COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Colorado Water Conservation Board

Water Plan

Water Project Summary

Name of Applicant	Terrace Irrigation Company
Name of Water Project	Terrace Irrigation Company's Storage Future: Analysis of Opportunities and Obstacles and Design & Engineering of Outlet Works Repair
Grant Request Amount	**$254,438.00**
Primary Category	$254,438.00
Agricultural Projects	
Total Applicant Match	**$54,812.00**
Applicant Cash Match	$54,812.00
Applicant In-Kind Match	$0.00
Total Other Sources of Funding	**$30,000.00**
Alamosa La Jara Water Conservancy	$30,000.00
Total Project Cost	**$339,250.00**

Applicant & Grantee Information

Name of Grantee: Terrace Irrigation Company
Mailing Address: PO Box 109 Monte Vista CO 81144

Organization Contact: Nikita Cooper
Position/Title:
Email: nikita@notes-numbers.com
Phone: (719) 849-8710

Organization Contact - Alternate: Virginia Christensen
Position/Title: Secretary/Treasurer
Email: forage1@gojade.org
Phone: 719-5802562

Grant Management Contact: Nikita Cooper
Position/Title:
Email: nikita@notes-numbers.com
Phone: (719) 849-8710

Grant Management Contact - Alternate: Virginia Christensen
Position/Title: Secretary/Treasurer
Email: forage1@gojade.org
Phone: 719-5802562

Description of Grantee/Applicant

No description provided

Type of Eligible Entity

- ☐ Public (Government)
- ☐ Public (District)

- [ ] Public (Municipality)
- [x] Ditch Company
- [ ] Private Incorporated
- [ ] Private Individual, Partnership, or Sole Proprietor
- [ ] Non-governmental Organization
- [ ] Covered Entity
- [ ] Other

Category of Water Project

- [x] 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	37.357000
Longitude	-106.286000
Lat Long Flag	Reservoir location: Coordinates based on location of reservoir
Water Source	Alamosa River
Basins	Rio Grande
Counties	Alamosa
Districts	21-Alamosa La Jara

Water Project Overview

Major Water Use Type	Agricultural
Type of Water Project	Design / Engineering
Scheduled Start Date - Design	12/15/2025
Scheduled Start Date - Construction	

Description

The Terrace Irrigation Reservoir and Alamosa River are uniquely positioned unlike other reservoirs in the Rio Grande Basin as it is a pre-compact reservoir and is not tributary to the Rio Grande. The reservoir currently serves 22 stockholders. With changes in climate patterns, including lower snow pack but more intense summer storms, there has been multiple occasions where water users along the river needed to re-time their river delivery. As the Rio Grande Basin continues to find innovative solutions to groundwater sustainability and depletion requirements, the Terrace Irrigation Board would like to investigate ways that the Reservoir and Alamosa River can help be a part of those solutions. This project is looking at the feasibility of applying for a

direct flow water decree to help re-time surface water use to better serve agriculture as well as sustain river flows throughout the irrigation season. The project will also provide design and engineering of the Outlet Works pipeline and automatic headgate at the reservoir, so the reservoir is at peak operating capacity for future uses such as direct flow and small adjustments.

The analysis will look at potential benefits and obstacles of applying for a direct flow storage right including holding stakeholder meetings with water users throughout the Alamosa River.

The Terrace Reservoir Outlet design and engineering team will meet with multiple engineering and construction companies that can design and install a lining to repair pipeline and automate the reservoir headgates so that the reservoir can handle low flow releases as we build partnerships in the basin such as instream flows and additional Alamosa River Irrigators.

Measurable Results

	New Storage Created (acre-feet)
	New Annual Water Supplies Developed or Conserved (acre-feet), Consumptive or Nonconsumptive
15,182	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
50	Number of Coloradans Impacted by Engagement Activity

Other

No additional measurable results provided

Water Project Justification

Currently, the Terrace Irrigation Reservoir Outlet Works service148 square miles of land that is primarily irrigated agricultural, approximately 44,399 acres. The on stream reservoir serves 22 stockholders as a storage facility as well as maintains 1,500 acre feet for the Colorado Parks and Wildlife State Wildlife Area as year round fish habitat and public recreational fishing. The Terrace Irrigation Outlet Works and Headgates currently handles releases for Colorado Water Conservation Board Instream Flow Water Right, Town of Jasper Augmentation Water, Expo Potato Warehouse Augmentation and Rio Grande Water Conservation Districts, Special Improvement Subdistrict #3 and #6 water for depletions on the river. These releases average a total of 73,000 acre feet annually. This project will aim to study how a direct flow storage right may increase the utility of the Terrace Reservoir for more stakeholders including agricultural users, subdistricts, and augmentation projects. The project will also design and engineer an Outlet Works upgrade and Automate Headgates in order to enhance the ability to make small adjustments needed for current and additional uses.

Robust Agricultural: The Alamosa River basin is primarily an agricultural economy serving 44,399 irrigated acres of farmland and delivering augmentation water to EXPO potato warehouse. The Alamosa River services a large portion of District 21 (Alamosa La Jara) Water District. The Rio Grande Basin Implementation Plan: Volume 2 states that the district currently has 19,455 acres irrigated by ground and surface water. SB 04-222 and the creation of subdistricts necessitates all ag producers look for innovative ways to more efficiently use surface

water in order to reduce pumping. Reducing pumping will help the community reach the goal of sustaining healthy aquifer levels and reduce depletions to the rivers. As agricultural producers shift their farming practices to better align with water supply and early runoff, this project will study how a direct flow water right may allow additional agricultural users to store a portion of their direct flow rights during the irrigation season in order to re-time their water releases and reduce pumping later in the irrigation season. The Terrace Reservoir is a pre-compact reservoir and is not tributary to the Rio Grande or Conejos Rivers which gives a unique opportunity for innovative water sharing agreements to help the local agricultural community.

Vibrant Communities: Low flow and small releases from the Terrace Irrigation Company's Reservoir are key to being able to establish and maintain partnerships in the basin to support agricultural, municipal, industrial and recreational economies. The reservoir stores water for both Subdistrict #3 and #6 to replace depletions in accordance with the Division 3 Groundwater Rules. The success of those subdistricts' ability to timely release water and possibly store additional water in the reservoir will greatly effect the agricultural communities in the basin. The Basin Implementation Plan outlines that "agriculture is the primary economic driver of the Basin". The Town of Jasper currently uses the reservoir to store and release water for their Augmentation plan. The Terrace board is continuously having conversations with additional water users to store water, however the Outlet Works and Headgate Infrastructure must be at peak operating capacity to allow continued partnerships.

Resilient Planning: As Division 3's Groundwater Model continues to improve and is refined, the need for resilient planning in our area increases. Colorado Water Plan, Resilient Planning, Thoughtful Storage, outlines that "water security roadmaps, inclusively developed at a local level and informed by strong state leadership, can identify acute and chronic risks to water supply, integrate local planning strategies, prioritize collaborative solutions, and build adaptive capacity and resilience." This project will study how to meet an acute risk to water supply. With collaboration between additional agricultural water users on the Alamosa River to re-time water, the reservoir can be used to it's full storage capacity for the greater community outside the irrigation company.

Thriving Watersheds: The study of direct flow water rights will identify how streamflow may be enhanced by retiming irrigation water to help maintain water in the river further into the irrigation season. With earlier run off, river flows are high in the early season and drop off as the season progresses. The retiming of these rights will still need to meet the needs of agriculture within the irrigation season, however, another benefit may be that if water rights holders chose to release water later in hot summer months, than aquatic life may benefit from cooler river temperatures.

Related Studies

Terrace Reservoir Outlet Works Inspection and Repair Analysis: Phase I (Completed 2019)
Conejos Conservancy District Direct Flow Decree and Court Case may serve as a model of what the Terrace Reservoir might accomplish.

Taxpayer Bill of Rights

Terrace Irrigation Company is a Mutual Ditch Company and is not subject to TABOR.