

## Executive Summary

The purpose and goal of this Yakima Basin Integrated Plan Technical Review is to provide elected officials, policy makers, and the general public with an impartial, objective review of elements of the Yakima River Basin Study Proposed Integrated Water Resource Management Plan (or IP), prepared by the United States Bureau of Reclamation in 2011. This review was conducted at the request of the Yakima Basin Storage Alliance with the intent of encouraging new examination and discussion of the resulting outcomes from IP and is focused on the following three key questions:



1. *Do the projects resulting from the IP provide sufficient water for instream and out-of-stream water needs, including the current climate conditions and future conditions under the three climate change models identified in the IP?*
2. *Is the capacity of the surface water storage options presented in the IP sufficient to meet instream and out-of-stream needs over the long-term?*
3. *Will the timeline for constructing the water storage projects be achievable in a timely manner?*

Based on this review and analysis, we conclude that the IP does not provide sufficient information to adequately answer these fundamental questions. The level of doubt and uncertainty with the baseline data, resulting studies, and conclusions reached in the Plan is significant. The action identified in the IP does not provide the following:

- Basin Water Needs - The IP does not provide an accurate and complete accounting of the current water needs, most notably for instream flows. As a result, the IP does not include the information required to determine if it presents the best course of action for providing a reliable, long-term water supply to the Yakima Basin.
- Climate Change - The IP's detailed historical hydrologic assessment did not adequately quantify the current and future effects (e.g., reduced snowpack, earlier snowmelt and runoff events, increased temperatures, and single/multi-year droughts) of climate change on the Basin.
- Water and Tribal Rights - Under the current conditions highlighted in the IP, the junior water rights holders typically do not receive their full allocation - there is simply not enough water remaining to satisfy all water right holders. Additional water to support instream flows would have prior rights, and would need to be satisfied prior to any irrigation withdrawals, further aggravating the situation for junior right holders.
- Water Storage Elements - The IP's proposed water storage projects also will not provide enough water volume and predictable water supply and storage capacity for future

needs. In addition, the estimated cost is significant at \$4.4 billion and will be implemented over a long time frame of 30-40 years.

- Groundwater Depletion - The IP studies cite a reduction of 50,000 acre-feet between low and high runoff years, which in turn decreases the inflow available for seasonal water storage and reduces instream flows available for fisheries and aquatic habitat.
- Economic Analysis - The IP Model is a single-year model and is therefore, not capable of providing an accurate assessment of the long-term results and effects of the IP, such as: estimating the direct economic effect to irrigators, cropping patterns, water conveyance efficiencies, and fixed crop water requirements in the Basin. The economic analysis also requires additional fidelity to support the values associated with water supply benefits to the ecosystem, fisheries (e.g., a new survey to assess fishery benefits), and agriculture.

In summary, water is critically important to the environmental, economic, social, and cultural well-being of the Yakima River Basin. In dry years, water supplies are inadequate to meet all needs, and water delivery shortages occur to irrigated agriculture. This results in a reduction in agricultural output and employment, and reduced activity in supporting economic sectors (e.g., processing, transportation, etc.). The proposed IP storage projects each present significant technical, political and funding challenges which are yet to be fully addressed. These challenges, in combination with the large cost for the proposed projects (up to \$4.4 billion), will likely result in implementation delays, increased costs and the potential that one or more of the projects may never be built. Before additional significant public funds and time are expended, we urge further review and consideration of the points raised in this review.

Use the link below to see the whole report.

<http://ybsa.org/wp-content/uploads/2012/03/YBSA-IP-Technical-Review-Revised-Final-Report-7-29-14.pdf>