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Yakima River Basin Water Enhancement Project (YRBWEP) 2009 Workgroup

Meeting Notes

October 22, 2009, Yakima Arboretum in Yakima, Washington

Review of October 7, 2009 Meeting Notes

The Workgroup had the following comments on the October 7, 2009 meeting notes:

- Regarding the Bumping Lake public comment in the review of the September 23, 2009 meeting notes, Bumping Lake was not a natural lake 30 years ago. Bumping Lake was a natural lake prior to 1910. The notes will be updated.
- Scott Revell was at the October 7, 2009 meeting. HDR will add his name to the list of Workgroup attendees.
- Update discussion of Cle Elum reservoir level public comment on page 6, third bullet (“drawdown”).
- The Fish Passage Subcommittee will be reconvening to update their recommendations based upon Workgroup comments at the October 7 meeting.

Introduction of Discussion Draft Integrated Package

Derek Sandison and Wendy Christensen introduced the discussion draft integrated package prepared by the consultant team with some input from the Washington Department of Ecology (Ecology) and the Bureau of Reclamation (Reclamation). The draft package is meant to serve as a starting point for Workgroup discussion. The consultant team proposes implementing the integrated package in three phases: Phase I (0-10 years), Phase II (11-26 years), and Phase III (26+ years).

Presentation of Discussion Draft Integrated Package

Andrew Graham and Bob Montgomery presented the details of the discussion draft integrated package. The consultant team developed the draft package based on recommendations made in past studies, Workgroup input to date, and the YRBWEP Workgroup Guiding Principles and Goals.

Andrew reviewed the proposed package implementation schedule. Phase I would include projects that are either already defined, have information available, and/or can be quickly implemented. During Phases I and II, appropriate parties could begin necessary “ground-truthing” and design work for projects that will be implemented in Phases II and III (26+ years). Water supply need would be confirmed in each phase to refine projects proposed for the next phase.



Andrew reviewed the projects included in each phase. The Workgroup discussed the following points related to the draft package:

- More work is needed to determine specific municipal conservation projects and their benefits.
- The consultant team will coordinate with Walt Larrick (Reclamation) on agricultural conservation projects to obtain the most recent information.
- In the draft package, fish passage and water storage projects would be implemented concurrently throughout the phases, such as at Bumping Lake.
- Inactive storage is spread over the phases because more information is needed on feasibility and design.
- In the summary document, “Groundwater Infiltration Prior to Irrigation Season” should be changed to “Groundwater Infiltration Prior to Storage Control.”
- The benefits realized in each phase are carried forward to the next phase.
- The Yakima River Basin Water Conservation Projects table needs to be reviewed by the Workgroup to determine which projects are still feasible. – a programmatic approach to conservation will be prepared for next Workgroup meeting.
- Specific actions under “institutional improvements to facilitate market-based water transfers” have not yet been identified; however, the goal is to simplify the water right transfer process through policy changes.

Andrew reviewed the Phases I, II, and III Summary Benefits charts. The consultant team chose to measure benefits by assessing the change to total water supply available (TWSA), percent prorated supply, and the total flow at Parker from April to September. These benefits were developed based upon the 2005 hydrologic conditions, which is a recent representative drought year. The charts do take into account reduced demand from senior irrigation districts from conservation. The charts assume a constant municipal and industrial (M&I) demand over the phases. Carry over storage is not shown. A Workgroup member suggested showing on the charts what portion of the potential new supply would have flexibility in its use (shapeable versus non-shapeable supply).

Next, Andrew and Bob reviewed the map showing where flow would be improved as a result of Phase I projects. The group discussed the following points related to the map:

- The map only shows flow improvements. Phase I would result in biological benefits that would extend further than shown on the map, such as in the upper tributaries.
- The map should show the lower Naches to Wapatox reach as a flow-benefit area.
- The habitat subcommittee is recommending projects to benefit tributaries.

Andrew and Bob reviewed the water supply benefits tables for Phases I, II, and III. The group discussed the following points related to the tables.

- The benefits to TWSA, proration, and flow at Parker were compared to the hydrologic conditions in 2005. The benefits would differ every year, depending upon the type of water year.
- In the tables, “N/A” can mean “no change” or not applicable. This will be clarified in the next update.

- The Phase I analysis is based on Riverware modeling completed for the Reclamation storage study and the state EISs. Where Riverware modeling was not available, available data was estimated and extrapolated. These estimates should be considered preliminary.
- The Bureau's no-action alternative in its storage study was YRBWEP's conservation program at that time a refined plan will be presented at subsequent meetings.
- The tables show a range of values for benefits because the benefit estimates in the EIS differed based on comparisons to drought years 2001 and 2005.
- Project benefits (flow and supply) would likely be reduced in multi-year droughts.
- A Workgroup member questioned how carryover can be increased if there are proratables that could use this supply. Based on water rights, the benefit would be an increased proration % of supply available and not increased carryover.
- The consultant team's analysis should account for winter fish flows (outside of April to September).
- The approach to allocate Phase 1 – 3 benefits to carry over storage was based upon a Reclamation assumption from previous modeling, where saved water was allocated to carryover storage.
- The Workgroup needs to consider operation and implementation of carryover water, such as how an entity receives credit for allowing a portion of its supply to be carry over water.
- If municipalities can meet a part of future water demand through conservation, they will need less water supply in the future.
- By conserving water, cities that are on groundwater systems will have more water to grow into, however they will eventually need water from surface water systems.
- Wymer would result in a large decrease in Yakima River flows, which is a positive benefit, if pump station is constructed at Thorp
- The summary document should state that Wymer would provide improvement to northside tributaries.
- Wymer doesn't show additional benefit to additional municipal supply, because it is accounted for in the TWSA column.
- Modeling has not yet been completed for the Bumping Lake smaller enlargement (200 KAF) scenario.
- The tables do not show the Keechelus to Kachess (K to K) pipeline as providing benefits because it facilitates inactive storage, which appears later in the table. HDR will place inactive storage and K to K next to each other in the next revision of the Integrated Package tables.
- Combining diversions has habitat benefits that are not identified in the benefits tables because they focus on water supply benefits.
- With Wymer is it necessary to still have the Roza diversion dam?
- The consultant team's assumed allotment of 2/3 water supply to 1/3 instream flow was estimated for planning purposes and is open to Workgroup discussion.
- Market transfers could provide additional water for municipalities.
- Small cities could get small package plants to run ASR projects.

In Phase II, additional water conservation is based upon the enhanced conservation alternative in the state's 2009 Final EIS – Yakima Basin Integrated Water Resource Management Alternative. The conservation program for the Integrated Package will be a programmatic approach. The consultant team will refine the conservation program information and provide this at the Nov. 9 meeting.

The consultant team has begun estimating the draft package costs by pulling in past study estimates. There is great variation between previously completed estimates. At this time, the team does not have a good estimate of the costs. A very preliminary range presented was \$5 to 10 billion for all three phases. Additional analysis, conceptual engineering, and cost estimation and refinement are needed to develop a more accurate cost estimate.

Workgroup Question and Answer/Feedback on the Discussion Draft Integrated Package

The group discussed the following points related to the tables.

- When developing the discussion draft package, the consultant team did not have a defined water supply need, but used information provided at previous Workgroup meetings. Specific water supply need requires further evaluation and refinement throughout the phases.
- A Workgroup member suggested that the package contained more projects than might be justified to meet the defined water supply needs.
- A Workgroup member suggested that the Workgroup compare different versions of the projects included in Phase I.
- A Workgroup member would like the consultant team to analyze the benefits based on 1992 to 1994 hydrologic conditions, which was a time of more severe drought than 2005, the year currently used for comparison.
- A Workgroup member suggested it would be helpful to identify instream flow values. Instream flow needs were estimated in the 1980s, and were also developed for the Reclamation 2008 storage study.
- Pine Hollow was not specifically included in the integrated package because it does not affect TWSA. It is important to the Department of Agriculture that Pine Hollow be on the table.
- Although there have been previous studies on demand, the Workgroup should consider enlisting a third party review of demand assumptions in order to strengthen the validity of the package when presenting to Congress and different constituencies. WSU was suggested to complete the review.
- The consultant team should strengthen project linkages.
- The Wymer 162 KAF project included in the discussion draft package does not relocate I-82. The Workgroup should consider locating and designing Wymer dam with the ability for future expansion.
- Initial analysis estimated 174 KAF storage at Wymer, however when the flood analysis was redone, the amount of storage was reduced to 162 KAF.
- The Bureau of Reclamation has a power contract obligation to Roza.

- Roza and Kennewick Irrigation Districts would have a significant increase in cost if the plants were shut down. BPA is an important stakeholder in subordination discussions.
- The Workgroup should address the subordination issue within this package, noting BPA's Work in the basin and agreement with the Yakama Nation for the next 10 years.
- The Workgroup needs to consider long-term operation costs of projects, including power and operation and maintenance costs.
- Further subordination would need to be addressed through legislation. The Workgroup should discuss this at a later meeting.
- The Workgroup should discuss the necessary configuration to have a free flowing river through the Yakima canyon section.
- There may be opportunities for more power generation, such as Wymer.
- The Workgroup needs to consider whether pumping inactive storage will affect senior water rights. It is important to link active storage to climate change scenarios.
- In order to support Bumping Lake, USFWS and USFS would need a plan for mitigating the loss of bull trout and spotted owl habitat.
- The Yakama Nation is involved in the USFWS recovery plan for the spotted owl.
- The package needs to be flexible so it can adapt to ground truthing and demand studies.
- The Workgroup should consider additional conservation actions over the EIS's no-action? alternative.
- The package should provide additional benefits to habitat above what species recovery plans provide.
- The Workgroup needs to discuss the exempt well issue.

Public Comment

The Workgroup meeting was opened for public comment. The following comments were received:

- Will surface water continuity of upper and lower groundwater and increased use of groundwater in the basin be included in the consultant team's analysis? This will be addressed during the 2010 validation process.
- Have studies addressed anything different in the Teanaway River or Swauk Creek? This is considered under the habitat subcommittee's work.
- Commenter is concerned that the Workgroup has not adequately addressed climate change and would like to see projections of the package benefits under climate change scenarios.

Workgroup Q&A and Feedback on Discussion Draft Integrated Package

Dan Silver asked each Workgroup member about their thoughts on the discussion draft package and the Workgroup process to date. The following are the Workgroup members' comments:

- The package should emphasize the north side tributary improvements that will result from the Wymer project.

- At Clear Lake, fish currently have access to the spillway for downstream passage, so only upstream passage is needed.
- In the summary document under subordinating power at Roza, change “will” to “may” in footnote (may also help reduce a portion of the smolt...)”
- The basic package and timeframe are good, but need refinement and clarification.
- If the Bumping Lake enlargement is implemented, there needs to be a fix of the South Fork Tieton passage to offset bull trout impacts at Deep Creek.
- In Phase II of the package, passage at Tieton should be emphasized over passage at Keechelus.
- Commenter likes Phase I of the package and its inclusion of inbasin storage alternatives.
- Commenter likes that the Bumping Lake enlargement project is still on the table.
- Power subordination needs to be addressed.
- Something needs to be done about the South Fork of Tieton.
- The Workgroup needs a better definition of what environmental mitigation is needed.
- Will be as receptive to the Bumping Lake enlargement if demand is found to not be as high as initially estimated?
- Pine Hollow is important to the Department of Agriculture.
- The Workgroup should discuss dealbreakers sooner rather than later.
- The Workgroup cannot wait 26 years to provide fish passage on Tieton and Kachess.
- The Workgroup needs to begin the preliminary design and study work for fish passage at Keechelus, Kachess, and Tieton in Phase I.
- Conservation on the Wapato Irrigation Project should be moved forward because conservation provides the greatest benefit. This would involve conversations with the Bureau of Indian Affairs. In addition, groundwater infiltration is needed in conjunction with conservation.
- Concerned about the 2/3 water supply to 1/3 instream flow assumption. Concerned that more water will be needed for fish during a drought and that the 1/3 portion would be all the water that fish are allotted.
- The Workgroup needs to better define water supply need.
- Concern about the phased approach.
- The consultant team should measure the benefits from the draft package against the 1992 to 1994 drought.
- The Workgroup needs to further discuss operations during drought conditions.
- Phase I is a short-term fix and the Workgroup needs to plan for the next 100 years.
- Phase I is too small and will not adequately address water supply needs. New storage has to be identified.
- The Bumping Lake enlargement is a concern for Benton County because it does not meet Benton County’s water supply needs. Will Wymer and K-K pipeline provide adequate supply for the next 100 years?
- Elected officials may think that the Workgroup missed the mark with the discussion draft package.

- Concerned that it may take years to get legislation passed at the state and federal level. Then there is concern over how quickly these projects can be implemented and if the Workgroup can implement needed projects before major droughts.
- Concerned about the quality of the package and politics.
- The package needs to improve health of rivers in the basin, be sustainable, and meet fish needs.
- More “ground-truthing” is needed on the estimated water demand and on the benefits that the package projects will provide.
- Fish benefits in the draft package are too vague. The package needs to provide fish benefits that are greater than what current programs are accomplishing or will accomplish in the future.
- The package should have a more aggressive approach to conservation and water marketing.
- There is likely to be controversy in the environmental community regarding Bumping Lake Enlargement even if American Rivers supported the package.
- The Workgroup should not develop a package that is bigger than needed for the estimated demands.
- Commenter would support new storage if the package had other benefits to fish and rivers and storage proves to be the best way to meet demand.
- Concerned that pump exchange project is not in Phase I and is not specifically identified in Phases II. WDFW and Ecology previously supported the pump exchange project.
- Would like to hear more about where benefits will be realized and their timing.
- Commenter likes the notion of a multi-tiered package.
- To assess the feasibility of the package, the Workgroup needs to see cost estimates. The Workgroup needs to present a feasible package to Congress.
- A drought can occur at any time, so the pacing of the package will never please everyone.
- The Workgroup process needs to stay on a tight schedule in order to accomplish its goals.
- Conservation should be approached programmatically. The current conservation projects listed in the table are dated; there are newer conservation projects than those currently listed in the table provided by the consultant team that are better. Concerned about conservation funding and whether there will be a lasting commitment to conservation after other projects are implemented.
- There must be benefits to fish to offset the negative effects the package will have on fish.
- Concerned that if certain pieces of the package are removed at a later date, the package won’t be “integrated” anymore.
- Concerns were expressed on how to ensure the entire package moves forward, and structuring sequencing of projects within phases to help address this concern, along with contingency planning if a planned project hits a road block.
- Commenter likes the packages long-term approach.
- Water should be moved from less important needs (watering lawns) to agriculture and fish.
- The Workgroup needs to predict build-out scenarios and assess water demand, paying special attention to the conversion of agricultural land use to suburbs.
- Fish passage at Tieton should be started sooner than currently scheduled because if fish passage at Tieton can be realized, the benefits are very large.

- The package should include more municipal projects. The Workgroup needs to discuss future municipal needs further and identify ways to reduce municipal demand.
- Municipal water demand estimate may be too high for planning purposes. An accurate estimate needs to be developed.
- Municipal water demand can be reduced with ASR and conservation.
- Can some of the TWSA be dedicated to municipalities? Granger, Sunnyside, and Prosser don't have linkages to TWSA because they have groundwater systems.
- The package has positive effects on steelhead and other anadromous fish; however, it has the potential for both positive and negative impacts to bull trout.
- The Workgroup needs to determine whether the package is technically and politically feasible.
- The package needs to include more storage projects.
- At this point, a realistic package is needed.
- Wymer would have environmental, agricultural, and municipal benefits.
- Groundwater storage is a promising option.
- Commenter likes the phasing approach.
- Does not think there are enough benefits from the project and the package implementation schedule is not quick enough.
- The Workgroup needs to compare the cost of different projects and the effects on numbers of fish.
- In order to gain political support, the package must be good for food, fish, jobs, and recreation.
- There is a positive indication that the USFWS could support Bumping (200K) if proper mitigation is planned.
- Work to implement fish passage at Tieton and Kachess should begin concurrently with the Keechelus evaluation in Phase I.
- Unsure whether the Yakima Basin will be able to secure such a high level of funding from Congress, and concerned that as a result, some projects will have to be removed.
- Yakima County is interested in a reliable water supply for economic and municipal needs for the next 100 years.
- Would like to see all projects moved forward in some way from Phase I. Concerned that once a project is implemented, certain interests may leave the table and the later scheduled elements of the package will not be done.
- The Workgroup should make a final decision on the allotment of water (currently assumed to be 2/3 water supply to 1/3 instream flow) rather than leave the decision for a future date.

Dan Silver summarized the Workgroup's main points during the discussion. Generally speaking, with the exception of Max Benitz and Charlie de la Chapelle, the Workgroup believes that the discussion draft package is in the range of where it should be at this point. Many people noted that they wanted projects started earlier and that they were concerned about the linkages between the projects and how to ensure that the integrated package stays together as a whole.

YRBWEP Workgroup Integration with the Yakima River Basin Study presented by Wendy Christensen and Derek Sandison

Derek and Wendy provided an overview to the Workgroup about the process to evaluate alternatives in the integrated package with the Yakima River Basin Study. It is anticipated that the Workgroup will make decisions regarding the specific mixes of projects by the end of the 2009. This will be followed by formal analysis of the integrated program through the Yakima River Basin Study, including programmatic NEPA and SEPA analysis. The current schedule calls for completion of the basin study process and the development of final recommendations by the Workgroup in December 2010.

Public Comment

The Workgroup meeting was opened for public comment. The following comments were received:

- Is the Workgroup willing to consider a smaller enlargement at Bumping Lake? The Workgroup responded that they may consider a smaller size after the environmental review process.
- The Workgroup needs to make sure not to approve a set of projects that will be outdated by the time they are implemented.

Action Items

- HDR will update the summary document to read “Groundwater Infiltration Prior to Storage Control,” state that Wymer would provide improvement to northside tributaries, and change “will” to “may” in the subordinating power at Roza footnote.
- HDR will move the K to K pipeline and inactive storage lines together in the benefits tables.
- The Workgroup support team will consider how to address the Workgroup comments in an updated draft Integrated Package and benefits characterization..

Workgroup Members in Attendance

Brad Avy, Washington Department of Agriculture

Dale Bambrick, NOAA Fisheries Service

Max Benitz, Benton County Commissioner

Dave Brown, City of Yakima

Alex Conley, Yakima Basin Fish & Wildlife Recovery Board

Charlie de la Chapelle, Yakima Basin Storage Alliance

Rick Dieker, Yakima-Tieton Irrigation District

John Easterbrooks, Washington Department of Fish and Wildlife

Urban Eberhart, Kittitas Reclamation District

Rand Elliot, Yakima County Commissioner

Michael Garrity, American Rivers

Scott Revell, Kennewick Irrigation District

Phil Rigdon, Yakama Nation - Natural Resources

Derek Sandison, Washington Department of Ecology
Jeff Thomas, US Fish and Wildlife Service
Jim Trull, Sunnyside Valley Irrigation District
Ron VanGundy, Roza Irrigation District
Wendy Christensen, Bureau of Reclamation

Other Attendees

Jeff Barry, GSI Water Solutions
Corey Carmack, Bureau of Reclamation
David Child, Yakima Basin Joint Board
Dan Church, Bureau of Reclamation
Stuart Crane, Yakama Nation
James Davenport
Sharon Edgar, HDR Engineering
Ben Floyd, HDR Engineering
Chuck Garner, Bureau of Reclamation
Don Gatchalian, Yakima County
Andrew Graham, HDR Engineering
Jennifer Hackett, Central Washington University
Justin Harter, Naches-Selah Irrigation District
Lynn Holt, Bureau of Reclamation
Joel Hubble, Bureau of Reclamation
Paul Jewell, Kittitas County Commissioner
Jerry Kelso, consultant for Bureau of Reclamation
Chuck Klarich, Yakima Basin Storage Alliance
Edwin Lewis, Wapato Irrigation Project
Kevin Lindsey, GSI Water Solutions
Barb Lisk, Office of Representative Richard Hastings
Chris Lynch, Bureau of Reclamation
Mike Marvich, Aqua Permanente
Tina Mayo, US Forest Service
Jim Milton, Yakima-Tieton Irrigation District
Tom Monroe, Roza Irrigation District
Bob Montgomery, Anchor QEA
David Morgan, US Fish and Wildlife Service
Bryan Myre, Yakama Reservation Irrigation District
Onni Perala
David Reeploeg, Office of Senator Maria Cantwell
Tom Ring, Yakama Nation
Ann Root, ESA Adolfson
Mike Schwisow, Schwisow & Associates

Teresa Scott, Washington Department of Fish and Wildlife
Dan Silver, Facilitator
Rob Swedo, Bonneville Power Administration
Michael Tobin, North Yakima Conservation District
Ric Valicoff, Roza Irrigation District

Next Workgroup Meeting

The next meeting will be held on November 9, 2009 at the Yakima Area Arboretum.

Where to Find Workgroup Information

Meeting materials, notes, and presentations from the Workgroup's meetings will be posted on the project website (<http://www.usbr.gov/pn/programs/yrbwep/index.html>). A bibliography of information sources, many of which are available online, is posted on the website. If anyone needs help finding an information source, contact those listed at the top of page 1 or Ben Floyd at HDR Engineering's Pasco, Washington office, (509) 546-2053, or ben.floyd@hdrinc.com.