Chehalis River Basin Flood Authority

Reducing Flood Damage <u>and</u> Restoring Aquatic Species

Thurston County Commissioner Wayne Fournier, District 4

February 16, 2024

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





MIKE

AP

State Route 6, West of Adna

SALSBURY /

Photos Source: LEWIS COUNTY, DIVISION OF EMERGENCY MANAGEMENT 2 of 22

Today's Presentation

- Describe the "Flood Authority" #1 -- Local Projects #2 -- Flood Warning System
- Touch on "Chehalis Basin Strategy"
- Allow time for discussion.





Office of C Chehalis Basin

Chehalis Basin Board

https://chehalisbasinstrategy.com/

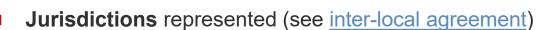


Chehalis River Basin Flood Authority

- Formed in 2008
- Focused on flood hazard mitigation

Decision-making

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



- ➢ Grays Harbor County (2008) ➢ Lewis County (2008)
 - City of Aberdeen (2008)
 City of Centralia (2008)
 - City of Cosmopolis(2011) City of Chehalis (2008) 0
 - City of Hoquiam (2017)
 City of Napavine (2011)
 - City of Montesano (2008)
 - City of Oakville (2008)

- - Town of Pe Ell (2008)



Town of Bucoda (2008) 0



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



Local Projects (#1)

- 1. Reduce flood damage.
- 2. Protect people, property, infrastructure.
- 3. Improve readiness, response, resiliency.
 - Drinking Water (Boistfort, Bucoda).
 - Wastewater (Montesano, Pe Ell).
 - Emergency Response (Grays Harbor County, Chehalis-Centralia Airport).
 - *Regional Economic Infrastructure* (Montesano, Port of Chehalis, Port of Grays Harbor).
 - Community Protection (Aberdeen, Adna, Bucoda, Centralia, Chehalis, Chehalis Tribe, Hoquiam, Oakville).



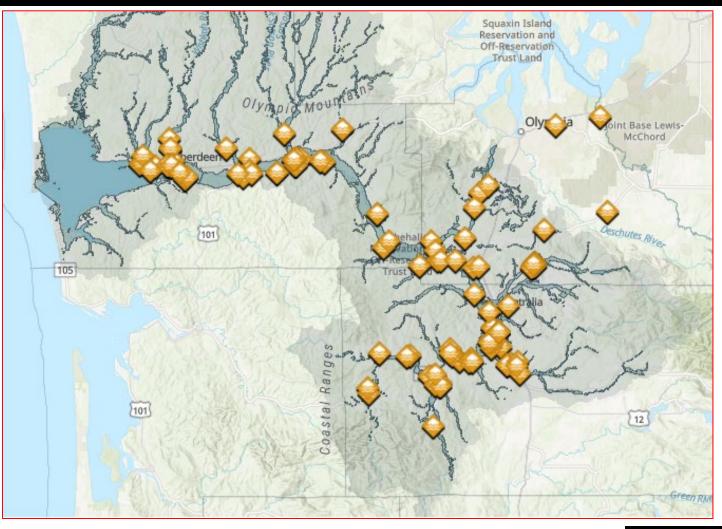
Flood Warning (Basin-wide).

State Capital Budget:
2012-13 \$ 5.0M
2013-15 \$10.7M
2015-17 \$15.7M
2017-19 \$ 9.6M
2019-21 \$ 6.3M
2021-23 \$ 4.1M
2023-25 <u>\$_3.6M</u>
<mark>\$55.0M</mark>

Local Projects (103 Projects Completed 2012-23)



Local Projects (103 Projects Completed 2012-23)



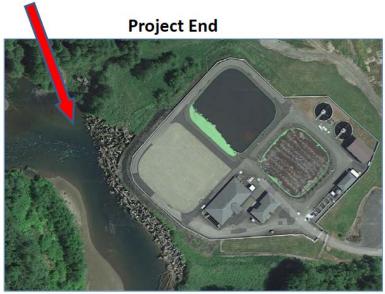


COMPLETED FLOOD AND FISH -

Montesano WWTP Protection Project (2017-2020)

Local Projects (Montesano)

- Protect WWTP from on-coming Wynoochee river using 220+ "logjacks."
- \$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

July 7, 2022 →



Project Start





COMPLETED <u>FLOOD AND FISH</u> – Mill Creek Dam

Local Projects (Cosmopolis)

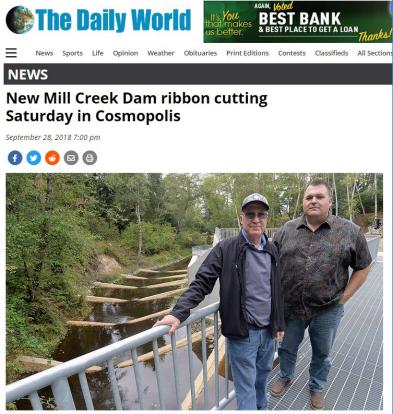
Mill Creek Multi-Objective Implementation Plan:

- ✓ Part I = Reconstruct Mill Creek Dam (done).
- ✓ Phase II project = Address 4,500' of Mill Creek flow, culverts, and flood water evacuation (under development).





City of Cosmopolis, Sep 29, 2018



FILE PHOTO Cosmopolis Mayor Frank Chestnut (left) will officiate a ribbon cutting ceremony for the new Mill Creek Dam Saturday at noon.

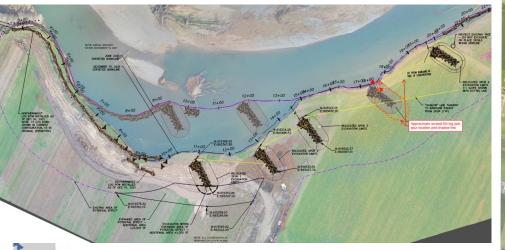
https://www.thedailyworld.com/news/new-mill-creekdam-ribbon-cutting-saturday-in-cosmopolis/



Local Projects (Grays Harbor County, Grays Harbor Conservation District, WDFW)









COMPLETED <u>FLOOD AND</u> <u>FISH</u> –

- 2022 Right Bank Conservation Project (Phase IB)
- 2020 Keys Road Infrastructure Protection (Phase IA)
- 2019-20 WDFW Ponds 10 of 22

COMPLETED FLOOD – Chehalis-Centralia Airport

Local Projects (Chehalis)



New Pump -- 2017



Old Pump – 1940s





Widening/Repairing Levee – 2014 9-21-2022

- New Pump Cost = \$1.1M
- Widening Levee = \$1.2M
- ROI = Substantial: \checkmark
 - Jobs: 1,658 0
 - Labor income: \$68 million 0
 - Value added: \$115.3 million
 - Business revenues: \$186.4 million 0
 - Annual tax revenues (local, state): ~\$9M Ο
- \checkmark 1/2022 High-water event = Airport stayed operational

11 of 22

Local Projects (Bucoda)

COMPLETED 2014 Drinking Water Protection Levee – Read more.





ON-HOLD 2016 Main Street Regrade Project – Read more VER BASIN (and here).



COMPLETED 2016 Foundation Flood Opening Pilot (11 properties) – Read <u>more</u> (and <u>here</u>)

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Local Projects (New and Continuing, 2023-25)

	22-2301 Aberdeen Pump Stations
Aberdeen	22-1728 Design and Permitting of Farragut Pump Station
	23-1219 Fry Creek Phase 3 Design
Cormonalia	22-2277 Joint Surface Water Management Comp Plan
Cosmopolis	21-1451 Mill Creek Multi-Objective Implementation Plan, Ph II
GHCD	22-2546 Lower Satsop Right Bank Conservation, Phase 2
	21-1466 1oth Street Pump Station Design and Permitting
Hoquiam	22-2278 Hoquiam Pump Stations
	21-1467 Queen Ave Pump Station Design and Permitting
Montesano	23-1482 Montesano Water Supply Resiliency
Port of Grays Harbor	22-2358 Haul Road Mid Term Project

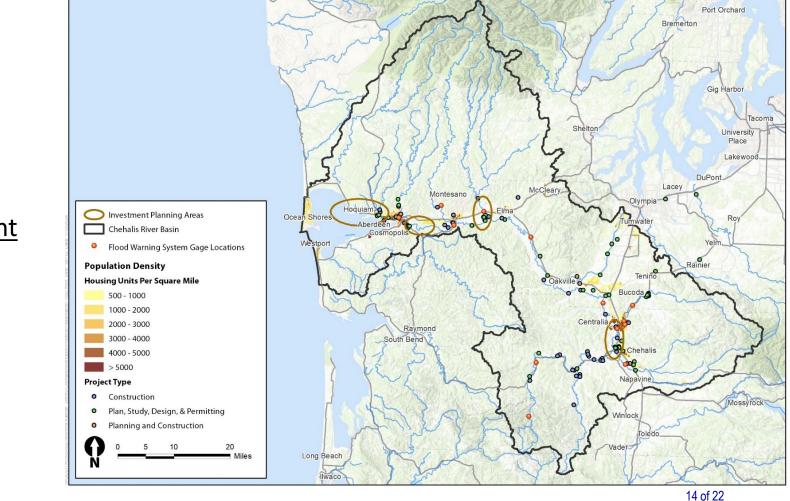
Louis County	New Skookumchuck Reservoir Gage
Lewis County	23-1483 S.F. Chehalis /Boistfort CMZ
Chahalia	23-1221 Chehalis Flooding Strategy and Investment Plan
Chehalis	23-1481 Derelict WWTP Demolition and Removal
Port of Chehalis	<u>18-2614</u> Berwick Creek Flood Reduction and Restoration



Plan/DesignConstruct13 of 22

Local Projects (Future, Beyond 2023-25)

Identify future projects through <u>local</u> <u>investment</u> planning.

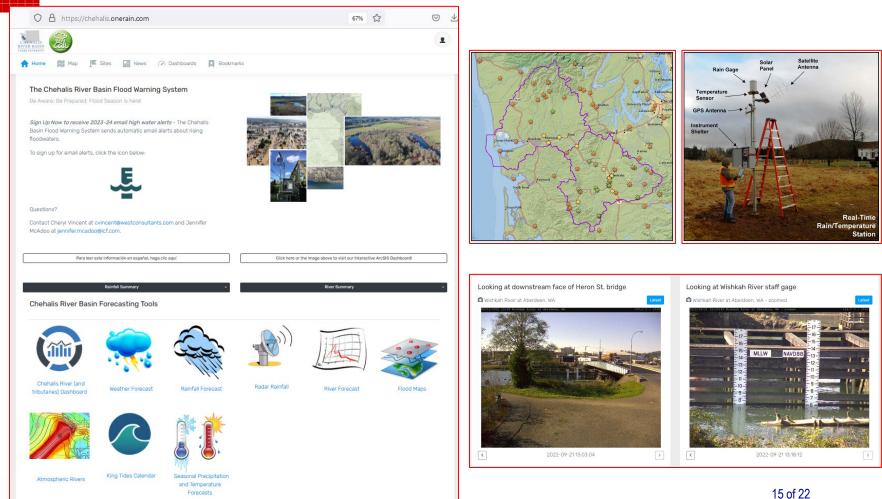




Developed with State Capital Budget \$.

Maintained with local \$.

Flood Warning System (#2)



Flood Warning System (2022 Flood Event)

Flood Warning System Works!

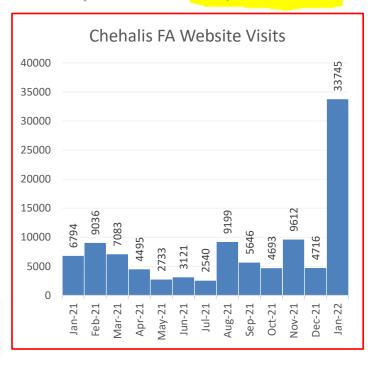
The Flood Authority's flood warning system website was incredibly active during the January flood. Nearly 25,000 individual user logins were recorded and the flood inundation maps received almost 75,000 hits, providing vital information to the community during the flood emergency. Dave Curtis, West Consultants, 2/01/2022

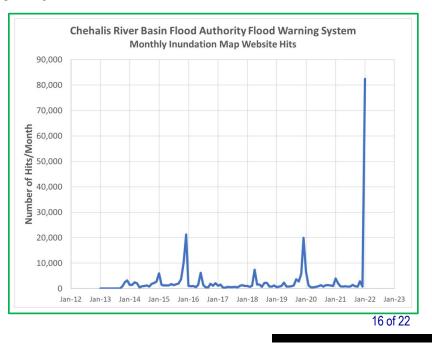
Unknown contact said:

"Our house flooded in '96 and '07--we like to be prepared The gauges and

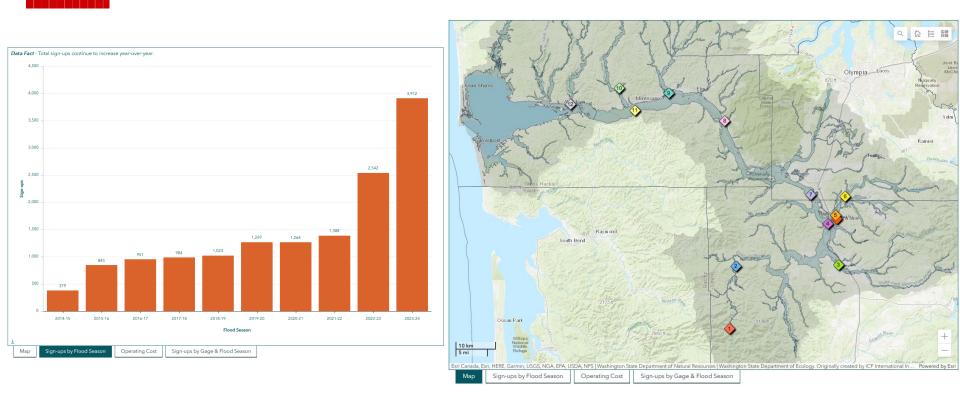
alerts give us more peace of mind. Info=peace of mind"

Survey Respondent, 2/01/2022





Flood Warning System (Alert Sign-Ups)









Office of Chehalis Basin Chehalis Basin Board

https://chehalisbasinstrategy.com/



Community leaders, Chehalis and Quinault tribal representatives, local and state government liaisons



RIVER BA

Office of Chehalis Basin

Small team within the WA Department of Ecology



"Network of Partners"

appoints 3 member

Organizations and local entities who turn ideas into shovel-ready reality



9-21-2022

Chehalis Basin Strategy (Network of Partners)



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.
- \checkmark We have a governance, administrative, and funding structure that's delivering results.





Key Contacts

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Thank You!

This Presentation:

Available at "Chehalis River Basin Flood Authority" Website at https://www.ezview.wa.gov/site/alias_1492/34490/outreach_education.aspx

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Stevie.Colson@ecy.wa.gov



Also -- 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.

