

# Yakima River Basin Water Storage Feasibility Study

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## Feasibility Analysis & NEPA/SEPA EIS: Phase Initiation Checkpoint Roundtable Meeting 2 Summary

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### Introduction

The second meeting of the Roundtable occurred on March 29, 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 1 Summary; there were none. The meeting then focused on three main topics (full agenda for the meeting included as Attachment 1):

- Status of Goals / Achievement Benchmarks
- Alternatives/Potential Alternatives
- Goals Achievement Analysis

The following summary is organized under these headings and reflects Roundtable discussion. To set the stage for Roundtable discussions, the Reclamation team presented information on the status and direction of Storage Study work on each of these topics. The slides used in these presentations are included as Attachment 2 and are referenced as appropriate below.

Where relevant, Reclamation team responses made during the meeting to Roundtable member comments or questions are included in this summary and shown in *[bracketed italics]*. In addition, Reclamation's comments or responses inserted into this summary after the meeting are shown in ***[bold bracketed italics]***.

### Status of Goals / Achievement Benchmarks

John Petrovsky presented the current status of defining water supply goals/benchmarks for the three Storage Study purposes (Irrigation, Municipal Supply, and Fisheries). In each case, work with the Roundtable has helped to better define and solidify these goals/benchmarks; for Fisheries, significant input has also come from the Technical Work Group. Roundtable member commentary and questions on this subject included:

- The overall need for additional water supply defined by these goals still does not include the increment that will be attributable to climate change. This increment should be included in any consideration of Storage Study alternatives. *[Response: Reclamation and Ecology will consider the potential impact of climate change in the upcoming analysis].*
- Regarding the summary matrix showing insights on fishery/instream flow performance from previous operations studies, Roundtable members questioned how these results were derived and what operational assumptions were used. The general sense was that the results shown do not reflect the true potential of some alternatives, particularly Black Rock, and that there is a misleading lack of differentiation among very different alternatives (i.e. Wymer and Black Rock). *[Response: Reclamation indicated that these early operations studies used basic criteria focused mostly on meeting irrigation needs—i.e. existing commitments and attempting to hit the 70% proratable goal—while meeting Title XII flow requirements and making improvements to the annual hydrograph on a reach specific basis. No differentiation between normal, wet and dry years was made. Up to this time, there have been no specific instream flow goals like the ones being developed during this Roundtable process. In future operations studies, the ability to optimize instream flow performance while meeting irrigation and municipal goals will be explored; as indicated later in the meeting, the operations analysis will be an iterative process].*

- The question of interaction (positive or negative) between Storage Study alternatives and existing plans in the Basin was again raised. There is considerable interest in:
  - The level of benefits to fisheries that could be achieved by full implementation of the Salmon Recovery Plan, the Sub-Basin Plan, and others, rather than (without) building new storage, *[Response: It should be noted however, that there was no estimate of the level of benefits to fisheries that could be achieved by full implementation of the Salmon Recovery Plan, the Sub-Basin Plan, etc in these documents.]*
  - The extent to which significant fishery benefits could be achieved by non-structural/non-storage options v. building new storage,
  - The extent to which pursuit of major new storage could undermine or foreclose the ability to implement these plans or the more targeted restoration efforts that have been proposed, and
  - Conversely, the extent to which new storage could facilitate achievement of these plans and restoration proposals.

In these regards, it was noted that getting a complete picture of these interactions and relationships is difficult, especially related to fishery enhancement actions. Some actions/proposals are already underway (i.e. part of the baseline/No Action), some are only being studied, some might be rendered unnecessary by introduction of new storage and/or system operational flexibility. *[Response: Reclamation will explore these concerns and will report findings in the EIS].*

- Roza Irrigation District would like to clarify/adjust its specification for the irrigation goal: If the alternative is Wymer, the 100,000 acre-ft requirement is correct. However, with Black Rock, Roza's preference is the 70% level. *[Response: Reclamation would like to solidify goals that are common to all alternatives, not vary them based in specific alternatives. They will look at this request by Roza to see if it can be accommodated without introducing undue complexity and undesirable consequences in the models].* Other Roundtable members indicated that we should simply adopt the 70% goal across the board, rather than attempt to adjust the need downward on a case-by-case basis.
- What is KID's participation in defining the irrigation goal? Part of KID's right is proratable. *[Response: The Kennewick Irrigation District has both nonproratable and proratable entitlements. Their irrigation demands are met by return flows accruing to the Yakima River below Sunnyside Diversion Dam. In the past there have been adequate return flows to meet these demands. Operation studies being conducted for the Storage Study indicate Kennewick Irrigation District's demands can continue to be met in all years from return flows.].*
- YRBWEP could change the water supply/need picture. Has this been taken into consideration in defining these goals? *[Response: The No Action Alternative includes known and foreseen changes/actions emerging from YRBEWP].*
- Several questions were asked about the 82,000 acre-ft goal/benchmark for municipal supply:
  - Why is the municipal need only being estimated for a 50, rather than 100, year future? *[Response: The estimate is for a 50 year horizon because it is not really reasonable to try and project population/municipal growth beyond this horizon. When benefits are calculated as part of the feasibility analysis, the benefits from the full 82,000 acre-ft will included from year 1 rather than growing incrementally over the 50 year period; in this way, with full benefits started immediately and carried over the 100 year period, significant compensation will occur for the fact that municipal demand growth is not projected beyond the 50 year horizon].* One Roundtable member also commented that the 82,000 acre-ft goal is calculated based on existing per capita water consumption; it is very reasonable to assume that reductions in per capita consumption will occur by necessity, if not voluntarily, in the future. Thus it is entirely possible that the 82,000 acre-ft goal is reasonable over a longer period of time.

- Have the cities accepted/approved this estimate? Is the rest of the basin, beyond the cities, included in the estimate? *[Response: This goal/target for municipal supply is consistent with the Watershed Management Plan and was developed in consultation with the Yakima Basin cities. It embraces both the surface and groundwater needs of municipal water systems, community and non-community water systems, and individual ground water pumpers throughout the Yakima basin. The predominance of the current municipal supply is provided from groundwater].* Is the Tri-Cities area included in any way? *[Response: The goal does not include the Richland and West Richland, since this area gets its surface water supply from the Columbia River].*
- How would people outside the cities pay for their part of the storage costs? Would a federal contract be needed? *[Response: It is likely that municipal supply users outside of the cities would pay via service contract with a municipal supply entity, much like those in the cities. Water right registration fees may also be part of the picture. Overall, many of the details in this regard have yet to be worked out].*

## Alternatives/Potential Alternatives

The status of alternatives definition was presented, specifying “joint alternatives” (i.e. definitely being carried forward into Reclamation’s Feasibility Analysis and joint NEPA/SEPA EIS) and “potential alternatives” (storage and non-storage options that are still being looked at but on which a decision has not yet been made). The presentation also distinguished between Reclamation’s responsibility to address in-basin storage options and the State’s (Ecology) responsibility to address non-storage and out-of-basin options in the joint EIS. Roundtable comments and questions on this subject included:

- Given that [1] this will be a single, joint EIS, but [2] Reclamation and Ecology have different responsibilities for looking at alternatives/options, how will a preferred alternative be selected? *[Response: Only NEPA requires a Record of Decision to be prepared at the end of an EIS. The SEPA does not require any type of concluding statement to be prepared for the EIS. Reclamation will consider which storage alternative (or combination of alternatives), if any, meets the goals of the Storage Study and will outline that consideration in the Record of Decision. This alternative (or combination of alternatives) would be considered the preferred alternative under NEPA.*
- Regarding Reclamation’s focus in the Feasibility Analysis/NEPA only on in-basin storage alternatives, the opinion was expressed that Reclamation does have the latitude and authority to consider other alternatives (e.g. non-storage); this latitude comes from NEPA itself and from other programs in the basin, such as YRBWEP. Reclamation should use this latitude/authority to ensure that all reasonable alternatives, including non-storage options, are addressed as rigorously as the in-Basin storage alternatives. *[Response: Federal law requires that feasibility studies be specifically authorized by Congress. The act authorizing the Yakima River Basin Water Storage Feasibility Study restricts the study to analyzing in-basin storage alternatives. NEPA does not authorize Reclamation to conduct feasibility studies and Title XII (YRPWEP) provides authority to undertake certain actions but does not provide a grant authority for a feasibility study. Ecology is not restricted to only in-basin storage alternatives and will consider other types of alternatives, both non-storage and out of basin alternatives. The in-basin storage alternatives are called “joint alternatives” since both Reclamation and Ecology have authority to consider them.]*
- Also regarding the “reasonable range of alternatives”, Roundtable members asked about the status of the Columbia River Off-Channel storage study and what role it will play in this FA/EIS process. *[Response: Ecology confirmed that the appraisal evaluation of potential Columbia River off-channel storage is due to be completed by the end of April 2007. One possibility that may be considered for using part of this storage, if an appropriate site (or sites) with sufficient storage volume is identified, as a pump exchange to supply Yakima Basin needs (i.e. with no new storage in the Yakima Basin). However, the Columbia River process is separate from and on a different schedule than the Yakima Basin Storage Study; the Columbia River option may be considered in the SEPA portion of the YBSS EIS, but it may not be as well*

*defined as the in-basin alternatives. Its potential role in defining a preferred alternative for the Yakima Basin cannot be determined at this point].*

- Citing the Columbia River Off-Channel study as a primary example, the opinion was reiterated that all alternatives should be looked at with equal rigor, and if more time is needed to study promising alternatives that are not yet well understood, then the necessary time should be taken. Perhaps the Yakima and Columbia studies should be combined. There may only be funding for one major storage project in this part of the State and the necessary care and time should be taken to identify the best option. The Yakima Basin Storage Study should not be placed on an arbitrary deadline. [Response: *Ecology will consider potential alternatives including Columbia River Off-Channel Storage, but will maintain the YBSS schedule .* ]

Other Roundtable members expressed a different opinion, stating that the Yakima Basin Storage Study must move forward on the current schedule. The study has been in process, in one form or another, for a very long time and needs to be brought to a conclusion. The need for additional water supply is clear and there is real urgency to move forward with meeting this need.

- Commentary and discussion of individual alternatives included:
  - Bumping Lake Enlargement: Some Roundtable members noted that this alternative has been repeatedly rejected (in several studies) due to environmental impact concerns (e.g. wilderness, land use, fish passage) and inability to meet operational and/or water supply goals. They questioned why it was back on the list of potential alternatives and recommended that it be removed/rejected, citing especially the environmental concerns, which have most likely gotten worse (not better) over time.

Reasons for giving the Bumping Lake Enlargement another look were explained by another Roundtable member. These include primarily: flawed operations assumptions in prior studies and not sizing the project appropriately for the watershed. In the former regard, previous studies have all assumed operation dictated by irrigation needs and have not attempted to operate the project for fishery benefits (there are important potential benefits from additional headwater storage). In the latter regard, a more appropriately sized reservoir might moderate some of the environmental concerns.

*[Response: Reclamation indicated that, because the Bumping Lake option was raised again during scoping, another look was being taken at this option (i.e. perhaps a smaller reservoir, perhaps adjustments in operations assumptions) and a decision on whether to carry it forward would be made in the near future. It should be noted that previous studies in the 1980's, Bumping Lake Enlargement alternatives of 250,000 acre-feet and 458,000 acre-feet were considered in which some of the reservoir capacity was dedicated to instream flow purposes and some to improve the dry-year proratable irrigation supply. The instream flow capacity was specifically used to meet target flows at specific points throughout the Yakima River basin. These alternatives were opposed because of environmental concerns].*

- Wymer Reservoir: Given that the water supply needs/goals achievement benchmarks have summed to such a large number, will smaller “yield” options, such as, Wymer now be rejected because they cannot come close to meeting the total defined need? Wymer especially could have significant benefits for fisheries; it still may be a valid part of the solution.

This question about Wymer also elicited the observation that most, if not all, individual options or elements being considered will likely fail to meet the water supply benchmarks we have defined. It seems that the true “alternatives” and the ultimate solution will be a combination of elements; thus Wymer should still be considered as a potential part of the answer.

*[Response: Ecology added that the State will definitely look at potentially feasible and beneficial options even if they do not approach the supply magnitude expressed in the goals we have been discussing. The State reserves the option to look at more modest, perhaps more affordable,*

*solutions, rather than demanding that all alternatives meet these goals. Nothing in the legislation itself specifies these goals; they are simply a target, a guideline].*

- Yakima River Pump Exchange: Benton County expressed opposition to this component of the *Wymer Reservoir plus Yakima River Pump Exchange* alternative. Reasons cited included conflict with County's Comprehensive Plan pursuant to the Growth Management Act and with existing or potential irrigation/linear facility right-of-way requirements in the County.
- ASR (Aquifer Storage and Recovery): Inquiry was made on the status of defining the ASR option (e.g. potential volume of yield v. the water supply goals). *[Response: This option will be studied in conjunction with the USGS, which is the lead agency in conducting a groundwater study of the Yakima Basin. The information USGS has gathered should provide a basis to estimate potential storage volumes and yield potentials from Basin aquifers]*

## **Goals Achievement Analysis**

Comments on the upcoming comparative analysis of alternatives included:

- An important goal of the operations studies should be elimination of flip-flop.
- Care should be taken that the fisheries goals for each reach are properly coordinated, providing for fish passage continuously, reach-to-reach through the system. The parameter of water temperature should also be considered.
- The need to consider the additional increment of need represented by climate change was reiterated. This increment should be added to the goals/benchmarks; we need to be visionary in our solution(s).

## **Wrap-Up**

The meeting ended with [1] an opportunity for final Roundtable and visitor/public comment and [2] confirmation that the next Roundtable meeting is still scheduled for April 19, 2007, same time, same venue.

Final commentary was provided by three members of the Yakima Basin Storage Alliance. Key points made included:

- The December 31, 2008 completion date for the Storage Study (FA/EIS) should be considered a firm milestone. There is great risk in continuing to delay a response to impending water supply needs in this Basin.
- The Black Rock alternative provides major advantages in actually realizing a solution. It has the best chance of meeting the needs/achieving the goals; it is one project, on which the constituencies can focus v. an aggregation of small projects with far less chance of being implemented; and with its many dimensions of benefit (including recreation), it can be paid for.