



Hood River
WATERSHED GROUP

Hood River Watershed Group

*"...to sustain & improve the
Hood River Watershed through
education, cooperation, & stewardship"*

APRIL 27, 2021 MEETING MINUTES

Watershed Group Members Present

Chuck Gehling	Cindy Thieman	Alix Danielsen	Heather Hendrixson	Megan Saunders
Holly Coccoli	Rick Larson	Brian Nakamura	John Buckley	Steve Pappas
Jim Wells	Zach Bergen	Daniel Ball	Jim Brick	Greg Short
Lindy Collamer	Andrew Spaeth	Larry Martin	Emily Jane Davis	Kevin Liburdy
Jordan Kim	Lindsay Powell	Lisa Naas Cook	Smita Mehta	Jeremy Trombley

** This meeting was conducted virtually via Zoom.

Welcome and Introductions

At 6:02pm, Chuck Gehling welcomed everyone to the April meeting and stated the mission of the Watershed Group. Alix read through the list of attendees and their affiliations and provided some general logistics about the meeting. There were 25 people in attendance. Chuck introduced Cindy Thieman, the presenter.

Monthly Informational Presentation

Cindy Thieman, Hood River Watershed Group Coordinator, presented on *Watershed 2040 - The Hood River Basin Partnership 20-Year Strategic Action Plan*.

Efforts to restore aquatic habitat and recover the watershed's threatened fish species are the foundation of WATERSHED 2040, the Hood River Basin Partnership's Strategic Action Plan, which encompasses an ambitious scope of work for restoring fish habitat, streamflow, and water quality over the next 20 years. Much of this work will also strengthen the resiliency of our community and economy, as climate change continues to impact streamflow, water temperature, and aquatic and terrestrial habitats.

Core partners that have contributed significant time to the Strategic Action Plan (SAP) over the three-year planning period include Hood River Watershed Group, Confederated Tribes of the Warm Springs, Oregon Department of Fish & Wildlife, U.S. Forest Service, East Fork Irrigation District, Farmers Irrigation District, Middle Fork Irrigation District, Hood River Soil & Water Conservation District, and Oregon Department of Environmental Quality. Other key partners include Columbia Land Trust and Natural Resources Conservation Service.

Strategic Action Plan Guidance and Funding:

The Watershed Group received ~\$100,000 in Oregon Watershed Enhancement Board funding to develop a strategic action plan focused on aquatic habitat for native fish species. The Plan components are consistent with the 'Focused Investment Partnership' funding opportunity. Technical and staff support was provided by Bonneville Power Administration for developing an Atlas prioritization model to support the SAP.

Vision: "The Hood River Basin Partnership envisions a resilient landscape that supports native fish and wildlife, a community willing to protect and restore its natural resources, and a local economy that thrives within the natural systems of the watershed." This vision was originally developed for the Watershed Group, and the Partnership adopted it for the SAP.

Some watershed highlights: high stream gradients; scarcity of pools and broad floodplains; many streams are influenced by glaciers, turbidity, and semi-frequent debris flows; forest covers 80% of the watershed (50% Forest Service, 30% County, private timber, and unmanaged woodlands); agriculture is important to the economy and culture (irrigated agriculture covers 10% of the watershed), but other industries are growing, including health care and social assistance, manufacturing, and government enterprises. Historical impacts in the watershed include timber harvest, damming, and irrigation canals. Cindy showed historical pictures of these features.

The watershed is ceded lands for the Confederated Tribes of the Warm Springs. The Tribes maintain their rights to harvest fish, game, and other foods in their usual and accustomed places in the watershed. Fishing opportunity has become severely limited because salmon and steelhead have become threatened.

The Hood River Watershed has one of the most diverse assemblages of native fish in Oregon, including spring and fall Chinook, winter and summer steelhead, and coho, as well as bull trout and Pacific lamprey. Summer steelhead is mostly found in the West Fork, and winter steelhead is mostly in the Middle and East Fork. Fall Chinook is mostly along the mainstem. Lamprey are moving farther into the watershed every year after the removal of Powerdale Dam. The bull trout population is in the Middle Fork, but the West Fork is designated critical habitat. Bull trout were listed as 'threatened' throughout their range in 1998. Steelhead, Chinook, and coho were listed as 'threatened' in the lower Columbia River in 1998, 1999, and 2005.

The overarching goal of the Strategic Action Plan: By 2040, conditions in the Hood River Watershed will support viable populations of salmon, steelhead, bull trout, Pacific lamprey, and other native fish. These conditions include sufficient water quantity, water quality, connectivity, and habitat diversity and complexity to support each stage of their lives in freshwater. Cindy reviewed freshwater life history for salmon and steelhead species. Each stage has unique requirements for stream velocity, depth, and physical habitat structure. For example, deep pools are important for spring Chinook to hold in the summer before spawning in August and September. Salmon, trout, and lamprey spawning habitat must have gravel or small cobble at suitable depths and velocities. Runs that spawn in the late summer/early fall (i.e., spring Chinook, coho) are more vulnerable to having their redds scoured away by volatile winter flows.

The primary limiting factors considered in the SAP include: Reduced instream habitat quantity & quality; Sediment load, and Water quality. Threats that contribute to these primary limiting factors are: Reduced stream flows, caused by climate change, irrigation, hydropower, and municipal diversion; Buildings & roads in floodplains; Fish passage barriers; Timber harvest practices; Diminished/altered riparian vegetation from agricultural, forestry, & rural residential land management; Loss of beaver dams; Altered stream hydrology from road network, development in floodplains, dams & climate change; Glacial influence, current & future; Road management & location.

The water conservation goals of the Plan include:

By 2040, average monthly summer stream flows below irrigation diversions will remain at current levels or increase. This will be supported by piping all remaining canals and eliminating end spills in the East Fork Irrigation District, providing cost-share to upgrade approximately 8,000 acres of on-farm irrigation equipment across the Hood River Watershed, and promoting efficient irrigation water management for agricultural and rural residential lands.

By 2040, the per capita rate of municipal and residential water use will have decreased from current levels. This will be supported by education and promotion of residential water conservation practices, partnerships with municipal water providers, and collaboration with commercial water users.

Based on data from the Hood River Water Conservation Strategy, Farmers Conservation Alliance, and Watershed Professionals Network, primary opportunities for water conservation include: On-farm irrigation upgrades and water management could save 34 cfs (most likely 23 cfs in the next 20 years). Conveyance system upgrades (piping) could save 21 cfs. Hydropower rebalancing could save 10 cfs. Voluntary fallowing of hay/alfalfa in dry years could save approximately 10 cfs. Residential water conservation could save approximately 6 cfs. Total potential savings is 81 cfs, with 70 cfs likely in the next 20 years.

Cindy gave an example of an irrigation upgrade project on Lenz Creek. Prior to the upgrade they used approximately 1 million gallons/year on a 10-acre block. Post-installation they use ~374,000 gallons/summer. In addition, their labor cost reduced by \$2,200/year, fruit quality improved, and they eliminated erosion caused by over-watering.

Water banking is a potential new endeavor that is happening around the west. It would operate in dry/drought years and would lease water from people growing irrigated crops that can forego all or part of their irrigation for the summer without long-term crop damage. This water would be temporarily dedicated to instream flow. The watershed has approximately ~5,000 acres of pasture/alfalfa. If 20% participated in a water bank, approximately 10 cfs could be saved.

Cindy showed the modeled differences in salmon/steelhead habitat at different streamflows for Clear Branch and the lower East Fork. Cindy emphasized the importance of doing both instream habitat restoration and water conservation work, particularly in the lower East Fork.

Cindy showed graphs that plotted future predicted summer flows without conservation and with all likely water conservation actions on the East Fork Hood River below the EFID diversion and Hood River at Tucker Bridge.

Remaining restoration goals:

By 2040, there will be enough habitat complexity and floodplain connectivity in the Hood River Watershed to meet the freshwater life history needs of salmon, steelhead, bull trout, and Pacific lamprey. This will be supported by adding large wood to 25 miles of perennial stream channels and reconnecting 15 miles of side channels.

By 2040, large wood recruitment potential will have increased in the Hood River Watershed. This will be supported by protecting steep headwater areas from intensive timber harvest and managing for larger trees in high priority wood recruitment areas.

By 2040, fish passage barriers with at least one-quarter mile of high-quality, anadromous upstream habitat (or one-half mile for resident fish) are passable. This will be supported by remediation of road-stream crossings and removal or passage around dams.

By 2040, larvae or juvenile fish will no longer be injured or killed by irrigation screens or diversions. This will be supported by replacement of sub-standard screens and advances in screen technology for Pacific lamprey.

By 2040, summertime water temperature on 303(d) listed stream reaches will be closer to achieving state standards for salmon and steelhead spawning. This will be supported by increasing shade and summer stream flows on high priority stream reaches, as well as flow management at Clear Branch dam.

By 2040, pesticide concentrations in streams will remain at current levels or decrease. This will be supported by providing education on pesticide best management practices and integrated pest management.

By 2040, the impact of forest roads on the magnitude and timing of winter stream flows will be decreasing. This will be supported by improved road maintenance and road decommissioning on National Forest, County, and private forestland.

To determine where to do this restoration work, partners looked at intrinsic potential maps and utilized BPA's Atlas restoration prioritization framework. Intrinsic potential for fish habitat is based on the assumption that landform creates the underlying conditions that control transport and deposition of sediment and large wood, both of which are fundamental elements of good habitat for salmonids. Atlas prioritizes subwatersheds into three tiers (*i.e.*, Tier 1, 2, 3) based on the number of fish species and life stages present; the number of highly vulnerable life stages; the geomorphic potential to respond to restoration; current habitat conditions; and projected future habitat conditions

Cindy gave an overview of the theory of change strategies and highlighted several strategies with more in-depth overviews. For each strategy, partners identified restoration actions, outputs, and ecological outcomes.

Strategy 1: Restore and Protect Stream and Floodplain Habitat

Strategy 2: Increase and Protect Summer Streamflow

Strategy 3: Manage Forests and Roads to Support Normal Hydrologic Function

Strategy 4: Restore Fish Passage and Improve Fish Screening

Strategy 5: Improve Water Quality

Strategy 6: Engage the Community

Monitoring to measure implementation progress and inform adaptive management is a key component of the SAP. An example of this would be the implementation objectives and metrics and effectiveness metrics for a particular output. For 'large wood placed in streams and floodplains' and 'floodplain and side channels are reconnected' (outputs) the

implementation metrics include ‘length of stream treated with large wood (at least 5 key pieces/structure and 20m³/100 m of stream)’ and ‘length of side channels reconnected’. Effectiveness metrics include ‘Pools/mile (target: increase in pools/mile)’, ‘Pool depth (target: increase in average pool depth)’, ‘Macroinvertebrate abundance (target: increase in abundance &/or diversity)’, ‘Average D50 (stream substrate) for treated reach and at pool tail crests (target: decrease in D50)’

Heather asked how we prioritize potential projects. Cindy noted that a huge portion of the work planned is the East Fork Irrigation District upgrades. It is possible that EFID could get enough funding from federal and state funding sources to help fund these projects. Prioritizing for other work is largely based on habitat value by polygon. Right now, the mainstem, Neal Creek, and East Fork are high priority areas, but other locations will be prioritized over the course of the 20-year time frame.

Heather commented on the proposed irrigation upgrade barrier assessment and how this might contribute to prioritization. Jim Brick commented that the plan seems very solid. Greg Short noted that as a participant in many of the meetings that went into this process, he was happy to see everything incorporated. Chuck noted that this presentation is more of a high-level look at the Plan but there is significant project level detail in the written plan.

Lisa Naas Cook asked about the funding sources for the effectiveness monitoring. Cindy noted that it will likely be a mix. Some grants provide funding for monitoring, like OWEB, and other partners also do monitoring, as part of their work.

Smita asked about the potential 6 cfs in savings from residential conservation and what streams would benefit. Cindy noted that the irrigation application on residential acreage came from a variety of irrigation sources and the benefit would be spread out.

Cindy closed with the offer to present about the Action Plan to other groups, if there is interest.

** This presentation was recorded and can be found on the Hood River Watershed Group website under the ‘Resources’ tab.

Review and Approval of Last Meeting Minutes

Chuck asked if there were any corrections to the March minutes. The group approved the minutes.

Old Business

Hood River Glacier Monitoring Plan/Letter of support for Oregon Glaciers Institute

The Oregon Glaciers Institute (www.orglaciersinst.org) is interested in doing some monitoring on several glaciers in the Cascades, including on Mt. Hood, and they were planning to apply for an OWEB grant and asked for a letter of support from the Watershed Group. Cindy shared the letter that she drafted and signed on behalf of the Watershed Group.

Holly asked whether this work would better define the rate of recession? Cindy thinks it will. OGI is proposing using USGS monitoring protocol, which utilizes actual measurements instead of modeling.

The group provided second consensus to provide a letter of support for the OGI OWEB monitoring grant application.

Reports

Watershed Coordinator updates – Cindy gave a brief update on the Action Plan progress and noted that she has been supporting the Neal Creek project, as needed. The West Fork Red Hill project is set for implementation this July.

Restoration & Outreach Project Manager updates – Alix noted that the Neal Creek Phase 1 contractor was hired: Thompson Brothers.

Announcements

John Buckley noted that effective July 1st, Steve Pappas will be the new EFID Manager. John will stay on as Steve’s consultant until October. Phase 1 of the Eastside Lateral project is complete. John had high praises for the contractor. Ribbon ceremony on May 19th. Fundraising, engineering, and planning is underway for Phase 2. Implementation will hopefully begin in October of 2022. Whiskey Creek sublateral underway. Pipe costs are going up 30-40%, but hopefully the final sublateral pieces of the Eastside Lateral will be finished later this summer.

Holly noted that she was very happy that Steve Pappas is on board with EFID.

Heather gave an overview of the pesticide grant that the SWCD submitted to OWEB yesterday. OWEB stakeholder engagement grant for a series of pesticide trainings. It will include air blast sprayer calibration trainings in both English and Spanish, as well as some trainings on other pesticide related issues and BMPs. Total grant amount is around \$30,000. She will also submit a grant to EPA for the same project.

Megan noted that irrigation season has begun. Snowpack is looking okay but it has been very dry, so demand is much higher than normal. This may lead to shortages later in the summer. The Kingsley Project will begin in June.

Cindy noted that she would like to start an annual partner tour to look at completed projects (i.e., Kingsley).

Greg asked Megan whether the Kingsley project included the completion of the campground work this year. Megan said FID will finish their campground work, but she wasn't sure if the County's campground work would be done.

Summary of Consensus Items and Establishment of Next Meeting

Items that Received First Consensus:

None.

Items that Received Second Consensus:

Approval to provide a letter of support for the OGI OWEB monitoring grant application.

The next meeting will be held virtually on May 25th from 6-8pm.

Adjournment

Chuck thanked the group for attending and adjourned the meeting at 8:02 pm.

Reported by Alix Danielsen.