COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Colorado Water Conservation Board

Water Plan

Water Project Summary

Name of Applicant	Dixon Canyon Ditch and Reservoir Company	
Name of Water Project	Irrigation Supply Improvements Project	
Grant Request Amount		**$74,943.00**
Primary Category		$74,943.00
Water Storage & Supply		
Total Applicant Match		**$74,943.00**
Applicant Cash Match		$74,943.00
Applicant In-Kind Match		$0.00
Total Other Sources of Funding		**$0.00**
Total Project Cost		**$149,886.00**

Applicant & Grantee Information

Name of Grantee: Dixon Canyon Ditch and Reservoir Company
Mailing Address: 413 South Bryan Avenue Fort Collins CO 80521
FEIN: 840,964,063

Organization Contact: Paul Rupp
Position/Title: Vice President
Phone: 970-689-8250
Email: horsetoothvines@outlook.com

Organization Contact - Alternate: Isaac Carroll
Position/Title: President
Phone: 970-217-4137
Email: icarroll@fcgov.com

Grant Management Contact: Paul Rupp
Position/Title: Vice President
Phone: 970-689-8250
Email: horsetoothvines@outlook.com

Grant Management Contact - Alternate: Isaac Carroll
Position/Title: President
Phone: 970-217-4137
Email: icarroll@fcgov.com

Description of Grantee/Applicant

No description provided

Type of Eligible Entity

- ☐ Public (Government)
- ☐ Public (District)
- ☐ Public (Municipality)
- ■ Ditch Company

- ☐ Private Incorporated
- ☐ Private Individual, Partnership, or Sole Proprietor
- ☐ Non-governmental Organization
- ☐ Covered Entity
- ☐ Other

Category of Water Project

- ☐ Agricultural Projects
  Developing communications materials that specifically work with and educate the agricultural community on headwater restoration, identifying the state of the science of this type of work to assist agricultural users among others.
- ☐ Conservation & Land Use Planning
  Activities and projects that implement long-term strategies for conservation, land use, and drought planning.
- ☐ Engagement & Innovation Activities
  Activities and projects that support water education, outreach, and innovation efforts. Please fill out the Supplemental Application on the website.
- ☐ Watershed Restoration & Recreation
  Projects that promote watershed health, environmental health, and recreation.
- ■ Water Storage & Supply
  Projects that facilitate the development of additional storage, artificial aquifer recharge, and dredging existing reservoirs to restore the reservoirs' full decreed capacity and Multi-beneficial projects and those projects identified in basin implementation plans to address the water supply and demand gap.

Location of Water Project

Latitude	40.549994
Longitude	105.140931
Lat Long Flag	Reservoir location: Coordinates based on location of reservoir
Water Source	Dixon Reservoir sourced through Northern Colorado Water District (NCWD)
Basins	South Platte
Counties	Larimer
Districts	4-Big Thompson River

Water Project Overview

Major Water Use Type	Agricultural
Type of Water Project	Construction / Implementation
Scheduled Start Date - Design	1/15/2024
Scheduled Start Date - Construction	10/1/2024

Description

The existing Dixon Canon Ditch and Reservoir Company (DCDR Co) water delivery system infrastructure from the dam headgate through cleanouts 0, inoperable flume, cleanout 1, and cleanout 2 is over 70 years old (approximately 350 feet of open pond, flume, and piping). It has serious flaws relating to efficiency of delivery operations, water conservation, environmental risk, and human safety.

The purpose of this project is to upgrade that specific section of the current delivery system through renovation and removal of the older infrastructure, and replacing the aging infrastructure with an improved headgate flow control, measurement and transmission system, new covered cleanouts, and all new enclosed piping. This project when completed will result in the following long term (greater than 20 years) improvements:

- Major improvement in water conservation and system flow reliability

- Reduced environmental and community risk due to flood or spillage
- Elimination of current human and community safety/liability issues
- Reduction in recurring annual repair and maintenance costs due to system age and condition
- Seasonal manpower/labor operational cost reduction
- Overall improved oversight and conservation of our high value water resources

Measurable Results

	New Storage Created (acre-feet)
	New Annual Water Supplies Developed or Conserved (acre-feet), Consumptive or Nonconsumptive
	Existing Storage Preserved or Enhanced (acre-feet)
	New Storage Created (acre-feet)
	Length of Stream Restored or Protected (linear feet)
230.00	Length of Pipe, Canal Built or Improved (linear feet)
$7,000	Efficiency Savings (dollars/year)
100	Efficiency Savings (acre-feet/year)
	Area of Restored or Preserved Habitat (acres)
	Quantity of Water Shared through Alternative Transfer Mechanisms or water sharing agreement (acre-feet)
167,000	Number of Coloradans Impacted by Incorporating Water-Saving Actions into Land Use Planning
167,000	Number of Coloradans Impacted by Engagement Activity

Other

- Automated remotely controlled headgate system
- Automated flow control and continuous flow measurement transmission system
- New raised and enclosed cleanouts
- 230 of new piping

Water Project Justification

Construction and renovation improvements to the Dixon Canon Ditch and Reservoir Company (DCDR Co) upper irrigation delivery system supports several measures in the Colorado Water Plan, South Platte implementation plan, and the Platte River Recovery Implementation Program. This project meets the goals of "maintaining and improving irrigated agriculture" in the South Platte Basin Implementation plan and rehabilitating aging irrigation delivery systems in the Colorado Water Plan.

This project also directly supports the Colorado Water Plan through "Conveyance efficiency improvements: Improvements to agricultural diversion and conveyance infrastructure can increase water delivery to farms and increase predictability of deliveries. The benefits of these improvements must be weighed against the reliance on return flows by water users and riparian areas (page 194)."

When completed this project will maximize water conservation by enclosing existing open pond/ditch delivery section thereby eliminating potential 25% evaporative and absorption losses. The project will also conserve water through enclosed automated flow measurement and control systems upgrading from the current open flume and weir systems improving accuracy and efficiency of deliveries. The upgrades will also reduce current manpower risks and costs. Additionally, the project will provide reliable flow rates through increased hydraulic pressures within design specifications and limits. This in conjunction with the fully enclosed (piped) system will increase overall irrigation efficiency and deliver adequate and reliable flows to shareholders. This feature is important to agricultural shareholders in especially dry summers and periods of drought.

The DCDR project provides significant benefits beyond agriculture in the local community. The current older/open delivery system has an increased risk of flood, spillage, and safety to the surrounding community and City watershed. These improvements greatly reduce the current risk of overflow, spillage, and accidents by eliminating the open pond/ditch delivery section. The planned automated flow delivery monitoring improvements

will also reduce these risks through electronic real time flow and system monitoring. These improvements directly support the Colorado Water Plan objectives to increase conservation and efficiency, as well as reduce risk to water quality in the local area.
The Dixon reservoir is also partnered with the Colorado State Recreation area used by the public for hiking, fishing, and other recreational uses. These improvements will directly benefit the local community through water conservation, reduced risk to the watershed, and reduced human safety risk to this highly visited recreation site.

Related Studies

NRCS Dixon Reservoir System Analysis (17 September 2015)

Taxpayer Bill of Rights

No Tax Bill of Rights provided