Testimony of Mr. Albert Barker
Board Member
Idaho Water Resource Board
Before the United States Senate Energy & Natural Resources Committee
Water & Power Subcommittee
Oversight Hearing to Examine Drought Impacts on Drinking Water Access and Water Availability
September 20, 2023

My name is Albert Barker, and I am a member of the Idaho Water Resource Board (the Board). The Board consists of eight governor-appointed members, knowledgeable in the field of water resources from across the State of Idaho and is required by law to be politically balanced. The Board was established by Idaho Constitution Article 15, Section 7, and is charged with formulating a comprehensive state water plan for conservation, development, management, and optimum use of Idaho's water resources, and undertaking and financing projects and programs to help meet those needs.

Idaho is a headwaters state with significant water resources, but also includes vast semi-arid and arid regions. Like all arid Western states, Idaho depends on snowpack for its water supplies, which varies from year to year. Water resource administration and management is therefore of critical interest to the State of Idaho and its residents.

As with other Western states, water supply shortages and water use conflicts occur across the various regions of the state. Idaho has an exceptional program to adjudicate water rights within the state, including the Snake River Basin Adjudication which was completed in 2014. The Northern Idaho Adjudications and the Bear River Basin Adjudication are currently underway. These adjudications, when completed, will allow the Idaho Department of Water Resources to administer water rights on a priority basis in times of shortage.

Idaho has been very proactive in its responses to drought and water supply shortages for all water uses, including drinking water, irrigation, hydropower, fish, wildlife, environmental needs, and others. With the strong support of Governor Brad Little and the Idaho Legislature, Idaho has made significant investments in water management, building drought resiliency, expanding water supplies, and repairing and improving critical water resource infrastructure to benefit water availability into the future.

Since 2019, more than $500 million has been appropriated by the legislature to the Board for these purposes. The legislature has appropriated another $500 million to the Department of Environmental Quality for wastewater treatment and drinking water projects over this same timeframe. The State of Idaho, through a ranking process, carefully sets priorities for spending these funds.

One of the priority water management efforts includes the development of a 250,000 acre-foot managed aquifer recharge program for the Eastern Snake Plain Aquifer. The Eastern Snake Plain Aquifer is a 10,000 square-mile aquifer that underlies much of southern and eastern Idaho, supports about 1 million acres of irrigated land, municipal water supplies for 18 cities, and thousands of individual domestic wells for drinking water. The aquifer discharges spring flows to the Snake River, supplying water to an additional 600,000 acres of downstream irrigated land, many municipalities, and flows for hydropower generation.

Our managed aquifer recharge program takes surface water from high flow or flood events and infiltrates that water into the aquifer. The program is being implemented within a broader aquifer management program that includes other measures undertaken by water users, municipalities, and other partners in the effort. To date, Idaho has spent approximately $40 million on aquifer recharge infrastructure in addition to program operations and maintenance costs, not including the expenditures made by private parties.

Much of the Board's aquifer recharge effort relies on partnerships with water user entities that own delivery canals, and with the Bureau of Land Management (BLM) that manages federal lands crossed by these canals and where several recharge sites have been sited and constructed. Continued cooperation with these public and private partners and the federal land managers is critical to the success of this aquifer recharge program.

To ensure flexibility in managing aquifer recharge over federal lands, Congress enacted Section 1105 of P.L. 116-260, the Aquifer Recharge Flexibility Act (introduced as S.1570/H.R. 2871 in the 116th Congress). Section 1105 facilitates the use of existing irrigation canals for aquifer recharge purposes by allowing the canals to be used for the conveyance of aquifer recharge water without the need to seek additional authorizations from the federal government. In part, the Act states:

> ***Conveyance for Aquifer Recharge Purposes***— *The holder of a right-of-way, easement, permit, or other authorization to transport water across public land administered by the Bureau of Land Management may transport water for aquifer recharge purposes without requiring additional authorization from the Secretary where the use does not expand or modify the operation of the right-of-way, easement, permit or other authorization across public land.*

Unfortunately, regional BLM staff do not interpret the Act as applying to the Board's aquifer recharge effort. In their opinion, the Act does not provide benefits to third parties who wish to use someone else's right-of-way for their own aquifer recharge purposes. However, the IWRB's position is that the Act should apply to our aquifer recharge efforts, and we look forward to working with this Subcommittee, our congressional delegation, and BLM to further review this interpretation of the Section 1105 of P.L. 116-260 in furtherance of our aquifer recharge efforts in Idaho.

Idaho is also partnering with the Bureau of Reclamation to enlarge Anderson Ranch Reservoir on the South Fork of the Boise River. Anderson Ranch Reservoir is a federally owned facility operated by Reclamation for multiple purposes including irrigation, hydropower, recreation, and flood control. The enlargement is being carried out pursuant to the Water Infrastructure Improvements for the Nation (WIIN) act, as a partnership between Reclamation and the State of Idaho.

The enlargement would raise the dam by 6-feet and create 29,000 acre-feet of new reservoir storage space. We anticipate that the additional water supplies made available from the enlargement would be shared with the rapidly growing municipalities in Idaho's Treasure Valley region. The current cost estimate for this enlargement is $136 million, with an 89% non-federal cost share requirement. The Board is funding this non-federal cost share. Construction is expected to begin in 2025, once the environmental reviews and the plans and specifications are complete.

Idaho's Mountain Home Air Force Base is home to the 366th Fighter Wing. Currently, water supplies for the Base are being drawn from an aquifer that is in significant decline. Idaho has partnered with the U.S Air Force to provide a sustainable water supply to the Mountain Home Air Force Base. Under the agreement between Idaho and the Air Force, Idaho will construct a pumping station on the Snake River near C.J. Strike Dam and a 13-mile-long pipeline to deliver water to the base from the Snake River. The Air Force will construct a drinking water treatment plant, where the Snake River water will be treated before being delivered for use on the Base. The total project, including Idaho's share and the Air Force's share, is estimated to cost more than $100 million. We anticipate beginning construction within the next year to be completed in 2026. This project will supply a long-term sustainable water supply to the Base that does not depend on a declining aquifer.

In addition to providing infrastructure to ensure efficient use of Idaho's water resources, Idaho has developed an innovative and collaborative cloud seeding program to enhance the water supply in partnership with the Idaho Power Company and our water users. This cloud seeding program spans much of the Snake River Basin in southern Idaho. Studies conducted by our partners, the National Center for Atmospheric Research and the National Science Foundation show that our cloud seeding program enhances water supply by as much as 10-15% annually and does so without adversely affecting downwind basins. It is estimated this effort provides on average an additional 1.2 million acre-feet of water per year across southern Idaho for irrigation and municipal water uses, hydropower, recreation, and environmental benefits.

The Lewiston Orchards Exchange Project is an effort to implement an agreement between the Lewiston Orchards Irrigation District (the District), the Bureau of Reclamation, and the Nez Perce Tribe. This agreement, once implemented, would provide the District with a new water supply for its irrigation and drinking water patrons while restoring streamflow through the Nez Perce Reservation to enhance salmon habitat in those streams. In addition to environmental benefits, restoring this streamflow has cultural significance to the Nez Perce people. The

original NEPA process identified groundwater as a source for the replacement water; however, it has been determined that the local aquifer will not sustain the additional groundwater withdrawals needed to provide a replacement water supply to the District. The best alternative is to supply the District with water from the Clearwater River. The Board appreciates Reclamation's help in the past and urges Reclamation to continue to fund this important project.

Water storage and delivery infrastructure is critical to Idaho and its economy. Much of our water infrastructure is approaching 100 years-old. These are numerous pieces of critical infrastructure that need repair and rehabilitation. The State of Idaho is financially assisting in the rehabilitation of numerous water storage and delivery facilities across the state, but two of critical note are the American Falls Dam Spillway Repair and the New York Canal Rehabilitation.

The American Falls Dam creates the American Falls Reservoir, a 1.6 million-acre-foot water storage reservoir on the Snake River in southeast Idaho. Having facilities like this reservoir allows water to be stored in years of plenty for the inevitable drought years that follow. This reservoir is operated by Reclamation for irrigation, recreation, and other purposes, while Idaho Power operates a 60 MW hydropower facility at the dam. Repairing the spillway at the dam, including the concrete facing and the spillway gates, is necessary to continue the vital service the dam and reservoir provide. The State of Idaho is financially participating in this repair, along with Reclamation, Idaho Power, and the water users that receive the water stored in the reservoir.

The New York Canal is the main canal system from the Boise River in the Treasure Valley region, delivering water to about 167,000 acres. The canal is owned by Reclamation and maintained and operated by the joint Boise Project Board of Control, made up of the five irrigation districts that receive water delivered through the canal. Several miles of the canal are located on a natural elevated bench just above the City of Boise. When constructed, the canal was in a very rural area of the Valley, but over time the city grew up around the canal and the land below the canal became urbanized. In places, homes and businesses have been built right up to the banks of the canal.

There was a significant canal break in this area in the 1950s when the land was rural farmland, but a similar break today would prove catastrophic to this growing urban area. Repairing and significantly upgrading this canal to reduce seepage and leakage, and to strengthen its banks is critical for both water supply availability and the safety of people and property downstream. The Boise Project Board of Control has been working on these repairs and upgrades, but an acceleration of the work is important to protect public safety and water delivery reliability. Reclamation has identified the New York Canal as a "canal of urban concern" and a significant risk to the urban area and has estimated the costs of rehabilitation to be at least $50 million dollars. The State of Idaho is participating financially in this project, along with the water users and Reclamation. But additional Reclamation funding will be vital to accelerating the completion of this important safety project.

We applaud the introduction of the Urban Canal Modernization Act, S. 2160, by Sen. James Risch to help provide more affordable funding for projects like the New York Canal. These repair projects in urbanized areas are much more expensive than repairing a canal in a rural setting, creating an unaffordable scenario for farmers responsible to maintain canals through areas that have urbanized through no fault of themselves. If enacted, S. 2160 would provide 35% of the cost of such expensive repairs in urban areas to be non-reimbursable from Reclamation's aging infrastructure fund, which would take an unaffordable burden from irrigators while accelerating such repairs in advance of a disastrous failure.

In conclusion, on behalf of the Idaho Water Resource Board, I want to thank this Subcommittee for the opportunity to testify at this important hearing. As members of this Subcommittee, you understand that water is the lifeblood of our Western farms, communities, and environment. Drought has always been present in the arid West, otherwise we wouldn't need the vast water supply and delivery infrastructure we currently employ for our economic prosperity and standard of living. However, as populations continue to grow and our food supply becomes even more important to our Nation's security, we must again invest in our existing and future water infrastructure to provide secure, reliable water supplies to cities, towns, farms, recreation, and our natural environment into the future. Again, thank you for this opportunity, I would be happy to answer any questions the Subcommittee may have.