



Colorado Water Conservation Board

Water Plan

Water Project Summary

Name of Applicant	Delta Conservation District	
Name of Water Project	Gated Pipe Drip Irrigation	
Grant Request Amount		\$30,000.00
Primary Category		\$30,000.00
<i>Engagement & Innovation Activities</i>		
Total Applicant Match		\$1,851.00
<i>Applicant Cash Match</i>		\$1,101.00
<i>Applicant In-Kind Match</i>		\$750.00
Total Other Sources of Funding		\$29,750.00
<i>Colorado River Water Conservation District</i>		\$15,000.00
<i>Delta County Agricultural Producers</i>		\$3,000.00
<i>Colorado Department of Agriculture</i>		\$11,750.00
Total Project Cost		\$61,601.00

Applicant & Grantee Information

Name of Grantee: Delta Conservation District
Mailing Address: 690 Industrial Blvd. Delta CO 81416

Organization Contact: Karen Nielsen
Position/Title: District Manager Email: deltaconservationd@gmail.com
Phone: 9706403048

Organization Contact - Alternate: Brad Tonnessen
Position/Title: President Email: brad.tonnessen@colostate.edu
Phone: 970 872 3437

Grant Management Contact: Karen Nielsen
Position/Title: District Manager Email: deltaconservationd@gmail.com
Phone: 9706403048

Description of Grantee/Applicant

Title 32 Conservation District

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	38.792310
Longitude	-107.781100
Lat Long Flag	Center of County: Coordinates based on center point of county boundary
Water Source	The Gunnison River and its tributaries
Basins	Gunnison
Counties	Delta
Districts	40-North Fork/Tribs.; 41-Lower Uncompahgre River

Water Project Overview

Major Water Use Type	Agricultural
Type of Water Project	Design / Engineering
Scheduled Start Date - Design	7/1/2026
Scheduled Start Date - Construction	12/31/2028

Description

Irrigation with gated pipe is a type of flood irrigation. It has a rather low efficiency of approximately 50%. Drip irrigation, in contrast, is a highly efficient way to irrigate and typically has an efficiency of approximately 80%.

The applicant is developing two irrigation components. These innovations will enable agricultural producers who irrigate using gated pipe to switch easily to drip irrigation. This will be particularly useful in times of drought when the scarcity of water and high prices paid for agricultural produce can justify the more expensive drip irrigation.

The first item being developed is an adapter which goes into the gates of the gated pipe. This enables the pipe to supply water to the drip tape. During the past 3 years, with funding assistance from a non-governmental entity,

the applicant has developed a prototype for the adapter.

The second item being developed is a water screening unit to clean the water. Drip irrigation requires clean water. The screening unit is currently in the conceptual stage.

The applicant wishes to guide this project to completion and make adapters and screening units available to agricultural producers.

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)
Length of Pipe, Canal Built or Improved (linear feet)
Efficiency Savings (dollars/year)
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)
Number of Coloradans Impacted by Incorporating Water-Saving Actions into Land Use Planning
Number of Coloradans Impacted by Engagement Activity

Other

The gated pipe drip tape adapter will increase irrigation efficiency by approximately 30% on the acres where it is used to irrigate crops.

Water Project Justification

2023 Colorado Water Plan, Chapter 6, Robust Agriculture section

Partner Action – Wise Water Use (pg.194), On-farm efficiency improvements

This project increases on-farm irrigation efficiency by switching from flood irrigation to drip irrigation

Partner Action – Effective Engagement and Education at Different Levels (pg. 195), Quasi-governmental entities

The project applicant is a conservation district and is well placed to do an outreach campaign to show how the products created by the project can build agricultural resilience.

2023 Gunnison Basin Roundtable Implementation Plan (as listed in the 2023 Colorado Water Plan)

Gunnison Basin Roundtable Goals (pg. 97)

- Protect existing water uses in the Gunnison Basin

This project can help keep farmers financially viable in times of drought and therefore will help ensure that existing agricultural water use continues.

- Discourage the conversion of productive agricultural land to all other uses within the context of private property rights

This project can help keep farmers financially viable in times of drought and will help ensure farmers don't feel they need to convert their land to other uses for the sake of financial gain.

Related Studies

Please see the attached documents:

2023 Drip Tape Adapter end of year report

2024 Drip Tape Adapter progress report to DCD
2025 09 03 Drip Tape Adapter Update to DCD

Taxpayer Bill of Rights

none