

**COLORADO**Colorado Water
Conservation Board

Department of Natural Resources

Colorado Water Conservation Board**Water Plan****Water Project Summary**

Name of Applicant	Fountain Creek Watershed, Inc. d/b/a Pikes Peak Waterways
Name of Water Project	COS Creek North - Stream Management Plan for Monument Creek
Grant Request Amount	\$150,000.00
Primary Category	\$150,000.00
<i>Watershed Health & Recreation</i>	
Total Applicant Match	\$50,000.00
<i>Applicant Cash Match</i>	\$50,000.00
<i>Applicant In-Kind Match</i>	\$0.00
Total Other Sources of Funding	\$0.00
Total Project Cost	\$200,000.00

Applicant & Grantee Information

Name of Grantee: Fountain Creek Watershed, Inc. d/b/a Pikes Peak Waterways
Mailing Address: 103 East Cheyenne R. Colorado Springs CO 80906

Organization Contact: Chris Lieber
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Organization Contact - Alternate: Charles Sweet
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Grant Management Contact: Chris Lieber
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Grant Management Contact - Alternate: Charles Sweet
Position/Title: Strategic Director
Phone: (303) 503-5245

Email: cvs305@msn.com

Description of Grantee/Applicant

Fountain Creek Watershed, Inc. d/b/a Pikes Peak Waterways ("PPW") is a Colorado nonprofit corporation and is tax exempt as a public charity under I.R.S. Section 501(c)(3). It was formed for the following purposes, among others: 1) To preserve, maintain, improve and revitalize the Fountain Creek and Monument Creek riparian corridor within Colorado Springs, CO; and (2) To develop and to promote educational programs, research opportunities, and strategic investments related to the Fountain Creek and Monument Creek watersheds with the goal of improving water flow and water quality. PPW has an active registration in the federal government's SAM program under its corporate name, Fountain Creek Watershed, Inc.

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	38.500000
Longitude	-104.500000
Lat Long Flag	Stream location: Coordinates based on general location on stream
Water Source	Monument Creek
Basins	Arkansas
Counties	El Paso
Districts	10-Fountain Creek

Water Project Overview

Major Water Use Type	Environmental
Type of Water Project	Study
Scheduled Start Date - Design	3/1/2025
Scheduled Start Date - Construction	
Description	Pikes Peak Waterways in collaboration with the City of Colorado Springs and Colorado Springs Utilities seeks grant funding from the Colorado Water Plan (CWP) in the amount of \$150,000 to develop a Stream Management Plan focused on the restoration of the natural functions and overall riverscape of a 3-mile reach of Monument

Creek from the north edge of Monument Valley Park to Garden of the Gods Rd. in Colorado Springs, El Paso County. The proposed management plan will be an extension of the community's 2022 COS Creek Plan which focused on areas downstream of Fillmore Street. The partnership between Pikes Peak Waterways, the City of Colorado Springs, and Colorado Springs Utilities was key to the production of the 2022 COS Creek Plan and is essential to the successful extension of the Plan.

Our proposed study is intended to develop projects and mitigative strategies to increase aquatic and riparian habitat, enhance and increase wetland habitat, address excess sediment loading, turbidity, and elevated water temperatures, and reconnect adjacent neighborhoods to the creek. The Monument Creek corridor through Colorado Springs has deteriorated considerably over the last 100-years. Urbanization has resulted in confinement and channelization of the creek corridor, reducing and/or eliminating floodplain benching and natural wetlands, and creating incised stretches of channel through the study area. In some stretches, creek banks have become unstable resulting in excessive sediment loading downstream to Fountain Creek and areas extending into the Lower Arkansas Valley. The spawning habitat for the Flathead Chub (a Species of Special Concern by the state of Colorado) and the Arkansas Darter (federally classified as a Near Threatened Species in Colorado) has been critically degraded over the years with the deterioration of the creek.

Our proposed Stream Management Plan is aligned with the Arkansas Basin goals and strategic vision as outlined on page 81 of the Colorado Water Plan to meet future water-related needs and to develop a long-term resilient strategy for meeting those needs. Our study is intended to identify mitigative projects and strategies for restoring habitat for threatened fish species, improving riparian and wetland habitat, and supporting water quality and creek stability projects that will also facilitate public access and recreational opportunities for the community. Monument Creek plays a significant role in the local landscape and can be integrated into broader future park planning and management strategies to promote environmental stewardship and public enjoyment of the community's natural resources. Restoration of the creek will contribute significantly to environmental justice for economically disadvantaged neighborhoods that are adjacent to the 3-mile study corridor. Our planning efforts will have a positive impact upon multiple census tracts currently mapped in the Climate and Economic Justice Screening Tool. Restoration of the Monument Creek riverscape will encourage and leverage private sector investment and renewal of adjacent neighborhoods with redevelopment oriented and focused on the creek. The restoration vision for Monument Creek is founded on multiple, recent planning efforts for the community including the 2016 Monument Creek Watershed Plan, the 2022 COS Creek Plan Fountain Creek Watershed Vision, and the Colorado Springs Greenway Trail Master Plan. The COS Creek Plan laid out a conceptual vision and strategy to restore environmental qualities, promote economic vitality and environmental justice for adjacent census tracts, and enhance recreation opportunities in line with the legacy of the Colorado Springs parkway system developed by Springs founder, General William Jackson Palmer. The Monument Creek Stream Management Plan is an extension of the COS Creek Plan. It will provide a detailed inventory of the study reach including an extensive outreach to stakeholders and the community at large.

Our proposed stream management scope will consist of the following tasks:

- Data Collection, Research, and Analysis
- Stakeholder Outreach and Involvement
- Identification of Priority Sites and Projects
- Development of Cost Estimates
- Creation of Written Plan and Illustrative Graphics
- Project Management

A detailed line-item budget is attached.

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)
15,840	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)
25	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
500,000	Number of Coloradans Impacted by Engagement Activity

Other

Measurable Results

- Extensive stakeholder communications and outreach to the community at large
- Identification of projects and mitigation strategies for restoring the natural stream functions of the creek
- Strategies and project recommendations for reconnecting neighborhoods to the creek
- Recommendations for natural stream restoration of creek frontage (linear feet)
- Recommendations for enhancing and creating new riparian and wetland habitat (acres)
- Development of a riverscape vision for the 3-mile study reach
- Project recommendations for restoration of aquatic habitat for threatened fish species
- Strategies and project recommendations for improving water quality through the study reach
- Project recommendations for re-establishment of the floodplain through the urbanized corridor in conjunction with providing recreational opportunities for the community
- Project recommendations for improving stream flow capacity through the study reach
- Strategies for capitalizing on the proposed ecological corridor enhancements to provide recreational opportunities and leverage private sector investment into the adjacent economically disadvantaged neighborhoods along the 3-mile study reach
- Strategies and project recommendations for reduction and/or elimination of invasive Salt cedar and Russian olive infestations that have significantly impacted riparian habitat, streambank erosion, water consumption, and represent potential wildfire hazards (acres)

Water Project Justification

The COS Creek North Stream Management Plan aligns with the strategic goals outlined in both the Colorado Water Plan and the Arkansas Basin Implementation Plan as they relate to restoration of riverine functions of Monument Creek; improving water quality through the study reach; improving aquatic, riparian, and wetland habitat; re-establishment of the floodplain within this highly urbanized corridor; improving creek flow capacity; capitalizing on corridor enhancements and an improved riverscape for recreational opportunities and leveraging of private investment into the adjacent economically disadvantaged neighborhoods that line the study reach; extensive outreach and partnership building; and the development of a resilient long-term restoration strategy for the community that will have a positive impact on downstream Fountain Creek and areas into the Lower Arkansas Valley. The Arkansas Basin Implementation Plan discusses these environmental and recreation goals and watershed health goals on pg. 15 of the Basin Implementation plan. Additionally, Arkansas Basin goals, and strategic vision are described on pg. 81 of the Colorado Water Plan.

The restoration vision for Monument Creek is founded on multiple, recent planning efforts for the community including the 2016 Monument Creek Watershed Plan and the 2022 COS Creek Plan Fountain Creek Watershed Vision & Implementation Plan. The COS Creek North Stream Management Plan for Monument Creek will be a much more detailed study with improved granularity over and above what the original COS Creek Plan evaluated

for the 3-mile study reach of Monument Creek. A detailed study of this reach is needed along with extensive outreach to project stakeholders and the community at large.

2023 Colorado Water Plan and 2022 Arkansas Basin Implementation Plan

Watershed Planning

The framework of our Stream Management Plan is in alignment with the discussion on Stream Management Plans on pg. 158 of the Colorado Water Plan. As a part of our proposed planning efforts, evaluation of and updates to prior hydraulic and geomorphic models will be provided to provide enhanced guidance for mitigative strategies and project recommendations. These efforts will help better identify ecological issues that exist within the study reach. Additionally, an inventory of existing wetland and riparian areas along with an evaluation of existing conditions will be performed in alignment with recommendations from the 208 Water Quality Management Plan for the Pikes Peak Region (2019).

Climate Adaptation

The Stream Management Plan will evaluate project recommendations for increased flow capacity through the study reach. Increased flow capacity in conjunction with re-establishment of floodplains will strengthen the creek's ability to convey an ever-wider range of flow rates brought on by climate change, drought conditions, and wildfires occurring in the upper portions of the Monument Creek watershed. Increased flow capacity from improved channel morphology and re-establishment of floodplains will make the community more resilient to climate change, corresponding droughts, and wildfires in alignment with the climate adaption discussion on pg. 159 of the Colorado Water Plan.

Equity

This reach of Monument Creek is lined with multiple census tracts currently mapped in the Climate and Economic Justice Screening Tool as economically disadvantaged, impacted by critical clean water and waste infrastructure, affordable and sustainable housing, health burdens, and training and workforce development. The environmental justice component of our proposed planning efforts aligns with the equity discussion on pg. 160 of the Tools Section of the Colorado Water Plan.

Endangered and Threatened Species Recovery Programs

Restoring the aquatic habitat for the Flathead Chub (a Species of Special Concern by the state of Colorado) and the Arkansas Darter (federally classified as a Near Threatened Species in Colorado) is a primary goal of our Stream Management Plan. Monument Creek has historically been a critical tributary and spawning habitat for both the Flathead Chub and the Arkansas Darter. Our plan would pursue recommended strategies and projects to include passive and structural measures for restoration of Monument Creek to its historic tributary habitat for these threatened fish species in line with both the Arkansas Basin Implementation Goals for restoring habitat for native fish species (pg. 15 of the Basin Implementation plan) and the endangered and threatened species discussion on pg. 161 of the Colorado Water Plan.

Natural Hazard Planning

A goal of our planning efforts is to evaluate opportunities for widening existing floodplains and reintroducing riparian areas within the study corridor. Re-establishment of floodplains within the study corridor will provide multiple benefits ranging from enhancement of habitat conditions for aquatic organisms, improvement of water quality, creation of opportunities for recreational activities, creation of accessible green spaces and connectivity to adjacent neighborhoods encouraging urban renewal and creek-focused development within the community's Justice 40 mapped census tracts, and development of climate resilience by providing natural buffers against the impacts of climate change such as increased frequency and intensity of storms and extreme weather events. Flow rates in Monument Creek vary widely throughout the year ranging from a minimum of 8 cfs to over 4,000 cfs just over the last twelve months per USGS gage data. In times of heavy rainfall or intense storm events, flow rates in Monument Creek can rise rapidly, leading to potential for flash flooding through the urbanized study corridor with limited natural drainage capacity. Better managed floodplains will absorb excess water, reduce flood risk, and better adapt to changing environmental conditions in line with the natural hazard planning discussion on pg. 162 of the Tools Section of the Colorado Water Plan.

Stream Restoration and Enhancement

Monument Creek has been significantly altered from its historic condition over the last 100 years. Our proposed planning effort will likely recommend form-based restoration solutions to reintroduce sinuosity and vegetated riparian floodplain benching to the study corridor to restore the natural processes, aquatic habitat, and ecological functions of the creek ecosystem as discussed on pg. 170 of the Colorado Water Plan and on pg. 15 of the Arkansas Basin Implementation Plan. Moreover, this approach is in alignment with recommendations from the 208 Water Quality Management Plan for the Pikes Peak Region (2019) as discussed on pages 32, 34, and 178 of the plan. Development of a resilient long-term approach for stream restoration will have substantial impact upon the overall health of the aquatic system. Additionally, areas within the study corridor where wetlands can be expanded and enhanced or newly constructed will be evaluated and catalogued as a part of the management plan in line with the policy statement on pg. 32 of the 208 Report, pg. 15 of the Basin Implementation Plan, and the process-based recommendations on pg. 170 of the Colorado Water Plan. Our Stream Management Plan for Monument Creek will evaluate and make recommendations for the reduction and/or elimination of invasive vegetative species that have exacerbated streambank erosion, increased the risk of channel widening, and caused sedimentation and habitat degradation. The Salt cedar and Russian olive infestations are also highly flammable and can increase the risk of wildfires.

Developing a long-term resilient strategy for the restoration of aquatic and riparian habitats is critical for supporting healthy populations of fish, wildlife, and native vegetation within the study corridor. Evaluation and recommendations for creation of riffles, pools, and a more natural channel morphology will stabilize the creek banks and channel bed and better control the existing erosion and excess sediment transport. Narrowing and deepening of the creek channel through specific reaches of the study corridor will provide additional opportunity for the introduction of shading and lowering of stream temperature. The resultant improvement to the overall riverscape will invite opportunities for complimentary recreation activities along with the accommodation for public access and connectivity to the adjacent economically disadvantaged neighborhoods that line the study corridor, all of which, will promote environmental stewardship and public enjoyment of the community's natural resources. Restoration and maintenance of floodplain connectivity through the study corridor is a goal of our strategic planning efforts and will provide ecological resilience and reduced flood risk for both the creek ecosystem and adjacent neighborhoods further incentivizing and leveraging private sector investment into these neighborhoods – oriented and focused on the creek.

Public Outreach and Education

Implementation of the Monument Creek vision will require a coordinated effort and collaboration among a diverse group of project stakeholders, government agencies, nonprofit organizations, private landowners, and the broader Colorado Springs community. Pikes Peak Waterways (PPW) spearheaded the visionary process that created the 2022 COS Creek Plan. PPW works closely with local, state, and federal organizations. They've developed an extensive and diverse group of stakeholders for the 2022 COS Creek Plan and will build on this successful outreach and partnership building program to develop partnerships and engage stakeholders for the upstream Stream Management Plan for Monument Creek in line with the public outreach and education discussion on pg. 154 of the Colorado Water Plan.

PPW has been actively engaged with other public and private organizations to facilitate the formation of partnerships to benefit the Fountain Creek and Monument Creek watersheds. Towards that end, targeted workshops and outreach will be held throughout the course of the planning efforts to garner input and feedback on the development of resilient ecological restoration strategies for the Monument Creek corridor. Input from stakeholders and the community will help shape the riverscape vision and identify priority projects and activities discussed in the resultant Stream Management Plan. Moreover, partnerships and collaborative efforts will help leverage resources to implement the goals and objectives in the Stream Management Plan more effectively.

Collaboration

Our COS Creek North Stream Management Plan for Monument Creek grant proposal in Colorado Springs, El Paso County is a collaborative effort between Fountain Creek Watershed, Inc. d/b/a Pikes Peak Waterways (PPW) and the City of Colorado Springs. PPW in coordination with the City of Colorado Springs and Colorado Springs Utilities (CSU) were instrumental in the development of the 2022 COS Creek Plan. PPW has been

actively engaged with the City of Colorado Springs, CSU, and public and private organizations to facilitate the visioning and implementation of recommended projects and mitigative strategies for the Fountain Creek watershed. PPW will continue this successful approach with the visioning process for the improved riverscape of Monument Creek in line with the collaboration discussion on pg. 157 of the Colorado Water Plan.

Future Funding Pursuits

Pursuit of federal support from USBR's WaterSMART, the USACE, and the Colorado State Revolving Loan Fund (SRF) programs which fund the same types of projects and programs as CWCB's Water Plan Grants for filling future funding gaps is part of an overall funding strategy. This is in line with the funding discussion on pg. 155 of the Colorado Water Plan.

Related Studies

The following is a summary of previous studies, planning efforts, and databases supporting this stream management planning effort:

- Characterization of Water Quality and Suspended Sediment during Cold-Season Flows, Warm-Season Flows, and Stormflows in the Fountain and Monument Creek Watersheds, Colorado, 2077-2015, USGS, 2017.
- Evaluation of Water Quality, Suspended Sediment, and Stream Morphology with an Emphasis on Effects of Stormflow on Fountain and Monument Creek Basins, Colorado Springs and Vicinity, Colorado, 1981 through 2001, USGS, 2001.
- Monument Creek Watershed Restoration Master Plan, Matrix Design Group, 2016
- COS Creek Plan, Fountain Creek Watershed Vision & Implementation Plan, Colorado Springs in conjunction with Pikes Peak Waterways, 2022
- Fish Data collected within the greater Fountain and Monument Creek Basins, Colorado
- Invertebrate data collected within the greater Fountain and Monument Creek Basins, Colorado
- USGS Water Data
- Colorado Springs Drainage Criteria Manual Vol. 2 Stormwater Quality Policies, Procedures & BMPs 2014
- Colorado Springs Stormwater Program – Implementation Plan 2016
- Survey of Critical Wetlands and Riparian Areas in El Paso & Pueblo Counties Collaborative Process

PPW's outreach to key community stakeholders and technical partners for both the Fountain and Monument Creek Basins has been extensive over the past three years and is informed by prior plans and studies for the watersheds. The proposed stakeholder engagement going forward will build on past success and include individuals and organizations that have an impact on the Monument Creek planning efforts. PPW's efforts in protecting and enhancing the ecological integrity of the Fountain and Monument Creek watersheds have been met with tremendous local and regional support.

Taxpayer Bill of Rights

N/A
