representative*

Chehalis River Basin Flood Authority
Vice-Chair, Chehalis River Basin Flood Authority
360/740-1283
Edna.Fund@lewiscountywa.gov

Jim Kramer, *Facilitator*

Chehalis River Basin Flood Authority
Governor's Chehalis Basin Work Group
206/841-2145
jkramer.consulting@gmail.com

Scott Boettcher, *Staff*

Chehalis River Basin Flood Authority
360/480-6600
scottb@sbgh-partners.com

Key Links . . .

- 1. Chehalis River Basin Flood Authority** -- www.ezview.wa.gov/chehalisfloodauthority
 - **Flood Warning System** -- www.chehalisriverflood.com
 - **Sign-Up for Email Gage Alerts** -- https://www.ezview.wa.gov/Portals/_1492/images/Print50%20--%20HANDOUT%20--%20Gage%20Alerts%20Sign-Up%2008102016.pdf
 - **Local Projects** -- https://www.ezview.wa.gov/site/alias_1492/34489/local_projects.aspx
- 2. Chehalis Basin Strategy** -- www.chehalisbasinstrategy.com
 - **Department of Ecology** -- <http://www.ecy.wa.gov/programs/sea/sepa/chehalisbasin.html>
 - **Ruckelshaus Center** -- <http://ruckelshauscenter.wsu.edu/projects/current-projects/chehalisfloodingfish/du/ChehalisFlooding.html>
- 3. Office of Chehalis Basin** -- https://www.ezview.wa.gov/site/alias_1492/37030/Default.aspx

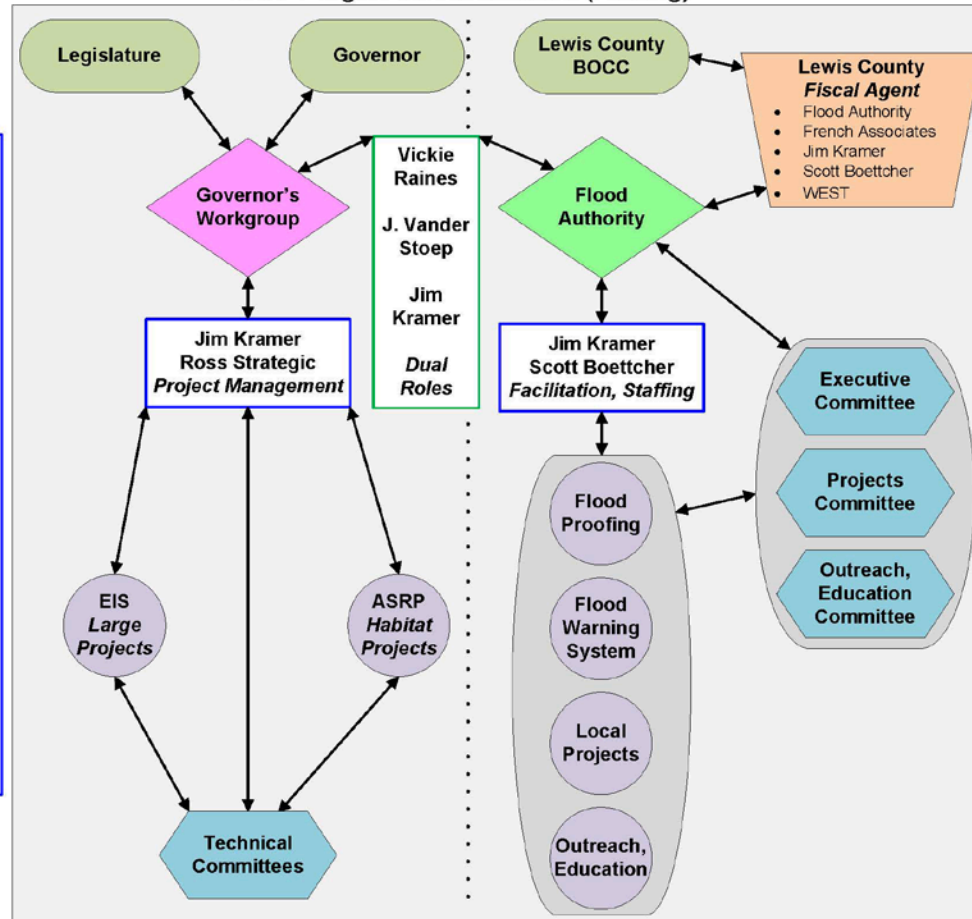
Organizational Structure . . .

RCO Contracting Agent

- 64 Contracts
- \$51.6M Total
- 29 Contract Entities

- Contract Entities:**
- Anchor QEA, LLC
 - Capitol Land Trust
 - Chehalis Basin FTF
 - Chehalis Confederated Tribes
 - City of Aberdeen
 - City of Centralia
 - City of Chehalis
 - City of Cosmopolis
 - City of Elma
 - City of Montesano
 - City of Napavine
 - Clean Space Northwest
 - Conservation Commission
 - Dept of Commerce
 - Dept of Ecology
 - Dept of Fish & Wildlife
 - Dept of Natural Resources
 - Grays Harbor County
 - Lewis County Community Development
 - Lewis County Conservation District
 - Lewis County Public Works
 - McCann Construction LLC
 - Quinault Indian Nation
 - Sylvan Terrace Owners Assoc
 - Town of Bucoda
 - Town of Oakville
 - WA Coast Sustainable Salmon Coalition
 - Washington State University
 - Wild Fish Conservancy

DRAFT Organizational Structure (Existing)



9-15-2016

April 2017



Thank You . . .

Thank You!

Note:

This Presentation is Available at
“Chehalis River Basin Flood Authority” Website
at www.ezview.wa.gov/chehalisfloodauthority.

Email Distribution List

Pat Anderson

Pat.Anderson@lewiscountywa.gov

April 2017

46
