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United States Senate, Committee on Budget

**"Droughts, Dollars, and Decisions: Water Scarcity in a Changing Climate"**

Testimony of Kevin Richards, Farmer and Managing Partner RB Ag

Chairman Whitehouse, Ranking Member Grassley and Members of the Committee:

Thank you for the opportunity to share the challenges farmers face as we struggle to adapt to a changing climate characterized by drought and water scarcity in western states.

I farm about 1000 acres with my family in the central Oregon high desert. We raise some livestock, hay and grain. However, our farm and our region specializes in grass seed and vegetable seed production. In recent years, our farm has grown bluegrass, fescue, spinach, parsley, pumpkin and cucumber seed. We devote most of our farmland and efforts to raising hybrid carrot seed. This year, we will harvest nearly 300 acres and hope to produce enough carrot seed to feed nearly 100 million people. In fact, the county where we farm produces the majority of the global carrot seed supply.

Our region historically receives less than 10 inches of rain per year. So we rely on irrigation water. After instream water rights were exhausted early in the 20$^{th}$ century, the federal Bureau of Reclamation built reservoirs to capture winter snow runoff and divert stored water nearly 100 miles to 60,000 acres in North Unit Irrigation District. That investment by the federal government is paid back by farmers in exchange for an additional 24 inches of water to grow our crops. The project was developed under the slogan "Let the Desert Bloom" and, if you come see some our fields in the summertime, I assure you it has.

Unfortunately, even in the best and wettest years, water allotments are still not enough to farm all our land at full production. What's worse, perennial drought has reduced allotments to as low as 20% of normal in recent years. This year our allotment is 50% and it would require multiple wet years to restore reservoir and water supplies to historic levels.

In addition to drought, multiple irrigation districts in our region are engaged in collaborative efforts to address a need for wildlife preservation in our river ecosystems. Those efforts place additional demand on scarce water and have required even greater sacrifices from family farms such as ours.

**How is drought impacting our farms and communities?**

Frankly, some farms simply cannot adapt fast enough. In any industry, if you asked a family or business if they could survive on less than 50% of their paycheck or sales, they would shake their head. This spring there has already been three auctions in our small community to liquidate farm equipment of multi-generational family farms who have made the difficult decision to quit.

Less water means fewer crops and fewer jobs for farm workers and agriculture businesses. That is taking a toll on our local economy and employment. Our rural town has three major equipment supply dealers. One of those businesses decided to close their doors and relocate this winter. Our local school district is one of the most authentically diverse in the nation with one-third of our students Native American from the Confederated Tribe of Warm Springs and over one-third of our students from Hispanic American families who immigrated as farm workers. Irrigated agriculture is the economic engine that creates jobs and prosperity for these families, and everyone suffers when that engine runs out of fuel.

A less obvious cost of drought is the impact on the local environment. When arable, irrigated farmland is dried up, it creates micro ecological disasters in the form of erosion, proliferation of noxious and invasive weeds, and soil degradation. Sustaining soil health helps maintain the beauty of our landscapes and is essential to farm productivity, but it is nearly impossible without adequate irrigation water or sufficient farm revenue to justify costly inputs.

**How are farms adapting to drought and water scarcity?**

All farms are desperately searching for ways to tighten their belt and find efficiencies. Unfortunately, those short-term solutions often come with negative consequences. It's painful telling your loyal employee that their hours are cut or they no longer have a job. And sometimes cutting expenses leads to cutting corners and neglecting investments in maintaining soil health or deferring maintenance on property and equipment.

Nevertheless, farmers like me who want to see American agriculture and our rural communities in the west thrive are finding ways to adapt and invest in drought resiliency. We are adjusting our crop rotation to rely more on drought tolerant species and looking for opportunities to grow new high-value annual crops that allow for greater flexibility in how we use our water. We are pouring our resources into on-farm water conservation. On my farm we are using soil moisture sensors in our fields, piping open ditches and above-ground leaky pipes, upgrading sprinklers to the latest technology, and converting to drip irrigation on nearly all of our high-value vegetable seed.

On-farm investments like these are costly, take time to implement, and can be very risky when water supplies are not only scarce but highly unpredictable.

**What collective solutions are available to enhance drought resiliency?**

A robust farm safety net and risk management tools like those authorized through the Farm Bill are tremendously helpful toward ensuring family farms can survive the risk and volatility in modern agriculture. Please continue to support those programs. However, unfortunately, those programs don't always work well for many of the specialty, non-commodity crops we grow in the west. And many of the programs don't address the problem of not having enough water year after year to even grow crops and take care of our soils.

The conservation cost-share programs administered by USDA's Natural Resource Conservation Service do help with on-farm investment and adaptation. However, there is a greater need for emergency relief and co-investment in water and soil conservation. In our irrigation district we piloted a project in 2022 with emergency state funds administered through the Oregon Watershed Enhancement Board and our local Soil and Water Conservation District. That program incentivized sustainable practices like cover cropping and weed management on over 20,000 acres of irrigated farmland that was dried up due to drought. The

program temporarily averted micro ecological disasters on those acres, allowing farms the ability to preserve soil health and keep fields ready for production as they work to adapt to water scarcity. I believe this one-year pilot has great promise to become a model throughout western states for responding to drought, and we are currently exploring the possibility to receive additional funding through a grant with USDA's Rural Community Partnership Program.

Some of the greatest opportunities to save water are not on the farm, but within our irrigation infrastructure. I urge your support for programs and funding that help to modernize irrigated agriculture in the west. The Watershed and Flood Prevention Operations program authorized under PL566 has been especially beneficial and used in novel ways to fund canal piping in central Oregon to make sure water diverted from rivers makes it to farmers' fields. Senator Merkley has been a champion of this effort in central Oregon and I am grateful that he is leading a bipartisan effort to enhance the funding of PL566 while taking a multi-benefit approach that targets not just water savings but ecosystem improvements and cultural priorities. Projects funded through PL566 have a tremendous return on investment and deserve your support.

Finally, we are in search of larger and more permanent solutions that will protect our rivers while preserving irrigated agriculture and the communities that depend on farming in central Oregon. In collaboration with the Bureau of Reclamation, our irrigation district is exploring the feasibility of a major project that would change our point of diversion for irrigation water, reduce our reliance on reservoir storage and help return major portions of our rivers to their natural flows. Agriculture is capital intensive and while estimated to cost $500 million, the proposed Lake Billy Chinook project will improve the reliability of water on nearly 60,000 irrigated acres, protect species and the ecosystem, enhance tourism, and aims to achieve cultural priorities of our local Native American tribes. The project has the potential to ensure irrigated agriculture thrives throughout the 21$^{st}$ century in central Oregon despite drought.