

Chehalis River Basin Flood Authority

*Reducing Flood Damage and
Restoring Aquatic Species*

Thurston County

July 16, 2025

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



Today's Presentation

- “Flood Authority”

 - #1 -- Local Projects

 - #2 -- Flood Warning System

- “Chehalis River Basin Flood Control Zone District”

 - #3 -- Proposed Flow-through Dam for Flood Control



**CHEHALIS
RIVER BASIN**
FLOOD CONTROL
ZONE DISTRICT



Office of
Chehalis Basin

Chehalis Basin
Board

<https://chehalisbasinstrategy.com/>

Chehalis River Basin Flood Authority

- **Formed** in 2008
- **Focused on** flood hazard mitigation
- **Decision-making**
 - informed by science
 - protective of Basin residents/communities
 - environmentally appropriate
- **Jurisdictions** represented (see [inter-local agreement](#))
 - Grays Harbor County (2008)
 - City of Aberdeen (2008)
 - City of Cosmopolis (2011)
 - City of Hoquiam (2017)
 - City of Montesano (2008)
 - City of Oakville (2008)
 - Lewis County (2008)
 - City of Centralia (2008)
 - City of Chehalis (2008)
 - City of Napavine (2011)
 - Town of Pe Ell (2008)
 - Thurston County (2008)
 - Town of Bucoda (2008)



***Help local communities identify, develop, implement
local flood hazard reduction solutions.***

Local Projects (Pe Ell, 2014)



- ✓ Project = Design/construct 900' dike (between Chehalis river and WWTP).
- ✓ Cost = \$521,000.
- ✓ Photos = [Here](#).
- ✓ Website = [Here](#).

Local Projects (Chehalis-Centralia Airport, 2017)



- ✓ Completed -- Fall 2017.
- ✓ Cost -- \$1.14M.
- ✓ January 2022 Flood Event – Pumped 518.4M gallons over many days to keep levee dry.
- ✓ ROI (2018) -- Protects \$45M in assets, ensures \$9M in annual tax revenue.

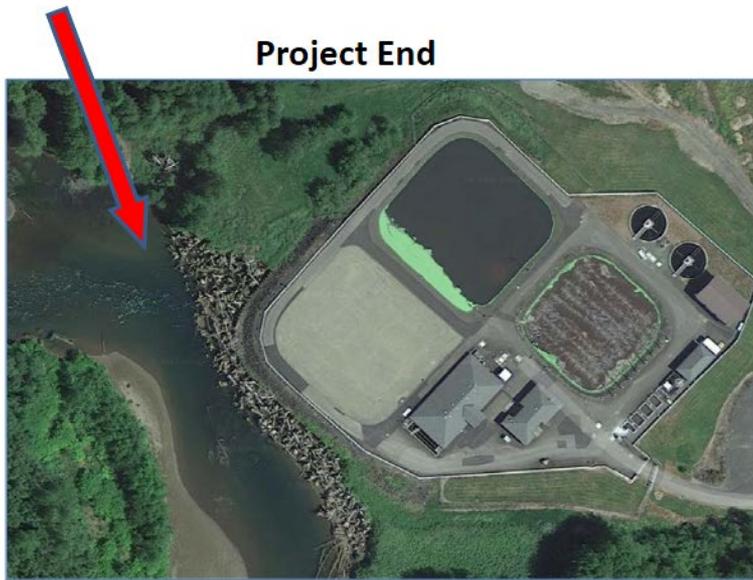


← Previous WWII-era pump

Read More -- [Here](#).

Local Projects (Montesano, 2017-2020)

- ✓ Protect WWTP from on-coming Wynoochee river using 220+ “log-jacks.”
- ✓ \$2 million (for “log-jacks”).
- ✓ Small cost compared to WWTP relocation and environmental cleanup (in event of WWTP breaching).



<https://www.google.com/maps/@46.9678637,-123.6077821,197m/data=!3m1!1e3>



Project Start

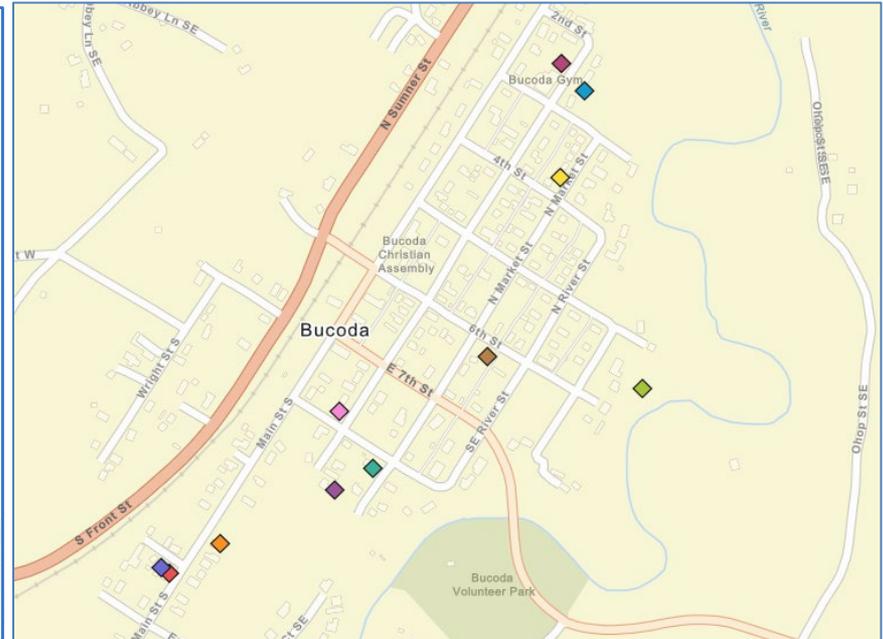


Governor Inslee and Mayor Samuel stand overlooking the Wynoochee River.

July 7, 2022 →

Local Projects (Bucoda, 2016)

U.S. DEPARTMENT OF HOMELAND SECURITY FEDERAL EMERGENCY MANAGEMENT AGENCY Noticed Flood Insurance Program		ELEVATION CERTIFICATE IMPORTANT: Follow the instructions on pages 5-6.		OMB No. 1560-0008 Expiration Date: July 31, 2015	
SECTION A - PROPERTY INFORMATION				RFP INSURANCE CONTRACT USE:	
A1. Building Owner's Name: Colleen M. Tee		File Number:			
A2. Building Street Address (including AL, Unit, Suite, and/or Bldg. No.) or R.F. Route and Box No. 303 N. Market Street		Property Map Number:			
City: Bucoda State: WA ZIP Code: 98530					
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) Tax Parcel No. 61 800300500					
A4. Building Use (e.g., Residential Non-Residential, Addition, Accessory, etc.): Residential		A5. Latitude (Longitude): Lat. 46.02822° N , Long. 122.02885° E		Horizontal Datum: <input type="checkbox"/> NAD 1927 <input checked="" type="checkbox"/> NAD 1983	
A6. Elevation at least 2 photographic of the building if the Certificate is being used to obtain flood insurance.		A7. Building Diagram Number: 8			
A8. For a building with a crawlspace or enclosure: a) Square footage of crawlspace or enclosure(s): 550 sq ft		A9. For a building with an attached garage: a) Square footage of attached garage: _____ sq ft			
b) No. of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade: 4		b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade: _____			
c) Total net area of flood openings in A8.a: 512 sq in		c) Total net area of flood openings in A9.b: _____ sq in			
d) Engineered flood openings? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		d) Engineered flood openings? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION					
E1. MIP Community Name & Community Number Name of Community: 0301002		E2. County Name WASHINGTON		E3. State WASHINGTON	
E4. Map Panel Number: E ES: Subfile: 09/02/1981		E5. FIRM Index Date 10/16/2012		E6. FIRM Index Effective Date AE	
E7. Flood Zone(s) AE		E8. Base Flood Elevation(s) (Zone Revised Date) 255.0'		E9. AD, use (use flood depth)	
E10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item E9: <input type="checkbox"/> FTS Profile <input checked="" type="checkbox"/> FIRM <input type="checkbox"/> Community Determined <input type="checkbox"/> Other Source:					
E11. Indicate elevation datum used for BFE in Item E9: <input type="checkbox"/> NAVD 1929 <input checked="" type="checkbox"/> NAVD 1988 <input type="checkbox"/> Other Source:					
E12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Designation Code: _____					
SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)					
C1. Building elevations are based on: <input type="checkbox"/> Construction Drawings* <input type="checkbox"/> Building Under Construction* <input checked="" type="checkbox"/> Finished Construction * A Final Elevation Certificate will be required when construction of the building is complete.					
C2. Elevations - Zones AL-AS0, AE, AH, A with BFE, VE, V1-V30, V with BFE, AR, AR-A, AR/AE, AR/AL-AS0, AR/AH, AR/AD, Complete Items C2-a-i below according to the building diagram specified in Item A7. In Puerto Rico only, enter meters. Benchmark Indicator: NWSDOT Mon ID 252117C; Bucoda & 221 Vertical Datum: NAVD 88					
Indicate elevation datum used for the elevations in items a) through i) below. <input type="checkbox"/> NAVD 1929 <input checked="" type="checkbox"/> NAVD 1988 <input type="checkbox"/> Other Source: Datum used for building elevations must be the same as that used for the BFE. Check the measurement used.					
a) Top of bottom floor (including basement, crawlspace, or enclosure floor): 251.7 <input checked="" type="checkbox"/> feet <input type="checkbox"/> meters					
b) Top of the next higher floor: 258.7 <input checked="" type="checkbox"/> feet <input type="checkbox"/> meters					
c) Bottom of the lowest horizontal structural member (V Zones only): NA, NA <input checked="" type="checkbox"/> feet <input type="checkbox"/> meters					
d) Attached garage (top of slab): NA, NA <input checked="" type="checkbox"/> feet <input type="checkbox"/> meters					
e) Lowest elevation of machinery or equipment servicing the building (Specify the type of equipment and location in Comments): 258.7 <input checked="" type="checkbox"/> feet <input type="checkbox"/> meters					
f) Lowest adjacent (finished) grade next to building (LAD): 251.6 <input checked="" type="checkbox"/> feet <input type="checkbox"/> meters					
g) Highest adjacent (finished) grade next to building (HAG): 252.1 <input checked="" type="checkbox"/> feet <input type="checkbox"/> meters					
h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support: 251.6 <input checked="" type="checkbox"/> feet <input type="checkbox"/> meters					
SECTION D - SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION					
This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information. I certify that the information on this certificate represents my best efforts to ascertain the data available. Information that may be submitted may be purchased by fire or replacement under 36 U.S.C. 5506, Section 2002.					
<input checked="" type="checkbox"/> Check here if comments are provided on back of form. <input type="checkbox"/> Increased land surveyor? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Certifier Name: Dennis R. Baker Title: Professional Land Surveyor Address: P.O. Box 740 Telephone: 360-221-3300		Certifier Number: 15972 Company Name: LeRoy Surveyors & Engineers, Inc. Address: Puyallup WA Telephone: (360) 507-1186		Professional Seal: 	
FEMA Form 088-0-33 (1-12) See reverse side for continuation. Replaces all previous editions.					



- ✓ 11 Properties
- ✓ Total -- \$ 85,465.43.
- ✓ Average -- \$8,550.
- ✓ Link – [here](#).
- ✓ Web map – [here](#).

Local Projects (Thurston County)



Thurston County Commissioner Tye Messer, right, and DuCoda Councilor Steve Lyle observe a Flood Warning System during the Chehalis Basin Strategy Legislative Site Tour at the Sookumchuck Dam on Friday, Sept. 27.

28

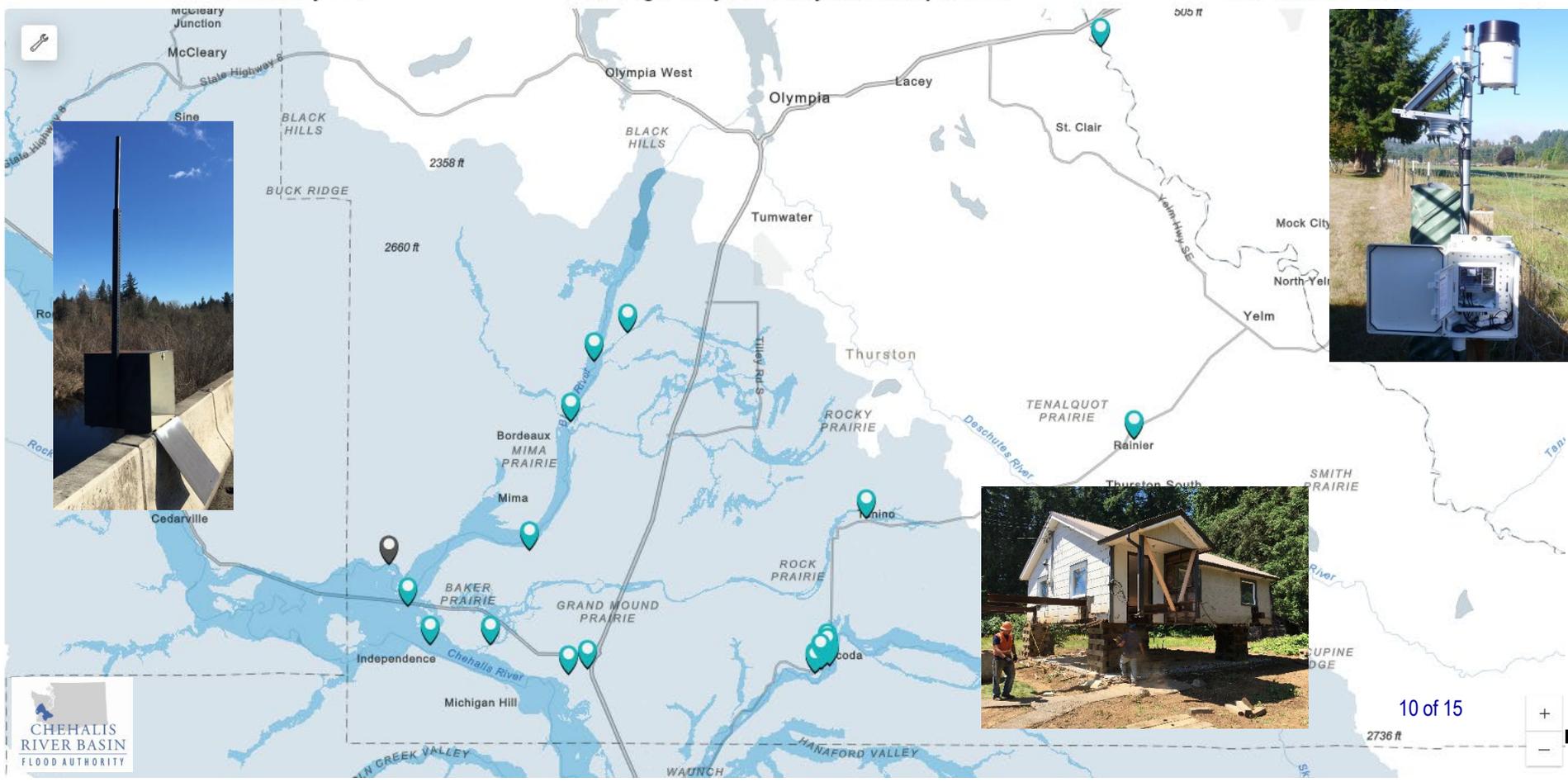
Selected Projects

508

Average Days to Project Completion

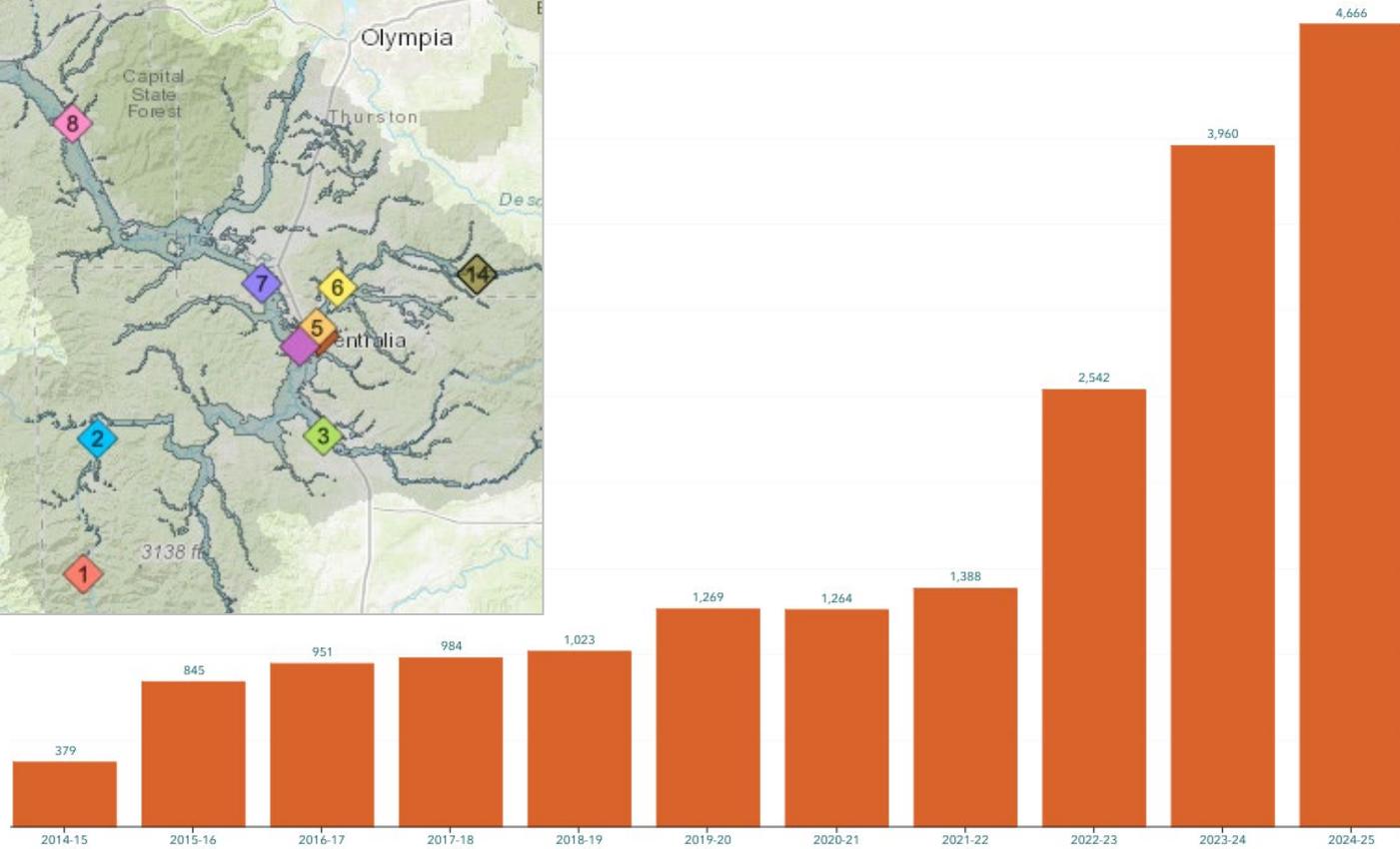
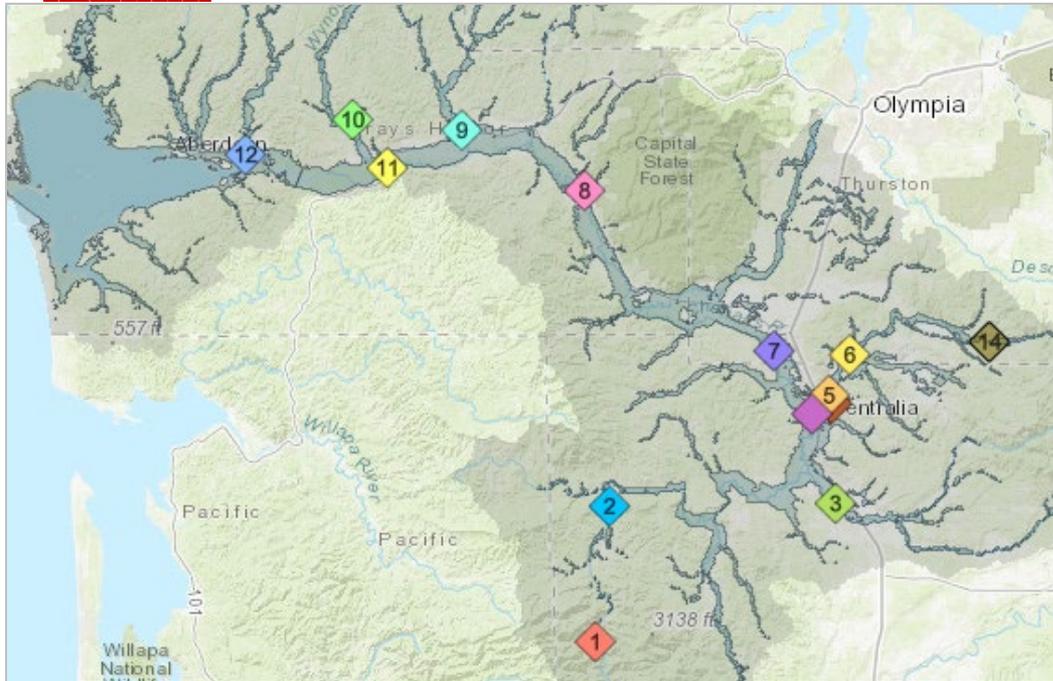
\$968.6K

Combined Cost



- ✓ Developed with State Capital Budget \$.
- ✓ Maintained with local \$.

Flood Warning System (Alert Sign-Ups)



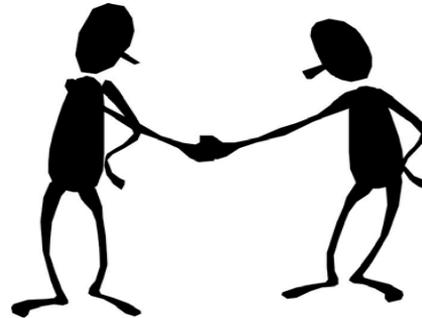
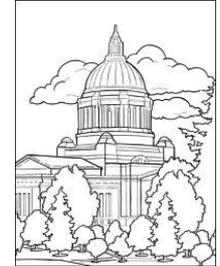
Sign-up for email high water alerts [here](#).

Proposed Flow-Through Dam for Flood Control (#3)

1. Move through unobstructed
 - ✓ Water
 - ✓ Fish
 - ✓ Sediment
2. Delivers top-to-bottom benefit, Pe Ell to Cosmopolis.
3. See recent presentation [here](#).

www.chehalisriverbasinfczd.com

Chehalis Basin Strategy (Network of Partners)



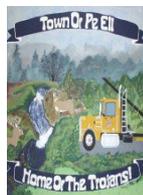
WASHINGTON STATE
CONSERVATION
COMMISSION



Chehalis Lead Entity



**CHEHALIS RIVER BASIN
FLOOD CONTROL ZONE DISTRICT**



WASHINGTON STATE DEPARTMENT OF
Natural Resources

TOWN of BUCODA



Office of Financial Management
Better information. Better decisions. Better government.

Local Resolutions Library

https://www.ezview.wa.gov/site/alias_1492/37643/local_resolutions.aspx

Today vs 2007

Today, we are substantially more aware, better prepared for catastrophic flooding than ever before.

- ✓ We have a state-of-the art flood warning system.
- ✓ We've completed many cost-efficient local projects and habitat projects.
- ✓ We're serving people, local governments, emergency responders, agriculture, fish, and habitat alike
- ✓ We have a governance, administrative, and funding structure that's delivering results, and is committed to a balanced basin-wide flood and fish solution (see Local Resolution Library).



<https://chehalisbasinstrategy.com/office-of-chehalis-basin/>

Key Contacts

Vickie Raines, Grays Harbor County Representative

Chair, Chehalis River Basin Flood Authority

Flood Authority Appointee & Chair, Chehalis Basin Board

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vraines@graysharbor.us

Edna Fund, Lewis County Representative

Vice-Chair, Chehalis River Basin Flood Authority

Chair, Chehalis River Basin Flood Control Zone District Advisory Board

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Wayne Fournier, Thurston County Representative

Member, Chehalis River Basin Flood Authority

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Scott Boettcher

Staff, Chehalis River Basin Flood Authority

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scottb@sbgh-partners.com

Extra – Flood and Fish Articles

The Chronicle

Division of CT Publishing

<https://chronline.com/browse.html?>

- **Chehalis Basin Strategy progress in review: Pump station investments to protect 5,100 properties in lower Chehalis River Basin**
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Chehalis Basin Strategy progress in review: Pump station investments to protect 5,100 properties in lower Chehalis River Basin



The Fry Creek Pump Station is pictured in Aberdeen.