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## **Meeting Notes**

### **Yakima River Basin Water Enhancement Project Workgroup**

**December 14, 2022**

#### **In-person and WebEx Virtual Meeting**

##### **Welcome, Introductions, and Agenda Overview**

Ben Floyd, White Bluffs Consulting, welcomed the Yakima River Basin Water Enhancement Project (YRBWEP) Workgroup members and other attendees both virtually and in person. Melissa Downes introduced two new Washington Department of Ecology (Ecology) staff: Sepideh Sadeghi, environmental engineer, and Kevin Haydon, environmental planner. Craig Haskell was introduced as the U.S. Fish and Wildlife Services (USFWS) new Yakima Program Lead; a new USFWS liaison with YRBWEP will be identified in the future.

The following notes summarize the YRBWEP Workgroup presentations and public comments. For more information, please see the full presentations available on the Yakima Basin Integrated Plan (YBIP) website: [Yakima Basin Integrated Plan](#).

##### **Executive and Implementation Committee Updates**

**Wendy Christensen, Bureau of Reclamation (Reclamation):** YRBWEP continues to coordinate responses to funding opportunities with the Bipartisan Infrastructure Law (BIL), including hosting a workshop and site visit to discuss the WaterSmart program and small storage projects and their related funding opportunities with program staff from Reclamation's Denver office.

**Melissa Downes, Ecology:** The Implementation Committee also continues to coordinate on submitting funding requests related to BIL. Ecology has requested \$49 million for YRBWEP in the upcoming Washington State biennium budget. The governor's budget is expected to come out in mid-December. In the previous biennium budget YRBWEP was allocated \$42 million with \$19 million for fish passage projects.

C: Diani Taylor, Funding Coordinator, noted there have been 16 proposals submitted on Yakima Basin Integrated Plan (YBIP) projects under eight different funding opportunities since July 2022.

##### **Yakima Basin Integrated Plan – Lower Yakima River**

Jeff Tayer, Washington Department of Fish and Wildlife (WDFW), noted that the Lower Yakima River is a significant bottleneck to recovery of fish resources in the basin; there is a strong need to improve juvenile fish passage out of the basin. In March, there will be a second presentation covering the water supply issues in the Lower Yakima River.

YRBWEP Phase 1 was a collaboration between Reclamation, WDFW, Yakama Nation and others, and focused on smolt survival. Many of the screens were failing, allowing fish into canals that were dewatered in the fall. In 1994, Phase 2 focused on providing additional flows and habitat acquisition. Other early efforts also focused on water quality and lowering river temperatures.

Between 2011 and 2014, in the early years of YBIP, there were several studies that provided information and scientific knowledge of what was happening in the Yakima Basin:

- Yakima Delta restoration studies
- Wapato Reach Habitat Study
- Roza Dam Smolt Survival Study

In 2015 a drought had significant impact on fisheries, flow and supply in the Yakima Basin. This led to a focus on developing a comprehensive plan for the Lower Yakima River. Between 2017 and 2020, additional studies and strategies were developed:

- Smolt Survival Study
- Study of temperature as a fish migration barrier
- Predation studies
- Sockeye Study
- YBIP 10-Year Habitat Strategy

In 2021 and 2022, several projects were started:

- Sunnyside Diversion Fish Guidance Boom and Sluice Gate (completed)
- Wapato Diversion Improvement
- Prosser/Chandler Fish Passage
- Water Stargrass Harvester (harvester acquired)

C: Scott Revell, Roza Irrigation District, noted that the improvement of water quality related to agriculture runoff systems has had an unintended consequence of resulting in less turbidity in the river, which has led to more stargrass.

Pat Monk, Reclamation, provided an overview of the Lower Yakima River Smolt Survival Study.

Preliminary data showed high numbers of fish entering canals, leading to lower survival. When pulse flows were released from storage and added to natural flows it improved survival, as more fish passed over the dams instead of entering the canals and more smolts moved during pulse flow events than declining or stable flows. The next steps include using fish counts and this study to develop decision support tools to estimate biological benefits of environmental flows of YBIP projects and evaluation of built projects.

Q: Bill Gale, USFWS, asked if the fish being tagged in the study are hatchery fish or wild? And how does the Yakima Basin survival rate match with other basins.

*Pat Monk: All the spring Chinook are hatchery, while the tagged steelhead are wild. We do not know how this compares with other basins.*

C: Sean Gross, National Oceanic and Atmospheric Administration (NOAA) - this study has been helpful, because it's giving us enough information to start identifying potential solutions.

C: Scott Revell noted that pelican predation and channel catfish have had significant impact on fish survival, as well.

Jeff Tayer then provided an overview of the YBIP Steelhead and Salmon Action Plan. The plan will look at several aspects, including facilities, flows and habitat. The focus will be in the Lower Yakima River, along with wanting to finish what has been started while taking advantage of the larger YBIP effort. Regarding habitat restoration for the entire basin, there are several reaches that are being focused on:

- Wapato Reach
- Gap to Gap and Naches
- Kittitas Reach
- Teanaway Watershed.

60 habitat projects have been identified in these reaches. Regarding passage at facilities, there are several in the Lower Yakima River that have been seen as critical to improve or have been improved recently:

- Wapato Diversion Dam
- Sunnyside Dam Diversion Dam (recent improvements made)
- Toppenish Creek Restoration (recent improvements made)
- Prosser Diversion Dam/Chandler Canal
- Wanawish Diversion Dam
- Yakima Delta

Michael Porter, Yakama Nation, provided an overview of predation and fish passage at Prosser Dam and the Chandler reach. They are using a new technology that measures hydraulic conditions that may be harmful to fish as they travel near the dam. There is also a significant growth of stargrass at the head of Prosser Dam and a variety of predators, both native and non-native, in the area that impact fish survival. Studies are being conducted to measure the time of year and quantity of predators in the area, including smallmouth bass.

Q: Scott Revell asked if there is a benefit to removing more catfish or smallmouth bass from the river.

*A: Michael Porter said there would be a benefit, however we are looking at the larger picture, as well, including river flow, water temperature and other factors to help with survival. Sometimes the removal of certain predators means other predator population grows or leads to other chain effects.*

Bret Walters, U.S. Army Corps of Engineers (USACE), provided an overview and update on the Yakima River Delta Ecosystem Restoration Feasibility Study. The local sponsor is the Washington Department of Fish and Wildlife, who worked with USACE in kicking off the feasibility study and NEPA process in 2019. There are several cooperating partners, including the Yakama Nation, Confederated Tribes of the Umatilla Indian Reservation, Washington State Department of Ecology,

USFWS and National Marine Fisheries Service. The study is located near Bateman Island at the Columbia River and extends about two miles upstream near the mouth of the Yakima River. The issues identified include high temperatures, flow blockage, predator species, poor water quality, inundation and sedimentation, poor mixing of the Columbia and Yakima Rivers, stagnant water, and mosquito breeding. Several measures were considered and evaluated through a screening process. The tentative recommended plan is full removal of the causeway without riparian restoration, and subject to change based on additional data and public input. More detail will be added during design to further reduce disturbance to Bateman Island. The report will be open for public comment.

C: Joe Blodgett, Yakama Nation, noted the cultural importance of the area, including Bateman Island. He is excited that public comment will be open soon and looks forward to continuing working with the USACE on this effort.

*A: Bret Walters noted that he was aware of the cultural importance and that it would be considered in the review of the proposed alternative.*

Jeff Tayer concluded by highlighting how the YRBWEP Lower River Subcommittee will move forward as it relates to habitat and fish survivability:

- Implement Yakima Delta restoration
- Develop strategy for reducing predation
- Improve passage at diversion dams
- Reduce impacts of water stargrass
- Improve sockeye migration conditions.

## **Federal Funding Updates**

Raquel Ferrell Crowley, US Senator Patty Murray's office, shared congratulations on behalf of Senator Murray that the Toppenish Creek Fish Passage Restoration Project has been recommended for federal funding under NOAA for \$250,970 for the first year. The Yakama River Bateman Island Fish Passage Project has been recommended for federal funding for \$235,161 for the first year. Both projects have the opportunity to receive five years of funding up to \$5 million each. The workgroup added thanks to Michael Porter and Tom Elliott for their work on putting together the proposals. Urban Eberhart, Kittitas Reclamation District, shared his thanks to Senator Murray for funding provided for the Bull Trout Facility and general support for the work being done under YRBWEP.

## **General Public Comments**

**Chris Maykut:** Appreciated the presentations from the morning about the Lower Yakima River. He referenced a Seattle Times article titled *Climate change could make WA streams too hot for fish, report show* (Dec. 13, 2022) that highlighted an Ecology report about how climate change will continue to alter Washington's rivers and harm fish (Appendix A). He noted that when water temperatures reach 21 degrees Celsius the migration of Sockeye stops. He hoped to see forecasts about Sockeye salmon returns increasing in the Yakima Basin because of the work being done as part of YBIP.

Chris asked about the Washington State Department of Ecology's *2020 Cost Estimate & Financing Plan for the Yakima Plan* (dated March 2021) and whether the budget for YBIP projects have been adjusted due to inflation, since it will be important in conversations with the state legislators.

*Response: Thank you for the comment. It is Ecology's intent to make note of inflation in the upcoming 2022 Cost Estimate and Financing Plan legislative report. Ecology is currently seeking advice from the State Treasurer's Office in how to correctly describe the inflationary costs of the plan.*

**David Ortman (taken from his written statement, which was read during the meeting):**

No Yakima Workgroup Meeting Notes for the September 14, 2022, meeting have been posted on the Workgroup website. And this website for the December 14<sup>th</sup> meeting says: Dec. 14, 2022 – Yakima, Venue TBA. How can the Workgroup or the public participate meaningfully in this process if the paid consultants cannot provide meeting notes after three months or update meeting information on the website?

*Response: Thank you for your comment. The September 2022 Workgroup meetings notes have been posted on Reclamation's website.*

No presentation or update on the Yakima Workgroup has been made to the Office of Columbia River Policy Advisory Group since a Cle Elum projects presentation on March 1, 2018. How can the PAG provide "advice" if no presentations are made to the PAG?

*Response: Thank you for your comment. Comment noted.*

The Department of Ecology continues to fail to comply with various deadlines established by the Legislature. RCW 90.90.040(3) requires Ecology to complete the first Columbia River long-term water supply and demand forecast by November 15, 2006 and shall update the report every five years thereafter. The Five-Year updated report was due to the Legislature by November 15, 2021, but not released until nearly a year later on August 1, 2022.

RCW 90.38.100(1) requires a *Yakima River Basin Integrated Water Resource Management Plan Implementation Status Report* to the Legislature and to the Governor and Section (2) requires by December 1, 2021, a statement of progress in achieving the water supply facility permit and funding milestone, as defined in RCW 90.38.010. As of the beginning of November 2022, this status report has still not been provided. And the 2019 Implementation Status Report was not released until April 2020.

Most Workgroup members are accustomed to meeting deadlines. The Workgroup should address Ecology's failure to meet legislative deadlines. Has the 2021 *Yakima River Basin Integrated Water Resources Management Plan Implementation Status Report* due in December 2021 been released? If not, why not?

*Response: Thank you for your comment. The referenced report is currently undergoing internal review and is delayed due to some staff changes that have occurred over the course of 2022. Ecology will publish the report once it is finalized and completed.*

In reviewing the Department of Ecology's *2020 Cost Estimate & Financing Plan for the Yakima Plan* (dated March 2021), why is there no discussion or update on the proposed Bumping Lake and Wymer dams? According to page 25, the Keechelus to Kachess (K-K) Conveyance Project has been temporarily put on hold and/or pushed out to later development phases. Is it correct that the K-K Conveyance Project is still part of the Yakima Plan? According to page 14, all money, funds, costs, and other dollar-amounts

mentioned in this report or included in the model are in 2020 dollars, and inflation was not calculated for future costs or funding for ease of analysis and reporting, and to remain consistent with previous reports. But page 25 says that the total estimated costs of \$4.1 billion for implementing the full Integrated Plan has remained constant since YBIP launched in 2013, while footnote 14 on page 17 says “Not adjusted for inflation.” So, has the total estimated costs of the Yakima plan been adjusted for inflation or not?

*Response: Thank you for your comment. The K-K Conveyance Project is still part of the Yakima Integrated Plan but has been put on hold at this time. See comment response above regarding inflation.*

According to page 17, of the seven elements at the center of the Yakima Plan, the majority of costs fall under the Surface Water Storage element (53.9 percent). How can this be a “balanced” plan if over half the plan costs consist of structure water storage dams and a pumping plant? [2012002.pdf \(wa.gov\)](#)

*Response: Thank you for your comment. The Integrated Plan did not contemplate spending equal amounts of money on each element but rather achieving the goals of the plan. The plan is balanced because projects associated with each element are being implemented at the same time. Furthermore, funding for fish passage and habitat projects is a large portion of the overall Integrated Plan.*

EPA’s updated webpage (Oct. 5, 2022) on the Yakima Plan states that this is a 30-year, \$3.8 billion plan. Why is EPA allowed to put out misleading figures? [Yakima River Basin Plans for Future Water Availability | US EPA](#)

*Response: Thank you for your comment. The EPA would be the best agency to respond to this question, however, it is likely they are quoting a 2012 document which would reflect the cost estimate at that time.*

In reviewing Ecology’s June 2022 *Preliminary Report - Climate Change and Stream flow: Barriers and Opportunities* why is there no mention of the \$130+ million Cle Elum fish passage project and the likelihood of failure of this project if sockeye salmon are unable to return up the lower Columbia and Yakima Rivers due to temperate blockages? [Climate Change and Stream flow: Barriers and Opportunities \(wa.gov\)](#)

*Response: Thank you for your comment. The Cle Elum Fish Passage project and challenges of passage through the lower Yakima River for sockeye salmon is beyond the scope of this report. As stated in the report, the purpose of the proposed work is to improve understanding of localized climate change impacts on streamflow, water temperature, and associated ecosystem services and to identify water code and case law barriers and opportunities for climate change adaptation.*

Wymer/Bumping Lake reports from February 2021. In February 2021, HDR prepared a *Bumping Dam and Reservoir Enlargement – Data Gap Analysis Technical Memorandum*, which did not indicate any technical/geological concerns with the project. Rather this Memorandum outlines moving directly to a joint SEPA/NEPA DEIS for construction of a new Bumping Lake Dam.

<https://www.usbr.gov/pn/programs/yrbwep/reports/2021bumpinggap.pdf>. Also in February 2021, HDR prepared a similar Technical Memorandum concerning compliance requirements for the construction and operation of new water storage projects at the Wymer Dam and Reservoir, Springwood Reservoir, and North Fork Cowiche Canyon Reservoir.

<https://www.usbr.gov/pn/programs/yrbwep/reports/2021newresgap.pdf>. Have these reports been presented to the Yakima Workgroup? If not, why not?

*Response: Thank you for your comment. These reports have been shared on Reclamation's website and will be shared with the YRBWEP Workgroup as part of our ongoing discussions on surface water storage element.*

In October, the Bureau of Reclamation announced funding of \$5 million from this year's Infrastructure bill passed by Congress for the Cle Elum Pool Raise "to increase the reservoir's capacity an additional 14,600 acre-feet to be managed for instream flows for fish. Additional efforts include shoreline protection that will provide mitigation for the pool raise." The Cle Elum Dam's radial gates were raised by three feet back in April 2017 according to the Bureau of Reclamation. Why was an additional \$5 million needed? <https://www.waterworld.com/drinking-water/infrastructure-funding/press-release/14284771/interior-awards-210m-for-drought-resilience-in-the-west>

[Cle Elum Pool Raise, CPN Region \(usbr.gov\)](https://www.usbr.gov)

*Response: Thank you for your comment. \$5M is needed to fund ongoing implementation of shoreline protection projects as part of the Cle Elum Pool Raise Project.*

## **Draft YBIP 10-Year Work Plan 2019-2029**

Wendy Christensen and Melissa Downes previewed and requested updates for the Draft YBIP 10-Year Work Plan from YRBWEP Workgroup members. The draft planning document identifies potential unconstrained funding needs for projects and programs within YBIP as well as net obligations spent in previous years. It is a planning and tracking tool; projects/programs are continually being refined and updated, so the document does not reflect actuals for any project/program at a specific moment in time.

Q: Elaine - is there federal money from BIL for Cle Elum?

*A: Wendy Christensen said Reclamation received \$5 million in 2022 for the Cle Elum Pool Raise Project.*

## **2022 Highlights Report**

Wendy Christensen then previewed the 2022 Highlights, which summarizes key YBIP milestones and projects from the year, including tours to elected officials and partner agencies, aquifer storage on the Yakama Nation reservation, surface water storage and a NY Times article. The 2022 Highlights will be made available online and in print. Wendy thanked all who contributed articles and provided editorial review.

## **Recognition and Roundtable Discussion**

Ben Floyd, on behalf of the YRBWEP Workgroup, thanked Ron Anderson, Yakima County Commissioner, who will be retiring. Ben noted Ron's contribution to YBIP by securing support and funding, as well as regular participation for a little more than four years on the YRBWEP Executive Committee and Workgroup. Ron shared his appreciation for the recognition.

Ben Floyd, on behalf of the YRBWEP Workgroup, then thanked Dave Brown, City of Yakima, who has been a participating member of the workgroup for more than 14 years. Recently, he has been the project manager of the Nelson Dam Removal Project. Patricia Byers, City of Yakima Councilmember, added

her appreciation for Dave's long career at the City of Yakima (39 years). She noted his efforts on water diversity and management, his water management expertise and recently received a Washington State Department of Health Commitment to Excellence Award. Dave appreciated the thanks from the YRBWEP workgroup and noted his excitement about retirement.

Ben then invited workgroup members if they would like to share any final thoughts for the meeting. All members noted their personal appreciation for Ron Anderson's and Dave Brown's contributions to the YBIP and YRBWEP Workgroup.

**Jaclyn Hancock:** Shared thoughts from her director, Derek Sandison, about the year's accomplishments and what they look forward to in the new year. He wanted to recognize the work being done to complete work on the Cle Elum Fish Passage Project. He also values the enduring partnerships found around the workgroup and their dedication to the work. Looking ahead, they are excited about seeing progress on securing water supply for all water users.

**Sean Gross:** Shared NOAA's excitement about being able to provide funding opportunities across the country and here in the Yakima Basin. He then thanked Reclamation's staff for their creative operational solution to the smolt survival problem at Roza Dam.

**Joe Blodgett:** Shared his father's interest in not wanting to see the Yakima Basin turn into a science project. He thanked the workgroup for their participation and collaboration on both studies and projects to improve the basin and feels hopeful about the future.

**Urban Eberhart:** Thanked the Yakama Nation Fisheries team on moving more than 500 adult coho in various streams in the Basin, more than the 200 that were released last year. Kittitas Reclamation District just stopped adding water to the Tucker and Little rivers; it took until December until these two systems could support themselves.

**Rick Dieker:** Thanked the Yakama Nation on helping the Yakima-Tieton Irrigation District complete their water pilot project on the Tieton River.

**Steve Malloch:** Appreciated seeing the group's success in being awarded funding in 2022 and national attention as seen with a front-page story in the New York Times. He believed there was strong momentum with all efforts and looked forward to seeing the same in 2023.

**Alex Conley:** Noted an out of the ordinary year for the Salmon Recovery Funding Board as it has grown to a \$95 million program. It's been great to announce over \$11 million in funding this year in the Yakima Basin. He thanked everyone who worked on making this happen.

## Upcoming Meetings

The next Workgroup meeting is scheduled for Wednesday, March 8, 2023. The meeting is currently scheduled to be at the Yakima Valley Community College Conference Center from 9:30 am to 12:30 pm.



## **Attendance**

### **Workgroup Members:**

Adam Fyall, Benton County

Arden Thomas, Kittitas County (alternate for Cory Wright)

Alex Conley, Yakima Basin Fish and Wildlife Recovery Board

Bill Gale, U.S. Fish and Wildlife Service

Brandon Parson, American Rivers

Bret Walters, U.S. Army Corps of Engineers

Danielle Squeochs, Confederated Tribes and Band of the Yakama Nation

Dave Brown, City of Yakima

Jaclyn Hancock, Washington Department of Agriculture

Jason Romine, U.S. Fish and Wildlife Service

Joe Blodgett, Confederated Tribes and Bands of the Yakama Nation

Joel Freudenthal, Yakima County (alternate for Ron Anderson)

Kathryn Furr, U.S. Forest Service

Larry Leach, Washington Department of Natural Resources

Lisa Pelly, Trout Unlimited

Lori Brady, Sunnyside Valley Irrigation District

Melissa Downes, Washington State Department of Ecology

Patricia Byers, City of Yakima

Rick Dieker, Yakima-Tieton Irrigation District

Ron Anderson, Yakima County

Ron Cowin, Sunnyside Valley Irrigation District

Sean Gross, National Oceanic and Atmospheric Administration

Scott Revell, Roza Irrigation District and Chair of Water Use Subcommittee

Sid Morrison, Yakima Basin Storage Alliance

Steve Malloch, Western Water Futures, LLC (alternate for American Rivers)

Urban Eberhart, Kittitas Reclamation District

Wendy Christensen, Bureau of Reclamation, Columbia-Cascades Area Office

### **Other Attendees:**

Alan Chapman

Amy Ford, Columbia Park Marina

Andy Hart, U.S. Department of Agriculture  
Ann Lewis  
Anna Lael, Kittitas County Conservation District  
Ben Floyd, White Bluffs Consulting  
Ben Woodard, Kennewick Irrigation District  
Bill McKay, City of Kennewick  
Brittany Jones, Bureau of Reclamation  
Bruce Sully, Bureau of Reclamation  
Charles Klarich  
Chris Frederikson, Confederated Tribes and Bands of the Yakama Nation  
Chris Maykut, Friends of Bumping Lake  
Chris Perra, Yakama Nation Fisheries  
Chuck Freeman, Kennewick Irrigation District  
Craig Haskell, U.S. Fish and Wildlife Service  
Curt Strifert, Columbia Irrigation District  
Cynthia Carlstad, Northwest Hydraulic Consultants  
Dave Blodgett, Confederated Tribes and Bands of the Yakama Nation  
Dave Empel, Bureau of Reclamation  
David Farmer, U.S. Department of Agriculture  
David Lind, Wakish PLLC  
David Mckenzie  
David Ortman  
Doug White  
Dennis Sandstrom, HDR, Inc.  
Diani Taylor, YBIP Funding Coordinator, Plauche & Carr LLP  
Ed Lisowski  
Elaine Packard  
Glenn Grette, Grette Associations  
Janine Empel, Bureau of Reclamation, Columbia-Cascades Area Office  
Janine Harris, National Oceanic and Atmosphere Association  
Jay Schwartz  
Jeanne Sheldon  
Jeanne Demorest, Bureau of Reclamation

Jeff Tayer, Washington Department of Fish and Wildlife and Chair of Habitat Subcommittee  
Jenna Scholz, HDR, Inc.  
Jim Milton, Yakima Tieton Irrigation District  
Joe Schiessl, City of Richland  
Joel Hubble, Kittitas Reclamation District  
John Cowling, City of Kennewick  
John Reeves, Lake Kachess HOA  
John Stuhlmiller, Washington State Water Resources Association  
Justin Bezold, Trout Unlimited  
Justin Harter, Naches-Selah Irrigation District  
Justin Jacob, Wakish PLLC  
Kelly Clayton, Yakama Nation Fisheries  
Kerri Matthews, Bureau of Reclamation  
Kevin Eslinger, Kittitas Reclamation District  
Kevin Hayden, Washington State Department of Ecology  
Laine Young, Washington State Department of Ecology  
Larry Martin, Velikanje Halvorson  
Laurel Jennings, National Oceanic and Atmosphere Association  
Marcella Appel, Benton Conservation District  
Marie Mosley, City of Kennewick  
Mark Johnston, Confederated Tribes and Bands of the Yakama Nation  
Merritt Mitchell-Wajeesh, Mid-Columbia Fisheries  
Michael Coffey, Bureau of Reclamation  
Michael Porter, Confederated Tribes and Bands of the Yakama Nation  
Mike Shane, City of Yakima  
Mitch Long, Kittitas Conservation Trust  
Pam Druliner, Bureau of Reclamation  
Patrick Monk, Bureau of Reclamation  
Perry Harvester, Washington State Department of Fish and Wildlife  
Peter Dykstra, Chair of Watershed Lands Conservation Subcommittee  
Raelene Gold, League of Women Voters of Washington  
Raquel Crowley, Office of U.S. Senator Murray  
Ranie Haas, Washington State Tree Fruit Association

Richard Visser, Bureau of Reclamation, Columbia-Cascades Area Office  
Rick Evans, Office of Senator Maria Cantwell  
Robbie Soltz  
Russ Byington, Confederated Tribes and Bands of the Yakama Nation  
Ryan Roberts, Bureau of Reclamation  
Sara Vickers, Kittitas Reclamation District  
Sarah Fesenmyer, Bureau of Reclamation  
Savannah Crnick, South Yakima Conservation District  
Scott Wiley, Bureau of Reclamation  
Sepideh Sadeghi, Washington State Department of Ecology  
Seth Defoe, Kittitas Irrigation District  
Sonja Kokos, U.S. Fish and Wildlife Service  
Stuart Crane, Yakama Nation Water Resources  
Teresa Hauser, Bureau of Reclamation  
Tim Poppleton, Washington State Department of Ecology  
Todd Newsome, Yakama Nation Fisheries  
Tom Appler, Bureau of Reclamation  
Trevor Hutton, Washington State Department of Fish and Wildlife  
Walt Larrick, Yakima Basin Joint Board

### **Where to Find Workgroup Information**

Meeting materials, notes, presentations, and materials submitted during public comment for each Workgroup meeting will be posted on Reclamation's project website: <http://www.usbr.gov/pn/programs/yrbwep/2011integratedplan/index.html>. A list of information sources, many available online, is also posted on the website.

If you need help finding an information source, contact those listed at the top of page 1 of these notes or Ben Floyd at White Bluffs Consulting, (509) 539-3366 or [ben@whitebluffsconsulting.com](mailto:ben@whitebluffsconsulting.com).

# Climate change could make WA streams too hot for fish, report shows

Dec. 13, 2022 at 6:00 am Updated Dec. 13, 2022 at 9:20 am



Some sockeye salmon are diseased and dying in the waters trickling out of the Little White Salmon hatchery pipe outflow, where they had sought refuge from the warming waters of the Lower Columbia River in southern... (Steve Ringman / The Seattle Times, 2015) [More](#)

By

[Isabella Breda](#)

*Seattle Times staff reporter*

[A new report](#) prepared for the state Department of Ecology suggests climate change will continue to alter Washington's rivers, potentially making some watersheds uninhabitable for salmon and steelhead by the end of the century.

The report led by Washington State University researcher Jonathan Yoder and University of Washington researcher Crystal Raymond projects widespread increases in river flows in the winter, declines in the summer and rising stream temperatures.

Nothing in the report is revolutionary, said state climatologist Nick Bond, but it's a substantial contribution to the conversation. "Climate change has emerged in the conditions we're seeing here in Washington state," he said.

End-of-winter snowpack is declining. Storm surges are getting more severe. Summers are becoming drier.

Western Washington rivers saw [record low flows](#) this fall, forcing some salmon to drop eggs downstream from their usual spawning grounds.

In 2015, [high temperatures devastated](#) the sockeye salmon run in the Snake and Columbia rivers. An estimated 250,000 sockeye died that year, long before reaching their spawning grounds.

Each of these trends will continue to affect the state's freshwater highways, according to the report. But it'll look a bit different depending on where you live.

Researchers analyzed existing studies, and used new data sets from the River Management Joint Operating Committee and the NorWeST modeling project to predict future streamflows and temperatures.

As the warming atmosphere turns snow to rain, the biggest changes will likely be in rivers fed by snowmelt. Watersheds that draw from the Olympics, the western slopes of the Cascades and the Blue Mountains in southeastern Washington could take the biggest hit during the dry season.

By the end of the century, the report suggests, only the upper elevations of the North Cascades might provide reliable snowmelt.

Rivers in the Olympic Peninsula and Puget Sound regions will likely see higher peak flows, and lower low flows. That could add stress to endangered salmon populations as they continue to navigate choked, warm waters. According to the report, salmon in the Olympic Peninsula are projected to be hurt the most by decreases in low flows.

Historical data from 1993 to 2011 shows most of the mountain-fed streams maintaining temperatures below 54 degrees Fahrenheit in the month of August. With moderate greenhouse gas emissions, some of those streams could warm up to 64 degrees Fahrenheit by the 2080s, according to the report.

In about five decades, the Columbia River and watersheds in the southeast could see August stream temperatures top 69 degrees.

Streams with temperatures greater than 64 degrees Fahrenheit can stress salmon, and no salmon species can survive waters above 77 degrees.

Over the years, the combination of lower flows and warmer air could make rivers hotter across the map.

**Comments of David E. Ortman, Seattle, WA  
Yakima Workgroup  
December 14, 2022**

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[Yakima Basin Integrated Plan Workgroup - Washington State Department of Ecology](#)

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2. The Department of Ecology continues to fail to comply with various deadlines established by the Legislature:

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RCW 90.38.100(1) requires a *Yakima River Basin Integrated Water Resource Management Plan Implementation Status Report* to the Legislature and to the Governor and Section (2) requires by December 1, 2021, a statement of progress in achieving the water supply facility permit and funding milestone, as defined in RCW 90.38.010. As of the beginning of November 2022, this status report has still not been provided. And the 2019 Implementation Status Report was not released until April 2020.

Most Workgroup members are accustomed to meeting deadlines. The Workgroup should address Ecology’s failure to meet legislative deadlines. Has the 2021 Yakima River Basin Integrated Water Resources Management Plan Implementation Status Report due in December 2021 been released? If not, why not?

3. In reviewing the Department of Ecology’s 2020 Cost Estimate & Financing Plan for the Yakima Plan (dated March 2021), why is there no discussion or update on the proposed Bumping Lake and Wymer dams?

According to page 25, the Keechelus to Kachess Conveyance Project has been temporarily put on hold and/or pushed out to later development phases. Is it correct that the K-K Conveyance Project is still part of the Yakima Plan?

According to page 14, all money, funds, costs, and other dollar-amounts mentioned in this report or included in the model are in 2020 dollars, and inflation was not calculated for future costs or funding for ease of analysis and reporting, and to remain consistent with previous



reports. But page 25 says that the total estimated costs of \$4.1 billion for implementing the full Integrated Plan has remained constant since YBIP launched in 2013, while footnote 14 on page 17 says “Not adjusted for inflation.” So, has the total estimated costs of the Yakima plan been adjusted for inflation or not?

According to page 17, of the seven elements at the center of the Yakima Plan, the majority of costs fall under the Surface Water Storage element (53.9 percent). How can this be a “balanced” plan if over half the plan costs consist of structure water storage dams and a pumping plant?

[2012002.pdf \(wa.gov\)](#)

EPA’s updated webpage (Oct. 5, 2022) on the Yakima Plan states that this is a 30-year, \$3.8 billion plan. Why is EPA allowed to put out misleading figures?

[Yakima River Basin Plans for Future Water Availability | US EPA](#)

4. In reviewing Ecology’s June 2022 Preliminary Report - Climate Change and Stream flow: Barriers and Opportunities why is there no mention of the \$130+ million Cle Elum fish passage project and the likelihood of failure of this project if sockeye salmon are unable to return up the lower Columbia and Yakima Rivers due to temperate blockages?

[Climate Change and Stream flow: Barriers and Opportunities \(wa.gov\)](#)

5. Wymer/Bumping Lake reports from February 2021.

In February 2021, HDR prepared a *Bumping Dam and Reservoir Enlargement – Data Gap Analysis Technical Memorandum*, which did not indicate any technical/geological concerns with the project. Rather this Memorandum outlines moving directly to a joint SEPA/NEPA DEIS for construction of a new Bumping Lake Dam.

<https://www.usbr.gov/pn/programs/yrbwep/reports/2021bumpinggap.pdf>

Also in February 2021, HDR prepared a similar Technical Memorandum concerning compliance requirements for the construction and operation of new water storage projects at the Wymer Dam and Reservoir, Springwood Reservoir, and North Fork Cowlitz Canyon Reservoir.

<https://www.usbr.gov/pn/programs/yrbwep/reports/2021newresgap.pdf>

Have these reports been presented to the Yakima Workgroup? If not, why not?

6. In October, the Bureau of Reclamation announced funding of \$5 million from this year’s Infrastructure bill passed by Congress for the Cle Elum Pool Raise “to increase the reservoir’s capacity an additional 14,600 acre-feet to be managed for instream flows for fish. Additional efforts include shoreline protection that will provide mitigation for the pool raise.” The Cle Elum Dam’s radial gates were raised by three feet back in April 2017 according to the Bureau of Reclamation. Why was an additional \$5 million needed?

[https://www.waterworld.com/drinking-water/infrastructure-funding/press-release/14284771/interior-awards-210m-for-drought-resilience-in-the-west-Cle-Elum-Pool-Raise,-CPN-Region-\(usbr.gov\)](https://www.waterworld.com/drinking-water/infrastructure-funding/press-release/14284771/interior-awards-210m-for-drought-resilience-in-the-west-Cle-Elum-Pool-Raise,-CPN-Region-(usbr.gov))