

Contact: Wendy Christensen, 509-575-5848, ext. 203

Derek Sandison, 509-457-7120

Agenda

Yakima River Basin Water Enhancement Project Workgroup

March 11, 2015, 9:30 AM to 12:30 PM at Yakima Arboretum, 1401 Arboretum Dr., Yakima WA

Time

- | | |
|---------------|--|
| 9:30 – 9:35 | Welcome/Introductions and Agenda Overview
<i>Ben Floyd, Anchor QEA</i> |
| 9:35 – 10:00 | Implementation Committee Update
<i>Derek Sandison, Ecology and Implementation Committee</i> |
| 10:00 – 10:25 | Executive Committee and Subcommittee Updates
<i>Derek Sandison, Ecology; Wendy Christensen, Reclamation and Subcommittee Chairs</i> |
| 10:25 – 10:40 | 2015 Water Supply Forecast Update
<i>Chris Lynch, Reclamation</i> |
| 10:40 – 11:00 | Break |
| 11:00 – 11:50 | Technical Work Update
<i>Wendy Christensen, Reclamation; Andrew Graham, HDR; Walt Larrick, Reclamation, Rick Roeder, DNR and Mike Livingston, WDFW;</i> |
| 11:50 – 12:05 | Public Comment |
| 12:05 – 12:30 | Workgroup – Roundtable Discussion
<i>Ben Floyd, Anchor QEA</i> |

Adjourn

Other 2015 Meetings – June 3, September 9, December 16, 9:30 AM at the Yakima Arboretum

For additional information, see the reports and documents available at this link:

<http://www.usbr.gov/pn/programs/yrbwep/2011integratedplan/index.html>

***Contact: Wendy Christensen, Columbia-Cascades Area Office, (509) 575-5848, ext. 203
Derek Sandison, Washington State Department of Ecology, (509) 457-7120**

Meeting Notes

Yakima River Basin Water Enhancement Project (YRBWEP) Workgroup

March 11, 2015

Yakima Arboretum, Yakima WA

Welcome, Introductions and Agenda Overview

Ben Floyd, Anchor QEA meeting facilitator, welcomed the Yakima River Basin Water Enhancement Project (YRBWEP) Workgroup members and other attendees, led introductions, and provided an overview of the agenda. These notes summarize highlights from the presentations, Workgroup comments and public comments. For more detail, please see the full presentations which are available on the project website <http://www.usbr.gov/pn/programs/yrbwep/2011integratedplan/index.html>

Wendy Christensen, Reclamation, provided an update on the Western Watershed Enhancement Partnership (WWEP). Reclamation and the U.S. Forest Service have signed the WWEP agreement and will begin working on a 5-year plan for watershed enhancement in central Washington State.

Wendy and members of the Workgroup acknowledged the recent passing of Clint Kyhl of the Forest Service and former Workgroup member, and Paul LaRiviere of the Washington State Department of Fish & Wildlife (WDFW), and shared recollections of their contributions to the Yakima River basin community. They will be missed.

Implementation Committee Update

Dan Silver introduced the Implementation Committee, which recently traveled to Washington DC. The Committee met with the DC Leadership Group (comprised of Federal agencies—BLM, BIA, BPA, NRCS, NMFS, USFWS, USFS, and Reclamation), Council on Environmental Quality, and the Office of Management and Budget. Scott Revell, Roza Irrigation District, noted that there was good discussion with the DC Leadership Group and that the meeting was well attended by all agencies. Michael Garrity, American Rivers, stated that the Implementation Committee had a combined meeting with the Council on Environmental Quality and the Office of Management and Budget; discussion during the meeting focused on Federal legislation concepts. Urban Eberhart, Kittitas Reclamation District (KRD), summarized feedback received from the officials they met with, some of whom expressed that they see the Integrated Plan as an example for other western states experiencing drought conditions. Phil Rigdon, Yakama Nation, also thought the DC Leadership Group meeting was well attended, including representatives from the Federal Bureau of Indian Affairs (BIA). He also sees the Integrated Plan leading the way as an example for other western states. Derek Sandison, Washington State Department



U.S. Department of the Interior
Bureau of Reclamation



of Ecology (Ecology), provided an update on the Federal authorization bill being sought for the Keechelus-to-Kachess Conveyance (KKC), Kachess Drought Relief Pumping Plant (KDRPP), Cle Elum Pool Raise (CEPR), fish passage, and water conservation initiatives of the Integrated Plan. This authorization bill would amend the 1979 and 1994 YRBWEP legislation. The current vision is that the Integrated Plan would be implemented in three development phases: the initial, intermediate, and final development phases. This authorization bill focuses on the initial development phase. The bill has been structured to be compatible with the 2013 Washington State authorization legislation for the plan. Derek also provided a status on Federal funding for implementation. Total Federal funding for the Integrated Plan in fiscal year 2015 is approximately \$25 million, excluding Bonneville Power Administration (BPA) contributions, and \$45 million, including BPA contributions.

Workgroup Discussion:

- Sid Morrison, Yakima Basin Storage Alliance: Over time it may become more difficult to secure funding for the large water storage projects identified in the plan. Has there been any discussion about finding funding for storage projects during the intermediate and final implementation phases? *The Implementation Committee is continually working to identify future funding sources. On the Federal and State level, there is interest in advancing water infrastructure projects in western states. Washington State Senator Honeyford is leading a statewide water infrastructure initiative that, if passed, could be a source of funding for future projects. Additionally, the United States House of Representatives Natural Resource Committee is considering a financing program for Reclamation projects. This would be structured similar to the Water Resources Development Act (WRDA) program and potentially employ user pay funding mechanisms.*

Wendy noted that there may be competition among western states for Federal funding of large projects. In order to be competitive when funding becomes available, it is important that Integrated Plan projects are “shovel ready.”

Executive Committee and Subcommittee Updates

Habitat Subcommittee

Jeff Tayer, WDFW, provided an update on the Habitat Subcommittee’s recent efforts. The subcommittee is monitoring the progress of several floodplain restoration projects in Yakima and Kittitas Counties. One such project is the Gold Creek Bridge project which is focused on identifying feasible solutions to improve Gold Creek connectivity for bull trout migration. The subcommittee is also working on bull trout enhancement in the upper Yakima River basin where bull trout populations have been dwindling. The Integrated Plan can provide resources to help reverse that trend.

Watershed Land Conservation Subcommittee

Jeff also provided an update on the Watershed Land Conservation Subcommittee, on behalf of Peter Dykstra, the subcommittee chair. The subcommittee is meeting on March 24 to review and provide feedback on the Teanaway Community Forest (TCF) Management Plan being developed by DNR and

WDFW. The subcommittee will review the TCF Plan for consistency with the goals of the Integrated Plan.

Outreach Subcommittee

Michael Garrity discussed ongoing outreach efforts. The subcommittee aims to complete an Integrated Plan video within the next several months. Obie O'Brien, Kittitas County, noted that the Kittitas County Board of Commissioners is hosting a meeting on April 4 to discuss the proposed KDRPP with property owners in the Kachess Reservoir area.

Water Use Subcommittee and Municipal Water Use Subgroup

Scott Revell and Dave Brown, City of Yakima, provided an update on the Municipal Water Use Subgroup. The subgroup met last week. Scott and Dave are working to get additional participation on the subgroup from the cities in the lower Yakima River basin. After engaging these communities, the subgroup will begin developing a strategy for municipal water use. Michael Garrity stated that he was impressed with the level of engagement from municipal representatives.

Seth Defoe, Kennewick Irrigation District (KID), noted that KID has been working with Reclamation to evaluate how Integrated Plan projects and conservation efforts will impact return flows in the lower Yakima River basin.

Executive Subcommittee

Wendy provided an update on the Executive Subcommittee. At the end of January, the subcommittee met in Portland with regional executives of BPA, National Marine Fisheries Service (NMFS), U.S. Fish and Wildlife Service (USFWS), BLM, and Forest Service; and held conference calls with BIA and Natural Resource Conservation Service (NRCS). The purpose of these meetings was to brief regional agency managers on the progress of the Integrated Plan and the upcoming DC Leadership Group meeting with the Implementation Committee in Washington, DC. Phil noted that the Yakama Nation received \$4.5 million in funds for on-reservation habitat improvement and conservation projects through the NRCS Regional Conservation Partnership Program.

Water Supply Forecast Update

Chris Lynch, Reclamation, presented the Yakima Field Office's water supply forecast for 2015. Chris compared water metrics for conditions in the Yakima basin from October 2014, through February 2015, to the historical average, high, and low values. Temperature levels are a bit above average overall, but with some cold spells too. Precipitation is at 94 percent of average and snow water equivalent is at 22 percent of average. Streamflow contributions to the reservoirs are at 174 percent of average and outflows from the reservoirs are at 125 percent of average. The Yakima System storage volume on March 1 was 172 percent of average, the reservoirs are 95 percent full, and the April-September total water supply available (TWSA) is projected to be 78 percent of average. Prorating is currently projected to be 73 percent of the proratable entitlements in 2015. Based on this forecast, Yakima Reservoir System storage would have 110,000 acre-feet of carryover storage on September 30, 2015.

This compares with 382,000 acre-feet on Sep 30, 2014. The minimum flow target at the Yakima River near Parker is projected to be 300 cfs.

Workgroup Discussion:

- Sid Morrison: It is hypothesized that climate change could result in the same amount of precipitation but in different patterns. Is this what we are experiencing in the Yakima River basin? *Chris: This year we are experiencing weather patterns similar to those that are projected in some climate change scenarios. However, we don't really know whether this is due to climate change.*
- Seth Defoe: Would the values in the row labeled, "Storable portion of added flow, cfs" vary like the values in the row labeled, "Flow added to Title 12, cfs"? *The values would vary, but the column labeled "100%" would dictate the actual flow, which would be 78 cfs. So, instead of 78, the column labeled 80% should be 74 and the column labeled 150% should be 84.*
- Ben Floyd: What would be the conditions if we had a similar year next year? *The conditions would be worse than this year since there would be less in storage at the start of the year.*

Technical Work Update

Wendy provided an update on the Kachess Drought Relief Pumping Plant (KDRPP) and Keechelus-to-Kachess Conveyance (KKC) Environmental Impact Statement (EIS). The KDRPP and KKC Draft EIS was issued in January 2015. The public comment period for the Draft EIS closed on March 10, 2015. Wendy expressed appreciation to the Kachess area homeowners and other landowners for their attendance at the Workgroup meeting. It is important to Reclamation that they work with homeowners and other members of the public throughout this process. Comments received on the EIS in the initial 60-day comment period suggested that there are some misunderstandings about the KDRPP and KKC. Therefore, the EIS public comment period will be reopened for another 60 days. This will include holding additional public meetings and outreach to better educate the public about these projects, and to receive additional input.

Walt Larrick, Reclamation, provided an update on the initial development phase projects listed below.

Keechelus-to-Kachess Conveyance

For the KKC feasibility study, Reclamation and Ecology are evaluating two alternatives: the North Tunnel Alignment and the South Tunnel Alignment. Currently, water is released from Keechelus Reservoir and travels down the Yakima River. High flows affect fish habitat in the Yakima River from Keechelus Dam to Lake Easton. With the KKC, Reclamation would periodically divert water according to operating rules from the Keechelus Reservoir just below the outlet works and convey it through a tunnel to Kachess Reservoir. This project would allow for more natural flows in 10.5 miles of the upper Yakima River for steelhead and Chinook salmon. Keechelus Reservoir would continue to be operated within its normal operational range. This project would not drain Keechelus Reservoir. The KKC would provide greater operational flexibility and, if Reclamation constructed the KDRPP, would contribute to refilling the Kachess Reservoir after periods of drawdown. Reclamation is currently doing

a cost-risk analysis of the project alternatives. Fish passage at the Keechelus Reservoir Dam is not included in this project; however, it has been considered in the design. Mitigation considerations for the KKC would include a surface water quality monitoring program, site-specific geotechnical studies to identify any subsurface issues, and on-the-ground wetland surveys to avoid wetland impacts. During the reopened public comment period, there will be additional opportunities for the public and other stakeholders to provide input. Geologic investigations along the KKC North Tunnel alignment are continuing with further drilling planned in 2015.

Kachess Drought Relief Pumping Plant

The KDRPP would provide up to an additional 200,000 acre-feet in drought years for proratable irrigation use. Reclamation would only operate the KDRPP during drought years. Historically, droughts have occurred once every 5 to 10 years, with the possibility of multiyear droughts. The KDRPP would draw the Kachess Reservoir down up to 80 feet below the existing minimum pool elevation. This drawdown corresponds to approximately 15 percent less water surface area in the lower Kachess Reservoir. Due to the topography of the reservoir, the upper Kachess Reservoir would not be drawn down further than the current minimum pool elevation. Walt presented a comparison of the Kachess Reservoir pool elevation with and without the KDRPP. Except for during severe droughts, the KDRPP would not draw down the reservoir the entire 80 feet. For example, the modeling for KDRPP shows up to 40 feet of drawdown for a single drought (2001-2004). With the KKC, the duration of the drawdown would be reduced. Jeff Thomas, USFWS, added that with the KKC in place, there will be times when water levels in the Kachess Reservoir are higher than they have been under historical conditions. With the addition of the Wymer Dam and Reservoir (WDR), Bumping Reservoir Enlargement (BRE), other major water projects, and conservation, the need to operate the KDRPP and the associated drawdowns would be reduced.

For the KDRPP feasibility study, Reclamation and Ecology are evaluating two alternatives: the East Shore Pumping Plant and the South Pumping Plant. Geologic investigations along the alignment of the KDRPP South Pumping Plant are continuing with further drilling planned in 2015. The East Shore Pumping Plant alignment would enable the pumping plant shaft and tunnel to be constructed in rock. This alternative would include a buried pipeline along the reservoir rim to convey water from the pumping plant to the existing discharge pool below the dam. The South Pumping Plant intake would not be constructed in bedrock. This alternative has a lower hydraulic head and could therefore be operated at a lower cost. Reclamation is currently doing a cost-risk analysis for these project alternatives. Reclamation is also evaluating impacts to bull trout migration between the lower and upper Kachess Reservoir. If constructed, the KKC would contribute to improving connectivity between the lower and upper reservoir. Mitigation considerations for the KDRPP would include fish passage between Box Canyon Creek and Kachess Reservoir, fish passage between the lower and upper reservoir, passage improvements within Keechelus and Kachess Reservoirs, and monitoring of water levels in drinking water wells near Kachess Reservoir.

Bull Trout Enhancement

The KDRPP and KKC actions would include Bull Trout Enhancement (BTE) projects and studies.

Reclamation and Ecology have coordinated with the USFS, USFWS, Yakama Nation, WDFW, and NMFS to formulate the BTE program. These entities are working on a Memorandum of Understanding to keep the BTE effort moving forward. BTE is a component of all action alternatives in the KKC and KDRPP EIS. BTE efforts include a nutrient enhancement assessment and improvements in Gold Creek and Cold Creek.

Cle Elum Pool Raise

The CEPR would raise the elevation of the Cle Elum Reservoir by 3 feet, creating an additional 14,600 acre-feet of storage, by modifying the radial gates. The CEPR would include construction of shoreline erosion protection prior to raising the reservoir pool elevation. Reclamation is working with homeowners who border the shoreline to address erosion concerns. This project would include mitigation of disturbed camping locations along the reservoir shoreline. Reclamation and Ecology aim to complete the Final EIS and have the Record of Decision on the CEPR EIS signed within the next few months.

Cle Elum Dam Fish Passage

In 2009, the Yakama Nation began reintroducing sockeye into the Cle Elum Reservoir. This fish reintroduction effort has been successful. Michael Garrity noted that population improvements would be even greater when permanent fish passage is constructed at Cle Elum Dam. The Cle Elum Dam Fish Passage design is complete and road improvements will begin this year. Walt noted that the multilevel intake structure planned for Cle Elum Reservoir would not extend to the lowest reservoir drawdown elevation; however, it would operate within a significant range of varying pool elevations including meeting fish passage needs in spring.

Tieton Dam Fish Passage

Reclamation and Ecology, after discussions with the Storage Dam Fish Passage Core Team, have selected Tieton Dam as the next location for fish passage under the Integrated Plan. Reclamation has recently initiated the appraisal-level study for this project. Susan Crawford, Reclamation, will be the project manager on the appraisal study.

Bumping Reservoir Enlargement and Wymer Dam and Reservoir

Reclamation will be completing geotechnical investigation along the two possible dam sites for the BRE this spring. Geotechnical investigations will include drilling and seismic work.

Andrew Graham, HDR Engineering, presented the hydrologic modeling done for the WDR and BRE. HDR completed modeling of WDR and BRE in December 2014. This effort built on the initial development phase project modeling completed in summer 2014. The next phase of hydrologic modeling will examine the effects of water conservation on return flows and lower basin supply availability. The modeling includes operating protocols to guide how the model stores and releases water at different reservoirs. If these projects are constructed, the operating protocols would need to be further defined in consultation with stakeholders.

HDR evaluated water supply modeling results using common metrics; these include change in prorationing level, change in TWSA, and change in deliveries to water users. These metrics were evaluated under a range of supply conditions using an 84-year period of record. Results suggest that the projects do not perform as well during multiyear droughts. Andrew compared the modeling results from the WDR, BRE, and full Integrated Plan scenarios to the baseline with conservation and the initial development phase scenario results. The results show an improvement in prorationing and proratable deliveries during drought years. WDR and BRE each would provide an improvement of about 5 percent in prorationing over the initial development phase. The full Integrated Plan scenario showed an approximate 10-percent improvement compared to the initial development phase; and an improvement of 21 percent compared to the baseline scenario. However, the full Integrated Plan scenario would be approximately 3 percent short of the 70-percent prorationing goal in terms of average performance across drought years. These estimates rely on model operating constraints that are set to run the same way in every year. Actual operations would likely be more flexible than the modeling assumptions to respond to particular conditions in any given dry year, and this could raise prorationing levels higher than the model results show.

HDR evaluated streamflow modeling results to see how closely they matched flow objectives in the Integrated Plan for various river reaches and different seasons. The results suggest that WDR would generate streamflow improvements in the Easton Reach (improved by 30 to 60 cfs), Cle Elum River (improved by 80 to 120 cfs), Keechelus Reach (increased minimum flow), and Tieton Reach (increased minimum flow). These streamflow improvements would benefit spawning and rearing habitat for spring Chinook and eventually steelhead as they re-populate the upper reaches of the basin. The results suggest that BRE would generate streamflow improvements in the Tieton River (improved by 25 to 35 cfs), Bumping River and Naches River (improved outmigration), and Yakima River (improved outmigration). The BRE would allow for a spring pulse to support outmigration, which would benefit all anadromous fish.

Workgroup Discussion:

Sid Morrison: Is the water supply improvement for junior and senior water right holders? *Andrew: The modeling assumes the additional water supply is for proratable users only.*

Groundwater Storage

Dave Brown reported that Ecology has issued a temporary permit to the City of Yakima for the aquifer storage and recovery project. The City started recharging the aquifer on March 10, 2015. The City plans to obtain a long-term permit pending completion and submittal to Ecology of additional project documentation.

Reclamation and Ecology, after discussions with the stakeholder group working on groundwater recharge, have selected the KRD service area in Kittitas County to investigate aquifer recharge potential. Other sites in the middle and lower parts of the basin are still being considered for future recharge projects. To date, Reclamation has completed four monitoring wells and Ecology has installed the Dry

Creek stream gage in Kittitas County. This area will serve as a pilot project to evaluate groundwater recharge and the impact to nearby tributaries.

Teanaway Community Forest

Rick Roeder, Washington Department of Natural Resources (DNR), discussed the TCF Advisory Committee's recent efforts. The Advisory Committee was charged with making recommendations to WDFW and DNR on the TCF Strategic Plan. DNR and WDFW aim to release the plan for public review in April. The Watershed Lands Conservation Subcommittee will be reviewing the plan and providing feedback to ensure it is in line with the goals of the Integrated Plan. In addition to development of the TCF Strategic Plan, the TCF Advisory Committee is focused on road maintenance and redevelopment in the TCF and working to establish a baseline for forest health monitoring.

Habitat Enhancement Projects

Jeff Tayer provided an update on ongoing habitat enhancement projects. In Yakima County, appraisals will be conducted on the Gap-to-Gap Property Acquisitions in the near future. This project would improve the floodplain and ecosystem functions in this area. The purchase and sale agreement for the Trout Meadows project is nearly complete. The Cle Elum River Side-Channel Restoration project has been constructed. The modeling and geomorphic assessment for the Gold Creek Project are complete and conceptual designs are being refined. This project is included in the BTE package and is important for improving bull trout populations in the upper Yakima. The Little Rattlesnake Road decommissioning is underway, with the new bypass road constructed and stream restoration planned for later this year. The Reed Diversion Dam Removal project is underway, which will remove the last fish barrier on Manastash Creek. All of these projects are coming together because of the impetus and collaboration opportunities provided by the Integrated Plan.

Agricultural Conservation Projects

Scott Revell provided an update on ongoing conservation projects. The KID canal lining project will be completed at the end of March 2015. The Roza Irrigation District Lateral 4-414C Pipeline is currently being installed. The Manastash Creek Sprinkler Conversion project has been completed and is currently being tested. This project will be operational by the 2015 irrigation season.

Public Comment

- Grant Learned Jr., Kachess homeowner: There is frustration among homeowners who are working hard to be heard, but feel they are not being included in the discussion about the KDRPP and KKC. The homeowners have requested meetings to ask questions and have a discussion about these projects. They want to have a two-way conversation, not just another presentation given by members of the Workgroup.
- Gary Waltz, Kachess homeowner: The Kachess Homeowners request time at the next Workgroup meeting to give a presentation on the homeowners' concerns.
- Chris Maykut, Friends of Bumping Lake: We are disappointed that the WSU study has not changed the Workgroup's course of action. The study indicated that the water storage and

conveyance projects are not economically justified. It is important that the Workgroup not discount or disregard the findings from the WSU study. We would be curious to know if the WSU study was presented to the DC Leadership team.

- Grant Learned Sr., Kachess homeowner: It seems that the Workgroup does not recognize that federal funding for the Integrated Plan projects comes from taxpayers. These projects only benefit a small region of the county, but would come at the cost of taxpayers across the nation.
- Bill Campbell, Kachess homeowner: Reclamation noted that the KDRPP and KKC EIS comment period is being reopened because there appeared to be misunderstandings about the projects. Will there be additional material provided to help clear up these misunderstandings? *Yes, Reclamation and Ecology are working on more targeted outreach which will include new educational material and additional meetings where this information will be shared with the public.*

The Workgroup doesn't seem to be paying enough attention to the concerns of the Kachess homeowners who will be most impacted by these projects. There are not just cabins in this area, there are also year-round homes. It should be recognized that although Reclamation views these projects as just moving water, in reality Reclamation would be draining the lake. Also, although the Workgroup insists on using the name "Kachess Reservoir," the actual name that should be used according to local roads and maps is "Lake Kachess." The homeowners recognize this as a lake not a reservoir. We are interested to know if the WSU Study or Normandeau Report were presented to the DC Leadership team, and if the Workgroup tells the DC Leadership team about the communities living in the affected area. Does the DC Leadership team truly understand the impacts of these projects?

- Justin Harter, Washington State Water Resources Association and Family Farm Alliance Group: The Family Farm Alliance Group recently went to Washington, DC, to meet with congressional representatives. The group represents farming and ranching families. He commended the effort of the Workgroup and notes that other states do not have this level of cooperation.

Workgroup Roundtable Discussion

Ben Floyd opened the floor to Workgroup members. Specific comments included the following:

- Rick Dieker, Yakima-Tieton Irrigation District: He agrees with Justin Harter's comment.
- Phil Rigdon, Yakama Nation: There are many simultaneous efforts going on. Thank you to all involved for your continued effort. It is incredible after 7 or 8 years to still have so many individuals dedicated to this effort.
- Mike Shuttleworth, Benton County: It is exciting to see continued cooperation and progress.
- Mike Leita, Yakima County: This project is about all of us working together instead of separately. By working together we can achieve so much more than separately. We can succeed collectively for the betterment of all and for future generations.
- John Easterbrooks, WDFW: These projects should be viewed as a marathon. We are making great progress.

- Stuart Wooley, Forest Service: The Western Watersheds Enhancement Partnership is important to the Forest Service, at the local, regional and national levels. With regard to the EIS's being prepared on Integrated Plan projects, the Forest Service is focused on producing a quality assessment.
- Michael Garrity, American Rivers: The DC Leadership Group is aware of the WSU Study and has heard from skeptics of the Integrated Plan. Part of the plan is that water supply beneficiaries will pay back a portion of the benefit that they receive, with interest. This affects the economics on the projects.
- Sid Morrison, Yakima Basin Storage Alliance: He has seen reservoir users pay Reclamation back for reservoir projects that were financed and constructed decades ago. This is a process that works.
- Seth Defoe, KID: It is important that correct information be available to the public so that they understand the projects. For example, the KKC will not drain Keechelus Reservoir. We also do not want homeowners to feel they are getting steamrolled. We should be able to answer their questions.
- David Fast, Yakama Nation: When there is a dam at the end of a body of water, then that water body is considered a reservoir, not a lake.
- Jeff Thomas, USFWS: He is very proud of what we have accomplished over the last several years. It is important to consider what is best for all involved. As a taxpayer, he recognizes a portion of his tax money is going to fund projects in other regions of the country. The Florida Everglades project is an example that he is happy to contribute to.
- Lisa Pelly, Trout Unlimited: Lisa was proud to be here and excited to see these projects progress. Thank you to Reclamation for taking some additional time to make sure the public understands the projects currently being analyzed.
- Dawn Wiedmeier, Reclamation: There is controversy on some of the Integrated Plan projects, which is inevitable. In preparing the EIS, Reclamation is committed to providing accurate information to the public.
- Rick Roeder, DNR: Rick is impressed by the cooperation of those who have been involved in the Workgroup for many years. The Integrated Plan is becoming a model for other efforts within DNR.
- Obie O'Brien, Kittitas County: The Kittitas County Commissioners will be hosting a meeting on April 4 to discuss the projects and concerns.

Ben Floyd closed the meeting by noting upcoming meeting dates in 2015: June 3, September 9, and December 16.

Workgroup Members in Attendance

Dale Bambrick, National Marine Fisheries Service
Dave Brown, City of Yakima
Seth Defoe, Kennewick Irrigation District
Rick Dieker, Yakima-Tieton Irrigation District
Urban Eberhart, Kittitas Reclamation District
David Fast, Yakama Nation - Yakima/Klickitat Fisheries Project
Michael Garrity, American Rivers
Mike Leita, Yakima County
Sid Morrison, Yakima Basin Storage Alliance
Lisa Pelly, Washington Water Project, Trout Unlimited
Phil Rigdon, Yakama Nation
Rick Roeder, Washington State Department of Natural Resources
Derek Sandison, Washington State Department of Ecology - Office of Columbia River
Jeff Thomas, USFWS - Mid-Columbia River Fishery Office
Dawn Wiedmeier, Bureau of Reclamation - Columbia-Cascades Area Office
Ron Cowin (Alternate), Sunnyside Valley Irrigation District
John Easterbrooks (Alternate), Washington Department of Fish and Wildlife
Obie O'Brien (Alternate), Kittitas County
Stuart Woolley (Alternate), US Forest Service, Okanogan-Wenatchee NF

Other Attendees

David Bowen, Kittitas County Chamber of Commerce
Bill Campbell, Lake Kachess HOA
Debbie Carlson, Bonneville Power Administration
David Child, Yakima Basin Joint Board
Wendy Christensen, Bureau of Reclamation - Columbia-Cascades Area Office
Tony Coluccio, Frank Coluccio Construction
Stuart Crane, Yakama Nation
Susan Crawford, Bureau of Reclamation
Jane Creech, Ecology
Jack and Beneitta Eaton
Sharra Finley, Rep. Newhouse office
Ben Floyd, Anchor QEA
Chuck Freeman, Kennewick Irrigation District
Adam Fyall, Benton County
Patty Garvey-Darda, U.S. Forest Service - Cle Elum Ranger District
Andrew Graham, HDR Engineering, Inc.
Sean Gross, National Marine Fisheries Service
Justin Harter, NSID

Ken Hasbrouck, Kittitas Reclamation District
Tim Hill, Ecology
Joel Hubble, Bureau of Reclamation - Yakima Field Office
Chuck Klarich, Yakima Basin Storage Alliance
Walt Larrick, Bureau of Reclamation
Grant Learned, Sr., Lake Kachess HOA
Grant Learned, Jr., Lake Kachess HOA
Edwin Lewis, Wapato Irrigation Project
Chris Lynch, Bureau of Reclamation
Steve Malloch, Western Water Futures LLC (alt. for American Rivers)
Larry Martin, Velikanje Halvorson
Daniel Martinez, S. Martinez Livestock
Chris & Samantha Maykut, Friends of Bumping Lake
Naydene Maykut, Friends of Bumping Lake
Jason McCormick, Washington Water Trust
Patrick McGuire, Kennewick Irrigation District
Dale Meck, cbec eco engineering
Bryan Myre, Yakama Reservation Irrigation District
David Ortman
Elaine Packard, Water/Salmon Committee, Cascade Chapter, Sierra Club
Sarah Pistorese, HDR Engineering, Inc.
Kirk Rathbun, Kennewick Irrigation District
David Reeploeg, Office of Senator Maria Cantwell
Tom Ring, Yakama Nation
Mike Shuttleworth, Benton County
Dan Silver
Chad Stuart, Bureau of Reclamation
Jeff Tayer, WDFW
Tom Tebb, Washington State Department of Ecology
Michael Tobin, North Yakima Conservation District
Ron VanGundy, Roza Irrigation District
Richard Visser, US Fish & Wildlife Service
Jerry Watts

Where to Find Workgroup Information

Meeting materials, notes, presentations, and materials submitted during public comment for the Workgroup meetings will be posted on the project website

(<http://www.usbr.gov/pn/programs/yrbwep/2011integratedplan/index.html>). A bibliography of information sources, many of which are available online, is also posted on the website.

If anyone needs help finding an information source, contact those listed at the top of page 1 of these notes or Ben Floyd at Anchor QEA, Kennewick office, (509) 491-3151, or bfloyd@anchoragea.com.

RECLAMATION

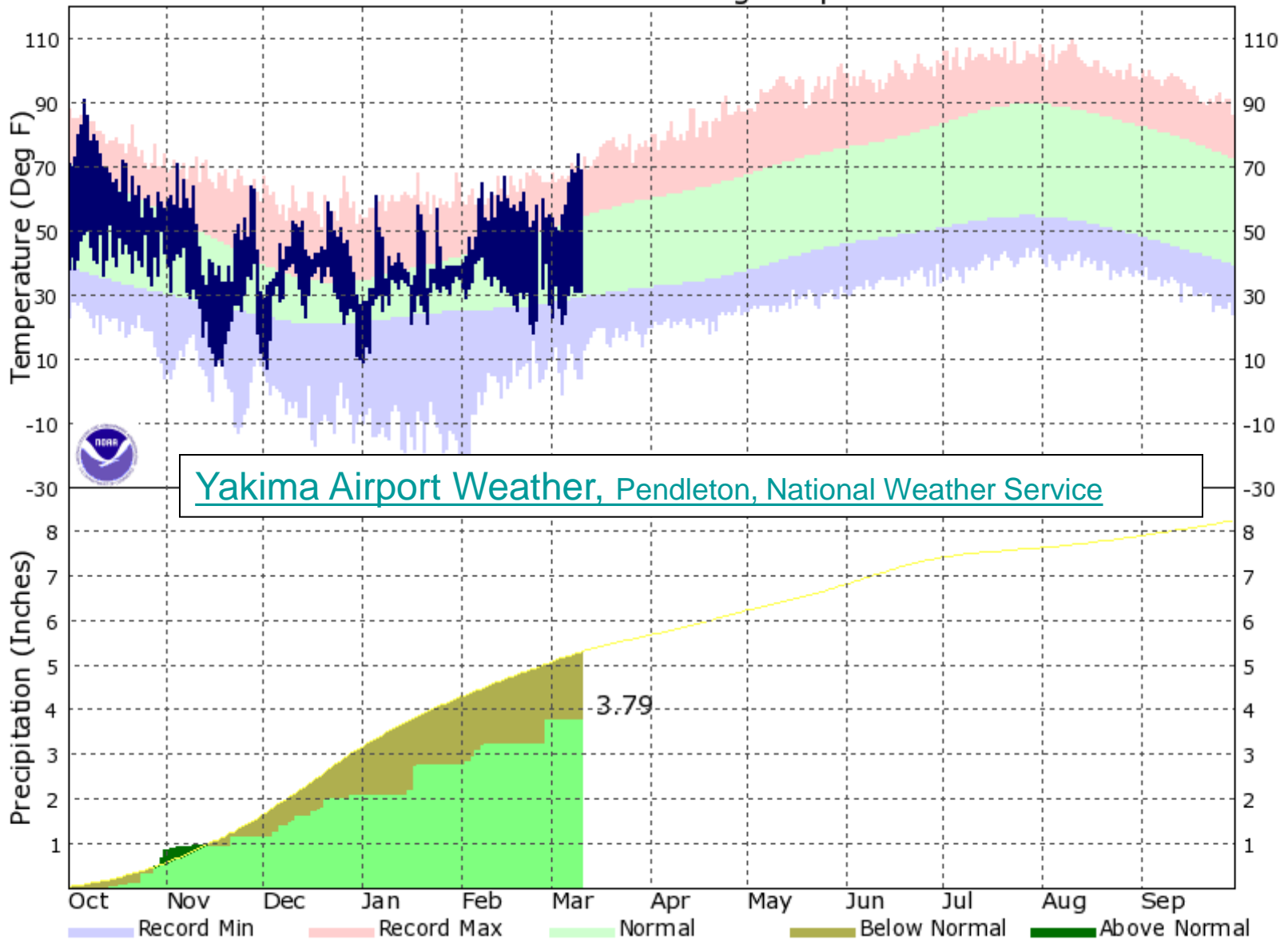
Managing Water in the West

Yakima Basin WY 2015 Water Supply Conditions March 9, 2015

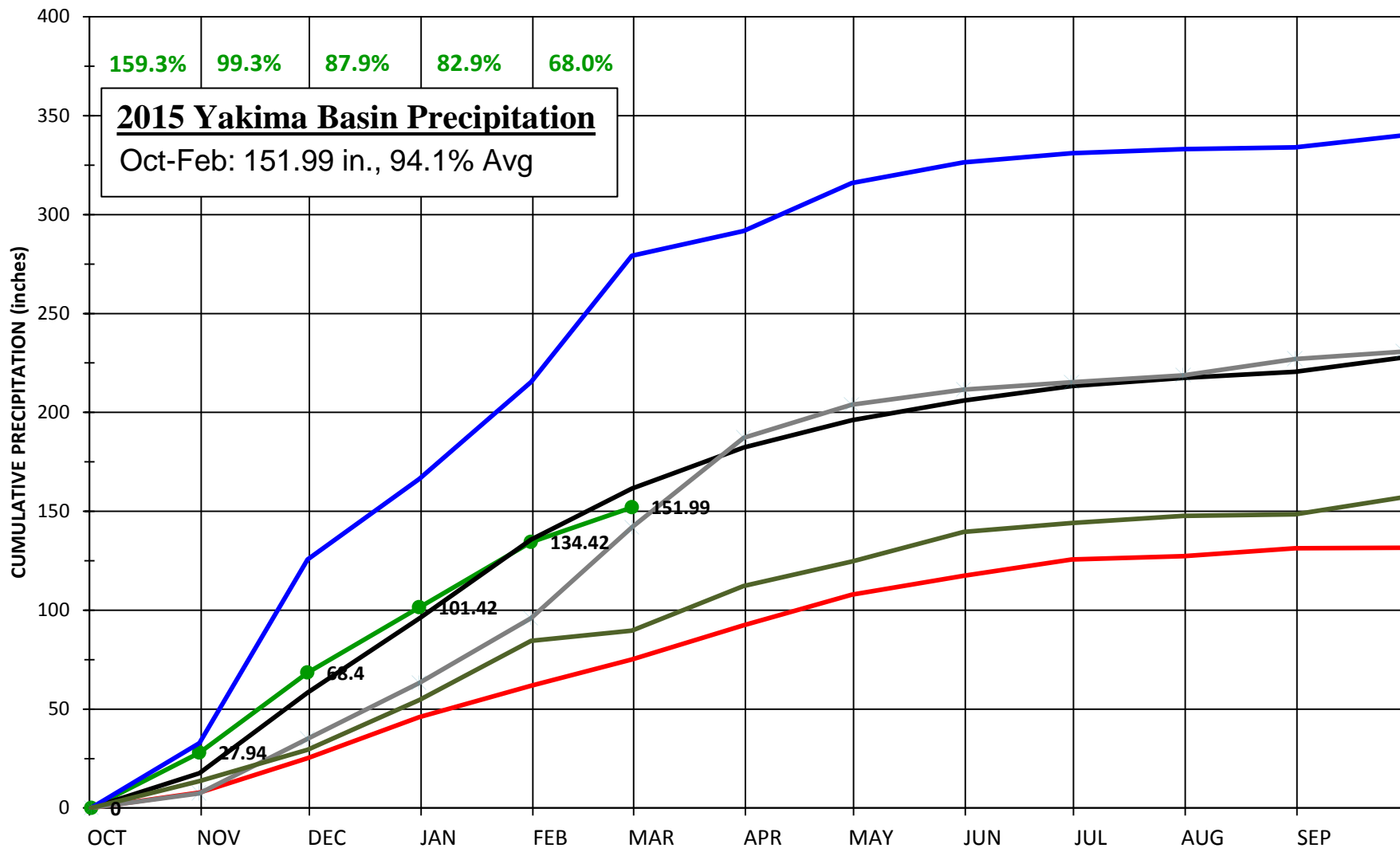


U.S. Department of the Interior
Bureau of Reclamation

KYKM - Oct 2014 Through Sep 2015



RECLAMATION



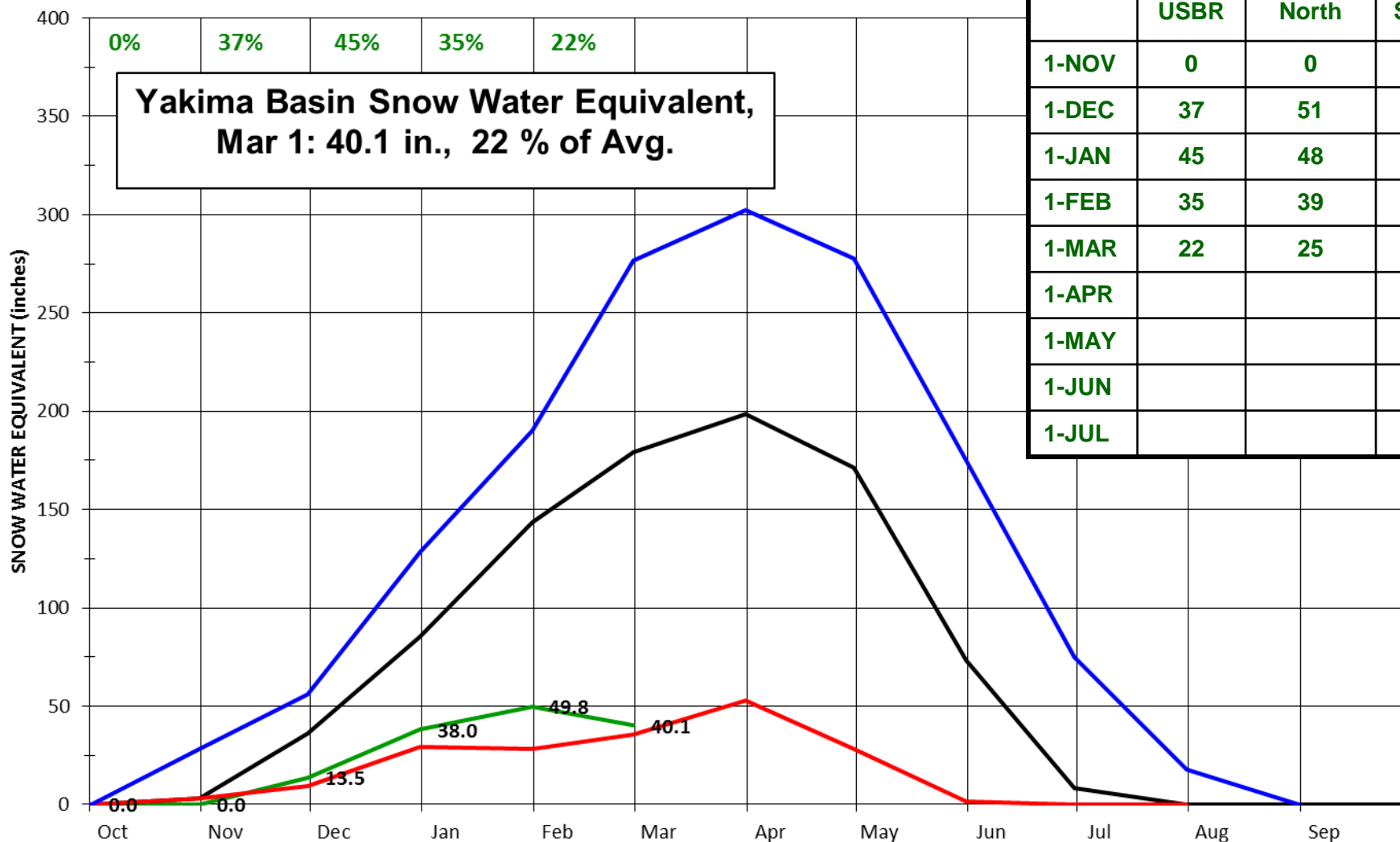
- Water Year 2015
- Average
- WY2001
- WY1996
- WY2014
- WY2005

YAKIMA BASIN
Combined Cumulative Precipitation
5 Reservoir Sites
WATER YEARS 1981-2010

UNITED STATES
 DEPARTMENT OF THE INTERIOR
 BUREAU OF RECLAMATION
 YAKIMA FIELD OFFICE
 1917 MARSH ROAD
 YAKIMA, WA 98901

NRCS SWE % AVG

	USBR	North	South
1-NOV	0	0	0
1-DEC	37	51	39
1-JAN	45	48	55
1-FEB	35	39	44
1-MAR	22	25	37
1-APR			
1-MAY			
1-JUN			
1-JUL			

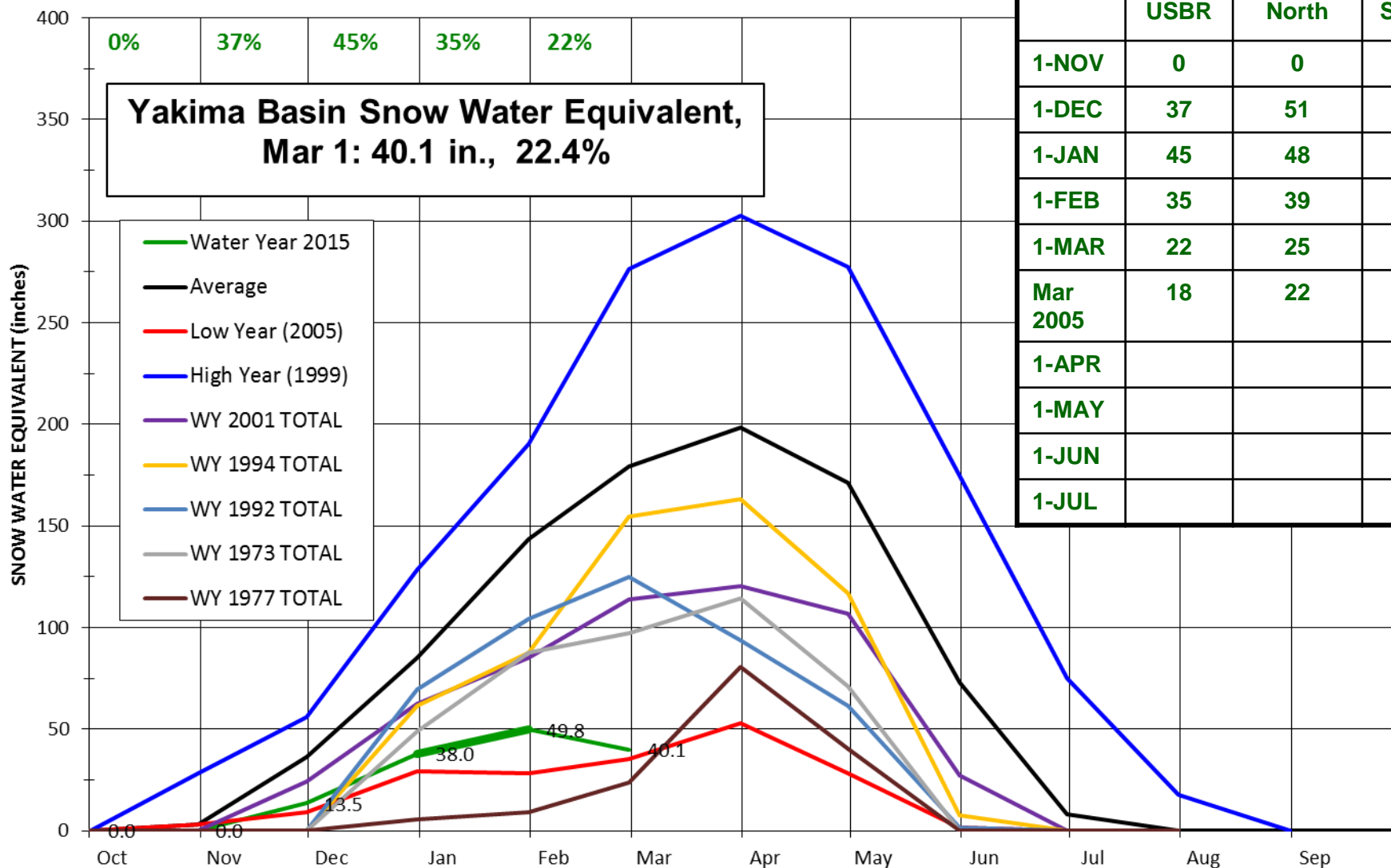


- Water Year 2015
- Average
- Low Year (2005)
- High Year (1999)

YAKIMA BASIN WATER YEAR SNOW WATER EQUIVALENT

Average based on greater of 1971-2000 or POR-1995
Totals derived from 7 Yakima forecast sites
Corral, Stampede, Olallie, Fish, Bumping, Domerie, & Tunnel Avenue

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
YAKIMA FIELD OFFICE
1917 MARSH ROAD
YAKIMA, WA 98901



NRCS SWE % AVG

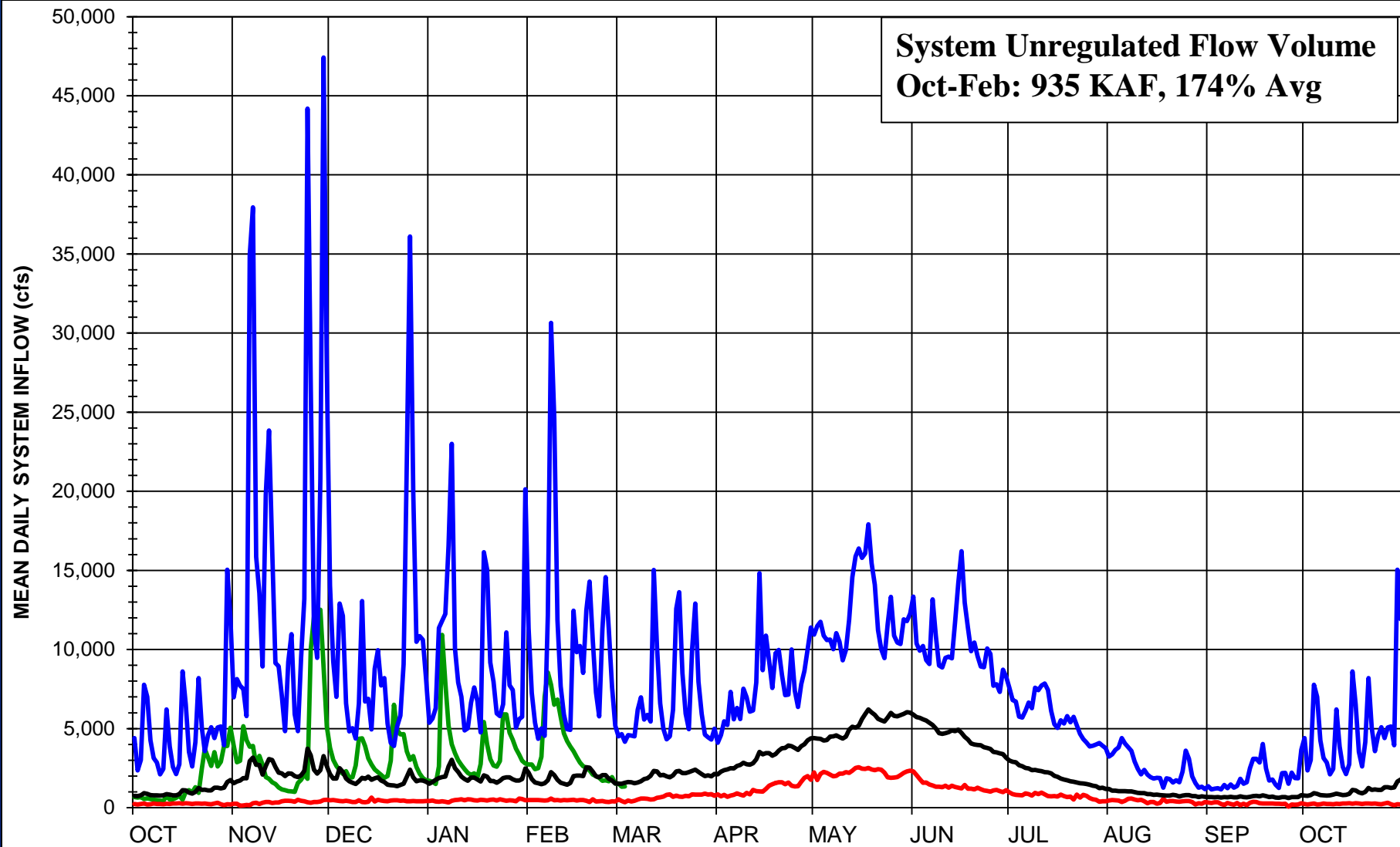
	USBR	North	South
1-NOV	0	0	0
1-DEC	37	51	39
1-JAN	45	48	55
1-FEB	35	39	44
1-MAR	22	25	37
Mar 2005	18	22	24
1-APR			
1-MAY			
1-JUN			
1-JUL			

YAKIMA BASIN WATER YEAR SNOW WATER EQUIVALENT

Average based on greater of 1971-2000 or POR-1995
Totals derived from 7 Yakima forecast sites
Corral, Stampede, Olallie, Fish, Bumping, Domerie, & Tunnel Avenue

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
YAKIMA FIELD OFFICE

1917 MARSH ROAD
YAKIMA, WA 98901

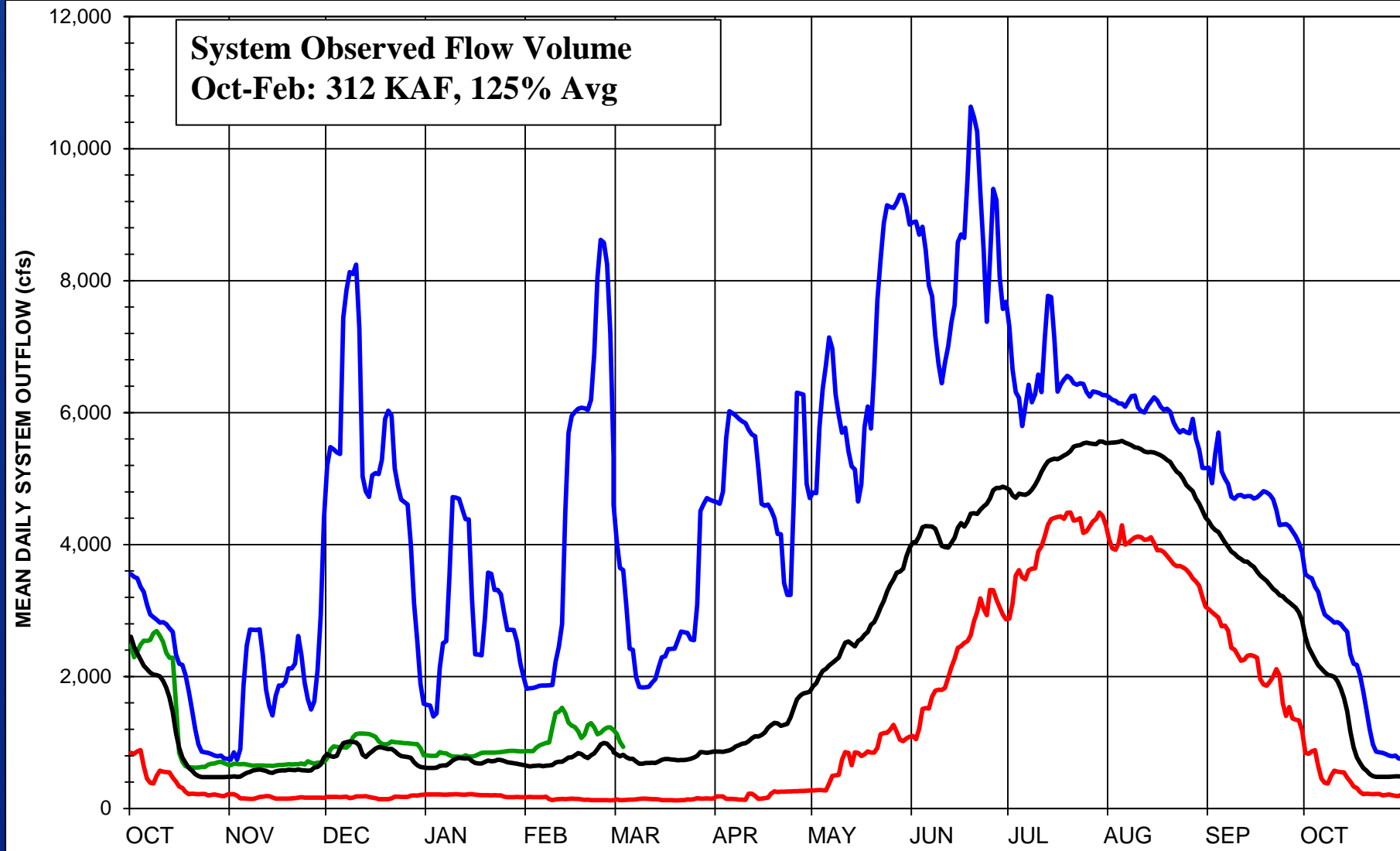


— Water Year 2015
— Minimum
— Average
— Maximum

**SYSTEM RESERVOIRS
SUM OF INFLOWS
SUMMARY HYDROGRAPH
WATER YEARS 1981-2010**

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
YAKIMA FIELD OFFICE
1917 MARSH ROAD
YAKIMA, WA 98901

RECLAMATION

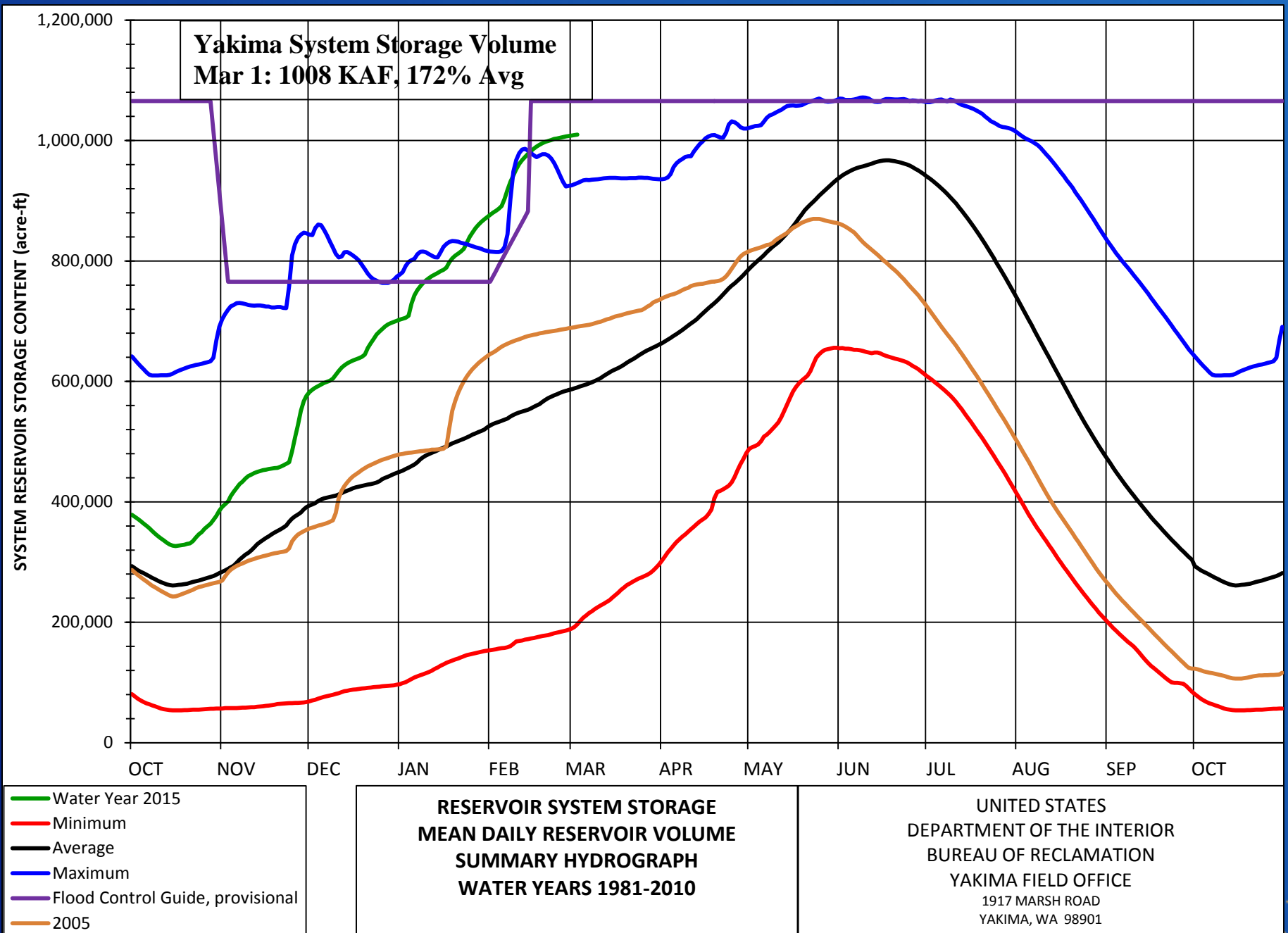


— Water Year 2015
— Minimum
— Average
— Maximum

**SYSTEM RESERVOIRS
SUM OF OUTFLOWS
SUMMARY HYDROGRAPH
WATER YEARS 1981-2010**

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
YAKIMA FIELD OFFICE
1917 MARSH ROAD
YAKIMA, WA 98901

RECLAMATION



March's April 1, 2015 TWSA ESTIMATE

April 1 - September 30

Parameter*	+/-/=	80%	100%	150%
Apr 1-Sep 30 Natural Flow at Parker est.	+	733	924	1379
Return Flow Estimate	+	320	340	350
April 1, Reservoir Content	+	1020	1030	1040
TWSA	=	2073	2294	2769
SEP 30 EST RESERVOIR CONTENT	-	110	110	160
FLOW OVER SUNNYSIDE DAM	-	170	205	350
TWSA FOR IRRIGATION	=	1793	1979	2259
NONPRORATABLE ENTITLEMENT	-	1070	1070	1070
REMAINING TWSA	=	723	909	1189
PRORATABLE ENTITLEMENT		1239	1239	1239
% RATIO= REMAINING TWSA/PRORATABLE ENTITLEMENT		58%	73%	96%
TITLE 12 FLOW REQUIREMENTS, cfs	April	300	300	400
Flow added to Title 12, cfs ***		102	106	112
Storable portion of added flow, cfs		78	78	78

*Values are in 1,000 ac-ft unless otherwise specified.

*** State & YRBWEP Trust, Acquisition, & Conservation additions to Title XII flow will range from 102 to 142 cfs.

RECLAMATION

March's April 1, 2015 TWSA Comparison

April 1 - September 30

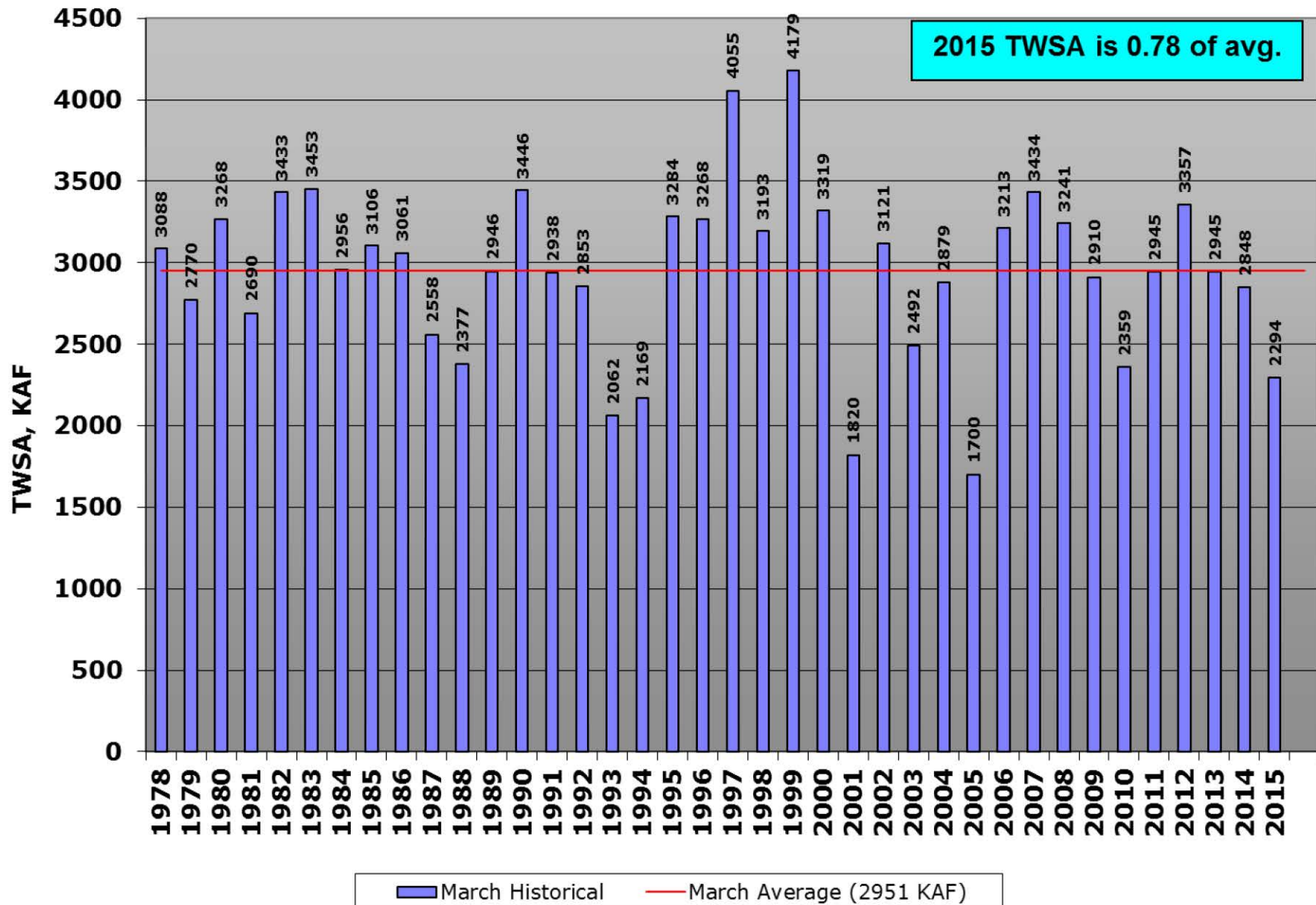
Parameter	" +/- / ="	March 2010	March 2015	March 2005
Apr 1-Sep 30 Natural Flow at Parker est.	+	1442	924	690
Return Flow Estimate	+	345	340	280
April 1, Reservoir Content	+	572	1030	730
TWSA	=	2359	2294	1700
SEP 30 EST RESERVOIR CONTENT*	-	76	110	76
FLOW OVER SUNNYSIDE DAM	-	254	205	135
TWSA FOR IRRIGATION	=	2029	1979	1491
NONPRORATABLE ENTITLEMENT	-	1070	1070	1070
REMAINING TWSA	=	959	909	421
PRORATABLE ENTITLEMENT		1239	1239	1239
% RATIO= REMAINING TWSA/PRORATABLE ENTITLEMENT		77%	73%	34%
TITLE XII FLOW REQUIREMENTS, cfs	April	300	300	300
TOTAL FLOW REQUIREMENT AT PARKER, cfs ***		334	406	302

*Values are in 1,000 ac-ft unless otherwise specified.

*** State & YRBWEP Trust, Acquisition, & Conservation additions to Title XII flow range from 106 to 142 cfs.

RECLAMATION

Yakima Basin Historical TWSA's



1980	N/A	1-Jul	183							N/A
1981	N/A	15-Apr	105							N/A
1982	N/A	10-Jul	191							N/A
1983	N/A	20-Jun	171							N/A
1984	N/A	10-Jul	192							N/A
1985	N/A	20-Jun	171							N/A
1986	under avg use	26-Apr	116	Hold	under	average	use	for	season	end of sea
1987	1-Jun	20-May	140			73%	70%	68%	68%	16-Oct
1988	1-Jul	24-Jun	176				82%	90%	90%	end of sea
1989	N/A	18-Jun	169							N/A
1990	N/A	4-Jul	185							N/A
1991	N/A	8-Jul	189							N/A
1992	17-May	17-May	138		58%	58%	58%	58%	58%	end of season
1993	1-Jun	13-Jun	164	NRP* 85,8	NRP* 72,8	56%	64%	67%	71-67%	30-Sep
1994	1-May	1-Jun	152	NRP*	47-35%	34%	39%	39%	37%	30-Sep
1995	N/A	1-Jul	182							N/A
1996	N/A	26-Jun	178							N/A
1997	N/A	21-Jul	202							N/A
1998	N/A	26-Jun	177							N/A
1999	N/A	29-Jul	210							N/A
2000	N/A	1-Jul	183							N/A
2001	1-May	1-Jun	152	NRP*	29%	30%	34%	37%	37%	30-Sep
2002	N/A	3-Jul	184							N/A
2003	1-Aug	20-Jun	171			"(97%)	"(97%)	86%	92%	30-Sep
2004	16-Jun	16-Jun	168			82%	82%	90%	92%	30-Sep
2005	6-Apr	25-May	145	34%	38%	40%	41%	42%	42%	30-Sep
2006	N/A	1-Jul	182							N/A
2007	N/A	20-Jun	171							N/A
2008	N/A	8-Jul	190							N/A
2009	N/A	25-Jun	176							N/A
2010	Averted by cool & rain	3-Jul	184	71%	78%	90%	100%	100%	100%	N/A
2011	N/A	23-Jul	204							N/A
2012	N/A	15-Jul	197							N/A
2013		22-Jun	173							N/A
2014		18-Jun	169							N/A
Year	(1) Start of Proration Period	(2) Storage Control Date	(3) S.C. Julian	Apr.	May	Jun	Jul	Aug	Sep	(4) End of Proration Period

Yakima Basin Summary

- Prorationing is 73% of average.
- Mar 1, Storage is 174% of average and 95% full.
- Snow pack is 22% to 35% of average.
- Title XII flow is 300 cfs.
- Must add 28 cfs and can add 78 cfs in April.

RECLAMATION

Technical Projects Update

YRBWEP Workgroup Meeting
March 11, 2015



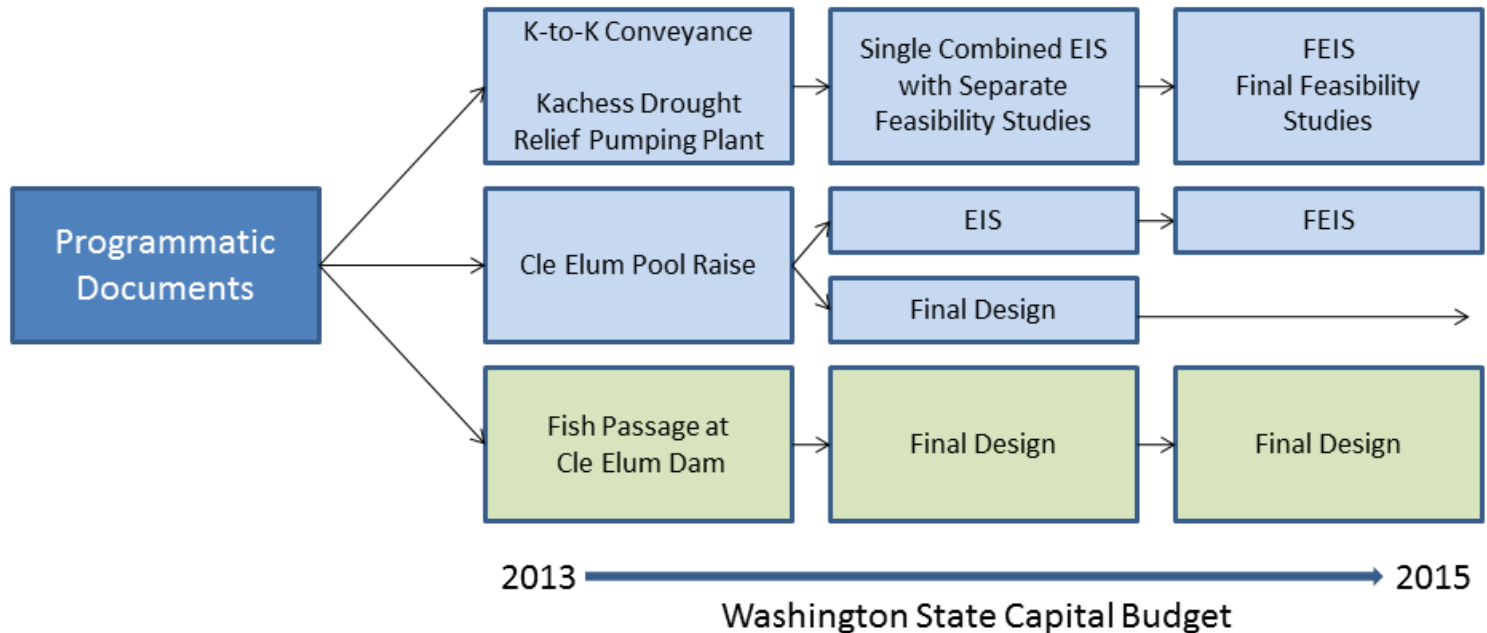
Ongoing Projects

- **Keechelus-to-Kachess Conveyance**
- **Kachess Drought Relief Pumping Plant**
- **Bull Trout Enhancement**
- **Cle Elum Pool Raise**
- **Wymer Dam and Reservoir**
- **Reservoir Fish Passage**
- **Bumping Enlargement Geological Investigation**
- **Hydrologic Modeling Results for Bumping and Wymer Reservoirs**
- **Groundwater Storage**
- **Teanaway Community Forest**
- **Habitat Enhancement and Agricultural Conservation Projects**

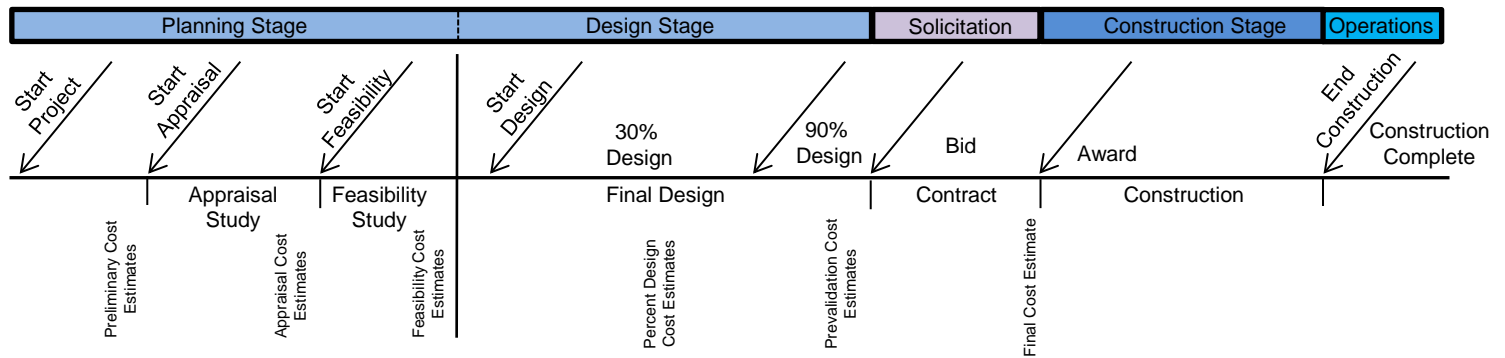


Path Forward July 2013 to June 2015

YRBWEP Phase III (Integrated Plan) Initial Development Phase



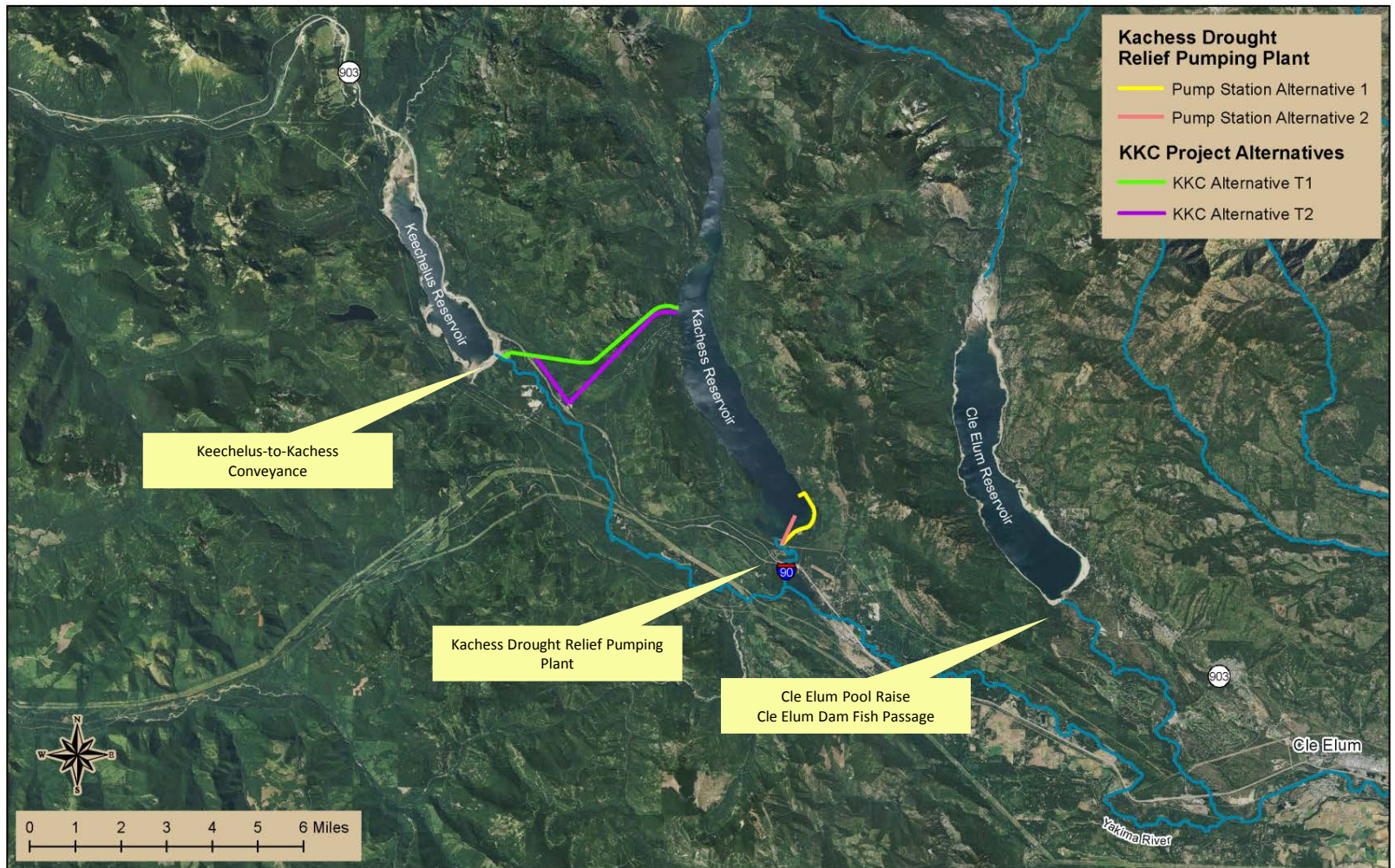
Reclamation's Planning and Construction Schedule



Keechelus-to-Kachess Conveyance and Kachess Drought Relief Pumping Plant



Project Locations



KKC and KDRPP

- **Draft EIS issued January 2015**
- **Comment period closed on March 10**
- **Next steps:**
 - **Review comments and update analyses as needed**
 - **Reopen comment period for 60 days**
 - **Hold additional public meetings in May 2015**
- **Geologic investigations are continuing with further drilling planned in 2015**

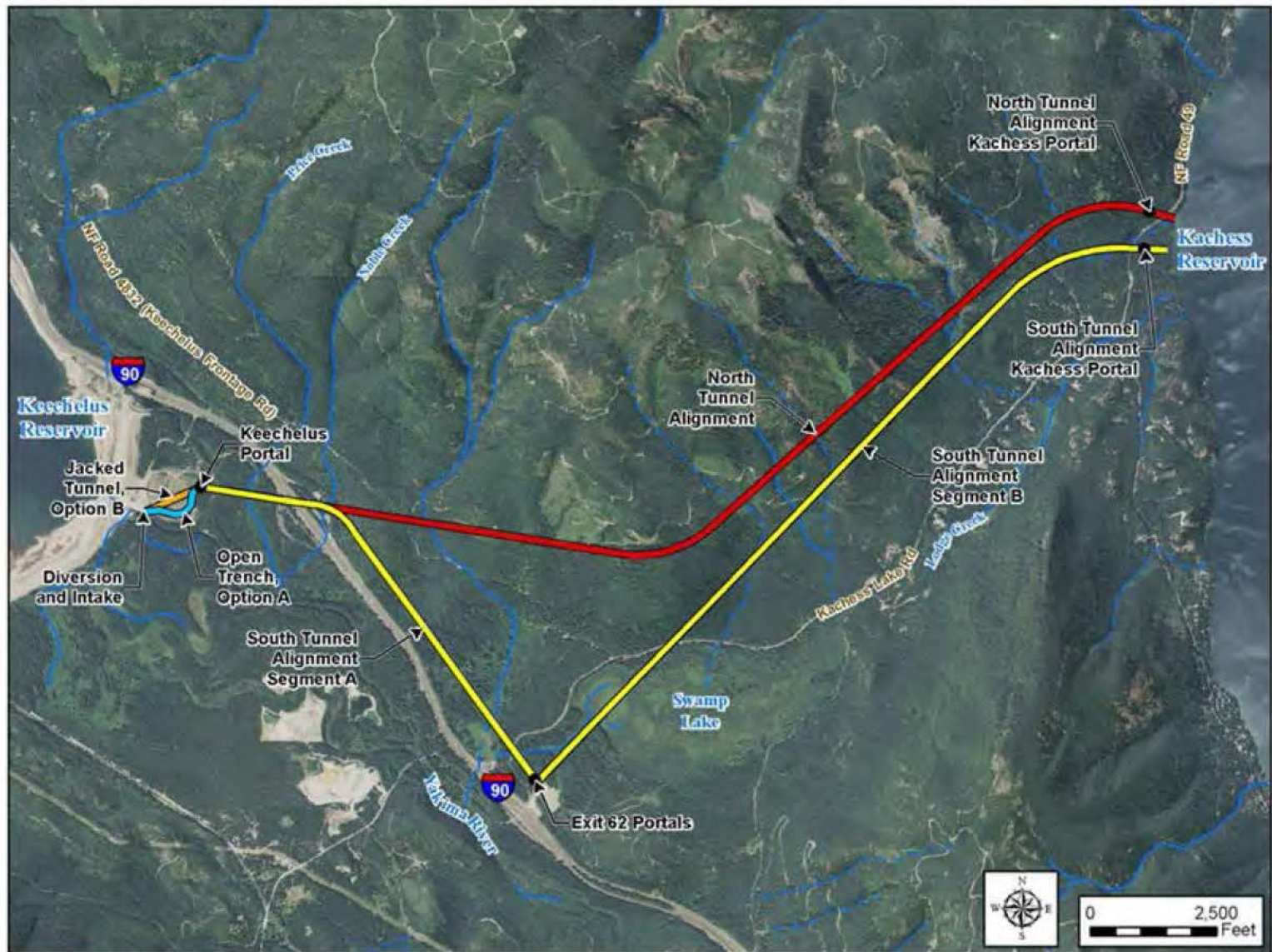


Keechelus-to-Kachess Conveyance



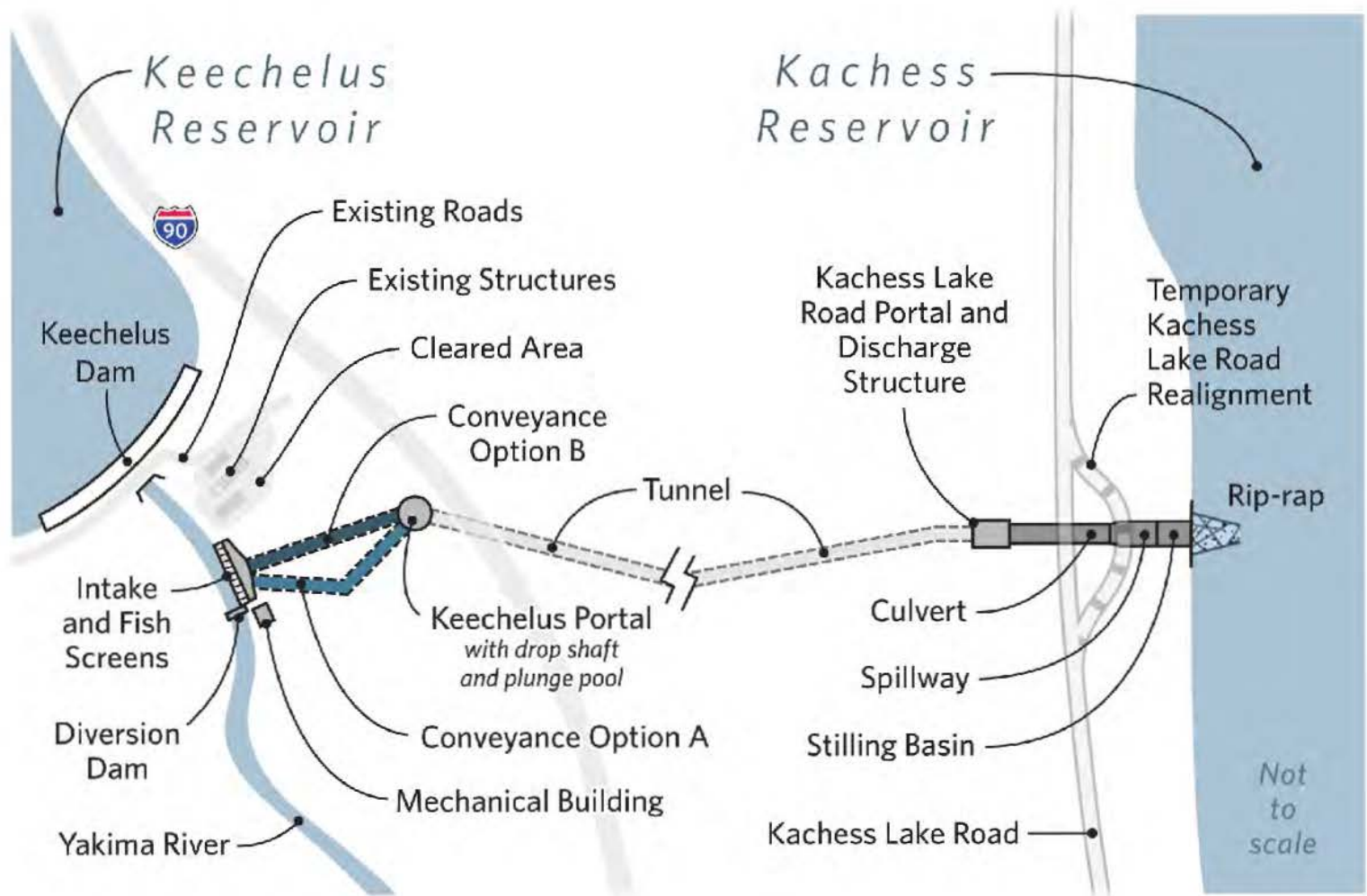
Keechelus-to-Kachess Conveyance

North Tunnel and South Tunnel Alternatives



KKC Intake and Discharge Works

(not to scale)



Mitigation – Keechelus-to-Kachess Conveyance

- **Develop a surface water quality monitoring program in cooperation with Ecology to monitor changes in water quality associated with the project.**
- **Prior to construction, conduct site-specific geotechnical studies to identify subsurface issues, unstable slopes, and other local factors that could contribute to slope instability and increase erosion potential.**
- **Prior to construction, Reclamation would conduct on-the-ground wetland surveys to avoid wetland impacts. If impacts occur, Reclamation would comply with mitigation measures as established in permit conditions from applicable agencies.**



Kachess Drought Relief Pumping Plant



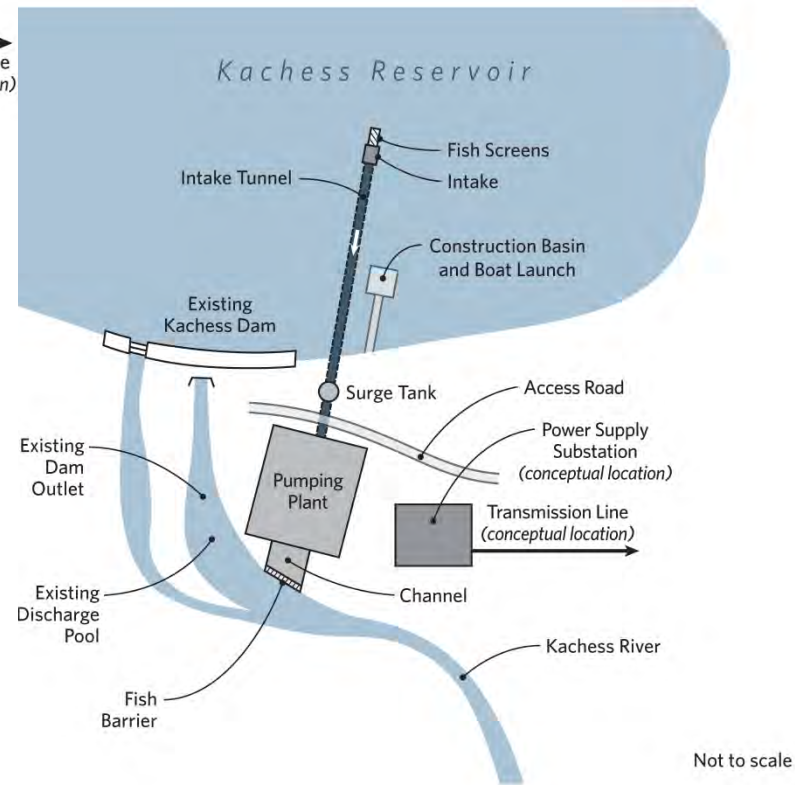
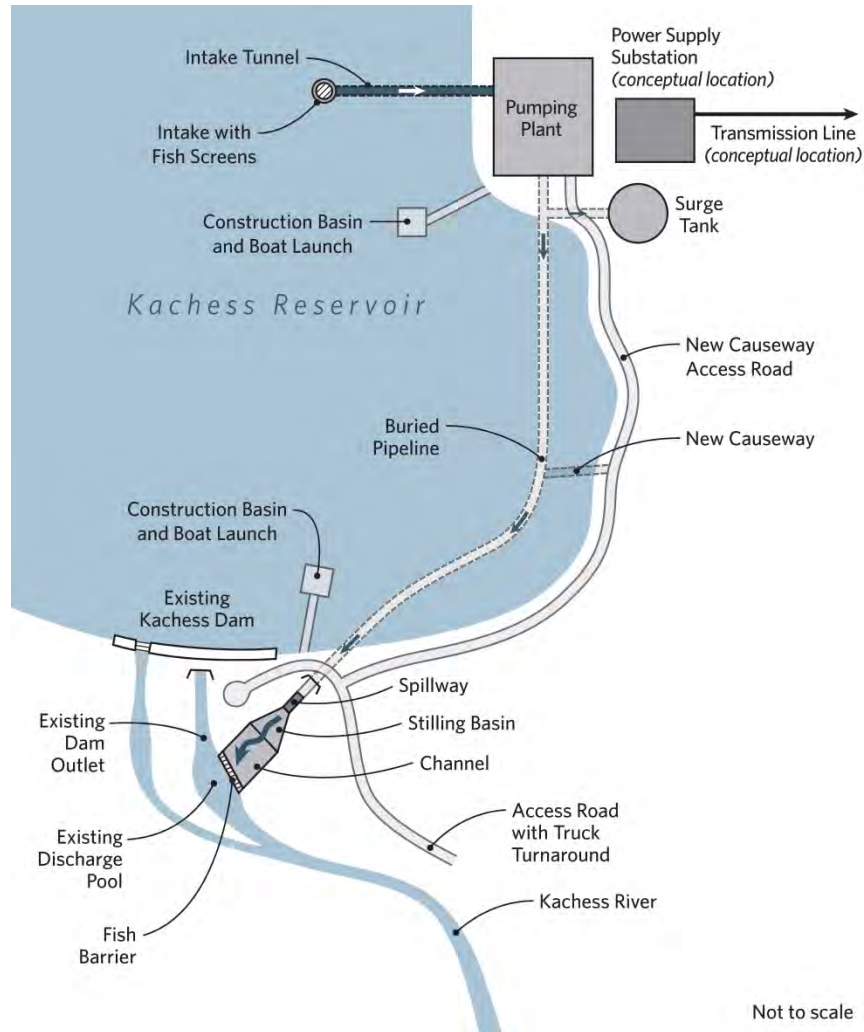
Kachess Drought Relief Pumping Plant

- **Provide up to 200,000 acre-feet in a drought year for proratable irrigation districts**
- **Droughts occur on average every 5-10 years**
- **Up to 80-foot drawdown below existing minimum pool**



Kachess Drought Relief Pumping Plant

Alt. 1 - East Shore Pumping Plant Alt. 2 - South Pumping Plant



Not to scale

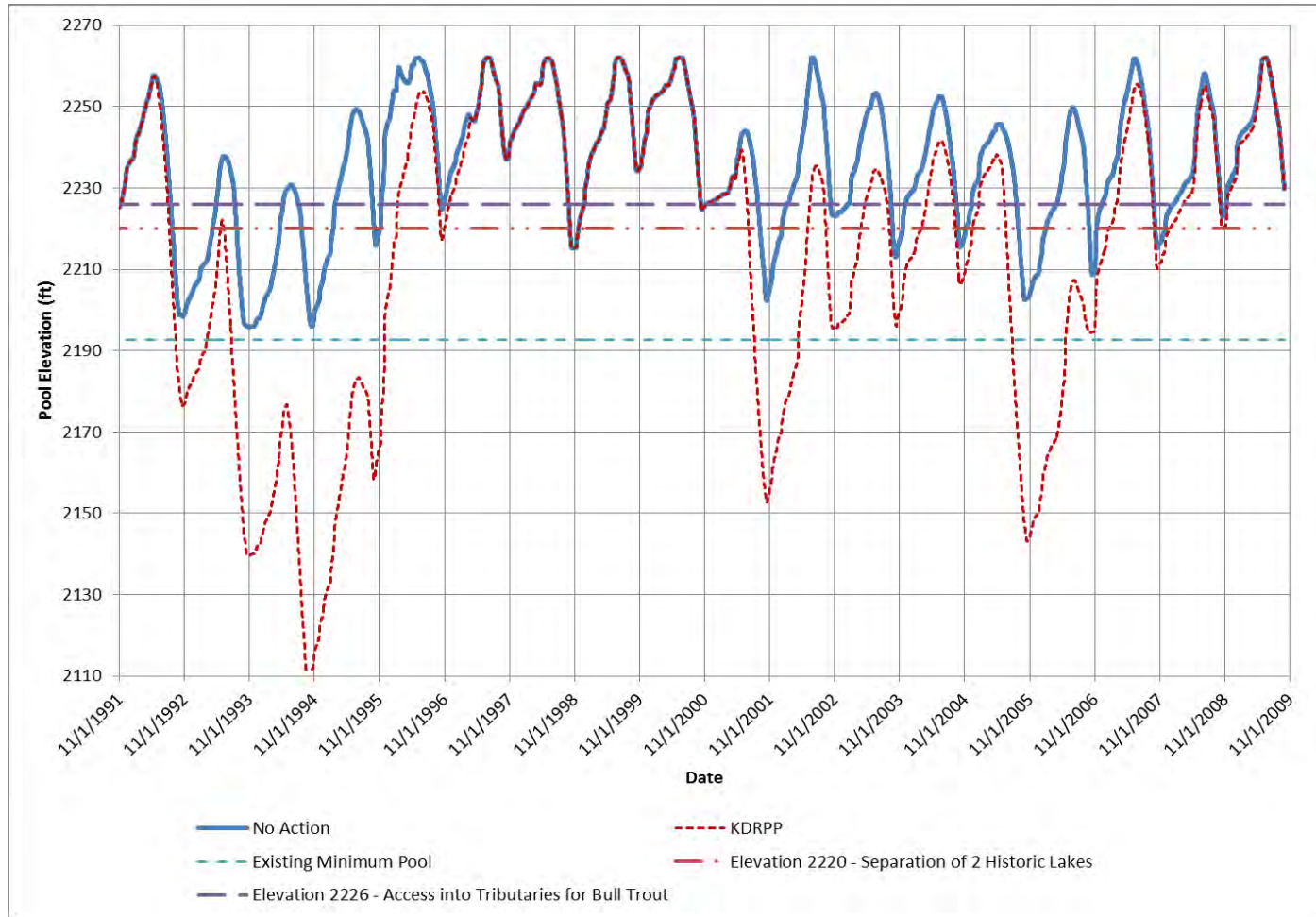
Not to scale



KDRPP – Area between upper and lower reservoirs



Kachess Reservoir Pool Elevations Under Alternative 2A



Mitigation – Kachess Drought Relief Pumping Plant

- **Provide fish passage between Box Canyon Creek and Kachess Reservoir and between the Little Kachess and Kachess basins to offset impacts of additional drawdown at Kachess Reservoir.**
- **Conduct passage improvement activities within Kachess and Keechelus reservoirs.**
- **Monitor wells near Kachess Reservoir to determine if water levels are lowered by additional reservoir drawdown. Develop appropriate mitigation strategies if water levels are impacted.**



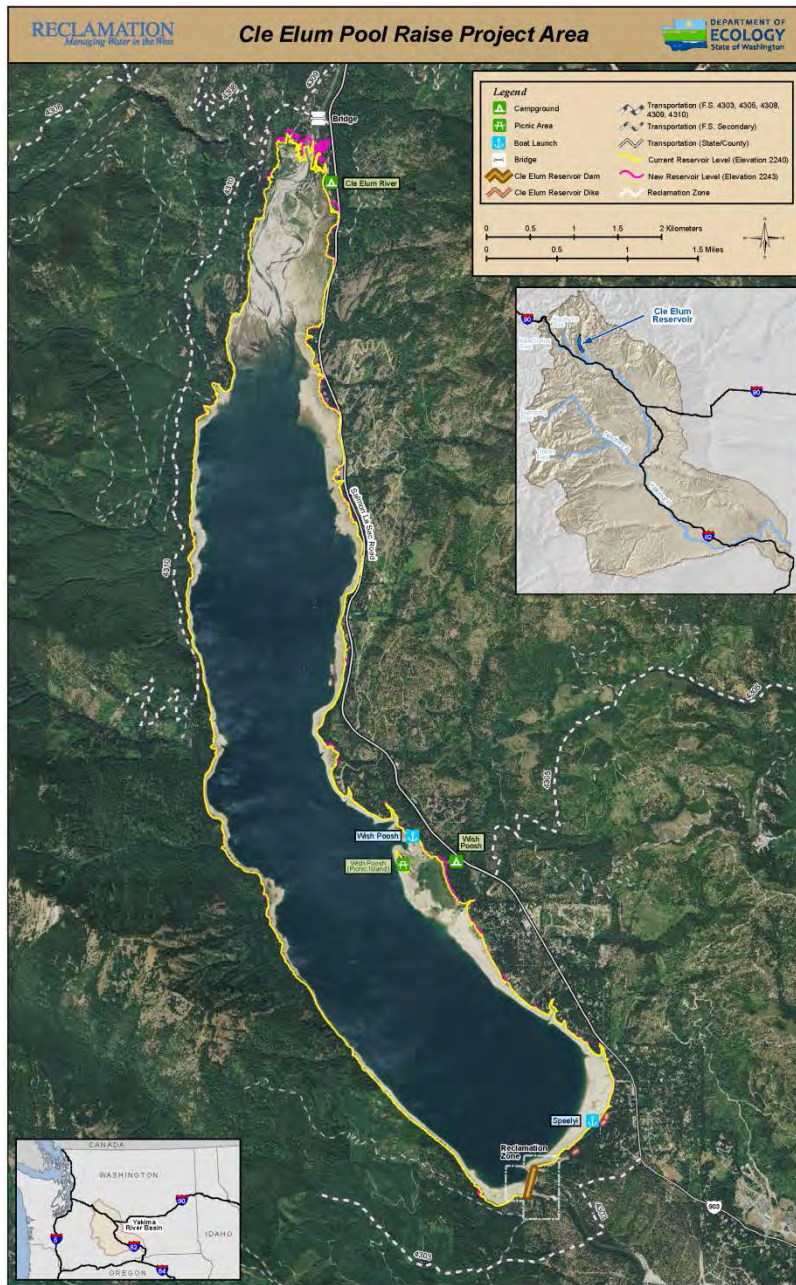
Bull Trout Enhancement

- Reclamation and Ecology have coordinated with USFWS, USFS, Yakama Nation, WDFW, and NMFS to formulate Bull Trout Enhancement program.
 - Gold Creek
 - Cold Creek
 - Nutrient Enhancement
 - Assessments
- BTE is part of all action alternatives in KKC/KDRPP EIS
- MOU with Reclamation, Ecology, Yakama Nation, USFWS, WDFW, USFS



Cle Elum Pool Raise





Cle Elum Pool Raise

- Final EIS is now being prepared, responding to comments on Draft EIS
- ROD scheduled 2015



Reservoir Fish Passage



Cle Elum Fish Reintroduction

2013 – First Sockeye to be born and raised in the Yakima River Basin in over 100 years return, released into Cle Elum Reservoir

Year	Spawning sockeye released in reservoir	Returning Sockeye
2009	1,000	
2010	2,500	
2011	4,100	
2012	10,000	
2013	4,000	800
2014	10,000	2,600





Phase I - Bridge & Access Road Construction – begin 2015
Phase II – Fish Passage Facilities Final EIS Spring 2015

Tieton Dam Fish Passage Facilities Study



Appraisal Assessment Report - Fall 2015

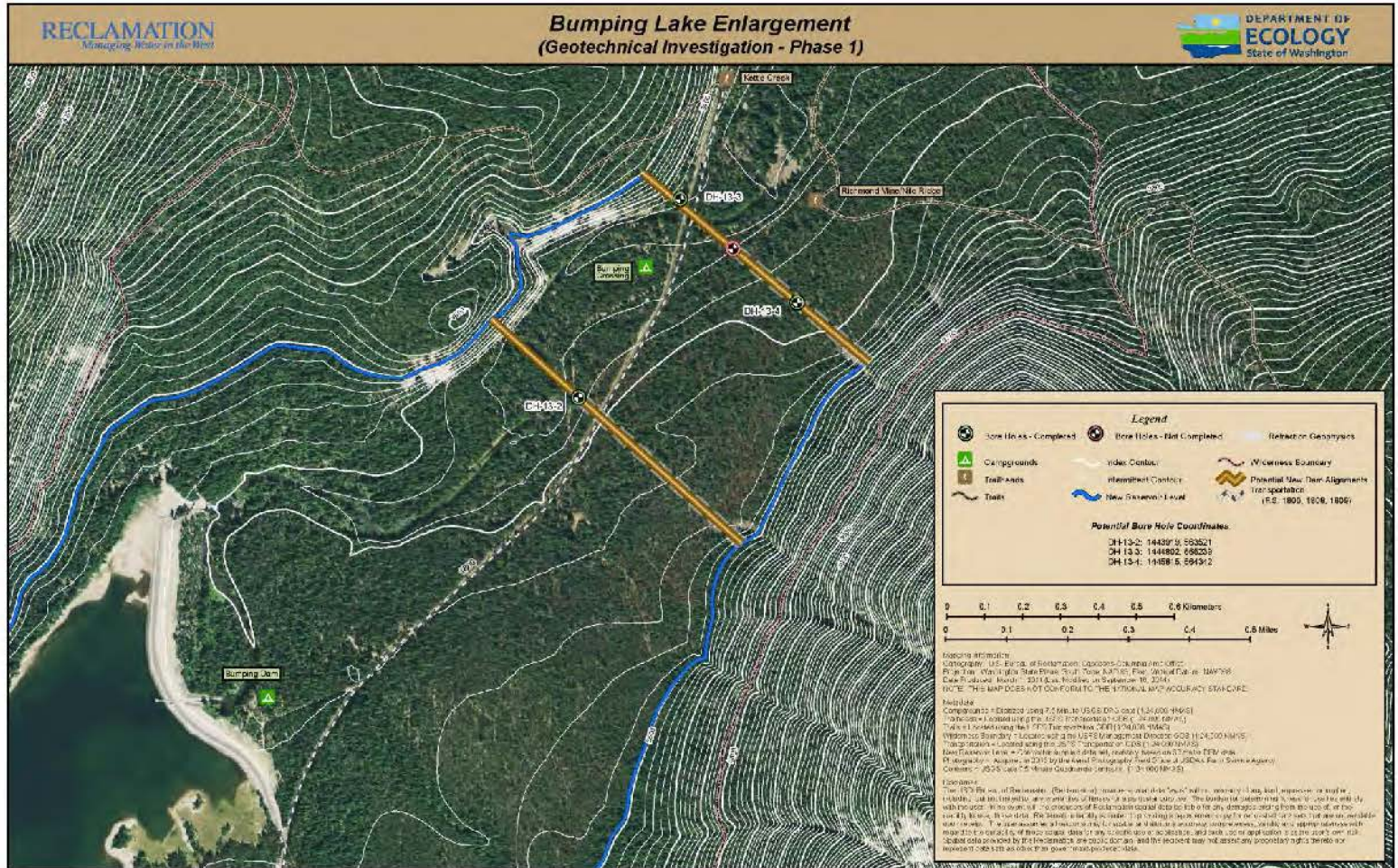


Bumping Enlargement Geological Investigation



Bumping Dam and Reservoir Enlargement





Hydrologic Modeling Results for Bumping and Wymer Reservoirs



Hydrologic Modeling Activities

- Modeling of Initial Development Phase projects completed summer 2014
- Modeling of Wymer Dam and Reservoir and Bumping Reservoir Enlargement completed December 2014
- Coming next: more detailed examination of how water conservation affects return flows and lower basin supply availability
- Modeling includes protocols to guide how the model stores and releases water at different reservoirs
- As projects come on line, these protocols will need further definition, with stakeholder participation



How do we Measure Results?

- **Water Supply**
 - Change in prorationing level
 - Change in Total Water Supply Available
 - Change in deliveries to water users
 - Examine effects under a range of supply conditions
 - One-year droughts vs. multiyear droughts



How do we Measure Results?

- **Streamflow and Fisheries**
 - How closely can we match flow objectives defined by biologists in Integrated Plan?
 - Various rivers/reaches
 - Different seasons
 - What's the magnitude of improvement? How much of the time will it occur?
 - Which species and life stages will benefit?



Scenarios Modeled

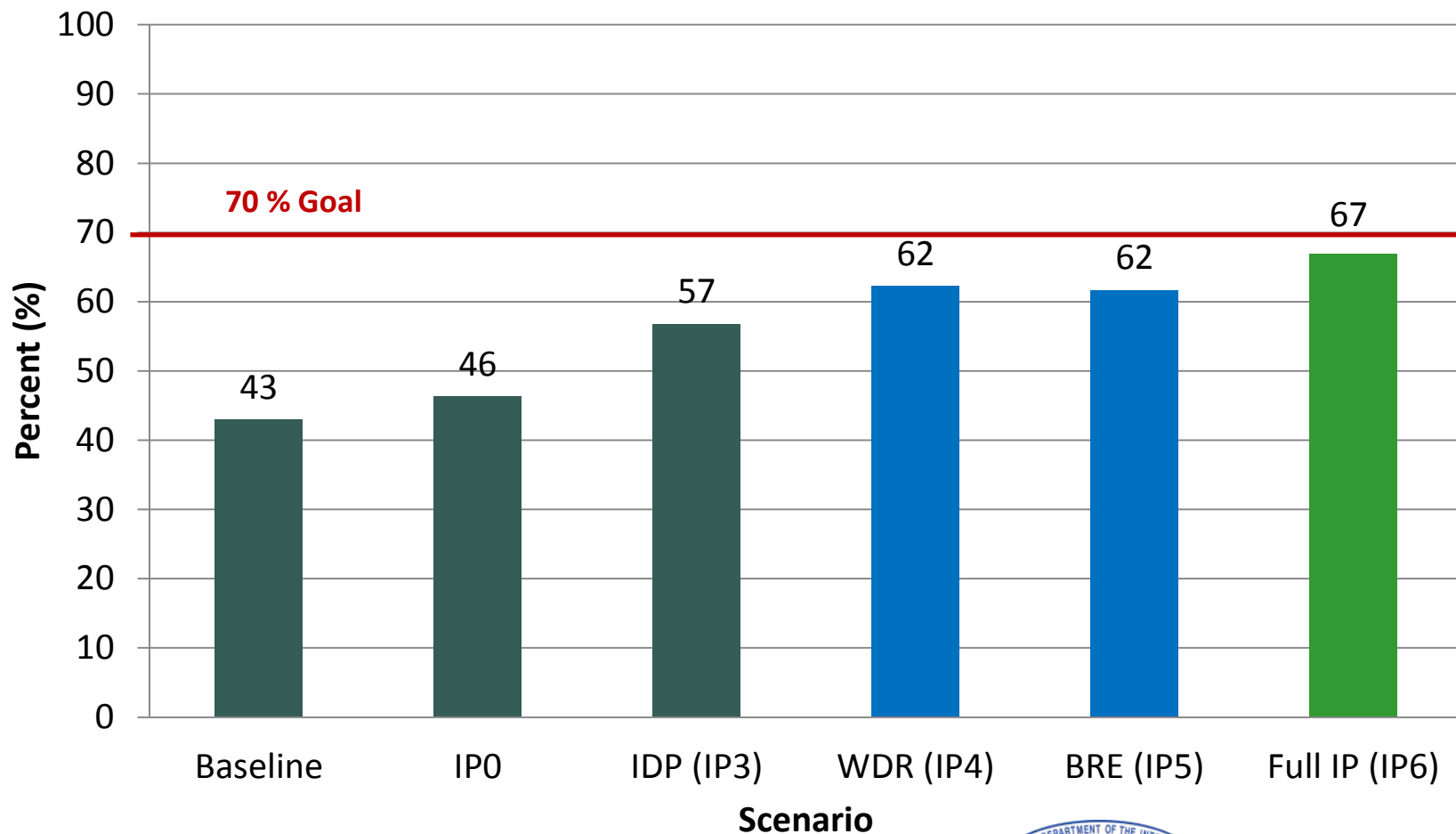
Scenario #	Name	Water Supply Objective	Instream Flow Objective
BASELINE	Baseline	Future without IP	Existing Requirements
IP0*	Future Conservation	Future without IP	Varies by project
IP1	KKC Only	No Additional	Keechelus Reach
IP2	KKC & KDRPP	Improve Prorationing	Keechelus Reach
IP3	KKC, KDRPP, & CEPR	Improve Prorationing	Cle Elum River
IP4	IP3 + WDR	Improve Prorationing	Upper Yakima, Cle Elum, Tieton
IP5	IP3 + BRE	Improve Prorationing	Bumping, Naches, Lower Yakima
IP6	All Five Projects	70% Prorationing	All of the above

* The IP0 conservation projects are included in all subsequent scenarios.



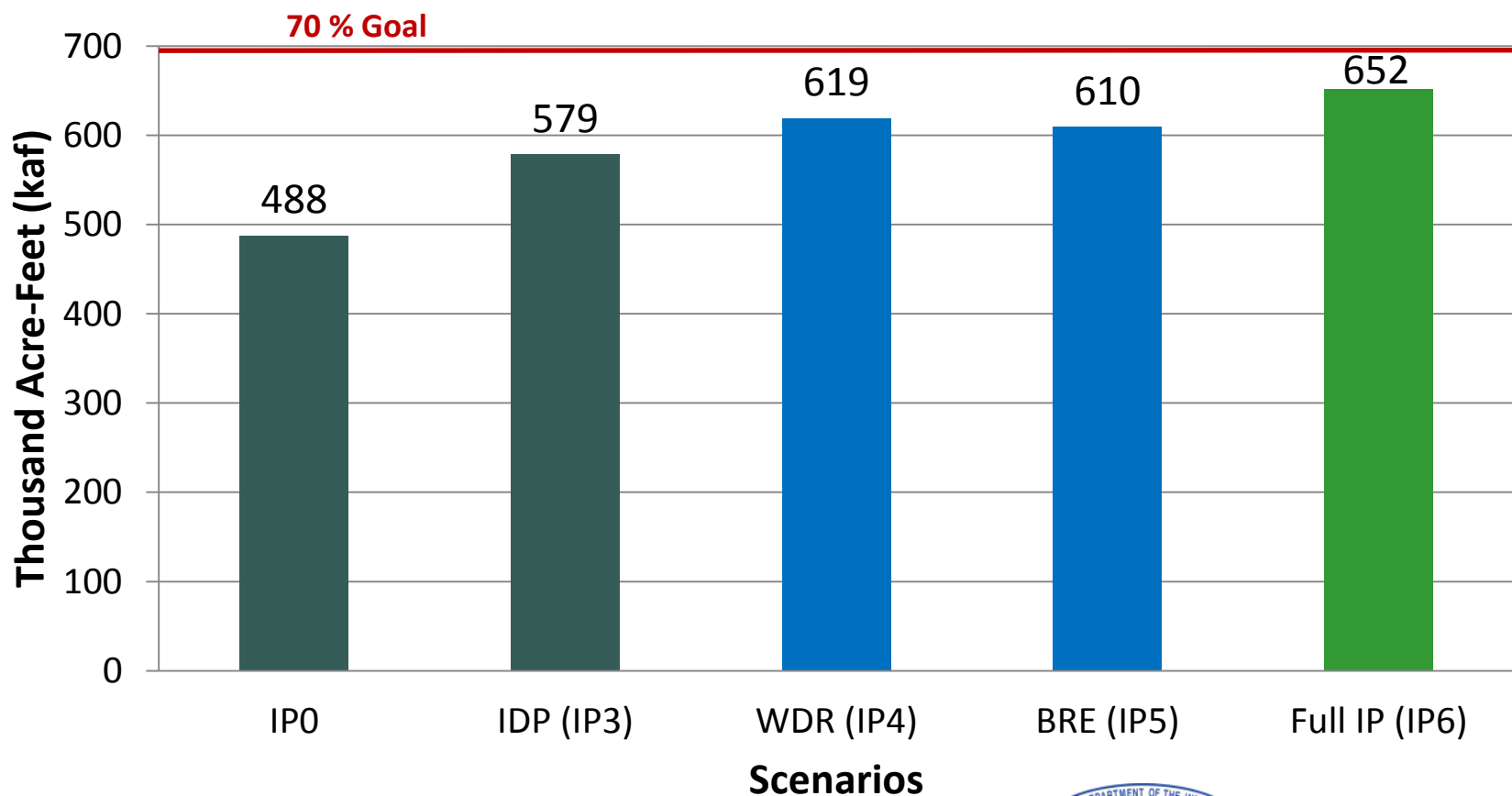
Summary of Water Supply Benefits of Each Scenario (for Years when Prorating Would Remain Below 70% with Initial Development Phase Completed)

September 30 Prorating (%)



Summary of Water Supply Benefits of Each Scenario (for Years when Prorating Would Remain Below 70% with Initial Development Phase Completed)

April 1 to Sept 30 Major Proratable Deliveries (kaf)



Streamflow and Fisheries Benefits of Wymer Dam and Reservoir

- Easton Reach of Yakima River (17 miles). Winter flow improved by 30 to 60 cfs (15% - 30%).
- Cle Elum River (8 miles). Winter flow improved by 80 to 120 cfs (35% - 65%).
- Keechelus Reach minimum flow increased.
- Tieton River minimum flow increased.
- Benefits spring Chinook spawning/rearing (and eventually steelhead).



Streamflow and Fisheries Benefits of Bumping Reservoir Enlargement

- Tieton River (21 miles). Minimum flow improved by 25 to 35 cfs to achieve 125 cfs 99% of the time.
- Bumping River (17 miles) and Naches River (45 miles). Spring pulse generated to assist outmigration (55,000 acre-feet in drought years).
- Yakima River from Yakima to Kennewick (116 miles). Higher spring flows to assist outmigration.
- Spring pulse benefits all anadromous fish.



Other Considerations

- **Modeling includes protocols to guide storing and releasing water at different reservoirs.**
- **As projects come online, protocols will need further definition, with stakeholder participation.**



Groundwater Storage



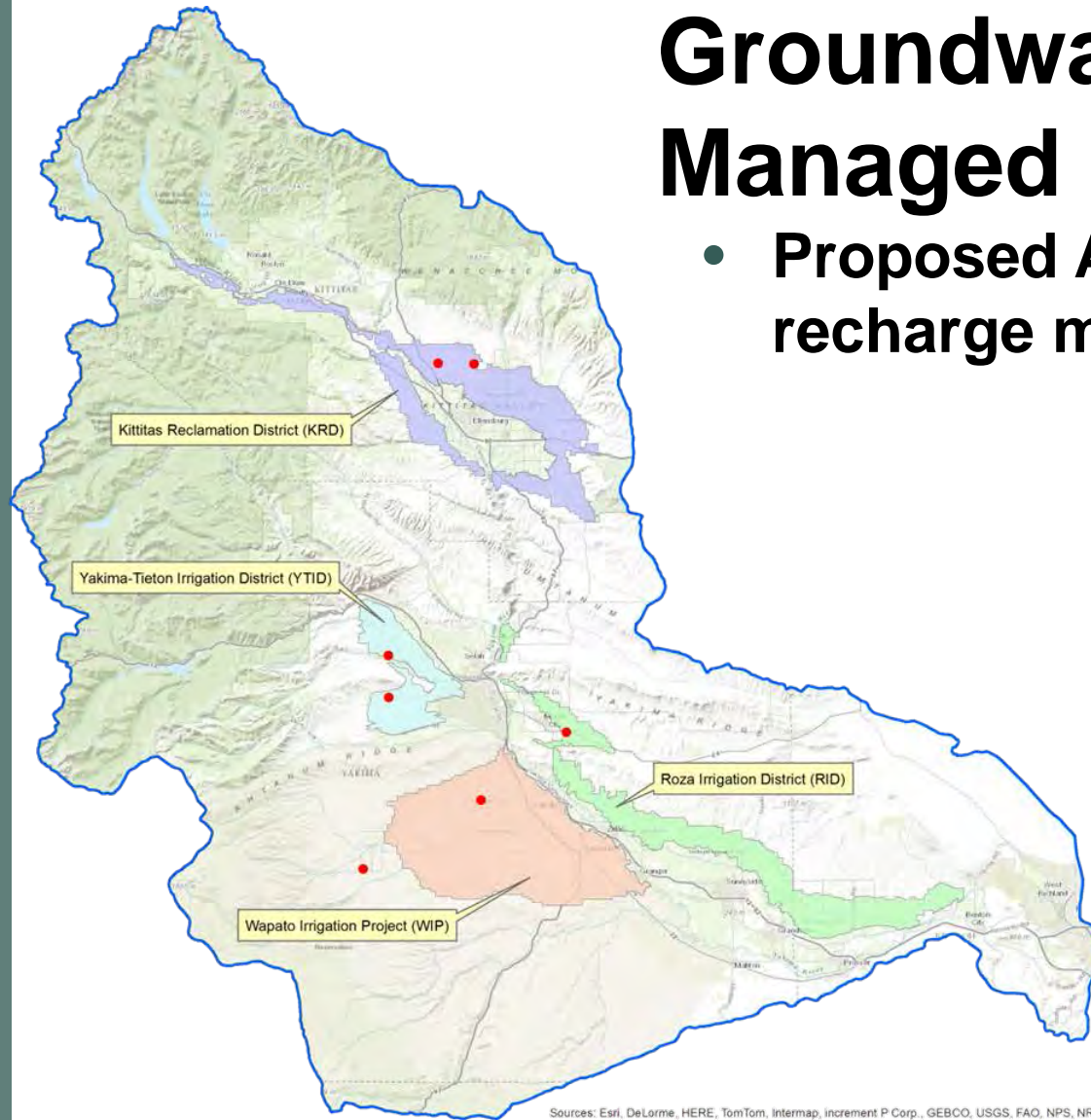
Groundwater Storage Activities

- Ecology has issued temporary permit to City of Yakima for ASR project – recharge is beginning now
- Long-term permit planned, pending completion of backup documentation
- Four monitoring wells completed associated with KRD
- Dry Creek stream gage in place for monitoring



Groundwater Managed Recharge

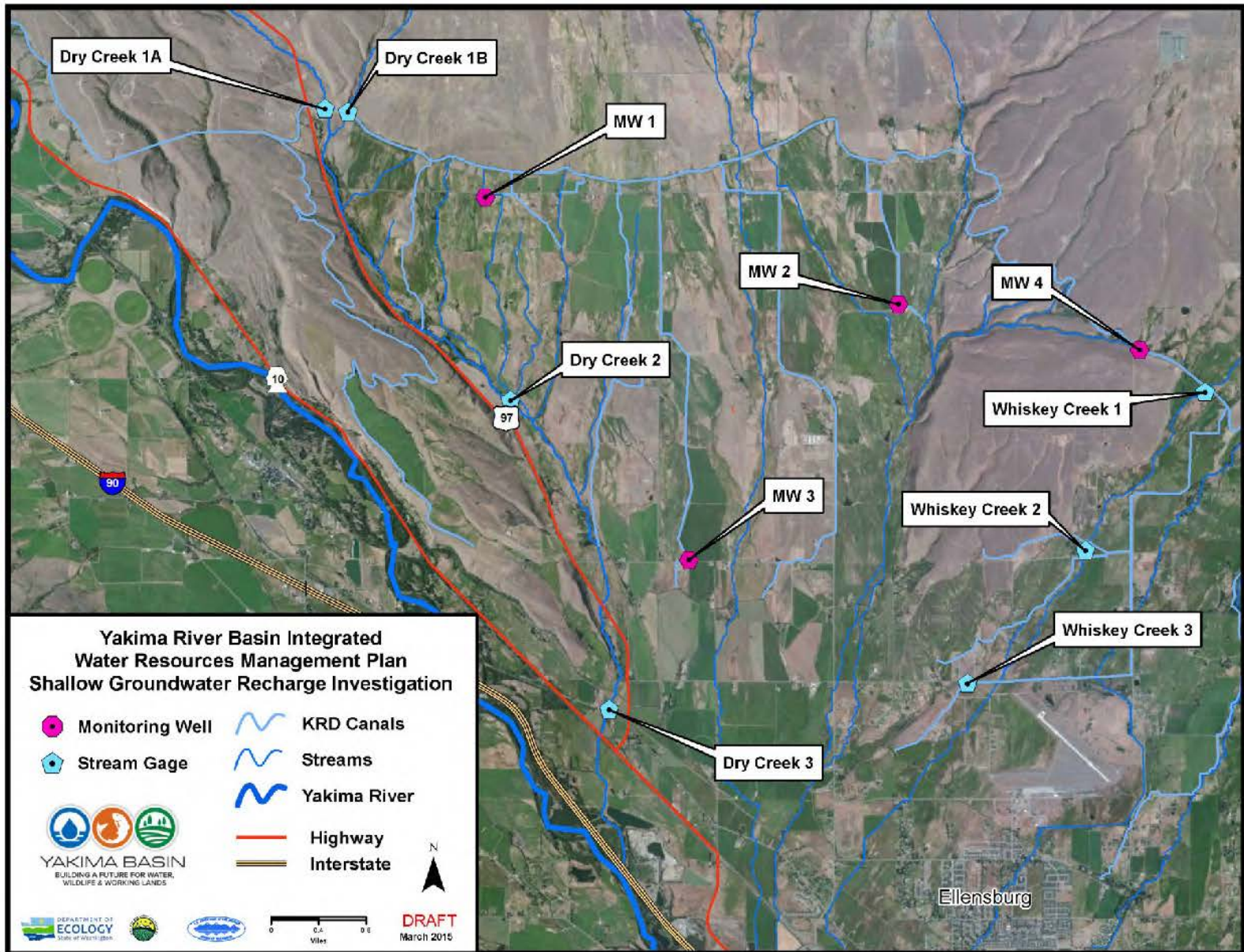
- Proposed Areas for managed recharge modeling



Sources: Esri, DeLorme, HERE, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community



KRD Proposed Observation Wells



KRD Site 1 – Start of Drilling



KRD Site 3 – Drilling Completed



KRD Monitoring Wells



Dry Creek Stream Gage

Teanaway Community Forest



Advisory Committee

Charged with making recommendations to WDFW and WDNR on strategic plan for Teanaway Community Forest

Spring 2014	Advisory Committee scoping; Initial field trip to understand issues and opportunities
Summer 2014	Brainstorm desired future conditions for Goals 1, 2, 3, and 4; Public open house #1; Field trip to understand recreation issues and opportunities
Fall 2014	Review objectives and strategies for Goals 1, 2, 3, and 4; Brainstorm ideas for Goal 5; Public open house #2
Winter 2014-2015	Review objectives and strategies for all Goals; Identify and resolve cross-cutting issues; Public open house #3
Spring 2015	Finalize draft management plan; Final public review via SEPA process
Summer 2015	Release Plan



Habitat and Conservation Project Implementation

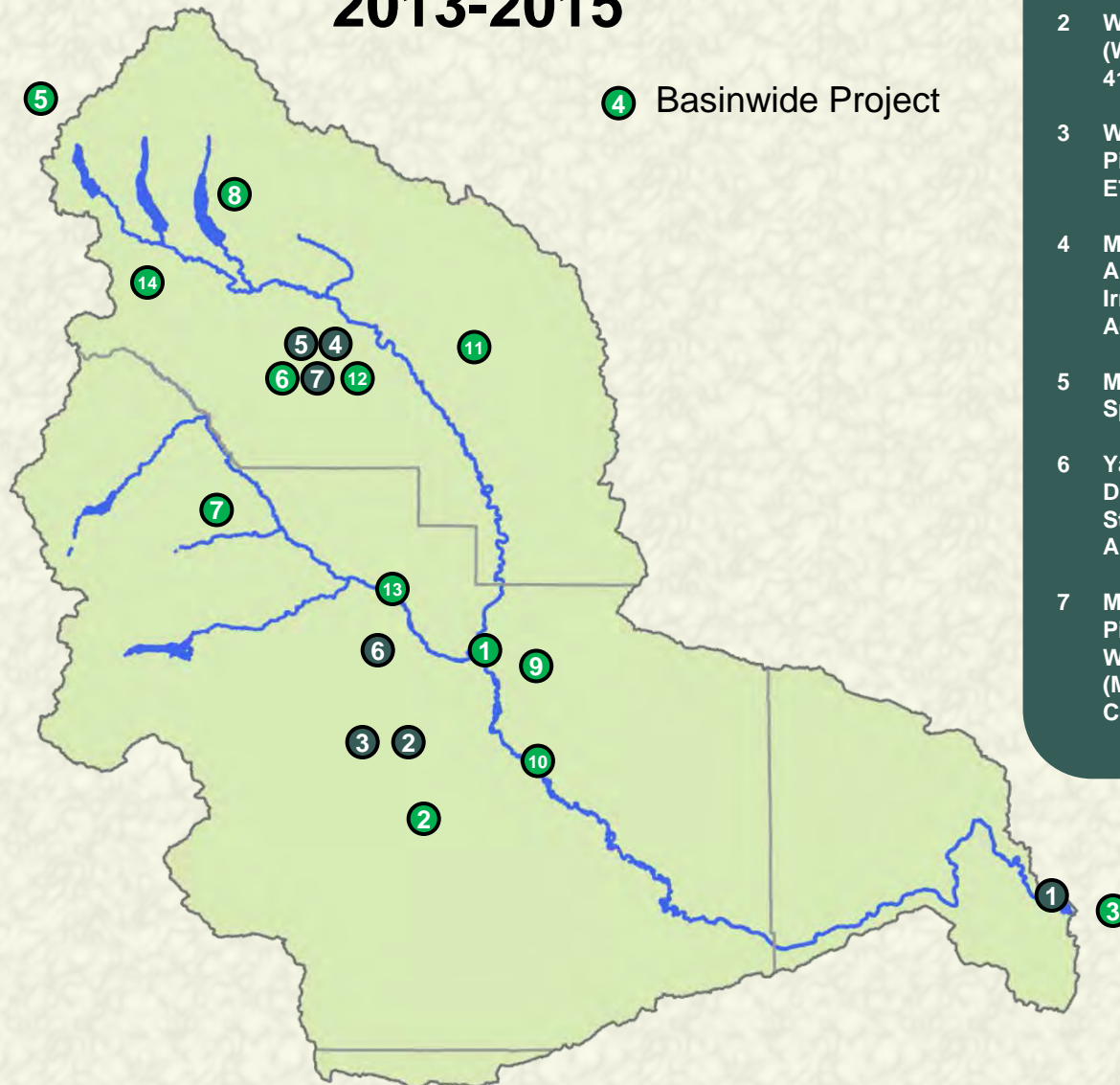


Habitat Enhancement Projects

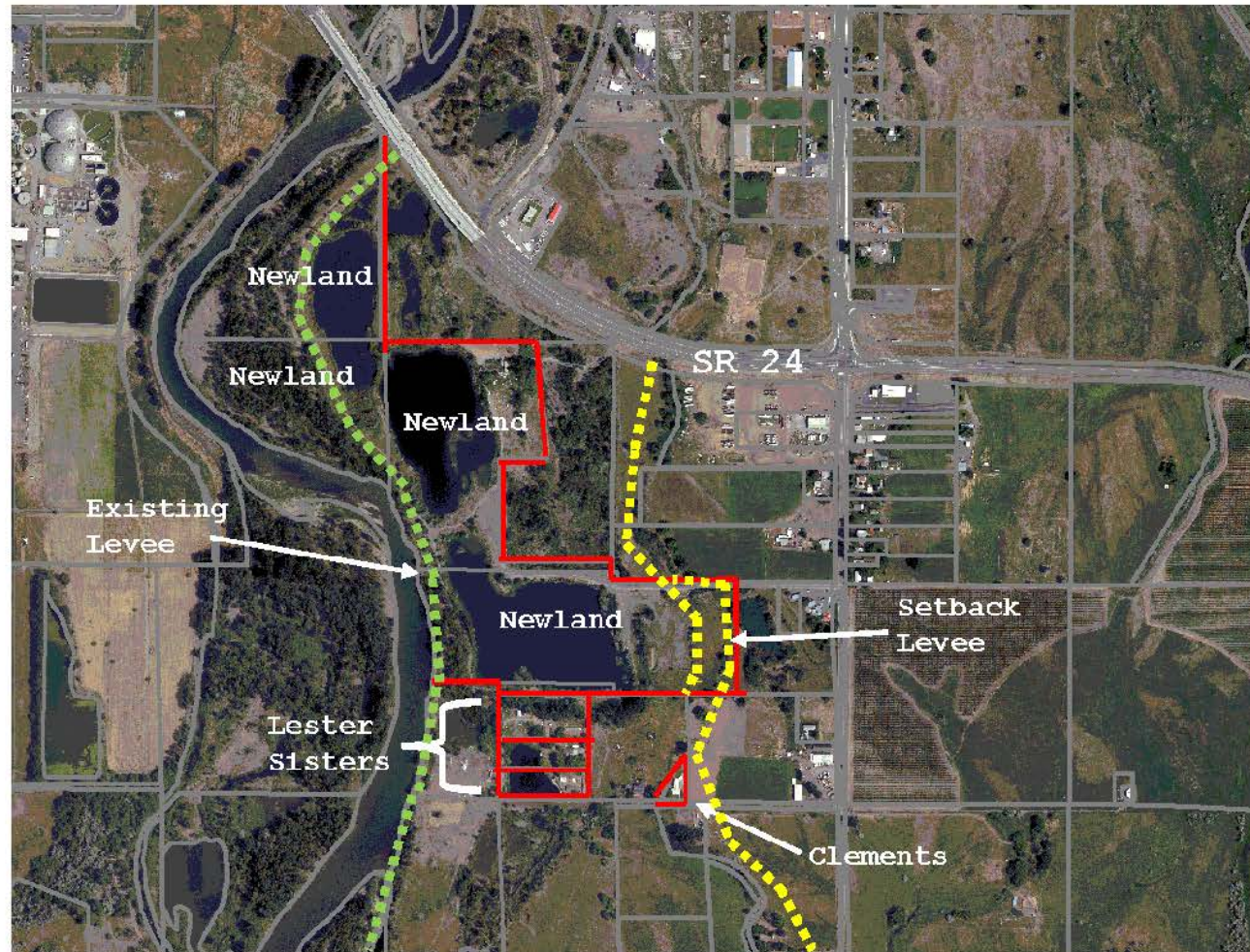
Yakima Integrated Plan

Habitat Enhancement/Enhanced Agricultural Conservation Projects 2013-2015

Agricultural Conservation Projects



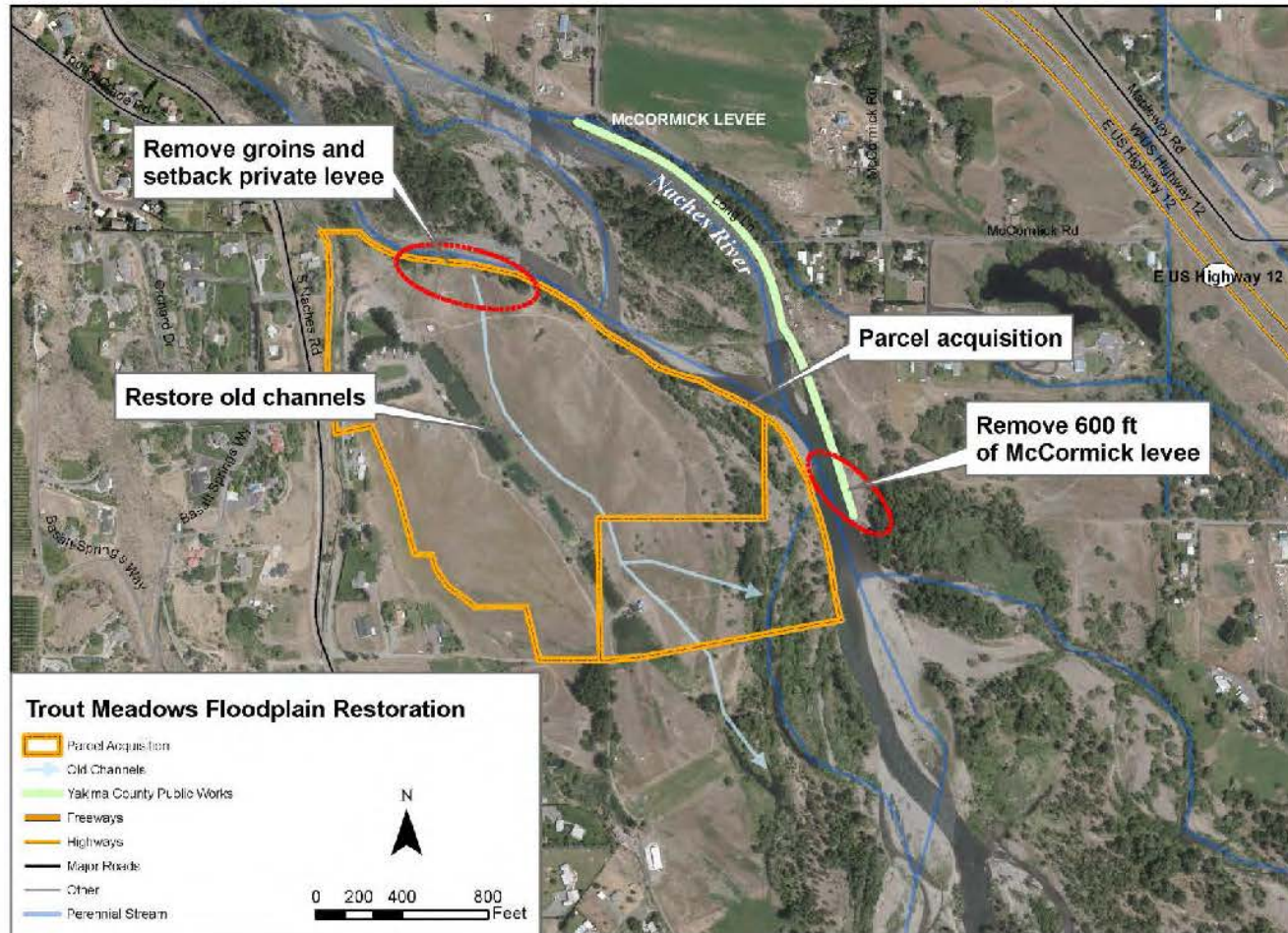
Habitat Enhancement – Yakima County: Gap-to-Gap Property Acquisitions



Appraisals to be conducted in near future



Habitat Enhancement – Yakima County: Trout Meadows



Close to finalizing acquisition purchase and sale agreements



Habitat Enhancement – Kittitas Conservation Trust: Cle Elum River Side-Channel Restoration Project



Engineered logjam



Beaver dam and
wetland restoration

- Construction completed and project documentation being finalized
- Check out YouTube video! Google “Cle Elum River Side Channel Restoration”



Engineered channel roughness



Habitat Enhancement – Kittitas Conservation Trust: Gold Creek Project



- Modeling and geomorphic assessment completed
- Restoration workshop held
- Refining conceptual designs



Little Rattlesnake Road Decommissioning



- Road closed and asphalt removed
- New bypass road constructed
- Large wood to be used in stream restoration



Reed Diversion Dam Removal Design

- Design process getting underway



Kennewick Irrigation District



**The canal lining project will be complete
(water on) at end of March 2015**



Toppenish Fan Recharge

Over 1,000 acre-feet of water has been distributed from the Olney Diversion to the alluvial fan and seeped into the ground this irrigation off-season



**Distributary Recharge Channel
near White Swan, WA**



Olney Diversion on Toppenish Creek



Lateral 4-414C Pipeline



Delivery Installation



Mainline Installation

Manastash Creek Sprinkler Conversion



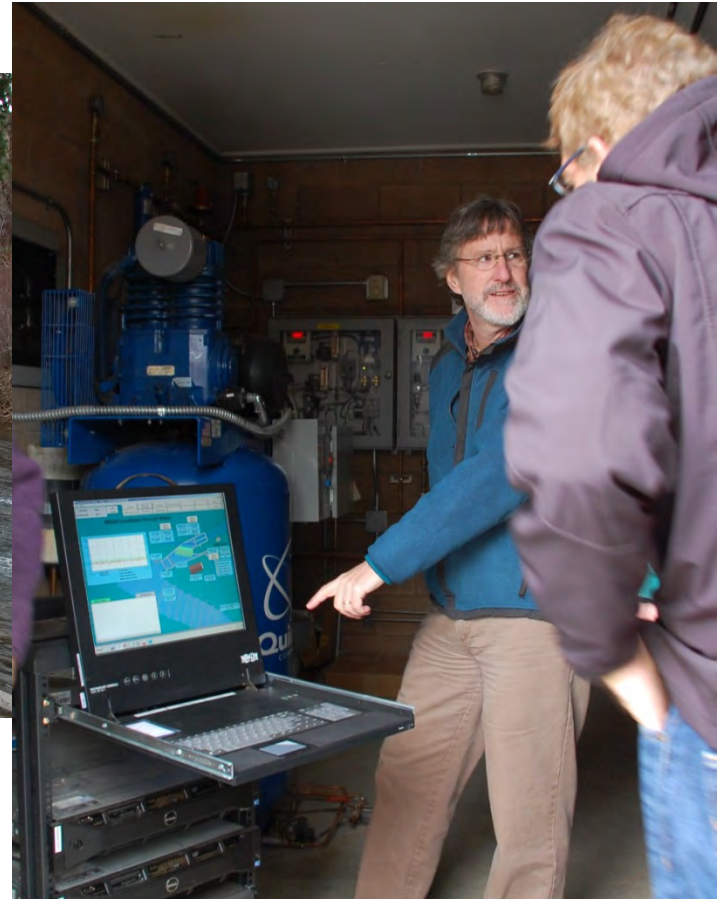
**Project will be completed and tested prior
to the 2015 irrigation season**



Manastash Consolidated Pipeline & Manastash Water Ditch Association Pipeline



MWDA Diversion – Location of Transducer that is used to monitor streamflow



SCADA System



Contact: Wendy Christensen, 509-575-5848, ext. 203

Derek Sandison, 509-457-7120

Agenda

Yakima River Basin Water Enhancement Project Workgroup

June 3, 2015, 9:30 AM to 12:30 PM at Yakima Arboretum, 1401 Arboretum Dr., Yakima WA

Time

- | | |
|---------------|--|
| 9:30 – 9:35 | Welcome/Introductions and Agenda Overview
<i>Ben Floyd, Anchor QEA</i> |
| 9:35 – 9:45 | 2015 Water Supply Forecast Update
<i>Teresa Merriman, Reclamation, Yakima Field Office</i> |
| 9:45 – 10:00 | Implementation Committee Update
<i>Derek Sandison, Ecology and Implementation Committee</i> |
| 10:00 – 10:15 | Executive Committee and Subcommittee Updates
<i>Derek Sandison, Ecology; Wendy Christensen, Reclamation and Subcommittee Chairs</i> |
| 10:15 – 11:00 | Technical Work Update – 2013 to 2015 Accomplishments
<i>Derek Sandison, Ecology, and Wendy Christensen, Reclamation</i> |
| 11:00 – 11:20 | Break |
| 11:20 – 11:35 | Technical Work Update continued – Teanaway Community Forest Plan Focus
<i>Rick Roeder, DNR and Mike Livingston, WDFW</i> |
| 11:35 – 11:50 | Public Comment |
| 11:50 – 12:10 | Workgroup – Roundtable Discussion
<i>Ben Floyd, Anchor QEA</i> |

Adjourn

Other 2015 Meetings –September 9 and December 16, 9:30 AM at the Yakima Arboretum

For additional information, see the reports and documents available at this link:

<http://www.usbr.gov/pn/programs/yrbwep/2011integratedplan/index.html>

***Contact: Wendy Christensen, Columbia-Cascades Area Office, (509) 575-5848, ext. 203
Tom Tebb, Washington State Department of Ecology, (509) 574-3989**

Meeting Notes

Yakima River Basin Water Enhancement Project (YRBWEP) Workgroup

June 3, 2015

Yakima Arboretum, Yakima WA

Welcome, Introductions and Agenda Overview

Ben Floyd, Anchor QEA meeting facilitator, welcomed the Yakima River Basin Water Enhancement Project (YRBWEP) Workgroup members and other attendees, led introductions, and provided an overview of the agenda. These notes summarize highlights from the presentations, Workgroup comments, and public comments. For more detail, please see the full presentations which are available on the project website <http://www.usbr.gov/pn/programs/yrbwep/2011integratedplan/index.html>

Ben introduced Tina Blewett from Ducks Unlimited. Tina stated that Ducks Unlimited has partnered with many agencies to support habitat restoration. The Yakima River Basin has areas of important breeding habitat. Therefore, Ducks Unlimited is interested in contributing to habitat restoration projects in the basin.

Ben also recognized that Jeff Tayer, Scott Revell, and Peter Dykstra would now be sitting with the Workgroup in their capacities as subcommittee chairs.

2015 Water Supply Forecast Update

Teresa Merriman, Reclamation, provided an update on the 2015 water supply forecast. As of June 2015, prorationing is projected to be 44 percent of the proratable entitlements. This is a decrease of 29 percent from the March water supply forecast. The water supply forecast is based on observed and estimated flows, precipitation, snowpack, and reservoir storage for April 15 through September 30. Teresa discussed the known inputs and estimated inputs used to determine prorationing levels. Earlier in the year, many of the inputs are still unknown and therefore need to be estimated. As such, forecasts produced in March are adjusted in later months based on actual data.

Workgroup Discussion:

- Sean Gross, National Marine Fisheries Service (NMFS): When generating the low-end estimate, why was 80 percent of average used instead of 50 percent? *Snowmelt is not captured well in the model. Current inflows are the lowest on record. These extreme conditions are not within the range that can be modeled. This year will become the archetype for the new low-end conditions.*



U.S. Department of the Interior
Bureau of Reclamation



Implementation Committee Update

Derek Sandison, Washington State Department of Ecology, provided an update on the Implementation Committee. The committee is currently reviewing the authorization needed to implement the next phase of the Integrated Plan and positioning for Federal Fiscal Year 2015 to 2017. The State legislature is currently in special session; the State budget has not yet been adopted. On June 2, Senator Cantwell participated in a hearing of the Senate Energy and Natural Resources Committee on drought conditions in the western United States. Tom Loranger, Ecology, testified at the hearing. Senator Cantwell called on Federal agencies to work cooperatively with state and local governments on innovative water management solutions. Senator Cantwell highlighted the Yakima River Basin Integrated Plan as an example of a successful drought response strategy.

Executive Committee and Subcommittee Updates

Water Use Subcommittee

Scott Revell, Roza Irrigation District (Roza), provided an update on the Water Use Subcommittee. The subcommittee has not yet met in 2015. However, the Municipal Water Use Subgroup of the subcommittee met in March. The subcommittee is tracking several water conservation projects. Justin Jacobs, Yakama Nation, summarized the recent completion of a water conservation project in the Wapato Irrigation Project (WIP). This is the lateral pipeline and headworks improvement project. This project cost approximately \$650,000 and saves 840 acre-feet of water each year. This project included replacing 1.25 miles of earthen canal with PVC pipeline, installing a reinforced concrete check structure, and installing a headworks to control and measure flows. The new headworks allows WIP to better regulate water use and maintain target flows. WIP has focused on conservation projects that will improve system efficiencies in areas that are dependent on return flows. WIP has also identified four additional piping projects to advance once funding becomes available.

Habitat Subcommittee

Jeff Tayer, Washington State Department of Fish and Wildlife (WDFW), provided an update on the Habitat Subcommittee. A range of habitat projects are being implemented basinwide, including the Kittitas Reclamation District (KRD) Tributaries Flow Enhancement Project and the City of Yakima Gap-to-Gap Floodplain Restoration Project.

Urban Eberhart, KRD, summarized the KRD Tributaries Flow Enhancement Project. The KRD main canal crosses several tributaries. KRD, Ecology, and Reclamation have an agreement to enhance streamflows in these tributaries between the canal and the Yakima River during drought years. The existing agreement includes Manastash and Taneum Creeks. In 2015, the agreement was updated to include flow enhancement on five additional streams: Tucker, Big, Little, Spex Arth, and Tillman Creeks. Ecology regulates water rights and streamflow in these tributaries throughout the irrigation season. This project requires relatively small amounts of water and greatly benefits tributary habitat conditions. The project does not impact downstream water supply, as water returns to the Yakima River for downstream water users. Urban noted that this project was possible today because of the cooperative environment that has been established through the Integrated Plan.

Workgroup Discussion:

- Ron VanGundy, Roza: What is the process later in the season when the canal is low? *There could be a period when KRD's canal is shut down after flip-flop occurs. However, with collaboration among interested parties, we will likely find a solution to supply streamflows even during periods when the canal is low.*
- Alex Conley, Yakima Basin Fish & Wildlife Recovery Board: What is being done to protect the water in the creeks from users? *Ecology has staff that monitors the flows and water users to protect the water in the creeks as instream flow.*
- Sean Gross, NMFS: This is a tremendous accomplishment. It demonstrates how existing irrigation infrastructure can be used to benefit streamflow, and is an example of how cooperation is producing new opportunities that didn't exist before the Integrated Plan.
- Urban Eberhart, KRD: There are other opportunities for projects similar to this. For example, Yakima-Tieton Irrigation District or KRD could move water into tributaries during the winter months to increase groundwater infiltration. This could benefit groundwater and surface water supplies.
- Jeff Tayer, WDFW: These types of small streams are very important for smaller fish such as steelhead and coho salmon. These types of projects are necessary to maintain a healthy fish population.

Joel Freudenthal, Yakima County, provided a summary of the City of Yakima Gap-to-Gap Floodplain Restoration Project. The Selah to Union Gap (Gap-to-Gap) reach of the Yakima River is a critical reach for fish habitat and floodplain functions. This is the only reach on the Yakima River not impacted by low flows or unfavorable temperatures at any point during the year. However, the existing levees constrain the channel and limit off-channel spawning and rearing habitat. There are multiple proposed improvement projects in this reach. Ongoing projects in this reach include approximately 12,000 feet of levee restoration and infrastructure reconfiguration. Dave Brown, City of Yakima, discussed the Wastewater Treatment Plant Outfall Relocation Project which was completed in early 2015. This project involved moving the treatment plant outfall outside of the flood zone and constructing new channels to convey treated wastewater to the Yakima River. Approximately \$1.3 million in Integrated Plan funding was provided by the State Legislature to support infrastructure relocation and floodplain restoration. Additionally, the U.S. Army Corps of Engineers (Corps) has spent approximately \$13 million to restore parts of the levee system that were failing. These improvements reconnected the floodplain, increased floodplain water storage, improved water quality, and increased spawning and rearing habitat. In March 2014, Yakima County signed an agreement with the Corps to do a feasibility study for the final phase of levee setbacks. Jeff Tayer stated that this project benefits nearly all fish species in the Yakima River basin. Dave noted that this project would not be successful without the cooperation and trust that the Integrated Plan has fostered.

Watershed Land Conservation Subcommittee

Peter Dykstra, subcommittee chair, provided an update on the Watershed Land Conservation Subcommittee. In March, the subcommittee reviewed the draft Teanaway Community Forest (TCF) Management Plan. The subcommittee provided some suggestions and agreed that the TCF Management Plan addressed the Integrated Plan elements and State Legislature requirements. In May, the

subcommittee had a guest speaker from the University of Washington Mountain Hydrology Research Group present information on forest management strategies for snowpack retention.

Peter noted that there will be a Joint Meeting of the Watershed Land Conservation, Habitat, and Water Use Subcommittees later this summer. The purpose of the joint meeting is to discuss opportunities to collaborate on projects and funding applications, and develop a watershed scale approach that achieves overlapping subcommittee objectives.

Executive Committee

Wendy Christensen, Reclamation, provided an update on the Executive Committee. As part of the Western Watershed Enhancement Partnership, Reclamation and USFS have recently met with the Tapash Forest Collaborative to discuss opportunities for forest resiliency projects.

Phil Rigdon stated that the Yakama Nation was awarded \$4.5 million over 5 years for on-reservation habitat improvement and conservation projects through the Natural Resource Conservation Service (NRCS) Regional Conservation Partnership Program (RCPP). Recently, the U.S. Department of Agriculture Deputy Under Secretary Ann Mills visited the Toppenish Creek site to view the Yakama Nation's fish reintroduction program. Under Secretary Mills acknowledged the success of the water conservation and fish recovery projects implemented by the Yakama Nation and through the Integrated Plan.

Lisa Pelly, Trout Unlimited, noted that the 2016 RCPP grant application is due July 8, 2015. The Yakama Nation plans to submit another application this year for on-reservation floodplain recharge and conservation projects. The Executive Committee plans to submit another application for off-reservation projects. Derek recently met with NRCS to receive feedback on the 2015 RCPP grant application for Integrated Plan projects. NRCS indicated that the projects in this application were too broad. Instead, project features and expected results should be more clearly and discretely defined in the application. Lisa noted that the 2016 RCPP grant application will be more focused on specific projects and expected outcomes.

Technical Work Update – 2013 to 2015 Accomplishments

A large amount of work has been done since the YRBWEP Workgroup was established in 2009. Derek reviewed how State capital budget funds have been appropriated to advance the seven elements of the Integrated Plan. The YRBWEP Workgroup is committed to moving all seven elements of the Integrated Plan forward with a balanced approach. Wendy described the key accomplishments since 2013 under each element of the Integrated Plan.

Structural and Operational Changes

The Cle Elum Pool Raise (CEPR) will raise the elevation of the Cle Elum Reservoir by 3 feet, adding 14,600 acre-feet of storage. In May 2105, Reclamation released the Final CEPR Environmental Impact Statement (EIS). Construction could begin in fall 2015, contingent upon completion of environmental compliance and funding. The Manastash Creek Restoration project involved modifying KRD's canals for efficiency savings. The project is now operating successfully. KRD is working with NMFS and the Yakama Nation to develop other water saving projects. The Keechelus-to-Kachess Conveyance (KKC) is in the feasibility study phase and currently undergoing Reclamation's policy review process. The

KKC would reduce flows and improve habitat conditions in the Keechelus Reach of the Yakima River and increase water storage in Kachess Reservoir. The KKC and Kachess Drought Relief Pumping Plant (KDRPP) Draft EIS was issued in January. At Roza Dam and Chandler Power Plants, additional power subordination (diverting water from power generation to increase streamflows for fish) has been performed at key time periods to support outmigration of steelhead, Chinook, sockeye, and coho juveniles.

Reservoir Fish Passage

Reclamation will begin construction of portions of the Cle Elum Fish Passage project in fall 2015. Dan Church, Reclamation, presented a video which summarized the Cle Elum Fish Passage design process. The Tieton Dam and Box Canyon Creek Fish Passage appraisal studies will be completed by the end of 2015. The Bumping Dam Fish Passage project is on hold until Reclamation makes a decision on potentially enlarging the dam. As part of the feasibility study process for the KDRPP and KKC, Reclamation drafted conceptual design reports outlining fish passage options at Keechelus and Kachess Dams. Jeff Tayer noted that research conducted by the University of Washington suggests that fish passage for salmon is critical for producing a healthy ecosystem in the upper Yakima River Basin.

Surface Water Storage

A key consideration analysis and WDFW upland habitat surveys are underway at the Wymer Dam and Reservoir project site on Lmuma Creek. This project would involve building a 162,500 acre-feet off-channel surface storage facility. A key consideration analysis and WDFW habitat surveys are also underway at the Bumping Reservoir Enlargement project location. This project would involve constructing a new dam at Bumping Reservoir to increase the capacity to 190,000 acre-feet. The KDRPP is in the feasibility study phase and currently undergoing Reclamation's policy review process. As stated, the KDRPP and KKC Draft EIS was released in January. Comments received on the EIS in the initial 60-day comment period suggested that there are some misunderstandings about the KDRPP and KKC. Therefore, Reclamation reopened the public comment period; the reopened comment period will end on June 15.

Groundwater Storage

The Aquifer Storage and Recovery (ASR) pilot project initial siting analysis is complete and the pilot study underway. This project involves evaluating recharge of shallow aquifers via groundwater infiltration. Dave Brown, City of Yakima, discussed the City's ASR Project. The City began recharging water to the aquifer in March 2015, under a temporary ASR permit issued by Ecology. This project included construction of an ASR facility that allows the City to withdraw and treat water from the Naches River during high-flow periods and store it underground for use during low-flow periods. The City is working to complete "all known, available and reasonable methods of prevention, control and treatment (AKART)" analysis to support securing approvals for permanent use of the ASR facility.

Enhanced Water Conservation

Since 2013, five of the seven agricultural water conservation projects that were funded have been implemented resulting in water savings of 2,874 acre-feet. This is in addition to the 40,000 acre-feet

that has been conserved through the YRBWEP Phase II program. The remaining two conservation projects will be completed by spring 2016.

Habitat/Watershed Protection and Enhancement

Over 55,000 acres of land have been acquired for watershed protection and conservation. Since 2013, 5 of the 14 habitat enhancement projects have been completed. The five completed projects have improved streamflows, restored floodplain connectivity, and established new conservation lands. The remaining nine projects will be completed by the end of 2016.

Market Reallocation

The objective for the market reallocation element of the Integrated Plan is to better develop the market place for water trading. Derek noted that there is limited water available in the marketplace during this drought year. Scott stated that there has been less water available and at a substantially higher than price compared with the 2005 drought.

Teanaway Community Forest Management Plan

Mike Livingston, WDFW, and Rick Roeder, DNR, presented on the TCF Management Plan. Since the State Legislature purchased the TCF in 2013, the TCF Advisory Committee has advised DNR and WDFW on the management strategy. In approving the TCF purchase, lawmakers outlined five goals for managing the TCF. These goals include (1) enhance water supply and protect the watershed, (2) maintain working lands, (3) provide recreational opportunities, (4) restore habitat, and (5) support community partnerships. The TCF Advisory Committee is a diverse group composed of 20 members that represent the different goals for the TCF. The Advisory Committee developed objectives, priority actions, and performance measures for each goal. The Management Plan also addressed law enforcement requirements, road management strategies, and calls for additional recreation planning. The final Management Plan will be published in late June.

In addition to developing the TCF Management Plan, DNR and WDFW have completed several improvement projects in the TCF. These projects include restoring existing fish passage and culverts, rebuilding 11 miles of roads, and refurbishing the Teanaway campground. DNR and WDFW have also finished a LiDAR survey of the full TCF. The LiDAR data is currently being processed. In addition, Kittitas County made improvements to the main road and the West Fork access road.

For the 2015 to 2017 operating budget, DNR and WDFW are requesting \$1.9 million from the State Legislature to improve habitat conditions, restore roads and campgrounds, complete a recreation plan, and provide law enforcement. For the 2015 to 2017 capital budget, DNR and WDFW are requesting \$1.3 million to thin forests and reduce wildfire risk, improve recreation, remove fish passage barriers, and improve roads. The agencies are also requesting \$18.8 million to bring inholdings into the TCF. At this time, the State Legislature has not completed negotiations on the operating or capital budgets.

WDFW and DNR plan to turn over Advisory Committee members every 2 years. Applications for the Advisory Committee are due by June 10. Current members are welcome to reapply for a committee position. The first meeting of the new Advisory Committee will be on July 23. Next steps include

establishing a baseline for road and stream conditions, managing grazing activities, initiating recreation planning, and conducting environmental review of Indian Creek.

Workgroup Discussion:

- Patty Garvey-Darda, U.S. Forest Service: Does the TCF Management Plan include a fire management strategy? *Yes, this is a high priority.*

Public Comment

- Chris Maykut, Friends of Bumping Lake: The YRBWEP Workgroup is doing a lot of great projects, such as the KRD Tributaries Flow Enhancement Project. However, those of us who treasure Bumping Lake are hurt by the Workgroup's plans for Bumping Lake. We feel disappointment that the Workgroup is not willing to take the advice of the Washington State University study. We request that the Workgroup focus their efforts on projects with favorable net present values and in areas that are not as controversial for local residents.
- David Ortman, Sierra Club: In the Surface Water Storage section of the Technical Work Update, Wendy Christensen did not discuss one of the projects listed that would potentially transfer water from the Columbia River to the Yakima River basin. Mr. Ortman would like to see more information about this potential project.
- Grant Learned, Jr., Lake Kachess Homeowners Association: We understand the impact drought is having on the region and are not against the fishery or irrigation benefits that the YRBWEP Workgroup is trying to accomplish. However, there have been limited opportunities for those affected by these projects to comment and provide input. During the meeting with the Kittitas County commissioners, the Lake Kachess homeowners received a presentation instead of having an opportunity to discuss our concerns. We had requested to provide our input directly to our elected county officials. We hope that the Workgroup will provide more opportunities for public engagement in these projects.
- Bill Campbell, Lake Kachess Homeowners Association: The storage projects in the Integrated Plan produce most of the costs and few of the benefits. I appreciated hearing about the conservation and fishery projects that the YRBWEP Workgroup is pursuing. It is unclear why the public comment period for the Draft KDRPP and KKC EIS was extended. At the March Workgroup meeting, Reclamation stated that the KDRPP and KKC EIS comment period was being reopened because there appeared to be misunderstandings about the projects. However, it seems like Reclamation has not provided any new information to address misunderstandings.
- Grant Learned, Sr., Lake Kachess Homeowners Association: I appreciated Justin Jacobs' presentation on the water conservation projects that the Yakama Nation has completed. The fact that a \$650,000 project can save 800 acre-feet of water per year suggests that the YRBWEP Workgroup should pursue more small-scale projects like this, instead of those projects with large impacts on the local communities and negative net present values. We request that the Workgroup take the time to evaluate other alternatives.

Recognition of Derek Sandison's Significant Contributions in Developing and Advancing the Integrated Plan

- Wendy Christensen, Reclamation: Derek Sandison will be taking a new job as the Director of the State Department of Agriculture. We would like to thank Derek for all of his hard work, support, and leadership. We wish him good luck in his future endeavors. Wendy presented Derek with a signed poster and acknowledged his significant contributions to the YRBWEP Workgroup and the Integrated Plan development and implementation.
- Derek Sandison, Ecology: It has been a long haul and we have accomplished a lot. We are making progress every year. Thank you for all the help and support and keep up the good work.

Workgroup Roundtable Discussion

- Seth Defoe, Kennewick Irrigation District: I'm glad that downstream impacts from conservation actions identified in the Integrated Plan are being evaluated and I am looking forward to seeing the results.
- Mike Livingston, WDFW: I'm glad to see the progress we have made. It will be a great to connect with Ducks Unlimited.
- Charlie De la Chappelle, Yakima Basin Storage Alliance: Drought is the biggest threat to the Yakima River Basin. Dewatering of the basin will result in reduced investments in the region. Investments will be made in the Columbia River area where there are better prospects. There are many questions about the ability to achieve the goals and schedule outlined in the Integrated Plan.
- Patty Garvey-Darda, U.S. Forest Service: Thank you Reclamation for your partnership on the CEPR EIS. The EIS was well done. This project will benefit the national forest.
- David Fast, Yakama Nation: It is great to hear about the progress of projects. I'd like to note that when a dam contains a body of water, that body of water is called a reservoir, not a lake.
- Sean Gross, NMFS: Thank you Derek for your leadership and hard work.
- Ron VanGundy, Roza: It is rewarding to hear about the progress of projects and to see the enthusiasm of those involved. Thank you Derek for your leadership.
- Michael Garrity, American Rivers: The Integrated Plan is the path forward for fishery improvements. In-basin solutions are the only viable ones. The storage projects are complex and involve many considerations. We are working to reduce the impacts to local communities.
- Rick Dieker, Yakima-Tieton Irrigation District: The Integrated Plan is a long-term solution with multiple elements. This drought year exemplifies why we are here. We can't do it all with just water conservation.
- Phil Rigdon, Yakama Nation: Derek was the Regional Director of Ecology when the 2006 Columbia River legislation was passed. He has remained true to his word. The Yakama Nation thanks him for his contribution. The Yakama Nation doesn't believe that the water in the Columbia River is available to the Yakima River Basin. The Integrated Plan is our best option.

- Jim Trull, Sunnyside-Valley Irrigation District: Thank you Derek. Also, I'd like to note that the KRD Tributaries Flow Enhancement Project would not have been possible without reservoirs storing the water needed.
- Mike Leita, Yakima County: Derek will still be working with us as the State Director of Agriculture. The projects we have achieved so far were relatively easy; these projects were the low-hanging fruit. Water storage is a key part of the Integrated Plan and we have committed to providing 70-percent supply for proratable entitlements during drought years.
- Scott Revell, Roza: Roza has some of the most efficient farms. However, Roza has had to decrease water consumption so that users are receiving 25 percent of deliveries. Roza has turned off the canal for a period of time this irrigation season and is leasing water from Sunnyside Valley Irrigation District for about \$1 million. There will be substantial economic impacts this year; it's possible that some farmers will go under. Water supply is equally as important as the other elements of the Integrated Plan.
- Jeff Tayer, WDFW: Some of the discussion today may not seem controversial, but this is because we are now working together. Ten years ago we were suing each other. The achievements that we discussed today would not have been possible without the cooperation through the Integrated Plan. Also, thank you Derek for your leadership.

Ben Floyd closed the meeting by noting upcoming meeting dates: September 9 and December 16, 2015.

Workgroup Members and Subcommittee Chairs in Attendance

Alex Conley, Yakima Basin Fish & Wildlife Recovery Board

Dave Brown, City of Yakima

Patrick Capper, Washington State Department of Agriculture

Seth Defoe, Kennewick Irrigation District

Charlie de La Chappelle, Yakima Basin Storage Alliance

Jerome Delvin, Benton County (first part of meeting)

Rick Dieker, Yakima-Tieton Irrigation District

Peter Dykstra, Plauché & Carr, LLP (Watershed Lands Subcommittee Chair)

Urban Eberhart, Kittitas Reclamation District

David Fast, Yakama Nation

Michael Garrity, American Rivers

Patty Garvey-Darda, U.S. Forest Service - Cle Elum Ranger District

Sean Gross, National Marine Fisheries Service

Mike Leita, Yakima County

Mike Livingston, Washington Department of Fish and Wildlife

Lisa Pelly, Washington Water Project, Trout Unlimited

Scott Revell, Roza Irrigation District (Water Use Subcommittee Chair)

Phil Rigdon, Yakama Nation

Rick Roeder, Washington State Department of Natural Resources
Derek Sandison, Washington State Department of Ecology - Office of Columbia River
Mike Shuttleworth, Benton County (second half of meeting)
Jeff Tayer, Washington Department of Fish and Wildlife (Habitat Subcommittee Chair)
Jim Trull, Sunnyside Valley Irrigation District
Ron VanGundy, Roza Irrigation District

Other Attendees – (Ed. Note: The audience check in list was misplaced, so the following may not be a complete record of attendees)

David Bowen, Kittitas County Chamber of Commerce
Bill Campbell, Lake Kachess HOA
Debbie Carlson, Bonneville Power Administration
David Child, Yakima Basin Joint Board
Wendy Christensen, Bureau of Reclamation
Dan Church, Bureau of Reclamation
Stuart Crane, Yakama Nation
Susan Crawford, Bureau of Reclamation
Warren Dickman, Yakima Basin Storage Alliance
Jack and Beneitta Eaton
Sharra Finley, Office of Representative Dan Newhouse
Ben Floyd, Anchor QEA
Joel Freudenthal, Yakima County
Don Gatchalian, Yakima County
Raelene Gold, Seattle Audubon
Andrew Graham, HDR Engineering, Inc.
Bob Hall, YBSA/Yakima Auto Dealers
Ken Hasbrouck, Kittitas Reclamation District
Tim Hill, Ecology
Joel Hubble, Bureau of Reclamation
Justin Jacobs, Yakama Nation
Chuck Klarich, Yakima Basin Storage Alliance
Walt Larrick, Bureau of Reclamation
Grant Learned, Sr., Lake Kachess HOA
Grant Learned, Jr., Lake Kachess HOA
Edwin Lewis, Wapato Irrigation Project
Tyler Mackay, Office of Representative Dave Reichert
Steve Malloch, Western Water Futures LLC (alt. for American Rivers)
Daniel Martinez, S. Martinez Livestock
Chris Maykut, Friends of Bumping Lake
Patrick McGuire, Kennewick Irrigation District
Teresa Merriman, Bureau of Reclamation

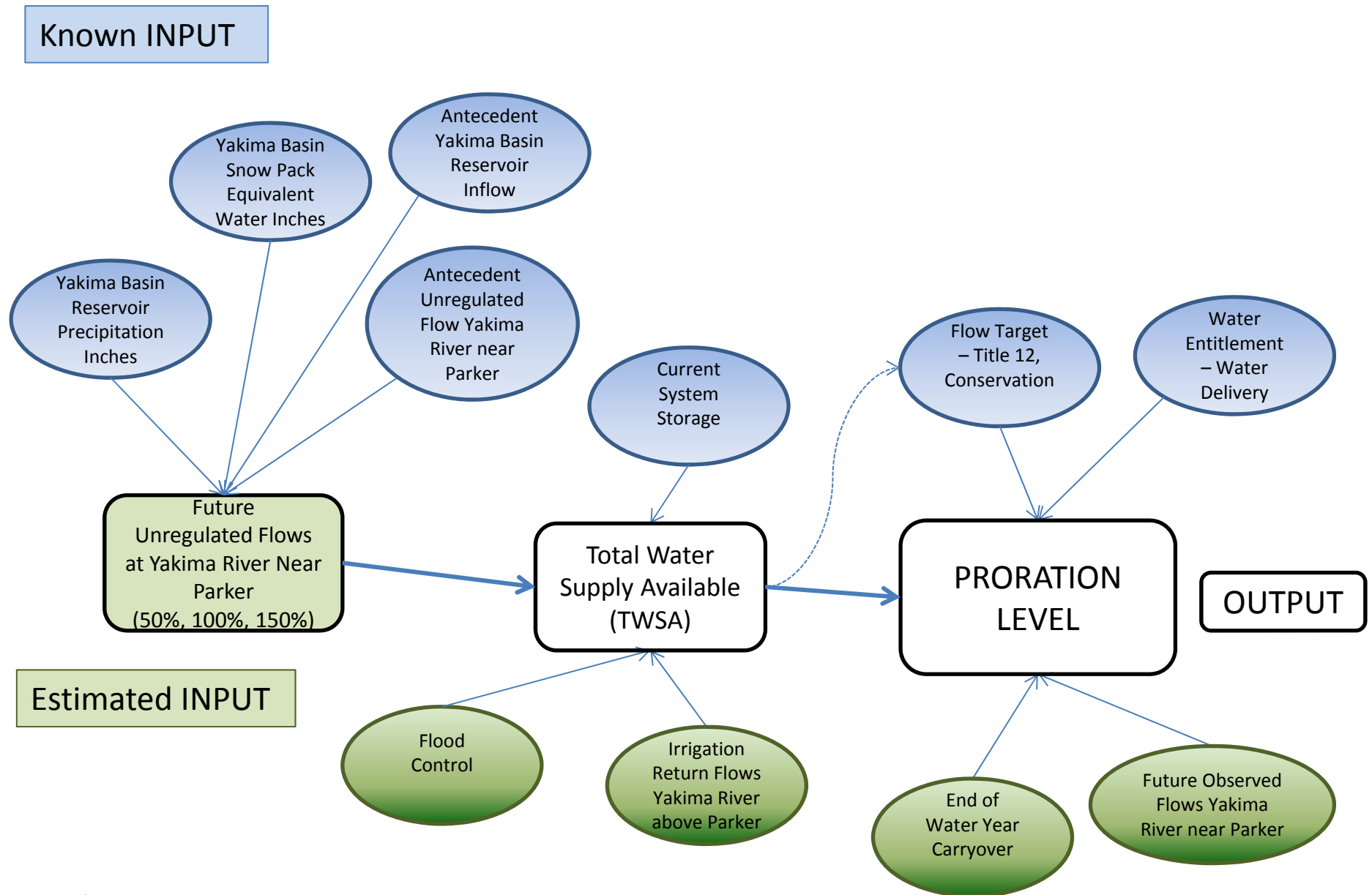
David Ortman, Sierra Club
Elaine Packard, Water/Salmon Committee, Cascade Chapter, Sierra Club
Sarah Pistorese, HDR Engineering, Inc.
Kate Prengaman, Yakima Herald Republic
David Reeploeg, Office of Senator Maria Cantwell
Dan Silver
Michael Tobin, North Yakima Conservation District

Where to Find Workgroup Information

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

If anyone needs help finding an information source, contact those listed at the top of page 1 of these notes or Ben Floyd at Anchor QEA, Kennewick office, (509) 491-3151, or bfloyd@anchoragea.com.

Reclamation Yakima Project Proration Level Determination Flow Chart



March's April 1, 2015 TWSA ESTIMATE

April 1 - September 30

Parameter*	+/-/=	80%	100%	150%
Apr 1-Sep 30 Natural Flow at Parker est.	+	733	924	1379
Return Flow Estimate	+	320	340	350
April 1, Reservoir Content	+	1020	1030	1040
TWSA	=	2073	2294	2769
SEP 30 EST RESERVOIR CONTENT	-	110	110	160
FLOW OVER SUNNYSIDE DAM	-	170	205	350
TWSA FOR IRRIGATION	=	1793	1979	2259
NONPRORATABLE ENTITLEMENT	-	1070	1070	1070
REMAINING TWSA	=	723	909	1189
PRORATABLE ENTITLEMENT		1239	1239	1239
% RATIO= REMAINING TWSA/PRORATABLE ENTITLEMENT		58%	73%	96%
TITLE 12 FLOW REQUIREMENTS, cfs	April	300	300	400
Flow added to Title 12, cfs ***		102	106	112
Storable portion of added flow, cfs		78	78	78

*Values are in 1,000 ac-ft unless otherwise specified.

*** State & YRBWEP Trust, Acquisition, & Conservation additions to Title XII flow will range from 102 to 142 cfs.

RECLAMATION

June 1, 2015 TWSA ESTIMATE

April 15 - September 30

Parameter*	+/-/=	Low	Adopted	High
Apr 15-Sep 30 Natural Flow at Parker est.	+	350	450	530
Return Flow Estimate	+	280	280	330
April 15, Reservoir Content	+	1063	1063	1063
TWSA	=	1693	1793	1923
SEP 30 EST RESERVOIR CONTENT	-	110	110	110
FLOW OVER SUNNYSIDE DAM	-	150	167	196
TWSA FOR IRRIGATION	=	1433	1516	1617
NONPRORATABLE ENTITLEMENT	-	995	995	995
REMAINING TWSA	=	438	521	622
PRORATABLE ENTITLEMENT		1195	1195	1195
% RATIO= REMAINING TWSA/PRORATABLE ENTITLEMENT		37%	44%	52%
TITLE 12 FLOW REQUIREMENTS, cfs	June	300	300	300
Flow added to Title 12, cfs ***		43	43	43
Non-storeable Portion of added flow, cfs		43	43	43
Storable portion of added flow, cfs		0	0	0
Total Parker Target FLOW, cfs ***	94	343	343	343

*Values are in 1,000 ac-ft unless otherwise specified.

*** State & YRBWEP Trust, Acquisition, & Conservation additions to Title XII flow range from 79 to 105 cfs.

RECLAMATION

Conservation Projects Feature

YRBWEP Workgroup Meeting
June 3, 2015



Yakama Nation Lateral 4-4146 Pipeline



Lateral 4-4146 Pipeline

- Replaced 1.25 miles of earthen canal with a PVC pipeline – serves 476 acres
- Installed reinforced concrete check structure to control canal water surface elevation and screen trash
- Installed headworks to control and measure flows
- Estimated water savings = 840 acre-feet per year



Habitat Projects

YRBWEP Workgroup Meeting
June 3, 2015



Kittitas Reclamation District – Tributaries Flow Enhancement

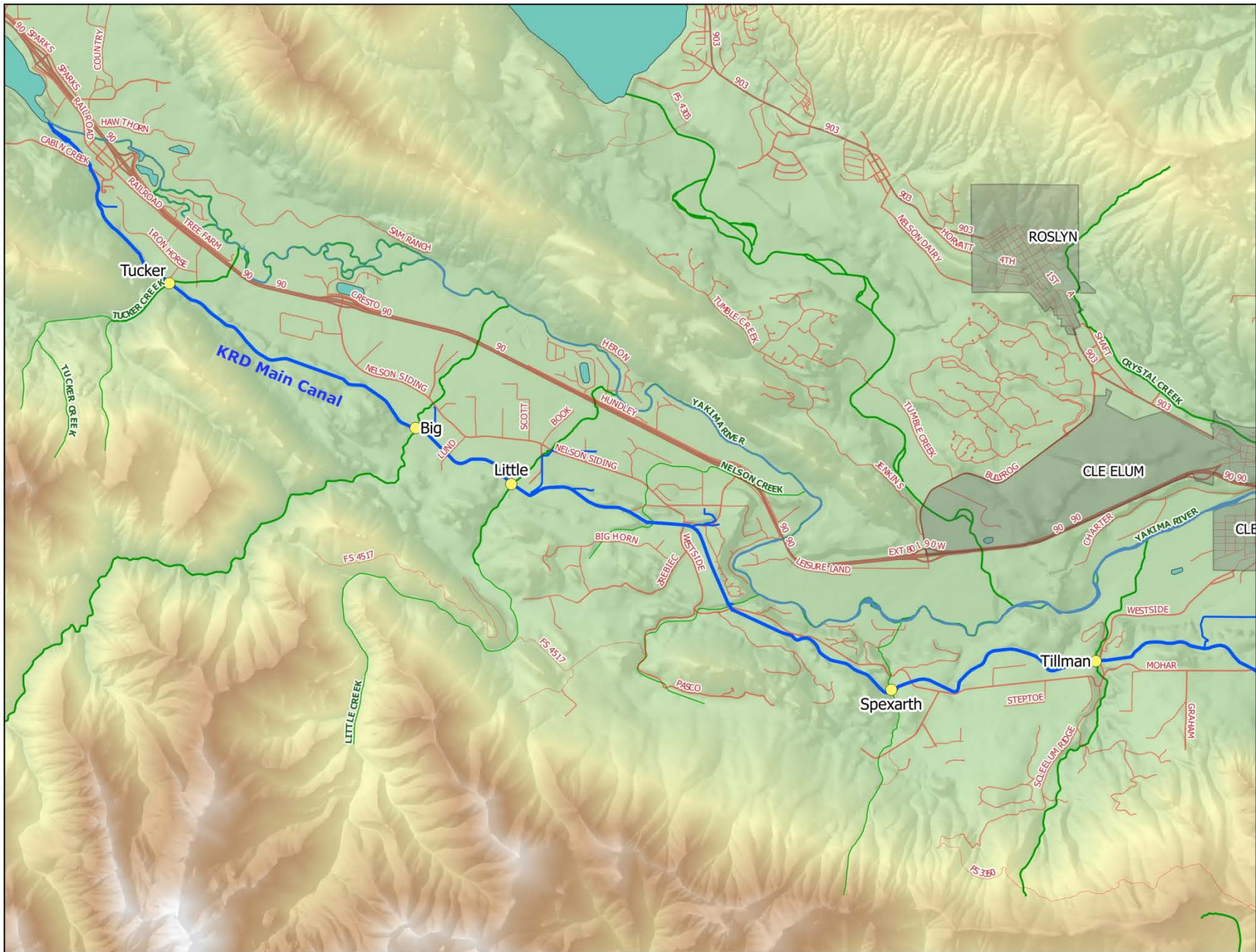


KRD Tributaries Flow Enhancement

- KRD's main canal crosses several streams
- Agreements in place to enhance stream flows in drought conditions between canal and river
 - Agreement parties – KRD, Ecology and Reclamation
 - WDFW and Yakama Nation are consulted
- Water delivered the entire irrigation season*
- Stream flow managed by Ecology
- No impact to downstream water rights/supply

*Subject to canal being operational and streams benefiting from flow





Stream Crossings



KRD Canal Crossing at Big Creek



KRD Canal Crossing at SpexArth Creek



Existing and New 2015 Agreements

- Existing agreements and understandings continue to enhance flows
 - Manastash Creek
 - Taneum Creek
- 2015 – Five additional streams added (10 cfs)
 - Tucker Creek (1 cfs)
 - Big Creek (4 cfs)
 - Little Creek (2 cfs)
 - SpexArth Creek (1 cfs)
 - Tillman Creek (2 cfs)



Facilities



Testing the new facilities at
Little Creek



Flow meter at Big Creek

Tributaries Flow Enhancement Testing



Big Creek

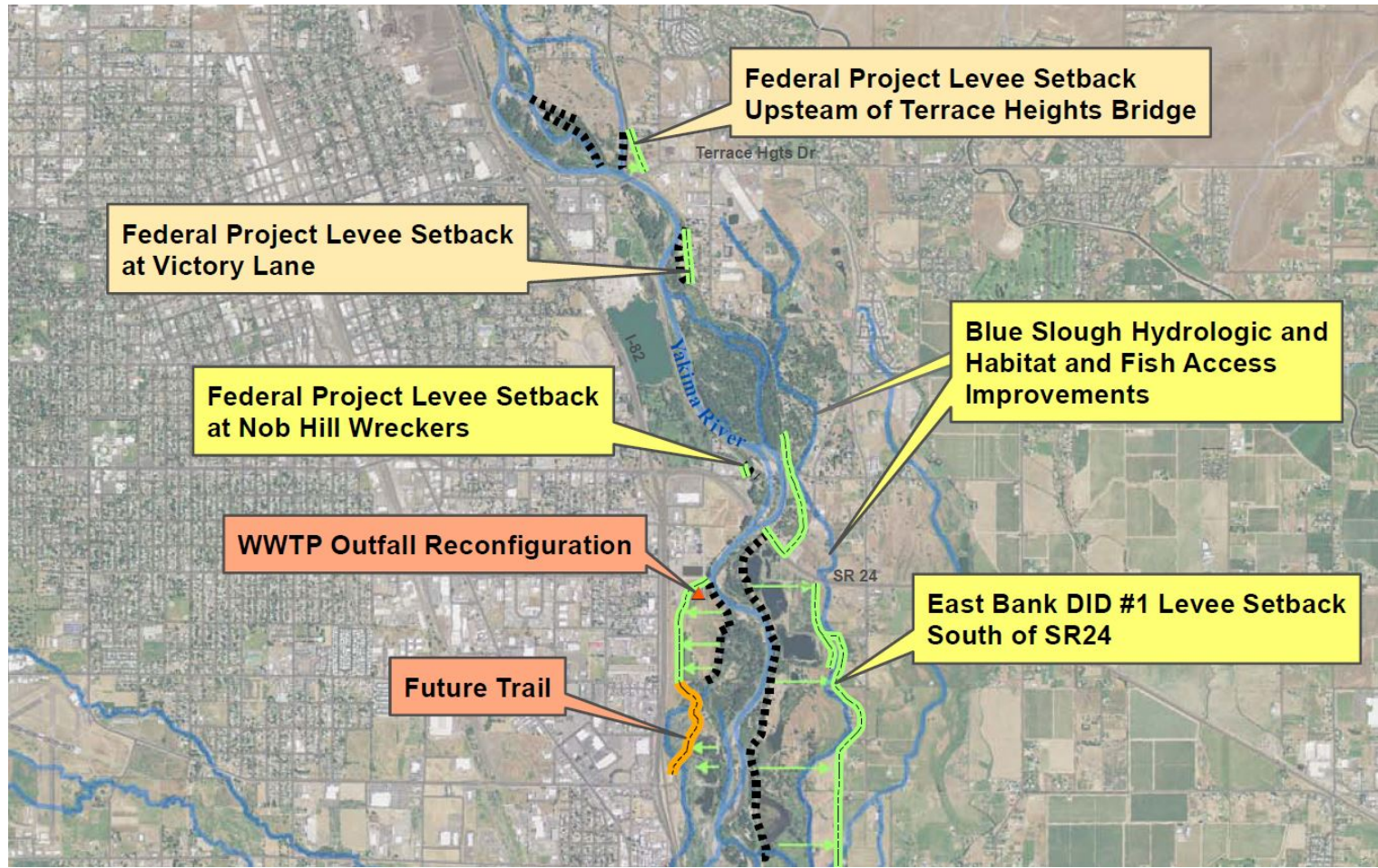


Little Creek

City of Yakima WWTP Outfall - Gap to Gap Floodplain Restoration



Selah to Union Gap (Gap to Gap) Proposed Improvements



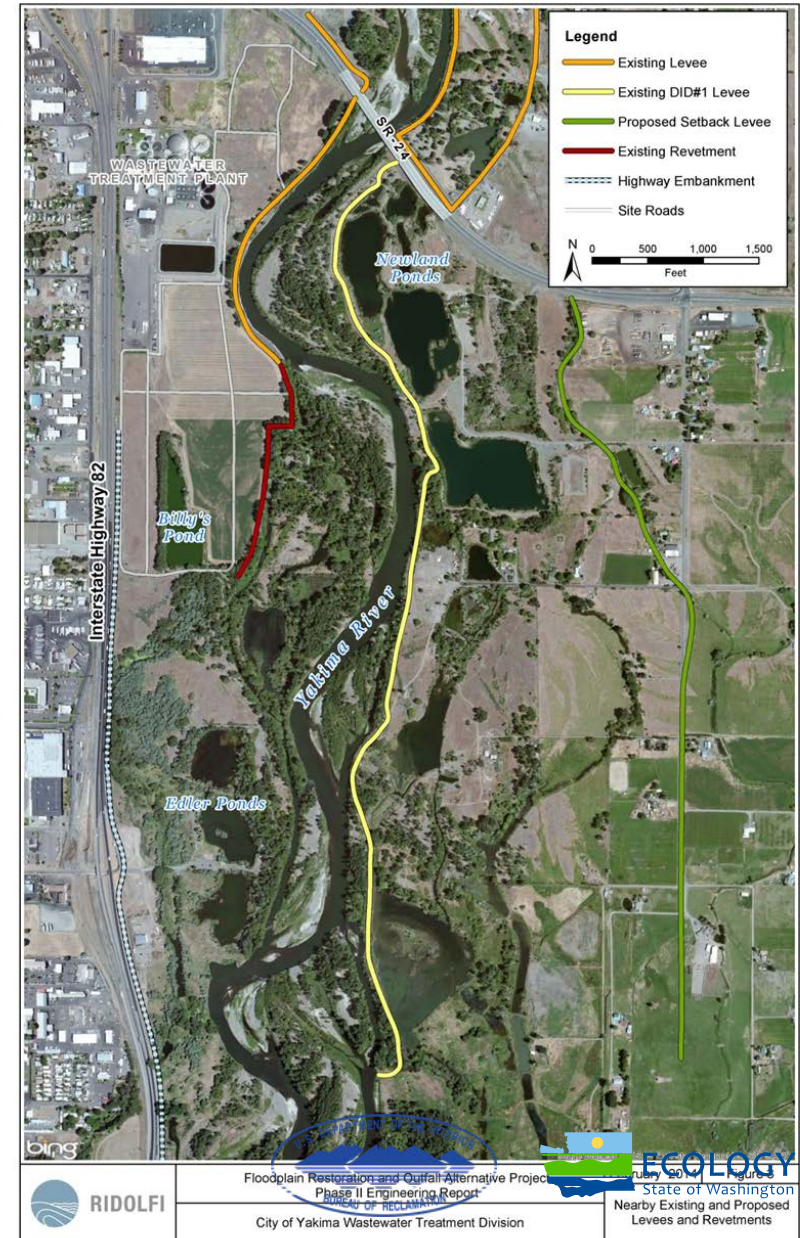
Treatment Plant Outfall – Prior Conditions

- Outfall constrained floodplain reconnection/restoration
- Relocation needed to allow Diking Improvement District (DID) 1 levee setback



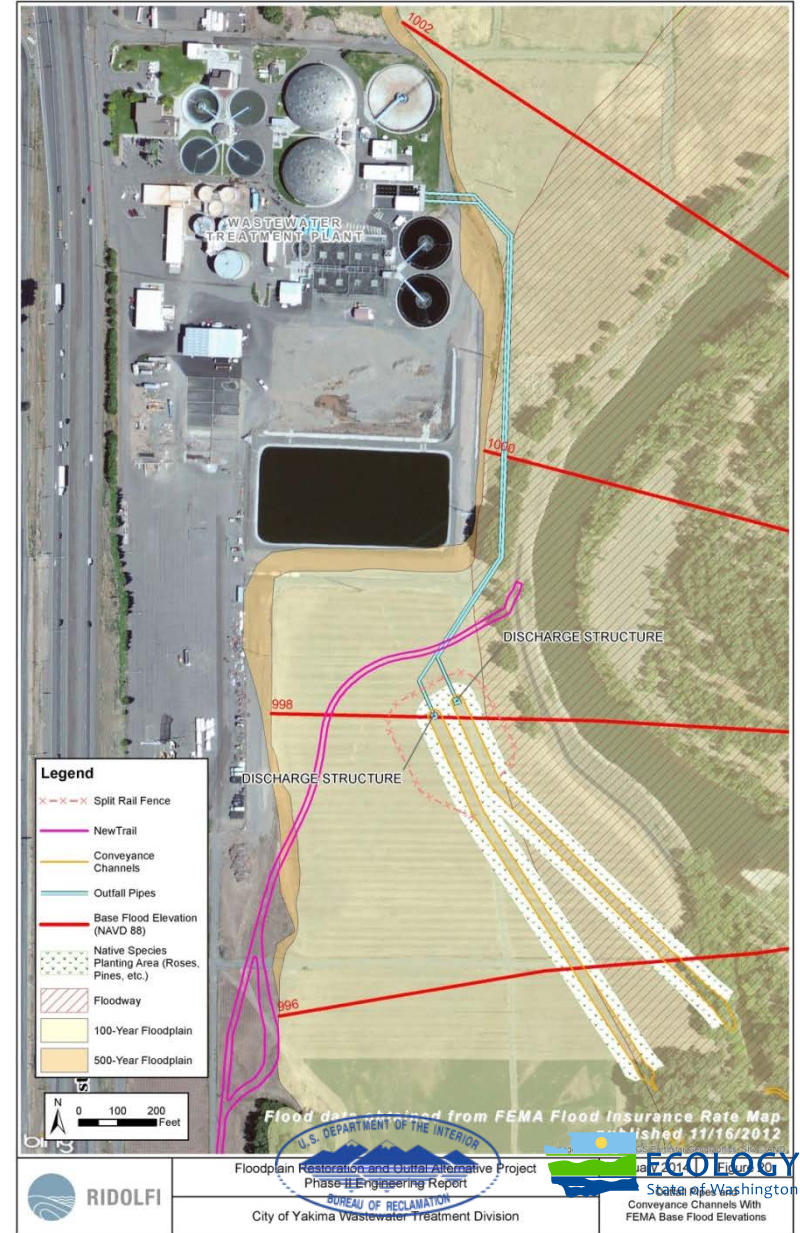
Existing and DID 1 Setback Proposal

- Existing levees constrain channel and limit river functions
- Limit off-channel spawning and rearing habitat

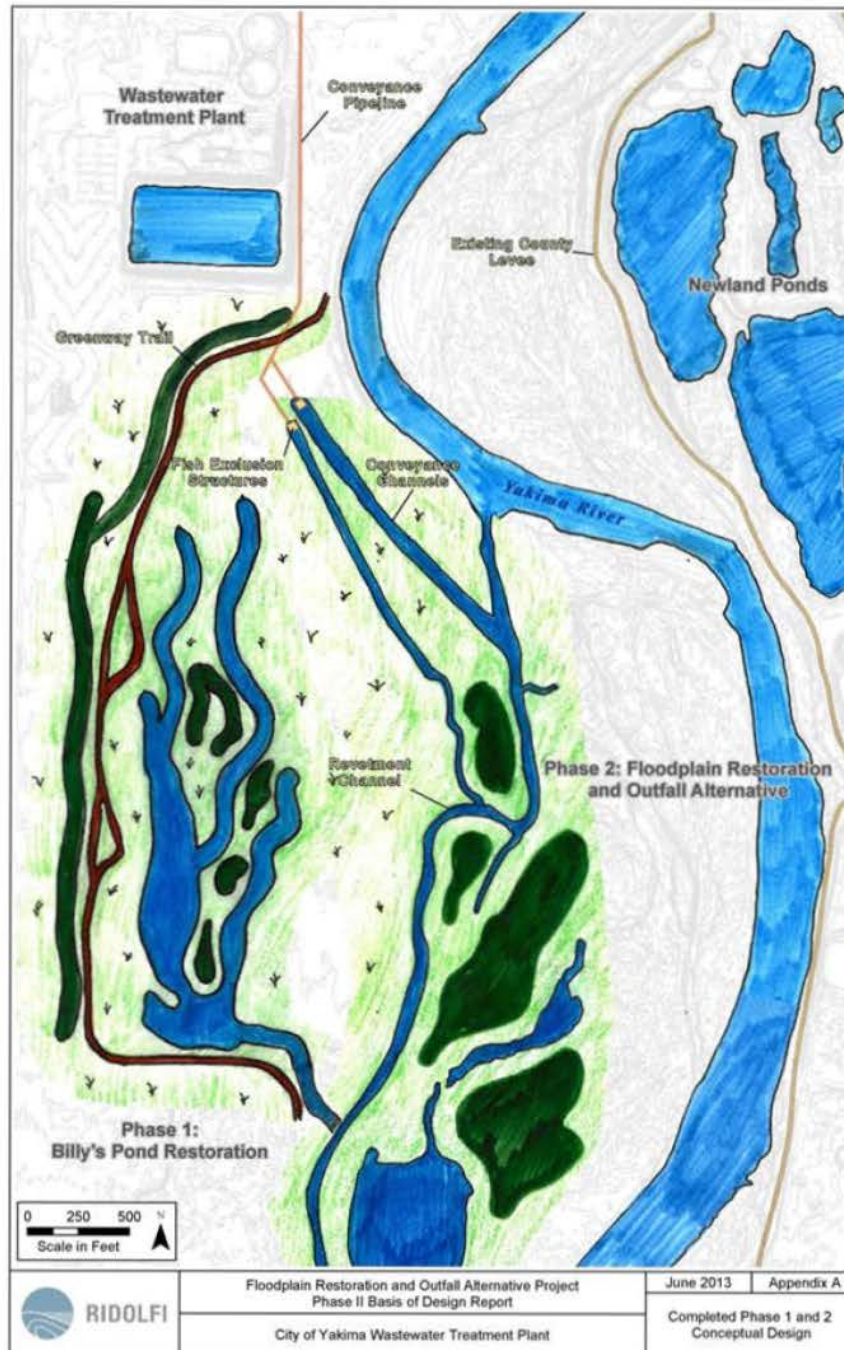


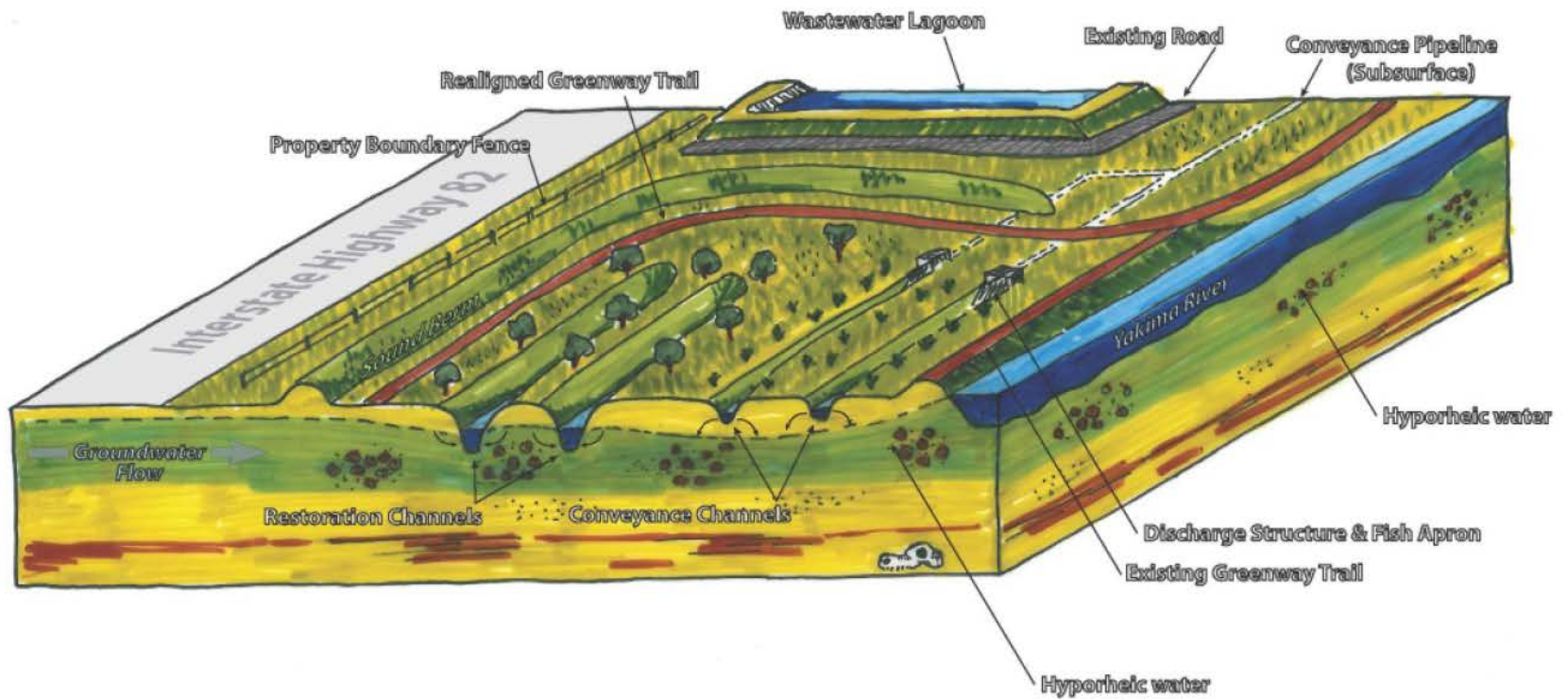
Existing and DID 1 Setback Proposal

- Relocate existing WWTP outfall
- Remove approximately 2,000 feet of armored revetment to allow floodplain reconnection south of WWTP
- Outfall now a series of subsurface and daylighted channels to convey treated wastewater to the Yakima River
- Conveyance system reconnects Billy's Pond with spring-fed channels and wetlands
- Relocate trail immediately south of the SR 24 bridge
- Remove associated culvert(s), re-vegetate the reconnected floodplain, and place wood habitat structures



Conceptual Improvements





*Conceptual Figure -- Not to Scale
Vertical dimension exaggerated for clarity*



RIDOLFI

Floodplain Restoration and Outfall Alternative Project
Phase II: Engineering Report

City of Yakima Wastewater Treatment Plant

February 2014

Figure 25

Phase II
Conceptual Block Diagram

Status

- \$1.3 million in Integrated Plan funding provided through State Legislature to City in 2013
- Design completed in 2013 and 2014
- Construction completed in 2015



New Outfall and Conveyance Channels



New Side Channels and Wetlands Restoration



Benefits

- Increase spawning and rearing habitat
- Improve water quality in a key juvenile and adult migration corridor,
 - reduce river temperatures
 - reduce nutrient-related water quality problems
- Increase floodplain storage
- Other restoration improvements can now be made
- Species benefitted include steelhead, bull trout, spring Chinook, rainbow and cutthroat trout, sockeye, coho salmon, and lamprey



Technical Projects Update

YRBWEP Workgroup Meeting
June 3, 2015



Presented by:

Derek Sandison, Washington State Department of Ecology

Wendy Christensen, Bureau of Reclamation

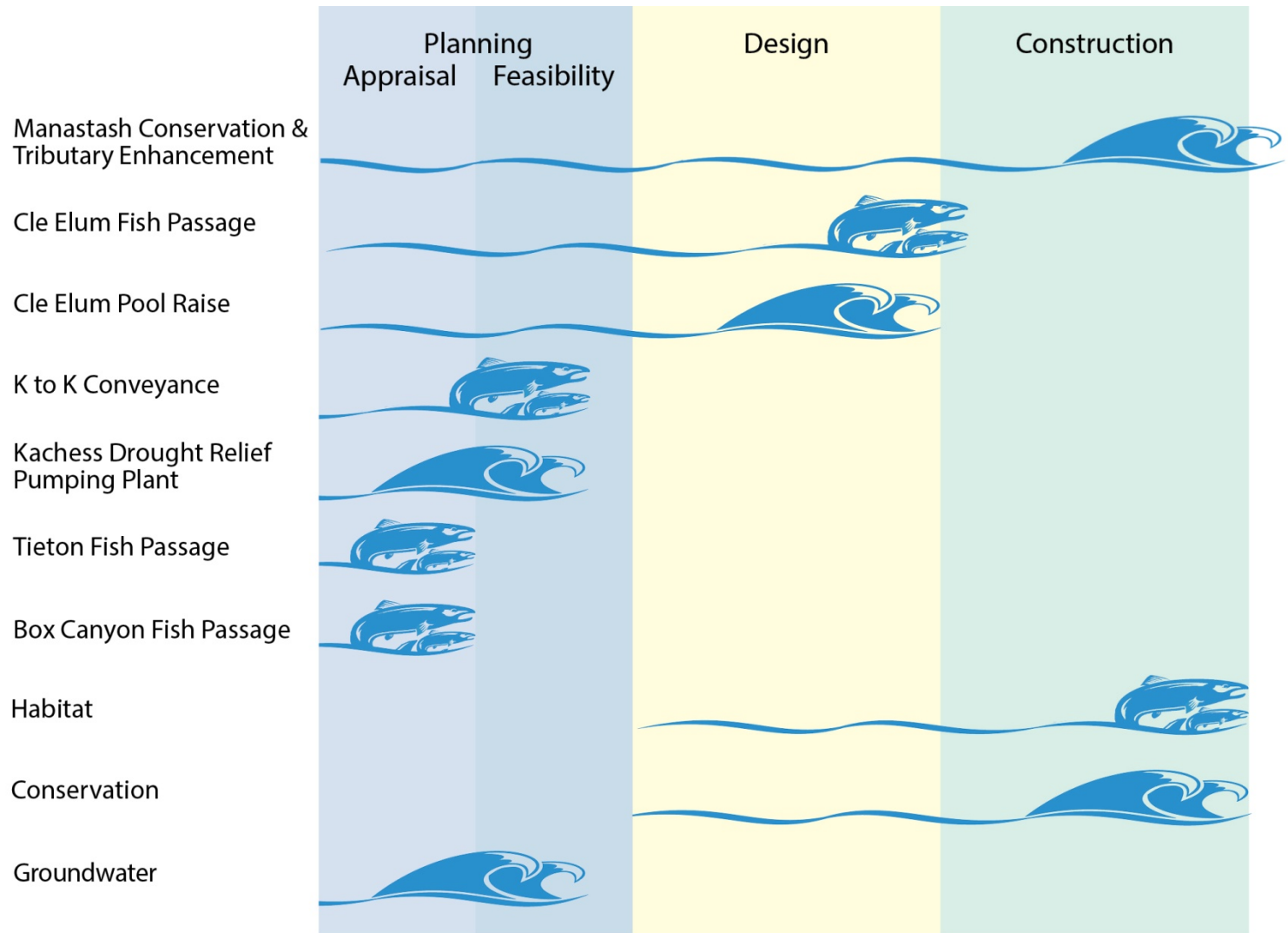


Ongoing Projects

- Kachess Drought Relief Pumping Plant
- Keechelus-to-Kachess Conveyance
- Bull Trout Enhancement
- Wymer Dam and Reservoir
- Bumping Dam and Reservoir Enlargement
- Cle Elum Pool Raise
- Cle Elum Dam Fish Passage Facilities
- Tieton Dam Fish Passage Facilities Study
- Clear Lake Dam Fish Passage
- Groundwater Storage – Basinwide Analysis
- Groundwater Storage – City of Yakima Aquifer Storage and Recovery (ASR)
- Manastash Creek Conservation and Tributary Enhancement
- Habitat Enhancement and Agricultural Conservation Projects
- Teanaway Community Forest



Accomplishments 2013-2015

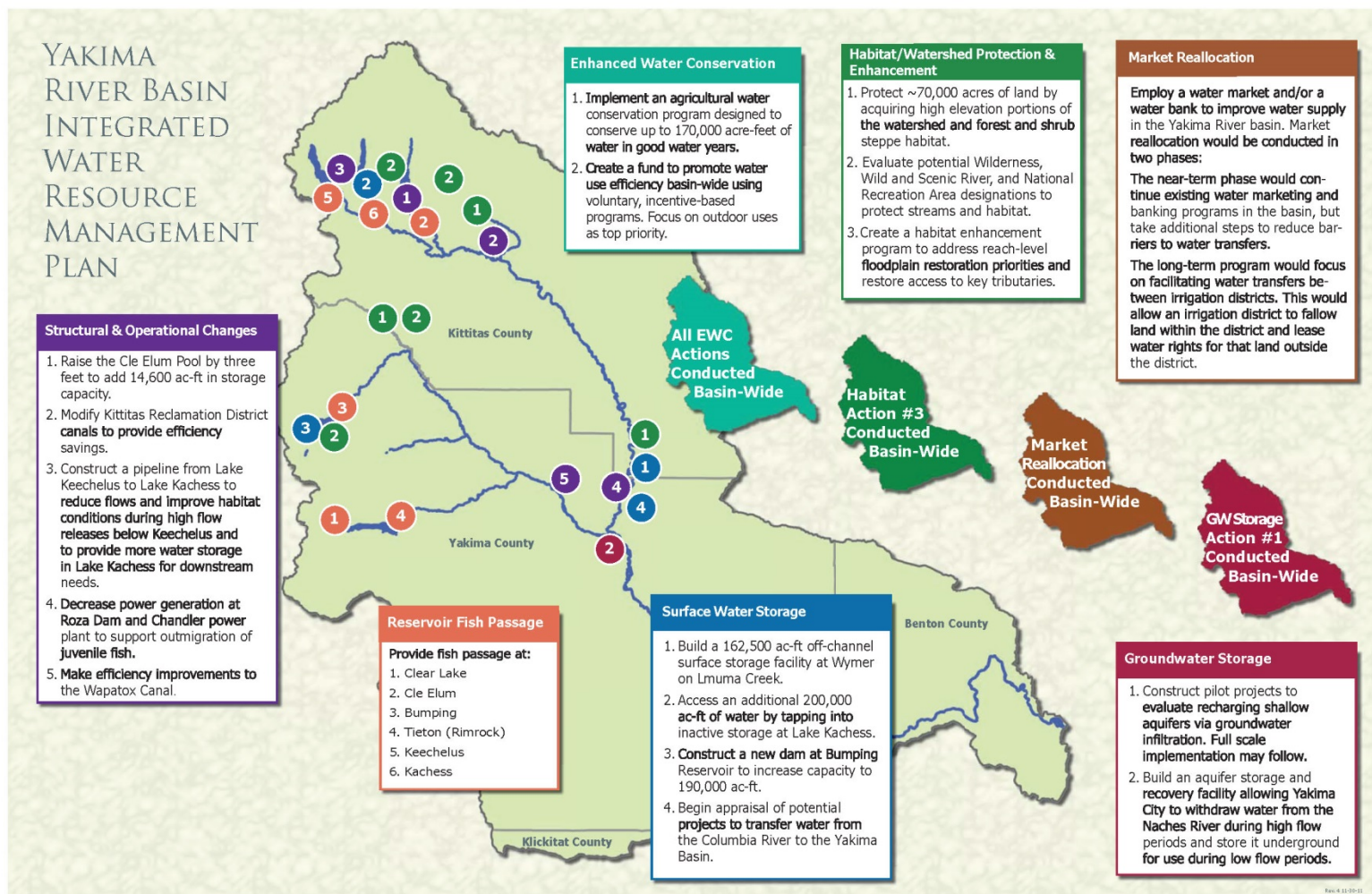


Accomplishments 2013-2015

Teanaway Watershed
Protection



Plan Overview



Page 4-10-00-01



Integrated Plan Element	Washington State Capital Budget	2013-2015 Focus
Habitat	\$99,344,000	Outright purchase Teanaway Valley lands. Implement numerous habitat projects*
Fish Passage	\$9,400,000	Cle Elum Dam Fish Passage construction ready / other studies
Operational Modifications	\$650,000	Prepare K-to-K Conveyance FR&EIS
Surface Storage	\$18,800,000	Kachess Drought Relief Pumping Plant FR&EIS and Cle Elum Pool Raise construction ready
Aquifer Storage and Recovery	\$400,000	Regional siting study. Construct one project*
Water Conservation	\$2,500,000	Construct numerous projects*
Market Driven Reallocation	\$350,000	Develop banking and exchange programs
Total State Contribution	\$131,444,000	
*Additional funding being sought through other sources		

Structural and Operational Changes



Structural & Operational Changes

- Raise the Cle Elum Pool by 3 feet, adding 14,600 acre-feet to storage
 - **Final EIS released**
 - **Radial gate modification design complete**
 - **Construction could begin Fall 2015, contingent on completion of environmental compliance and funding.**
- Modify Kittitas Reclamation District canals for efficiency savings
 - **Manastash Creek Restoration - construction complete on Lateral 13.8 and project is operating successfully**
 - **KRD working on developing other projects with coordination with NMFS and Yakama Nation**
 - **Pilot project in process this year for tributary enhancement during drought year**



Structural & Operational Changes (con't)

- Construct a pipeline from Keechelus to Kachess to reduce flows and improve habitat conditions during high-flow releases below Keechelus and to provide more water storage in Lake Kachess for downstream
 - **Draft EIS released to public**
 - **Feasibility study in process**
- Decrease power generation at Roza Dam and Chandler Power Plants to support outmigration of juvenile fish
 - **Chandler**
 - ✓ **Reviewing Chandler Pumping Plant electrification**
 - **Roza**
 - ✓ **Conducted 3-year study; draft final report - May 2015**
 - ✓ **Defined flow-to-survival rate in reach**
 - ✓ **Survival rate based on dam operations**



Reservoir Fish Passage



Reservoir Fish Passage

- Clear Lake Dam
 - **Third year of study completed**
- Cle Elum Dam
 - **Construction to begin Fall 2015**
- Bumping Dam
- Tieton Dam
 - **Appraisal Assessment to be complete Fall 2015**
- Keechelus Dam
 - **Conceptual Design Report drafted, to be finalized after meeting with Yakima Storage Dam Fish Passage Core Team mid-June.**
- Kachess Dam
 - **Conceptual Design Report drafted, to be finalized after meeting with Yakima Storage Dam Fish Passage Core Team in mid-June.**



Surface Water Storage



Surface Water Storage

- Build 162,500 acre-feet off-channel surface storage facility at Wymer on Lmuma Creek
 - **Key Consideration Analysis and WDFW surveys in process**
- Access an additional 200,000 acre-feet of water by tapping into inactive storage at Lake Kachess
 - **Draft EIS released to public**
 - **Feasibility study in process**
- Construct a new dam at Bumping Reservoir to increase capacity to 190,000 acre-feet
 - **Key Consideration Analysis and WDFW surveys in process**
- Begin appraisal of potential projects to transfer water from the Columbia River to the Yakima Basin.



Groundwater Storage



Groundwater Storage

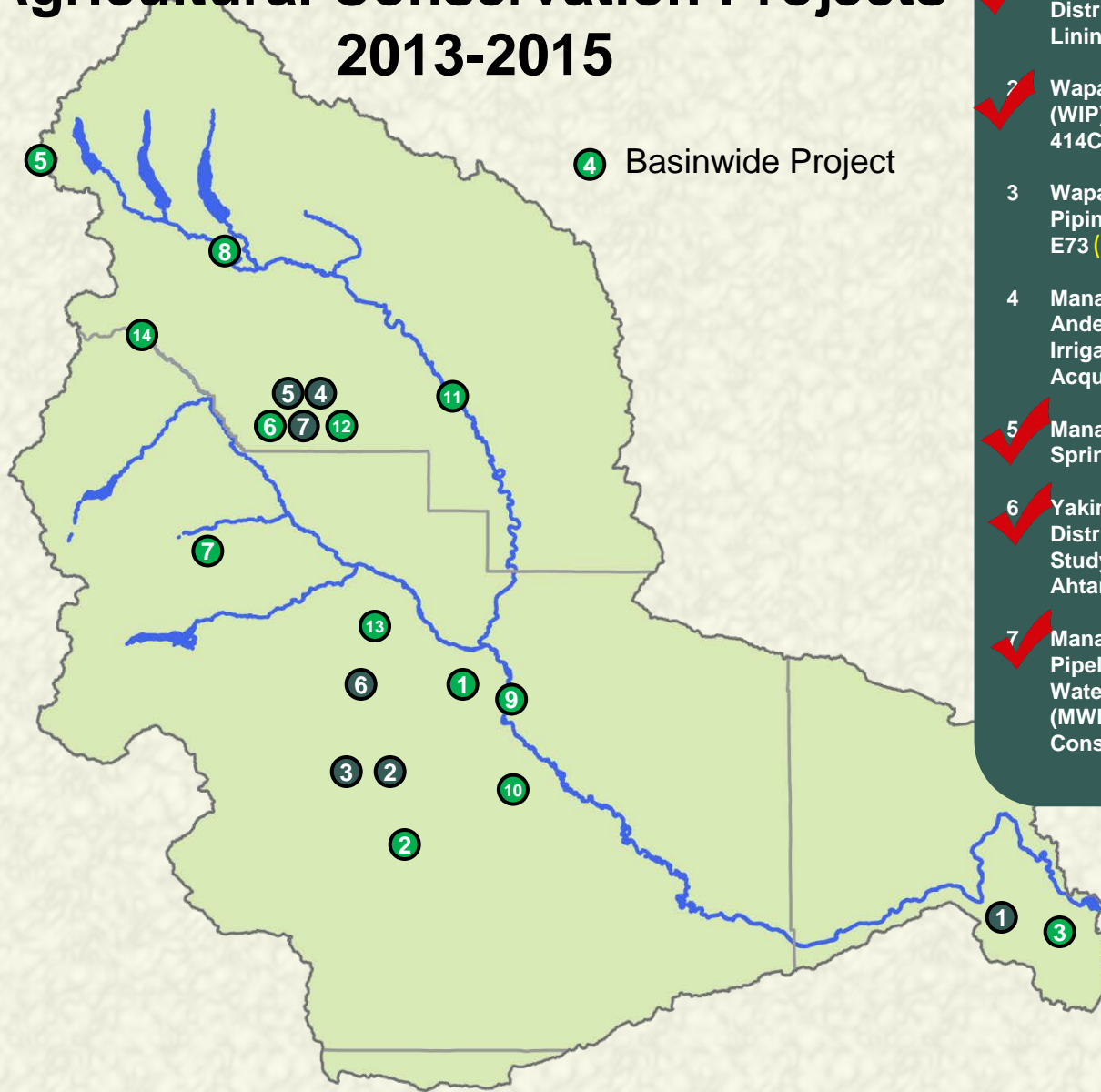
- Construct pilot projects to evaluate recharging shallow aquifers via groundwater infiltration. Full-scale implementation may follow.
 - **Initial siting analysis complete, pilot study in process**
- Build an aquifer storage and recovery facility allowing City of Yakima to withdraw water from the Naches River during high-flow periods and store it under-ground for use during low-flow periods.
 - **City of Yakima began recharging water to the aquifer in March 2015, under a temporary ASR permit issued by Ecology.**



Habitat Enhancement Projects

- 1 ✓ Gap-to-Gap Outfall Relocation
- 2 Toppenish Fan (Spring 2016)
- 3 ✓ Bateman Island Causeway Modification Conceptual Design
- 4 Bull Trout Task Force Habitat Improvements (Oct 2015)
- 5 ✓ Gold Creek Habitat Assessment and Conceptual Design
- 6 Reed Diversion design Barrier Removal (Fall 2015)
- 7 Little Rattlesnake Road Decommissioning (Fall 2015)
- 8 ✓ Cle Elum River Side Channel Restoration Project, Phase 2
- 9 Gap-to-Gap Property Acquisitions (Spring 2016)
- 10 Upper Wapato Riparian Restoration (Spring 2016)
- 11 Ellensburg Water Company / Coleman Creek Restoration (Spring 2016)
- 12 Reed Diversion Barrier Removal (Fall 2016)
- 13 Trout Meadows Acquisition / Enhancement (Spring 2016)
- 14 ✓ Manastash/ Little Naches Land Acquisition

Yakima Integrated Plan Habitat Enhancement/Enhanced Agricultural Conservation Projects 2013-2015



Agricultural Conservation Projects

- 1 ✓ Kennewick Irrigation District (KID) Division IV Lining
- 2 ✓ Wapato Irrigation Project (WIP) Piping Lateral 4-414C
- 3 Wapato Irrigation Project Piping Satus East Lateral E73 (Spring 2016)
- 4 Manastash Creek, Anderson Diversion Irrigation Water Acquisition (Spring 2016)
- 5 ✓ Manastash Creek Sprinkler Conversions
- 6 ✓ Yakima-Tieton Irrigation District (YTID) Feasibility Study – Tieton to Ahtanum Exchange
- 7 ✓ Manastash – Consolidated Pipeline & Manastash Water Ditch Association (MWDA) Pipeline Construction

Enhanced Water Conservation



Enhanced Water Conservation

- Implement an agricultural water conservation program designed to conserve up to 170,000 acre-feet of water in average water years
 - **Completed 5 out of 7 projects for 2013-2015**
 - **Water savings 2,874 acre-feet, in addition to the 40,000 acre-feet that has been acquired through YRBWEP.**



Habitat/Watershed Protection and Enhancement



Habitat/Watershed Protection and Enhancement

- Protect ~ 70,000 acres of land by acquiring high-elevation portions of the watershed and forest and shrub-steppe habitat
 - **Over 55,000 acres of land has been acquired**
- Create a habitat enhancement program to address reach-level floodplain restoration priorities and restore access to key tributaries
 - **5 out of 14 projects for 2013-2015 have been completed**
 - **3,170 acres of floodplain connectivity**
 - **47,921 acres forested lands in little Naches**
 - **1.9 cfs winter stock in trust Nov-Mar in Manastash Creek**
 - **5 miles of improved instream flow in Cle Elum River side channel**



Market Reallocation



Market Reallocation

- Employ a water market and/or a water bank to improve water supply in the Yakima River basin. Market reallocation would be conducted in two phases.
- The near-term phase would continue existing water marketing and banking programs in the basin, but take additional steps to reduce barriers to water transfers.
- The long-term program would focus on facilitating water transfers between irrigation districts. This would allow an irrigation district to fallow land within the district and lease water rights for that land outside the district.
 - **Yakima County and Kittitas County continue to work on procedures to enable property development that rely, in part, on acquisition of water or mitigation credits from willing sellers.**
 - **Governor Inslee issued a drought declaration affecting the Yakima River basin, and this will enable the Department of Ecology to lease water from willing sellers to meet certain needs within the basin this year.**



Teanaway Community Forest

Mike Livingston, WDFW

Rick Roeder, DNR

June 3, 2015



TEANAWAY COMMUNITY FOREST



Community forest background



TEANAWAY COMMUNITY FOREST



Legislative direction

In approving the Teanaway purchase, lawmakers directed DNR and WDFW to:

- Protect and enhance the **water supply** and protect the **watershed**
- Maintain **working lands** for forestry and livestock grazing while protecting watershed functions and habitat
- Provide **recreational opportunities** consistent with watershed protection
- Conserve and restore **habitat** for fish and wildlife
- Support a strong **community partnership** in ongoing land management



TEANAWAY COMMUNITY FOREST



Yakima River Basin



TEANAWAY COMMUNITY FOREST

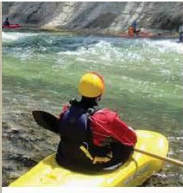


Teanaway Advisory Committee



TEANAWAY COMMUNITY FOREST





Teanaway Community Forest Management Plan



Management plan

TEANAWAY COMMUNITY FOREST



Management plan

- Addresses each of the Legislature's goals for the Community Forest
- In addition, addresses law enforcement and road management strategies
- Calls for additional recreational planning
- Final plan will be published later this month



TEANAWAY COMMUNITY FOREST



Management plan

Highlights

Water supply and watershed protection

- Conserve and restore the watershed, minimize runoff, minimize road and trail impacts

Forestry and grazing

- Maintain working lands
- Manage the forest to improve wildlife habitat and provide economic benefit
- Manage grazing to protect streams, riparian areas and meadows

Recreation

- Develop a plan that provides recreational access and protects the environment
- Evaluate the viability of motorcycle use



Management plan

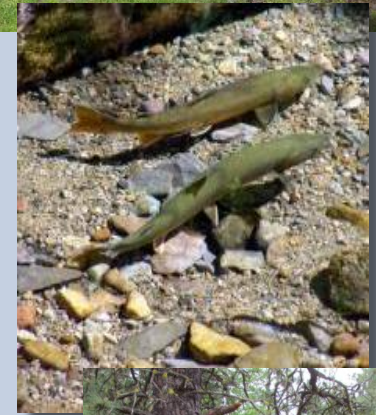
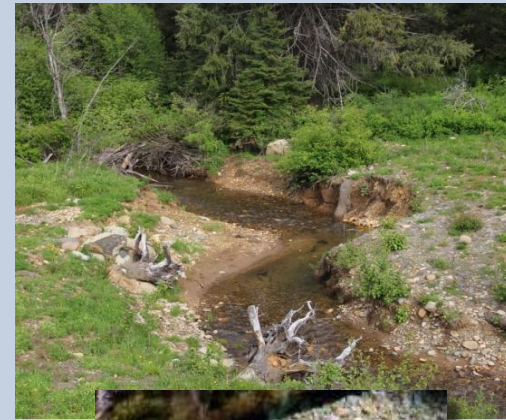
Highlights

Fish and wildlife habitat

- Restore upland habitat and protect sensitive areas for wildlife
- Restore degraded stream habitat to:
- Benefit fish
- Retime flows (reduce peak, increase late)

Community partnerships

- Manage the forest with strong local involvement and support
- Establish new relationships and volunteer opportunities
- Ensure strong enforcement and education



Teanaway Community Forest improvements, 2014-2015



TEANAWAY COMMUNITY FOREST



Teanaway Community Forest improvements, 2014-2015



TEANAWAY COMMUNITY FOREST



Implementation:

State operating budget

DNR and WDFW are requesting \$1.9 million in 2015-17 to:

- Improve fish and wildlife habitat
- Work on roads and campgrounds
- Complete a recreation plan
- Provide law enforcement presence

The Legislature has not completed negotiations on the operating budget



Implementation:

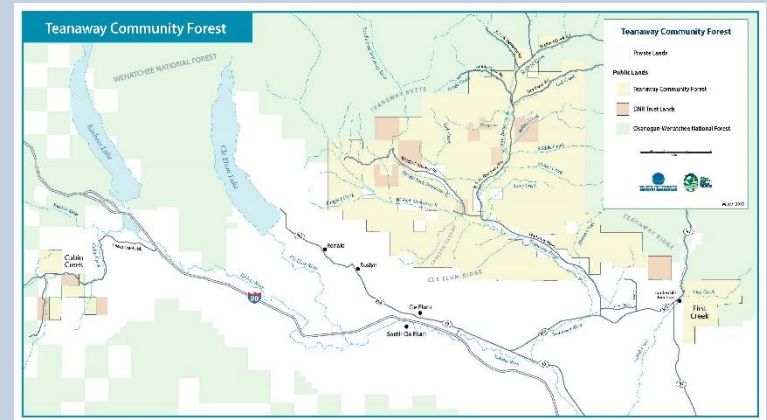
State capital budget

DNR and WDFW are requesting \$1.3 million in 2015-17 to:

- Thin forests and reduce wildfire risk, \$350,000
- Improve recreation/campgrounds, \$180,000
- Remove fish passage barriers and improve roads, \$600,000

Also, the agencies are requesting \$18.8 million to bring inholdings into the community forest

The Legislature has not completed negotiations on the capital budget



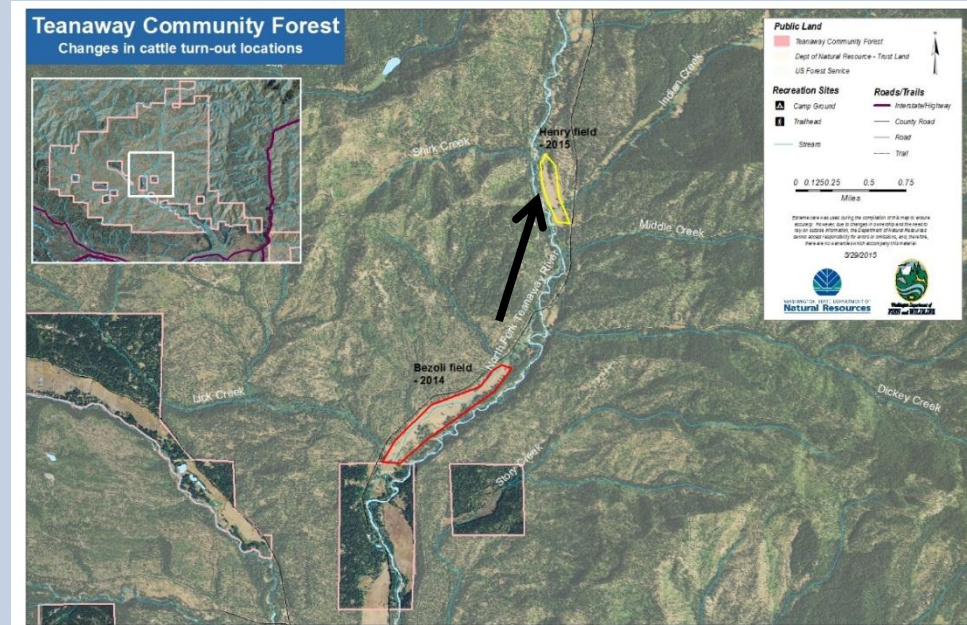
Next steps

- Select members Advisory Committee.
(June 10)
- New committee 1st meeting 23 July



Next steps

- Determine baseline
 - Stream conditions – temperature, flow
 - Roads / Stream interactions and LiDAR
- Manage grazing activities

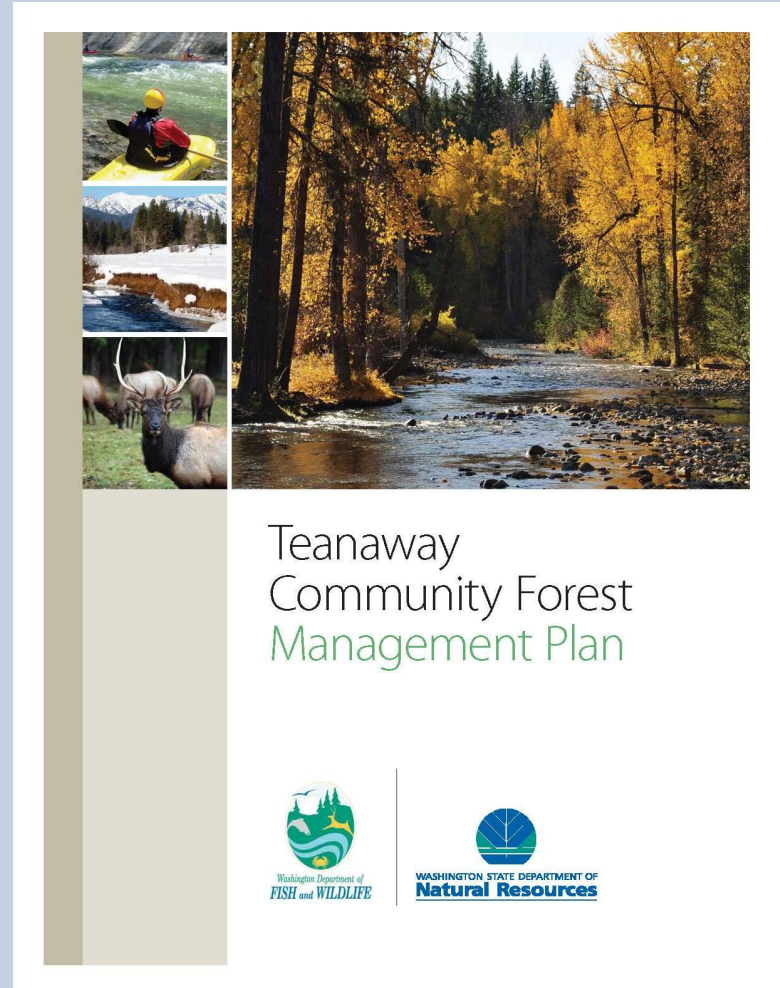


TEANAWAY COMMUNITY FOREST



Next steps

- Begin recreation planning (finish Dec. 2016)
- Conduct environmental review on Indian Creek restoration project





***Contact: Wendy Christensen, Columbia-Cascades Area Office, (509) 575-5848, ext. 203
Tom Tebb, Washington State Department of Ecology, (509) 575-3989**

Meeting Notes

Yakima River Basin Water Enhancement Project (YRBWEP) Workgroup

September 9, 2015

Yakima Arboretum, Yakima WA

Welcome, Introductions, and Agenda Overview

Ben Floyd, Anchor QEA meeting facilitator, welcomed the YRBWEP Workgroup and other attendees, led introductions, and provided an overview of the agenda. These notes summarize presentation highlights, workgroup comments, and public comments. For more detail, please see the full presentations which are available on the project website

at <http://www.usbr.gov/pn/programs/yrbwep/2011integratedplan/index.html>

Ben welcomed new workgroup member, Tom Tebb, the new Director for the Office of Columbia River, Washington State Department of Ecology.

2015 Drought Impacts

Urban Eberhart, Kittitas Reclamation District (KRD), introduced Mark Hanson, who has been a farmer in the Badger Pocket area for 20 years and serves on KRD's board of directors. Mark described the impacts that 2015 drought conditions have had on KRD farmers. Many KRD farmers have pivot irrigation systems, which are more efficient than traditional irrigation systems. Despite these efficient systems, reduced water supplies have required KRD to shut off water diversions early this year (August 10, 2015), resulting in farmers having to fallow many acres. Crops receiving reduced amounts of water are anticipated to be lower quality and earn lower prices. Generally, the farmers use a 3-year rotation schedule, but 2015 drought conditions have thrown off this schedule, resulting in multiyear impacts on farms such as reduced yield and weed-control issues. Ranchers have had to sell some of their cattle, since they are unable to support larger herd sizes. KRD has identified 45 water efficiency projects that would help alleviate drought conditions. These projects require funding. KRD farmers recently submitted a Natural Resource Conservation Service (NRCS) funding proposal to help fund some of these projects. Urban stated that the Integrated Plan will help improve water supplies in the Yakima River basin and therefore reduce impacts on farms.

Scott Revell, Roza Irrigation District (Roza ID), introduced Jim Willard, Roza ID board member and Roza farmer since 1951. Jim grows mostly grapes, apples, and hops. This year, Jim had to fallow approximately 18 percent of his fields. Additionally, Jim anticipates that the apples and grapes that he produces will be smaller than in average years. Jim uses a drip irrigation system because it is more



U.S. Department of the Interior
Bureau of Reclamation



efficient; one-third of his water use is traditional overhead irrigation systems. Jim noted that farmers often prefer overhead irrigation systems since they distribute water over a larger area, which is beneficial for crops with wide reaching roots such as fruit trees. In addition, Jim spent more time and money this year mowing ground cover crops and controlling weeds. Some farmers have installed deep groundwater wells to provide supplemental irrigation water. These wells are operated with diesel generators making them expensive to use. In addition, mitigation is required for pumping, which adds to the cost of using groundwater. Many farmers have spent extra money to replace well infrastructure. In addition, some farmers have had to deepen their wells, because the groundwater table has dropped since the 2001 drought. Overall, Jim anticipates that the quality and quantity of crops will be greatly impacted this year. If this continues, fruit trees will die and have to be cut down. Banks are now scrutinizing farm operation costs and their access to water before making loans that are critical to farmers.

Seth Defoe, Kennewick Irrigation District (KID), described the drought impacts and response in KID. KID is dependent on return flows from upstream users. The volume of return flows is impacted by upstream consumptive water uses and water conservation. Going into 2015, KID did not know what to expect. As it turns out, there have been record low flows in the Yakima River and therefore record low water supply available to KID. KID serves many urban water users. In response to reduced water supplies, KID has implemented watering schedules for urban customers. This effort has involved considerable public outreach to educate urban customers about drought conditions and water conservation to help reduce peak use. KID has hired code enforcement staff to ensure that customers are adhering to the watering schedules. Customers are subject to fines if they violate watering schedules repeatedly. KID has also worked with large users, such as schools, to implement other water conservation measures. KID has also implemented irrigation efficiency measures, including lining irrigation canals. Despite these efforts, many KID farmers have had to fallow their fields this year. Seth noted that he is looking forward to seeing the results of the lower Yakima River basin hydrologic modeling effort, which is ongoing.

Phil Rigdon, Yakama Nation, described drought impacts on the Wapato Irrigation Project (WIP). Drought conditions have impacted crop production as well as fueled large forest fires. Stuart Crane, Yakama Nation, stated that water conservation projects implemented in the WIP have helped farmers be more resilient to drought conditions. However, conservation has contributed to reduced return flows for WIP farmers downstream. WIP continues to seek funding to improve water supply and irrigation infrastructure.

Implementation Committee Update

Tom provided a summary of the State Biennium Budget. The Washington State Legislature passed the State Biennium Budget on June 30, 2015. The budget includes approximately \$30 million for Integrated Plan projects. This includes approximately \$9.5 million for water supply projects, \$9.5 million for fishery projects, \$5 million each for water conservation and habitat projects, and \$1 million for ground water storage and market reallocation. The Implementation Committee and Subcommittees are providing input on how these funds should be allocated for the greatest benefit.

In late June, Senator Cantwell announced introduction of Senate Bill 1694 (SB1694) regarding the Integrated Plan. On July 1 she held a preliminary conference in Yakima. On July 7, the Implementation Committee testified at the SB1694 hearing in Washington DC. The Implementation Committee has since suggested minor edits to the bill.

Sid Morrison, Yakima Basin Storage Alliance, asked Tom if groundwater is still a big problem in the Yakima basin. Tom said he is concerned to hear that drought emergency wells have seen falling water levels. And he noted that some irrigators are now paying mitigation fees for using groundwater.

Executive Committee and Subcommittee Updates

Joint Meeting of the Subcommittees

Jeff Tayer, Washington State Department of Fish and Wildlife (WDFW) and Habitat Subcommittee Chair, provided a summary of the July 21 Joint Meeting of the three subcommittees (Habitat, Water Use, and Watershed Land Conservation). There are many opportunities for the subcommittees to pursue projects that achieve both water supply and habitat improvement objectives. Jeff emphasized that it is important for the subcommittees to coordinate their efforts to achieve the greatest benefits. Currently, the subcommittee chairs are working on a watershed-scale approach that will promote Integrated Plan goals and support land managers to achieve watershed-scale habitat and water supply objectives.

Habitat Subcommittee

Jeff provided an update on the Habitat Subcommittee. They plan to meet September 22 to review the projects in the Habitat Subcommittee State Biennium Budget proposal and update project information as needed. At this meeting, the subcommittee will also discuss opportunities for leveraging State funds.

Jeff introduced Tom Elliot, Yakama Nation, who will be leading the boundary water projects and on-reservation NRCS funding proposal effort. The boundary water projects are located in and along the border of the Yakama Reservation. These projects focus on habitat enhancement, instream flow improvement, and wetland restoration objectives. The Yakama Nation received NRCS and State funds in 2015. With these funds, the Yakama Nation has identified eight priority projects that they would implement over the next five years. Initial projects include the Toppenish Creek Fan Restoration 3-Way Levee Set Back, and the North Satus Drain Realignment. The Yakama Nation plans to submit a 2016 NRCS proposal for on-reservation Integrated Plan projects. The preproposal was accepted, and Tom is working on the final proposal due in early November. This proposal includes projects such as building check structures, piping irrigation canals, and replacing the Unit 2 Dam.

Anna Lael, Kittitas County Conservation District, is preparing the 2016 NRCS proposal for off-reservation Integrated Plan projects. NRCS feedback on the 2015 off-reservation proposal suggested that it was too general. As such, the 2016 NRCS proposal is more focused and identifies specific projects, with a geographic focus in Kittitas County. The preproposal was accepted and Anna is working on the final proposal, due in early November. The proposal is for approximately \$4.7 million, with roughly 60 percent for on-farm water conservation projects and 40 percent for fish screen, fish passage, and land conservation projects. Jeff noted that the projects proposed for Manastash Creek will

allow salmon to migrate into the upper watershed. Salmon serve an important ecological function and their presence in the ecosystem provides benefits to the full watershed.

Water Use Subcommittee

Scott provided an update on the Water Use Subcommittee. The subcommittee will be meeting on September 29 to review the projects in the Water Use Subcommittee State Biennium Budget proposal and update project information as needed. The subcommittee has recently hosted water conservation project tours. Tour participants have included representatives from Washington State Department of Agriculture, WDFW, and Ecology. Scott noted that Roza is happy to do public tours of their system. Roza is proud of the efficiency improvements that they have implemented in their irrigation system.

Municipal Water Use Subgroup of the Water Use Subcommittee

Dave Brown, City of Yakima and Municipal Water Use Subgroup Chair, provided an update. The subgroup is developing a work plan for efforts moving forward. Dave recently sent a letter to large municipal users in the region (e.g., school boards, parks departments) to inform users about municipal water conservation practices. Dave noted that the City of Yakima has recently aired television advertisements to educate customers on water conservation practices. The subgroup is looking for additional members to represent the municipalities in the basin.

Watershed Land Conservation Subcommittee

Andrew Graham, HDR Engineering, provided an update on the Watershed Land Conservation Subcommittee, which met on September 3. The meeting included discussion of a possible Wild and Scenic River designation in the Cle Elum River basin and Teanaway Community Forest (TCF). In addition, the subcommittee discussed the development of a watershed-scale approach. The chairs are considering the role of the Integrated Plan in supporting land managers to achieve watershed-scale habitat and water supply goals. As part of this effort, Andrew Graham, Sarah Pistorese, and Ben Floyd conducted interviews to determine how land managers in the Yakima River basin are managing watershed lands. The subcommittee discussed the key findings from these interviews. The chairs will continue to advance watershed-scale options.

Wendy provided an update on the Bureau of Land Management (BLM) tour. On July 14, subcommittee members gave Jerry Perez, BLM Director for Washington and Oregon, a tour of the Manastash Creek project, Yakima Canyon, and Eaton Ranch. J.A. Vacca, Wildlife Biologist from BLM's Wenatchee Field Office also participated. The tour included a discussion of the Integrated Plan and BLM efforts.

Outreach Subcommittee

Michael Garrity, American Rivers and Outreach Subcommittee Chair, discussed the Outreach Subcommittee's recent activities. The subcommittee has been working on supporting SB1694. Nicky Pasi was recently hired by American Rivers as the new Outreach Coordinator for the Yakima Basin Integrated Plan.

Technical Work Update

Cle Elum Dam Fish Passage Facilities

Phil Rigdon provided a summary of the Cle Elum Fish Passage Facilities ceremony. On August 27, the Yakama Nation, Reclamation, and Ecology hosted a ceremony to mark the first phase of construction of fish passage at Cle Elum Dam. The event included several speakers, a salmon bake, and numerous displays, including a 1:9 scale model of the helix fish passage structure. Phil emphasized that this event marks an important achievement for fish passage in the basin. Tom stated that this was a milestone for all Integrated Plan partners.

Cle Elum Pool Raise

Wendy provided an update on the Cle Elum Pool Raise project. Reclamation will award the contract in September for the radial gate modification, and construction will begin in 2016. The reservoir pool elevation will not be raised until the shoreline protection work is done. Reclamation is preparing bid packages for the shoreline protection work. Reclamation and Ecology will continue coordinating with the U.S. Forest Service and landowners throughout the construction phase.

Tieton Dam Fish Passage Facilities

Sarah Pistorese, HDR Engineering, discussed the Tieton Dam Fish Passage Facilities appraisal assessment. Reclamation and Ecology initiated the appraisal assessment in March 2015. Since then, Reclamation, Ecology, the Yakima Storage Dam Core Team, and the HDR Consultant Team have held three workshops to refine the appraisal assessment alternatives for upstream and downstream fish passage at Tieton Dam. Through these workshops, the project team identified one upstream alternative, Trap and Haul, and two downstream alternatives, Alternative 1– Floating Collector, and Alternative 2 – Fixed Collector. Sarah described the major components of the upstream fish passage alternative including the fish barrier, fishway, trap and holding pond, and transport vehicle. Reclamation and Ecology would select the release location for upstream passage during the feasibility study phase. Sarah described major components of the two downstream alternatives. Alternative 1, the Floating Collector, would extend from the center of Tieton Dam into the reservoir and would include a debris management system, fish guidance system, floating collection barge, fish transfer system, and transport vehicle. Reclamation and Ecology would select the release location for downstream passage during the feasibility study phase. Alternative 2, the Fixed Collector, located on the right bank of the reservoir near the dam abutment, would include a debris management system, 10 fixed inlets, a helix bypass structure, and bypass conduit. This alternative is similar to the downstream fish passage structure designed for Cle Elum Dam. Both downstream alternatives assume a 70-foot reservoir collection depth. Wendy noted that Alternative 1 has a lower capital cost and less associated safety-of-dam risks; she has discussed advancing the floating collector into feasibility with Yakama Nation agencies as a preliminary recommendation. HDR will submit the Final Appraisal Assessment Report on October 2. Based on the findings and recommendations in this report, Reclamation and Ecology will decide how to advance this project to the feasibility study phase.

Kachess Drought Relief Pumping Plant

Wendy provided an update on the Kachess Drought Relief Pumping Plant (KDRPP). Reclamation is reviewing and working on responses to comments on the Draft Environmental Impact Statement (EIS) for the KDRPP and Keechelus-to-Kachess Conveyance (KKC). In response to comments on the Draft EIS, Reclamation is monitoring existing groundwater wells and reviewing property values, and WDFW is conducting a food-web analysis of Kachess Reservoir. Reclamation is also monitoring the water surface elevations in the narrows between upper and lower Kachess Reservoir. In late-June, Reclamation, the Yakama Nation, and the proratable irrigation districts conducted the Value Analysis Study to identify more cost effective alternatives. The proratable irrigation districts are developing options based on the outcome of this Value Analysis. Additional drilling will be conducted this fall along the alignment of the KDRPP South Pumping Plant Alternative.

Dave Nazy, Ecology, provided a summary of the Kachess groundwater well monitoring effort. Results suggest the following: during the winter and spring groundwater elevations are influenced most by precipitation and snow melt recharge; during the summer and fall groundwater elevations near the reservoir are closely linked to the surface water elevation of the reservoir.

Keechelus-to-Kachess Conveyance

Wendy provided an update on the KKC. Reclamation is reviewing and working on responses to comments on the Draft KDRPP and KKC EIS. Additional drilling will be conducted this fall along the North Tunnel alignment.

Bumping Dam and Reservoir Enlargement

Drilling at the Bumping Dam and Reservoir Enlargement site is underway. Drillers are trying to determine the depth to bedrock in this area. Collection of geotechnical data has involved coordination with the U.S. Forest Service, distribution of notices to the public and ongoing seismic evaluations.

Lower Yakima River Basin Hydrologic Modeling

Andrew provided an update on the Lower Yakima River Basin Hydrologic Modeling effort. HDR Engineering has been working with KID, Ecology, and Reclamation to refine the model to answer questions KID has posed about the effects of water conservation projects on return flows they depend on. HDR modelers have upgraded the hydrologic model of the Yakima River basin to more accurately reflect diversions, return flows, seepage, and gains between Parker and Process. The model originally focused on hydrologic conditions above the Parker gage. Modelers have refined how water conservation efforts below Parker gage (Sunnyside, Roza, and WIP) are defined and developed water conservation scenarios for expected future projects in this area. However, modelers are still not getting satisfactory accuracy for the Lower River, so they are reviewing options for additional improvements to the model. Once that is done, modelers will run the conservation scenarios, Integrated Plan scenarios, and climate change scenarios.

Groundwater Storage

Reclamation and Ecology have been working with the groundwater workgroup members and Reclamation's Regional Office to implement pilot studies throughout the Yakima Basin. These studies

will allow us to better understand the potential of groundwater storage and the best way to use this technique to meet Integrated Plan goals. The first pilot study uses the KRD system in the Kittitas Valley to better understand the relationship between KRD's canal and the shallow groundwater in the area. The study will also investigate how water in KRD's canal influences water in the local tributaries in early spring. Reclamation and Ecology have also worked with the Yakama Nation on a pilot study they are conducting in the Toppenish Creek, White Swan area. The groundwater workgroup members are currently reviewing the Groundwater Managed Recharge Report for this year's efforts and also planning next year's work on pilot projects that will continue to assess the potential of groundwater in meeting IP goals. The Groundwater Managed Recharge Report should be available to the workgroup members in November 2015.

Teanaway Community Forest (TCF)

Mike Livingston, WDFW, provided an update on the TCF. The TCF Management Plan was signed on June 25. There are five new members and 15 returning members on the TCF Advisory Committee. The next Advisory Committee meeting will be September 17. The Department of Natural Resources (DNR) and WDFW plan to start documenting baseline conditions in the TCF for features such as fish passage and grazing areas this year. Additionally, the Indian Creek project is moving forward. This project includes 1 mile of stream restoration along Indian Creek. Mike noted that the TCF could be a potential location for implementing the watershed-scale approach to improve habitat, water supply, and wildfire conditions. Rick Roeder, DNR, stated that WDFW and DNR only received a portion of their budget request for TCF operation and capital projects. WDFW and DNR may propose a supplemental budget request for the TCF in 2016.

Kittitas Reclamation District Stream Supplementation

Urban described the KRD Stream Supplementation project. There are nine tributaries that are currently supplemented by Yakima Project water routed through the KRD irrigation infrastructure. There have been lower flows than expected this year. Therefore, KRD has increased the amount of water diverted into the nine tributaries to maintain minimum flows for migrating fish. For example, an additional 6 cfs has been diverted into Little Creek successfully saving fish that were stranded in Little Creek due to low water levels. Workgroup members gave Tom Iseman, U.S. Department of the Interior Deputy Assistant Secretary for Water and Science, a tour of this project. Urban stated that his project has been a success due to Integrated Plan partnerships. Tom Tebb noted that Ecology has been meeting with the Yakama Nation and other irrigation districts to identify other stream supplementation projects in the basin. Rick Dieker, Yakima-Tieton Irrigation District (YTID), stated that YTID infrastructure has been used to supplement flows in the South Fork Cowlitz Creek. This has helped to maintain minimum flows for fish passage in Cowlitz Creek.

Bull Trout Memorandum of Understanding

Jeff described the purpose of the Bull Trout Memorandum of Understanding (MOU). This MOU is intended to be a long term commitment to enhance Bull Trout populations in the Yakima River basin. In recognition of this commitment, Tom Tebb (Ecology), Dawn Wiedmeier (Reclamation), Phil Rigdon

(Yakama Nation), and Mike Livingston (WDFW) signed the Bull Trout MOU during the workgroup meeting. The Bull Trout MOU will also be sent to representatives from the U.S. Forest Service and U.S. Fish and Wildlife Service for their signatures.

Public Comment

- Elaine Packard, Sierra Club: Elaine provided a copy of the Sierra Club's testimony letter to the U.S. Senate Energy and Natural Resources Committee.
- Jerry Watts: When will the KDRPP and KKC EIS be available for public comment again? *Reclamation and Ecology have not yet decided how the KDRPP and KKC will move forward. Therefore, there is no schedule yet for the Final EIS. The public will be informed when a schedule has been established.*
- Miles McPhee: Does the Integrated Plan EIS and Four Accounts Analysis account for the impact on fish from increased water temperatures due to climate change? Sockeye did not move up the Yakima River from the Columbia River this year due to the high water temperatures. The warmer water temperatures experienced this year are a preview of what future conditions will be like. This could have an impact on the amount of fish benefits realized by the Integrated Plan.
- Chuck Klarich, Yakima Basin Storage Alliance: It is important to consider the impact that drought conditions could have on the future economy of the Yakima River basin without additional storage. Also, the Kachess groundwater well assessment should consider (1) what would be the impact to the Kachess Campground well if the reservoir is drawn down to a lower elevation, and (2) how deep would the well need to go to get reliable water.
- Jean Mendoza, Friends of Toppenish Creek: Irrigation water used for crops should be prioritized over irrigation water for lawns.

Workgroup Roundtable Discussion

- Stuart Woolley, U.S. Forest Service: Due to wildfires this year, the Forest Service has lost the opportunity to do road related stream habitat enhancements. They plan to sort out how to address that.
- Michael Garrity, American Rivers: American Rivers is working on outreach for the proposed upper Cle Elum River Wild and Scenic River designation.
- Scott Revell, Roza: Scott gave Grant Learned, Kachess homeowner, a tour of Roza's system to demonstrate the efficiency measures that have been implemented.
- Jeff Tayer, WDFW: There are many opportunities to improve the basin if we continue to work together instead of divided.
- Jeff Thomas, U.S. Fish and Wildlife Service: The Bull Trout MOU is a very encouraging. It will be good to see this effort move forward.
- Rick Roeder, DNR: I'm enthusiastic about the watershed-scale approach.
- Dawn Wiedmeier, Reclamation: Reclamation has a fairly new drought relief grant program. More details can be found on the WaterSmart website.

- Commissioner Paul Jewell, Kittitas County: He appreciates all the work that was done on the TCF Management Plan. Kittitas County is nearly done restoring the access road to the TCF. The road project has involved a lot of public engagement and overall has been very successful.
- Dale Bambrick, National Marine Fisheries Service: KRD, Ecology, and Reclamation have done great work on the stream supplementation project.
- Mike Leita, Yakima County: The Implementation Committee appreciates Senator Cantwell's leadership. It is also impressive to see the Integrated Plan influencing other entities in the basin. It is important to do what is necessary to maintain the economic vitality in the Yakima River basin.
- Alex Conley, Yakima Basin Fish and Wildlife Recovery Board: It is great to see the Bull Trout MOU signed. A lot of work has gone into this accomplishment.
- Mike Livingston, WDFW: It is great to see the irrigation districts helping fish. It is valuable to do tours of actual projects, such as Roza's tours of their irrigation system.
- Seth Defoe, Kennewick Irrigation District: I'm interested to hear more about the watershed-scale approach. Wildfires should be considered as part of the watershed effort.
- Sid Morrison, Yakima Basin Storage Alliance: The impact of increasing water temperatures on fish should be considered when evaluating the economic benefits of the Integrated Plan. Also, I suggest that the Bumping Dam and Reservoir Expansion project will be difficult to achieve due to opposition from environmental groups and homeowners, and it should be dropped.
- Phil Rigdon, Yakama Nation: Thanks to everyone for your support at the Cle Elum Fish Passage Facilities ceremony.
- Urban Eberhart, KRD: The Integrated Plan is essential for managing future conditions.

Ben Floyd closed the meeting by noting the next workgroup meeting date: December 16, 2015.

Attendance

Workgroup Members in Attendance

Alex Conley, Yakima Basin Fish & Wildlife Recovery Board

Dale Bambrick, National Marine Fisheries Service

Dave Brown, City of Yakima

David Fast, Yakama Nation

Dawn Wiedmeier, Bureau of Reclamation - Columbia-Cascades Area Office

Jaclyn Hancock, Washington State Department of Agriculture

Jeff Tayer, WDFW and Habitat Subcommittee Chair

Jeff Thomas, USFWS, Mid-Columbia River Fishery Office

Jim Trull, Sunnyside Valley Irrigation District

Michael Garrity, American Rivers

Mike Leita, Yakima County

Mike Livingston, WDFW

Mike Shuttleworth, Benton County

Paul Jewell, Kittitas County
Phil Rigdon, Yakama Nation
Rick Dieker, Yakima-Tieton Irrigation District
Rick Roeder, Washington State Department of Natural Resources
Ron VanGundy, Roza Irrigation District
Scott Revell, Roza Irrigation District and Water Use Subcommittee Chair
Seth Defoe, Kennewick Irrigation District
Sid Morrison, Yakima Basin Storage Alliance
Stuart Woolley, U.S. Forest Service
Urban Eberhart, Kittitas Reclamation District

Other Attendees

Andrew Graham, HDR Engineering, Inc.
Anna Lael, Kittitas County Conservation District
Ben Floyd, Anchor QEA
Bob Hall, YBSA/Yakima Auto Dealers
Brian Schmidt, NYCD
Bryan Myre, Yakama Reservation Irrigation District
Candy McKinley, Bureau of Reclamation
Chad Stuart, Bureau of Reclamation
Charlie de la Chapelle, YBSA
Chris Lynch, Bureau of Reclamation
Chuck Freeman, Kennewick Irrigation District
Chuck Klarich, YBSA
Colleen Rauert, Ecology
Dan Church, Bureau of Reclamation
Dan Silver
Dave Nazy, Ecology
David Ortman
David Reeploeg, Office of Senator Maria Cantwell
Debbie Carlson, Bonneville Power Administration
Duane Unland, Nakaty Enterprises
Edward Lisowski
Elaine Packard, Water/Salmon Committee, Cascade Chapter, Sierra Club
Jack and Beneitta Eaton
James Rivard, Ecology
James Simino, U.S. Forest Service
Jane Creech, DOE
Jason McShane, Kennewick Irrigation District
Jeff Tayer, WDFW
Jerome Delvin, Benton County

Jerry Watts
Jim Milton, Yakima-Tieton Irrigation District
Jim Willard, Willard Farms
Joel Hubble, Bureau of Reclamation
Joye Redfield-Wilder, Ecology
Justin Harter, NSID
Karen Dera, Bureau of Reclamation
Keith McGowan, Bureau of Reclamation
Kelly Lawrence, U.S. Forest Service
Kevin Eslinger, Kittitas Reclamation District
Lane Young, Ecology
Michael Tobin, North Yakima Conservation District
Miles McPhee
Nicole Pasi, American Rivers
Patrick McGuire, Kennewick Irrigation District
Patty Garvey-Darda, U.S. Forest Service - Cle Elum Ranger District
Richard Visser, US Fish & Wildlife Service
Ryan DeKnikker, Yakama Nation Fishery
Sage Park, Ecology
Sarah Pistorese, HDR Engineering, Inc.
Saundra McPhee
Scott Nicolai, Yakima-Klickitat Fisheries Project
Shannon Adams, Yakama Nation Fishery
Steve Malloch, Western Water Futures LLC (alt. for American Rivers)
Stuart Crane, Yakama Nation
Susan Adams, Washington Water Trust
Susan Crawford, Bureau of Reclamation
Teresa Merriman, Bureau of Reclamation
Tina Blewett, Ducks Unlimited
Tom Ring, Yakama Nation
Tom Tebb, Ecology
Tony Coluccio, Frank Coluccio Construction
Warren Dickman, YBSA
Wendy Christensen, Bureau of Reclamation

Where to Find Workgroup Information

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

If anyone needs help finding an information source, contact those listed at the top of page one of these notes, or contact Ben Floyd at Anchor QEA, Kennewick office, (509) 491-3151, or bfloyd@anchoragea.com.

Technical Work Update

YRBWEP Workgroup Meeting
September 9, 2015



Presented by:

Phil Rigdon, Yakama Nation

Sarah Pistorese, HDR

Wendy Christensen, Bureau of Reclamation

Andrew Graham, HDR

Mike Livingston, Washington Department of Fish And Wildlife

Rick Roeder, Washington Department of Natural Resources

Urban Eberhart, Kittitas Reclamation District



Ongoing Projects

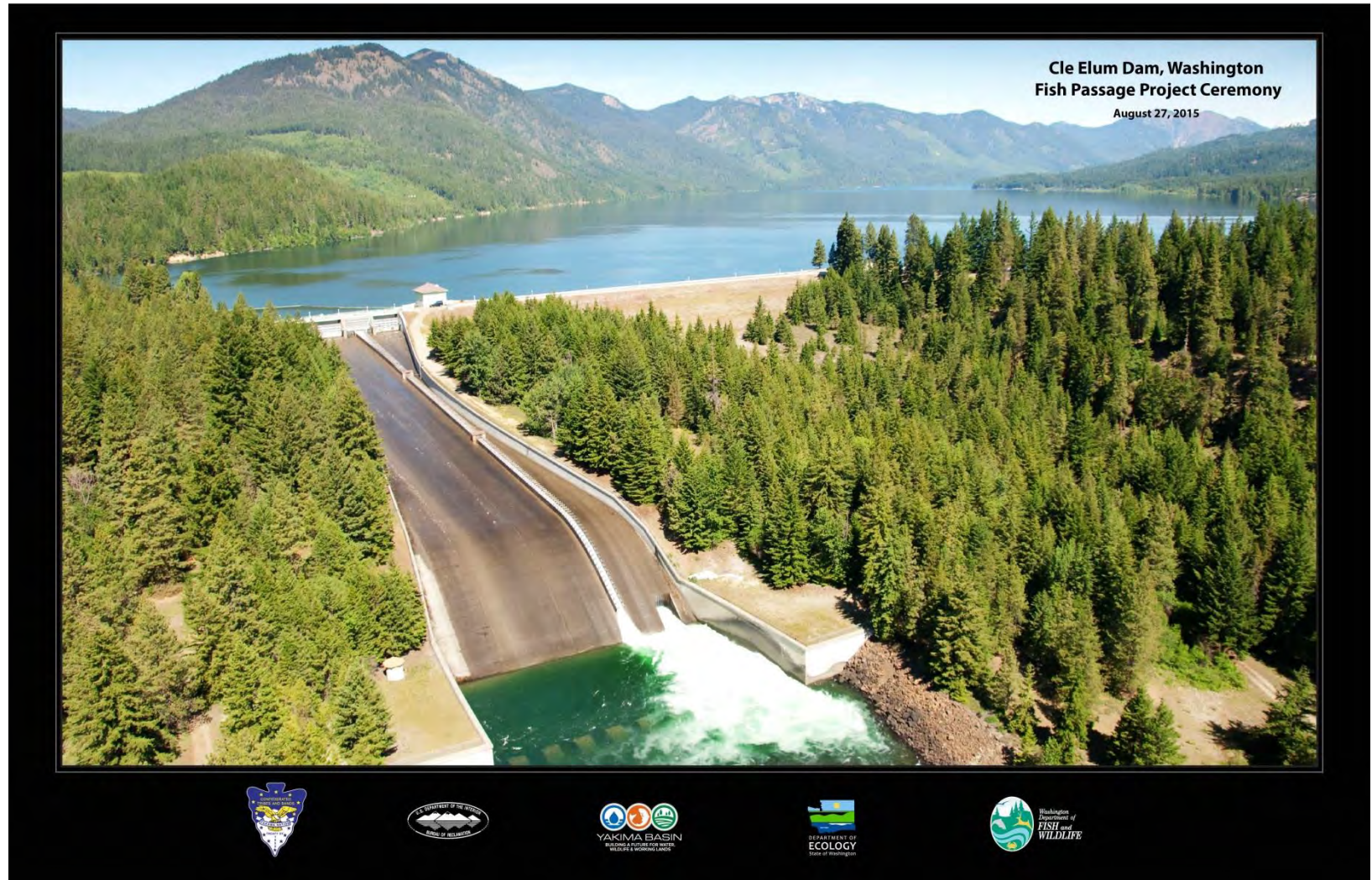
- Cle Elum Dam Fish Passage Facilities
- Cle Elum Pool Raise
- Tieton Dam Fish Passage Facilities
- Kachess Drought Relief Pumping Plant
- Keechelus-to-Kachess Conveyance
- Bumping Dam and Reservoir Enlargement
- Lower Yakima River Basin Hydrologic Modeling
- Groundwater Storage
- Teanaway Community Forest
- Manastash Creek Conservation and Tributary Enhancement



Cle Elum Dam Fish Passage Facilities



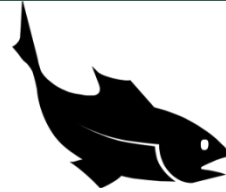
Cle Elum Dam Fish Passage Facilities



Cle Elum Dam Fish Passage Facilities

- On August 27, 2015 the Yakama Nation, Reclamation, and Washington State Department of Ecology hosted a ceremony to mark the first phase of construction of fish passage at Cle Elum Dam
- The event included several speakers, a salmon bake, and numerous displays, including the 1:9 scale model of the helix.





Fish Passage Fun Facts

How many seconds, on average, will it take fish to travel downstream via the helix?

Approximately 110 seconds

What is the maximum speed, in miles per hour, for fish going through the helix?

26 miles per hour

How many cubic yards of concrete are in the juvenile fish passage facility?

Approximately 18,000 cubic yards

How many gallons of water will go through the helix in a day?

100 cfs for 24 hours is about 65 million gallons of water. At 400 cfs, that is 260 million gallons of water

What is the maximum operating range, in feet, of reservoir fluctuation for the juvenile fish passage facility?

63 feet





Cle Elum Dam Fish Passage Ceremony





Cle Elum Dam Fish Passage Ceremony





Cle Elum Dam Fish Passage Ceremony – Left to right: Tom Tebb (WA Dept. of Ecology), Urban Eberhart (Kittitas Reclamation District), Phil Rigdon (Yakama Nation), Lorri Lee (Bureau of Reclamation), and Tom Iseman (U.S. Dept. of the Interior)



Cle Elum Pool Raise



Cle Elum Pool Raise

- Radial Gate Modification
 - Award contract in September
 - Construction to start next year
- Shoreline Protection
 - Bid packages being prepared
 - Continued coordination with USFS and landowners



Tieton Dam Fish Passage Facilities



Tieton Dam Fish Passage Facilities Appraisal Assessment

Status and Ongoing Efforts

Milestone	Date
HDR and Reclamation site visit and kickoff workshop	March 26, 2015
Core Team site visit and workshop - review design criteria	April 21 and 22, 2015
Core Team interim report workshop - refine initial alternatives	June 9, 2015
HDR submits Draft Appraisal Report	July 24, 2015
Core Team Meeting - review of draft report	July 28, 2015
Reclamation and Core Team provide comments on draft report	August 14, 2015
HDR submits draft cost estimate	August 28, 2015
HDR submits Final Appraisal Report	October 2, 2015



Tieton Dam Fish Passage Facilities Appraisal Assessment

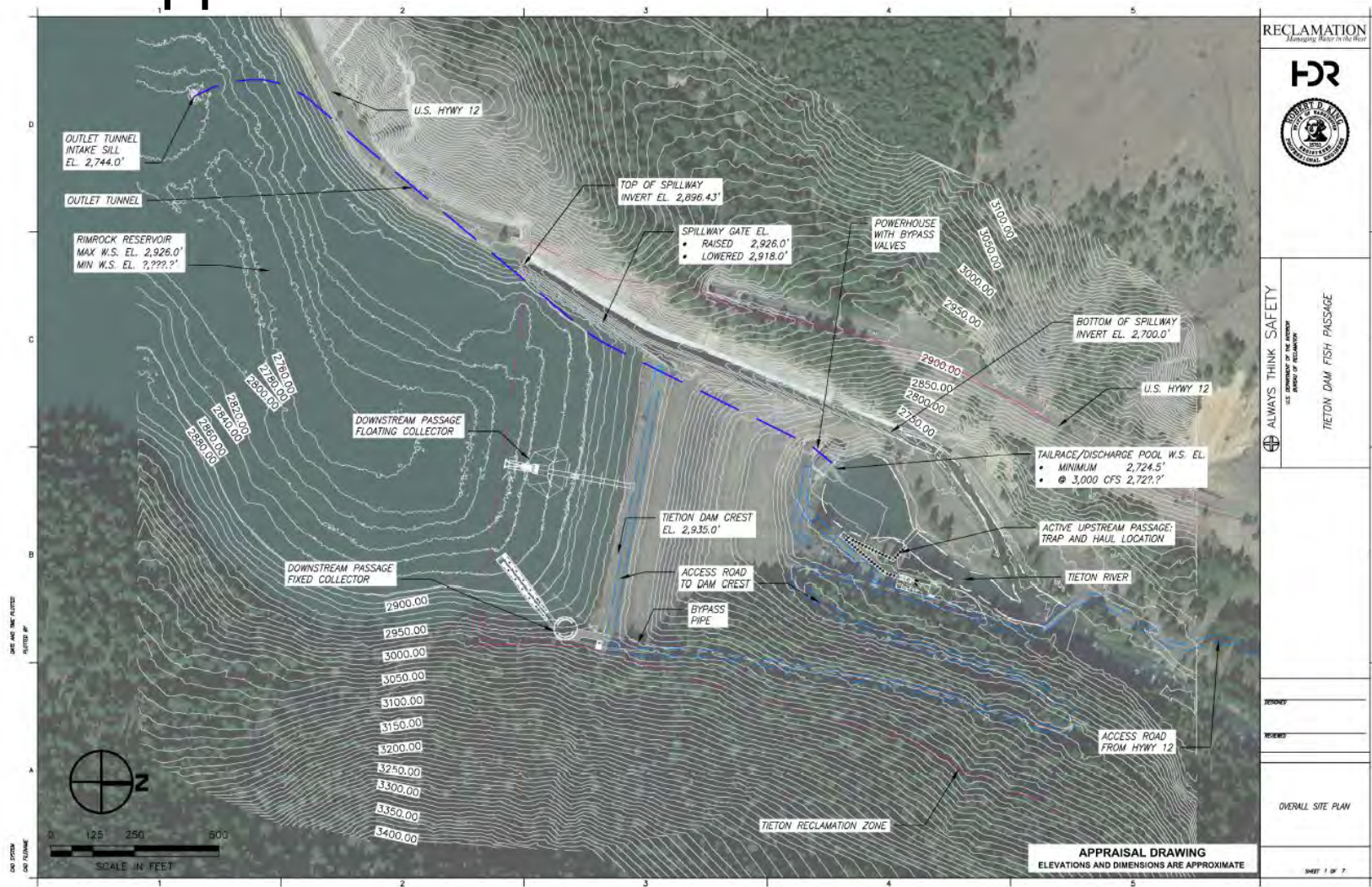


Draft Alternatives:

- One Upstream Alternative
 - Trap and Haul
- Two Downstream Alternatives
 - Floating Collector
 - Fixed Collector



Tieton Dam Fish Passage Facilities Appraisal Assessment – Site Plan



RECLAMATION
Managing Water in the West

HDR



ALWAYS THINK SAFETY
U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

TIETON DAM FISH PASSAGE



Tieton Dam Fish Passage Facilities Appraisal Assessment – Trap and Haul

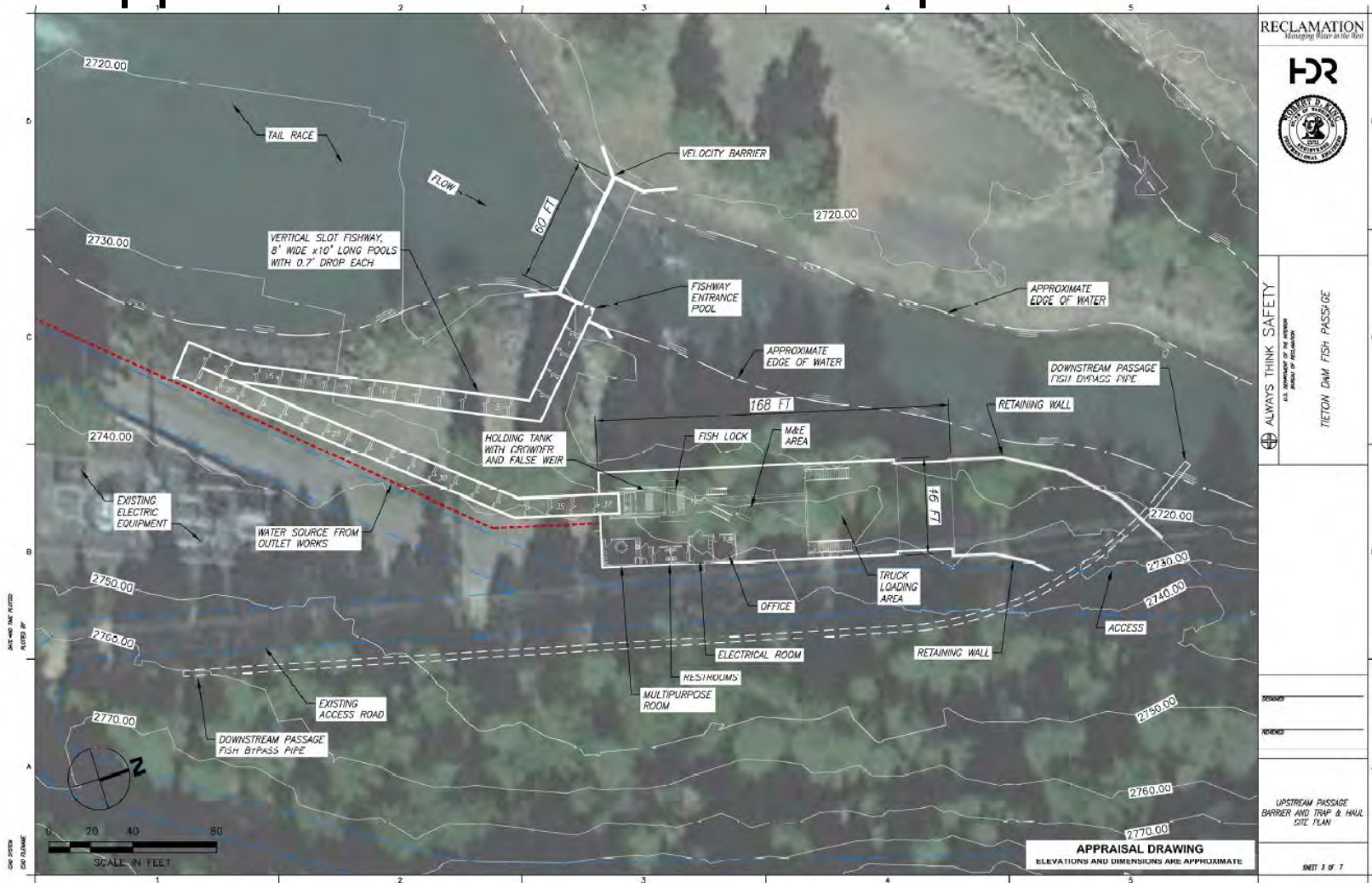


Major Components:

- Fish barrier
- Fishway
- Fish trap and holding pond
- Fish lock and lift
- Monitoring and evaluation facilities
- Transport flumes



Tieton Dam Fish Passage Facilities Appraisal Assessment – Trap and Haul



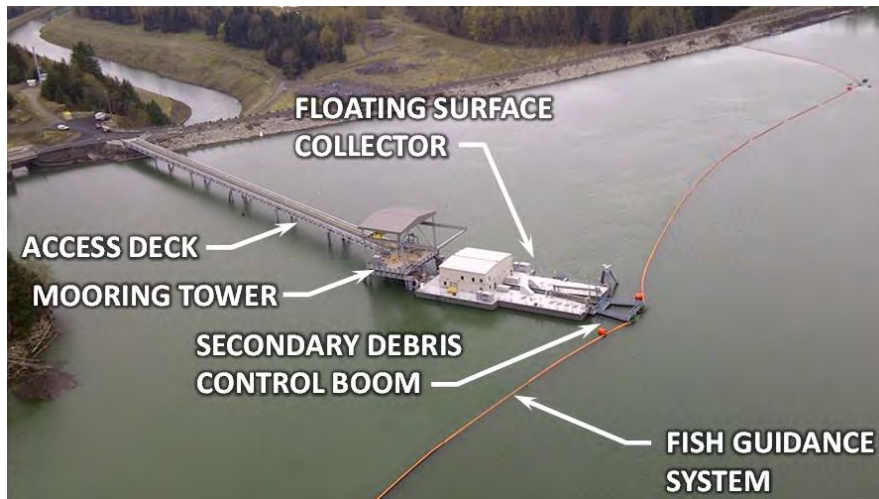
Tieton Dam Fish Passage Facilities

Appraisal Assessment – Alternative 1



Floating Collector Major Components:

- Debris Management System
- Fish Guidance System
- Floating Collection Barge
- Access System
- Fish Transfer System
- Fish Transport Vehicle

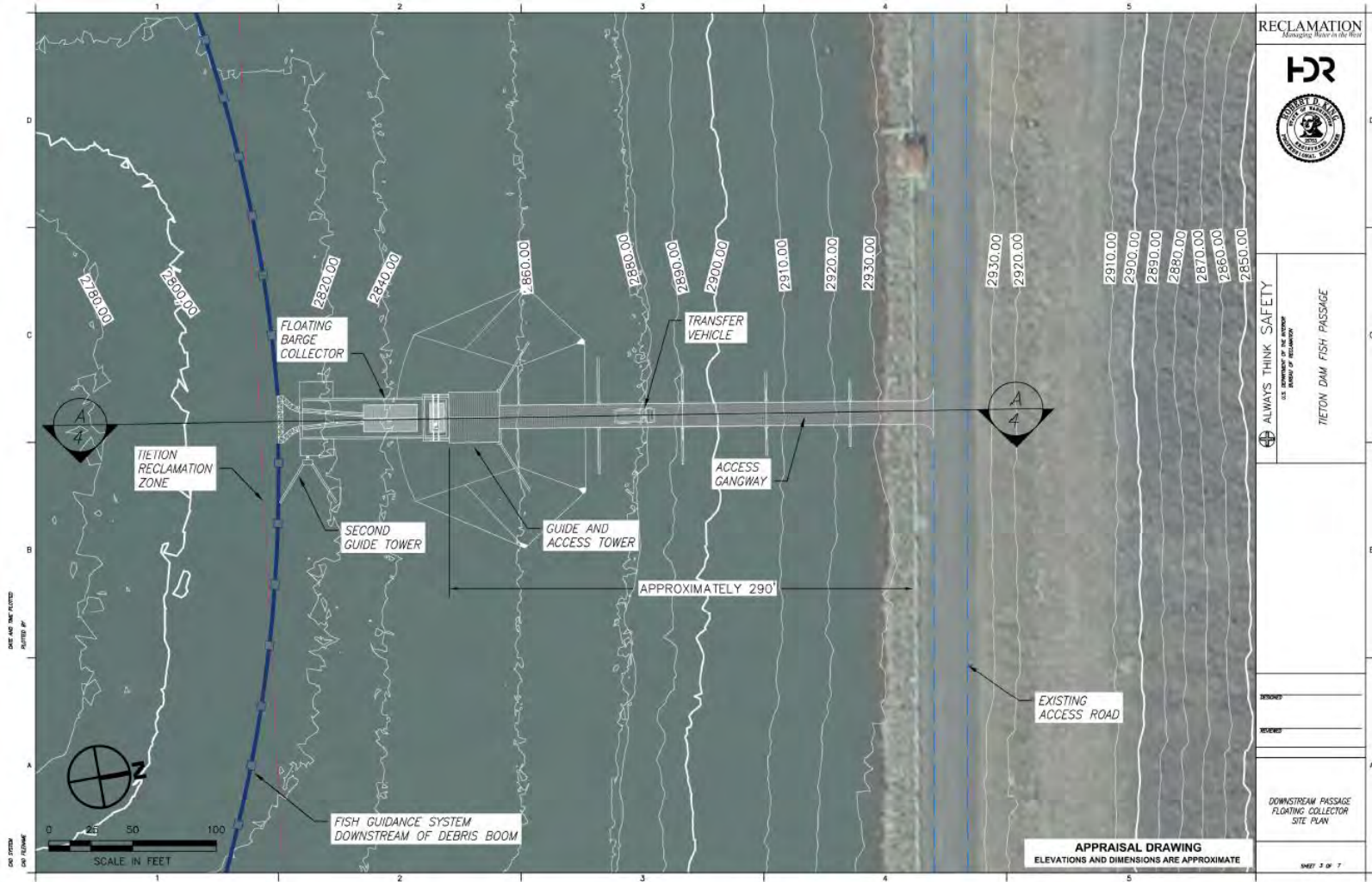


Swift Dam Floating Collector, North Fork Lewis River, WA



Tieton Dam Fish Passage Facilities

Draft Downstream Passage – Alternative 1



Tieton Dam Fish Passage Facilities

Draft Downstream Passage – Alternative 2



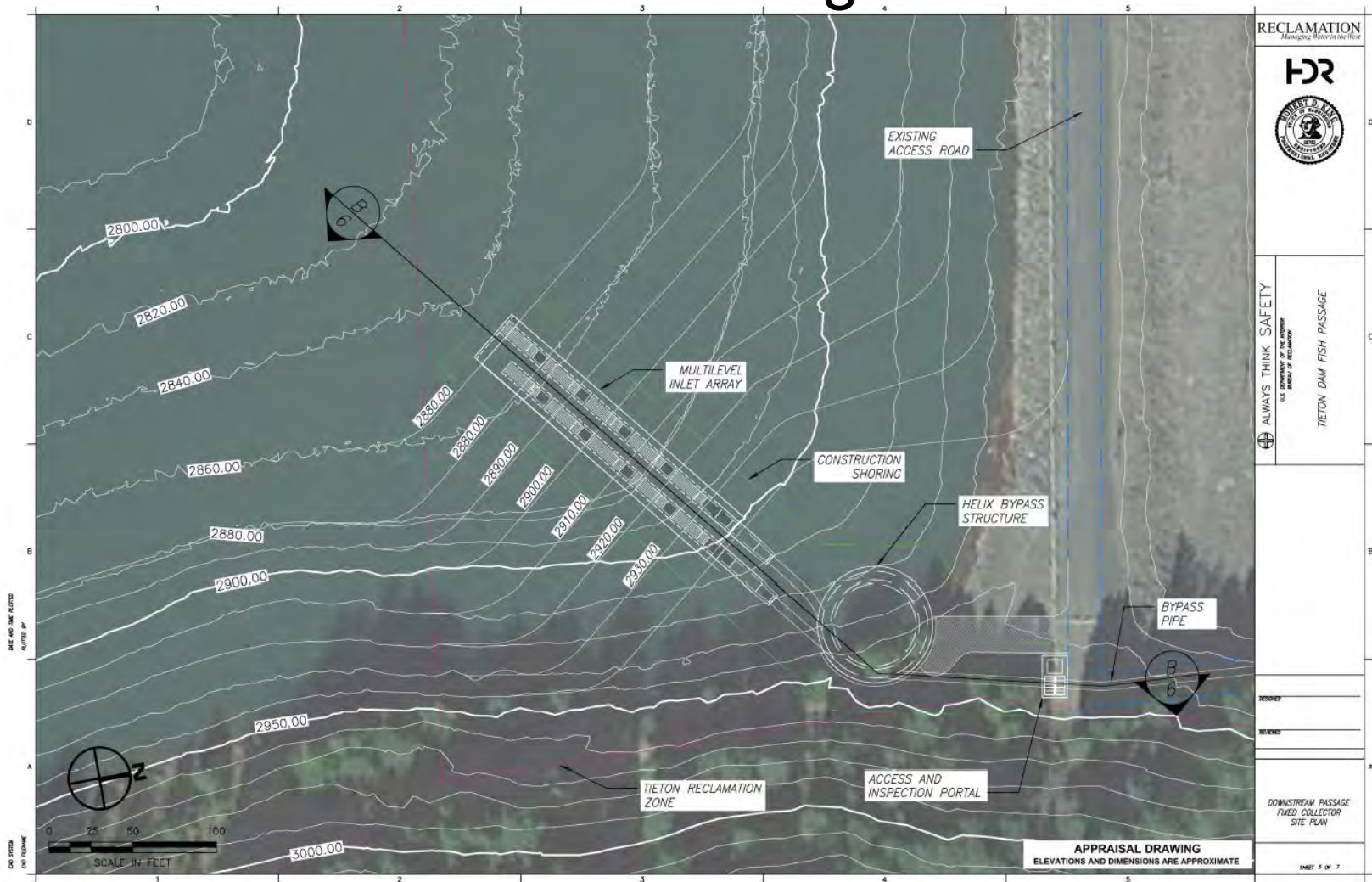
Fixed Collector Major Components:

- Debris Management System
- Fixed Inlet Array
- Helical Bypass Structure
- Bypass Conduit



Tieton Dam Fish Passage Facilities

Draft Downstream Passage – Alternative 2



Kachess Drought Relief Pumping Plant

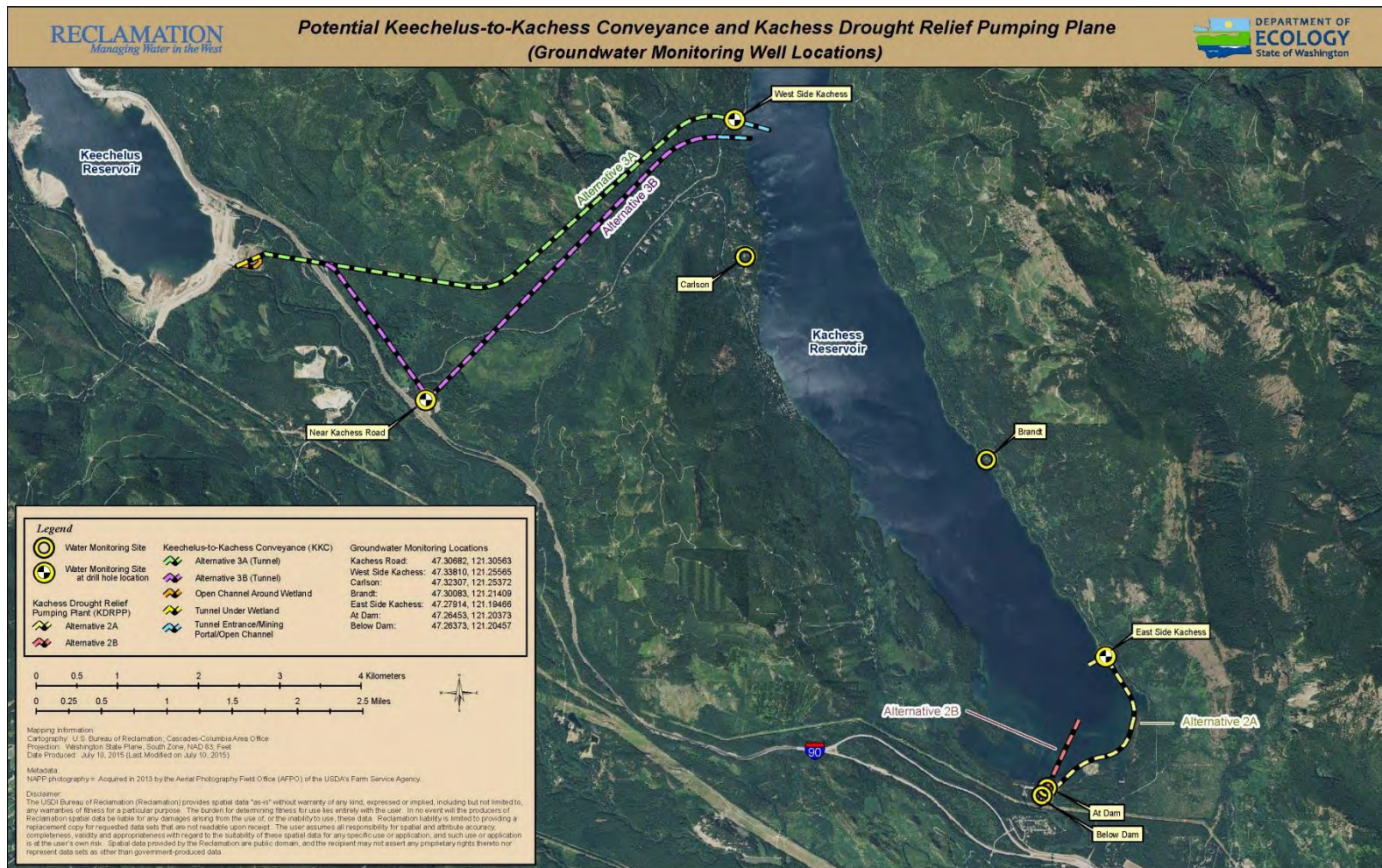


Kachess Drought Relief Pumping Plant

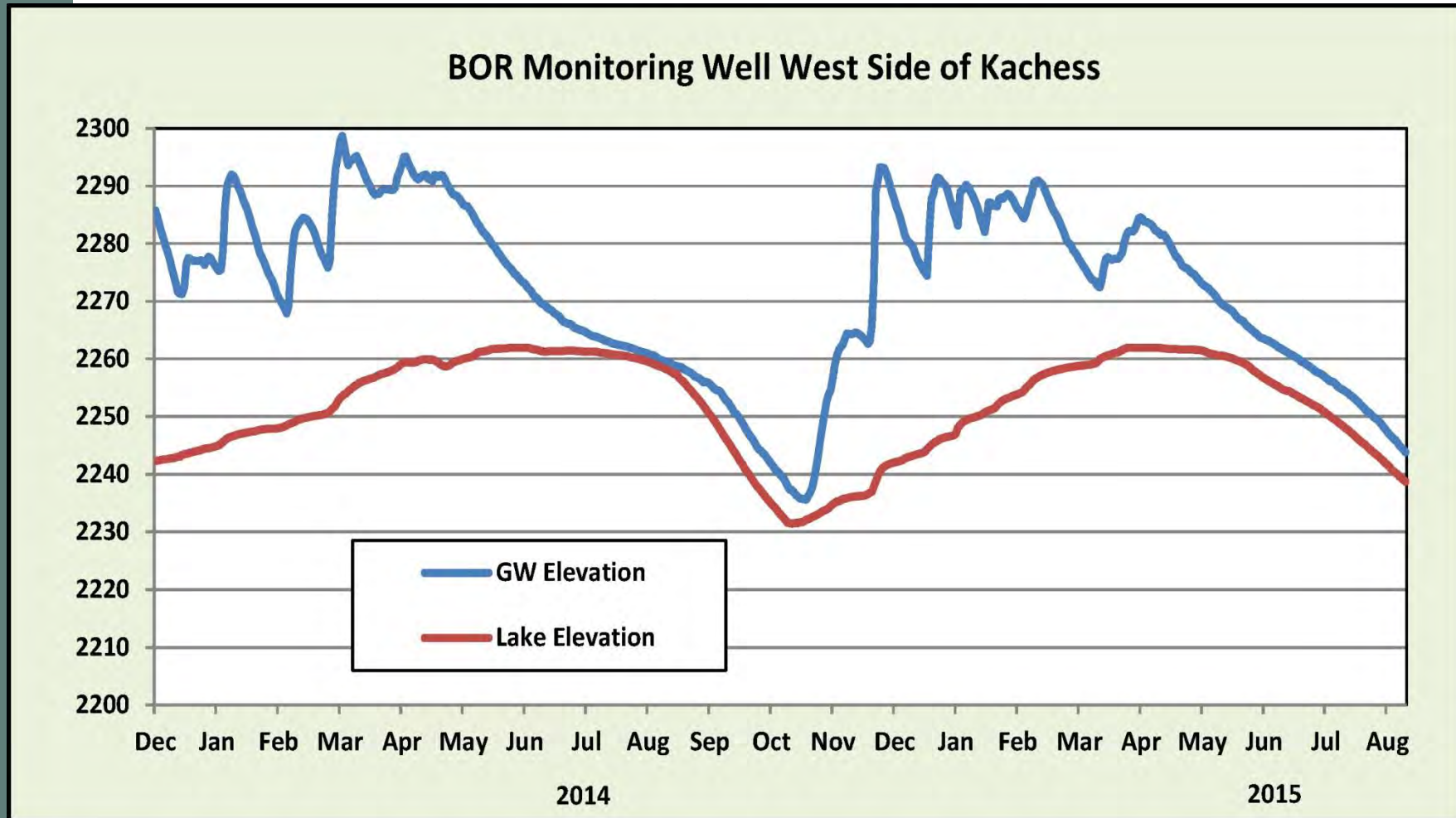
- Draft EIS – responding to comments
 - Monitoring existing groundwater wells
 - Reviewing Property Values
 - WDFW analyses ongoing
- Value Analysis Study was conducted with Yakama Nation and proratable irrigation districts
- Proratable districts' developing options based on outcome from Value Analysis
- Additional drilling to be performed this Fall
- Kachess Narrows
 - Evaluation of water surface elevations
 - Evaluation of top of rock
- Bull Trout Enhancement MOU



Status of Well Monitoring Near Kachess Reservoir



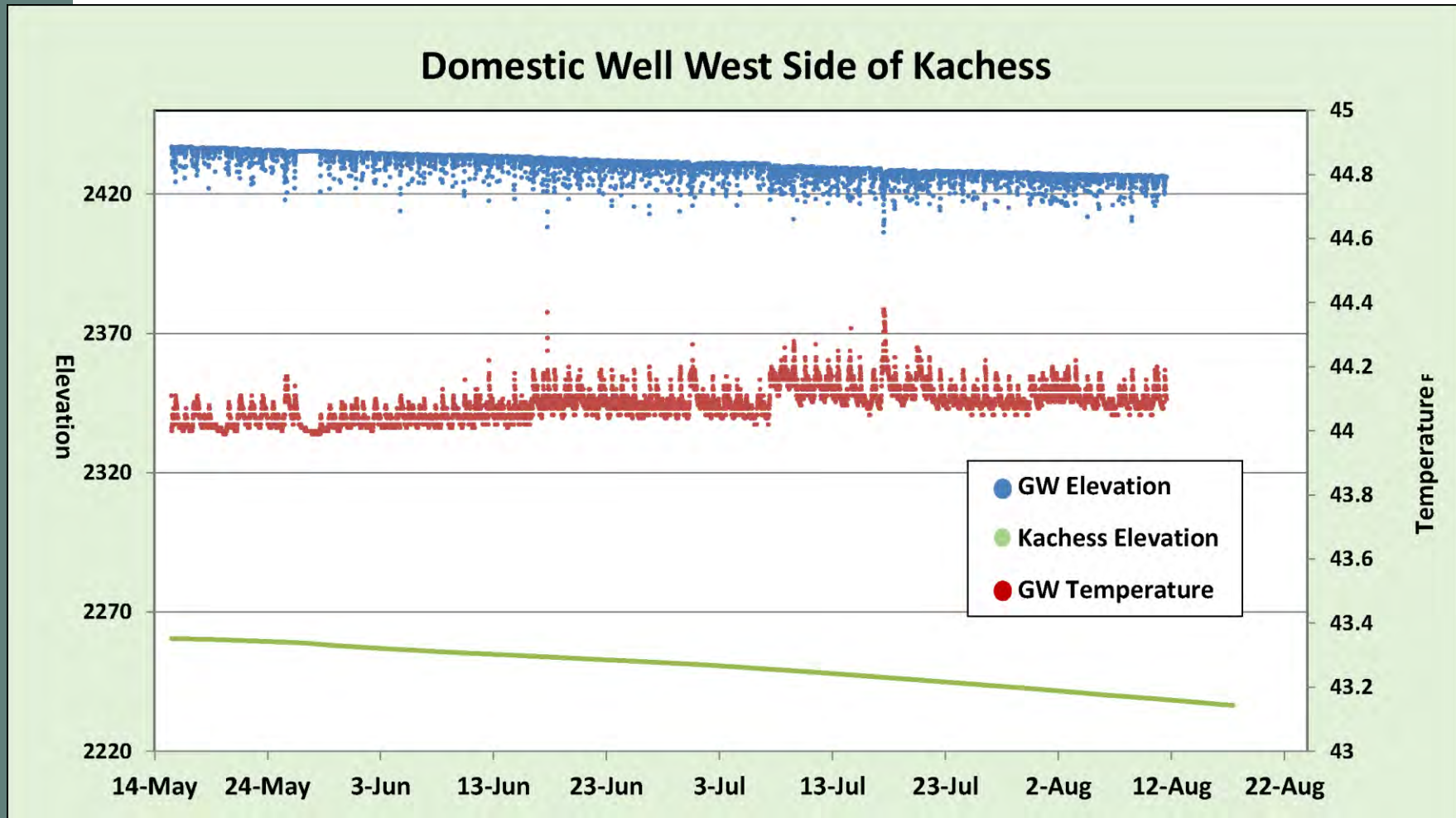
Status of Well Monitoring Near Kachess Reservoir



PRELIMINARY DATA



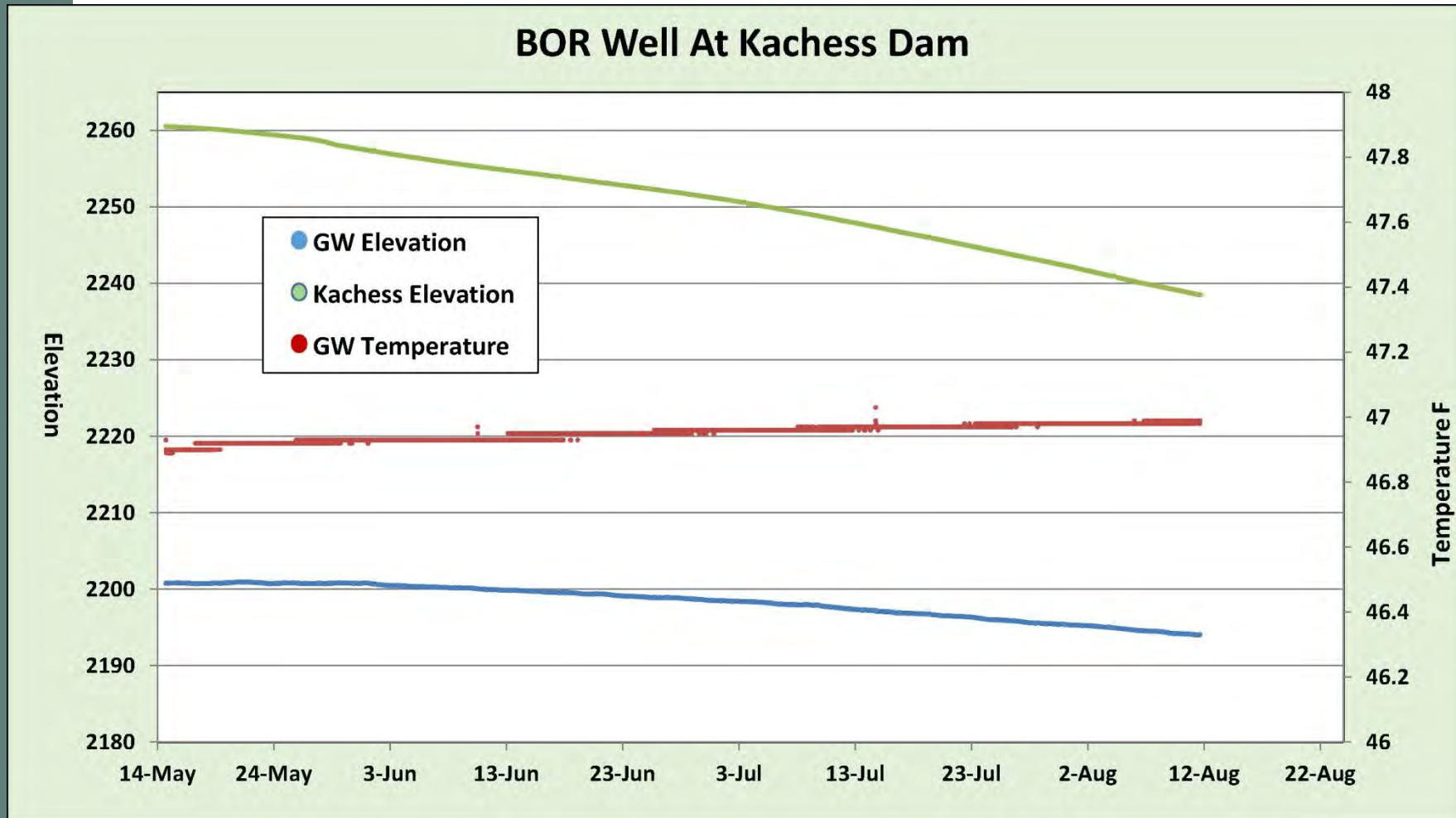
Status of Well Monitoring Near Kachess Reservoir



PRELIMINARY DATA



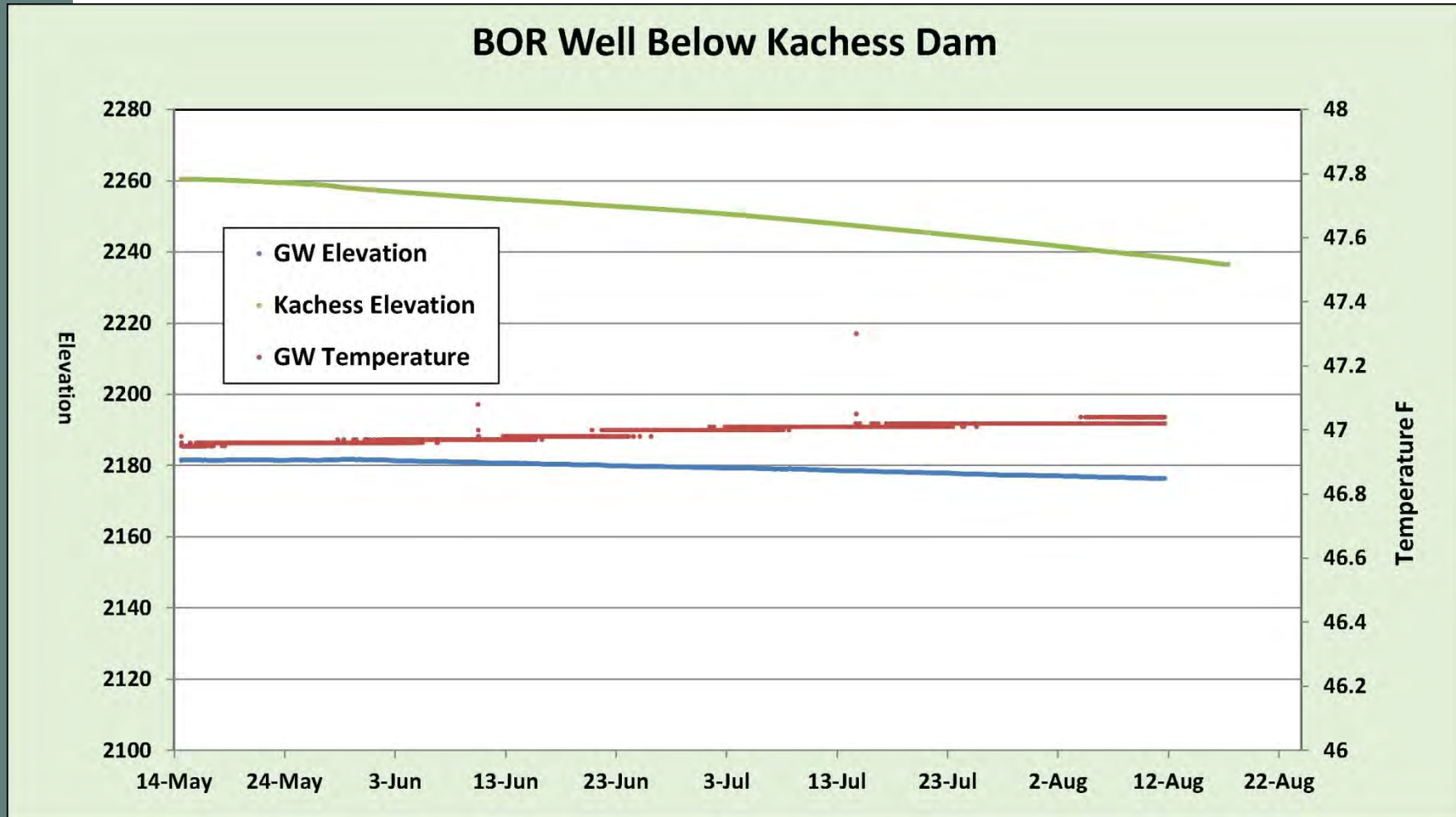
Status of Well Monitoring Near Kachess Reservoir



PRELIMINARY DATA



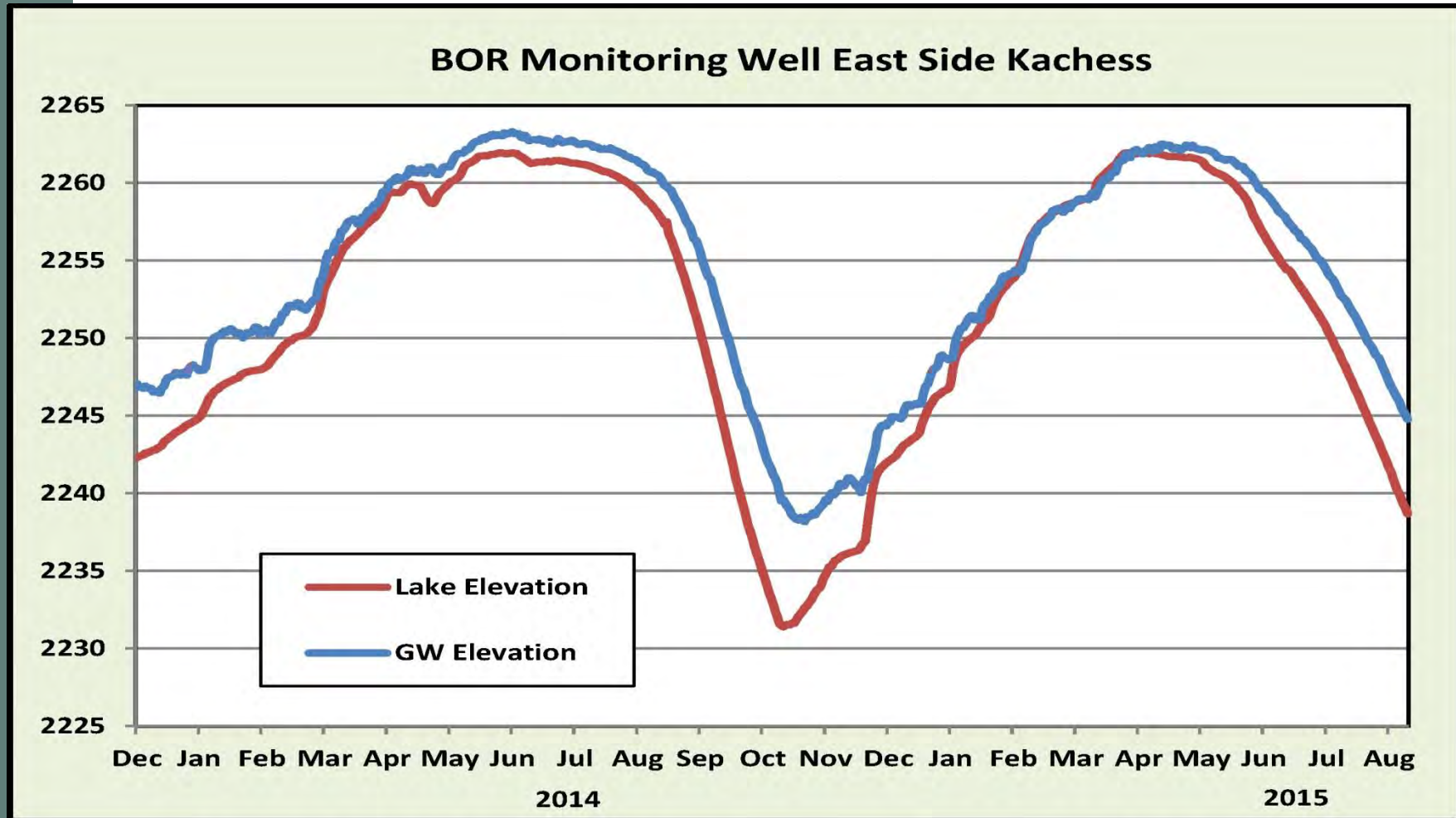
Status of Well Monitoring Near Kachess Reservoir



PRELIMINARY DATA



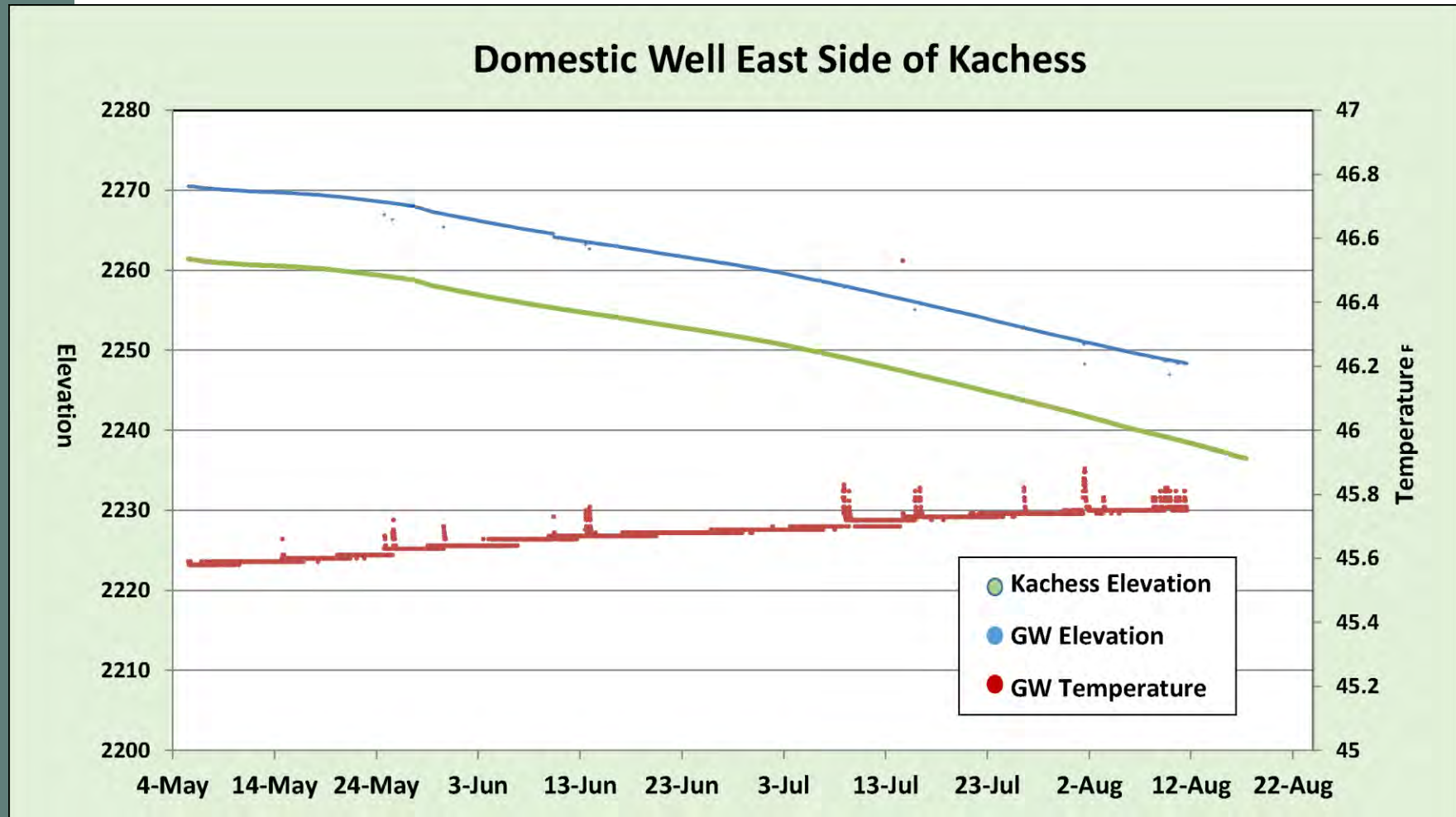
Status of Well Monitoring Near Kachess Reservoir



PRELIMINARY DATA



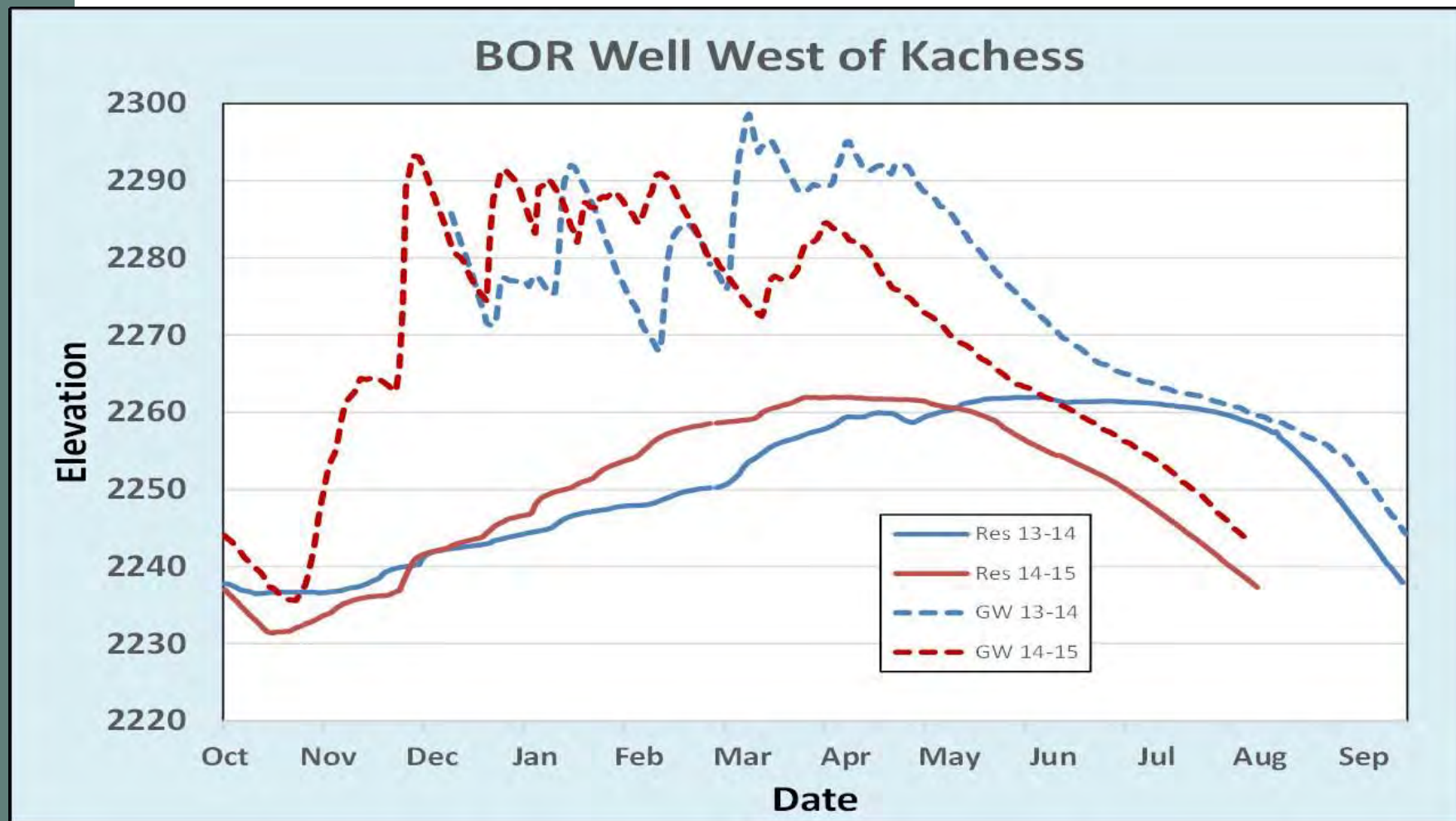
Status of Well Monitoring Near Kachess Reservoir



PRELIMINARY DATA



Comparison of 2013-2014 WY and 2014-2015 WY To Show Impacts of Drought on Wells



PRELIMINARY DATA

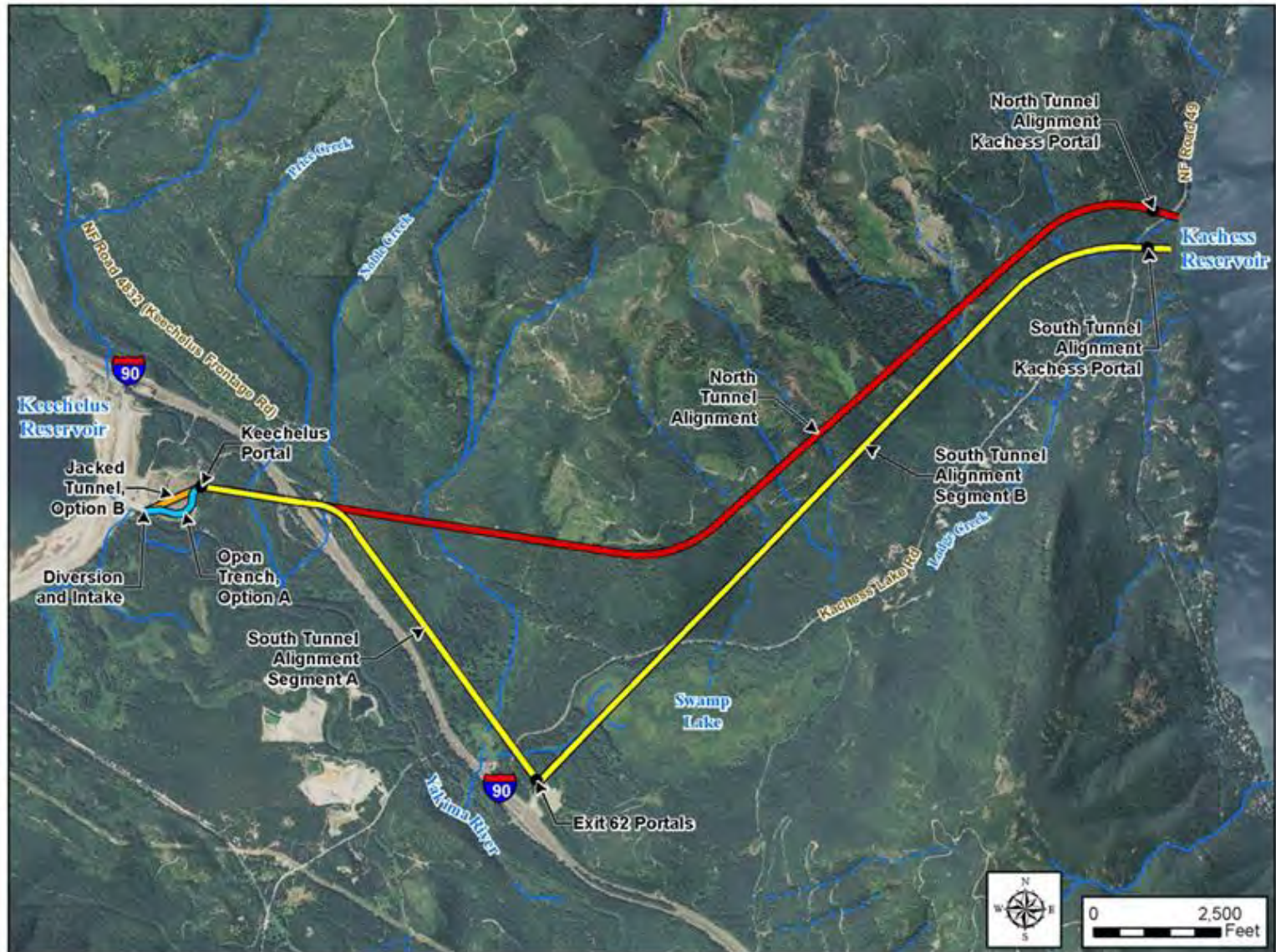


Keechelus-to-Kachess Conveyance



Keechelus-to-Kachess Conveyance

North Tunnel and South Tunnel Alternatives



Keechelus-to-Kachess Conveyance

- Draft EIS – responding to comments
 - Monitoring existing groundwater wells
 - Reviewing Property Values
 - WDFW analyses ongoing
- Drilling in progress



Bumping Dam and Reservoir Enlargement



Bumping Dam and Reservoir Enlargement



Bumping Dam and Reservoir Enlargement

- Geotechnical Data Collection
 - Coordination with USFW
 - Notices to public
 - Drilling in progress
 - Seismic evaluation ongoing



Lower Yakima River Basin Hydrologic Modeling



Lower Yakima River Basin Hydrologic Modeling - Completed

- Upgraded model to more accurately reflect diversions, return flows, seepage, and gains between Parker and Prosser
- Refined how water conservation efforts below Parker are defined (Sunnyside, Roza, and WIP)
- Refined water conservation scenarios for expected future projects in this area



Lower Yakima River Basin Hydrologic Modeling - Ongoing

- Run conservation scenarios and update outputs for Period of Record used previously (1927-2009)
- Run all YBIP scenarios (conservation and each storage project)
- Run all scenarios with climate change

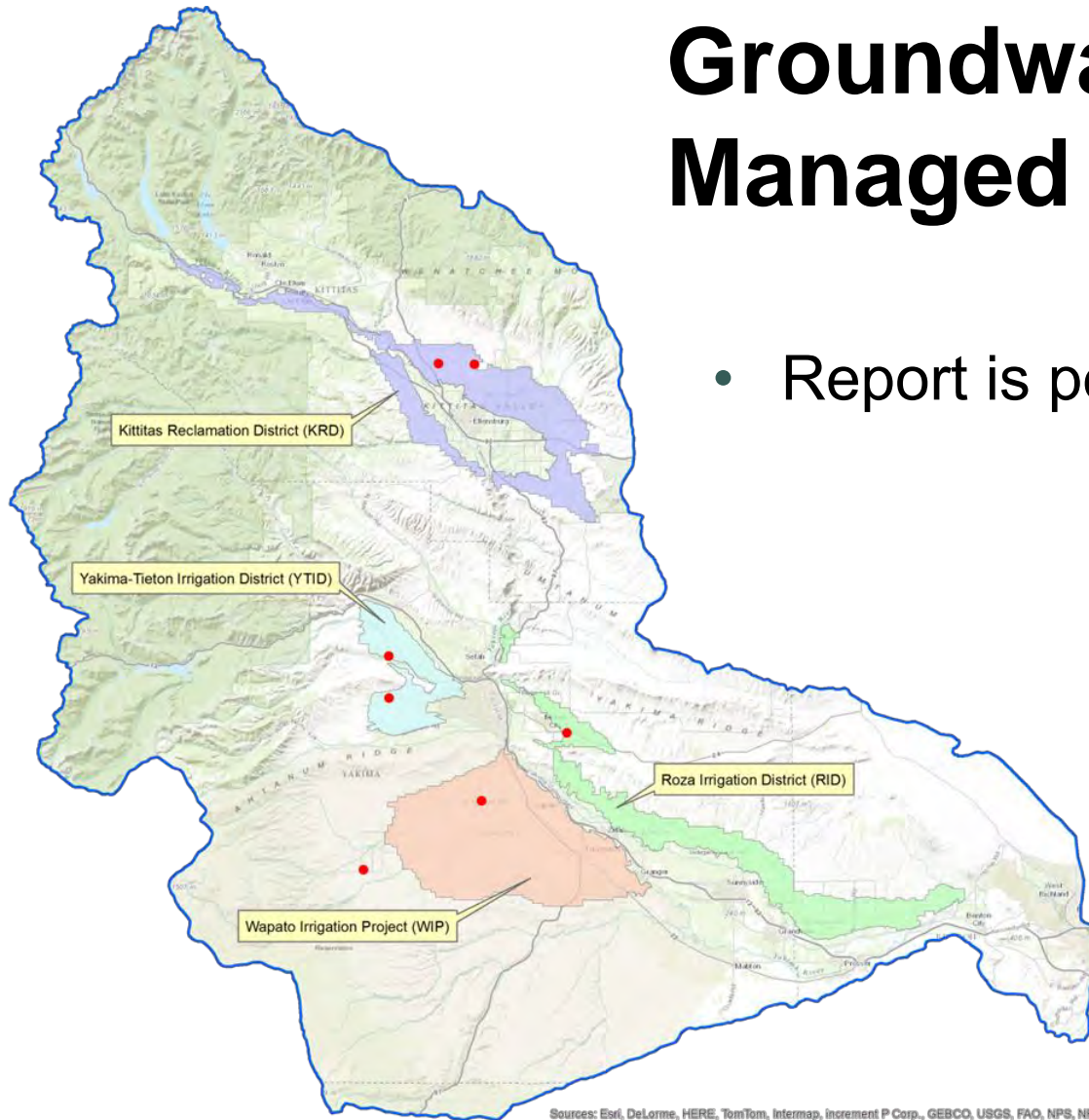


Groundwater Storage



Groundwater Managed Recharge

- Report is pending



Sources: Esri, DeLorme, HERE, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community



Teanaway Community Forest



Manastash Creek Conservation and Tributary Enhancement



Kittitas Reclamation District Stream Supplementation

- KRD's canal system crosses numerous streams throughout Kittitas County
- Recent agreements allow the KRD to augment streamflow during drought conditions -
agreement parties: KRD, Washington State Dept. of Ecology and the US Bureau of Reclamation; WDFW and Yakama Nation are also consulted
- Water can be delivered through irrigation season, roughly April-October, subject to canal being operational and streams benefiting from flow
- Actual stream flow managed by Ecology

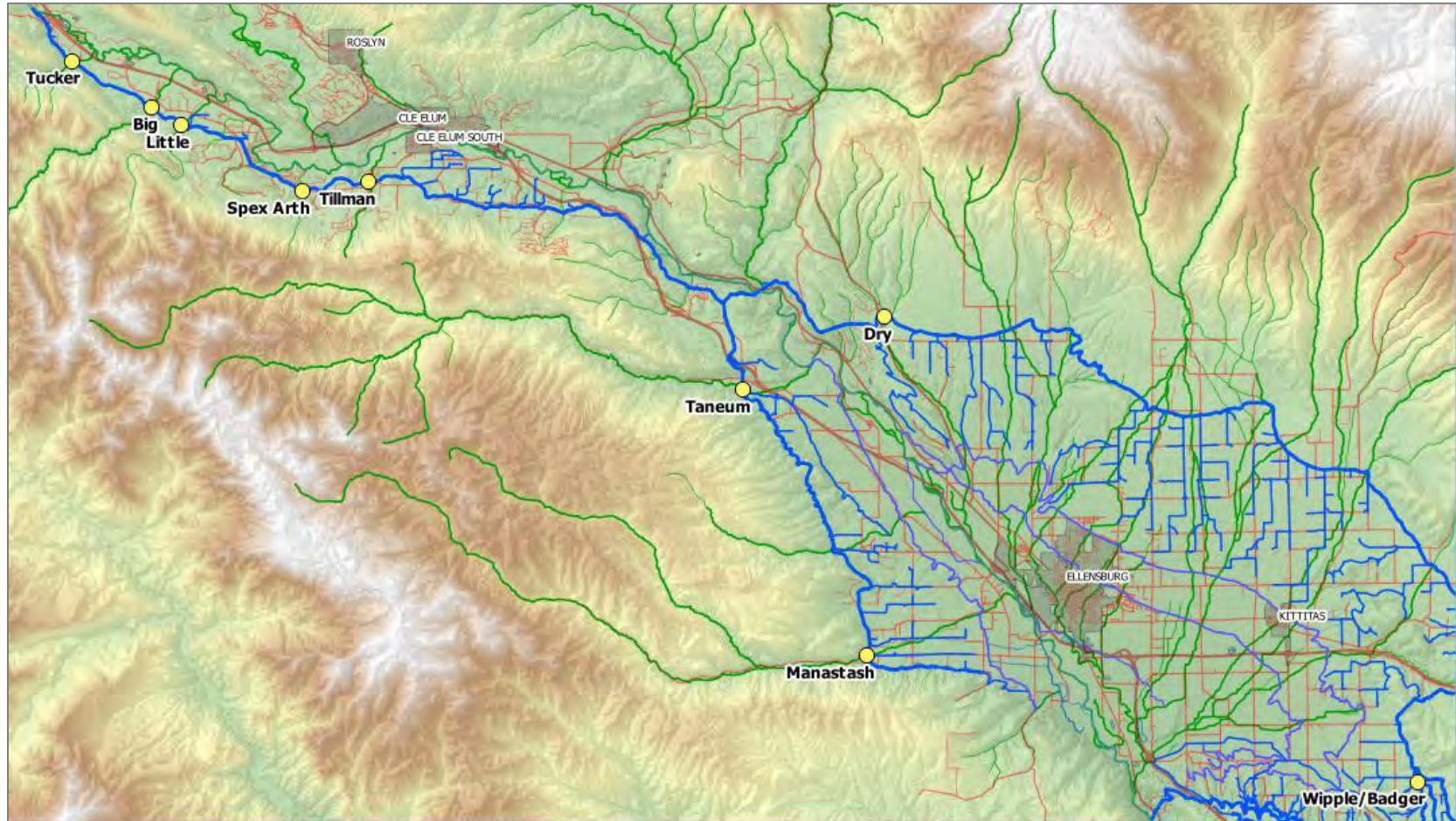


Kittitas Reclamation District Stream Supplementation

- Existing agreements have enhanced flow during past droughts for
 - Manastash Creek
 - Taneum Creek
 - Wipple/Badger
- As of 9-3-2015, six additional streams were added
 - Tucker Creek - 3 cfs
 - Big Creek – 11 cfs
 - Little Creek – 10 cfs
 - Spex Arth Creek - 3 cfs
 - Tillman Creek - 3 cfs
 - Dry Creek – 15 cfs



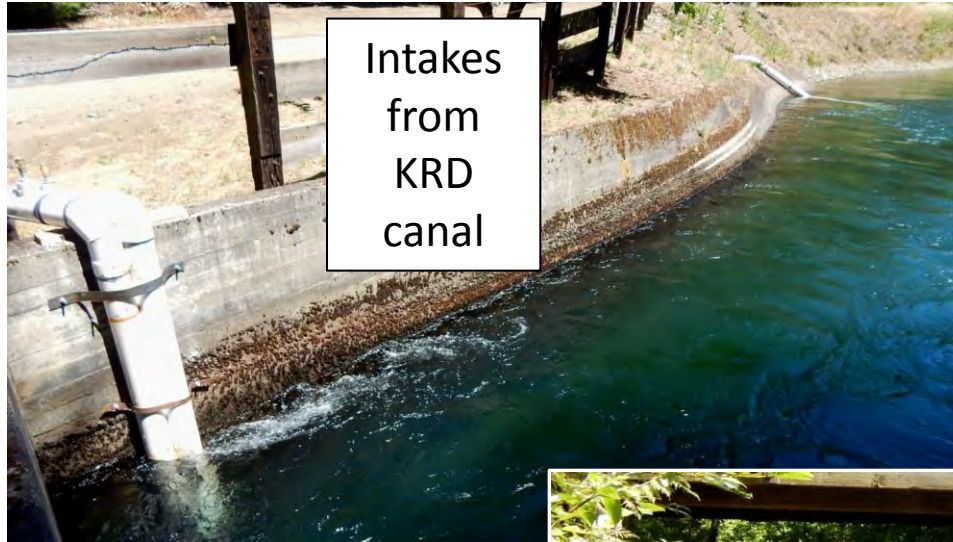
Kittitas Reclamation District Stream Supplementation



Nine tributaries currently supplemented by Yakima
Project water routed through the KRD (yellow dots)



Kittitas Reclamation District Stream Supplementation



Intakes
from
KRD
canal

Little
Creek



5 CFS
delivery
through
3 pipes



Kittitas Reclamation District Stream Supplementation

An additional 6
CFS through a
MB6.1 lateral
to Little Creek



Kittitas Reclamation District Stream Supplementation



Little Creek stranding pool on July 21, 2015 near John Wayne Trail, with 2.6 CFS inflow from KRD canal



Kittitas Reclamation District Stream Supplementation



Little Creek stranding pool on July 23, 2015 with
4.9 cfs from KRD flow augmentation



Kittitas Reclamation District Stream Supplementation



Little Creek stranding pool on July 25, 2015 with
9.2 cfs input from the KRD canal



Kittitas Reclamation District Stream Supplementation



Recharged reach
of Little Creek
near I-90



Kittitas Reclamation District Stream Supplementation



Big Creek Delivery at the Main Canal – 5 CFS
(Tom Iseman, Mark Limbaugh, and Urban Eberhart)



Kittitas Reclamation District Stream Supplementation



An additional 6 CFS to Big Creek through MB4.9 lateral and pipe



Kittitas Reclamation District Stream Supplementation



Tucker Creek Delivery – 3 CFS



Kittitas Reclamation District Stream Supplementation



Spex Arth Creek Delivery – 3 CFS



Kittitas Reclamation District Stream Supplementation



Tillman Creek Delivery – 3 CFS



Kittitas Reclamation District Stream Supplementation



Ecology blocks added to maintain supplementation
water at low canal flows



Kittitas Reclamation District Stream Supplementation



KRD delivery to Taneum Creek



Kittitas Reclamation District Stream Supplementation

Does the plan work?



Manastash Creek at Cove Road



Kittitas Reclamation District Stream Supplementation



Manastash Creek at Cove Road with 15 cfs of
water from KRD canal



Kittitas Reclamation District Stream Supplementation



Manastash Creek at SB13.8 bridge, 2.1 miles
downstream of supplementation



Kittitas Reclamation District Stream Supplementation



Current 42 cfs delivery to Manastash Creek through SB13.6 pipeline to MWDA diversion, and through South Branch spill



Kittitas Reclamation District Stream Supplementation



Dry Creek supplementation through siphon drains
and a lateral spill



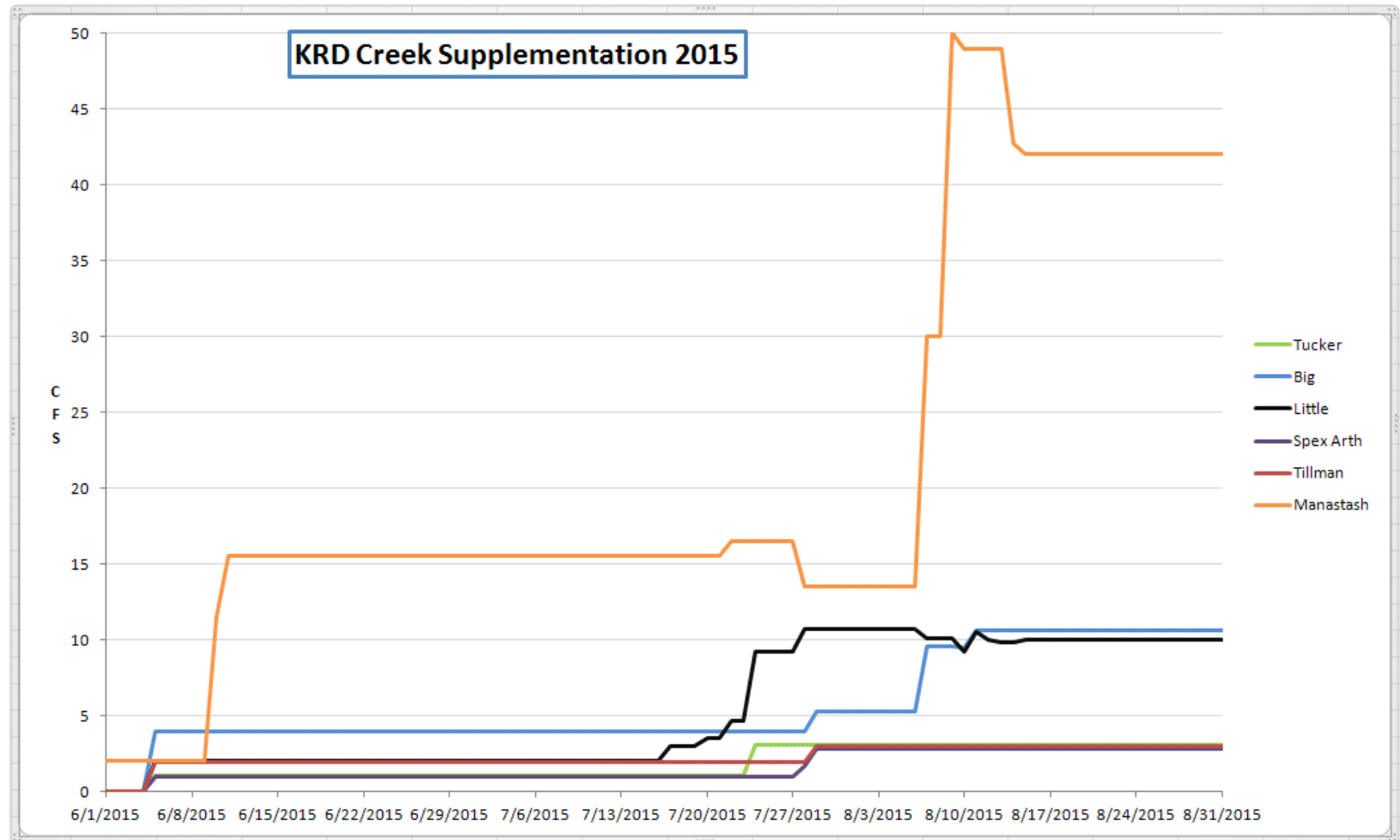
Kittitas Reclamation District Stream Supplementation



Dry Creek at Clarke Road



Kittitas Reclamation District Stream Supplementation



Flows delivered to the creeks changed over the summer as needs were identified, and natural flows dropped off





Washington State Chapter

180 Nickerson St, Ste 202

Seattle, WA 98109

Phone: (206) 378-0114

Fax: (206) 378-0034

TESTIMONY OF THE SIERRA CLUB
to the Energy and Natural Resources Committee
U.S. Senate
Washington, D.C.
On S. 1694

July 7, 2015

Madam Chair and Members of the Committee:

Thank you for the opportunity for the Sierra Club to provide comments on S. 1694. This bill concerns the Yakima River Basin Integrated Plan (Yakima Plan) in Washington State.

The Sierra Club has been involved with and provided comments to the Yakima Workgroup since the formation of the Yakima Workgroup in 2009. We are opposed to passage of S. 1694, as written. Specifically, our objections can be categorized into the following five areas with relevant concerns noted. We have also drafted recommended changes to the bill that address these concerns:

1. Yakima Plan and National Environmental Policy Act (NEPA) Final Programmatic Environmental Impact Statement

The bill defines the “Management Plan” as the plan described in the document entitled “Final Programmatic Environmental Impact Statement and Integrated Water Resource Management Plan, Yakima River Basin, Water Enhancement Project, Benton, Kittitas, Klickitat, and Yakima Counties, WA.” (2012 FPEIS). The bill should not reference or incorporate the 2012 FPEIS because the 2012 FPEIS did not include a range of alternatives as required by NEPA. *40 CFR Sec. 1502.14*. Instead the bill should reference the 2011 Workgroup Yakima Plan document.¹

1

<http://www.usbr.gov/pn/programs/yrbwep/2011integratedplan/plan/integratedplan.pdf>

<http://www.usbr.gov/pn/programs/yrbwep/2011integratedplan/2012meetings/201201-04/wtrlandssubfinal.pdf>

The Yakima Plan, as defined in the 2012 FPEIS, includes projects which are environmentally damaging and not cost effective such as a proposed new Bumping Lake Dam that would destroy ancient forest and endangered species habitat. The 2012 Plan also includes the proposed Wymer Dam that would flood sage grouse habitat and is also not cost effective.

It is requested that Congress require these projects be “cost effective measures” rather than “maximizing benefits.” In 2013, the Washington State Legislature was so skeptical of the 2012 Yakima Plan that they required an independent analysis of the benefits and costs by the Congressionally-established State of Washington Water Resource Center (WRC). The WRC’s benefit-cost analysis of the Yakima Integrated Plan Project, released in 2014, found that *“When implemented together as part of the IP, the major water storage projects as a group do not pass a B-C [benefit-cost] test.”* (http://swwrc.wsu.edu/documents/2014/12/ybip_bca_swwrc_dec2014.pdf)

We suggest these revisions to the bill which address the problems mentioned above:

1.1 Authorization of the full Yakima Plan:

Page 4 (8) Lines 13-18 state:

“(8) to authorize and implement the Yakima River Basin Integrated Water Resources Management Plan as Phase III of the Yakima River Basin Water Enhancement Project, in a balanced approach to maximize benefits to the communities and environment in the Basin.”

Amend to:

Page 4 (8) Lines 13-18:

“(8) to authorize projects listed in new Section 1214(a)(2)(A) that are cost effective to provide benefits to the communities and environment in the Basin.”

1.2 Adoption of a flawed NEPA 2012 FPEIS:

Page 5 (3) Lines 10-17 state:

“(8) Management Plan – The term ‘Management Plan’ means the plan described in the document entitled, ‘Final Programmatic Environmental Impact Statement and Integrated Water Resource Management Plan, Yakima River Basin, Water Enhancement Project, Benton, Kittitas, Klickitat, and Yakima Counties, WA’ (77 Fed. Reg. 12076 (February 28, 2012)).

Amend to:

Page 5 (3) Lines 10-17:

“(8) Management Plan – The term ‘Management Plan’ means the Yakima River Basin Study (Yakima Plan) (08CA10677A ID/IQ) (April 2011), as amended by the Watershed Land Conservation Proposal (January 2012).

1.3 Authorization of Phase III as part of the Yakima Plan:

Page 7 (3) Lines 3-16 state:

“(18) Yakima Enhancement Project, Yakima River Basin Water Enhancement Project – The Terms ‘Yakima Enhancement Project’ and Yakima River Basin Water Enhancement Project’ mean the Yakima River basin water enhancement project authorized by Congress pursuant to this Act and other Acts. . . .”

Amend to:

Page 7 (3) Lines 3-16:

“(18) Yakima Enhancement Project, Yakima River Basin Water Enhancement Project – The Terms ‘Yakima Enhancement Project’ and Yakima River Basin Water Enhancement Project’ mean the Yakima River Basin Water Enhancement Project authorized by Congress listed in new Section 1214(a)(2)(A) that are cost effective pursuant to this Act and other Acts. . .”

1.4 Implementation of the full Yakima Plan in its entirety:

Page 23 Sec. 1214(a)(1) Lines 21-23 state:

“(1) In General – It is the intent of Congress that the Management Plan shall be implemented in its entirety, in accordance with applicable laws.”

Strikeout:

Page 23 Sec. 1214(a)(1) Lines 21-23

~~*“(1) In General – It is the intent of Congress that the Management Plan shall be implemented in its entirety, in accordance with applicable laws.”*~~

2. New National Recreation Areas on National Forest lands

The process used to include National Recreation Areas (NRAs) called out in the 2012 FPEIS was deeply flawed. The Yakima Workgroup added a new proposal for two NRAs within the Okanogan-Wenatchee National Forest after the close of the public period on the Draft Programmatic Environmental Impact Statement (DPEIS). As proposed, the Yakima NRAs are highly deficient because 41,000 acres are dedicated damaging off-road vehicle (ORV) per the FPEIS. Additionally, an NRA boundary included in the FPEIS overlays part of the existing Alpine Lakes Wilderness.

Because this element of the Yakima Plan was adopted after the close of public comment period of the DPEIS, we request this element be deleted from the Yakima Plan.

Decisions on establishing new NRAs in the Okanogan-Wenatchee National Forest are best made after the Okanogan-Wenatchee National Forest completes its forest planning processes. These processes are now in work.

We suggest this bill revision to address the problems mentioned above:

2.1 Delete the Okanogan-Wenatchee National Forest NRAs from the Yakima Plan:

Add a new (E) on Page 27, after line 8:

“The Yakima Plan’s designations for new National Recreation Areas (NRAs) within the Okanogan-Wenatchee National Forest with 41,000 acres of dedicated off-road vehicle use shall be deleted from the Yakima Plan. Any new NRA proposals shall be evaluated as part of the Okanogan-Wenatchee National Forest Plan revision process and Travel Management process.”

3. Federal Advisory Committee Act and Public Participation

The Bureau of Reclamation (Bureau) has skirted the Federal Advisory Committee Act (FACA) by establishing the Yakima Workgroup as an advisory group without a FACA charter and now asks Congress to continue to insulate the Yakima Workgroup from FACA. In the interests of good open government, as well as facilitating communication with Yakima Valley residents, we believe the Workgroup and all subcommittees of the Workgroup should be subject to FACA. In addition, the Secretary should not be able to add any projects to the Intermediate and Final Development Phases without public participation and comment.

We suggest these bill revisions to address the problems mentioned above:

3.1 FACA

Page 6 (4) Lines 23-24 state the Workgroup:

“(C) is not subject to the Federal Advisory Committee Act (5 U.S.C. App.)”;

Amend to:

Page 6 (4) Lines 23-24 state the Workgroup:

“(C) is subject to the Federal Advisory Committee Act (5 U.S.C. App.)”;

3.2 Intermediate and Final Phases

Page 26 (3), lines 8-16 state:

“(A) In general. – During the Intermediate and Final Development Phases of the Management Plan, any project that is determined by the Secretary, in consultation with the State of Washington and Work Group, to be appropriate to meet the obligations of the Management Plan shall be designed and constructed, subject to authorization and appropriation.”

Amend to:

Page 26 (3), lines 8-16:

“(A) In general. - Any project proposed by the Yakima Workgroup for Federal funding beyond the Initial Development Phase shall be subject to a 90-day public comment prior to a review by the Bureau. No additional project beyond the Initial Development Phase shall be authorized or funds appropriated, without National Environmental Policy Act compliance.”

4. Kachess Drought Relief Pumping Plant Project and Keechelus to Kachess Conveyance Project

The Bureau is asking this Committee to authorize the Secretary to negotiate long-term agreements with participating proratable irrigation entities for the non-Federal financing, construction, operation, and maintenance of the Kachess Drought Relief Pumping Plant Project and Keechelus to Kachess Conveyance Projects. However, these sections do not prohibit continued Federal funding of design or feasibility studies of these projects. In addition, the Bureau has not completed reviewing comments on the Draft Environmental Impact Statement for the Kachess Drought Relief Pumping Plant or Keechelus to Kachess Conveyance projects or issued a Final Environmental Impact Statement.

We suggest this bill revision to address the problems mentioned above:

4.1 Proratable irrigation entities

Amend to:

Add a New (C) on page 26, beginning Line 8 as follows:

“(C) Other than NEPA compliance, no Federal funds shall be spent on the design or feasibility studies of inactive storage in Lake Kachess and a conveyance system to allow transfer of water between Lake Keechelus to Lake Kachess as set out in Sec. 2014 (a)(2)(A) (ii)(I) and (II). If non-Federal financing, construction, operation, and maintenance of these projects are carried out, the participating proratable irrigation entities in the Yakima Basin shall reimburse the Federal government for all Federal planning and study funds expended on these projects. Nothing in this Act shall circumvent the National Environmental Policy Act.”

5. Yakima Plan Discretion

S. 1694 contains sections with ambiguous language and discretion. For example, Sec. 1213 authorizes the Secretary to make grants to irrigation districts to carry out this title. Section 1215 appears to reinforce a long-term bias of putting water supply for other purposes rather than benefiting fish. Since the purpose of the Yakima Plan is to benefit both fish and downstream uses, this section is a step back from that approach.

We suggest these bill revisions to address the problems mentioned above:

5.1 Phase III Grants

Page 22 Sec. 1213 Lines 15-21 state:

“The Secretary may make grants or enter into cooperative agreements with the Yakama Nation, the State of Washington, Yakima River basin irrigation districts, water districts, conservation districts, other local governmental entities, nonprofit organizations, and land owners to carry out this title under such terms and conditions as the Secretary may require including the following purposes:

Amend to:

Page 22 Sec. 1213 Lines 15-21:

“The Secretary may make grants or enter into cooperative agreements with the Yakama Nation, the State of Washington, Yakima River basin irrigation districts, water districts, conservation districts, other local governmental entities, nonprofit organizations, and land owners under such terms and conditions as the Secretary may require for the following purposes:”

5.2 Feasibility Contingency

Page 27 (D), lines 3-5 state:

“(D) Feasibility contingency – The Intermediate and Final Development Phases of the Management Plan shall be contingent on feasibility, as determined by the Secretary, in consultation with the Workgroup and in compliance with applicable laws.”

Amend to:

Page 27(D), lines 3-5:

“(D) Feasibility contingency – The Intermediate and Final Development Phases of the Management Plan shall be contingent on feasibility, cost-effectiveness, and a positive benefit-cost ratio.”

5.3 Operational Control of Water Supplies

Page 36, lines 19 -24 and page 37, lines 1-2 state:

“Section 1215. Operational Control of Water Supplies

The Secretary shall retain authority and discretion over the management of project supplies to obtain maximum operational use and flexibility to meet all appropriated and adjudicated water rights. That authority and discretion includes the ability of the United States to store, deliver, conserve and reuse water supplies deriving from projects authorized under this title.”

Strikeout:

Page 36, lines 19-24 and page 37, lines 1-2:

~~“Section 1215. Operational Control of Water Supplies~~

~~The Secretary shall retain authority and discretion over the management of project supplies to obtain maximum operational use and flexibility to meet all appropriated and adjudicated water rights. That authority and discretion includes the ability of the United States to store, deliver, conserve and reuse water supplies deriving from projects authorized under this title.”~~

Summary

In conclusion, the Sierra Club remains concerned that:

- S. 1694 sets out the intent of Congress “that the Management Plan shall be implemented in its entirety”;
- That it seeks to create NRAs that were added after closure of the public comment period with a boundary that overlays part of existing Alpine Lake Wilderness;
- That it exempts the Yakima Workgroup from the Federal Advisory Committee Act;
- That it accepts a flawed 2012 Yakima Plan Final Programmatic EIS that failed to consider a range of alternatives;
- That it seeks to proceed with the Kachess Drought Relief Pumping Plant and Keechelus-to-Kachess Conveyance projects prior to a final EIS;
- And that has not incorporated benefit-cost analysis that would protect the Federal taxpayer.

The Sierra Club has provided comments to the Yakima Workgroup since its formation in 2009 and has a lengthy record of correspondence with the Workgroup, the Bureau of Reclamation, and various elected officials concerning this project. A listing of this correspondence can be found in Appendix A.

We also request that the attached Sierra Club’s letters to Senator Murray, dated May 26, 2014, and April 27, 2015, be included in the hearing record.

Thank you for the opportunity to provide these comments.

Signed:



Margie Van Cleve
Washington State Chapter Chair
Sierra Club

APPENDIX A - Sierra Club Statements to the Yakima Workgroup and comments on the DPEIS:

- Comments of the Sierra Club, January 15, 2009, on the *Yakima River Basin Integrated Water Resource Management Alternative Supplemental Draft Environmental Impact Statement* reasserting its support of water conservation measures and opposition to new storage projects. We requested that conservation measures should be implemented before there is any further study or action on new water storage projects. In the face of climate change, aggressive water conservation, adoption of water efficiency standards and metering, water markets, low-impact storage projects (e.g., aquifer storage and recovery), forest and flood-plain restoration, and other strategies to promote natural storage are much more cost-effective than new dams, and could vastly improve the efficiency of water use in Washington State.
- Statement of the Sierra Club on the Yakima River Basin Water Enhancement Project 2009 Work Group – July 15, 2009, in which the Sierra Club raised concerns that the membership established by the Bureau and Ecology does not meet basic requirements for public participation and that nothing to date has demonstrated that additional dams in the Yakima River Basin are either-cost-effective or environmentally acceptable.
- Statement of the Sierra Club on the Yakima River Basin Water Enhancement Project 2009 Work Group – Discussion Draft Integrated Package, November 9, 2009, in which the Sierra Club reaffirms its opposition to an expanded Bumping Lake Dam and support of water conservation measures.
- Statement of the Sierra Club to the Yakima River Basin Water Enhancement Project Work Group – July 28, 2010, in which the Sierra Club supports conserving land in the Teanaway River watershed, but not as mitigation for an expanded Bumping Lake Dam or Wymer Dam.
- Comments of the Sierra Club on the Workgroup Agreement to Support Final Integrated Water Resource Management Plan, December 17, 2010, in which the Sierra Club raised specific concerns about the “Integrated Plan” and the Workgroup planning process.

May 26, 2014

The Honorable Patty Murray
United States Senate
Washington, D.C.

RE: **Yakima Plan – fish passage funding**

Dear Senator Murray:

As you consider suggestions for federal contributions for the Yakima Basin, we want to provide you with our perspective on this complex set of issues as well as our strong support for funding fish passage while amending the troubling elements of the controversial Yakima Basin Integrated Plan (YBIP). The Yakima Basin is a huge and complex ecosystem. It has high natural values –forest, wildlife, rivers, sagebrush, mountains and canyons. The Yakima Basin also boasts a very productive agriculture economy, huge potential for salmon recovery, the rich traditions of the Yakama Nation, and opportunities for many forms of recreation as potential economic development. We believe that affordable solutions exist for meeting demands for water —both for fish and farmers—in the Yakima Basin that would respect the ecosystems, communities, and economic engines of the region and move to a more sustainable irrigation model.

Sierra Club supports fish passage in line with the Yakama Nation’s vision of restoring the great salmon runs of central Washington. The Bureau of Reclamation dams in the Yakima Basin have blocked fish passage since their construction in the early 1900s. We ask that you fund the completion of the Cle Elum fish passage along with moving towards fish passage at Keechelus and/or above the Tieton/Rimrock over the next decade. Returning salmon and steelhead runs to the Tieton River would be a huge ecological step for the entire region. Of course all fish passage construction should be shown to have a very high likelihood of fish passage effectiveness through the pre-construction planning process.

As you know, we are strongly opposed to any Bumping Lake enlargement. The destruction of 2,000 acres of native forest, including spectacular groves of ancient forest and critical habitat for northern spotted owls and bull trout, is an unmitigatable impact for the region. The Bumping Lake forest is a rare treasure on the east slopes of the Cascades and the groves of giant Douglas firs are marvelous destinations for the many hikers along the lakeside trail. Sierra Club has proposed that the existing National Forest roadless area around Bumping Lake be added to the adjacent William O. Douglas Wilderness.

Fish need water; we support the Yakama Nation in their goal to restore the salmon runs, and adequate in-stream flows are essential to achieve salmon recovery. We believe that an expanded emphasis on water conservation will be a huge boon to the Yakama Nation’s salmon efforts and should be highlighted as a major component of any early action plan. We want to help farmers and orchardists in achieving the highest level of conservation possible. We recommend an additional \$85 million for water conservation and education within the first 10 year phase of Federal funding for the YBIP. The calculation for water conservation under the integrated plan should be additional water conservation above the funding included in the current YRBWEP to secure 10 million acre-feet of conserved water per year over the next decade. Water conservation “hard” targets and timelines should be adopted in the Yakima River Basin to ensure improved water efficiencies. Currently, the Yakima Basin lacks hard targets for mandatory municipal and irrigation water conservation. Conservation and other demand-supply strategies should be pursued before turning to costly and environmentally destructive

water projects, including new dams. The Yakima Valley's irrigation of urban green lawns during August does not indicate a responsible sharing of water conservation

We believe that in the face of climate change, we need strategies such as aggressive water conservation, adoption of water efficiency standards and metering, water markets, low-impact storage projects (e.g., aquifer storage and recovery), forest and flood-plain restoration, and other strategies to promote natural storage. These strategies are much more cost-effective than new dams, and could vastly improve the efficiency of water use in Washington State. The historic, massive hydrologic re-engineering of Washington's rivers using dams and irrigation projects has caused historic environmental damage. We strongly urge decision-makers to focus on future water projects that fix existing problems, not cause new ones.

We support inclusion of several rivers within the Yakima Basin in the National Wild & Scenic Rivers System. Among these are the Cle Elum River and its major tributaries the Wapatus and Cooper Rivers. Also the three forks of the Teanaway within the National Forest should be included. We also believe a study of the segments of these rivers in the new Teanaway Community Forest would demonstrate their eligibility for protection under the national system.

The Bureau of Reclamation and Department of Ecology are also preparing environmental impact statements and State Legislation-mandated cost-benefit analyses on three projects: Kachess inactive storage, Keechelus-to-Kachess Pipeline, and the Cle Elum Pool Raise. We strongly urge that Congress wait until the conclusion of the NEPA process and state-mandated cost-benefit analysis in order to determine if these projects have merit and include a strong water user cost-share, avoid impacts to bull trout, and focus on normalizing flows in the upper Yakima River. Additional surface water storage via Wymer Dam (on Lmuma Creek) or Bumping Dam enlargement is neither prudent nor necessary: the proposed dams are incredibly expensive, there is continuing skepticism about their ability to refill in consecutive drought years, and they generate substantial adverse impacts to the native ecosystems and endangered species habitat.

In the headwaters of the Teanaway and Cle Elum Rivers are National Forest roadless areas that not only provide the best source of clean, cold water, but security habitat for wary wildlife with magnificent forests and meadows to roam. In 2000, you recognized these values for the Cle Elum and Keechelus headwaters, by including the Alpine Lakes Wilderness Study Area (WSA) as part of the Plum Creek land exchange bill. The U.S. Forest Service (USFS) recommended 11,000 acres for Wilderness during that study. As part of the Forest Plan revision, USFS recommended an additional 10,000 acres in their proposed action two years ago. We believe there are another 50,000 acres in the Teanaway that deserve and need Wilderness protection. That proposal has been sent to USFS, and they will incorporate it in one of the alternatives in the Forest Plan Draft EIS due out in Summer 2014. We hope to see these Wilderness additions become a reality someday, but in the interim, this plan should do nothing to make these roadless lands unsuitable for Wilderness or frustrate efforts to achieve that protection. The National Recreation Area proposed by the YBIP report would emphasize motorized off-road recreation for these National Forest wildlands, in total opposition to the Wilderness proposals that Sierra Club and others have supported for over 40 years. The proposal for NRAs promoting off-road vehicles has been temporarily deferred during the National Forest Plan Revision process, but it remains a troubling component of the Yakima Plan, opposed by dozens of local, state, regional and national environmental and conservation organizations.

Land acquisition and conservation is also a key element of the plan. We fully support the acquisition of lands in the Little Naches watershed, along Manastash Ridge, and around I-90 west of Easton. We recommend an additional \$75 million for watershed protection and restoration within this phase of Federal funding for the YBIP.

As noted above, protection of the watershed through the preservation of forests and natural sagebrush, rather than the proliferation of exurban sprawl and ranchette development, is a critical component of YBIP and one we strongly support. The state's recent acquisition of the lower Teanaway valley was a great conservation accomplishment. A planning process through the state Department of Natural Resources and state Department of Fish & Wildlife, the two agencies given co-management responsibility, is underway to determine how logging and grazing can co-exist with recreation.

In closing, Sierra Club does support funding for fish passage to help restore salmon to the Yakima River Basin. However, we do not support the overall Yakima Plan as proposed, and we remain opposed to funding for expansion of Bumping Lake and Wymer dams. The public is awaiting results of a cost-benefit study of these two storage projects, mandated by 2013 state legislation. The public and decision-makers deserve to know the full economic and environmental consequences of funding these types of storage projects.

Thank you for your commitment and hard work on behalf of our environment. We would welcome an opportunity to discuss the Yakima Basin plan further with you.

Sincerely,



Margie Van Cleve
Washington State Chapter Chair
Sierra Club

April 27, 2015

The Honorable Patty Murray
United States Senate
Washington, D.C. 20510

RE: Yakima Plan – Federal Funding Concerns

Dear Senator Murray:

Thank you very much for your efforts in Congress to add 22,000 acres to the Alpine Lakes Wilderness in the Snoqualmie watershed, as well as Wild and Scenic River designations for the Middle Fork Snoqualmie and Pratt Rivers.

On May 26, 2014, Sierra Club sent you a letter (attached) conveying our support for federal fish passage and water conservation funding in the Yakima River Basin. We noted that, “We believe that affordable solutions exist for meeting demands for water —both for fish and farmers—in the Yakima Basin that would respect the ecosystems, communities, and economic engines of the region and move to a more sustainable irrigation model.” Sierra Club supports funding for fish passage to help restore salmon to the Yakima River Basin. However, we do not support the current Yakima Plan, particularly because it funds the destruction of ESA critical habitat for Northern spotted owls and bull trout through expansion of Bumping Lake as well as destruction of important sage-grouse habitat through construction of Wymer Dam. The Water Research Center (WRC) report required by the State Legislature now confirms that a new Bumping Lake dam would return only 18 cents for every dollar spent, and the proposed Wymer dam would return only 9 cents for every dollar spent.

WRC Report, pages iii and iv.

http://swwrc.wsu.edu/documents/2014/12/ybip_bca_swwrc_dec2014.pdf


We are currently reviewing the DEIS for the Keechelus-Kachess portion of the Yakima Plan. Initially we have our concerns: according to the DEIS, “Bull trout will be adversely affected [in Keechelus tributaries] for approximately 115 days in 81 percent of years.” The DEIS also acknowledges that bull trout passage between Box Canyon Creek and Kachess Reservoir will be impeded due to habitat destruction (reduction of water flow) with resultant decline in population. We are concerned about loss of bull trout, which are protected by the Endangered Species Act. Additionally, the cost-benefit ratio for this portion of the plan is similarly low and given the potential environmental issues, causes us to further question whether this is appropriate stewardship of the public’s resources.

Sierra Club continues to support fish passage in line with the Yakama Nation’s vision of restoring the great salmon runs of central Washington. We continue to ask that you fund the completion of the Cle Elum fish passage along with moving towards fish passage at Keechelus and/or above the Tieton/Rimrock over the next decade. We request that you support inclusion of several rivers within the Yakima Basin in the National Wild & Scenic Rivers System. Among these are the Cle Elum River and its major tributaries the Waptus and Cooper Rivers. Also, the three forks of the Teanaway within the National Forest should be included.

We want to help farmers and orchardists in achieving the highest level of conservation possible. We recommend an additional \$85 million for water conservation and efficiencies within the first 10-year phase of Federal funding for the Yakima Plan. The calculation for water conservation under the integrated plan should be additional water conservation above the funding included in the current Yakima Plan to secure 10 million acre-feet of conserved water per year over the next decade. Water conservation “hard” targets and timelines should be adopted in the Yakima River Basin to ensure improved water efficiencies. Conservation and other demand-supply strategies should be pursued before turning to costly and environmentally destructive water projects such as new or expanded dams.

Thank you for your commitment and hard work on behalf of our environment. We would welcome an opportunity to discuss the Yakima Basin plan further with your office.

Sincerely,



Margie Van Cleve
Washington State Chapter Chair
Sierra Club

Contact: Wendy Christensen, 509-575-5848, ext. 203 or Tom Tebb, 509-575-3989

Agenda

Yakima River Basin Water Enhancement Project Workgroup

December 16, 2015, 9:30 AM to 12:30 PM at Yakima Arboretum, 1401 Arboretum Dr., Yakima WA

Time

- | | |
|---------------|--|
| 9:30 – 9:35 | Welcome/Introductions and Agenda Overview
<i>Andrew Graham, HDR</i> |
| 9:35 – 9:50 | Implementation Committee Update
<i>Tom Tebb, Ecology and Committee Members</i> |
| 9:50 – 10:10 | Kachess Emergency Temporary Floating Pumping Plant Proposal
<i>Scott Revell, Roza Irrigation District</i> |
| 10:10 – 10:20 | KKC/KDRPP Projects Next Steps
<i>Wendy Christensen, Reclamation</i> |
| 10:20 – 10:40 | Bull Trout Enhancement Update
<i>Walt Larrick, Reclamation and Others</i> |
| 10:40 – 11:00 | Break |
| 11:00 – 11:35 | Executive Committee, Subcommittees and Subgroups Updates
<i>Wendy Christensen, Reclamation and Chairs</i> |
| 11:35 – 12:05 | KID Operations and Drought Impacts
<i>Seth Defoe and Jason McShane, Kennewick Irrigation District</i> |
| 12:05 – 12:15 | Public Comment |
| 12:15 – 12:30 | Workgroup – Roundtable Discussion
<i>Andrew Graham, HDR</i> |

Adjourn

2016 Meetings – March TBD, June 8, September 14, December 14, 9:30 AM at the Yakima Arboretum

**For additional information, see the reports and documents available at this link:
<http://www.usbr.gov/pn/programs/yrbwep/2011integratedplan/index.html>**

***Contact: Wendy Christensen, Columbia-Cascades Area Office, (509) 575-5848, ext. 203
Tom Tebb, Washington State Department of Ecology, (509) 575-3989**

Meeting Notes

Yakima River Basin Water Enhancement Project (YRBWEP) Workgroup

December 16, 2015

Yakima Arboretum, Yakima WA

Welcome, Introductions and Agenda Overview

Andrew Graham, HDR meeting facilitator, welcomed the Yakima River Basin Water Enhancement Project (YRBWEP) Workgroup members and other attendees, led introductions, and provided an overview of the agenda. These notes summarize highlights from the presentations, Workgroup comments, and public comments. For more detail, please see the full presentations which are available on the project website: <http://www.usbr.gov/pn/programs/yrbwep/2011integratedplan/index.html>

Implementation Committee (IC) Update

Tom Tebb, Washington State Department of Ecology (Ecology), provided an update on the IC. The IC traveled to Washington DC November 9-10 to meet with the DC Leadership Team, Senator Cantwell, Senator Murray, Congressman Newhouse's staff, and the U.S. Senate Energy and Natural Resources Committee, among others. In November, the Senate Energy and Natural Resources Committee unanimously passed Senate Bill 1694 (S1694). S1694 builds on existing legislation and authorizes the Yakima River Basin Integrated Water Resources Management Plan (Integrated Plan) as Phase III of the YRBWEP. Congressmen Newhouse and Reichert are considering introducing a companion bill to the U.S. House of Representatives in 2016.

The Washington State Legislature passed the State Biennium Budget on June 30, 2015. The budget includes approximately \$30 million for Integrated Plan projects. Ecology and the Washington State Department of Fish and Wildlife (WDFW) are working to allocate these funds to individual projects. The Water Use and Habitat subcommittees are providing updated input on water conservation and habitat projects that would receive a portion of the funding.

Roza Irrigation District's Kachess Emergency Temporary Floating Pumping Plant Proposal

Scott Revell, Roza Irrigation District (Roza), provided a summary of the Kachess Emergency Temporary Floating Pumping Plant (KETFP) proposal. In 2015, Roza received approximately 47 percent of their proratable water supply. Roza has an aggressive water conservation program; approximately 34,000 acre-feet of water is conserved annually because of system improvements. It is one of the most optimized irrigation districts in the western states after investing more than \$100 million in conservation that was paid by their growers. During the summer of 2015, Roza temporarily shut



U.S. Department of the Interior
Bureau of Reclamation



down diversions to their canal to use the water later in the season. During the shutdown, Roza repaired expansion joints in their main canal to reduce water loss. In addition, Roza has an ongoing program to replace the concrete floor of the canal where seepage can occur. Due to the 2015 drought, some of Roza's peach and apple orchards had to be destroyed and some annual crops were fallowed, which tends to create weed problems affecting those and other surrounding fields. To avoid another year of severe water shortage if the drought persists into 2016, Roza's Board of Directors voted in October 2015 to pursue the KETFPP project.

The KETFPP was designed to provide Roza with an additional 50,000 acre-feet of water from the Kachess Reservoir inactive storage, adding approximately 13.3 percent to Roza's water supply in 2016. Between October and December, Roza advanced the project design and evaluated project costs and environmental impacts. During this time, Roza had many productive meetings with the Bureau of Reclamation, the WDFW, and the U.S. Fish and Wildlife Service (Service). In October, Roza met with the Kachess Homeowners and toured the homeowner's wells and properties.

In early December, Reclamation hosted three public meetings to receive stakeholders' scoping comments on the proposed project. On December 15, Roza's Board of Directors decided to stop the project because of cost, a more positive outlook for the 2016 snowpack, and other considerations. Wendy Christensen, Reclamation's Technical Projects Manager, said that since the KETFPP will not be moving forward, public scoping comments do not need to be submitted. Reclamation is drafting a press release with more information for the public.

Although Roza will not be advancing the KETFPP at this time, Scott noted that a lot of good information has been collected that can contribute to the proposed Kachess Drought Relief Pumping Plant (KDRPP) project. Roza's farmers generally support a permanent pumping plant alternative. Roza plans to take actions to prepare for drought conditions in 2016 by leasing water and expanding pump back systems. Scott expressed gratitude to all of the agencies involved in the development of the KETFPP for their support and efforts over the past few months.

Next Steps on the Kachess Drought Relief Pumping Plant and the Keechelus-to-Kachess Conveyance

Kachess Drought Relief Pumping Plant

Wendy Christensen, Reclamation, provided an update on KDRPP. Reclamation and Ecology released the *Draft Environmental Impact Statement* (Draft EIS) for the KDRPP and Keechelus-to-Kachess Conveyance (KKC) in January 2015. Roza's evaluation of the KETFPP has contributed to the understanding of how the KDRPP could be constructed and operated. Reclamation and Ecology decided to prepare a Supplemental Draft EIS that would add a permanent floating pumping plant alternative (at the request of the Yakima River basin irrigation districts) in addition to the East Shore Pumping Plant and South Pumping Plant Alternatives currently in the Draft EIS. The existing shore-based alternatives would be more expensive than the floating pumping plant alternative, since the shore-based alternatives require construction of a pumping shaft, surge tank, building, and tunnel. The new floating pumping plant alternative include three capacity options: 100,000, 150,000, and 200,000 acre-

feet options. The 200,000 acre-feet alternative would result in Kachess Reservoir having up to 14 percent less water surface area than the existing minimum pool.

In response to comments on the Draft EIS, Reclamation is monitoring existing groundwater wells, assessing property values, evaluating Bull Trout passage, and conducting a geologic survey of the Narrows (the reach the forms between the upper and lower reservoirs when the Kachess Reservoir is drawn down below elevation 2,220). The comments will be addressed in the Supplemental Draft EIS. Reclamation recently completed seismic refraction surveys along the Narrows to locate bedrock. Reclamation is working with the Yakama Nation to conduct cultural surveys of the area affected by the KDRPP. Wendy Christensen noted that the Supplemental Draft EIS can build on the design work, Endangered Species Act consultation, and other information developed for the KETFP. This information will be used to refine and improve the alternative in the Supplemental Draft EIS. Reclamation and Ecology plan to release the Supplemental Draft EIS for public comment in 2016. The comments collected will be considered and addressed in Final EIS.

Keechelus-to-Kachess Conveyance

Wendy Christensen provided an update on the KKC. When the Workgroup originally conceptualized the KKC, it was assumed that the KKC would create more storage and improve stream habitat in the Keechelus Reach of the upper Yakima River. Preliminary hydrologic modeling results indicate that (1) the KKC would provide only about 15,000 acre-feet of additional storage on average per year, and (2) the improved fish access to the Keechelus Reach may not be ideal under the proposed operational program given the challenges of fish using the passage at Lake Easton at certain times of year. Results also suggested that the KKC would improve operational flexibility and, if the KDRPP were constructed, would shorten the time required to refill Kachess Reservoir. The Draft EIS provides a detailed summary of the modeling results. Reclamation and Ecology have been working through the comments received on the Draft EIS and will use all available information to complete the analysis.

Bull Trout Enhancement Update

Walt Larrick, Reclamation, provided an update on the Bull Trout Enhancement (BTE) program. Bull Trout populations in the Yakima River basin are listed as threatened under the Endangered Species Act. Walt Larrick noted that the bull trout population in Yakima River has declined this year. Reclamation and Ecology coordinated with the Service, the U.S. Forest Service (USFS), Yakama Nation, WDFW, and National Marine Fisheries Service to formulate the BTE program. The BTE program is part of all action alternatives in the KDRPP and KKC Supplemental Draft EIS. The BTE program improves conditions; therefore, mitigation for the KDRPP and KKC would be in addition to the BTE program. The BTE program includes fish passage restoration in Gold Creek and Cold Creek, as well as nutrient, habitat quality, and other assessments.

Other Bull Trout projects include fish passage at Clear Creek Dam. Fish passage was originally constructed at Clear Creek Dam in 1993, but it is too steep for fish to access. The Service has been studying the access issues at that location. Jeff Thomas of the Service plans to issue an assessment report in the spring of 2016. In 2016, the Bull Trout Working Group and Habitat Subcommittee will be

evaluating different BTE projects. Where applicable, the Working Group and Subcommittee are looking at fish transport systems such as the Whooshh InnovationsTM transport tube.

Reclamation is currently drafting the Kachess Reservoir Bull Trout Passage Appraisal Report which summarizes passage considerations at Kachess Reservoir. Currently, Box Canyon Creek, a tributary to upper Kachess Reservoir, goes subsurface during drought years. To provide fish passage to Box Canyon Creek during the 2001, 2003, 2005, and 2015 drought years, Reclamation, in agreement with the WDFW, installed temporary passage using hay bales and plastic sheeting. Reclamation is considering permanent improvements for fish passage into Box Canyon Creek. Reclamation plans to complete the draft report in early 2016.

In October 2015, Reclamation, Ecology, the Yakama Nation, USFWS, WDFW and USFS signed a Bull Trout Memorandum of Understanding (MOU) to enhance Bull Trout populations in the Yakima River basin. Alex Conley, Yakima Basin Fish & Wildlife Recovery Board, noted that the Recovery Board is also working on a Bull Trout Recovery Plan that would complement the BTE program.

Executive Committee, Subcommittees and Subgroups Updates

Executive Committee

Dan Silver, Executive Committee facilitator, introduced the subcommittees and subgroups.

Lisa Pelly, Trout Unlimited, provided an update on the Natural Resource Conservation Service (NRCS) funding proposal. Anna Lael, Kittitas County Conservation District, prepared the 2016 NRCS proposal for off-reservation Integrated Plan projects. NRCS' feedback on the 2015 off-reservation proposal suggested that it was too general. As such, the 2016 NRCS proposal is more focused and identifies specific projects with a geographic focus in Kittitas County. Future proposals would cover the other counties in the Yakima River basin. The 2016 proposal is for approximately \$4.7 million, with roughly 60 percent for on-farm water conservation projects and 40 percent for fish screen, fish passage, and land conservation projects. Anna submitted the final proposal in early November. Lisa hopes for a response on the proposal by about March 2016. The Yakama Nation also submitted a 2016 proposal for on-reservation projects.

Habitat Subcommittee

Jeff Tayer, Habitat Subcommittee Chair, provided the update. The subcommittee is working to get the recently appropriated State funds for habitat improvements converted into contracts so the various projects can be constructed. The projects selected include habitat improvements and floodplain restoration in Yakima County, Kittitas County, and on the Yakama Nation reservation. Going forward, the subcommittee plans to meet quarterly in advance of Workgroup meetings. The next meeting is scheduled for February 2015 and will likely focus on identifying projects to improve Bull Trout habitat. The subcommittee is also planning for the 2017 State budget proposal.

Watershed Land Conservation Subcommittee

Peter Dykstra, Watershed Land Conservation Subcommittee Chair, provided an update. The

subcommittee has not met since the last Workgroup meeting. The next meeting will be on January 7, 2016. The January meeting will include discussion of (1) feedback on the watershed scale-approach concept, (2) the grazing and recreation components of the Teanaway Community Forest Management Plan and how they relate to the Integrated Plan goals, (3) outreach activities now under way in regard to potential wild and scenic designations in the Cle Elum River basin and potential related legislation, and (4) planning for the 2017 State budget proposal.

Water Use Subcommittee

Scott Revell, Water Use Subcommittee Chair, provided the update. The subcommittee met in September to review the projects in the Water Use Subcommittee State Biennium Budget proposal. The subcommittee has modified the list of projects in the original proposal priorities changed because of the 2015 drought. The subcommittee is also working on the water marketing component of the Integrated Plan. Scott met with economists from Washington State University to provide Roza's experience with water management during the 2015 drought. In addition, the subcommittee is planning for the 2017 State budget proposal.

Municipal Water Use Subgroup

Dave Brown, Municipal Water Use Subgroup Chair, provided the update. The subgroup met on December 9 to discuss its Draft Work Plan and a partnership with Benton Conservation District/Franklin Conservation District (BCD/FCD). BCD/FCD currently have several successful water conservation programs including the Heritage Garden program (which promotes low-water, native landscapes) and the Water On Wheels program (which promotes water conservation education in schools). The subgroup will work with BCD/FCD to build on and expand these programs within the Yakima River basin. To expand these programs, BCD/FCD will likely develop Memorandums of Agreement with the other conservation districts in the basin. Ecology is preparing a contract to fund the initial phase of BCD's efforts in support of the subgroup.

Lower River Subgroup

The Executive Committee recently established the Lower River Subgroup to the Water Use Subcommittee. Jason McShane, Kennewick Irrigation District's (KID) Engineering and Operations Manager, is the Chair for the Lower River Subgroup. The subgroup met twice in fall 2015 to discuss water use and habitat challenges in the lower Yakima River below the Parker Gage. In early-to-mid 2016, the subgroup plans to identify potential habitat and water use projects along the lower Yakima River.

Outreach Subcommittee

Michael Garrity, American Rivers and Outreach Subcommittee Chair, provided the update. In August 2015, American Rivers hired Nicky Pasi as the Outreach Coordinator for the Integrated Plan. The subcommittee has been working on supporting S1694. The subcommittee has hosted three screenings of the Integrated Plan film, "This River Runs Forever," and 12 presentations on S1694 to local city councils and stakeholders in the basin. The subcommittee also met with Congressman Newhouse to

discuss development of a companion bill in the U.S. House of Representatives. In addition, the subcommittee is working on updating the outreach plan and materials.

Groundwater Group

Wendy Christensen said that Susan Crawford, Reclamation, would lead coordination of the Groundwater Group, which includes Dave Nazy from Ecology and Jennifer Johnson from Reclamation's Boise office. In early 2016, the group plans to meet with the irrigation districts, identify locations for groundwater monitoring, and identify additional areas for potential pilot projects for large-scale infiltration. The group will present the proposed pilot projects at the March Workgroup meeting.

KID Operations and Drought Impacts

Seth Defoe and Jason McShane, KID, discussed KID operations and drought impacts in 2015. In 2014, KID adopted a drought policy that guides KID's long-term and short-term drought response approach. KID's long-term approach includes making efficiency improvements to their system. Their short-term approach includes water transfers, emergency wells, trust water, recapture, outreach to their water users, fallowing land, and paying Reclamation overtime to maximize diversion.

KID is a return flow district, meaning they receive water that has been used upstream and returned to the Yakima River. As a result, KID does not use storage or targeted deliveries; instead, KID operates their system based on dynamic instantaneous flows. When instantaneous flows drop below planned levels, this can result in water shortages. To prepare for potential shortages, KID established a watering schedule for customers to help reduce peak demands.

In early 2015, KID started public outreach efforts urging customers to prepare for a low water year. KID has thousands of urban customers in addition to their agricultural water users. KID spent approximately \$80,000 on public outreach, including a \$30,000 grant from Ecology. Public outreach efforts included a town hall meeting; pamphlets, brochures and mailers; informational booths at local farmer's markets; and print, television, internet, and radio advertisements. KID also worked with community partners such as municipalities, schools, landscapers, and homeowners associations to spread the message. Messaging included educating customers on lawn watering requirements. For example, lawns will survive with water deficits up to 60 percent.

Jaclyn Hancock, Washington State Department of Agriculture, said the Department is conducting a statewide analysis of the economic impacts resulting from the 2015 drought. The analysis will attempt to describe, and where possible quantify, non-monetary impacts. An initial qualitative analysis will be available at the end of 2015. The full quantitative analysis will be completed by 2017.

Public Comment

- Chuck Klarich, Yakima Basin Storage Alliance (YBSA): The YBSA website (www.ybsa.org) provides a summary of historical water use in the basin and past studies. It is important that stakeholders understand what has been done in order to make informed decisions about what

should be done in the future. Chuck provided a handout prepared by the YBSA that summarized the history of “Attempts at Drought Relief in the Yakima Basin”.

- Chris Maykut, Friends of Bumping Lake: Chris requested that the Workgroup be transparent about the opposition that exists to Integrated Plan projects, especially when meeting with elected officials. Opposition to the Bumping Dam Enlargement project includes the Sierra Club, Audubon Society, and homeowners. Chris also provided a copy of the *Seattle Times* article “Yakima farmers say mismanaged water made crop losses much worse”.
- Elaine Packard, Sierra Club: Elaine read the Washington State Chapter of the Sierra Club’s “Statement to the Yakima Workgroup”. The Sierra Club supports the proposal made by Sid Morrison, YBSA, at the September 9, 2015 Workgroup meeting that the Bumping Dam Enlargement project should be dropped from the Integrated Plan.
- Bill Campbell, Kachess Homeowner: Bill is concerned that outreach for the Integrated Plan is not accurate in characterizing opposition. The plan is not universally supported and, in his opinion, the opponents do not just include NIMBYs (Not In My Back Yard). Bill requested that the Workgroup be more transparent about the opposition that exists to the Integrated Plan projects. Bill stated that S1694 passed unanimously and without opposition because many opposing organizations were not allowed to comment during the hearing. The KETFPF would have put six diesel generators approximately 1,200 feet from local homeowners. In addition, if Kachess Reservoir were drawn down an additional 20 feet, this would result in steep slopes and erosion along the newly exposed shoreline. The graphic that shows the aerial view of the drawn down reservoir surface elevation does not illustrate this impact. The Kachess Homeowners support the BTE program and would like to see that effort move forward. Bill was pleased to host a site visit for Roza, and would like to see more collaboration such as this. Bill would like the Workgroup to collaborate more with the Kachess Homeowners. For example, the Kachess Homeowners would like to be involved in the Kachess Reservoir property value assessment by reviewing the methodology and contributing to the data gathering process.

Workgroup Roundtable Discussion

- Wendy Christensen and Tom Tebb, on behalf of the Workgroup, recognized Dan Silver for his contribution to the Integrated Plan. Dan will be retiring from his role on the facilitation team. Dan was integral in the development and success of the Integrated Plan. The Workgroup will miss Dan, and wished him the best in his future endeavors.
- Dan Silver: Dan stated that he is amazed with how the Yakima basin stakeholders have come together on the Integrated Plan. The work that has been done is a huge accomplishment and a unique example of cooperation.
- Charlie de La Chappelle, YBSA: Charlie provided a copy of the YBSA’s notes and comments on S1694. The YBSA would like to discuss these items with the Workgroup.
- Michael Garrity, American Rivers: Thank you David Reeploeg and Senator Cantwell’s office for their support and efforts.

- Mike Leita, Yakima County: There will always be opposition to any major project or plan. Our approach should not be considered a rigid box, instead it is a process that requires cooperation. The Workgroup strives to listen to all points of view and maintain balance. The ultimate goal is to provide broad benefits to the Yakima basin.
- Jason Kuiken, USFS: Jason agreed with Mike Leita. The goal is to benefit the full basin.
- Alex Conley, Yakima Basin Fish & Wildlife Recovery Board: Alex is looking forward to the bull trout enhancement and recovery projects. Alex also hopes for good snowpack this winter.
- David Fast, Yakama Nation: David is also looking forward to the Bull Trout enhancement and recovery projects, and hopes for good snowpack this winter.
- Paul Jewell, Kittitas County: Paul expressed concern about potential changes in the water supply provided by the KDRPP and KKC. How will we “backfill” if water supply from the KDRPP and KKC is not as large as originally planned? If necessary, we should consider additional projects. Overall, the water supply element of the Integrated Plan is not keeping up with the habitat element.
- Jaclyn Hancock, Washington State Department of Agriculture: Derek Sandison wanted to thank Dan for his contribution to the Integrated Plan. It is important and valuable to collect data this year since 2015 was a drought year. She will get back to the Workgroup with collected information.
- Jeff Thomas, USFWS: Jeff is encouraged by the BTE program and other bull trout projects. Bull Trout are the species most impacted by the Integrated Plan. Gold Creek is a high priority since the population there is on the brink of extirpation. Jeff would also like to see the Clear Creek Dam fish passage project move forward. Jeff has written annual reports on fish passage monitoring at Clear Creek Dam. He is currently working on a final summary report. Overall, the majority of fish are stuck below the dam and unable to access the pristine habitat above the dam. This project is a top priority for the Service.
- Mike Shuttleworth, Benton County: Thank you for creating the Lower River Subgroup.
- Seth Defoe, Kennewick Irrigation District: Thank you for creating the Lower River Subgroup.
- Scott Revell, Roza Irrigation District: Scott has been careful in meetings with elected officials and representatives to accurately recognize the opposition to the KETFPP and the Integrated Plan. We have tried to be candid about this opposition, including the last few months while investigating the KETFPP.
- Peter Dykstra, Plauche & Carr LLP: We always recognize the opposition in our meetings with other stakeholders and elected officials. Thank you David Reeploeg and Senator Cantwell’s office for their support and efforts.
- Tom Ring, Yakama Nation: Thank you to Kittitas Reclamation District (KRD), whose irrigation canal was shut off in August, but who continued to operate their system to move water into the tributaries to support fish migration.
- Urban Eberhart, KRD: KRD’s support of these tributaries was made possible by the Integrated Plan.

Andrew Graham closed the meeting by noting the next Workgroup meeting will be *in* March 2016. The exact date has not yet been selected, but will be sent by email as soon as it is determined.

Workgroup Members in Attendance

Alex Conley, Yakima Basin Fish & Wildlife Recovery Board
Charlie de La Chappelle (Alternate), Yakima Basin Storage Alliance
Dale Bambrick, National Marine Fisheries Service
Dave Brown, City of Yakima (Municipal Water Use Subgroup Chair)
David Fast, Yakama Nation - Yakima/Klickitat Fisheries Project
Dawn Wiedmeier, Bureau of Reclamation - Columbia-Cascades Area Office
Jaclyn Hancock, Washington State Department of Agriculture
Jason Kuiken, U.S. Forest Service
Jeff Tayer, Washington Department of Fish and Wildlife (Habitat Subcommittee Chair)
Jeff Thomas, USFWS, Mid-Columbia River Fishery Office
Jim Trull, Sunnyside Valley Irrigation District
Lisa Pelly, Washington Water Project, Trout Unlimited
Michael Garrity, American Rivers
Mike Leita, Yakima County
Mike Livingston, Washington Department of Fish and Wildlife
Mike Shuttleworth (Alternate), Benton County
Paul Jewell, Kittitas County
Peter Dykstra, Plauché & Carr LLP (Watershed Lands Subcommittee Chair)
Rick Roeder, Washington State Department of Natural Resources
Scott Revell, Roza Irrigation District (Water Use Subcommittee Chair)
Seth Defoe, Kennewick Irrigation District
Tom Ring (Alternate), Yakama Nation
Tom Tebb, Washington State Department of Ecology - Office of Columbia River
Urban Eberhart, Kittitas Reclamation District

Other Attendees

Andrew Graham, HDR
Bill Campbell, Lake Kachess Homeowners' Association
Bob Hall, YBSA/Yakima Auto Dealers
Candy McKinley, Bureau of Reclamation
Chad Stuart, Bureau of Reclamation
Chris & Samantha Maykut, Friends of Bumping Lake
Chris Lynch, Bureau of Reclamation – Yakima Field Office
Chuck Klarich, YBSA
Dan Church, Bureau of Reclamation - Columbia-Cascades Area Office
Dan Silver, facilitation team
David Child, Yakima Basin Joint Board

David Domingues, Yakima-Tieton Irrigation District
David Ortman
David Reeploeg, Office of Senator Maria Cantwell
Debbie Carlson, Bonneville Power Administration
Don Gatchalian, Yakima County
Doug Mayo
Duane Unland, Nakaty Enterprises
Edward Lisowski
Elaine Packard, Water/Salmon Committee, Cascade Chapter, Sierra Club
Jack and Beneitta Eaton
James Davenport, JH Davenport, LLC
Jason McShane, KID
Jean Mendoza, Friends of Toppenish Creek
Jerry Kelso, resident
Jessica Gonzales, US Fish & Wildlife Service
Joel Freudenthal, Yakima County
Joel Hubble, Bureau of Reclamation - Yakima Field Office
John Easterbrooks, Washington Department of Fish and Wildlife
Joye Redfield-Wilder, Washington Department of Ecology
Judy Neibauer, US Fish & Wildlife Service
Justin Bezold, Trout Unlimited
Karen Dera, Bureau of Reclamation - Columbia-Cascades Area Office
Kate Prengaman, Yakima Herald-Republic
Keith McGowan, Bureau of Reclamation
Kevin Eslinger, Kittitas Reclamation District
Kristina Ribellia, Washington Water Trust
Laine Young, Washington State Department of Ecology
Miles McPhee
Mitchell Long, Kittitas Conservation Trust
Nicole Pasi, American Rivers/YBIP
Paul Pickett, Ecology
Perry Harvester, Washington Department of Fish and Wildlife
Richard Visser, US Fish & Wildlife Service
Sarah Pistorese, HDR
Saundra McPhee
Scott Revell, Roza Irrigation District
Sean Gross, National Marine Fisheries Service
Sharra Finley, Office of Congressman Dan Newhouse
Steve Malloch, Western Water Futures LLC (alt. for American Rivers)
Stuart Crane, Yakama Nation
Susan Crawford, Bureau of Reclamation
Teresa Merriman, Bureau of Reclamation
Tim Hill, Ecology
Tim McCoy, Bureau of Reclamation
Tom Carpenter
Tony Coluccio, Frank Coluccio Construction
Walt Larrick, Bureau of Reclamation

Warren Dickman, YBSA

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

Where to Find Workgroup Information

Meeting materials, notes, presentations, and materials submitted during public comment for the Workgroup meetings will be posted on the project website

(<http://www.usbr.gov/pn/programs/yrbwep/2011integratedplan/index.html>). A list of information sources, many of which are available online, is also posted on the website.

If anyone needs help finding an information source, contact those listed at the top of page 1 of these notes or Ben Floyd at Anchor QEA, Kennewick office, (509) 491-3151, or bfloyd@anchoragea.com.

AGENDA
DC Leadership Team Meeting with the
Yakima River Basin Integrated Plan Implementation Committee
November 9, 2015 at 11:00 a.m.

- Welcome and Introductions (*Tom Iseman*)
- Update on 2015 drought conditions (*Yakima IC/Reclamation*)
- Update on legislative efforts (*Yakima IC*)
- Update on federal agency activities (*Federal DC Working Group*)
- Next steps/other issues
- Adjourn

DC LEADERSHIP TEAM

Tom Iseman, Deputy Assistant Secretary, Office of Water and Science, Department of Interior
Jennifer Gimbel, Principal Deputy Assistant Secretary, Office of Water and Science, Department of Interior
Estevan Lopez, Commissioner, Bureau of Reclamation, Department of Interior
Deborah Lawler, Special Assistant to the Commissioner and Liaison to the Assistant Secretary for Water and Science, DOI
Dionne Thompson, Deputy Commissioner, External and Intergovernmental Affairs, Bureau of Reclamation, DOI
Ann Adler, Chief, Congressional and Legislative Affairs, Bureau of Reclamation, Department of Interior
Mat Maucieri, Deputy Chief, Congressional and Legislative Affairs, Bureau of Reclamation, Department of Interior
Robert Wolf, Director, Program and Budget, Bureau of Reclamation, Department of Interior
Michael Black, Director, Bureau of Indian Affairs, Department of Interior
Sarah Peterson, Special Assistant, Office of the Assistant Secretary, Office of Policy, Management and Budget
Gina Schultz, representing Assistant Director, Endangered Species, USFWS, Department of Interior
Heather Sagar, representing Director, Office of Habitat Conservation, NOAA, Department of Commerce
Donna Wieting, Director, Office of Protected Resources, NOAA, Department of Commerce
n Mills, Deputy Under Secretary for National Resources and Environment, NRCS, USDA
Astor Boozer, Regional Conservationist/West, Natural Resources Conservation Service, USDA
Sonya Baskerville, Manager, Bonneville Power Administration's Office of National Relations, Department of Energy
Glenn Casamassa, Associate Deputy Chief –NFS- WO, U.S. Forest Service, USDA
Mariel J. Murray, Center for Environmental Quality
Christi Davis-Kernan, PN Regional Liaison, Bureau of Reclamation, Department of Interior

Via Phone 1-866-702-1472 Passcode: 1943461

Perry Gayaldo, Deputy Chief, NOAA Restoration Center (*DCLG representative for NMFS*)
Lorri Lee, Regional Director, Pacific Northwest Regional Office, Bureau of Reclamation
Timothy Personius, Deputy Regional Director, Pacific Northwest Regional Office, Bureau of Reclamation
Dawn Wiedmeier, Area Manager, Columbia-Cascades Area Office Bureau of Reclamation
Wendy Christensen, Columbia-Cascades Area Office, Bureau of Reclamation, Department of Interior
Walter Larrick, Columbia-Cascades Area Office, Bureau of Reclamation
McKinley-Ben Miller, Deputy Chief, Environmental Quality and Protection Division, BLM, Department of Interior
Byron Loosle, Division Chief, Cultural, Paleontological Resources & Tribal Consultation, BLM, Department of Interior

YAKIMA BASIN IMPLEMENTATION COMMITTEE

Scott Revell, President, Yakima Basin Joint Board and General Manager, Roza Irrigation District, WA
Urban Eberhart, Board Member, Yakima Basin Joint Board and Kittitas Reclamation District, WA
Jerry Lewis, Councilmember, Yakama Nation
Paul Ward, Fisheries Manager, Yakama Nation
Paul Jewell, Commissioner, Kittitas County, WA
.ke Leita, Commissioner, Yakima County, WA
Jason McShane, Operations Manager, Kennewick Irrigation District, WA
Derek Sandison, Director, Washington State Department of Agriculture
Tom Tebb, Director, Office of Columbia River, Washington State Department of Ecology
Denise Clifford, Government Relations Director, Washington Department of Ecology

Jennifer Quan, Special Assistant to the Director, Washington State Department of Fish and Wildlife & Member,
Salmon Recovery Funding Board
Sam Ricketts, Director, Governor's Washington Office, State of Washington
Dale Learn, Esq., Vice President/Principal, Governmental Affairs, Gordon Thomas Honeywell
Steve Moyer, Vice President, Government Affairs, Trout Unlimited
Kira Finkler, Legislative Counsel, Government Affairs, Trout Unlimited
Matt Niemerski, Director, Western Water Policy, American Rivers
George Waters, President, George Waters Consulting Service
Mark Limbaugh, Managing Partner, The Ferguson Group, LLC
Zach Israel, Associate, The Ferguson Group, LLC

YAKIMA RIVER BASIN WATER ENHANCEMENT PROJECT (YRBWEP)
INTEGRATED PLAN IMPLEMENTATION COMMITTEE
Meeting Schedule for Washington, DC
November 9-10, 2015

Monday, November 9

8:30 a.m.	Breakfast Briefing at Longworth Cafeteria
10:00 a.m.	Jason Herbert , Legislative Director Office of Representative Dan Newhouse
11:00 a.m.	DOI DC Leadership Team Meeting
1:00 p.m.	Alex Hettinger , Program Examiner, Water and Power Branch Gezime I. Christian , Presidential Management Fellow Energy, Science and Water Division, Natural Resources Programs Office of Management and Budget
2:00 p.m.	Melanie Steele , Legislative Director Office of Representative Cathy McMorris Rodgers
3:00 p.m.	Jennifer Loraine , Senior Energy Advisor/Counsel Office of Senator Cory Gardner (R-CO)
5:15 p.m.	Senator James Risch (R-ID) Tim Petty , Deputy Legislative Director
6:00 p.m.	KID Hosted Reception at Water Strategies LLC

Tuesday, November 10

- 9:45 a.m. **Drop off materials to Jordan Evich**, Legislative Assistant (*out of town*)
Office of Representative Jaime Herrera Beutler
- 10:00 a.m. **Kiel Weaver**, Staff Director (majority)
Water and Power Subcommittee
House Committee on Natural Resources
- 11:00 a.m. **Christopher Kearney**, Budget Analyst and Senior Professional Staff Member (majority)
Melanie Stansbury, Professional Staff (minority)
Senate Energy and Natural Resources Committee
- 2:15 p.m. **Senator Maria Cantwell**
Pete Modaff, Legislative Director
Eric Ffitch, Legislative Assistant
- 3:00 p.m. **Senator Patty Murray**
Josephine Eckert, Policy Advisor
Anna Sperling, Policy Advisor
- 4:00 p.m. **Robert Biestman**, Legislative Assistant
Office of Representative Dave Reichert
- 5:00 p.m. **Matthew Muirragui-Villagomez**, Professional Staff Member (minority)
House Committee on Natural Resources
- 6:00 p.m. **KID Hosted Reception** at Water Strategies LLC

Pending

Brian Clifford, Legislative Assistant
Office of Senator John Barrasso (R-WY)

ATTENDEES

Scott Revell, President, Yakima Basin Joint Board and General Manager, Roza Irrigation District, WA
Urban Eberhart, Board Member, Yakima Basin Joint Board and Kittitas Reclamation District, WA
Jerry Lewis, Councilmember, Yakama Nation
Paul Ward, Fisheries Manager, Yakama Nation
Paul Jewell, Commissioner, Kittitas County, WA
Mike Leita, Commissioner, Yakima County, WA
Jason McShane, Operations Manager, Kennewick Irrigation District, WA
Derek Sandison, Director, Washington State Department of Agriculture
Tom Tebb, Director, Office of Columbia River, Washington State Department of Ecology
Denise Clifford, Government Relations Director, Washington Department of Ecology
Jennifer Quan, Special Assistant to the Director, Washington State Department of Fish and Wildlife & Member,
Salmon Recovery Funding Board
Sam Ricketts, Director, Governor's Washington Office, State of Washington
Dale Learn, Esq., Vice President/Principal, Governmental Affairs, Gordon Thomas Honeywell
Steve Moyer, Vice President, Government Affairs, Trout Unlimited
Kira Finkler, Legislative Counsel, Government Affairs, Trout Unlimited
Matt Niemerski, Director, Western Water Policy, American Rivers
George Waters, President, George Waters Consulting Service
Mark Limbaugh, Managing Partner, The Ferguson Group, LLC
Zach Israel, Associate, The Ferguson Group, LLC



Sid Morrison
Chairman

Directors
Charlie de La Chapelle

Max Benitz

Tom Carpenter

Warren Dickman

Bob Hall

Mike Hogue

Chuck Klarich

Mike Lettig

Bill Lampson

Paul Larson

Gary Lukehart

Rocky Marshall

Dan Martinez

Natalie Martinkus

Corky Mattingly

Jim Milton

Doug Picutti

Ron Reiland

Glenn Rice

Hank Stamschror

Bob Tuck

Duane Unland

Mel Wagner

Don Williams

Attempts at Drought Relief in the Yakima Basin

from the Roza Irrigation District history page:

1977. This year was one of the most eventful in history of the Roza Irrigation District. Early predictions by the Bureau of Reclamation of only 6% of normal water supply for the district prompted many immediate actions by both the district and individual farmers. Many farmers with permanent crops faced total ruin if adequate water supplies could not be obtained. Expensive, deep wells were drilled, pumps were installed on drains, and lands were leased speculating on the water they might receive. Subsequent reallocations by Reclamation eventually brought the district to 70% of normal water supply, but for most farmers, it came too late. Investment in other water sources had already been made. The State and Federal governments made grants and low interest loans to many landowners to help defray some of the overwhelming costs of these emergency projects. The district, to help utilize some of the available funding, also established local improvement districts (LID's). The district explored the possibility of acquiring Columbia River water. However, the financing of such a monumental project to provide a system for pumplift involved, the long conveyance system required, and the time to accomplish the task led to the plan's demise.

Floating Pumps at Cle Elum Lake for Emergency Water Supply:

Constructed and briefly operated (tested) in 1977; suffered fire damage, sunk, and then disassembled in September, 1988.

Bumping Lake Enlargement:

In 1987, a Policy Group was structured to provide a forum for oversight of the Yakima River Basin Water Enhancement Project. Comprehensive legislation was introduced in the U.S. Senate and the House of Representatives providing for the development of a 400,000 acre-foot capacity Bumping Lake Enlargement and associated actions such as water conservation and improved fishery habitat. However, this effort was terminated in September, 1988, and Yakima River Basin Adjudicated proceeded.

Yakima River Storage Study:

In 2004, the Yakima River Storage Study was authorized and funded. The storage study evaluated the options of enlarging Bumping Lake, creating a Wymer Reservoir and pumping water from the Columbia River during winter months. Bumping Lake Enlargement and creating Wymer Reservoir were not considered viable and were eliminated. The stored water in the proposed reservoir would be used to irrigate Roza and Sunnyside Irrigation Districts. The water removed annually from the Yakima River would remain to be managed and used to benefit

the Yakima Basin. In 2008 the Bureau of Reclamation chose the no-action alternative which eliminated the Columbia River pump-storage project which terminated the possibility of bringing Columbia River water to the Yakima Basin.

Work Group:

In 2009, the Department of Ecology and the Bureau of Reclamation formed a Work Group to develop the Yakima River Basin Integrated Water Resource Management Plan. The plan was developed to provide benefits to all water related programs in the Yakima Basin, a surface water storage plan that included expansion of Bumping Lake, building a Wymer reservoir, pumping water from lake Kachess, raising the level of Lake Cle Elum 3 feet, and beginning an appraisal of transferring water from the Columbia River. The storage plan is to be completed in 30 years.

Study Continues:

As of 2015, studies are continuing on the storage projects to evaluate the feasibility of Bumping, Wymer, and Kachess. The extension of a permit to access water from the Columbia River as part of the Integrated Plan has been extended. Even if all proposed storage projects are completed the Yakima Basin will continue to have insufficient water needed for fish, agriculture, and economic growth.

Charlie deLa
509 949 3358

S1694 Approved by the U.S. Senate Committee on Energy and Natural Resources

Suggested Focus of Review - - Keep focus of YBSA review on the water storage projects addressing the following:

1. What storage projects are specifically authorized?
2. What are the prerequisites for storage construction?
3. How will construction of storage projects be financed? *allocated*
4. What is the anticipated timeline to bring storage "on-line?"

Overview of Initial Development Phase

- The only storage project specifically authorized is KDRPP+KCC. This is authorized for construction in the Initial Development Phase which commences with the Bill's enactment and extends for 10 years thereafter.
- Prerequisites for construction of KDRPP+KCC follow:
 - ✓ Completion of applicable feasibility studies, environmental reviews, appropriations, and benefit-cost analyses that include favorable recommendations for further project development. [1]
 - ✓ Agreements with participating proratable irrigation entities for access to Federal lands and facilities for non-Federal financing, construction, and operation and maintenance. The execution of these agreements are subject to the first item above (completion of feasibility studies, etc.) as well as an analysis of potential impacts on adjacent communities, including potential fire hazards, water access for fire districts, community and homeowner wells, future water levels based on projected usage, recreational values, and property values and mitigation measures (issues primarily of the homeowners in the Kachess Reservoir area). The agreements are to be posted in the Federal Register for a 60 public review/comment period and a subsequent Secretarial determination that the agreements and activities are in the public interest and could be implemented with significant adverse impacts to the environment.
- Costs of the design, construction, operation, maintenance, pumping costs, and mitigation of KDRPP+KCC are to be financed by the participating proratable irrigation entities; costs incurred for Federal oversight and review are to be non-reimbursable to the proratable participating irrigation entities. The Federal cost share shall not exceed 50% of the total cost of the Initial Phase Development. [2]
- Assuming enactment of a Bill in 2016, KDRPP+KCC would be online not later than 2026.

Overview of Intermediate and Final Development Phases

- These two phases commence not later than the 10th and 20th year respectively following enactment of the Bill. Plans for these two phases are to be developed by the Secretary in coordination with the State of Washington and in consultation with the Yakama Nation. Storage projects are not specifically identified in the Bill. However, a Progress Report

addressing development and implementation of the Integrated Plan is to be submitted to the Senate Committee on Energy and Natural Resources not more than 5 years after the Bill's enactment. This Progress Report is to include among other items the following for water supply projects: (i) how the water supply and costs of each recommended project would be allocated among authorized uses, and (ii) a plan for soliciting and formalizing subscriptions of individuals and entities for participation in any of the recommended storage projects that will establish the terms of for participation and fiscal obligations. [3]

- Similar to the Initial Development Phase implementation of the Intermediate and Final Development Phases are subject to authorization, appropriations, completion of feasibility studies, environmental reviews, availability of appropriations and benefit-cost analyses that include favorable recommendations for further project development. In addition, a public review and a determination by the Secretary that design, construction, and operation of a proposed project is in the best interests of the public.
- As previously indicated storage projects to be constructed, with the exception of KDRPP+KCC, are not specifically identified in the Bill nor is the entity (Federal or non-Federal) responsible for their construction and financing. The Bill does provide that Federal cost-share of a project shall comply with applicable laws and policies of the Bureau of Reclamation.
- Assuming enactment of the Bill in 2016, additional storage projects necessary to address the 70% drought year proratable supply goal would be online not later than 2036 if two projects such as Wymer and Bumping Lake Enlargement (identified in the Integrated Plan documents) were to be brought on-line in the Intermediate Development Phase, or 2046 if a storage project is deferred to the Final Development Phase. [4]

Rough Draft 12/3/15

Notes and Comments

[1] S1694 does not provide any information on the purpose and contents of a feasibility report. Reclamation Manual, Directives and Standards, CMP 09-02 effective September 13, 2012, is a source that might be considered.

[2] Financing construction of KDRPP+KCC is the responsibility of participating prorable entities. Integrated Plan documents indicate KRD, RID, and WIP are interested in securing a supplemental drought-year water supply. S1694 provides that the Bureau of Indian Affairs, WIP, and the Yakama Nation, may also obtain water from Kachess Reservoir pursuant to terms agreed to by the Bureau of Indian Affairs and the Yakama Nation. However, no authorities and appropriations are provided specifically for this involvement. How does the Federal cost share of not more than 50% of the Initial Development Phase costs factor into the participating prorable entities financing and a supplemental water supply for WIP for use on tribal lands? In addition, what consideration is given to instream flow benefits resulting from improved dry-year water supplies in the main-stem rivers and the non-Federal financing of KDRPP+KCC?

Historically, Reclamation water resource projects has involved appropriation of Federal funds for project construction and contracts entered into with irrigation entities for repayment without interest over a specific period based on a cost allocation to project purposes and a determination of "the irrigators ability to pay". "Ability to pay" reflects current cropping patterns and net farm revenues. Construction costs in excess of ability to pay have been, in the case of the Pacific Northwest, returned to the Federal Treasury from the Federal Columbia River Power System revenues.

However, S1694 provides for non-Federal construction and financing by irrigation entities requiring up-front private funding repayable with interest in shorter repayment periods. This has created concerns among irrigators producing lower value crops of their ability to pay the water costs. The result is a reduction in the volume of water needed, 'dewatering' of currently irrigated acres in drought years, a decrease in irrigation benefits, and economic impacts on the local and State economies. Federal authorizations and long-standing Reclamation policies are being modified by S1694 in the Pacific Northwest. This is a major change in Federal water policy and should be considered on a broader scope than just the Yakima River Basin.

[3] There is no assurance water storage beyond that of KDRPP+KCC will be authorized and constructed. If this occurs the 70% drought-year prorable supply goal could not consistently be met and refill of Kachess Reservoir could be a major problem.

[4] In addition to the lack of authorization of storage projects the time to bring projects on-line is a potential 30-year financial albatross for Yakima Project irrigation entities and individual irrigators with prorable water entitlements.

Seattle Times

Yakima farmers say mismanaged water made crop losses much worse

Originally published September 8, 2015

Farmers in the Yakima basin say the mismanagement of water flows added to an already tough year when they were coping with a drought.

By Hal Bernton

Seattle Times staff reporter

Some Yakima basin farmers whose crops were stunted by drought this year say their problems have been aggravated by mismanagement of water flows from the Wapato Irrigation Project.

Farmers say that project officials sent too much water through the irrigation system during the spring season when there was scant demand. Then, during the peak summer months, shortages were so severe that farmers stole water from one another, the critics said.

Now, as the growing season nears an end and demand for water once again declines, Wapato officials announced they would boost September flows by 20 percent over earlier forecasts.

This month, there has been so much water in the system, that some has flushed back into the Yakima River because farmers don't need it on their fields, according to Tim Dennis, an agronomist with Calaway Company, which farms 3,000 acres of silage corn, hay and other crops in the Wapato district.

"It's September. It's harvest time," Dennis said. "For all intents and purposes the (growing) season is over."

Dennis estimates that Calaway lost about 30 percent of its crops on the Wapato this summer due to a lack of water during the height of the growing season.

Larry Nelson, Wapato's irrigation-systems manager, said the water was allocated based on the best available information.

"There's no perfect science to this," Nelson said. "I don't have a magic crystal ball in front of me."

The Wapato, which was formed in 1904, is the largest irrigation project in the Yakima basin and is run by the Bureau of Indian Affairs (BIA). It has a troubled history that includes a \$138 million backlog in maintenance and, over the years, an erosion of trust by farmers toward the BIA leadership.

The project receives an annual water allocation from the federal Bureau of Reclamation. Then it's up to Wapato officials to decide how to divide that water through the growing season, when project canals are lifelines that irrigate more than 120,000 acres of farm land on the Yakama Indian Reservation.

In drought years, water management is a big issue as irrigators seek to have the reduced supplies available when they can do the most good.

Nelson said Wapato did the best possible in a drought year of shortages.

Wapato critics say that other irrigation districts did a better job of acting on publicly available information to manage flows.

The Roza District, for example, discussed several options with irrigators at meetings that generated vigorous debate about how best to allocate the limited water. Roza's board of farmers then voted to shut off water flows from May 12 through May 31 so they would have more water available later in the season.

On the Wapato project, there was no similar effort to conserve water early in the season.

Bureau of Reclamation records indicate that Wapato, during the month of May, averaged 5 percent more water running through the canal system than in June, July and August, when water demand for most crops peaks.

Once summer began, and temperatures soared, parts of the canal system ran dry as some farmers grabbed water that they were not entitled to by opening gates that were not properly secured — or had their locks cut off.

The rash of thefts triggered criticism of Wapato's management for failing to investigate and crack down on offenders.

"That's just not right. When we need water, we're dry, and when we don't need water, they're drowning us in water," said Bob Halvorson, a Wapato farmer who said he lost half of an August mint crop due to a lack of water.



SIERRA
CLUB
FOUNDED 1892

Washington State Chapter

180 Nickerson St, Ste 202

Seattle, WA 98109

Phone: (206) 378-0114

Fax: (206) 378-0034

STATEMENT TO THE YAKIMA WORKGROUP – Dec. 16, 2015

The Sierra Club supports the proposal made by former Representative Sid Morrison, on behalf of the Yakima Basin Storage Alliance, at the September 9, 2015, Yakima Workgroup meeting that a new dam at Bumping Lake should be dropped from the Yakima Plan. We note that members of the public were not allowed to comment on the Workgroup's Roundtable Discussion when this proposal was made. However, the proposal to drop a new Bumping Lake dam is in keeping with the Naches Ranger District letters to Department of Ecology, dated July 31, 2008, and November 20, 2009, which noted that the proposal to enlarge "the dam and reservoir has several potentially adverse effects on National Forest resources and facilities." The Bureau of Reclamation itself recognized the environmental values and low likelihood of constructing a new Bumping Lake dam when it dropped this project from its *Yakima River Basin Water Storage Feasibility Draft Planning Report/EIS* in 2008.

The Sierra Club continues to support sustainable populations of wild fish in the Yakima Basin. We remain concerned that the Yakima Plan continues to rely on a faulty four-accounts analysis that vastly overestimates the number of returning salmon, especially given the experience of sockeye salmon die-offs due to high temperatures in the Columbia River and low flows and high temperatures in the Lower Yakima River.

The Sierra Club continues to support the Federal Advisory Committee Act. We note that while the Yakima Basin Conservation Advisory Group established by the 1994 Phase II act is FACA compliant, this Yakima Workgroup is not. FACA's legislative history is especially instructive:

One of the great dangers in the unregulated use of advisory committees is that special interest groups may use their membership on such bodies to promote their private concerns." (page 3496).

<http://www.gsa.gov/graphics/ogp/FACALegislationHistory1972.pdf>

Finally, we continue to object to the Yakima Workgroup portraying the Yakima Plan as the product of diverse interest groups when the Workgroup remains unresponsive to comments and concerns from those not at the table and the Workgroup's Implementation Committee continues to be closed to the public. We also object to references to the Workgroup as a model for national water policy planning unless significant changes to the Yakima Plan are made.

Joshua Osborne-Klein

Conservation Chair

Sierra Club Washington State Chapter