

**COLORADO**Colorado Water
Conservation Board

Department of Natural Resources

Colorado Water Conservation Board

Water Plan**Water Project Summary**

Name of Applicant	Larimer Conservation District
Name of Water Project	Collaborative Elkhorn Creek Restoration Project
Grant Request Amount	\$410,862.46
Primary Category	\$410,862.46
<i>Watershed Health & Recreation</i>	
Total Applicant Match	\$0.00
<i>Applicant Cash Match</i>	\$0.00
<i>Applicant In-Kind Match</i>	\$0.00
Total Other Sources of Funding	\$410,979.00
<i>The Nature Conservancy (CPRW)</i>	\$66,500.00
<i>NRCS EQIP, BDSR (LCD)</i>	\$83,582.00
<i>GOCO Grant for LCCC (CPRW)</i>	\$50,000.00
<i>NRCS EQIP, DMC (LCD)</i>	\$151,418.00
<i>Mossy Earth (CPRW)</i>	\$19,000.00
<i>Biophilia (CPRW)</i>	\$37,000.00
<i>Volunteer Labor (CPRW)</i>	\$3,479.00
Total Project Cost	\$821,841.46

Applicant & Grantee Information

Name of Grantee: Larimer Conservation District	
Mailing Address: 2150 Centre Ave. Building A Fort Collins CO 80526	
Organization Contact: Anna Cloud	
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Grant Management Contact: Anna Cloud	
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Description of Grantee/Applicant

Larimer Conservation District is a special district of the State of Colorado that partners closely with NRCS to implement forestry, riparian, and soil conservation projects.

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	40.736667
Longitude	-105.515444
Lat Long Flag	Stream location: Coordinates based on general location on stream
Water Source	Elkhorn Creek, Tributary to the Cache la Poudre River
Basins	South Platte
Counties	Larimer
Districts	3-Cache La Poudre River

Water Project Overview

Major Water Use Type	Environmental
Type of Water Project	Construction / Implementation
Scheduled Start Date - Design	
Scheduled Start Date - Construction	9/1/2025
Description	Larimer Conservation District (LCD) and Coalition for the Poudre River Watershed (CPRW) have partnered to restore 3.6 miles of Elkhorn Creek, a priority stream for restoration identified by CPRW's Upper Poudre

Resilience Master Plan. This project will seek to address impacts to the Elkhorn Creek stream corridor caused by historical grazing, loss of beaver, and disturbance from the 2020 Cameron Peak Fire using low-tech process-based restoration (LTPBR) and riparian revegetation to improve the geomorphic and hydrologic functionality of the stream and its surrounding floodplain. The proposed project encompasses two reaches within Elkhorn Creek: the mainstem, flowing for about 3 miles through Ben Delatour Scout Ranch (BDSR), and an unnamed tributary flowing for about 0.6 miles through Drala Mountain Center (DMC; previously Shambala Mountain Center). The 2020 Cameron Peak Fire heavily impacted the DMC property, severely burning all riparian vegetation. Though the BDSR property was unburned, the increased sediment loading and altered hydrology has further degraded this reach, leading to additional incision and further disconnecting the stream from its floodplain. LTPBR will be used to achieve the following project goals: 1) reconnect Elkhorn Creek to its floodplain to enhance stream complexity, improve wildlife habitat and increase resiliency to future disturbances and 2) engage with the public to increase knowledge and understanding of resilient watersheds.

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)
19,008	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)
70	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
100	Number of Coloradans Impacted by Engagement Activity
Other	
	Replacement of two undersized culverts.

Water Project Justification

Our proposal to restore a large portion of Elkhorn Creek in the Poudre Watershed, including about 3 miles of Elkhorn Creek through the Ben Delatour Scout Ranch (BDSR), and 0.6 miles of a tributary to Elkhorn Creek on the Drala Mountain Center (DMC), supports many of the goals articulated in Colorado's Water Plan and the South Platte Basin Roundtable Implementation Plan (BIP). Specifically, our project will contribute to measurable outcomes that relate to the 2023 Colorado Water Plan's Action Areas (pg 8) including:

VIBRANT COMMUNITIES: counties, municipalities, utilities, cities, towns, businesses, large industries, large and small urban and rural communities, etc.

THRIVING WATERSHEDS: environment and recreation, river health, watershed health, forest health, wildfire mitigation, wildlife and aquatic species protection, etc.

ROBUST AGRICULTURE: established crops and farms, local food, orchards, ranching, ditch companies, acequias, urban agriculture, livestock, dairy, etc.

RESILIENT PLANNING: climate adaptation, planning for climate extremes, embracing EDI (equity, diversity, inclusivity), education, outreach and engagement, supportive government, etc.

Vibrant Communities:

CPRW hosts and LCD participates in an existing collaborative Upper Poudre Stakeholder group that brings together multiple perspectives. This group includes municipal utilities, federal, state, and regional natural resources agencies, community groups, researchers, non-profit organizations, and members of the public. This project will be presented to the Upper Poudre Stakeholder group for input during the planning process. Both LCD and CPRW were members of the Elkhorn Creek Forest Health Initiative (now referred to as North Larimer Ops) which was formed as a collaborative mechanism to address the forest restoration and wildfire mitigation needs of BDSR and adjacent properties along Elkhorn Creek. Other members of the ECFHI included The Nature Conservancy (TNC), Wildlands Restoration Volunteers (WRV), Larimer County Conservation Corps (LCCC), and The Ember Alliance (TEA). This part of the project's engagement falls under the Vibrant Communities Partner Actions goals in the Colorado Water Plan that specifically calls out "collaboration among all agencies with roles related to water resources" (pg. 178). This collaborative approach also addresses the goals of the Colorado Water Plan's Healthy Lands in bringing together "national, regional, state, Tribal, local government and stakeholders to plan, prioritize, and act together" (pg. 206).

The sites of the restoration work, which include BDSR and DMC, engage a diverse portion and age range of Colorado residents. BDSR is a 3,500 acre summer camp that has hosted both adolescent and visiting adult groups to explore the outdoors for over 60 years. DMC is a 600 acre meditation retreat center that offers 100 year-round programs and has served the community for over 50 years. The outreach and engagement objective of the Collaborative Elkhorn Creek Restoration Project is greatly enhanced by this passive public visibility, in addition to targeted community outreach, and tours of both sites specifically for community members, stakeholders, and funders. This adheres to the goals of the Water Plan's Vibrant Communities, "to engage the public in water issues, for the public to know their local water sources", for "inclusive outreach and education tailored to meet regional needs and diverse populations and age groups" and the need for engagement to occur at different scales (pg. 181). The outreach portion of this project also falls under the partner actions on effective engagement and education (pg. 207), with both a governmental affiliated (LCD) and non-governmental organization (CPRW) working together for project implementation and public education.

Riverscape projects benefit not only riverine ecosystems but also provide ecosystem services for downstream users. The Collaborative Elkhorn Creek Restoration project will improve the ecological health of the waterway through Elkhorn Creek and will increase the flow diversity and residence time of the stream on the landscape, which can attenuate floodflows and boost late season low flows, acting as green infrastructure for water storage as well. At the same time, this slowing and natural wetland filtering of water improves water quality, which helps provide a source of clean water for the 300,000 people that rely on the Cache la Poudre for their drinking water. As our climate gets drier and hotter, this approach contributes to a reliable and safe quantity and quality of drinking water without the environmental impacts of traditional grey infrastructure, while also improving the health and resilience of the river ecosystem. These benefits support the goals of Vibrant Communities across Thoughtful Storage and Meeting Future Water Needs (pg. 179 and 180). This also overlaps with the goals from Thriving Watersheds (pg. 205).

Additional ecosystem benefits to healthy and resilient streams are their ability to alter fire behavior and provide refugia during and after severe wildfires. As the climate gets hotter and drier our watersheds will be increasingly threatened by wildfires if action is not taken. Wildfires negatively impact water quality and reduce recreational opportunities. This project would align with the goals of the South Platte Basin Implementation Plan of improving watershed health to mitigate the threat of wildfires (pg. 11 and pg. 19, South Platte BIP).

Thriving Watersheds:

Both LCD and CPRW have a long history of watershed health improvements along Elkhorn Creek. In 2018 CPRW began wildfire mitigation treatments on BDSR. In 2019 LCD completed a mechanical forest health restoration treatment on 120 acres on the DMC property, restoring proper structure and composition of the forest

and providing wildfire mitigation benefits ahead of the 2020 Cameron Peak Fire. LCD also completed an additional 45 acres of forest restoration at DMC in 2021. On BDSR, LCD has completed multiple phases of mechanical forest restoration treatments, totaling 140 acres since 2017. Collectively, BDSR has been the site of over 10 years of forestry treatments completed by various organizations, with around 1,000 acres treated. Additionally, CPRW has completed 720 feet of instream restoration along the Upper Elkhorn with an additional 6 miles planned into 2027. This landscape level approach to watershed health projects aligns with the Thriving Watershed goal of approaching watershed health projects on a larger landscape scale that meets the goals of many water users in addition to the environment (pg. 204).

The Collaborative Elkhorn Creek Restoration Project will use low-tech, process based restoration (LTPBR) techniques to reconnect Elkhorn Creek's floodplain to its waterway. At the same time this will improve riparian habitat and increase resilience to disturbances like drought, fires, and floods. Species such as Preble's Meadow Jumping Mouse, a species listed as threatened under the Endangered Species Act, could directly benefit from the work completed by this project. All of these approaches meet the Thriving Watersheds Healthy Lands goals around Thoughtful Storage, Meeting Future Water Needs, and Healthy Lands (pgs. 205 & 206). Material sourcing for the construction of the instream LTPBR structures will come from adjacent forest stands that were identified as priority wildfire treatment areas on the property. This benefits both instream and upland habitats and takes a whole watershed approach, which aligns with the Thriving Watersheds Healthy Lands Forestry health improvement goals (pg. 206). It also aligns with the Healthy Lands in Resilient Planning for pre-hazard implementation that can help prevent impacts from wildfire before they occur (pg. 218).

The Collaborative Elkhorn Creek Restoration Project scope also includes weed treatment and native plant plugging and seeding components to both decrease invasive pressures on native species as well as increase native riparian plant species. This action aligns with the goals of Thriving Watershed both through "improving riparian and aquatic habitat" and "invasive species removal" (pg. 206).

Robust Agriculture:

BDSR has a conservation easement that includes grazing. The ranch has a history of active grazing that will continue after the implementation of the Collaborative Elkhorn Creek Restoration project. The addition of wildlife exclusion fencing to allow riparian vegetation to expand by reducing browse pressure from wildlife ungulates will also act as a buffer around the restored stream area for livestock, and is an example of "multi-purpose projects that have shared benefits for agriculture and water quality" (pg. 194 & 195). CPRW and LCD will work collaboratively with BDSR and utilize the expertise of their close partners at the Natural Resources Conservation Service (NRCS) to adjust the grazing plan as necessary, and implement infrastructure such as water gaps in fencing, to ensure long-term success of both the grazing and riparian restoration.

DMC has two undersized culverts along their stream that were severely damaged due to increased flows after the Cameron Peak Fire, which can contribute sediment into the waterway and limit fish passage through the stream system. Replacing these culverts falls under the goals of Meeting Future Water Needs in both agriculture for efficient diversion of water (pg. 194) and in Thriving Watersheds (pg. 205 & 206).

Resilient Planning:

A geomorphic assessment funded by CPRW highlighted the risk of debris flow to numerous buildings downstream of the Elkhorn Project site (pg. 69, South Platte BIP) in addition to the same hazard on the BDSR stream reach at the site of the restoration project (pg. 76, South Platte BIP). This project will enhance floodplain connection, allowing for attenuation of flood flows (including debris flows), which can improve stream and watershed health and reduce these risks to property and lives, which addresses the goals of Thoughtful Storage

under Resilient Planning (pg. 217).

The geomorphic assessment further expands upon the risks of debris flows that could come from Elkhorn Creek and enter into the Cache la Poudre providing sediment and catastrophic impacts to a highway crossing and campground (pgs. 65 and 66, South Platte BIP). Improvement of the health and resilience of this watershed through the Collaborative Elkhorn Creek Restoration Project addresses the goals of the Meeting Future Water Needs through “mitigating risks from natural hazards that impact people and property but also critical water supply infrastructure” (pg. 217).

Related Studies

Since 2015, CPRW and LCD have collaboratively prioritized the Elkhorn Creek watershed for restoration, recognized as a critical area in CPRW’s Upper Poudre Resilience Master Plan (2017; revised 2023). CPRW has conducted multiple assessments to guide restoration, including a 2024 Susceptibility Analysis identifying values at risk from wildfire-related hazards and a fluvial hazard mapping effort (“Poudre Pearls”) that pinpoints stream reaches essential for geomorphic recovery and resilience. The Susceptibility analysis is available online here: <https://www.poudrewatershed.org/upper-watershed-resilience-plan>

Additionally, BDSR has a Landowner Forest Stewardship Plan plan that was developed in 2010 (updated in 2015) after the property was put under a conservation easement. This project addresses their management goals by improving riparian and wildlife habitat, protecting water quality, installing grazing improvements (fencing), and experiential learning. As a part of the LCD forestry treatments completed on BDSR property in 2021 (when LCD was previously known as Fort Collins Conservation District), a forest management plan (FMP) was developed to guide the forest treatments. A FMP was also created for DMC (previously known as Shambala Mountain Center) as part of the LCD forestry work completed on that property in 2019 and 2020. Each FMP outlines specific resource concerns and objectives for the project as well as property specific characteristics, forest stand inventory data, and treatment recommendations. Both the Landowner Stewardship Plan and LCD FMPs are included with this application.

Taxpayer Bill of Rights

None.