



**COLORADO**

Colorado Water  
Conservation Board

Department of Natural Resources

**Colorado Water Conservation Board**

**Water Plan**

**Water Project Summary**

Name of Applicant	Colorado Rio Grande Restoration Foundation
Name of Water Project	Farmers Union Canal Diversion and Headgate Improvement Project
Grant Request Amount	<b>\$600,000.00</b>
Primary Category	\$600,000.00
<i>Agricultural Projects</i>	
Total Applicant Match	<b>\$0.00</b>
<i>Applicant Cash Match</i>	\$0.00
<i>Applicant In-Kind Match</i>	\$0.00
Total Other Sources of Funding	<b>\$1,341,110.00</b>
<i>Bureau of Reclamation WaterSMART</i>	\$931,110.00
<i>Environmental Water Resource Project</i>	
<i>Landowner Contribution</i>	\$10,000.00
<i>San Luis Valley Irrigation District</i>	\$180,000.00
<i>Gates Family Foundation</i>	\$220,000.00
Total Project Cost	<b>\$1,941,110.00</b>

**Applicant & Grantee Information**

Name of Grantee: Colorado Rio Grande Restoration Foundation

Mailing Address: 623 4th Street Alamosa CO 81101

FEIN: 753,169,057

Organization Contact: Emma Ressor

Position/Title:

Email: emma@riograndeheadwaters.org

Phone: (719) 589-2230

Organization Contact - Alternate: Daniel Boyes

Position/Title: Program Manager

Email: daniel@riograndeheadwaters.org

Phone: 719-589-2230

Grant Management Contact: Emma Ressor

Position/Title:

Email: emma@riograndeheadwaters.org

Phone: (719) 589-2230

**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	37.684162
Longitude	-106.344212
Lat Long Flag	Ditch diversion structure location: Coordinates based on ditch's diversion structure
Water Source	Rio Grande
Basins	Rio Grande
Counties	Rio Grande
Districts	20-Rio Grande

### Water Project Overview

Major Water Use Type	Agricultural
Type of Water Project	Construction
Scheduled Start Date - Design	1/1/2023
Scheduled Start Date - Construction	10/1/2023

Description

The Farmers Union Canal (FUC) diversion structure and adjacent headgate bifurcate the Rio Grande into its north and south channels downstream of Del Norte, CO. By controlling flows into the North Channel, this important irrigation infrastructure delivers water to the FUC (140 water users) and nine other irrigation ditches, irrigating a combined 42,980 acres. Crops grown include alfalfa, barley, potatoes, wheat, sorghum, small grains, vegetables such as lettuce, and grass pasture for livestock grazing. The Farmers Union Canal Diversion and Headgate Improvement Project (Project) is a multi-benefit project to replace the FUC diversion dam and

headgates with new structures that divert more efficiently and provide watershed health benefits, including providing fish and boat passage. The FUC diversion and headgate are aging and in need of repair. A new diversion dam and automated headgates are critical to improve ditch operations, reduce maintenance, and protect the FUC's full water rights into the future. In addition, the new diversion dam will include fish and boat passage, connecting aquatic habitat and improving community safety. Finally, the project will include adjacent streambank stabilization to protect the diversion infrastructure, reduce sedimentation in the river, improve water quality for downstream users, and enhance surrounding wildlife habitat.

### 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)
660	Length of Stream Restored or Protected (linear feet)
	Efficiency Savings (dollars/year)
892	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	
	Construction of new fish- and boat-passable diversion structure. Installation of 4 automated headgates for the Farmers Union Canal.

### Water Project Justification

The Farmers Union Canal Diversion and Headgate Improvement Project (Project) will provide multiple benefits for agricultural water users and address water administration, environmental, and recreational needs facing the Rio Grande Basin and State of Colorado. By replacing poorly functioning and inefficient irrigation infrastructure at the Farmers Union Canal (FUC) diversion, enhancing boat passage, stabilizing streambanks, improving riparian and aquatic habitat, and improving the ability of water administrators to effectively administer water rights, the Project will improve the ability of the Rio Grande to meet consumptive and non-consumptive needs.

Project activities will support many of the Agriculture and Watershed Health, Environment, and Recreation goals listed in Section 10.3 of the Colorado Water Plan (CWP). The Project meets CWP Goals and Criteria in the following ways:

- By replacing and improving aging diversion and headgate infrastructure on the Rio Grande, the project supports CWP agricultural goals to “maintain agricultural viability” and “support agricultural conservation and efficiency” (CWP, Section 10.3, pp. 10-10). Further, these activities directly address the CWP’s critical agricultural action to “update and improve Colorado’s aging agricultural infrastructure, especially where improvements provide multiple benefits” (CWP, Section 10.3, pp. 10-10).
- By constructing a new diversion that includes boat and fish passage, the Project supports the goal to “Enhance Environmental and Recreational Economic Values: Protect and enhance river-based environments and recreational opportunities that support local and statewide economies and are important for the enjoyment of current and future generations of Coloradans (CWP, Section 10.3, pp. 10-12).”
- Restoration activities will further the goal to “Protect Healthy Environments: Understand, protect, maintain, and improve conditions of streams, lakes, wetlands, and riparian areas to promote self-sustaining fisheries and

functional riparian and wetland habitat to promote long-term resiliency” (CWP, Section 10.3, pp. 10-12). Project activities will reduce erosion, enhance aquatic habitat, and support a healthy and functioning river.

- Finally, the Project will help meet the goal to “Work on creating resilient watersheds to protect, restore, and enhance water quality in the face of climate change” (CWP, Section 10.3, pp. 10-14). By restoring riparian vegetation, the Project will increase stream shading and help buffer water temperature. This, combined with increased floodplain connectivity, will increase alluvial aquifer storage and augment late summer streamflow.

Additionally, the Project will help mitigate potential future impacts to recreation identified in the recent 2019 Technical Update to the 2015 Water Plan (Technical Update, formerly SWSI). The Technical Update resulted in the Environmental Flow Tool, which quantifies potential risks to the environment and recreation associated with predicted changes in streamflow. Environmental Flow Tool results for the Rio Grande suggest average annual streamflow will decrease, particularly during late summer months. These changes in streamflow will adversely impact aquatic organisms and will reduce the number of boatable days on the Rio Grande. This Project will mitigate potential impacts to aquatic life and recreation by improving aquatic species habitat and providing more flexibility for water managers to support environmental and recreational flows. Project activities will increase fish habitat connectivity by creating fish passage at the FUC diversion and will create new pool habitat for aquatic species using rock clusters and root wads. By increasing the ability of water managers to consistently deliver water rights to the North Channel Rio Grande, especially during low streamflow conditions, water managers will have more flexibility to manage water for multiple benefits, including re-timing reservoir releases.

In addition to meeting many of the Colorado Water Plan Goals and complimenting the Technical Update, the Project meets three of the five Rio Grande Basin Implementation Plan (BIP) Goals and is supported by the Rio Grande Basin Roundtable. For example, this Project meets the BIP goal to work toward, “Vibrant and resilient agriculture, recreation, municipal, and industrial economies that support thriving communities” (2021 Rio Grande BIP, Section 4, pp. 22). The Project is also listed in the BIP Identified Projects and Processes (IPPs) under name, “North Branch Splitter Rehabilitation Project.”

This project is located approximately ½ mile downstream of the Del Norte Riverfront Park, where a recreational playwave and boat ramp were recently installed. With increasing recreational use, especially boating, on the Rio Grande near Del Norte, boaters are increasingly likely to encounter the FUC diversion dam. By incorporating boat passage into the design of the new diversion, this project will provide important improvements to community safety.

The Project need was identified in the Rio Grande Stream Management Plan (2020 Rio Grande SMP, Section 3.2.9, pp. 139) and is a result of planning and collaboration between the San Luis Valley Irrigation District (SLVID, owner of the FUC), Colorado Parks and Wildlife, Colorado Division of Water Resources, San Luis Valley Water Conservancy District, Trout Unlimited, and the Rio Grande Headwaters Restoration Project. Participation from diverse stakeholders ensures that both consumptive and non-consumptive needs are being met through project design and implementation. The Project meets multiple SMP goals by increasing agricultural water use efficiency, improving recreational safety, and enhancing aquatic and riparian habitats at and downstream of the FUC.

In addition, requested CWP grant funds for the Project will be leveraged by significant in-kind and cash contributions from the SLVID as well as federal grant funding through the Bureau of Reclamation WaterSMART Environmental Water Resources Projects (EWRP) program. Without CWP funding, project partners would likely not be able to raise sufficient dollars out of pocket or from other grant sources to fund this project. As such, CWP funds are critical to complete the Project.

Rio Grande Stream Management Plan: The Farmers Union Canal Diversion and Headgate Improvement Project (Project) was developed after being identified and prioritized in the 2020 Rio Grande Stream Management Plan (SMP). The Project follows SMP recommendations by improving the efficiency and function of agricultural irrigation infrastructure while also enhancing community safety and river health and meeting the following SMP goals:

- Goal A. Improve function and reduce maintenance of irrigation infrastructure, both for water users and river health.
- Goal B. Maintain or improve bank and channel stability, especially near important wildlife habitat and critical infrastructure such as homes, diversion structures, roads, and bridges.
- Goal C. Maintain and improve the function of floodplains, associated alluvial aquifers, and natural channel processes.
- Goal D. Maintain and improve the extent and condition of riparian areas.
- Goal G. Maintain or improve long term sustainability of Rio Grande fisheries and associated aquatic habitat.
- Goal H. Improve infrastructure to support recreational access and use on the Rio Grande.

Rio Grande Basin Implementation Plan: The Project meets three of the five BIP Goals and is listed in the 2021 Rio Grande Basin Implementation Plan under the Identified Projects and Processes (IPPs) name, "North Branch Splitter Rehabilitation Project."

#### **Taxpayer Bill of Rights**

The Applicant, The Colorado Rio Grande Restoration Foundation, is not subject to TABOR limitations, as it is a Colorado nonprofit organization operating under Section 501(c)(3) of the U.S. Internal Revenue Code.