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April 18, 2003

J. William McDonald
PNW Regional Director
U.S. Bureau of Reclamation
1150 N. Curtis Road
Boise, ID 83706

Dear Mr. McDonald:

We are writing to voice significant questions and concerns we have about the Black Rock storage proposal. We understand that Congress recently directed the Bureau of Reclamation to conduct a feasibility study of options for additional water storage in the Yakima River Basin, with emphasis on the feasibility of storage of Columbia River water in the potential Black Rock Reservoir, and appropriated one million dollars for FY 2003 to begin such a feasibility study. The cost of the proposed Black Rock Reservoir has been estimated to approach $2 billion, and hold as much as 1.7 million acre -feet of water.

Our overriding concern for the feasibility study is that the Bureau first very clearly identify the problems and legitimate needs that the feasibility study is designed to address, and then study a broad range of potential solutions that in combination best address those problems and needs at the least cost fiscally and to the environment. The environmental benefits as well as costs of certain approaches (*e.g.,* water use efficiency technologies and management practices) should be fully accounted for in the process. In addition, the Bureau should include the opportunity for wide public participation at each stage of the study, and solicit the guidance of a broad range of professionals familiar with the Yakima River basin and the operation of the Bureau's Yakima project.

To place our comments in context, we recall the history of some of the major legislative initiatives in the basin, which have resulted in a suite of Bureau of Reclamation plans and studies directed by the Congress.

I. Introduction

As you know, the Yakima River is largely controlled by the Bureau of Reclamation, which has traditionally operated a multi-dam water storage and delivery project in the Yakima almost solely for the benefit of irrigated agriculture. As a result, stream flows are seasonally either too high or too low to support the life cycle needs of anadromous fish. Hydroelectric projects in the basin also degrade salmon habitat. Yakima steelhead and bull trout are listed under the Endangered Species Act, and much of the river violates water quality standards for

a host of pesticides and other pollutants, temperature, and low flows. The Yakima has among the highest levels of DDT in the nation because tons of pesticide-laden sediment are discharged from irrigation canals into the river.

Thus it is imperative that the best possible combination of measures at the lowest cost to the environment and our precious tax dollars be implemented to address these interrelated problems.

In 1979, the Congress created the Yakima River Basin Water Enhancement Project (YRBWEP) to study water needs of the Basin.[i] Congress enacted the Northwest Power Planning and Conservation Act a year later, creating the Northwest Power Planning Council and its energy and fish planning authorities.[ii] The Council targeted the Yakima River Basin for major restoration efforts,[iii] and Phase I of the YRBWEP, authorized by the Congress in 1984,[iv]addressed construction of fish ladders and screens at irrigation diversion dams.

Phase II of YRBWEP was enacted in late 1994 after a decade of negotiation among irrigation, tribal, and environmental interests.[v] It authorizes a basin conservation program for water conservation projects, acquisition of water rights for instream flows, water transfers among water users in the basin, tributary rehabilitation programs, and other strategies to increase river flows for anadromous fish, to address water quality violations, and to stabilize irrigation water supplies in dry years.[vi]

II. Phase II of the Yakima River Basin Water Enhancement Project

The legislation called for several studies to frame and inform the Phase II effort, including the creation of a Basin Conservation Plan and a Comprehensive Interim Operating Plan. Congress also called for two studies to determine the water needs of the project's agricultural base and a biologically-based flow regime for the Yakima river.

Some of those plans and studies have come to fruition, but not all.

A. The Basin Conservation Plan

The first product of YRWEP, approved in 1999, is the Basin Conservation Plan, created by the Conservation Advisory Group (CAG), a Congressionally-created advisory group composed of irrigation, university, fish and wildlife, tribal and environmental interests. The Basin Conservation Plan made numerous recommendations for the implementation of water conservation technologies (*e.g.*, automated canals) and management practices (*e.g.*, tiered water pricing), and the acquisition of water rights and critical aquatic lands. The plan and its recommendations have only just begun to be implemented. While many districts have completed conservation plans and feasibility studies, they are now poised to enter into the implementation stage of the basin conservation program.

B. Yakima River and Fishery Water Needs

Another study completed at Congressional direction in the 1994 YRBWEP legislation is the biologically-based flow study. Congress directed a stakeholder group of basin biologists, known as SOAC, which represents the interests of the irrigation community, the Yakama Nation, the U.S. Fish and Wildlife Service, and the Washington Department of Fish and Wildlife, to report to the Congress on what is necessary to have biologically based flows in the basin.

SOAC's report, completed in May 1999, recommended a number of studies and actions to inform the adoption of biologically-based flows in the basin, including that BOR immediately begin a process of carefully designed incremental changes in flow regimes based on test hypotheses regarding physical, chemical and biological responses of the river ecosystem as part of an adaptive process. BOR has not commenced the flow test hypotheses and adaptive management process, however, and many of the other recommendations for various investigations to inform biologically-based flow targets are stalled.

C. Irrigation Water Needs

The Bureau was also directed to "conduct a study and submit a report with recommendations to the appropriate committees of the Congress on whether the water supply available for irrigation is adequate to sustain the agricultural economy of the Yakima River Basin." As far as we are aware, that study, which was to be conducted within three years of the statute's enactment in 1994, has never been done. Indeed, we are unaware of any systematic investigations by the Bureau that determine:

- current cropping patterns and their water use by irrigation technology (e.g., water use of hops irrigated by drip technologies, total and by acre). Indeed, we are informed that despite provisions in Bureau contracts that require the reporting of annual cropping information from the irrigation districts in the Yakima basin, ***that information has not been collected by the Bureau and made publicly available since 1992.***

- the predicted water use by crop if best available irrigation technologies were in place;

- the amount of water that could be expected to be made available for dry year optioning or otherwise, given the market value of water in the basin in dry years (*e.g.*, in the summer of 2001, an acre foot of water sold from $50-almost $500 dollars for the irrigation season or less than the irrigation season) as it relates to the prevalence and position of forage and other relatively low value crops in the basin. About 20% of the crops irrigated in the Yakima project are forage crops and many are in the upper basin.

A pilot water transfer program created by the CAG in 2001 resulted in the transfer of over 63,000 acre-feet of water, 23,039 acre-feet of "consumptive" water – water that is used directly by crops -- and an additional 40,000 acre-feet of conveyance water, which transports the crop water to farms for use by plants. By comparison, in the previous drought year of 1994, only 3,739 acre-feet of consumptive use water were transferred with an additional 18,000 acre-feet of conveyance water. Moreover, private parties participated in the 2001 pilot program, unlike during the drought of 1994. Although the 200l pilot program was just that – an unknown, untested, and unadvertised first time pilot -- it resulted in the transfer of an enormous amount of water, clearly signaling that a fully functioning water brokerage in the basin could have a significant salutary effect on reallocating water in dry years.

And as far as we are aware, there has never been an evaluation of what level of proration actually affects crop production, even under the current irrigation regimes. Thus, although we hear complaints about the proration of water in the basin, it is not clear at what level of proration there is a significant effect on production.

D. The Interim Comprehensive Basin Operating Plan

Finally, a workgroup composed of representatives of the proratable and nonproratable irrigation districts, the Bonneville Power Administration, the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, the Washington Department of Fish and Wildlife, the Yakama Nation, the Washington Department of Ecology, and American Rivers worked with the Bureau for several years to create the most comprehensive investigation yet on the effects of the Yakima project on the basin's natural and other resources, the Comprehensive Interim Operating Plan, released in November of last year.

That massive undertaking, also required by Congress as part of the Phase II legislation, contains 94 recommendations (some are repetitive because they are categorized under more than one subject heading), including recommendations to schedule deliveries, automate delivery systems, modify flood control operations to benefit instream flows and irrigation, and a host of other actions that are basically non-controversial. With respect to storage options, however, the workgroup wrote:

> Any recommendations to investigate storage options in the basin carry with them the follow caveat: The natural hydrograph has been significantly modified by the current reservoir system and the operation of the Yakima Project for irrigation. Additional storage in the basin could further adversely affect the natural flow regime. The existing flow regime does not serve the needs of the fishery and other natural resource objectives, and, in significantly water-short years, even the interests of irrigation, at least in its current configuration and under current management practices. All members of IOP agree that a better balance must be struck in favor of the aquatic ecosystem, including the native fish resource, and water quality, among other natural resources. Finding the correct balance of options to advance the legitimate water needs of all interest [sic] will require a much more disciplined and complete analysis of options than has occurred in the past. Any proposed

storage must be designed to meet critical needs, which must be clearly delineated and justified.

If a legitimate need is identified and the extent of that need carefully circumscribed, a range of alternatives to meeting the need must be carefully assessed. The members of IOP are committed to least cost options, and cost analyses must include quantification of the environmental costs and benefits of various alternatives and mixes of alternatives. Some water conservation options, for instance, carry with them not only the potential to increase flows in reaches between diversion and return flows, but also to reduce the consumptive use of water (e.g., no longer watering vegetation along canals), water quality improvements, the benefits of increased crop production from more efficient on-farm systems, and the like, which must be taken into consideration in analyzing the costs and benefits of other options to increase the flexibility of the water supply, such as new storage.

Another extremely important factor for analysis of alternatives is the extent of water use by each crop in the basin relative to the market value of water in the Yakima basin. In 2001, the price of water for irrigation (and instream flows) varied from $50/acre-foot to almost $500/acre-foot, depending on the time, place, and duration of delivery. None of these leases was for longer than the irrigation season and several were for a shorter period. The market value of water relative to crop values is thus a critical factor in the analysis of water supply and must be taken into consideration when evaluating the efficacy of the current storage system and any purported need for new storage.

III. Conclusion

Implementation of the Phase II legislation should be the top priority. Moreover, it is clear from the IOP that there are a number of non-controversial improvements that could be made in project operations, which should be pursued immediately to determine their effectiveness in reducing demand and improving instream flows.

At the same time, there are a number of investigations the Bureau should undertake to develop reliable information on the legitimate water needs of the Yakima project and fiscal impacts of the Black Rock proposal. The fact that the Bureau does not even have current cropping information reveals how woefully short of that mark it is with respect to irrigation requirements. And without knowing the water requirements for biologically-based flows, and how much water the combination of best available irrigation technologies and a fully functioning water market can make available for these needs, it is impossible to know how much, if any, increased storage in the basin is actually required.

As the feasibility study for storage in the Yakima basin goes forward, it must first complete the investigations, answer the questions, and follow the caveats that we have articulated here. As we said above, the Bureau should first very clearly identify the problems and legitimate needs that the feasibility study is designed to address, and then study a broad range of

potential solutions that in combination best address those problems and needs at the least cost fiscally and to the environment. The environmental benefits as well as costs of certain approaches should be fully accounted for in the process. This must be done within the framework of an open public process and with the expertise of those upon whom all can rely to bring knowledgeable and unbiased fact finding and analysis to the task.

Sincerely,

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cc: WA State Congressional Delegation; Governor Gary Locke; Dr. Jeff Koenings, Director, Washington Department of Fish and Wildlife; Norbert Ries, Planning Officer, U.S. Bureau of Reclamation; Gary Ballew, Deputy County Administrator, Benton County

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[i] H.R. 103-644, 103rd Cong., 2d Sess., at 12.
[ii] *Northwest Power Act*, Pub. L. No. 96-501, 94 Stat. 2697 (December 5, 1980) Pub. L. No. 96-501, 94 Stat. 2697 (December 5, 1980).
[iii] H.R. 103-644 at 14.
[iv] *Id.* at 12; Pacific Northwest Region Bureau of Reclamation, *On Course for the 90's* 24 (undated) Pacific Northwest Region Bureau of Reclamation, *On Course for the 90's at* 24 (undated).
[v] *Yakima River Basin Enhancement Project,* Pub. L. No. 103-434, 108 Stat. 4550, (October 31, 1994) Pub. L. No. 103-434, 108 Stat. 4550 (October 31, 1994).
[vi] *Id*.