# Corps takes another look at stored water

## Amount for farming in the proposed allocations falls short, official says

By ERIC MORTENSON
Capital Press

Capital Press File

An irrigation intake pipe draws water from the Willamette River. The U.S. Army Corps of Engineers and Oregon Water Resources Department propose allocating irrigators 253,500 acre-feet of the 1.59 million acre-feet stored behind 13 dams in the basin.

Willamette Valley farmers and ranchers would have rights to about 250,000 acre-feet of irrigation water annually under a reallocation plan suggested by the U.S. Army Corps of Engineers and Oregon Water Resources Department.

The proposal is the latest attempt to decide who gets access to the water stored behind 13 federal dams in the basin. For agriculture, even in the wet Willamette Valley, water availability in spring and summer is crucial.

The Corps' preferred option allocates more than three times more than what irrigators now draw from the Willamette system, but the Oregon Farm Bureau said that's not enough.

Cities, industries and fish and wildlife experts and advocates are likely to make the same arguments about their allocation under the plan, and that sets the stage for some tough discussion.

Climate change, urban development, population growth, fish and wildlife habitat decisions and legal technicalities swirl in the current.

It's not a new problem. Discussion began in 1996, popped up again in 1999, fell off the table in 2000 and was revived in 2015. This time, the Corps of Engineers emerged with a proposal that specifically divvies up 1.59 million acre-feet stored annually behind the dams.

"We have just reached the point in the study where we are asking the public to review the tentative plan and provide feedback before a decision is made," Corps project leader Laurie Nicholas said in a prepared statement.

Here's the Corps' suggested breakout. As the name implies, an acre-foot is the amount of water needed to cover an acre of land with 12 inches of water:

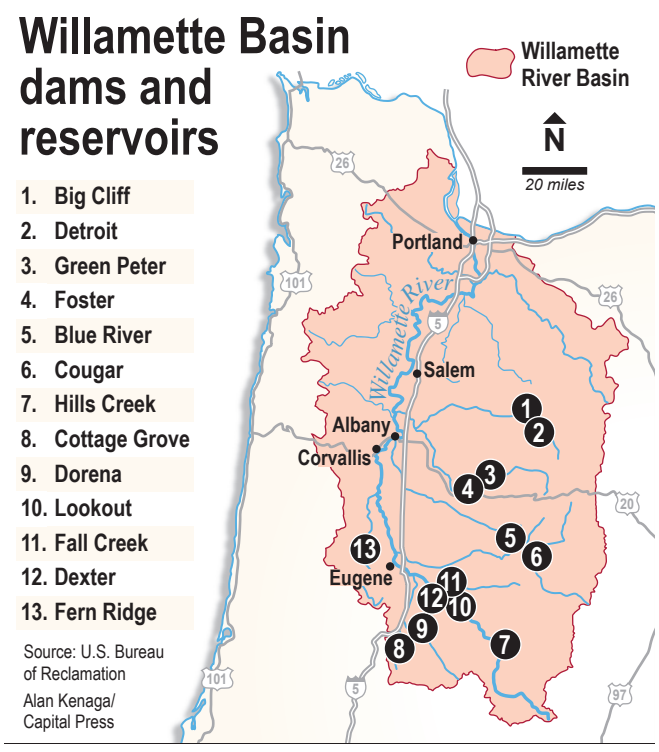
- Fish and wildlife — 962,800 acre-feet.
- Municipalities and industry — 73,300 acre-feet.
- Irrigation — 253,500 acre-feet.
- Joint use — 299,950 acre-feet.

The latter would be available as needed to supplement specific uses and to provide flexibility as conditions change.

Mary Anne Cooper, public policy counsel for the Oregon Farm Bureau, said the amount assigned to irrigation is "not nearly enough." She said the bureau has seen demand estimates higher than that, but declined to state a number at this point in the process.

The amount designated for joint use is another concern, Cooper said.

"Our concern is that we will never get to use it," she said. "We think it will go to fish. We don't believe we'll ever see any part of that joint use (amount)."




She said the water allocated to fish and wildlife — protected salmon and steelhead runs are the driving factors — are "more than adequate and too large."

Cooper said an assured water supply is critical to "realize the full potential of agriculture in the valley."

Producers are driven by markets, she said, and will grow higher value crops when irrigation is available. It's difficult to predict which crops will be in demand in the decades ahead, she noted.

"I think the state would be shortchanged to not plan for future ag needs," she said.

The issue has roots in decisions, missed opportunities and delayed action that date back nearly 80 years.

The Willamette River Basin's 13 dams were built between 1941 and 1969, and their primary purpose is flood control during the winter. Congress also authorized the Army Corps of Engineers to operate the dams and reservoirs to generate electricity, provide irrigation, assure water quality, offer recreation and to support fish and wildlife. However, there isn't a specific amount of reservoir storage allocated for any particular use.

Federal bureaucracy complicates the matter because another federal agency, the Bureau of Reclamation, holds the only water right certificates to the "conservation storage" behind the dams. Under those certificates, all 1.59 million acre-feet in storage is designated for irrigation.

But only 75,000 acre-feet per year is now contracted for irrigation. Cooper said a lack of expensive infrastructure — pipes, pumps and canals — limits how much water farmers draw. In any reallocation solution, the Bureau of Reclamation would have to file with the Oregon Water Resources Department to change how water use is designated.

Cooper said the Farm Bureau is willing to engage with the other stakeholders to find a solution.

The stakes are high. The Willamette River Basin encompasses more than 11,000 square miles, is home to nearly 70 percent of the state's population and contains its biggest cities — Portland, Salem, and Eugene — many of its major industries and some of its best farmland.

The reallocation work comes on the heels of a six-year Oregon State University research project that used computer modeling to predict water availability, demand and storage in the Willamette River Basin to the year 2100.

The OSU modeling projected Willamette Valley farmers will plant earlier and begin irrigating about two weeks sooner than they do now. Climate change most likely will result in wetter winters, OSU researchers said, but the snowpack will be severely reduced and will melt and run off earlier than it does now.

Rainy winters and springs will be followed by hotter and drier summers, but more farmers will have finished irrigating by the time water shutoffs are contemplated, the research team concluded. Although the reduced snowpack will cause the loss of an estimated 600,000 acre-feet of stored water, it won't have a significant impact on farmers in the Willamette River basin who rely on rain-fed streams. Farmers in the more arid Eastern Oregon and Deschutes and Klamath basins, however, depend more on melting snow for irrigation water and are more likely to face shortages.

# Researcher predicts farmers will warm to climate challenge, adapt practices

By DON JENKINS
Capital Press

Don Jenkins/Capital Press

Washington State University researcher Chad Kruger speaks about climate change and agriculture Nov. 10 at the Tilth Conference in Vancouver. Kruger, who directs the WSU research centers in Mount Vernon and Puyallup, says he's optimistic farmers will adapt to higher temperatures.

VANCOUVER, Wash. — Climate change may sprout weeds, breed insects and shrink snowpacks, but it won't be anything farmers can't handle, a Washington State University researcher said Friday at an agriculture conference.

Chad Kruger, who directs WSU's Mount Vernon and Puyallup research centers, said farmers are used to operating in an unsteady climate.

"We already deal with a substantial amount of variability," Kruger said. "Our best hope for the future is really smart, well-equipped farmers."

Kruger spoke at the annual conference organized by the Tilth Alliance, a group focused on small farms, especially those that are organic. He was one of several speakers at a symposium on Northwest agriculture and climate change.

The speaker before him, University of Washington climate scientist Heidi Roop, outlined scenarios in which average Washington temperatures rise between 2 and 8 degrees by mid-century. She encouraged growers to think of the drought of 2015 as look at the future.

Kruger said he's skeptical about scientists' ability to pinpoint future temperatures, but he said he finds the projected ranges reasonable.

Whatever the range, the future will resemble the present in that farmers will have to plan for wet and dry years, cold spells and heat waves, he said.

Researchers are starting to look into how higher temperatures would affect plants, water and soil, Kruger said.

"We're shifting into more of a discussion about the range of future possibilities and making decisions that are robust across those possibilities," he said. "We have to get better information into the hands of the farmers who have decisions to make."

Northwest farmers are better positioned geographically to adjust than their counterparts in southern climates, Kruger said. Even if temperatures rise, snow will fall in Canada and melt into the Columbia River, and the Northwest won't be as prone to long droughts as the Southwest, he said.

"It's a lot worse elsewhere," Kruger said. "The closer you are to the equator, the more vulnerable you are."

The new National Climate Assessment, a quadrennial product of government and university scientists, confidently predicts rising temperatures, though the message on precipitation is less clear.

The current thinking is that in the Northwest more precipitation will fall as rain, rather than snow.

"I'm very optimistic," Kruger said. "Farmers are smart. That's the bottom line."