Written Testimony

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Committee on Energy and Natural Resources

On

S. 1694

Yakima River Basin Water Enhancement Project Phase III Act of 2015

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Chairman Murkowski, Ranking Member Cantwell, and Members of the Committee, thank you for the opportunity to testify and to express the State of Washington's support for the bill before the Committee this morning – S. 1694, The Yakima River Basin Water Enhancement Project Phase III Act of 2015.

My name is Derek Sandison; I am currently the Director of the Washington State Department of Agriculture. Up until one month ago, when Governor Inslee appointed me to this position, I served as the Director of the Washington State Department of Ecology's Office of Columbia River, where I led the state of Washington's involvement in the collaborative effort that is the basis for the S. 1694. While representing the Department of Agriculture, I am also testifying today on behalf of the state natural resource family of agencies: the Department of Ecology, Department of Fish and Wildlife, and the Department of Natural Resources. All of our agencies have played vital roles in the development and implementation of efforts to restore watershed health in the Yakima River Basin (Yakima Basin).

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, which lies in the rain shadow of the Cascade Mountains, has a semi-arid climate. The total annual precipitation in some portions of eastern Washington is measured in single digits.

And this year, that image is not accurate at all. Washington like many other parts of the West is suffering from drought. These conditions are creating great challenges for our farmers, for our fisheries, and for the families of Washington State. However, throughout Washington 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.

For example, over the last six years, a unique 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 fish, and water for families even when we have years like 2015 is shaping up to be. S.1649 is a vital step forward in making that future possible. We are tremendously grateful to Senator Cantwell and her co-sponsor Senator Murray for introducing this legislation and to this Committee for giving it due consideration. Today, I would like to paint a bit of geographic picture of the Yakima Basin and provide a short history on how the people of the Yakima Basin have come together to create this vision, a vision that we call the Yakima Basin Integrated Plan (Integrated Plan). Following my presentation, a number of the State's partners in the development and implementation of the Integrated Plan will provide a deeper sense of what this vision means for all of us.

The Yakima Basin is an approximately 6,000 square mile drainage basin 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 over $3 billion annually to the agricultural economy of the State of Washington. Yakima County ranks 12th nationally in the total value of agricultural products sold. Yakima County ranks first nationally among counties in apple, mint, winter pears, and hop production. The Yakima Basin exports around $1.8 billion in farm products through the ports of Seattle and Tacoma annually. 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.

Since 1905, when the state granted rights for all unappropriated surface water in the Yakima Basin to the Bureau of Reclamation (Reclamation), surface water flows in the Yakima Basin have been managed by Reclamation. Reclamation operates five existing reservoirs with a total capacity of about 1,000,000 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.

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 1905 water right and, therefore, subject to curtailment in water short years.

Frequent droughts over the past several decades demonstrated the vulnerability of the Yakima Basin's water supplies. During droughts in 2001 and 2005, the irrigation districts served by Reclamation, referred to as the "proratable" irrigation districts, received only about 38 percent of their water supply. In the current drought of 2015, the level of proration is expected to be about the same.

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 8,000 fish by the 1980's. Sockeye, coho, and summer Chinook salmon stocks have all been extirpated; although efforts are underway, led by the Yakama Nation, to reintroduce new stocks of those species. The Yakima Basin's steelhead and bull trout are Endangered Species Act listed threatened species.

Thus, since 2009, the Department of Ecology's 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 Integrated Plan.

The Integrated Plan, as embodied in S. 1694, is 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.

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 plan calls for supplementing the 72,000 acre-feet of conserved irrigation water achieved as under the 1994 YRBWEP Phase 2 efforts with another 170,000 acre-feet of conservation savings. 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 1,000,000 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 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.

The importance of expanding water storage capacity is underscored by climate modeling conducted by the University of Washington Climate Impacts Group and the federal River Management Joint Operating Committee that predicts substantial reductions in snow pack depth and duration as we move towards mid-century. In other words, the current drought in the Yakima Basin, which is being referred to a "snowpack drought," 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 is available in the current drought.

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 another 170,000 acre-feet of irrigation conservation savings. Those savings will provide 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 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. Those diversions 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, there is no residual benefit to the river. 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.

With bipartisan support, Washington Governor Jay Inslee signed legislation on June 30, 2013, that authorized the Department of Ecology 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 made a significant capital investment, approximately $132 million, for implementing the Integrated Plan in 2013. Just last week, the state Legislature made an additional $30 million capital investment in projects that meet the multiple goals of the Integrated Plan.

We believe that S.1694 represents a similar commitment to this special and powerful collaborative effort by our federal partners in the Integrated Plan. We appreciate the committee's consideration of this legislation and look forward to working with you as you consider it merits.