Yakima River Basin Water Storage Feasibility Study

Feasibility Analysis & NEPA/SEPA EIS: Phase Initiation Checkpoint Roundtable Meeting 3 Summary

Prepared by: John Petrovsky (JPA—Roundtable Process facilitator) and Mark Bransom (CH2M HILL)
May 9, 2007

Introduction

The third meeting of the Roundtable occurred on April 19, 2007, from 1 to 4 PM, at the Yakima Arboretum, Yakima, WA. The introductory part of the meeting included an opportunity for Roundtable members to provide comments on the Meeting 2 Summary; there were none. The meeting then covered four topics (full agenda for the meeting included as Attachment 1; PowerPoint slide presentation setting the stage for each topic included as Attachment 2):

- **Review of Roundtable Objectives**—Status of the Roundtable process to date, in terms of how well the original objectives of the process have been met.
- **Alternatives**
  - Status of alternatives definition and categorization (Joint alternatives & SEPA alternatives).
  - Recent operation studies—results of comparative analysis of selected Joint alternatives in terms of meeting the Storage Study water supply goals specified/refined during the Roundtable process.
- **Questions and Concerns**—An open roundtable discussion of outstanding questions and concerns, including both [1] Reclamation/Ecology items on which further Roundtable input was desired and [2] items that Roundtable members believed warranted further discussion and/or response from Reclamation/Ecology.
- **Summary and Next Steps**—Review by the Reclamation/Ecology team of what has been achieved in the Roundtable process and the work steps/actions that will characterize the Study through its completion.

The following summary is organized under these headings and focuses primarily on Roundtable discussion and commentary.

Where relevant, Reclamation/Ecology team input and/or responses during the meeting are included in *[bracketed italics]* type. In addition, Reclamation comments or responses inserted into this summary after the meeting, as part of summary preparation, are shown in ***[bold bracketed italics].***

Review of Roundtable Objectives

Since this was to be the last meeting in the current Roundtable process, John Petrovsky provided his views on the extent to which the process has met its objectives (original Roundtable objectives shown on PowerPoint slide—see Attachment 2).

He noted that the Roundtable's work to date has been particularly productive and valuable in [1] helping to refine/re-define Storage Study goals (measures of success) for fisheries, irrigated agriculture and municipal water supply, and [2] focusing on and discussing key questions regarding alternatives, how the alternatives would be defined, and how the alternatives would be analyzed in the Planning Report and EIS. These outcomes effectively encompass the first four of the six Roundtable objectives. Within the first four objectives, the only perspective not really discussed thus far was the role and treatment of secondary benefit factors such as power generation and recreation. The agenda for this third meeting offered an opportunity for Roundtable members to comment on this subject if desired.

The agenda for this third meeting was also designed to include discussion centered on the final two Roundtable objectives, review of comparative analysis of alternatives and input on upcoming feasibility analysis and EIS work.

The overall conclusion is that the three Roundtable meetings have been very valuable to Reclamation and Ecology. The process has met its purpose of "helping to ensure the completeness, effectiveness, efficiency and acceptability of the Storage Study."

There was no Roundtable commentary on Mr. Petrovsky's summary/assessment.

Alternatives

Mr. Petrovsky and Mr. Vinsonhaler presented [1] a confirmation of the current list of alternatives, and [2] the results of recent goals-achievement analysis of selected alternatives.

In the first regard, the alternatives were shown categorized as either Joint (NEPA/SEPA) alternatives (i.e. those that would be addressed in Reclamation's feasibility analysis and Planning Report as well as the EIS) or SEPA alternatives (i.e. those that would be covered by Ecology and included only in the EIS).

In the second regard, Reclamation used the water supply goals/benchmarks refined through the Roundtable process and analyzed the extent to which the No Action, Wymer Reservoir (alone), and Black Rock Reservoir alternatives would meet these goals. The results shown were intended to be both informative related to the three alternatives studied and illustrative of the kind of comparative analysis to be conducted for all alternatives.

Roundtable commentary on this presentation included:

- The results of comparative analysis for these three alternatives are pretty self-evident: Black Rock effectively meets the water supply goals; Wymer and No Action, to varying degrees, go only part way. These results clearly argue for a large project such as Black Rock, and this perspective becomes even more compelling when the projected shortfall in current supply due to climate change is considered (see Questions and Concerns, below, for more discussion of this issue). In addition, we should be looking at the potential for a large Storage Study project to provide water for secondary benefits such as power generation and recreation opportunities.

  As a counterpoint to this perspective, the opinion was also expressed that the Storage Study must not ignore or "throw out" the smaller options; one or more of the smaller options may end up being all that can be afforded/implemented, and only meeting a portion of the goals would be preferable to no project at all. Further, the potential for conservation and better resource management/allocation must not be ignored in the quest for major new storage; these elements of a solution can make a (perhaps major) contribution to meeting Basin needs in a cost effective manner and with less impacts.

- It is difficult to see and fully understand all the assumptions and variables that are used in this analysis. More detail on the inputs and outputs of the models would be needed in order to provide an informed and critical commentary on the analysis. *[Full documentation of the analytical methods, assumptions and input/output data will provided in the Planning Report; Roundtable members are welcome to meet with Reclamation personnel at any time to explore more detailed questions].*

- Regarding the criteria used to judge whether alternatives meet or do not meet the in-stream flow targets, it would be more reasonable to judge an alternative as meeting the target if it is within 25% of the targeted value (rather than the "within 10%" range shown in this analysis). There is high variability and flexibility in managing flows for fishery benefit; judging an alternative as not meeting the target unless it is within 10% of the targeted value is too severe and infers more precision in the targets than is really the case.

- The analysis of fishery goals achievement is very general and simplified and the basis for TWG specification of the flow/volume targets is unclear. While this analysis may be of value, there are many variables that must be considered to truly understand whether fishery goals would be met. These variables include flow timing and location, fish passage condition, habitat conditions, etc.
- It should be noted that Title XII of the Act of October 31, 1994 was intended as an implementation step toward additional storage in the Basin; it was not intended to stand alone.
- The 70% irrigation supply target for proratables should be considered a firm goal. We should make sure that any alternative considered for implementation meets this goal.
- The 70% proratable irrigation supply goal should be viewed strictly as a target to meet agricultural needs. It should not be inferred that meeting this target will also help meet instream flow goals; there are likely to be more cost-effective ways to achieve fishery benefits and the delivery of irrigation supplies is most often not coincident with instream flow needs.
- We need to recognize that the municipal supply water from this project would most likely be proratable. Because of this, it is less valuable; it would not be permitted as new, firm municipal supply because it is not reliable.
- The assumptions regarding geographic allocation of the municipal supply water need to be critically reviewed. We need to avoid skewing the allocations to areas in the Basin where current growth rates/pressures are high, but will not be sustainable over time. In this regard, augmentation of municipal supply will be critical in the middle and lower Basin, whereas growth pressures right now are highest in the upper Basin.
- The opinion was again expressed that the Bumping Lake Enlargement option should be removed from consideration due to the environmental concerns discussed at the last meeting. *[Reclamation indicated that it was aware of this viewpoint, and that the environmental impact problems associated with this alternative remain a strong argument against it. Nevertheless, Reclamation has committed to the Yakama Nation to take another look at Bumping, using different operational (and perhaps size) assumptions than the prior analysis. This does not mean that the Bumping Lake alternative will be carried through to the feasibility analysis or EIS; it could very well be eliminated once this "fresh look" is accomplished]. [Note: see Question and Concerns, below, for related discussion of continuing consideration of the Yakima River Pump Exchange option].*

Questions and Concerns

Topics to be addressed in the Questions and Concerns portion of the meeting were identified through [1] an initial list prepared by Reclamation/Ecology ahead of the meeting (and shown in the PowerPoint presentation), and [2] a polling of Roundtable members at the outset of the discussion. Topics identified were:

→ Responsibility for annual operations & maintenance costs
→ Approach to climate change
→ Municipal water supply needs
→ Yakima Basin water right v. Columbia Basin water right (i.e. in pump exchange scenario)
→ Potential impact of Storage Study project capital and O&M costs on Yakima Basin fish & wildlife programs
→ Relationship between the Yakima Basin Storage Study and the Columbia River Off-Channel Storage Study
→ Continuing consideration of the Yakima River Pump Exchange concept/alternative
→ Strategy for/approach to a more robust benefit/cost analysis

- → Alternatives—Combinations of elements to meet water supply goals v. focus on a single project
- → The Aquifer Storage and Recovery (ASR) option
- → Extent to which a Storage Study project/alternative can help meet Indian treaty rights/obligations
- → Timeframe for completion of the Storage Study, including coordination of federal & state efforts

Summary of discussion under each of these topics is provided below.

Responsibility for annual operations & maintenance costs

- The Storage Study definitely needs to explore O&M funding scenarios hand-in-hand with defining costs.
- There may be potential for funding project O&M (all or part) through benefits derived from regional integration of power generated at a Yakima Basin storage project and local/regional development of wind energy.
- There may also be opportunities for private sector participation in O&M funding via other secondary benefits such as recreation.
- Will there be money made available to help pay for new storage (construction or O&M) when existing reservoirs are paid off?

Approach to climate change

- The ability of the various storage and non-storage alternatives (or elements of alternatives) to meet the defined needs of the Basin will be severely tested when the projected water supply shortfall from climate change is added into the equation. This is a significant concern for all three Storage Study purposes—irrigation, municipal, and fisheries; all three will actually need new water supply just to maintain status quo. One aspect of this concern that we have not discussed to date is the impact on fisheries. Certainly, current/status quo instream flow conditions are not good; with flows volumes being reduced and/or flow patterns changing progressively due to climate change, a no action or minimal action scenario in the Basin will result in worsening conditions. As noted earlier, this perspective clearly argues for a large, flexible project. *[Reclamation confirmed that the upcoming analysis will compare all alternatives from the standpoints of both "with" and "without" climate change].*

Municipal water supply needs criteria

- As noted earlier, it is likely that water supply from a Storage Study project would be proratable, making it less valuable–not reliable/firm and thus not acceptable as a direct supply for future municipal growth. In order to make this water available as direct municipal supply, some means would need to be found to make in non-proratable.
- Since most of the 82,000 acre foot municipal need that we have focused on in this Roundtable process may be considered mitigation for future groundwater use[1], the "proratable problem" may be largely, if not completely manageable (at least from the standpoint of supply reliability). For example, using Storage Study water for recharge as part of a conjunctive management program could compensate for the fact that the supply is not firm; groundwater could remain the firm supply, with Storage Study water used when it is available to recharge groundwater.
- In the "Storage Study supply as mitigation" scenario, a challenge would remain related to defining how the municipal component of Storage Study water would be paid for.
- It was also reiterated that the potential exists for a requirement to mitigate for existing groundwater usage (as noted in prior meetings, such a requirement could double the municipal need estimate). *[The sense of*

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[1] Reclamation's Plan Formulation analysis cited the municipal supply need at 10,000 acre feet, basing this estimate on the projected needs of jurisdictions using surface water now; thus, 72,000 acre feet of the current need benchmark is in the category of mitigation for groundwater use.

the Roundtable group remains that the 82,000 acre foot municipal supply benchmark for Storage Study analysis is appropriate moving forward].

Yakima Basin water right v. Columbia Basin water right

- *[Reclamation wanted to clarify the situation related to water rights in a Columbia River pump exchange scenario. During discussions at prior meetings, concern had been expressed that if senior Yakima Basin water right holders accepted exchange water from the Columbia Basin, their senior right status would be lost (i.e. they would be relegated to junior right status in the Columbia Basin). Reclamation indicated that Yakima Basin water rights can be preserved/protected in such a scenario, and cited the Umatilla River exchange as a good example].*

Potential impact of Storage Study project capital and O&M costs on Yakima Basin fish & wildlife programs

- As noted at prior meetings, it is a struggle now to get congressional funding for existing fish and wildlife programs. There is real danger that this condition will be made much worse after hundred of millions or billions of dollars are authorized for a storage project.
- The Planning Report and EIS (PR/EIS) must address the question of "adding water" without jeopardizing other programs. It must be clearly stated/committed that a storage project will not undercut other critical programs. If necessary, this commitment must be carried forward into any future authorizing legislation. *[Reclamation indicated that this issue would be clearly addressed in the PR/EIS].*

Relationship between the Yakima Basin Storage Study and the Columbia River Off-Channel Storage Study

- There is continuing concern that these two studies/programs are in competition (i.e. no room for both in terms of reasonable expectations for funding and implementation). *[Reclamation/Ecology responded that:*
  - *The two studies are under separate authorizations;*
  - *The agencies are looking at each equally, seeking synergy, not competition;*
  - *Neither study has priority or preference over the other at this point; no judgments have been made;*
  - *With all things considered, projects emerging from both studies could be shown to be needed].*

Continuing consideration of the Yakima River Pump Exchange concept/alternative

- Why is this option still "on the table" when there is strong local opposition to it (i.e. Benton County sees significant land use and property rights issues associated with this concept).
- Other Roundtable members responded that the Yakima pump-back concept may be a beneficial and important part of a Wymer alternative, especially from a fishery standpoint (e.g. benefits in the lower reaches of Yakima River). Because of this potential, support was expressed for continuing to study its pros and cons.

Strategy for/Approach to a more robust benefit/cost analysis

- How will Reclamation/Ecology achieve a more thorough benefit/cost analysis that has been done to date? Will the benefit/cost analysis include all alternatives, including the "SEPA" alternatives, for which we have little definition to date (and which might not be defined to the same level of detail as the "Joint" alternatives—at least within the current Storage Study schedule)? *[Reclamation responded that the upcoming PR/EIS will include a comprehensive benefit/cost analysis of the Joint alternatives, including the National Economic Development Account, the Regional Economic Development Account, the Environmental Quality Account (which includes T&E species), and the Social Account. No further insight was provided regarding benefit/cost analysis of SEPA alternatives].*

Alternatives—Combinations of elements to meet water supply goals v. focus on a single project

- Based on what we are seeing in terms of the ability (or inability) of various options (e.g. Wymer Reservoir) to meet our defined water supply needs, it seems that the best solution may be combining "elements" into potentially successful alternatives (e.g. options such Wymer, Bumping, Yakima pump-back, a non-storage package, ASR, etc. would be considered elements v. stand-alone alternatives). *[Reclamation/Ecology responded that the PR/EIS, at least as conceived at this point, will likely focus on studying and testing each element/option individually, portraying their relative ability to meet water supply goals and their relative levels of impact. As analysis proceeds, some obvious combinations of elements may be assessed, but a rigorous "mix and match" analysis will likely not be conducted. After the PR/EIS is completed, Reclamation's Record of Decision could address the potential for one or more combinations of elements to meet Storage Study water supply goals, achieve a more favorable benefit/cost relationship, and/or minimize adverse impacts. In any case, there seems little doubt that the concept of combining elements into a final proposed solution will be part of the discussion prior to any proposal to Congress and/or State decision-makers].*

The Aquifer Storage and Recovery (ASR) option

- How can the ASR option be thoroughly and adequately treated in the PR/EIS given that the USGS study addressing this subject will not be completed for two years? *[Reclamation responded that the best available information will be used, including that available from the in-process USGS effort. For the purposes of Storage Study analysis, a reasonable/sound order-of-magnitude estimate of ASR volume potential is what is really needed; such an estimate should be achievable even though the detailed USGS work may not be finished].*

Extent to which a Storage Study project/alternative can help meet Indian treaty rights/obligations

- We should address this question in comparative analysis of alternatives. Whatever project or projects is ultimately recommended for approval/implementation should maximize fulfillment of treaty obligations to the extent possible.
- The Yakima Nation representative on the Roundtable noted that Reclamation has a responsibility to study this question and make sure that treaty rights are protected and obligations are met. *[Reclamation reinforced this point].*

Timeframe for completion of the Storage Study, including coordination of federal & state efforts

- Roundtable members asked for confirmation that the target date for completion of the Final PR/EIS and Reclamation's Record of Decision is December, 2008. There is significant sentiment that the Study must proceed on this strict schedule and not be side-tracked by concerns regarding the status of related, parallel efforts such as the Columbia River Off-Channel Storage or detailed USGS ASR studies. *[Reclamation & Ecology confirmed that this was still the target and that both agencies are committed to doing all they can to meet that target. Both agencies believe that sufficient understanding of all alternatives (including Columbia River and ASR) will be achieved to adequately compare their relative merits in terms meeting Storage Study goals and their relative potentials for impact].*

Summary and Next Steps

The Summary and Next Steps portion of the meeting focused on a slide (with the same title) in the PowerPoint presentation (see attachment 2—last page). Using this slide, Mr. Petrovsky reviewed what has

been accomplished by the Roundtable process, what will follow in the coming months as the Storage Study proceeds, and what will occur after the PR/EIS is completed (i.e. toward an outcome—action on a project).

Roundtable members indicated that the process has been valuable, in fact it should have been initiated earlier in the Study effort. A request was made for Reclamation and Ecology to continue the Roundtable via quarterly meetings. *[Reclamation and Ecology indicated that they would consider this request].*

There were no comments from visitor/observers at the meeting

The meeting adjourned at 4 PM.