



Colorado Water Conservation Board

Water Plan

Water Project Summary

Name of Applicant	Colorado State University
Name of Water Project	Integrated Land Use Planning and Water Management Scenario Planning in Colorado Communities Using the Polaris Tool
Grant Request Amount	\$269,534.00
Primary Category	\$269,534.00
<i>Conservation & Land Use Planning</i>	
Total Applicant Match	\$67,387.00
Applicant Cash Match	\$67,387.00
Applicant In-Kind Match	\$0.00
Total Other Sources of Funding	\$0.00
Total Project Cost	\$336,921.00

Applicant & Grantee Information

Name of Grantee: Colorado State University
 Mailing Address: 2002 Campus Delivery Fort Collins CO 80523
 FEIN: 846,000,545

Organization Contact: Mazdak Arabi
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Organization Contact - Alternate: Jennifer Alvarez
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Grant Management Contact: Mazdak Arabi
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Grant Management Contact - Alternate: Jennifer Alvarez
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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 40.572900
 Longitude 105.084800
 Lat Long Flag Default/Proponent headquarters: If the location cannot be defined with flags above, use location of project proponent headquarters
 Water Source
 Basins Arkansas; Colorado; Gunnison; Metro; Yampa/White/Green; Rio Grande; South Platte; Southwest; Nort...
 Counties
 Districts

Water Project Overview

Major Water Use Type Municipal
 Type of Water Project Capacity Building
 Scheduled Start Date - Design 1/1/2024
 Scheduled Start Date - Construction

Description

The study develops a software called Polaris with data analysis and modeling capacities for integrated land use planning and water supply management in communities across Colorado. The tool streamlines a mechanism to quickly assess, understand, and report water use for comprehensive plans, master plans, and other planning activities within a city or utility service area. The project activities examine the influence of projected land development plans, land use policy, and zoning regulations on municipal water use. Through extensive stakeholder engagement, co-design scenario planning workshops, and training, the project facilitates

collaborative and aligned planning and decision making among water and land use planners in up to 50 Colorado communities.

This effort leverages more than a decade of research and software development by the project team to reveal connections between land use and water planning, integrated assessments, and decision making with considerations about population, weather, behavior, and technology adoption. Specifically, an existing tool called Polaris funded by CWCB was developed for integrated land use planning and water management in partnership with six utilities in the Front Range of Colorado. This project expands the Polaris tool and provides engagement and training opportunities for its widespread applications in all communities across Colorado.

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)
2,000,000 Number of Coloradans Impacted by Incorporating Water-Saving Actions into Land Use Planning
500 Number of Coloradans Impacted by Engagement Activity
Other
No additional measurable results provided

Water Project Justification

This project will enable cities and communities across Colorado to assess the linkage between land use planning and water supply-demands over a range of current and future population, land use, and climatic conditions. The planning scenarios are developed based on the Colorado's Water Plan scenarios using extensive participatory co-design approaches. A Tool entitled Polaris is developed and disseminated among communities to conduct integrated land use and water planning. Workshops will be conducted to train up to 50 municipalities/cities/utilities to use the tool for their specific land use and water supply planning purposes.

Related Studies

CWP: A System and Process for Assessing Water Use of Land Use Decisions (02/15/2020 – 06/30/2022).
POGG1, PDAA, 202000002808, CMS#149093. Budget: \$149,249 (CWCB); \$69,500 (Partner Utilities), \$79,800 (CSU Match), Total Project Value: \$298,549.

Taxpayer Bill of Rights

None