COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Colorado Water Conservation Board

Water Plan

Water Project Summary

Name of Applicant	The Watershed Center
Name of Water Project	Haldi Diversion Enhancement and Fish Passage Implementation
Grant Request Amount	**$932,288.09**
Primary Category	$932,288.09
Watershed Health & Recreation	
Total Applicant Match	**$932,288.09**
Applicant Cash Match	$932,288.09
Applicant In-Kind Match	$0.00
Total Other Sources of Funding	**$0.00**
Total Project Cost	**$1,864,576.18**

Applicant & Grantee Information

Name of Grantee: The Watershed Center
Mailing Address: PO Box 1074 Niwot CO 80544

Organization Contact: Yana Sorokin
Position/Title:
Phone: 3036215780
Email: ysorokin@watershed.center

Organization Contact - Alternate: Deb Hummel
Position/Title:
Phone: 17208184573
Email: dhummel@watershed.center

Grant Management Contact: Yana Sorokin
Position/Title:
Phone: 3036215780
Email: ysorokin@watershed.center

Grant Management Contact - Alternate: Yana Sorokin
Position/Title:
Phone: 3036215780
Email: ysorokin@watershed.center

Description of Grantee/Applicant

Since 2005, the Watershed Center has been working to protect and restore watersheds for people and the environment using a collaborative and science-based approach. We are a stakeholder driven, non-profit organization in Boulder County that uses the best available science to monitor, assess, and manage our watersheds. We plan and implement on-the-ground forest and river restoration projects. We strive to build a strong stewardship ethic in our community through place-based and participatory learning. Though our primary focus is the St. Vrain Basin, we increase our impact by developing programs and projects to be scalable and repeatable across other Colorado watersheds.

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	40.131581
Longitude	-105.292269
Lat Long Flag	Precise coordinates: Project coordinates are readily definable and precisely define the location of the project
Water Source	Left Hand Creek
Basins	South Platte
Counties	Boulder
Districts	5-St. Vrain Creek

Water Project Overview

Major Water Use Type	
Type of Water Project	Construction / Implementation
Scheduled Start Date - Design	
Scheduled Start Date - Construction	5/1/2026

Description

This project, co-led with the St. Vrain and Left Hand Water Conservancy District, will construct a multi-benefit diversion enhancement and fish passage project at the Haldi Intake on Left Hand Creek in Boulder County. The

project will convert a full, year-round barrier into a structure that allows fish passage while modernizing the diversion to reduce maintenance, improve operational reliability, and protect existing water rights for 500 agricultural and 20,000 municipal water users. By restoring passage and creating wetland habitat in the high-flow channel, the project will reconnect miles of high-quality habitat in a transition-zone reach that supports diverse native and recreational fish species and strengthens overall watershed resilience.[YS1.1]
This project is the culmination of several years of collaboration among ditch companies, water and resource managers, and private landowners. The project was identified through basin-wide stream management planning and a watershed-scale fish passage feasibility study, and refined through two phases of collaboratively developed design. The final design reflects the shared goals of Left Hand Ditch Company, Haldi Ditch Company, Left Hand Water District, Boulder County, Colorado Parks and Wildlife, and private landowners. Once built, this project will serve as a model for collaborative, multi-benefit diversion improvements across the basin and beyond.

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)
15,000	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)
5	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
325,000	Number of Coloradans Impacted by Engagement Activity

Other
Water delivery efficiencies will benefit more than 500 agricultural and 20,000 municipal water users.

Water Project Justification

Colorado Water Plan:

1. Tools – Conveyance Infrastructure (Chapter 5, page 166): “Conveyance infrastructure will continue to be important in managing water supplies in the face of changing hydrology. Collaborative approaches to developing conveyance infrastructure will be important in the future to minimize cost and to maximize resilience in the face of uncertainty.”

This project supports the Water Plan’s emphasis on improving and modernizing conveyance infrastructure to meet future variability using a multi benefit and collaborative approach. The project design increases water delivery reliability for agricultural and municipal water users and reduces maintenance needs in a flood and wildfire prone watershed. Because the design integrates fish passage, wetland restoration, sediment transport improvements, and operational reliability, it exemplifies a multi-benefit infrastructure upgrade that enhances watershed resilience while protecting existing water rights. This project is also the product of a collaborative planning effort between ditch companies, the water district, landowners, and The Watershed Center, reflecting the Water Plan’s call for collaborative solutions that reduce costs and increase resilience in the face of uncertainty.

2. Robust Agriculture. Partner Actions (Chapter 6, page 194) “Replacing aging and inefficient diversion

structures, and where possible enhancing their design, can provide additional supplies to irrigators while benefiting habitat and recreation on rivers and streams."

This project will modernize aging diversion infrastructure and improve its function. The addition of a sediment sluice pipe and a high-flow bypass channel will reduce sediment buildup at the headgate and in the pipeline, improving water delivery efficiency for agricultural users. At the same time, the improved structure will allow fish passage during high flows, providing ecological benefits that align with multi-benefit agricultural infrastructure enhancements.

3. Thriving Watersheds. Partner Actions: (Chapter 6, pages 204-206)
a. "Rehabilitate streams to improve habitat, reduce erosion and meet multiple needs." And,
b. "Create greater drought, fire, and flood resilience."

This project will retrofit a high-flow channel that directs excess high flows around the Haldi diversion structure. By incorporating features such as wetlands, grade-control structures, pools, and native revegetation, the high-flow channel will stabilize the stream corridor and improve floodplain connection. During future wildfire-related runoff or flood events, sediment-laden water will be conveyed down this resilient bypass channel while protecting the diversion infrastructure and reducing maintenance needs.

c. "Improving fish passage through replacement of agricultural headgates: Retrofitting or replacing agricultural diversions and headgates that have historically inhibited fish passage can increase habitat connectivity for fish and can also lead to improved water use efficiency for the agricultural user." And,
d. "Improving riparian and aquatic habitat: Resilient river systems require seasonal flow fluctuations and provide complex and connected aquatic and riparian habitats that sustain stable, diverse, abundant, and reproducing populations of aquatic and riparian species."

This project will remove a full, year-round fish barrier on Left Hand Creek while also improving water delivery efficiency and reducing sediment maintenance for municipal and agricultural water users. The structure is in the transition zone of the creek, where fish move seasonally to access high-quality rearing and foraging habitat during spring runoff. By restoring fish passage at this structure during higher flows, the project reconnects miles of valuable wetland and aquatic habitat, supporting healthier and more resilient fish populations.

4. Resilient Planning. Partner Actions (Chapter 6, page 217) "Multi-purpose projects better address water supply challenges across municipal, agricultural, environmental, and recreation sectors as they occur."

The Haldi project is a model multi-purpose and collaborative effort that is the product of seven years of planning among agricultural and municipal water users (including Left Hand Ditch Company, Haldi Ditch Company, Left Hand Water District, the St. Vrain and Left Hand Water Conservancy District) as well as Colorado Parks and Wildlife, private landowners, and other stakeholders. The construction-ready design improves maintenance and operations for both agricultural and municipal water providers while creating fish passage at a location critical for habitat connectivity. The design also increases resiliency in the face of future flood and wildfire impacts by creation of a bypass channel that can carry sediment-laden high flows past the diversion. Notably, this structure is included as a high priority project in the St. Vrain and Left Hand Wildfire Ready Watersheds Action Plan as it is highly susceptible to future wildfire hazards.

South Platte Basin Implementation Plan:

1. Volume 1. Section 4 (page 26) Goal 1: Encourage Implementation of Projects: "The South Platte Basin will encourage the implementation of identified projects that meet existing and future M&I, agricultural, and

environmental/recreational (E&R) water needs."

This project aligns with this goal by moving a collaboratively identified, multi-benefit project from planning to implementation. The project increases operational reliability for agricultural and municipal water users, improves water delivery efficiency, and reduces maintenance while restoring fish passage and aquatic habitat. This approach aligns with the BIP's emphasis on projects that simultaneously meet agricultural, municipal, and ecological needs within a single design. Notably, this project was identified through the Left Hand Creek Fish Passage Feasibility Study, was collaboratively designed through conceptual design and engineering design phases. As such, this project aligns with the BIP's
recommendation to prioritize stakeholder-supported projects that deliver broad basin benefits.

2. Volume 1. Section 4 (page 32) Goal 4: Protect and Enhance Watershed Function: "Healthy watersheds support economies, environment, and quality of life by enhancing the ability of rivers and streams to provide clean drinking and irrigation water, productive fisheries, quality habitat, and outdoor recreation. Healthy watersheds also help mitigate the impacts of climate change by reducing wildfire risk."

This project aligns with this goal because it enhances watershed function by reestablishing sediment transport, improving floodplain connectivity, and reducing the risk of sediment choking the supply channel during runoff events. By routing high-flow, sediment-laden water down a resilient bypass channel and not into the headgate, the project reduces flood and post-wildfire sediment impacts on both the diversion infrastructure and the aquatic ecosystem. Creation of fish passage also enhances the long-term ecological function of Left Hand Creek by reconnecting miles of wetland and aquatic habitat.

3. Volume 1. Section 4 (page 36) Goal 7: Protect and Enhance Environmental Attributes: "Throughout the South Platte Basin, the importance of ecological processes and environmental attributes will be fully recognized. The South Platte Basin will implement strategies that protect and enhance environmental attributes for ecologically, socially, and economically important habitats and focus areas."

This project aligns with this goal because it removes a full barrier to fish movement in a critical transition zone of Left Hand Creek, reopening access to miles of high-quality habitat. By improving fish passage during high flows and restoring natural sediment movement, the project enhances instream and riparian ecological attributes essential for self-sustaining fisheries. The bypass channel incorporates wetland and pool features that support aquatic species and stabilize habitat during disturbance events.

Related Studies

Diversion enhancement and fish passage projects are a local watershed priority identified in the St. Vrain and Left Hand Stream Management Plan, the Adaptive Management at Scale Plan, and the St. Vrain and Left Hand Wildfire Ready Action Plan to improve flows, increase fish habitat connectivity, and reduce impacts of post-wildfire hazards on water resources.

The Haldi project was prioritized through a collaborative stakeholder-driven Fish Passage and Feasibility Study of Left Hand Creek, a watershed-wide assessment and prioritization of fish passage projects that could benefit fisheries and water management needs. Following this assessment, the project advanced through two distinct phases:
1. Concept Design Phase (funded by the Bureau of Reclamation, completed 2022): This phase developed conceptual alternatives and provided stakeholders with enough information to compare options, discuss tradeoffs, and ultimately select a preferred alternative.
2. Engineering Design Phase (funded jointly by the Bureau of Reclamation and the St. Vrain and Left Hand

Water Conservancy District, completed 2025): This recently concluded phase advanced the selected alternative into final engineering design, including detailed drawings, construction-level cost estimates, and initial permitting work.

In summary, previous studies include:
- St. Vrain and Left Hand Stream Management Plan
- Adaptive Management at Scale Plan
- St. Vrain and Left Hand Wildfire Ready Action Plan
- Haldi Diversion Enhancement and Fish Passage Concept Designs
- Haldi Diversion Enhancement and Fish Passage Engineering Designs and Cost Estimate
o Cost estimate used for pre-construction and construction lump sums in the proposal budget can be found here and as a general attachment to this application:
https://watershed.center/wp-content/uploads/2025/11/Haldi_60Percent_OPCC_RevisedforTWC-1.pdf

Taxpayer Bill of Rights

There are no relevant TABOR issues that would impact this application.