

# CHEHALIS BASIN STRATEGY UPDATE

PRESENTED TO CHEHALIS RIVER BASIN FLOOD AUTHORITY

March 18, 2021



# PURPOSE & TOPICS FOR TODAY

 Update on Status of Strategy after March 4 Board Meeting

 Discussion of CFAR Opportunities for Flood Authority Communities

Dialogue about Relationship
 Between Board & Flood Authority



# STATUS OF STRATEGY AFTER BOARD'S MARCH 4 DECISIONS & DIRECTIONS



# UNANIMOUS AGREEMENT

> Support \$70 M for next two years of projects and planning

> 6 of 7 board members must agree before allocating new funding

> Continue deliberating on next phase of projects from March until June



# BOARD CONSIDERING RANGE OF OPTIONS

- Which projects/actions are ready to be implemented as part of long-term strategy?
- Which need more evaluation before determining whether they should be implemented?
- Which should not move forward?



# CHEHALIS BASIN STRATEGY REVISED TIMELINE

## March 9 Evening Public Meeting

Third in series of OCB meetings to receive public input on options

## April 1, May 6 Board Meetings

- Board to review staff work plans, consider options, receive public comment, and seek consensus on several pathways requested at March 4 meeting
- Possible additional special meeting in May

## June 1 Board Meeting

Board to approve project list and pathways for next 2 years and beyond



# MEANWHILE...PROGRESS CONTINUES!

Office of Chehalis Basin



#### Focus on: Community Flood Assistance and Resilience for renters, land- and business- owners



#### More information

Flooding is a normal part of the ecology in the Chehalis River hasin. However, flooding also puts homes, businesses, towns, and community assets at risk. Flooding and flood damage are expected to increase in the future with climate chance.

For more details, visit chehalisbasinstrategy.com

SUSCIONAL SECURISMENS

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ecyadacoordinator@ecy.wa Or visit:

ecology.wa.gov/accessibility
For Relay Service or TTY call 711

#### Chehalls Basin Strategy

The Chehalis Basin Strategy is an ambitious collection of potential actions to address the twin challenges of reducing damages from flooding and restoring degraded aquatic habitat in the Chehalis River basin. The Chehalis Basin is the second largest river basin in the state.

The Strategy includes near- and long-term actions as well as small- and large-scale projects designed to reduce flood-related damage in the Basin while also restoring aquatic habitat for native species. Not taking action in the Basin could cost Washington as much as \$3.5 billion during the next 100 years.

#### Community Flood Assistance and Resilience Program

The Community Flood Assistance and Resilience Program (CFAR) is a new element of the Chehalis Basin Strategy. CFAR is being developed to fund a wide range of small-scale projects and actions that will reduce damage from flooding and erosion in communities throughout the Basin.

#### Initial program phase starts June 1, 2020

The initial CFAR phase runs from June 1, 2020, through June 30, 2021. The program is focused on providing renters, business- and landowners technical assistance. During the initial phase, additional criteria will be developed to manage the program for the next phase. Ecology's Office of Chealist Basin (OCB) will administer the program.

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- CFAR technical assistance visits & educational webinars
- Wynoochie-area house relocation
- Montesano WWTP protection





# AQUATIC SPECIES HABITAT PROJECTS & PLANNING UPDATE



# LONG TERM FUNDING (30 YEARS)

#### **Full Restoration**

• \$600 million to \$1.3 billion

Add new habitat

Increase resiliency

#### Mid-Level

• \$300 to \$600 million

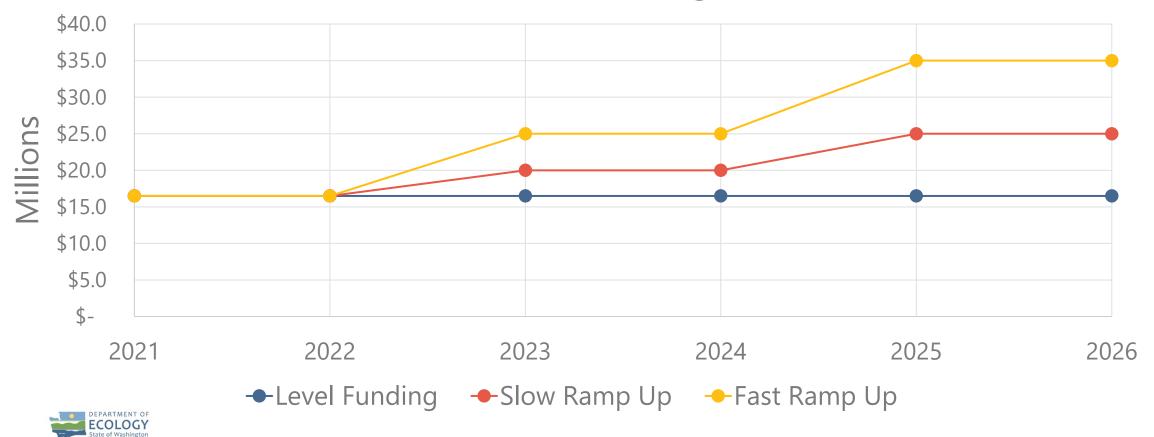
Maintain existing habitat

Halt decline



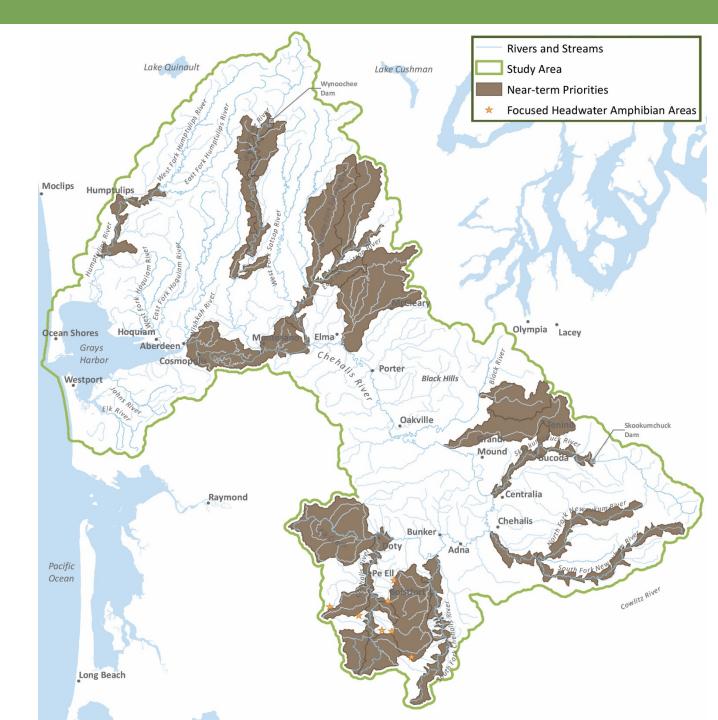
# SHORT TERM FUNDING (6 YEARS)





# **NEAR-TERM PRIORITIES**

 Geographic areas of focus for first 10-year phase







# FLOOD DAMAGE REDUCTION PROJECTS & PLANNING UPDATE



# FLOOD RETENTION FACILITY



Upper Mainstern Impact Reaches
 Waterbody
 Major rivers



# ABERDEEN-HOQUIAM NORTH SHORE LEVEE

# Aberdeen-Hoquiam Flood Protection Project **North Shore Levee**





The Aberdeen-Hoquiam Flood Protection Project is comprised of two critical levees, the North Shore Levee and the North Shore Levee –West Segment, which are needed to protect the Cities of

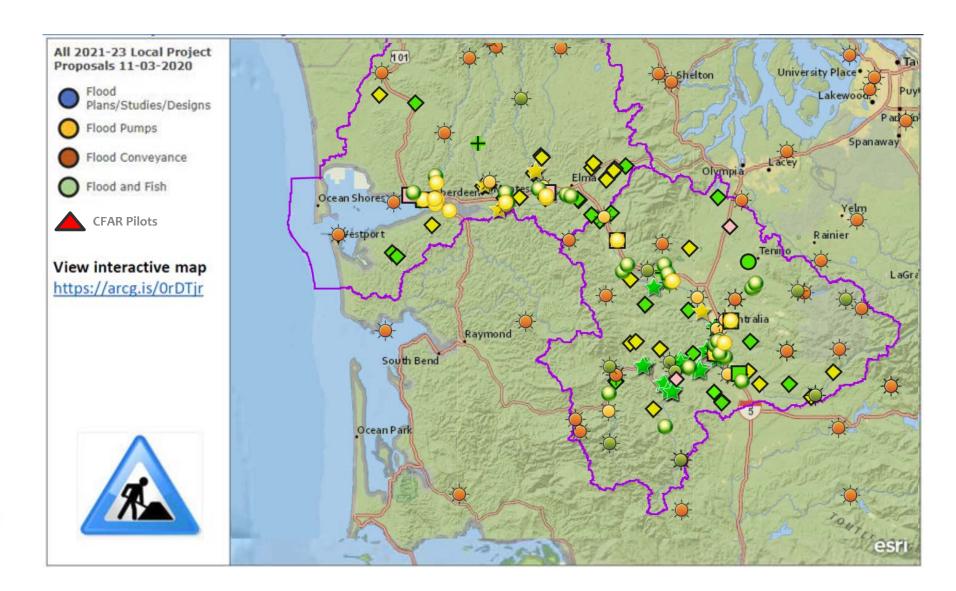








# NEW FLOOD AUTHORITY & CFAR PROJECT PROPOSALS





# OTHER STRUCTURAL FLOOD PROTECTION OPTIONS

- Focus on priority hot spot areas
- Consider numbers & types of existing structures and critical infrastructure
- Consider long-range land use, zoning, buildout, economic development & social justice
- Compare to Board's desired outcomes

LOCATION	NUMBER OF STRUCTURES IN SELECTED AREA <sup>1</sup>	MAJOR/CRITICAL INFRASTRUCTURE PRESENT IN MODELED 2080 FLOODPLAIN? <sup>2</sup>	STRUCTURES AFFECTED OUTSIDE PROTECTED AREA	IMPACTS TO NATURAL ENVIRONMENT	RELATIVE BENEFIT PER MILE OF FACILITY	RATING
3. Airport Levee and Chehalis	High (215)	I-5, airport Washington State Patrol	High (>100)	Medium (wetlands, Dillenbaugh Cr.)	High (~4 miles [>1 mile existing])	High
4. C <mark>entralia</mark>	High (5,527)	Radio stations Valley View Health Center Washington Elementary School Centralia Community College Centralia Police Centralia City Light BPA Power Plant	High (>100)	High (wetlands, Skookumchuck and Salzer riparian)	High (~5 miles)	High
5. West Centralia	642 (High)	Centralia High School	Medium (>25)	Low (agricultural, park)	High (~2 miles)	High
11. South Aberdeen	High (1,203)	Stevens Elementary School	Low (<20)	Low (existing levee raise, pump station)	High (~2 miles existing)	High
13. Bucoda	High (260)	Water supply infrastructure	Low (<20)	Medium (Skookumchuck riparian)	High (~1 mile)	High
1. Adna	Medium (83)	High school Lewis County special education Highway 6	Low (<20)	Medium (Chehalis riparian)	Medium (~1.5 miles)	Medium
7. Galvin	Medium (87)	None identified	Medium (>25)	Low (agricultural, residential)	Medium (~1.5 miles)	Medium
9. Oakville	Medium (172)	None identified	Low (<20)	Low (residential)	Medium (~1 mile)	Medium
10. West Elma	Medium (148)	Highway 8 Elma High School	Low (<20)	Low (highway raise)	Medium (~2 miles)	Medium
12. East Aberdeen	Low (4; all commercial)	Highway 101	Low (<20)	Medium (Estuary shoreline)	Medium (~1 mile)	Medium
14. Grand Mound	Medium (168)	None identified	Low (<20)	High (wetlands, oxbows)	Medium (~2 miles)	Medium
2. Lower Newaukum	Low (20)	None identified	Low (<20)	Low (agricultural, residential)	Low (~1 mile)	Low
5. Military Road	Low (34)	Providence Centralia Hospital Valley View Health Center	Medium (>25)	Low (residential)	Low (~2 miles)	Low 2
8. Independence Road / north floodplain	High (306)	Highway 12	High (>100)	High (wetlands, oxbows)	Medium (~4 miles)	Low

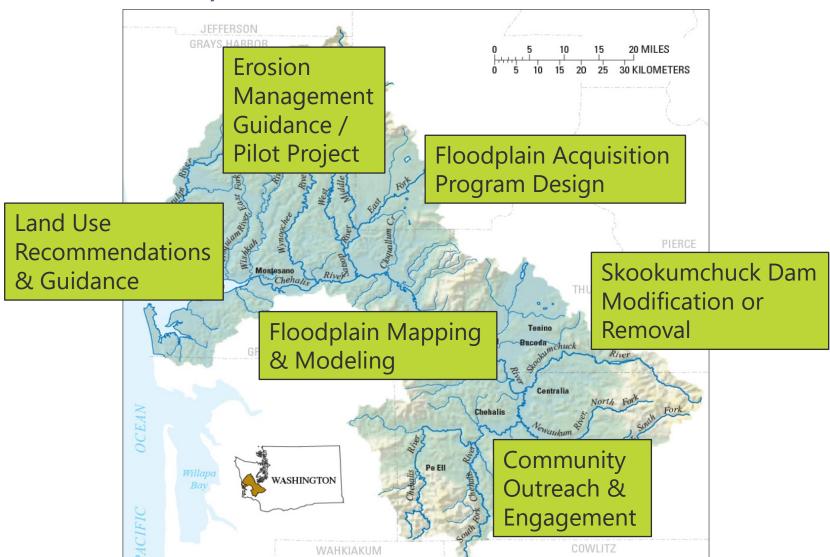




# CROSSCUTTING/INTEGRATED WORK



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# BANK EROSION MANAGEMENT









# FLOODPLAIN ACQUISITION PROGRAM DESIGN









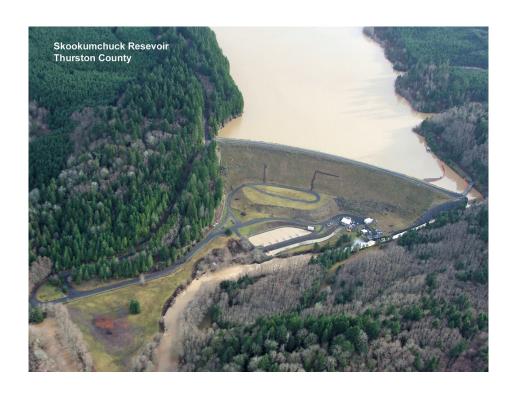
#### LAND USE MANAGEMENT







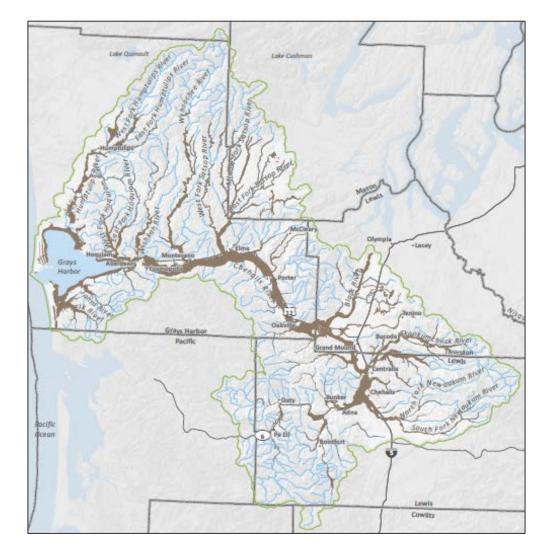
# SKOOKUMCHUCK DAM

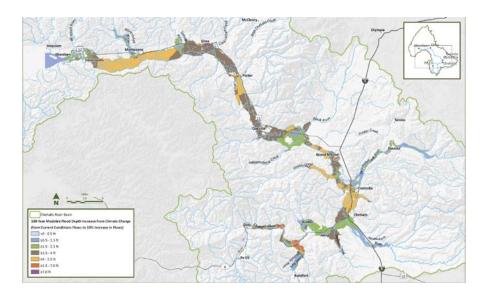






# FLOODPLAIN MODELING







# COMMUNITY OUTREACH AND ENGAGEMENT











#### COMBINING ACTIONS TO MEET PRIORITY FLOOD DAMAGE OUTCOMES

- > Valuable structures protected from mainstem, catastrophic flooding
- > Homes & businesses protected from seasonal urban flooding
- > Lower basin properties & businesses protected from coastal storm surges
- > Farmland and rural structures protected
- Critical facilities protected
- > Transportation routes protected
- Environmental justice advanced
- Prevent new at-risk development





# COMMUNITY FLOOD ASSISTANCE & RESILIENCE (CFAR)

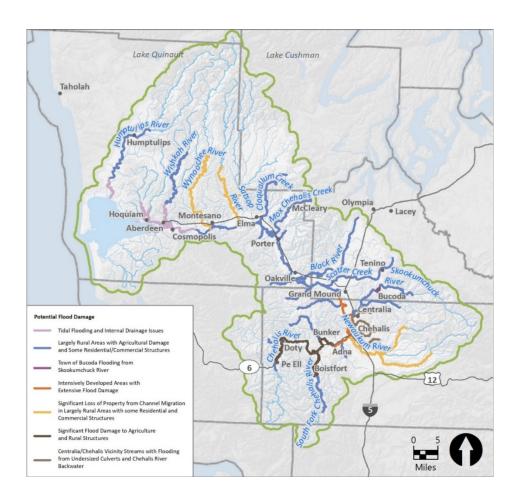
OPPORTUNITIES FOR FLOOD AUTHORITY LOCAL GOVERNMENTS



#### COMMUNITY FLOOD ASSISTANCE & RESILIENCE

Options to scale up program by:

- Expanding technical assistance to individual landowners & local governments
- Increasing financial support for landowners & local governments
- Helping local governments with federal requirements





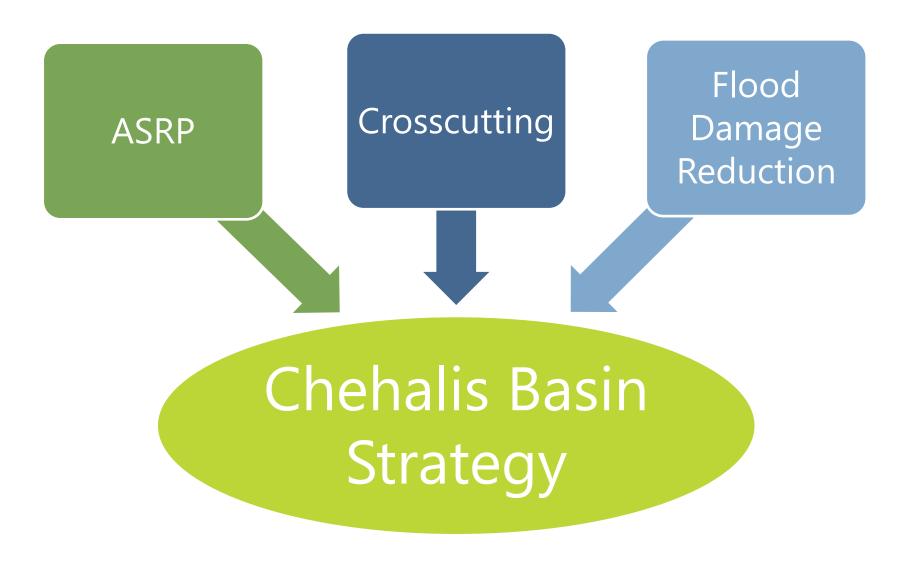


# RELATIONSHIP BETWEEN BOARD & FLOOD AUTHORITY

A RELATIONSHIP WITH MULTIPLE DIMENSIONS

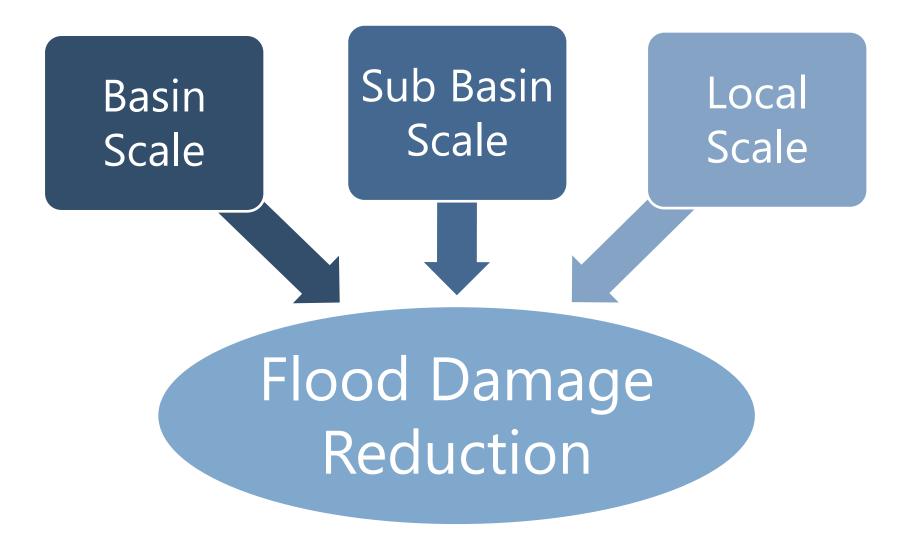


#### OPPORTUNITIES TO CLARIFY RELATIONSHIP BY STRATEGY ELEMENTS



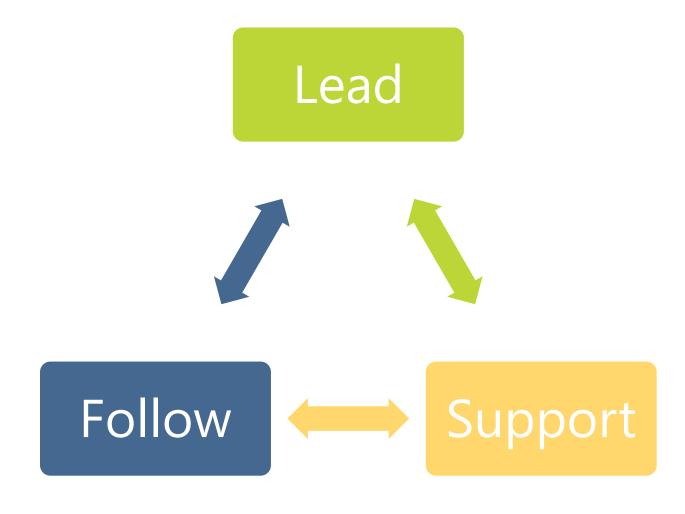


# OPPORTUNITIES TO CLARIFY RELATIONSHIP BY SCALE OF PLANNING/PROJECTS



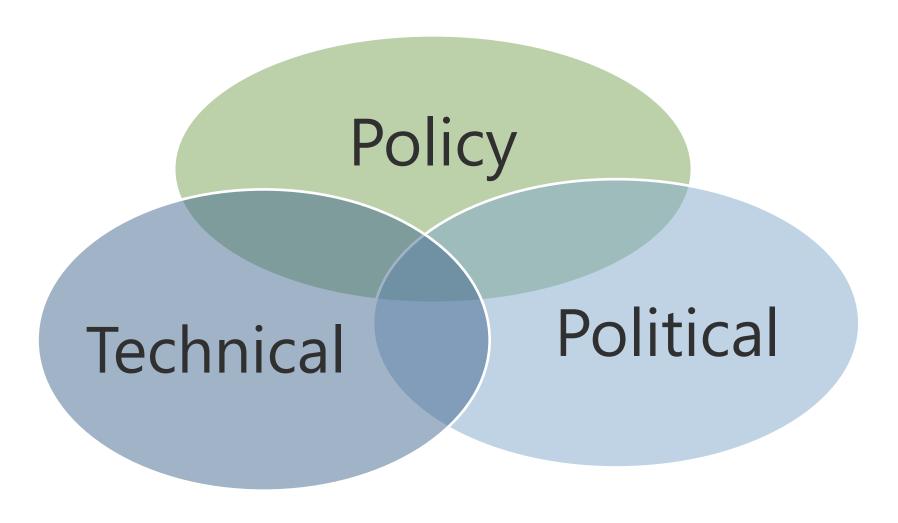


### OPPORTUNITIES TO CLARIFY RELATIONSHIP BY AUTHORITIES & CAPACITIES





### OPPORTUNITIES TO CLARIFY RELATIONSHIP BY SUBJECT MATTER EXPERTISE





# QUESTIONS?

