Two Central Oregon Irrigation Districts, joined by U.S. Senator Jeff Merkley and NRCS Chief Matthew Lohr, celebrate key milestones in $50 million project upgrading rural infrastructure, serving as national model for protecting farms and water resources

Collaborative efforts between the districts, key state and federal partners, as well as support from Energy Trust of Oregon to participate in Farmers Conservation Alliance’s Irrigation Modernization Program will result in replacing 69 miles of open canals with closed-pipe systems over the next 11 years, increasing water reliability, generating local renewable energy, and improving fish and wildlife habitat.

BEND, Ore. — March 20, 2019 — Yesterday Tumalo Irrigation District and Three Sisters Irrigation District celebrated major milestones for an innovative irrigation modernization project which has received widespread support, with funding from 15 organizations. U.S. Senator Jeff Merkley, U.S. Department of Agriculture (USDA) National Resources and Conservation Service (NRCS) Chief Matt Lohr and other state and local dignitaries attended a ribbon-cutting celebrating Tumalo Irrigation District. Dignitaries also toured the new Watson Micro Hydro demonstration project at Three Sisters Irrigation District (TSID). After 20 years of work, in partnership with government and conservation organizations, TSID has modernized 92 percent of its irrigation system, piping 59 of the district’s 64 miles of canals.

“With voluntary support from farmers and ranchers, and through strategic partnerships with many other organizations, NRCS helps local communities develop watershed-scale solutions that sustain agriculture and the environment,” said NRCS Chief Matthew Lohr. “Our collaborative work with irrigation partners in Central Oregon is a model for locally-led watershed planning and implementation to modernize aging rural infrastructure. This type of work brings multiple benefits, including conserving water, reducing energy consumption, increasing irrigation delivery efficiency, and improving instream habitat for threatened and endangered fish and wildlife.”

Farmers Conservation Alliance (FCA), with support from Energy Trust of Oregon, developed the Irrigation Modernization Program in 2015 to help rural agricultural communities address aging infrastructure and position themselves for long-term sustainability by modernizing aging agriculture water delivery systems. For the districts profiled, that means replacing open irrigation
systems that are nearly a century old with enclosed, pressurized pipes and, where possible, adding small-scale hydropower generation systems.

“Aging irrigation systems in the Western U.S. can be very inefficient,” said Julie O’Shea, executive director of Famers Conservation Alliance. “Up to 50 percent of the water in open irrigation canals may be lost to seepage or evaporation before reaching a farm or ranch. This means neither the farm nor the river gets as much water as it needs. This infrastructure has often been upgraded on a project-by-project basis, delaying the benefits that can be achieved through systemwide modernization. The irrigation modernization efforts in Tumalo and Three Sisters Irrigation Districts serve as a national model for an integrative approach.”

Tumalo Irrigation District’s ribbon-cutting celebrates the start of improvements to an irrigation system that is projected to deliver a more consistent water supply to farmers, improve 69 miles of streams for fish and wildlife, and benefit more than 670 farms and ranches. The project was propelled forward with up to $30 million in Federal funding from NRCS, which Senator Jeff Merkley helped secure.

“I’ve worked with farmers across Oregon on water resource issues. I know how much rides on reliable water, and I understand their stress when its availability is in doubt. That’s why I’ve used my position as the top Democrat on the Senate Appropriations Agriculture Subcommittee to fight for solutions that can help farmers focus on growing their crops and growing their incomes with less uncertainty clouding their futures,” said Oregon’s U.S. Senator Jeff Merkley. “This important project will not only get more water to Central Oregon farmers, it will also help ensure habitats are protected and water is conserved. This funding is a critical piece, and it’s made possible because of the perseverance and collaboration among folks in Central Oregon.”

In 2014, TSID installed a $2.3 million hydroelectric plant on one of its main pipelines where the water is released into the district’s Watson reservoir and delivered through High Density Polyethylene pipes to farms and ranches. That plant generates about 3.1 million kilowatt hours of electricity annually, enough to power 275 average Oregon homes each year. The district is now celebrating the installation of a smaller hydroelectric project, nearby to the first project, that is capable of powering nearly 80 homes. A third small hydropower project is slated for construction later in 2019.

“We started modernizing about 20 years ago,” said Marc Thalacker, manager of TSID. “Back then we had to do it all on our own. Thanks to this new, collaborative approach, things can really start to move much more quickly. We already know that we can get significant results when we manage our water better. For the first time since the late 1800s, we’ve restored summertime flow in Whychus Creek for salmon and steelhead.”

The near-completion of the irrigation piping system gives TSID multiple hydroelectric power opportunities. Hydroelectric power is important for modernization efforts as it provides a long-term revenue source that can be used to pay down loans needed to finance infrastructure improvements.

“The investment in Central Oregon’s irrigation infrastructure represents a major milestone for irrigation modernization and a big step forward for rural Oregon communities,” said Jed Jorgensen, senior energy program manager for Energy Trust of Oregon. “Funding irrigation modernization is a smart investment that helps local communities save and generate energy, create jobs and improve water supplies for agriculture and the environment.”

In addition to providing rural communities with a local renewable energy and revenue source, irrigation modernization helps farmers reduce operation costs and offers a reliable and efficient water source for crops and livestock. More efficient water use means more water can also remain in rivers and streams for fish and wildlife.
According to the U.S. Department of Agriculture, 80 percent of water in the Western U.S. is used to grow crops and nourish livestock and Farmers Conservation Alliance has identified the infrastructure for irrigation as ranging between 75-125 years old.

Tumalo and Three Sisters Irrigation Districts are two of more than 20 irrigation districts around Oregon assessing the results they could achieve by modernizing their water delivery systems. Combined, these districts represent approximately 25 percent of Oregon’s agricultural water use. In the Deschutes Basin alone, eight districts are already underway with modernization projects. Projections by FCA and Energy Trust illustrate the potential collective impact of implementing modernization projects throughout the irrigation districts in the Deschutes Basin:

- Conserving nearly 250,000 gallons of water per minute during the irrigation season.
- 22,000 short-term jobs supported through these projects.
- $903 million in economic development for rural communities.
- Adding more than 36 megawatts of new hydropower using irrigation water.
- More than 53,000 megawatt hours per year of energy saved.
- Nearly 200 stream miles improved.

Energy Trust of Oregon is an independent nonprofit organization dedicated to helping utility customers benefit from saving energy and generating renewable power. Our services, cash incentives and energy solutions have helped participating customers of Portland General Electric, Pacific Power, NW Natural, Cascade Natural Gas and Avista save $3.2 billion on energy bills. Our work helps keep energy costs as low as possible, creates jobs and builds a sustainable energy future. Learn more at www.energytrust.org or call 1-866-368-7878.

Farmers Conservation Alliance (FCA®) is a 501c3 nonprofit organization that is championing irrigation modernization strategies to achieve agricultural resilience and conservation benefits. FCA formed in 2005 to market the Farmers Screen™, an innovative fish screen technology that reduces operation and maintenance for irrigators while at the same time protecting fish. Through building a vast network of relationships with farmers, agencies, tribal members, and other stakeholders, FCA realized the need to also support irrigation modernization. With the support of Energy Trust of Oregon, FCA launched the Irrigation Modernization Program in 2015 to support farmers in their pursuit of comprehensive irrigation improvements. The IMP delivers full modernization strategies that identify infrastructure improvements, funding sources, and strategic partnerships that enable projects to become shovel ready. Learn more at fcasolutions.org.