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## Meeting Notes

### December 9, 2010

### Yakima Arboretum, Yakima WA

## Yakima River Basin Water Enhancement Project (YRBWEP) 2010 Workgroup – Economic Effects Workshop

### Opening Comments

Ben Floyd, Anchor QEA and meeting facilitator, welcomed Workgroup members and the general public, and gave a brief overview of the meeting agenda.

### Integrated Plan – Economic Effects Presentation by Ernie Niemi, ECONorthwest

Ernie Niemi, ECONorthwest, presented results from the economic effects analysis for the Integrated Plan. He began his presentation with an overview of general economics definitions, and then proceeded with discussing economic analysis results. (*For additional information, see the workshop presentation at: <http://www.usbr.gov/pn/programs/yrbwep/2010workgroup/meetings/index.html> .*)

The following items were discussed:

- What is an example of improved benefits to non-project users? *Some non-project users get benefit from return flow. More supply available in the basin increases return flows more than what would otherwise be available and these return flows help other water users not directly served by Reclamation.*
- Is a federal discount rate for water resources planning in 2010 of 4.375% per year high or low? *This value is what Reclamation is required to use for all 2010 studies. Any number in the range of 2 to 5% is considered a good place to start.*
- What's your opinion on applying a discount rate beyond 15 years? *As a general rule, the concept works very well in familiar situations. It does not work well when dealing with values and impacts that people are not familiar with; so discounting doesn't work well in situations of high risk and unfamiliar areas (e.g. climate change and catastrophic events due to climate change).*
- Climate change may generate monetary benefits, but these are not included in this model/analysis.
- The components in the potential capital and O&M costs number (\$2.9 billion in present value terms) include all project costs in the Integrated Plan.
- Discounting has nothing to do with inflation, just with the timing of when costs or benefits occur.
- There was further discussion on the discounting concept.



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- Does the timeline in these models imply trigger points? *The timeline for the discounted values correlate to the draft implementation schedule included in the draft Integrated Plan summary document.*
- A cost-benefit ratio should not be calculated based on results presented, because there are some significant costs and benefits missing from the analysis. For example, the benefits under climate change were not calculated; the benefits to species other than salmon and steelhead were not calculated; and the costs of lost habitat at the reservoir sites were not calculated, in addition to other items not listed here.
- The potential reduction in losses during severe drought (irrigation-related benefit) is based on net farm earnings.
- Do the costs include cost of pumping emergency wells during droughts? No, but neither are the benefits of the emergency pumping counted. When ground water is used, the supply increases above the prorationed level.
- Results for potential fish-related benefits of the Integrated Plan are derived from the expected benefits ten years after fish passage projects have been constructed, allowing time for project effects on fish populations. As fish populations change, the benefits adjust (i.e. bigger population, smaller value per fish); the starting cost is about \$1,000 per fish.
- There are some additional costs related to the increased fish runs. Hatchery-related costs.
- Yakima drought-related economic impacts (reduced crop production) are typically made up by economic benefits in other regions of the country (e.g. higher crop prices).
- The information presented on jobs and multiplier results come from a different scenario, where there is a permanent change in water supply. They aren't really appropriate to the situation analyzed, where there is an occasional drought, when residents and businesses adapt temporarily to reduced crop production.
- The economic analysis will specify that assumptions in the report do not include all the costs and all the benefits.
- Is there going to be a run assuming one of the climate scenarios? *We are not planning to run climate scenarios, or conduct other analysis beyond what was presented today.*
- What is likely to happen if we did a climate change scenario? *Our expectation is that we would have more severe drought levels, and a bigger impact to try to compensate for. Bigger impact may mean higher likelihood for drought, which increases impact on agriculture benefits. Overall, benefits would vary (i.e. up and down). There's a lot to include in climate change scenarios.*
- The Integrated Plan is trying to address our needs now, building an adaptable and flexible plan that will be able to meet future needs as they occur.(i.e. climate change scenarios).

## Public Comments

- Can you explain the numbers on potential irrigation-related benefits of the Integrated Plan?  
*These are the basic numbers used in the modeling:*
  - *The annual expected probability of a drought is 0.30 (drought occurs every 6 years out of 20 years, which equals 0.30).*

- *During a severe drought, there is 30% proratable entitlement. This figure is the definition of severe drought we used in the RiverWare modeling.*
- *After the Integrated Plan is implemented, that same drought would only cause 70% prorationing (40% improvement with Integrated Plan).*

## **Meeting Wrap-up**

Anchor QEA is updating the Integrated Plan Summary document according to Workgroup comments. Comments will be provided in a table called the Workgroup Comment/Response Document.

The next meeting will be held December 17, 2010 at 9:30AM at the Arboretum. At this meeting Workgroup members will be asked whether they support the Integrated Plan Summary document. Meeting materials will be distributed in advance of the meeting.

## **Workgroup Members in Attendance**

Scott Revell, Kennewick Irrigation District

David Fast, Yakama Nation – Yakima/Klickitat Fisheries Project

Michael Garrity, American Rivers

Ron VanGundy, Roza Irrigation District

## **Other Attendees**

David Child, Yakima Basin Joint Board

Wendy Christensen, Bureau of Reclamation

Stuart Crane, Yakama Nation

Adam Fyall, Benton County

Ben Floyd, Anchor QEA

Don Gatchalian, Yakima County

Kristi Geris, Anchor QEA

Andrew Graham, HDR

Sean Gross, NMFS

Justin Harter, Naches-Selah Irrigation District

Joel Hubble, Bureau of Reclamation

Eleanor Hungate

Jerry Kelso, Consultant to Bureau of Reclamation

Chris Lynch, Reclamation

Bob Montgomery, Anchor QEA

Tom Ring, Yakama Nation

Ann Root, ESA

Elaine Smith

William Woods

## **Where to Find Workgroup Information**

Meeting materials, notes, and presentations from the Workgroup 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 also 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 Anchor QEA, Richland office, (509) 392-4548, or bfloyd@anchorqea.com.