



Cote and Rose Dams Receive Much Needed Replacement

Updating the old infrastructure will allow users to divert water more efficiently and will benefit migratory bird habitat.

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by Lauren Brown

Two dams in Harney County are currently being replaced with structures that will allow landowners to divert water more efficiently and safely to benefit ranching and haying operations as well as benefit migratory birds and wildlife that use the region's historic wet meadows.

The Harney Basin Wetlands Collaborative, a collaborative supported by High Desert Partnership, identified the Cote and Rose dams as structures in need of updating. Working in conjunction with Ducks Unlimited, which helped obtain funding, perform engineering, and hire contractors for the projects, the collaborative is in the final stages of completing the water diversion projects. Construction on both projects began in September and is scheduled for completion in November. This will ensure that the new structures will be in place and ready to work for the spring freshet.

Cote Dam



Cote Dam is located on Silver Creek downstream of Moon Reservoir in the Double O area. According to rancher Gary Marshall who owns the land where the dam is situated, the diversion was probably first installed in the 1950s when Virgil Moon, Darwin Collins and Bob Hughet banded together to form Moon Reservoir to provide irrigation for land in the Double O area.

Pictured: What was the Cote Dam with construction well underway. Photo by Brandon McMullen.

After almost 70 years, Marshall said the concrete was breaking and crumbling in places with the potential for washing out. In 2019, the collaborative started the process of updating the dam with a survey and design grant. While the process stalled when the Covid-19 pandemic hit, Ducks Unlimited was able to step in and help High Desert Partnership obtain funds to move forward with the project. In April 2023, the Oregon Watershed Enhancement Board awarded the restoration funds to complete construction of the structure. Additional federal funds from the North American Wetlands Conservation Council were also secured.

Marshall said that the collaborative has been great to work with and is grateful that Ducks Unlimited knows how important these structures are in diverting flood irrigation surface water for ranchers and wildlife. "They considered our needs and listened to what I thought was important here," he said.

He also noted that another big advantage to the project is that the new structure will be safer for when he places boards to divert water. "It's going to be a structure that will be there for a long, long time. The idea is to be able to continue with this flood irrigation surface water down through this valley so we can get the benefits out of that." It will also help the wildlife and birds that use the 3,000 acres of wet meadow habitat, and when the water comes in high flows, it will recharge the aquifer. "These are all the things that come with well managed surface irrigation," Marshall said.

Rose Dam



The Rose Dam, located on the east fork of the Silvies River, was also identified as one in need of updating in 2019 by the Harney Basin Wetlands Collaborative. Melissa Petschauer, collaborative coordinator, said that restoration funds were awarded in 2020 from the Oregon Watershed Enhancement Board and then Ducks Unlimited was able to obtain additional federal dollars to get the project completed this year.

Pictured: The location of the Rose Dam under construction. Photo by Brandon McMullen.

Rancher JW Rose owns the land where the dam is located and said that he hopes the new structure will allow him to pass water more effectively and efficiently to his neighbors. "I've got a diversion there right now, but it's old and obsolete," he said. The new structure will also help irrigate the wet meadows and in turn provide habitat for migrating birds in the spring.

Greg Green with Ducks Unlimited is overseeing the projects and said that a lot of the water diversion infrastructure in Harney County is degraded and in need of repair. "These structures are inefficient, and we have more regulatory processes with endangered fish and exclusionary devices

for carp that have to be incorporated into the designs," he said. Both the Cote and Rose dam projects will incorporate fish passage and exclusion considerations that are approved by the Oregon Department of Fish and Wildlife.

The Rose Dam, in addition to providing fish passage, bird habitat and helping to maintain compliance with Oregon water rights, will enhance surface water distribution on more than 1,480 acres of historic Silvies River floodplain and seasonal wet meadows.

Ducks Unlimited Involvement

Green said Ducks Unlimited is involved with these projects because they help to maintain flood irrigated pasture. "This wet meadow environment is extremely valuable and timely for bird migrations," he said. Each spring between 7 million and 10 million birds migrate through the SONEC (Southern Oregon Northeast California) region of the Pacific Flyway. "They stage in

the region for weeks if not months to forage and build body weight and just condition themselves for the rest of their journey to the breeding grounds in either Canada or Alaska,” Green said. Being able to refuel in these wet meadows allows the birds to maintain their body condition. Healthier birds have a greater degree of nest success laying more eggs per clutch. “Maintaining these flood irrigated pasture habitats helps maintain the waterfowl and waterbird populations,” he said.

Sustaining quality wildlife habitat is important from a recreation standpoint, but he said Ducks Unlimited also realizes that some of this habitat resides on private land. For that reason, it’s also important to advocate for the resource in different ways by working as an implementation partner with the Harney Basin Wetlands Collaborative and private landowners. Ducks Unlimited has access to resources that many landowners do not. “We have the staff capacity to design it, to hire the contractors and oversee the implementation of the project,” Green said. “A lot of these projects are complicated, and they are timely. They take years and just the regulatory issues can be challenging,” he said. Being able to pull the design, funding and construction pieces together in a coherent manner takes many people working together. “We’re part of a broader team and that implementation part is a strong part of our role,” Green said.

Shouldering The Cost

Green said replacing a dam can cost half a million to three quarters of a million dollars. That’s not an amount that many ranchers have on hand. In fact, both Marshall and Rose said that without the funding from the Harney Basin Wetlands Collaborative and Ducks Unlimited, these water diversion replacement projects simply would not have happened. “I’m far enough along in my career that I just did the best with what we had, and probably wouldn’t have invested the money to upgrade it to a new structure,” rancher Marshall said. “This flood irrigation is what I really hope to keep in place for this valley, and without the High Desert Partnership and the wetlands collaborative making this happen, it wouldn’t have happened.”

The Harney Basin Wetlands Collaborative and Ducks Unlimited can help landowners navigate the process to bring important projects like the Cote and Rose dam replacement projects across the finish line. “Being able to identify sources of state and federal funders like, Oregon Watershed Enhancement Board and North American Wetlands Conservation Council, that not only recognize and appreciate the economic outcome of these projects but also the ecological outcome is critical,” Green said.

Petschauer said she hopes more folks realize that projects like these can get done with the help of the Harney Basin Wetlands Collaborative. “A big hope of mine as we continue to make improvements on infrastructure is that those landowners talk to other landowners who maybe we haven’t been able to connect with yet.”

Petschauer cautions that projects like these can take years to complete, but the key is to get the ball rolling. “We’re constantly working with our partners to upgrade this infrastructure because water is a vital county resource and prioritizing its efficient distribution holds paramount importance and benefits not just for our community and businesses but also wildlife.”

This article is provided by High Desert Partnership; a Harney County nonprofit convening and supporting six collaboratives including the Harney Basin Wetlands Collaborative.

