Central Oregon farmers propose facility that could solve water shortages

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Josh Bailey/Submitted

A view of the area where North Unit Irrigation District, which supplies water to Jefferson County, Ore., farmers, would like to build a pumping station that would take water from Lake Billy Chinook for the region's irrigation needs.

BEND, Ore. — Jefferson County farmers are in the midst of a crisis. Climate change, drought and tighter environmental regulations have combined to create big hurdles to profitable farming. Josh Bailey thinks he has a solution.

Bailey, the manager for North Unit Irrigation District, which supplies water to Jefferson County farmers, said the farming community's water woes can be solved by pumping water out of Lake Billy Chinook. It sounds like a simple solution and it's not a new idea but costs have always been prohibitive.

Startup costs to construct the facility could reach $350 million to $400 million, said Bailey, with the funds to pay for it sourced possibly from an infrastructure bill, drought relief bills or grants.

Then the annual power bill could be $6 million to $12 million, a challenge for a district that has an annual budget of $6 million.

Mike Britton, North Unit's executive manager, said the district could seek "project power" from the U.S. Bureau of Reclamation, the federal water management agency for the Western states.

"That would be power supplies under the USBR or other federal agency but provided by Bonneville Power Administration, for example," said Britton. "There are various options as to the supply of power and or the offset of power. Power in my mind is the biggest nugget to crack with regard to the project at this time, power supply and power costs."

Britton said North Unit will still need to pay for the power, but if supplied by the BPA it would be at wholesale or below wholesale rates. While the payments could still be a challenge, he sees an opportunity with federal funding.

"I am a little more optimistic than I was in the beginning just because of the reception so far and also the amount of federal funding that may become available either through the Bureau of Reclamation or an infrastructure package or other means," said Britton. "It seems there is going to be a lot of money that the federal government will make available to folks, and we want to take advantage of the opportunity while it's here."

Recognizing that getting help for funding the power will be an uphill battle, North Unit has employed the services of Ferguson Group, a Washington, D.C, lobbying group.

It's a tall order, but if the scheme works, Bailey believes Jefferson County farmers will see huge benefits. He was reluctant to give a timeframe but said that "within 10 years" 90% of the district's water problems can be resolved if the pumping station moves forward and water conservation projects elsewhere in the Deschutes Basin also proceed as planned. Those mainly include Central Oregon Irrigation District's canal-to-pipe conversion projects.

"If we can get (power) we'd be looking really good," said Bailey. "It would bring a sustainable, long-term source of water to our district."

Ben Lonergan/EO Media Group

The East Project irrigation system pump station along the Columbia River near Umatilla, Ore. A similar facility is proposed to pump water from Lake Billy Chinook to help Jefferson County, Ore., farmers.

Sustainable and long-term solutions are critical for a junior water rights holder like North Unit, which has been chronically short of water for several years running. Farmers around Jefferson County have tried to adapt by investing in the most modern and efficient sprinkler systems, but each year the water rations see additional cuts.

For North Unit farmer Richard Macy, the Lake Billy Chinook pumping project can't come soon enough.

"Funding, permits, engineering, and location will need to happen fast if the NUID patrons hope to survive," said Macy.

Johanna Symons, another North Unit farmer, said the project will not only help farmers tap into a new source of water, but will also help the district comply with environmental rules and regulations. More water will be available for the Crooked and Deschutes rivers, she said, improving habitat for threatened fish and frogs. But Symons has doubts that the district will be able to secure enough federal funding to make it happen.

"Farmers can't even get disaster relief from the government at a much lower amount of money," said Symons. "How in the world are we going to acquire $400 million to $500 million to get this done?"

The good news for farmers is that if funding can be secured, other requirements are relatively easy to navigate, said Bailey.

"The other agencies say it's more or less a slam dunk," he said.

Tod Heisler, director of the rivers conservation program at Central Oregon LandWatch, agrees that the project could help meet farmer's needs and is also beneficial from an environmental standpoint, as it lowers North Unit's demand on Wickiup Reservoir for water. It's not completely bulletproof, he said, as environmentalists may worry about impacts downstream from Lake Billy Chinook.

"Pumping from Lake Billy Chinook may draw fire from those who feel it adversely affects the Lower Deschutes too much, but I think it may be a reasonable trade-off as long as the Upper Deschutes gets the permanent protection it so desperately needs," said Heisler.

From a logistical point of view, the pump station on Lake Billy Chinook would effectively replace a similar station that already exists on the Crooked River, where North Unit has a water right for 200 cubic feet per second, per day. In drought years it's not possible for North Unit to pump that much water from the river, but pumping from the lake would be possible.

Bailey said the new station will be designed to pump 400 cfs in case North Unit is able to negotiate an agreement to purchase water from the Confederated Tribes of Warm Springs, which has a 200 cfs water right at Lake Billy Chinook.

Pumping water would not impact the level of the lake, said Bailey, as the water flowing into Billy Chinook from the Deschutes, Metolius, and Crooked rivers would more than compensate for the pumped water.

The impact for farmers would be significant, said Bailey. As an example, he said if the pump station existed today, North Unit farmers would be getting 1½ acre-feet of water this year. Without the station, they are getting just 0.8 of an acre foot of water. An acre-foot of water is the amount of water to cover 1 acre with 1 foot of water.

"It would be consistent water, and you wouldn't have to shut off. If we had that this year, we wouldn't be in the situation we have right now," said Bailey.

In addition to providing more water for farmers, Bailey said the project will also help aquatic conditions on the Crooked and Deschutes rivers, improving habitat for fish and other aquatic wildlife.

The plan basically collects water at the end of its journey, instead of the beginning, offering benefits to wildlife upstream. That makes more sense compared to the current system of gravity-reliant canals which were developed more than a century ago, long before modern-day pumps.

"This is massive, absolutely massive," said Bailey. "We are doing everything we can to push this project forward as fast as we can."