

**Columbia River Policy Advisory Group
September 29, 2011**

Long-Term Water Supply and Demand Forecast

Dan Haller briefed the CRPAG on development of the draft long-term water supply and demand forecast for the Columbia River Basin, required by the Columbia River bill. The first forecast in 2006 was an abbreviated literature review. For the second forecast, due to the Legislature in November, the Department contracted with WSU to prepare an in-depth forecast using advanced techniques. WSU's work was peer reviewed by the University of Washington, Texas A & M, the University of Idaho, and Kansas State University as well as a CRPAG subcommittee. The WSU team presenting to the CRPAG was comprised of Mike Barber, Chad Krueger, Kirti Rajagoplalan, Mike Brady, and Jenny Adam. Jonathan Kohr of WA Department of Fish and Wildlife also briefed the CRPAG on the Instream Flow Atlas that was prepared in conjunction with WSU's forecast.

The WSU presentations addressed anticipated demands from municipal growth, hydropower, future irrigation, and in-stream flow needs for fish. Three recent public workshops suggested that improvements could be made to the forecast by: addressing groundwater, incorporating the smaller reservoirs, addressing improvements in agriculture technology, and improving climate projections.

CRPAG members raised these questions and comments:

- In calculating municipal demand did you look at conservation and best management practices? [No. We assumed the average use per person in the largest community in each WRIA, which generally overestimates use.]
- It would improve the forecast to incorporate best management practices and conservation into the demand assumptions.
- In reviewing the hydropower projections, did you consider other forms of energy generation? [No. We believe the impact of Initiative 937 is that increased energy demand through 2030 will not require additional hydropower.]
- What does your model show for the impacts on supply and demand in, for example, Wenatchee? [The model shows that the circumstances for the class of agriculture users who are curtailed annually will worsen. And Wenatchee will not be as hard hit as other WRIAs.]
- Could you discern if we have severe climate change which crops will be affected? [It appears that the number of growing days will be impacted even if there is no difference in the amount of water. With curtailed supplies, lower value crops would be curtailed.]
- Did your model include the Yakima River Basin? [Yes.]
- Regarding crop change: another factor is market demand, which will change over time irrespective of available water.
- Does your economic model account for land availability; for example, there is less available new land in Chelan County than in other areas. [No. The model

- focuses on crops rather than land availability. In the case of Chelan County, we think our numbers are on the high side and will be adjusted in the final report.]
- Does the model show the effect on prices from the change in availability? [Yes.]
 - What would be the impact if a fee were assessed on water? [The model shows three options and how demand would change at \$25/af, \$100/af and \$200/af.]
 - Did you do complete discount cash rates? [Yes] [*The notes are incomplete re discount rates.*]
 - What were the internal rates of return? [They varied depending on the discount rates and whether private capital was used.] [*The notes are also incomplete in terms of internal rate of return.*]
 - Has there been any attempt to bring the fish atlas together with the WSU model? [We can see the possibility of integrating the modeling, but that didn't occur. So far, both approaches were consistent in their application, for example, in the Wenatchee.]
 - Where will the greatest impact of climate change be? [The greatest impact will be on areas where we currently have the lowest flow. The analysis didn't use temperature as a component of the analysis since we couldn't figure out how to do it.]
 - Is there an assessment on groundwater in the instream flow atlas? [Current groundwater use is modeled as consistent over time, except for the Odessa which is handled a little differently due to the current groundwater issues.]
 - Does the instream flow model consider agriculture water conservation? [No. It assumes existing use layers.]
 - WRIA 31 imports water from the Yakima Basin; do you account for that? [Yes. The demand is credited to the Yakima Basin. The WRIA supply does not double count that water.]

Dan Haller explained that the draft Supply and Demand Report would be available on line on September 30. There will be several weeks of comment. A final is due to the Legislature on November 30 although Ecology expects a slippage on this date due to the required OFM review.

- Can you provide more time for review than 2 weeks? [Let us know what you need to complete your review.]
- It looks like a lot of the ideas from the comments won't be incorporated into the next iteration? [True. We are already building a work plan for 2016.]
- What you have done is commendable. It is singular in what it has attempted. While important, we need to acknowledge that this is only one piece of information about demand and supply, and we need to integrate lots of pieces.

Odessa EIS

Bill Gray of the Bureau of Reclamation and Derek Sandison of Ecology described the emerging preferred alternative on the Odessa EIS. The draft EIS included a full replacement option (273,000 af affecting 102,600 acres; building both the East High

Canal and expanding the East Low Canal) and a partial option (138,000 af affecting 57,000 acres; construction only in the lower half). The draft was issued in October 2010 and comments were received through January 2011. The two agencies adjusted their assessment based on these comments and incorporation of the Columbia River BiOp. The preferred alternative will be, in effect, a “beefed up” partial option. This option would serve both north and south of I-90, using Bank Lakes as the water supply. 164,000 af would be available over 70,000 acres. The project would be available in phases. A new concept would be in-filling, wherein certain distant properties would transfer their water to properties more proximate to the infrastructure. The project will apply stringent efficiency standards. The Final Special Study Report is due in early 2012 and the Record of Decision will be out in 2012.

Once the Record of Decision is issued, groups of irrigators east of the East Low Canal will be able to form Local Improvement Districts to pay for and construct water delivery pipelines from their farms to pumping stations on the East Low Canal. The LIDs would then be able to sign agreements with the East Columbia Basin Irrigation District and the Bureau to have water surface water delivered to their farms. The LIDs might be the quickest and most cost effective solution.

CRPAG members had these comments and questions:

- Why doesn't the 164,000 af from this option make a difference on Lake Roosevelt? [It is because of the way water is skimmed from the top of the river when flows are in excess of the parameters set for prescribed river operations. The impact will wholly be at Banks Lake – 8 feet in a wet year and 12 feet in a dry year.]
- If irrigators exchange water from out-lying land to nearer parcels, would this require them to shift to dry land agriculture in the outlying pieces? [Yes. They can't irrigate both parcels.]
- What is the mechanism for water transfer? [It is a private sector sale or transfer on an acre-by-acre basis.]
- What percentage of the 70,000 acres could be in-filled? [Up to 15%]
- What is the timeline for the preferred alternative? [This is a difficult question to answer due to the numerous uncertainties regarding construction and water contracts. The earliest that state money would be available is the fall of 2013. The earliest that federal money would be available would be 2015.]
- I like the new preferred alternative. I recommend that the Final EIS be expanded to provide for maximum operational flexibility.
- What is a ballpark construction figure? [\$730m].
- Diverting this much water from the Columbia River when it is facing deficits in most years under the BiOp is a concern. As pressures increase on the river, we need to find ways to keep the river whole, especially meeting flow targets in the spring. We need more creativity for the spring outflow.
- If the EIS were completed on a timely basis and private monies were available, would this change your time line for construction? [Yes, if there is no problem

with the water contract. It is possible to set up an LID as soon as a design is completed. The real challenge is completion of the contract.]

- How much flexibility is provided within the EIS? [We think the current sideboards are workable. However, if we perceive that there would be significant adverse environmental impacts, we might need to go out with a supplemental EIS.]
- Is there money available from the Columbia River account to use in the near term to put this project in motion? [The CR account is only for the EIS and planning report. Any additional expenditure would require legislative authorization.]
- Could the Legislature commit \$50m? [Yes.]
- Have you exhausted all efforts to conserve surface water? [We would like to see more. We have had an aggressive conservation program in the Project. But we are also attentive to the impact that conservation has had on fish and wildlife amenities. We need to balance conservation with protection of these facilities.]

U.S. Circuit Court Decision

Bill Gray and Derek Sandison described a recent court decision over the permitting of Lake Roosevelt water. Ecology and the Bureau entered into a Memorandum of Understanding in 2004 on secondary use permits at Lake Roosevelt. After passage of the Columbia River bill, Ecology issued two secondary permits to the Bureau. The Bureau's action was challenged by the Center for Environmental Law and Policy on the basis of inadequate NEPA compliance. The State entered the suit as a co-defendant. The U.S. District Court upheld the Bureau's action, and this decision was appealed. On August 19, 2011 the Circuit Court upheld the District Court decision. The Circuit Court addressed the timing of permit issuance, cumulative effects, consideration of indirect impacts, foreseeable additional projects, and the contract with the State.

- How can we access this decision? [It is on the 9th Circuit Court website.]

Lake Roosevelt Permitting, Cost of Water

Dan Haller briefed the CRPAG on the water contract between the Bureau and Ecology. This contract provides for recovery of Ecology's costs to issue the permits, which was enabled by recent legislation. The cost for the Lake Roosevelt contract is \$35/af. The cost for the water of future projects will vary depending on how much effort Ecology expends. For example, Ecology anticipates that new water will be permitted at Lake Sullivan in the latter part of 2012. It will develop fee language for the repayment of costs associated with that project. For the Walla Walla leasing project, the cost will again need to be calculated. Ecology may need to apply a hardship criteria allowed by law for public agencies.

The CRPAG had these questions and comments:

- What is the term of the contract between the State and Bureau? [40 years]
- Will the permittee have a contract with Ecology or a certificate? [They will have a contract with Ecology with an option to renew, and they will also be issued a certificate.]
- How did you derive the \$35/af? [It was based on the appendix of the Bureau's contract.]
- Can people change their contract over time to shift their use? [This is unclear and we will need to open up this discussion. At this point, Ecology gives the applicant the choice of taking Lake Roosevelt water or not.]

Budget Forecast

Jim Skalsky, budget analyst for Ecology's Office of Columbia River and Water Resources Program, briefed the CRPAG on potential effects of a new budget shortfall. Because of the last revenue forecast (09-15-11), the state will need to cut at least \$1.4 billion from the State General Fund. It is likely that this amount will increase to \$2.0 billion or more once the November revenue forecast comes out. Thus, the Governor has asked all state agencies to submit cut proposal of 10% to the State General Fund, which for Ecology is roughly \$9.7 million. To this point the Department has largely protected the Water Resources Program and the Office of Columbia River from cuts. The Legislature will hold a special session beginning November 28th to determine what will be reduced or eliminated. One potential impact from additional reductions would be in the bond capacity of the State.

CRPAG members had these questions and comments:

- How many FTE are there now in the Water Resources Program? [129]
- What has been the impact in General Fund reductions in the last three years? [Using actual data to be more precise – 09-11 Biennium initial GF-S appropriation was \$118.3 million while 11-13 GF-S initial appropriation is \$96.8 million.]
- Ecology gave up permanent FTEs. What analysis was done to say that permanent positions should be given up, rather than managing through unfilled vacancies? [Ecology has aggressively managed its unfilled vacancies, creating savings by not filling open spots. The agency has been criticized for not laying people off while other natural resource agencies were compelled to lay off staff. In the current environment, we thought it was prudent to make the cuts permanent.]

Project Updates

Derek Sandison briefed the CRPAG on a recent meeting on the Yakima River Basin Integrated Plan. Secretary of Interior Salazar, Senator Cantwell, Congressman Hastings, Governor Gregoire, Chairman Smiskin, and BoR Commissioner Connor met with the Yakima River Basin working group to discuss the Integrated Plan and the potential to take early actions.

Derek also informed the CRPAG that Ecology has not yet submitted its reports to the legislature on various capital budget provisos.

The next CRPAG meeting will be on December 1 at the Hal Holmes Center in Ellensburg.

Attendees:

CRPAG members and alternates:

Dennis Bly, Lincoln County Commission
Dan Brudevold, Colville Tribes
Jon Culp, Washington State Conservation Commission
Jim Fredericks, U.S. Army Corps of Engineers
Michael Garrity, American Rivers
Bill Gray, Bureau of Reclamation
Mike Leita, Yakima County
Darryll Olsen, Columbia Snake River Irrigators Association
Lisa Pelly, Trout Unlimited
Rudy Plager, Adams County Commission
Phil Rigdon, Yakama Nation
Mike Schwisow, Columbia Basin Development League/WA Irrigation Districts
Teresa Scott, Washington Department of Fish and Wildlife
Warren Seyler, Spokane Tribe
Craig Simpson, East Columbia Basin Irrigation District
Richard Stevens, Grant County Commission
Leo Stewart, Confederated Tribes of the Umatilla Reservation
Rob Swedo, Bonneville Power Administration
Matt Watkins, City of Pasco

Others in attendance:

Neil Aaland, Washington State Association of Counties
Mike Barber, WSU
Mike Brady, WSU
Jackie Bryan, ICF International
Chuck Carnohan, Bureau of Reclamation
Wendy Christensen, Bureau of Reclamation
Carolyn Comeau, Department of Ecology
Sara Cornell, Columbia Basin Development League
Stuart Crane, Yakama Nation
Mike Dexel, WA Department of Health
Karen Epps, WA State Senate Environment, Water and Energy Committee

Dan Haller, Department of Ecology
Tom Helgeson, CH2MHill
Wally Hickerson, ICF International/Jones & Stokes
Kenny Janssen, Golder Associates
Al Josephy, Department of Ecology
Jonathan Kohr, WA Department of Fish and Wildlife
Chad Krueger, WSU
Paul La Riviere, Washington Department of Fish and Wildlife
Bob Lee, WA State Senate Agriculture Committee
Kevin Lindsey, GSI Water Solutions, Inc.
Dave McClure, Klickitat County
Jason McCormick, Washington Water Trust
Steve Malloch, National Wildlife Federation
Carl Merkle, Confederated Tribes of the Umatilla Reservation
Kathy Moses, Colville Tribes
Tom Myrum, WA Water Resources Association
Dave Nazy, Department of Ecology
Mike Paulsen, Congresswoman McMorris-Rodgers
Kirti Rajagopalan, WSU
Tom Ring, Yakama Nation
Rick Roeder, WA Department of Natural Resources
Pete Rogalsky, City of Richland
Derek Sandison, Department of Ecology
Vicky Scharlau, Columbia Basin Development League
Dan Silver, facilitator
Jim Skalski, Department of Ecology
Paul Stoker, Groundwater Management Area
Steve Thurin, HDR Inc.
Stephanie Utter, Bureau of Reclamation
Dawn Vyvyan, Yakama Nation
Bill Wagoner, National Frozen Foods Co-op
Georgine Yorgey, WSU