



CHEHALIS BASIN PARTNERSHIP

Zoom Call with Screen Share

Thursday, May 27, 2021

9:30am - Noon

Meeting Summary

MEMBERS* and ALTERNATES' PRESENT

Jill Warne*, *Grays Harbor County*
Jane Hewitt', *Grays Harbor County*
Sean Swope*, *Lewis County*
Lee Napier', *Lewis County*
Kaitlynn Nelson', *Thurston County*
Dave Windom*, *Mason County*
Colleen Suter', *Chehalis Tribe*
Alissa Shay', *Port of Grays Harbor*
Terry Harris*, *City of Chehalis*
Dan Wood*, *City of Montesano*
Brian Shay*, *City of Hoquiam*
Jaron Heller*, *City of McCleary*
Nick Bird*, *City of Ocean Shores*

Chris Stearns*, *Thurston PUD*
John Bryson*, *Quinault Indian Nation*
Lauren MacFarland', *Quinault Indian Nation*
Paula Holroyde*, *Citizen, League of Women Voters Thurston County*
Mike Noone*, *Ecology Water Resources*
Megan Tuttle*, *Washington Department of Fish and Wildlife*
Bob Johnson*, *WDNR*
Chris Lunde*, *Port Blakely*
Jan Robinson*, *Chehalis River Basin Land Trust*

GUESTS

Elena Fernandez, *Thurston County*; Mark Mobbs, *Quinault Indian Nation*, Jamie Glasgow, *Wild Fish Conservancy*, Bob Amrine, *Lewis Conservation District*, Nat Kale, *Ecology Office of Chehalis Basin*, Sarah Moorehead, *Thurston Conservation District*; Kevin Eldred, *City of Aberdeen*, Alex Gustafson, *Trout Unlimited*; Rachel Stendahl, *Chehalis Basin Education Consortium*; Lorenzo Churope, Tom Culhane, *Ecology*

STAFF

Cynthia Carlstad, *Facilitator, NHC*; Bridget August, *GeoEngineers*

FOR MORE INFORMATION

- Meeting summaries are available on the Chehalis Basin Partnership website: www.chehalisbasinpartnership.org
- PowerPoint presentations from this meeting are available on the Chehalis Basin Partnership website: www.chehalisbasinpartnership.org/presentations

MEETING

Welcome, Agenda Review

Chair Harris convened the meeting, welcoming Partnership members and guests. He also recognized that CBP Coordinator, Kirsten Harma is recuperating from abdominal surgery. Ms. Carlstad will circulate a digital get well card for Partnership members to sign.

Approval of April Meeting Summary

The meeting summary was accepted with no edits.

Guidelines for Support Letters from the Partnership

Ms. Carlstad displayed the guidelines for support letters from the Partnership that were approved at the Partnership's March meeting. Final approval was pending confirmation from Ms.

MacFarland that the guidelines are acceptable to the Quinault Indian Nation. Ms. MacFarland confirmed this and the guidelines were formally approved.

Watershed Plan Addendum Implementation Project – Beaver Dam Analog Implementation

Mr. Jamie Glasgow of Wild Fish Conservancy (WFC) gave a presentation on the ASRP-funded Beaver Dam Analog project that is also in the Partnership’s Streamflow Restoration Plan. The project team hopes to continue the work and plans to ask the Partnership for a letter of support in the coming months.

Lead organizations for the project are Wild Fish Conservancy and WDFW. Partners include Beavers Northwest, Ducks Unlimited, the Weyerhaeuser Company, and the work is assisted by NOAA Northwest Fisheries Science Center, Ecology, Grays Harbor Conservation District, and Lewis Conservation District.

BDAs are an important tool in process-based habitat restoration that can enhance and restore a suite of aquatic functions:

- Create wetland habitat
- Promote river floodplain connectivity
- Retain sediment
- Enhance aquatic productivity
- Reduce water temperatures, increase thermal complexity
- Increase water storage and groundwater recharge

Goals and objectives for ongoing work include the following:

1. Refine the Beaver Intrinsic Potential (BIP) Siting Model within the entire Chehalis Basin
2. Complete BDA designs and permits for 5 to 10 sites with willing landowners, shovel-ready for Phase II
3. Evaluate effectiveness of BDA techniques, using a process-based monitoring framework
4. Develop and disseminate decision support tools to assist practitioners in siting and installing effective BDAs
5. Build coalitions that will leverage funding to expand a Chehalis BDA implementation and monitoring program

The BIP is a model of the entire Chehalis that helps identify reaches that may be suitable for BDAs. Physical characteristics that make a site potentially suitable are mainly channel gradient and width, and valley width. The model is online at <https://dev-geodataservices.wdfw.wa.gov/hp/beaver-dam-analog/>

The current project includes effectiveness monitoring which is lacking for western Washington BDAs. They will be monitoring both physical and biological parameters.

They are currently finalizing site selection and beginning the “before project” portion of monitoring. They hope to gain funding from ASRP to build the BDAs next year. Through all of this they will be coordinating with partners, disseminating information, seeking opportunities to expand implementation and enhancing effectiveness monitoring.

All of this will be reported as decision-support guidance:

- BDA siting tools
- Outreach guidance; beaver conflict resolution resources
- Structure design guidance
- Permit guidance
- Monitoring study plan

The team has identified opportunities to leverage opportunities to site, design, construct, and monitor BDAs in the Chehalis. They believe the work aligns with the Partnership's Streamflow Restoration Plan and will be seeking a letter of support in the future. Their project scope is not finalized and will be scalable based on funding available when that grant program is announced. They plan to emphasize the monitoring and increasing certainty for water and streamflow benefits.

Questions and Answers

1. Mr. Wood commented that he is aware of two locations where beavers are currently created blockages in unwanted locations. Does this project include a beaver relocation element to help re-home beavers? A: This BDA project does not include beaver relocation. A separate program within WDFW has developed a pilot program to authorize beaver relocation under certain conditions (see: <https://wdfw.wa.gov/species-habitats/living/nuisance-wildlife/beaver-relocation#relocators>). BDAs actually work better when they are colonized by real beavers.
2. Mr. Stearns commented that WDFW has been involved with other animals being repopulated in Washington, e.g. Roosevelt elk, turkeys. They have been successful in those efforts. He asked about large woody debris – the lack of it or coordination with locations where large woody debris is placed in streams. A: Yes, there is coordination. Mr. Glasgow cited the Grays Harbor CD project in the Wynoochee/Satsop that is designing different types of instream structures, similar to BDAs. BDAs function as a type of log jam, and they trap wood and sediment, like other engineered log jams.
3. Mr. Mobbs asked about the methods they are using to measure changes in hydrology. A: They will start with methods used previously in other watersheds. They hope to improve upon that. This is in the development stage at this point.
4. Ms. MacFarland asked about the 2.5 acre-feet estimate used in the Streamflow Restoration Plan – is that from arid regions? A: That estimate was derived from the Dittbrenner work. Mr. Culhane added that his recollection is that the 2.5 acre estimate was based on general calculations for a watershed in Snohomish County.

Guidance from the Partnership for WFC/WDFW in developing scope for project:

1. Mr. Stearns recommended also emphasizing benefits for refuge habitat for smaller fish to avoid predation during outmigration. This is a need in the Chehalis. Mr. Glasgow concurred the importance of this.
2. Chair Harris asked about potential landowner resistance to large woody debris and recommended that this be addressed in the project scope. He also asked about failure of BDA structures over time – will the project include repair/removal if and when that happens? A: BDAs are Low Tech Process-Based Restoration (LTPBR) and are very quick and inexpensive to construct. Best practices are to build several in close proximity so that there is redundancy in case of failure. Repairs can also be made inexpensively.

Timeline for bringing a proposal to the Partnership is late summer.

Watershed Plan Addendum Implementation Project - Basin-Wide Managed Aquifer Recharge Assessment

Ms. August presented results from the Managed Aquifer Recharge Opportunities Assessment. These projects are aimed at larger-scale recharge opportunities primarily from diverting river flow during high-flow periods. She reviewed the different types of recharge opportunities ranging from smaller side channel/oxbow, BDAs to infiltration galleries fed by pumped river water. The engineered MAR facilities can be open water or buried infiltration galleries.

Benefits of MAR include retiming streamflow to add flow when it is needed most and delivering cool baseflow naturally. Constraints include the following:

- Proximity to water source
- Proximity to river to be recharged – not too close or too far
- Water delivery method
- Available land
- Legal water availability
- Suitable geology and soil conditions
- Proximity to existing water supply wells
- Water quality
- Site testing and design is detailed
- Operation and maintenance costs

Based on initial work and input from the project team, Ms. August narrowed the search based on permit-exempt well projected impacts (Newuakum and Scatter Creek), priority streams and subbasins where Streamflow Plan lacked projects (South Fork Chehalis and Stearns Creek). She also screened for public ownership and known supportive private landowners. Other private lands were also considered in specific areas of interest, but note that this is only for screening and has not involved any landowner conversations.

Other screening criteria included the following:

- Surficial soils mapped as alluvium, outwash or undifferentiated glacial drift
- Soils mapped as hydrologic groups A and B having a permeability of greater than 2 inches per hour
- Excluded areas with low permeability surficial geology
- Within 1/2 -mile of major stream
- Excluded mapped flood zones (usually these are shallow groundwater areas)
- Identify potential access to roads to minimize access costs.

For the whole basin, Ms. August initially identified over 1,100 parcels that met initial screening. She narrowed this to the best candidates and described those:

- Chehalis Headwaters
 - West bank of Chehalis River – three potential sites just upstream from Doty (Tribal trust land site, Capital Land Trust site, and private ownership site tributary to Stowe Creek)
 - Rainbow Falls State Parks property
 - Active quarry
- South Fork Chehalis – some portions already in CREP
- Stearns Creek – less permeable soils and historical flooding, so may be more suitable for small-scale MAR (e.g. restored wetlands)
- Newaukum
 - One site on mainstem
 - Middle Fork – very limited opportunity
 - South Fork – limited opportunity
 - North Fork – three potential opportunities, including one on a terrace with potential stream inflow as source.
- Scatter Creek
 - Upper Scatter MAR site
 - Creekside Conservancy property in upper mainstem Scatter Creek

Ms. August reported that next steps include:

- Screen additional private properties
- Further evaluate aquifer conditions – data is limited
- Assess water availability - legal and physical constraints
- Start conversations with landowners
- Develop site concepts and implementation costs (volume, groundwater travel times)

Ecology requires feasibility studies for MAR projects. Their requirements include the following:

- Preliminary site assessment and site access
- Delineation of the water source
- Field investigation and analysis of MAR site
- MAR permitting analysis and cost estimate
- Preliminary MAR project design
- Water quality considerations
- O&M cost estimate

These feasibility study requirements can be funded through Ecology Streamflow Restoration grants.

Ms. Carlstad noted that this assessment work is intended to provide a foundation for future project development. No one has shown interest in leading one of these projects, so they are on the back burner for now.

Questions and Answers

1. Mr. Mobbs asked if this works on farm fields – e.g. flood farm fields during the winter and keep in production during the growing season. A: Yes, it is technically possible. There would be water quality considerations. Mr. Culhane commented that this would not be the most efficient way to recharge the aquifer.
2. Ms. August asked Ecology representatives if there is potential for landowners to use part of the water from a potential field flooding MAR for irrigation or other consumptive uses. Mr. Noone said that his initial reaction is that there would be several permitting considerations for any project like that – impoundments within the floodplain, water rights, etc. Mr. Culhane agreed this type of project would encounter permitting hurdles. He thinks that the WRIA 1 rule was written to allow for this, but there is no precedent for that in the Chehalis. The challenge relates to timing of when water is used versus when it is needed by the stream.
3. Mr. Mobbs asked if diversions are screened so fish don't become entrained. A: Yes, definitely. Typically water is taken from a Rainey well (shallow well adjacent to the river) rather than by a pump in the river. Mr. Culhane noted that while Rainey wells are preferable from a fish standpoint, pumped systems require power, a significant cost item.
4. Mr. Mobbs noted that the South Fork Chehalis often has less flow than Stillman Creek and wondered whether historically there was more flow in the South Fork Chehalis. Ms. Suter responded that there did used to be more water in the South Fork Chehalis and there still is above the agricultural lands.
5. Mr. Kale volunteered that Thurston County installed 8 monitoring wells in the Scatter Creek watershed and they have been monitored. This would be useful data for the MAR assessment.
6. Ms. Suter commented that the property in the upper Chehalis labeled as tribal trust land is officially part of the Chehalis Reservation and developing a project there would be very complicated.

7. Mr. Stearns commented that the Willapa Hills are comprised in part of partially-solidified sediment. That is a factor in considering projects in that area.
8. Chair Harris asked Mr. Noone at what point do Ecology water quality people get involved when a project is being developed? He cited difficulties with this during the City of Chehalis' wastewater treatment plant construction several years back. Mr. Noone responded that he recently engaged this question related to Streamflow Restoration grant projects. Other Ecology programs review grant proposals after Mr. Noone's program screen applications for Water Resources permitting requirements. WDFW is also part of that second review.
9. Mr. Culhane commented on the Scatter Creek watershed – it is very cobbly and goes dry during the summer. He thinks it would be difficult to know whether MAR would actually create streamflow in Scatter Creek. Mr. Stearns followed that there is a lot of development in Scatter Creek and there is concern about too much groundwater withdrawal. Thurston PUD has seen that groundwater changes flow direction seasonally because of the shallow hydraulic gradient. He believes that any aquifer recharge would be beneficial.
10. Mr. Windom asked if this would affect the FEMA floodplain? A: No.

For the Good of the Order / Public Comment

Chair Harris opened public comment and partner updates.

- Mr. Stearns commented that Thurston PUD is working on fixing the leakage from some of their systems in Lewis County.
- Chair Harris wished the group a happy holiday weekend and encouraged them to remember the purpose for the holiday by thanking and honoring veterans.
- Ms. August asked if anyone has knowledge about reclaimed water use in the basin. Chair Harris responded that the City of Chehalis has reclaimed water and has been challenged to find uses for it that are consistent with permit requirements. Ms. Nelson commented that Thurston County is looking at this in the Grand Mound area. Ms. August shared about a reclaimed water project in Prineville, Oregon that utilized treatment wetlands to avoid an expensive plant upgrade.
- Mr. Kale alerted Ms. August and the rest of the group about Ecology's nutrient permit being developed currently. It will affect wastewater treatment plants, especially smaller one. He provided the following link to Ecology's general permit for nutrients from WWTPs: <https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Nutrient-Permit>.

ADJOURNMENT

With there being no further business, Chair Harris adjourned the meeting.

RECORD OF DECISIONS:

1. June 28, 2019 – Members voted by full consensus to review the Charter Addendum as edited at this meeting within their organizations and be prepared for a second reading and approval at the July 26, 2019 meeting.
2. July 26, 2019 – Members voted by full consensus to approve the Charter Addendum to the 2004 Operating Procedures. The Quinault Indian Nation voted “Formal Disagreement, but Willing to Go with Majority” and will provide a written statement to include with the final charter.

3. April 24, 2020 – Members voted by full consensus to approve the permit-exempt well projection of 4555 new permit-exempt well connections by 2040 with an estimated consumptive use of 504.8 acre-feet per year. Absent members: City of McCleary, City of Napavine, Town of Pe Ell, Terry Willis (Grays Harbor citizen member), WDNR, Brian Thompson (Lewis County Farm Bureau); Abstaining members: Weyerhaeuser, City of Aberdeen
4. October 29, 2020 – First approval of Watershed Plan Addendum by full consensus. Abstaining members: Boistfort Water District, City of Montesano; Absent members: City of Napavine, Town of Pe Ell, Terry Willis (Grays Harbor Citizen Representative),
5. November 17, 2020 – Final approval of Watershed Plan Addendum by full consensus. Abstaining members: Boistfort Water District, City of Montesano; Absent members: City of Napavine, Town of Pe Ell, Terry Willis (Grays Harbor Citizen Representative)
6. February 26, 2021 – Approval to develop guidelines for how project proponents may obtain letters of support from the Partnership.
7. April 23, 2021 – First approval on Guidelines for Support Letters from the Partnership.
8. May 27, 2021 – Final approval of Guidelines for Support Letters from the Partnership.

NEXT MEETING: June 25, 2021