

Testimony of Urban Eberhart
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On Behalf of The Yakima Basin Working Group
Before the Natural Resources Subcommittee on Water, Power and Oceans
United States House of Representatives

Legislative Hearing on H.R. 4419
“The Bureau of Reclamation and Bureau of Indian Affairs Water Project Streamlining Act.”
Washington, D.C.
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Chairman Lamborn, Ranking Member Huffman, and Members of the Subcommittee, I would like to thank you for the opportunity to testify on H.R. 4419, the Bureau of Reclamation and Bureau of Indian Affairs Water Project Streamlining Act. I am here today on behalf of the Yakima Basin Working Group in support of this Subcommittee’s efforts to congressionally authorize the federal government to continue to be our partner in the Yakima Basin Integrated Plan, and especially those federal portions which are known as Yakima River Basin Water Enhancement Project Phase III (YRBWEP Phase III).

Over the last seven years, a unique and diverse collaboration has emerged in the Yakima Basin focused on developing a collective vision for the future of water in the Yakima Basin; a future where there is water for farming, water for anadromous fish, and water for families even when we have years of less than adequate water supplies. Congressionally authorizing the Initial Development Phase of the Integrated Plan is the next vital step forward in making that future possible.

We are tremendously grateful to Representative Dan Newhouse and Representative Dave Reichert for their tireless work in supporting the Yakima Basin Integrated Plan and for introducing this legislation. They understand how important the Integrated Plan is to the Yakima River Basin, the State of Washington, and the Yakama Nation, and have been looking for ways to move the authorization for the Integrated Plan forward through the House and Senate, then on to the President’s desk.

HR 4419 would accomplish many things, including authorizing parts of the Integrated Plan that need additional federal authorities. The Yakima Basin Working Group supports the concepts provided by H.R. 4419 to authorize the Initial Development Phase of the Integrated Plan, and we look forward to working with this committee and Representatives Newhouse and Reichert to ensure that the Yakima portions of the bill accomplish the goals and phasing set out by the Yakima Basin Working Group and the Bureau of Reclamation, including the authorization of the Initial Development Phase of the Plan. By working together, we have seen amazing progress on meeting the Plan’s goals through partnerships and cooperation, when in the past we were in conflict. We are buoyed by the fact that both Democratic and Republican Administrations have lauded this collaboration and have looked to the Integrated Plan and the diverse coalition that developed and is supporting the Plan as a potential model for future water management in the West.

My name is Urban Eberhart and I am the Secretary/Manager of the Kittitas Reclamation District (KRD), an irrigation district serving 60,000 acres of prime farmland in the Yakima River Basin in the vicinity of Ellensburg, Washington. I am also a farmer in the Yakima River Basin. I was raised on our family farm near Ellensburg and am still growing apples, pears and hay in the Badger Pocket area of the Kittitas Valley.

I have been following and working on the Yakima River Basin Water Enhancement Project (YRBWEP) ever since I went to my first Yakima water enhancement meeting with my father back in 1979, the year Congress authorized a feasibility study to address the water resource needs of the Yakima River basin; the Act of December 12, 1979 (93 Stat. 1241, Public Law 96-162). An outgrowth of this study was the implementation of Phase I (fish ladders and fish screens) and Phase II (water conservation and other measures) of the YRBWEP.

I was an active participant in the development of the 1994 YRBWEP Phase II legislation. I have also been intimately involved in the development of the Yakima River Basin Integrated Plan, a forward looking holistic approach to dealing with the expected problems in the Basin to help meet all water demands over the next several decades. I support the enactment of legislation authorizing Phase III of the YRBWEP and beginning the first ten years implementation (known as the Initial Development Phase) of the Integrated Plan.

When most people think of Washington State, they visualize a place with dark green forests, high mountains and constant rain. While that perception is at least partially accurate, the rain forests on our Olympic Peninsula receive on average about 140 inches of rainfall a year, much of the eastern half of the state lays in the rain shadow of the Cascade Mountains, and has a semi-arid climate. The total annual precipitation in some portions of eastern Washington is measured in single digits.

However, Washington State, like many other parts of the West, has suffered from extreme drought conditions for extended periods of time, especially in the past several years. These conditions create great challenges for our farmers, for our fisheries, and for the families of Washington State. But throughout our basin a number of efforts are underway to prepare for and improve the response to these new and, what we expect to be, more common conditions.

The Yakima Basin is an approximately 6,000 square mile watershed in south central Washington State. It supports a population of about 360,000 people and is home to the approximately 10,000 member Yakama Nation. The Yakima Basin contributes \$4.5 billion annually and 44,300 jobs to the agricultural economy of the State of Washington. Recreation, much water dependent, adds 14,200 jobs and \$1.2 billion to the economy. All told, Yakima's water dependent economy adds \$13.1 billion to the economy and 96,000 jobs.

The federal Bureau of Reclamation's (Reclamation) Yakima Irrigation Project (Project) in the Yakima River Basin includes seven divisions: Storage, Kittitas, Tieton, Sunnyside, Roza, Kennewick, and Wapato serving irrigable lands totaling approximately 464,000 acres. The Wapato Division is operated by the Bureau of Indian Affairs, but receives most of its water supply from the Yakima Project for irrigation of 136,000 acres of land. Over 45,000 acres not included in the seven divisions are irrigated by private

interests under water supply contracts with the Bureau of Reclamation. The six water storage dams and reservoirs on the Project are Bumping Lake, Clear Creek, Tieton, Cle Elum, Kachess, and Keechelus. Other Project features include five diversion dams, canals, laterals, pumping plants, drains, three hydropower plants, and transmission lines.

The Yakima River Basin is one of the most productive concentrated agricultural areas in the Nation. Yakima County ranks first among all counties of the United States in the production of apples, mint, and hops. Principal crops grown in the Yakima Basin include fruit, vegetables, forage, hops, grapes, and mint, with many highly productive dairies, fruit packaging plants, wineries, and other related businesses and industries tied to our basin's bountiful harvests. As previously stated, these industries in the basin alone annually produce more than \$4.5 billion in crops and food processing sales while supporting more than 44,300 jobs and exporting over \$1.3 billion through the Ports of Seattle and Tacoma every year. A reliable Yakima Basin water supply is a critical requirement for these industries.

The Yakima River Basin is also home to significant fish and wildlife resources, including an anadromous fish population of steelhead as well as bull trout that are both protected under the Endangered Species Act (ESA), and salmon runs. These fish runs are part of the important recreational and tribal resources in our basin. Historically, it is important to recognize that the Yakima Basin was the second largest producer of salmon and steelhead runs in the entire Columbia River system. Those runs numbered close to 800,000 salmon and steelhead each year. The Yakama Nation has relied on these fish and wildlife resources for generations. These ancient fish runs declined precipitously during the mid-Twentieth Century, and were a focus of contention over water supplies and water management in the basin for many years. Recent efforts to improve these fish runs through investments in water conservation, improved water management, habitat restoration and fish passage have seen some marked success. But additional investments are still needed, which the Integrated Plan supports.

Since 1905, when the state granted rights for all unappropriated surface water in the Yakima Basin to Reclamation, surface water flows in the Yakima Basin have been managed by Reclamation. Reclamation operates reservoirs with a total capacity of about 1,100,000 acre-feet, which is about one-third of the average annual runoff in the Yakima Basin. The Yakima Basin is heavily dependent on east-slope Cascade Range snowpack to supply water to the semi-arid lower basin during the summer months.

Water law in Washington State is based on the doctrine of prior appropriation, the basic premise of which is water use priority is determined based on "first in time, first in right." Water users in the Yakima Basin are a combination of the pre-1905 senior surface water right holders, direct customers of Reclamation served water under Reclamation's 1905 state water right, a small number of post-1905 junior surface water right holders, and groundwater right holders, mostly with post-1905 priority dates. Of course, all of this must be overlaid with the Yakama Nation's treaty right to water for fisheries, irrigation and other purposes and their seniority which would obviously pre-date 1905.

Management of water in the Yakima Basin has historically been highly contentious and marked by protracted legal battles. The surface water resources of the Yakima Basin are over-appropriated, and a state court adjudication of those water rights has been ongoing since 1977. The state closed the Yakima

Basin to additional groundwater rights in the 1990s. Recently, the U.S. Geological Survey concluded that the Yakima Basin's groundwater aquifers are in continuity with surface waters. Based on that conclusion, it is likely that most of the post-1905 ground water rights, upon which most of the Yakima Basin's municipalities depend, will be determined to be junior to Reclamation's 1905 water right and, therefore, subject to curtailment in water short years.

Frequent droughts over the past several decades have demonstrated the vulnerability of the Yakima Basin's water supplies. Since 1992, there have been 6 low water availability years (1992, 1993, 1994, 2001, 2005, and 2015) where "proratable" irrigation districts (subject to curtailment in dry years) in the Yakima Basin received far less than their full allocation of water. During droughts in 1994, 2001, 2005, and 2015, these "proratable" irrigation districts served by Reclamation received only between 37 and 47 percent of their usual water supply.

Instream flows and aquatic resources of the Yakima Basin have also continued to suffer. A combination of out-of-basin and in-basin factors, including diminished stream flows and lack of fish passage at existing reservoirs, have combined to drastically reduce the numbers of salmon and steelhead. Runs of salmon and steelhead that, as previously noted, once numbered at least 800,000 fish declined to about 9,000 fish by the 1990's. Sockeye, Coho, and summer Chinook salmon stocks have all been extirpated; although efforts are underway, led by the Yakama Nation, to reintroduce and restore stocks of those species. The Yakima Basin's steelhead and bull trout are Endangered Species Act listed threatened species.

Since 2009, the State of Washington's Department of Ecology – Office of Columbia River and the Bureau of Reclamation have been collaborating with the Yakama Nation and Yakima Basin stakeholders to formulate a comprehensive strategy to address critical resource needs. That collaboration focused on expanding the work of the 1979 federal Yakima River Basin Water Enhancement Project (YRBWEP) and the 1994 Congressional Amendments that created Phase 2 of YRBWEP. That strategy took shape in mid-2011 when consensus was reached on the Yakima Basin Integrated Plan.

The federal parts of this Integrated Plan are being proposed as Phase 3 of YRBWEP. Development of the Integrated Plan was facilitated by additional federal support resulting from the Yakima Basin being selected as the recipient of one of Reclamation's first Basin Study grants under their WaterSMART Program.

The Integrated Plan proposes major ecological restoration of the Yakima Basin through a number of bold measures. The Integrated Plan provides for construction of fish passage at all major in-basin reservoirs to open high basin spawning and rearing areas that have been blocked for a century. It will provide substantial mainstem and tributary habitat enhancements. Substantial portions of the upper watershed will be restored as habitat for both terrestrial and aquatic species. In addition, the plan provides for operational modifications to improve operational efficiency and flexibility.

The Integrated Plan also calls for substantial improvements in water supply for both instream and out-of-stream uses. About one-half of eastern Washington's out-of-stream water needs and one-third of our unmet instream flow needs are in the Yakima Basin. Water supply improvements will come in several

different forms. Efficiency of existing use of water will be improved through reducing barriers to the transfer of water between willing buyers and willing sellers. Municipal and agricultural conservation efforts will be enhanced. For example, the 1994 YRBWEP Phase 2 efforts called for 160,000 acre-feet of conservation, of which 126,000 acre-feet has been completed or is in process. The Integrated Plan adds an additional 170,000 acre-feet of water conservation savings much of which will be in the upper basin and tributaries where conservation was not supported by YRBWEP Phase 2. Studies are also underway to better understand the potential role of aquifer storage in providing passive recharge to the mainstem and tributaries of the Yakima River in targeted locations.

However, the objectives of the Integrated Plan cannot be met without significant improvements in surface water storage. The Office of Columbia River and Reclamation have determined, based on an analysis of water supply needs, that supplementing the Yakima Basin's existing 1,100,000 acre-feet of water storage capacity with an additional 450,000 acre-feet of capacity in the form of modified and new surface storage facilities will be needed to provide:

- Drought relief and resiliency to existing irrigators in the Yakima Basin;
- Secure water supplies for our municipalities with junior water rights and to meet their future needs, and
- Adequate water for fish outmigration and pulse flows in all years.

It is a testimonial to how hard all sides worked and compromised in negotiating the Integrated Plan that we have environmentalist, fishery advocates, and Yakama Nation support for a plan that includes new water storage. Even casual observers of western water wars will know how unusual that is.

The importance of expanding water storage capacity is underscored by hydrologic modeling conducted by the University of Washington and the federal River Management Joint Operating Committee that predicts substantial reductions in snow pack depth and duration as we move towards mid-century. The most recent 2015 drought in the Yakima Basin, had near normal precipitation but little snow accumulation, resulting in 47% supply for the 1905 water rights, and a loss of agricultural production of \$118.5 million in just three of the irrigation districts most reliant on Reclamation supplies. This "snowpack drought"—near normal precipitation but little snowpack water storage—reflects expected future conditions. The Integrated Plan recognizes that the only effective means of offsetting snowpack reductions in the Yakima Basin are improving floodplain aquifer storage potential and increasing surface storage capacity. Sensitivity analysis modeling of the Integrated Plan indicate that, at full Integrated Plan buildout, about 500,000 acre-feet more water would be available under mid-century drought conditions than was available in the most recent drought.

In the past, Reclamation has born the cost of constructing water supply facilities in the Yakima Basin, with the Project repaying these costs back to the federal government over time. Today, that financing model is not what the Yakima Basin stakeholders are relying on. The proratable irrigation districts in the Yakima Basin are planning to finance, build and operate the first major water supply project in the Integrated Plan, estimated to cost about \$200 million. They will make this large non-federal investment

to build new drought emergency water supply infrastructure as well as new water conservation improvements in coordination with Reclamation and Washington State under the Integrated Plan.

Conservation is often suggested as a substitute for water storage; however, there are severe limitations to the role of conservation as a source of additional water supply. As noted previously, the Integrated Plan proposes to accomplish an additional 170,000 acre-feet of irrigation conservation savings beyond that authorized by YRBWEP Phase 2. Further, there are other conservation efforts by irrigation districts, on-farm investments, and municipal conservation programs that all result in more efficient water application and saved water. The result of investments in conservation at all levels is a steady decrease in the amount of water Reclamation is called upon to deliver. Reclamation now in normal years delivers, on average, approximately 130,000 acre-feet per year less than it did prior to the 1990's.

Those savings have provided valuable flow improvements in targeted stream reaches resulting in improved conditions for fish. However, it must be remembered that most conservation efforts focus on reducing the amount of water that leaks or spills from conveyance systems (for example, canals or ditches) or from irrigation practices that result in more water being applied than is needed by the crops being grown. The leaked water returns through runoff or through groundwater to the river at a point downstream of where it was diverted. We refer to this as "return flow." Along the Yakima River mainstem, return flows rejoin the river within days or a few weeks after diversion and contribute to downstream river flows.

If through conservation measures, the leakage or over-application of water is reduced or eliminated, the amount of water diverted can be reduced accordingly. As part of the YRBWEP, irrigation districts agree to leave a portion of their conserved water "in-stream" for additional flow. Those diversion savings add more flow to the river, but only between the point of diversion and the point at which return flows previously rejoined the river. Below the return flow point, the only residual changes to the river are the timing of these flows and some water quality improvement. If the conserved water described in the preceding example was used for some other out-of-stream purpose, flow below the return flow point would be permanently diminished. The surest way to dry up the river would be to employ such a practice on a widespread basis.

Water marketing has a long and positive history in the Yakima basin, and has been particularly active in drought years. Under the Integrated Plan, the Department of Ecology, the irrigation districts, fishery managers and others are working on ways to overcome impediments to water transfers while still respecting ecological concerns, state law and district concerns.

The goal of the Integrated Plan is not to expand irrigated agriculture in the Yakima Basin, with the exception of the tribal Wapato Irrigation Project, where some irrigable reservation land is not yet served with water supplies. Instead the goal is to firm up and make more reliable water supplies for fish, farms and the people of the basin.

With bipartisan support, the State of Washington approved legislation in 2013 that authorized the Department of Ecology to provide up to 50% of the cost to implement the Integrated Plan in conjunction with Reclamation and in collaboration with the Yakama Nation, other state and federal agencies, local

governments, and basin stakeholders. In addition to establishing the policy framework at the state level for implementation of the Integrated Plan, the Governor and the Legislature have approved significant capital investments, totaling \$173.3 million from 2013 through mid-2017, in on-the-ground projects that meet the multiple goals of the Integrated Plan. We look forward to working with this committee, the Congress, and the Administration to continue the ongoing federal/state/local partnership in this special and powerful collaborative effort by leveraging federal, state and local funding in implementing the Integrated Plan.

In summary, the Yakima Basin Integrated Plan is a balanced approach agreed upon by an incredibly diverse coalition of irrigators, farmers, environmental and outdoor enthusiast groups, local, state and federal governments, and the Yakama Nation. It is designed to address the need for economic and environmental sustainability, meeting the needs of water users, while restoring abundant salmon and steelhead runs and improving habitat for fish and wildlife. To that end, we look forward to working through some additional suggestions with committee staff and our congressional delegation. We believe it is essential that we come together and craft an approach that can make it through both Chambers of Congress with support both in the Yakima Basin and beyond.

We appreciate the committee's consideration of this legislation and look forward to working with you as you consider it merits.