

Farmers Conservation Alliance
11 Third Street, Suite 101
Hood River, Oregon 97031
(541) 716-6085

Public and Interagency Meeting

Monday, July 10th, 2017
5:30 – 7:00 PM
Redmond Grange
707 SW Kalama Ave, Redmond, OR 97756

Central Oregon Irrigation District Irrigation Modernization Project

Purpose: To inform the community of the proposed Central Oregon Irrigation District Irrigation Modernization Project to pipe its canals, conserve water, improve fish habitat, and enable in-conduit hydroelectric power generation; and to gather community comments on the proposed project.

Project Sponsor

Deschutes Basin Board of Control (DBBC)

Based on a
Preliminary Investigative Report (PIR)
prepared by the Farmers Conservation Alliance (FCA)
in cooperation with the Natural Resources Conservation Service (NRCS)
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Proposed Agenda

- I. Welcome
- II. Introduction: Description, Goal, and Objectives of the proposed Irrigation Modernization Project
- III. Aquatic Species Issues and Opportunities in the Upper Deschutes Watershed
- IV. Project Costs, Benefits, and Effects: Using Oregon's Conserved Water Program to permanently protect instream water
- V. Contributions and Responsibilities of the USDA-NRCS, Sponsors, and Agricultural Landowners
- VI. Discussion, Questions, and Answers

Presenters

Tom Makowski, Natural Resources Conservation Service
Craig Horrell, Manager, Central Oregon Irrigation District
Margi Hoffmann, Farmers Conservation Alliance
Bridget Moran, United States Fish and Wildlife Service

Central Oregon Irrigation District Irrigation Modernization Project

Project Goal

The goal of the proposed project is to pipe District-owned canals to conserve water, improve efficiencies and water supply reliability, enhance public safety, enable renewable energy generation, and improve fishery habitat in the Upper Deschutes Watershed while improving the economic sustainability and resilience of agriculture in the Deschutes Basin. This plan will help the agricultural community meet the requirements under the Clean Water Act and the Endangered Species Act.

Sponsors and Other Stakeholders

Project sponsors are the Deschutes Basin Board of Control (DBBC) and the Central Oregon Irrigation District (COID), in cooperation with the Natural Resources Conservation Service (NRCS) and Farmers Conservation Alliance (FCA). Other stakeholders include:

- United States Fish and Wildlife Service
- National Oceanic and Atmospheric Administration Fisheries
- United States Army Corps of Engineers
- United State Bureau of Land Management
- United States Department of Agriculture (USDA), United States Forest Service, Deschutes National Forest
- Oregon Department of Fish and Wildlife
- Oregon Water Resources Department
- State Historic Preservation Office
- Oregon Department of Environmental Quality
- Oregon Department of Agriculture
- Oregon Department of State Lands
- City of Bend
- Bend Parks and Recreation
- Deschutes County
- Oregon Department of Fish and Wildlife
- Oregon Water Resources Department
- Confederated Tribes of the Warm Springs
- Deschutes River Conservancy
- Water Watch
- Trout Unlimited
- Coalition for the Deschutes
- Central Oregon Land Watch
- Interested Public

Project Location

- Deschutes County and Crook County
- 2nd Congressional District
- Hydrologic Units: Upper Deschutes Watershed (17070301) and Lower Crooked Watershed (17070305)

Resource Concerns

The sponsors have identified the following resource concerns:

- Reduced habitat associated with low stream flows
- Inefficient irrigation water delivery and on-farm irrigation water management
- Risk of open canals to human health and safety
- Poor water quality including elevated stream temperatures
- Inefficient energy usage from irrigation pumps
- Economic instability of agricultural lands

Project Facts

- The project area is the COID Pilot Butte Canal system within the Upper Deschutes and Lower Crooked watersheds, which provides irrigation water to 1,855 patrons over approximately 17,336 acres and delivers water to the Lone Pine Irrigation District and North Unit Irrigation District.
- The COID Pilot Butte Canal system uses one primary diversion along the Deschutes River to deliver water through 78 miles of mostly open canals and laterals, losing approximately 29% to seepage and evapotranspiration.
- Water for the COID is diverted from the Deschutes River, which experiences low flows that diminish water and habitat quality from Crane Prairie Reservoir to Lake Billy Chinook.
- The project area is important for providing habitat for sensitive species, including, but not limited to, Oregon spotted frog, bull trout, steelhead trout, redband trout, Chinook salmon, and Pacific lamprey.
- A 2.5 mile section of canal was piped in 2010 to conserve water and to install the 3.3 MW Juniper Ridge Hydropower Project.

Project Measures

- Modernization of the Pilot Butte Canal system has been divided into seven phases according to conservation potential and project cost.
- Nearly 26 miles of main canal and 52 miles of lateral canals will be replaced with steel or HDPE buried pipe.
- Funding will be requested from the USDA-NRCS Small Watershed Program (PL-566).

Project Benefits and Costs

Direct Project Benefits Include:

- The project will reduce seepage losses by up to 156 cubic feet per second (CFS) and use Oregon's Conserved Water Program to permanently keep water instream; this will enhance stream flow in the Deschutes River while also enhancing water supply reliability to COID patrons.
- More instream flow in the Deschutes River will lower stream temperatures and increase available habitat for sensitive fish and other aquatic species.
- Lower energy use for COID patrons from reduced pumping will save approximately 13,316 megawatt hours/year or \$1.15 million/year and will lower CO₂ emissions by 6,325 tons/year.
- The development of up to 6.4 megawatts of in-conduit hydropower, producing 28,000 megawatt hours/year of renewable energy using only water already diverted for irrigation and reducing CO₂ emissions by 13,300 tons/year.

Total installation cost for steel and HDPE pipe and pressure reducing valve stations for all seven project phases are estimated to be \$183,126,000. Financing for the project may include the following sources:

- USDA-NRCS Small Watershed Program, PL-566
- Department of Environmental Quality Clean Water State Revolving Loan Fund
- In-kind services from COID
- Other Grants or Water Transactions