COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Colorado Water Conservation Board

Water Plan

Water Project Summary

Name of Applicant	Farmers Reservoir & Irrigation Company	
Name of Water Project	Standley Lake Spillway Raise Design	
Grant Request Amount		**$289,777.00**
Primary Category		$289,777.00
Water Storage & Supply		
Total Applicant Match		**$156,034.00**
Applicant Cash Match		$156,034.00
Applicant In-Kind Match		$0.00
Total Other Sources of Funding		**$0.00**
Total Project Cost		**$445,811.00**

Applicant & Grantee Information

Name of Grantee: Farmers Reservoir & Irrigation Company
Mailing Address: 80 S 27th Ave Brighton CO 80601

Organization Contact: Scott Edgar
Position/Title:
Phone: 303-659-7373
Email: scott@farmersres.com

Organization Contact - Alternate: Molly Lockhart
Position/Title: Financial Officer & HR Manager
Phone: 303-659-7373
Email: molly@farmersres.com

Grant Management Contact: Scott Edgar
Position/Title:
Phone: 303-659-7373
Email: scott@farmersres.com

Grant Management Contact - Alternate: Lisa Shea
Position/Title:
Phone: 303-250-2464
Email: lisa@erccolorado.net

Description of Grantee/Applicant

Company - Water company, public or private

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.
- [x] 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	39.863701
Longitude	-105.122972
Lat Long Flag	Reservoir location: Coordinates based on location of reservoir
Water Source	Croke Canal, Farmer's Highline Canal, and Church Ditch
Basins	South Platte
Counties	Jefferson
Districts	7-Clear Creek

Water Project Overview

Major Water Use Type	Municipal
Type of Water Project	Design / Engineering
Scheduled Start Date - Design	
Scheduled Start Date - Construction	

Description

The project involves designing and permitting a spillway raise at Standley Lake to increase the storage capacity in the reservoir by approximately 4,200 ac-ft to make use of the decreed storage amount of 49,060 ac-ft. The current capacity is 43,344 ac-ft. The raise became a possibility with Colorado Dam Safety’s new understanding of maximum precipitation depths and its impacts on dam safety. In 2019, Dam Safety published new guidance for evaluating the probable maximum precipitation (PMP) depth using the Regional Extreme Precipitation Study (REPS) tool. As a comparison, previous studies resulted in a 24-hour PMP of 35.3 inches, while REPS generated a depth of 21.9 inches. Based on this, a pre-feasibility study was completed and included a hydrologic/hydraulic evaluation/report, a risk assessment in the form of a Comprehensive Dam Safety Evaluation, a structural analysis to develop a raised configuration, and a natural resource assessment to identify existing ecological conditions in the project area. The results of the pre-feasibility study are favorable and the Standley Lake Operating

Committee would like to proceed forward with the 60% and 90% design effort (design report, drawings, calculations, and evaluations) along with permit applications.

Measurable Results

4,200	New Storage Created (acre-feet)
	New Annual Water Supplies Developed or Conserved (acre-feet), Consumptive or Nonconsumptive
	Existing Storage Preserved or Enhanced (acre-feet)
4,200	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
300,000	Number of Coloradans Impacted by Engagement Activity
Other	

No additional measurable results provided

Water Project Justification

The Standley Lake enlargement project supports Colorado's Water Plan in many ways. A key goal of the Water Plan is to reduce the projected 2050 municipal and industrial gap to zero acre-feet by 2030. Increasing the storage of Standley Lake will help reduce these gaps because it is a key storage component of the water supply systems for the City of Thornton, City of Westminster, and Town of Northglenn. These cities are major shareholders in the Standley Lake Division and currently own approximately 95% of the total number of outstanding shares. These cities currently withdraw water directly from Standley Lake to supply their municipal water systems. Additional storage in Standley Lake will increase the reliability of these water supply systems, increase the demand that can be met by the current and future populations of these municipalities, and reduce the risk of shortages during droughts. Therefore, this project will mitigate future water supply gaps.

Additional storage at Standley Lake will also increase the water supply that is available to serve lands irrigated by Standley Lake shareholders. A number of shares in the Standley Lake system remain in agriculture use. Additional water could increase the acres that can be irrigated and crop yields and reduce shortages of water needed for irrigated crops thereby maintaining agricultural productivity.

Standley Lake is a key feature of the Standley Lake Regional Park and is a popular destination for numerous recreational opportunities including hiking, fishing, paddling, camping, and birdwatching. For several years, it has also been the home to a pair of nesting bald eagles.

Increasing the operating level in Standley Lake would address more than one type of need including (agricultural, municipal, recreation, and environmental needs) (CWP, Pg. 9-43). This project addresses an identified water gap and will meet a need identified in the SWSI. There are significant future gaps estimated for the South Platte/Metro basin. Under the hot growth scenario, future gaps in agricultural and M&I sectors were estimated to be 22% and 31% on average, respectively (pg. 149 and 150, CWP Analysis and Technical Update). Between the years 2015 and 2050, the South Platte Basin as a whole is projected to grow from approximately 3.8 million to between 5.4 million and 6.5 million people in the low and high growth scenarios, respectively (pg. 139, CWP Analysis and Technical Update). This project will help address and reduce those gaps by meeting additional

municipal and agricultural demands.

Finally, this project demonstrates sustainability. Additional capacity at Standley Lake will help firm the yield of existing water rights stored at Standley Lake and increase the ability of Thornton, Westminster, and Northglenn to withstand droughts. It will benefit environmental and recreational interests as described above and mitigate impacts on agricultural communities by increasing the water supply available to the irrigated lands served by Standley Lake.

Related Studies

Standley Lake Spillway Raise Evaluation

Taxpayer Bill of Rights

No Tax Bill of Rights provided