

CHEHALIS BASIN BOARD SUMMARIZED MEETING AGENDA AND ACTIONS

Date: February 3, 2022
Time: 9:00 am to 1:00 pm
Location: Zoom Meeting

ITEM	FORMAL ACTION	FOLLOW-UP ACTION
1. Consent February 3, 2022 meeting agenda	Decision: Current agenda approved; January 6 meeting summary approved	No follow-up action.
2. Updates and Reflections on Recent Basin Flood Event	Discussion	<p>OCB staff will invite City of Centralia's Public Works Director, Kim Ashmore, to attend a future Board meeting to provide an update on the China Creek project.</p> <p>OCB will invite project sponsors to a future Board meeting to update Board members on completed projects in the Basin.</p>
3. Local Actions Non-Dam Alternative (LAND)	Discussion	No follow-up action.
4. Community Flood Assistance & Resilience (CFAR)	Discussion	OCB staff will provide the Board with additional options that address specific policy considerations for coordinating CFAR projects with local plans.
5. All-H (Harvest, Hatchery, Hydropower, Habitat) and Predation Integration for Salmon Recovery	Discussion	WDFW staff will coordinate with Ray Beamesderfer to present All-H Slider tool to the ASRP Steering Committee and Co-Managers to consider potentially appropriate uses of tool for the Basin.
6. Next Steps and Closing	Discussion	No follow-up action.

Attendees

Chehalis Basin Board Members Present:

- Vickie Raines, Chehalis River Basin Flood Authority
- Edna Fund, Chehalis River Basin Flood Authority
- J. Vander Stoep, Office of the Governor
- Steve Malloch, Office of the Governor
- Glen Connolly, Confederated Tribes of the Chehalis Reservation
- Tyson Johnston, Quinault Indian Nation

Chehalis Basin Board Ex-Officio Members Present:

- Alex Smith, Department of Natural Resources
- Josh Giuntoli, Conservation Commission
- Bart Gernhart, Department of Transportation
- Rich Doenges, Department of Ecology
- Michael Garrity, Department of Fish and Wildlife

Board Staff/Board Guests Present:

- See Attachment A

Welcome, Introductions

Chair Vickie Raines called the meeting to order at 9:04 a.m. and welcomed the Board, staff, and audience.

Consent Agenda

The Board did not have additions or revisions to the [February 3, 2022](#) meeting agenda.

BOARD DECISION: Agenda approved by consensus.

Approval of January 6, 2022 Meeting Summary

The Board did not have additions or revisions to the [January 6 Meeting Summary](#).

BOARD DECISION: January 6, 2022 meeting summary approved by consensus.

Updates and Reflections on Recent Basin Flood Event

OCB Director Andrea McNamara Doyle invited officials from local government, tribal, and state agencies to provide official reporting on what is known to-date about the January 2022 flood event, including an opportunity to share some of their lived experiences.

What was magnitude of flood and how does it compare to past flooding?

Chrissy Bailey (OCB) provided the Board with an overview of datum conversions and differences in measuring flood flows in feet vs Cubic Feet per Second (CFS). The Chehalis River Basin Flood Authority, United States Geological Survey (USGS), and Washington State Department of Ecology undertook a project to resurvey 27 river and stream gages in the basin in 2018. These gages were surveyed using a standard survey datum (height above sea level) called the North American Vertical Datum of 1988, or “NAVD88”. Prior to 2018, USGS gage water level readings were either reported against an arbitrary datum or using a datum called “NGVD 29”. Converting all of the gages to the same datum better enables the sharing of river height information and consistent communication between gaging interests.

A stage or gage height conversion table is available on the Chehalis River Basin Flood Authority’s [website](#). This table identifies stream gaging stations that were affected by the gage height conversion project. Conversion factors are provided to help interested parties convert old gage heights or stages to equivalent new gage heights or stages.

Below is the link to the presentation materials

- [Stage and Flow/Discharge Information](#)

Larry Karpack (Watershed Engineering) presented the Board with a comparison of gage level in CFS and feet from 2022 and past flood events (1996, 2007, and 2009):

- Peak flow at Doty during 2022 flood was about half of peak flow of the 2007 flood event.
- Peak flow at Newaukum was nearly identical between 2007 and 2022 floods.
- At Skookumchuck, peak flow in 2007 was much lower than in 2022 (largely due to differences in Skookumchuck dam levels during the events).
- Grand Mound peak flows in 2009 and 2022 were almost identical; but 2007 was much higher than both 2009 and 2022.
- At Porter, peak flow in 2022 was also much lower than 1996 and 2007 floods.

Below is the link to the presentation materials

- [January 2022 Flood Comparisons presentation](#)

J Vander Stoep (Board Member) provided additional information on the comparison of the 1996 and 2022 flood. This included a map with the scale of inundation in 1996 and information on the Centralia Community Development report that identified properties not affected if an upstream dam would have been constructed based on a 1996 flood event.

Below is the link to the presentation materials

- [1996-2022 Flood Comparison Presentation](#)

How were communities across the basin affected?

Erik Martin (Lewis County Manager) introduced Ross McDowell (Incident Commander for Lewis County) who provided an update on the impacts of the January 2022 flood event, including:

- Public damages estimated at about \$3.99 million; individual damages at \$1.61 million (as of 2/3/22).
- Ten businesses reported damages, including \$100,000 in furnishings damaged and revenue loss of \$400,000.
- Public Assistance thresholds were met for the county totaling \$337K.
- 141 residences have requested assistance due to flooding and damages.
- Lewis County residences reported water in areas previous not affected by flooding; conversely, people were also reporting that areas were dry that had been wet in previous floods.

Below is the link to the presentation materials

- [Lewis County Emergency Management Flooding Presentation](#)

Bart Gernhart (WSDOT) presented flooding issues addressed by WSDOT, including:

- SR-6 exchange with I-5 was the primary concern, with water closed south I-5 down to one lane.
- Issues with pavement on I-5, especially on bridges.
- SR-6 closed at several locations.
- SR-507 closed at several locations.
- SR-508 had severe erosion (outside of basin, near Cowlitz).

Below is the link to the presentation materials

- [WSDOT Flooding January 2022 Presentation](#)

Kim Ashmore (City of Centralia) presented impacts on flooding in Centralia, including:

- China Creek did experience flooding (evaluation still underway)
- 9,000 sandbags were used during the two worst days of flooding
- Skookumchuck Levee held up very well, with no apparent damage and appeared to prevent flooding
- City of Centralia received \$17K in grant funding from Department of Ecology to purchase additional flood readiness equipment.

Mark Bieber (Thurston County) presented impacts of flooding in Thurston County, including:

- Thurston County had 4-5 inches of antecedent snow prior to atmospheric river event.
- 2.8 inches of rain over 24-hour period in northern part of the county and 4 inches of rain in the southern part of the county (monitored with 15-minute precipitation monitoring network).
- Grand Mound gage registered an approximately 50-year event (4.5 inches in 24-hours).
- Moderate flooding and erosion on the Chehalis and Black rivers.
- \$2.64 Million in damages both county/non-county on infrastructure and private property.
- 27 roads damaged; including 5 landslides over roads.
- 100 residence and two business submitted damage reports totaling \$1.4 Million.

Glen Connelly (Chehalis Tribe) presented impacts of flooding experience by the Confederated Tribes of the Chehalis Basin, including:

- Many areas from low-lying areas were evacuated (75% of the Chehalis reservation is in the floodplain.)
- One serious car crash on the reservation required evacuation to the hospital.
- Hwy 12, South Bank Road, and Anderson Road all experienced inundation and minor damage.
- Tribe has established good emergency management plan, reflected by successful implementation during flooding event.

Hannah Cleverly (Grays Harbor County Emergency Management) presented impacts of flooding in Grays Harbor, including:

- January 3, 2022 flood event was a combination of snowmelt, tidal surge, king tides, and heavy precipitation.
- Wishkah River gage (2/3/22) showed water levels 2.5 feet higher than predicted king tide.
- Estimated structural loss included \$3M for private residences and about \$265K for businesses.
- Estimated personal property lost included \$200K for residences and \$65K for businesses.
- 12 jurisdictions have estimated public damages estimated at \$800K.

Below is the link to the presentation materials

- [Grays Harbor County Emergency Management 2022 flood event](#)

Brian Shay (City of Hoquiam) presented impacts on flooding in Hoquiam, including:

- Hwy 101 & Hwy 109 inundated due to Wishkah River flooding during king tides (1/3/22).
- Fry Creek overtopped its banks (1/6/22) and experienced significant flooding.
- Grays Harbor PUD facilities inundated due to Fry Creek flooding.

Below is the link to the presentation materials

- [January 2022 Flooding in Hoquiam and Aberdeen](#)

Tyson Johnston (Quinalt Indian Nation) presented impacts on flooding in Taholah, including:

- High tides and tidal surges (1/3/22) caused significant battering on the sea wall used to protect lower residences in Taholah.
- Significant flooding over roadways forced the evacuation of homes and tribal buildings in the lower reservation.
- Hwy 109 near Eight Corner Rd. experienced significant erosion and landslides, having significant impacts on access to the reservation.
- USACE is looking into sea wall repair.

Below is the link to the presentation materials

- [Quinalt Indian Nation News Letter](#)

What was impact on projects supported by Strategy?

Scott Boettcher provided the Board with an update and reflection on lower basin erosion projects and the use of the Chehalis River Basin flood warning system during the January 2022 flood event.

- Small Scale: Cloquallum Creek erosion project (Project sponsor: Grays Harbor Conservation District) successfully protected property by preventing additional erosion and providing adequate drainage fields.
- Large Scale: Lower Satsop Right Bank Erosion project, while still underway, appears successful. Two log rows and three jacks have started deploying in the river, the bank has not moved.
- Unprecedented use of the Chehalis flood warning system. 25K logins over the peak event (1/6-7/22) and 75K website views on the warning system inundation map.

Chrissy Bailey (OCB) presented impacts of two Flood Authority Projects during the January 2022 flood:

- Flood Vents in Bucoda: Steve Lyle (councilperson and Flood Authority rep) toured the area in question and spoke with several of the affected residents. The flood waters behaved differently during this event, but nonetheless the flood vents performed as advertised. To his knowledge, none of the 11 homes took water inside, but it was very close. Several homes in the north Market Street area now have water-soaked insulation and stringers, which will require attention later. No foundations of the retrofitted homes were damaged.
- Thurston County elevations: Tim Rupert (Thurston County) drove by the 3 homes that were raised using Flood Authority funding in the 15-17 biennium. Although the flooding was not severe in these areas, all were high and dry.

Key comments and discussion topics included:

- Board members acknowledged a common theme that there were issues around real time predictions for flooding and they are interested in how predictions can be improved for future flood events.
- Board members acknowledged the importance of public outreach and the use of social media to inform residences and businesses in the basin.
- Board members were reminded of the [Frequently Asked Question Document](#), which includes a number of other projects that the Strategy has invested in and the role they played during the flooding event.

Community Flood Assistance & Resilience (CFAR)

Chrissy Bailey (OCB) introduced considerations for Board discussion regarding how the CFAR program should handle the specific policy issue of when a property owner's desired project is contrary to or is not consistent with an "informal" local government plan or project.

Below are two example scenarios OCB staff developed to illustrate the issue:

- Scenario A – pros and cons of the 'default' position being to provide financial assistance for feasible property owner-desired projects, even when inconsistent with informal or non-adopted local government plans or projects.

- Scenario B - pros and cons of the 'default' position being not to provide financial assistance for property owner-desired projects that are inconsistent with, or would prolong or make more expensive, implementation of an informal or non-adopted local government plan or project.

Key comments and discussion topics included:

- Board members agree that local government's informal discussions to adopt a plan or fund projects is not sufficient to not provide financial assistance to property owners. However, the CFAR program should give local government the opportunity and time to decide whether their plan will become formal before providing financial assistance to property owners.

Below is the link to the presentation materials:

- [Community Flood Assistance & Resilience Presentation](#)
- [CFAR Policy Memo](#)

FOLLOW UP: OCB staff will provide the Board with additional options that will address specific policy considerations for coordinating CFAR projects with local plans.

All-H (Harvest, Hatchery, Hydropower, Habitat) and Predation Integration for Salmon Recovery

Ray Beamesderfer (Fish Science Solutions) provided the Board with information on the All-H Slider tool. This tool helps inform the significance of different limiting factors to healthy populations across the basin. The tool isn't used to give provide a precise estimate of improvement, but rather to compare interventions broadly against each other.

Below is the link to the presentation materials:

- [All-H Slider tool Presentation](#)

Key comments and discussion topics included:

- Board members are interested in Ray presenting the All-H Slider tool to the ASRP Steering Committee and Co-Managers and hear their recommendation about the utility of this tool.

FOLLOW UP: WDFW staff will coordinate with Ray Beamesderfer to present All-H Slider tool to the ASRP Steering Committee and Co-Managers to consider potentially appropriate uses of the tool for the Basin.

Local Actions Non-Dam Alternative (LAND)

Andrea McNamara Doyle provided a brief overview of the January 31, 2022, Steering Group meeting in which the SG Executive Committee was formed, including Glen Connelly, Todd Chaput, Steve Malloch, and Norm Chapman. [MIG Consulting](#) was announced as the apparently successful bidder that will provide the SG with the technical expertise needed to provide the Board a proposed LAND Alternative for consideration. The next formal meeting will be held February 28, 2022.

Next Steps and Closing

Jim Kramer (Facilitator) thanked Board members for their participation, adjourned the meeting, and invited participants to stay for a few extra minutes to watch the new ASRP videos that have been recently completed. These will be posted on the ChehalisBasinStrategy.com website and used as part of the ASRP landowner outreach efforts.

The next Board meeting is scheduled for March 3, 2021, to be held virtually.

Attachment A

Board Staff/Board Guests:

- Alex Gustafson, Trout unlimited
- Amelia Schwartz, City of Chehalis
- Andrea McNamara Doyle, Department of Ecology, Director, Office of Chehalis Basin
- Betsy Dillin, Flood Control Zone District
- Brent Bower, National Weather Service Seattle
- Brian Shay, City of Hoquiam
- Celina Abercrombie, Department of Fish and Wildlife
- Colleen Granberg, Department of Natural Resources
- Colleen Parrott, Chehalis Tribe
- Cindy Bradley, Department of Ecology, Office of Chehalis Basin
- Curt Hart, Department of Ecology
- Dave Bingaman, Quinault Indian Nation, ASRP Steering Committee
- David Linn
- Devin Reck
- Diane Butorac, Department of Ecology
- Emelie McKain, Department of Fish and Wildlife
- Erik Martin, Flood Control Zone District
- Erik Schwartz, MCPW
- Frank Corbin, Chehalis Basin Flood Control Zone District
- French Wetmore
- Jim Kramer, Kramer Consulting (Facilitator)
- Julie Tyson
- Ken Ghalambor, Ross Strategic
- Kristen Harma, Chehalis Basin Lead Entity
- Larry Karpach, Watershed Science and Engineering
- Lauren Dennis, Ross Strategic
- Lee First, Twin Harbors Waterkeeper
- Mark Glyde, Quinault Indian Nation
- Mara Zimmerman, Costal Salmon Partnership
- Mike Beehler, Chehlais-Centrailia Railroad
- Nat Kale, Department of Ecology, Office of Chehalis Basin
- Nicole Czarnomski, Department of Fish and Wildlife, ASRP Steering Committee
- Pete Krabbe, Pinchot Partners
- Scott Boettcher, Flood Authority
- Sir Walken
- Ron Averill, Flood Authority

- Tammy Domike, Citizens of Clean Harbor
- Teri Wright, Sierra Club
- Tye Menser, Thurston County Commissioner

