



Colorado Water Conservation Board

Water Plan

Water Project Summary

Name of Applicant	Rio Grande Conservation District
Name of Water Project	Student-Led San Luis Valley Drought Resiliency Crop Trials
Grant Request Amount	\$52,606.80
Primary Category	\$52,606.80
<i>Agricultural Projects</i>	
Total Applicant Match	\$3,490.00
<i>Applicant Cash Match</i>	
	\$3,490.00
<i>Applicant In-Kind Match</i>	
	\$0.00
Total Other Sources of Funding	\$62,412.80
<i>USDA - Adams State University</i>	
	\$62,412.80
Total Project Cost	\$118,509.60

Applicant & Grantee Information

Name of Grantee: Rio Grande Conservation District
 Mailing Address: 0048 W County Road 10 N Center CO 81125
 FEIN: 331,204,096

Organization Contact: Mattea Freel
 Position/Title: District Manager Email: riograndecd@gmail.com
 Phone: 719-754-3400

Grant Management Contact: Mattea Freel
 Position/Title: District Manager Email: riograndecd@gmail.com
 Phone: 719-754-3400

Description of Grantee/Applicant

A special district (conservation district) focused on promoting soil health practices through education, outreach, and producer support

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	37.718765
Longitude	-106.157625
Lat Long Flag	Precise coordinates: Project coordinates are readily definable and precisely define the location of the project
Water Source	Surface ditch water from the Santa Maria and Rio Grande. Likely will require purchased shares from the Rio Grande Water Conservation District.
Basins	Rio Grande
Counties	Saguache
Districts	20-Rio Grande

Water Project Overview

Major Water Use Type	Agricultural
Type of Water Project	Planning
Scheduled Start Date - Design	2/5/2024
Scheduled Start Date - Construction	
Description	<p>This project will form a partnership between the Rio Grande Conservation District (RGCD), Center Conservation District (CCD), Adams State University (ASU) students, and the Colorado State University (CSU) San Luis Valley (SLV) Research Center to conduct drought resiliency crop trials to determine potential agricultural water management plans to alleviate stress on the water supply in the Rio Grande Basin without sacrificing soil health and producer economic wellbeing. ASU students will design and implement drought trials over the course of three years to find sustainable avenues for reducing total field water usage which will include a cover crop, drought-resilient test crop, and a traditional cash crop. Students will track data such as water usage, weather, soil health, crop quality and yield, etc. as needed to determine the effectiveness of the drought resiliency trial and explain its relevance for local water concerns and agricultural production.</p>

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

While the project does not currently have figures regarding projected outcomes, the goal is to make a significant difference in the amount of water used over a three-year production period and encourage producers in the San Luis Valley (primarily those that will produce the chosen cash crop) to adopt this practice into their management plans.

Water Project Justification

From education to application, the Student-Led San Luis Valley Drought Resiliency Crop Trials will focus on finding sustainable solutions for water usage in Colorado agricultural practices, more specifically those within the Rio Grande Basin where water scarcity is a concern. Agricultural challenges facing the Rio Grande Basin as outlined in Colorado's Water Plan highlight diminishing reserves, unsustainable water usage, and economic declines as a result of irrigated acre reduction (p. 112). The Rio Grande Basin Roundtable has also developed a strategic vision that aligns with the Colorado Water Plan and agricultural production by acknowledging agricultural and water supply gaps through flexible, efficient, and adaptive management (p. 114).

The Student-Led San Luis Valley Drought Resiliency Crop Trials aims to address agricultural water concerns in the state of Colorado and the Rio Grande Basin by partnering with Adams State University students and the Colorado State University San Luis Valley Research Center to conduct drought resiliency trials using unique crop combinations and rotations to find environmentally and economically sustainable solutions for local producers to maintain production without forfeiting soil quality and financial gain.

Related Studies

This project will partially work in tandem with current research studies at the Colorado State University San Luis Valley Research Center; however, Adams State University students will have the freedom to make adjustments to research methods as seen fit for determining drought resiliency management plans. This project also has the potential to partner with the Rye Resurgence project depending on student project designs.

Taxpayer Bill of Rights

The Rio Grande Conservation District does not have limitations or restrictions set by TABOR.