COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Colorado Water Conservation Board

Water Plan

Water Project Summary

Name of Applicant	High Country Conservation Advocates	
Name of Water Project	Project-01871 Gunnison	
Grant Request Amount		**$30,000.00**
Primary Category		$30,000.00
Watershed Restoration & Recreation		
Total Applicant Match		**$30,000.00**
Applicant Cash Match		$15,000.00
Applicant In-Kind Match		$15,000.00
Total Other Sources of Funding		**$45,000.00**
Upper Gunnison River Water Conservancy District		$30,000.00
Town of Crested Butte		$5,000.00
1% for Open Space		$10,000.00
Total Project Cost		**$105,000.00**

Applicant & Grantee Information

Name of Grantee: High Country Conservation Advocates
Mailing Address: 716 Elk Ave. Crested Butte CO 81224
FEIN: 772,688

Organization Contact: Brett Henderson
Position/Title:
Phone: 970-349-7104
Email: brett@hccacb.org

Grant Management Contact: Brett Henderson
Position/Title:
Phone: 970-349-7104
Email: brett@hccacb.org

Description of Grantee/Applicant

Public lands and water advocacy non-profit based in Crested Butte.

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	38.681440
Longitude	-106.952280
Lat Long Flag	Default/Proponent headquarters: If the location cannot be defined with flags above, use location of project proponent headquarters
Water Source	Ephemeral streams in the headwaters of the Gunnison River
Basins	Gunnison
Counties	Gunnison
Districts	62-Upper Gunnison River

Water Project Overview

Major Water Use Type	Environmental
Subcategory	Planning (e.g. watershed)
Scheduled Start Date - Design	4/1/2022
Scheduled Start Date - Construction	12/31/2023

Description

The Gunnison Basin Wet Meadows Project is an ongoing project with broad public support. Wet meadows work builds resilient ecosystems better able to withstand drought and changes in precipitation patterns by attenuating water across the landscape and by restoring historically wet areas to riparian sanctuaries. In the Upper Gunnison basin the semi-arid climate of the sagebrush ecosystem is interspersed with wet meadows and riparian areas providing critically important habitat and water.

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)
	Efficiency Savings (dollars/year)
	Efficiency Savings (acre-feet/year)
300	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
200	Number of Coloradans Impacted by Engagement Activity

Water Project Justification

Wet Meadow work fits soundly within Colorado's Water Plan because the project's goal is attenuating water and creating depositional areas on the landscape and creating habitat today and conserving resources for tomorrow. This project meets numerous goals articulated in Colorado's Water Plan, as described in the table below.

CWP Goal: Promote restoration, recovery, sustainability, and resiliency of endangered, threatened, and imperiled aquatic- and riparian-dependent species and plant communities. Page Reference: 6-157
How the project supports the goal: The Gunnison Sage grouse depends on wet meadow habitat to survive. Restoring their habitat contributes to species recovery.

CWP Goal: Protect and enhance economic values to local and statewide economies that rely on environmental and recreational water uses, such as fishing, boating, waterfowl hunting, wildlife watching, camping, and hiking. Page Reference 6-157
How the project supports the goal: Birdwatchers, many from other states and countries, come to view the Gunnison Sage grouse's unique mating rituals.

CWP Goal: Support the development of multipurpose projects and methods that benefit environmental and recreational water needs as well as water needs for communities or agriculture. Page Reference: 6- 157
How the project supports the goal: Restoring wet meadows improves range forage in addition to providing the environmental benefits discussed herein.

CWP Goal: Understand, protect, maintain, and improve conditions of streams, lakes, wetlands, and riparian areas to promote self-sustaining fisheries and functional riparian and wetland habitat to promote long-term sustainability and resiliency. Page Reference 6- 157
How the project supports the goal: This project is designed to restore high-elevation wetlands to enhance watershed resiliency in an arid landscape.

CWP Goal: Meet community water needs during times of drought. Page Reference: 6- 127
Wet meadows sustain wildlife and grazing during times of drought.

This wet meadows project will build and restore 300 acres of wet meadows, effectively creating wetlands and restoring incised streams. Since 2012 the Gunnison Basin Wet Meadows project has built over 1,500 rock structures across public and private lands, enhancing 23 stream miles and building at least 1,100 acres of habitat and critical wetland habitat. On Forest Service lands 621 structures influence 8 stream miles. Quantitative monitoring of over 200 transect sites shows an average increase of 62% of mesic or wetland plant cover in treated areas compared to an average increase of only 13% at untreated sites.

Water and sediment is slowed and attenuated on the landscape by building small rock and earthen dams. These

structures slow spring runoff from mountain snowpack and rainfall, retaining moisture for riparian areas in the dry summer months, and eventually leading to a slow release of water to downstream river systems. The semi-arid climate of the sagebrush ecosystem is interspersed with wet meadows and riparian areas that provide critically important habitat and support groundwater supplies. The Gunnison Basin Implementation Plan (GBIP) primary goal is to “Protect existing water uses in the Gunnison Basin.” A complementary goal # 5 is to “protect environmental and recreational water uses”. This project meets both the primary and complementary goal by protecting and enhancing existing wetland areas and creating new wetland areas to buffer against climate change and to attenuate the flow of water across the landscape for slow release during the dryer months of the year.

This project also meets GBIP goal # 6 “Maintain or, where necessary, improve water quality throughout the Gunnison Basin.” This project involves building small rock dams in incised drainage features. The restoration structures capture sediment, hold and spread water (resulting in slower and prolonged downstream water release) and prevent soil loss and erosion of meadows and ephemeral and perennial streams. These efforts improve habitat for the federally threatened Gunnison Sage-grouse, while sustaining land-based livelihoods and building ecosystem resilience to drought and climate change. Without these small rock dams, many drainages would continue to flush sediment into tributaries and eventually into large streams systems in the basin. By restoring these channels and reversing degradation we will be able to prevent additional lowering of the groundwater table.

The GBIP complementary goal # 9 is also met with this project, “create and maintain active, relevant and comprehensive public education, outreach and stewardship processes involving water resources…” This project is a partnership effort among federal and state land management agencies, the local university, non-profits, and private ranches in the Gunnison Basin. Our partners are transferring the knowledge and methodologies across the range of Gunnison Sage-grouse, and in Greater Sage-grouse habitat in Washington, California, Idaho, Montana and Wyoming. The project also includes opportunities for volunteers from across the state to come and participate in building a resilient landscape one rock dam at a time. Since 2014 the Wet Meadows project has had an average of 960hr/year, or 5,760 volunteer hours. HCCA will be partnering with different community groups to help implement these techniques.

Gunnison Wet Meadow work has many tributes to its public education and stewardship process, such as being featured in the Denver Post Sep 22, 2019 (https://www.denverpost.com/2019/09/22/colorado-one-rock-dams-climate-change/) where US Forest Service biologist Matt Vasquez is quoted saying “We’re trying to build resiliency back into wet meadow habitats, so they can hold water longer, act more as sponges and hopefully be more resistant to climate change — to a warmer and drier climate”. HCCA was also mentioned in this article as a key partner on the project.

Wet Meadow work has been recognized with two national awards in 2019. The first award was from the US Forest Service International Programs and Partners for efforts in advancing migratory bird conservation with the ‘2019 Wings Across the Americas Habitat Conservation Partnership Award’. Partnerships for the project include: HCCA, US Forest Service, Upper Gunnison River Water Conservancy, District, National Wild Turkey Federation, The Nature Conservancy, Bureau of Land Management, Colorado Parks and Wildlife, Western Colorado Conservation Corps, Wildlands Restoration Volunteers, volunteers from the local Gunnison and Crested Butte communities and students from Western Colorado University.

Wet Meadows received a second award in 2019, The Steering Committee of the Climate Adaptation Leadership Awards, Association of Fish and Wildlife Agencies, selected the Gunnison Basin Wet Meadow and Riparian Restoration Collaborative as a recipient of the ‘2019 Climate Adaptation Leadership Award for Natural Resources’. The award recognized the “Broad Partnerships” category for demonstrating exemplary leadership in

reducing climate-related threats and promoting adaptation of the nation's natural resources.

Finally, this project will meet the objectives of the Upper Gunnison River Water Conservancy District's planning process which has an overarching goal to "protect existing uses while improving watershed health." For all of the reasons articulated above, this project will improve watershed health and help assure a clean water supply for our basin.

Related Studies

No Related Studies provided

Taxpayer Bill of Rights

Not applicable.

Budget and Schedule

This Statement of Work shall be accompanied by a combined Budget and Schedule that reflects the Tasks identified in the Statement of Work and shall be submitted to CWCB in excel format.

Reporting Requirements

Progress Reports: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of issuance of a purchase order, or the execution of a contract. The progress report shall describe the status of the tasks identified in the statement of work, including a description of any major issues that have occurred and any corrective action taken to address these issues.

Final Report: At completion of the project, the applicant shall provide the CWCB a Final Report on the applicant's letterhead that: (1) Summarizes the project and how the project was completed. (2) Describes any obstacles encountered, and how these obstacles were overcome. (3) Confirms that all matching commitments have been fulfilled. (4) Includes photographs, summaries of meetings and engineering reports/designs. The CWCB will pay out the last 10% of the budget when the Final Report is completed to the satisfaction of CWCB staff. Once the Final Report has been accepted, and final payment has been issued, the purchase order or grant will be closed without any further payment.

Payment

Payment will be made based on actual expenditures and must include invoices for all work completed. The request for payment must include a description of the work accomplished by task, an estimate of the percent completion for individual tasks and the entire Project in relation to the percentage of budget spent, identification of any major issues, and proposed or implemented corrective actions. Costs incurred prior to the effective date of this contract are not reimbursable. The last 10% of the entire grant will be paid out when the final deliverable has been received. All products, data and information developed as a result of this contract must be provided to as part of the project documentation.

Performance Measures

Performance measures for this contract shall include the following: (a) Performance standards and evaluation: Grantee will produce detailed deliverables for each task as specified. Grantee shall maintain receipts for all project expenses and documentation of the minimum in-kind contributions (if applicable) per the budget in the Budget & Schedule Exhibit B. Per Water Plan Grant Guidelines, the CWCB will pay out the last 10% of the

budget when the Final Report is completed to the satisfaction of CWCB staff. Once the Final Report has been accepted, and final payment has been issued, the purchase order or grant will be closed without any further payment. (b) Accountability: Per Water Plan Grant Guidelines full documentation of project progress must be submitted with each invoice for reimbursement. Grantee must confirm that all grant conditions have been complied with on each invoice. In addition, per Water Plan Grant Guidelines, Progress Reports must be submitted at least once every 6 months. A Final Report must be submitted and approved before final project payment. (c) Monitoring Requirements: Grantee is responsible for ongoing monitoring of project progress per Exhibit A. Progress shall be detailed in each invoice and in each Progress Report, as detailed above. Additional inspections or field consultations will be arranged as may be necessary. (d) Noncompliance Resolution: Payment will be withheld if grantee is not current on all grant conditions. Flagrant disregard for grant conditions will result in a stop work order and cancellation of the Grant Agreement.

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Last Updated: May 2021

Colorado Water Conservation Board
Water Plan Grant – Statement of Work – Exhibit A

Statement Of Work	
Date:	**12/1/21**
Name of Grantee:	**High Country Conservation Advocates**
Name of Water Project:	**Wet meadows and riparian restoration, water attenuation and climate change resiliency project**
Funding Source:	**Colorado Water Plan Grant – Environmental & Rec Category**

Water Project Overview:

The Gunnison Basin Wet Meadows Project is an ongoing project with broad public support. Wet meadows work builds resilient ecosystems better able to withstand drought and changes in precipitation patterns by attenuating water across the landscape and by restoring historically wet areas to riparian sanctuaries. In the Upper Gunnison basin the semi-arid climate of the sagebrush ecosystem is interspersed with wet meadows and riparian areas providing critically important habitat and water. The project sites selected as wet meadows projects are in a sagebrush ecosystem with intermittent, ephemeral and perennial streambeds, meadows, swales (glacial tarns), and small islands of aspen and cottonwood trees within some stream channels. Plant composition along stream channels and in meadows includes sedges, willow, rabbitbrush and potentilla (cinquefoil). Stream channels, meadows, and many swales have eroded channels, headcuts, soil loss and drying out of soils causing grass, forb and riparian plant die-off. These areas have lowered water tables and encroaching upland plants, especially sagebrush. These impacts were caused by historical uses including travel routes that affect hydrological flow, as well as livestock and big game trailing through these sensitive areas. This resulted in less productive plant growth and forage availability, and less water on the landscape. With the Zeedyk- style riparian and wet meadow restoration techniques, water availability and retention, grass, forb, and wetland species diversity and extent increases, causing the less productive sagebrush and other upland vegetation to dieback.

This project aims to restore and increase resiliency of wet meadow and riparian habitats. Since 2012, over 1,600 restoration structures have been completed and over 23 stream miles of habitat improved. On Forest Service lands and on some immediately adjacent private lands (Flat Top Mountain north of Gunnison, and Black Sage-Pass east of Gunnison), from 2013 to 2019, 650 structures were built influencing 9 stream miles.

Restoration locations within Gunnison County for 2022 and 2023 include the continuation of work on Flat Top Mountain and Black Sage Pass. Additionally, the project will include collaborating with Colorado Parks and Wildlife (CPW) to implement structures on the Miller Ranch State Wildlife Area. We plan to build approximately 60 erosion-control structures from rock by hand and several earthen dams with heavy equipment. These structures slow runoff, reduce erosion, and retain sediment. Restoration work will improve 300 acres of meadow, riparian, and interfacing upland sagebrush habitat. The project incorporates USFS, CPW, and private lands (with landowner consent). Ecosystem services achieved will include improved ungulate forage, water quality/quantity, habitat for federally listed threatened Gunnison sage-grouse, elk, mule deer, neotropical migratory birds, insects (pollinator species), and botanical resources.

Funding from the CWP Grant will be used to support volunteer crews, training, coordination and administration.

Project Objectives:

The specific objectives are: 1) disperse flows more widely across floodplain surfaces to maximize infiltration and slow runoff during flood events; 2) stabilize eroded wet meadow soils to control headcutting and reduce gully expansion, thereby retaining bank storage and extending base flows; 3) expand the size, extent, and distribution of riparian/wetland sites; 4) slow sediment transport and aggrade unstable gullies; and 5) increase health, vigor, and density of riparian/wetland vegetation, such as native sedges, rushes, grasses, and forbs. Accomplishing these objectives will improve watershed health and water quality, as well as habitat conditions. By enhancing the resilience of riparian and wet meadows habitats within the sagebrush ecosystems in the Gunnison Basin we will allow them to persist and thrive during drought periods. While these mesic habitats comprise a small percentage of the landscape, they are disproportionately important to big game, Gunnison Sage-grouse, neo-tropical migratory birds, and amphibians.

Tasks

Task 1 – Localized Site Review and Design

Description of Task: While general project locations have been selected, the first step in project implementation will be to conduct a site-specific review and design. This task is essential as detailed site design and planning that will enable HCCA, CPW, and the USFS to effectively direct contractors and volunteer crews during project implementation.

Last Updated: May 2021

Method/Procedure:
Site visits with HCCA, CPW, and USFS staff to identify appropriate project location parameters, implementation techniques, materials staging sites, access issues/needs, and materials needs.
Deliverable:
- Site specific work plans to direct contractors and volunteer labor - Photographs and narrative descriptions of pre-work project locations during grant reporting.

Tasks
Task 2 – Volunteer coordination, training, and project construction

Last Updated: May 2021

Description of Task:
While wet meadows projects are cost conscious in terms of material costs, substantial volunteer effort must be mobilized to construct structures. This component is the heart and soul of the project, as it mobilizes diverse volunteers from a broad public spectrum to participate directly in habitat and wetland conservation. Volunteers must be secured, support infrastructure (food, water, transportation, etc.) must be provided to them, and a fun but professional atmosphere must be maintained. The goal is to provide volunteers with rewarding, hands-on work that accomplishes wet meadows restoration. To accomplish this task 4 involves the coordination, training and oversight of volunteer teams (approximately 20 volunteers per day per site).
Method/Procedure:
- HCCA will secure volunteers and coordinate with several volunteer groups for project implementation - Before each project commences, HCCA will provide volunteer education about project objectives and structure design. This will involve educating volunteers about headcut control structures, about using plugs as well as willow transplants for stream stabilization, proper seeding techniques, route closure strategies, etc. - Work supplies and transportation coordination (i.e., gloves, bars and shovels, site transportation) - Volunteer oversight (HCCA, CPW, and USFS personnel with share in this effort) Restoration techniques include grade control structures (one rock dams - one single layer of rock), dispersed surface flow structures (plug and spread treatment, media lunas, rock baffles, worm ditches, and beaver dam analogs) and headcut control structures (Zuni bowls, rock rundowns, and laybacks) following methods of Zeedyk and Clothier (2014) and Zeedyk (2015). Most structures are made of rock and hand-built. These structures are designed to stabilize the bed of stream channels by slowing the flow of water, increasing roughness, recruiting vegetation, capturing sediment, and gradually raising the bed level over time. These structures also serve to slow runoff, increase soil moisture, prevent headcuts from migrating further upstream, disperse erosive channelized flow, restore areas that were once wet meadows and reestablish sheet flow where it once occurred. This restoration work has the potential to convert portions of stream channels that only flow during snowmelt (spring runoff) to flowing with surface water year-round.
Deliverable:

- Volunteer hour log
- Volunteer waivers
- Volunteer coordinator timesheets and reports
- Photo documentation of project implementation for future communication

Tasks

Task 3 – Monitoring

Description of Task:

Monitoring will occur both during project implementation and by CPW and the USFS post-completion. Monitoring objectives will include overseeing the proper construction of erosion structures, earthen dams, revegetation efforts, and plug and spread design during construction. Post-construction HCCA and agency staff will assess whether structures are properly functioning (post-precipitation events). Approximately two years after the grant period has ended, wet meadows project partners will assess vegetation conditions at the project sites.

Method/Procedure:

- During the project construction HCCA and agency staff will oversee construction of project components and review all individual structures.
- After several precipitation events HCCA and agency staff will return to the project sites to assess whether structures are functioning as intended. If there are structures that are not functioning as intended, they will be adjusted.
- Post project implementation (over the course of the first few years) staff will return to wet meadows locations to assess vegetation composition and re-wetting. Structures will also be examined for long-term stability and for aggradation.

Deliverable:

A succinct written report describing site conditions after a significant runoff event.

Tasks
Task 4 – Administration, contracting, permit compliance
Description of Task:
Task 4 involves the "paperwork" and management requirements for project implementation, including project oversight, management, contracting, and partner coordination. It includes addressing any other federal regulatory requirements and determining legal compliance requirements for volunteer participation.
Method/Procedure:
- Ensure diligence on completing all applicable paperwork in coordination with HCCA, CPW, USFS, and other stakeholders - Manage reimbursement requests. - Complete periodic reports.
Deliverable:

Necessary permits/procedural documents (i.e., NEPA docs), reports, and project components will be completed within the allocated timeframe at the allocated cost.

Budget and Schedule

This Statement of Work shall be accompanied by a combined Budget and Schedule that reflects the Tasks identified in the Statement of Work and shall be submitted to CWCB in excel format.

Reporting Requirements

Progress Reports: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of issuance of a purchase order, or the execution of a contract. The progress report shall describe the status of the tasks identified in the statement of work, including a description of any major issues that have occurred and any corrective action taken to address these issues.

Final Report: At completion of the project, the applicant shall provide the CWCB a Final Report on the applicant's letterhead that:

- Summarizes the project and how the project was completed.
- Describes any obstacles encountered, and how these obstacles were overcome.
- Confirms that all matching commitments have been fulfilled.
- Includes photographs, summaries of meetings and engineering reports/designs.

The CWCB will pay out the last 10% of the budget when the Final Report is completed to the satisfaction of CWCB staff. Once the Final Report has been accepted, and final payment has been issued, the purchase order or grant will be closed without any further payment.

Payment

Payment will be made based on actual expenditures and must include invoices for all work completed. The request for payment must include a description of the work accomplished by task, an estimate of the percent completion for individual tasks and the entire Project in relation to the percentage of budget spent, identification of any major issues, and proposed or implemented corrective actions.

Costs incurred prior to the effective date of this contract are not reimbursable. The last 10% of the entire grant will be paid out when the final deliverable has been received. All products, data and information developed as a result of this contract must be provided to as part of the project documentation.

Performance Measures

Last Updated: May 2021

Performance measures for this contract shall include the following:
(a) Performance standards and evaluation: Grantee will produce detailed deliverables for each task as specified. Grantee shall maintain receipts for all project expenses and documentation of the minimum in-kind contributions (if applicable) per the budget in Exhibit C. Per Grant Guidelines, the CWCB will pay out the last 10% of the budget when the Final Report is completed to the satisfaction of CWCB staff. Once the Final Report has been accepted, and final payment has been issued, the purchase order or grant will be closed without any further payment.
(b) Accountability: Per Grant Guidelines full documentation of project progress must be submitted with each invoice for reimbursement. Grantee must confirm that all grant conditions have been complied with on each invoice. In addition, per Grant Guidelines, Progress Reports must be submitted at least once every 6 months. A Final Report must be submitted and approved before final project payment.
(c) Monitoring Requirements: Grantee is responsible for ongoing monitoring of project progress per Exhibit A. Progress shall be detailed in each invoice and in each Progress Report, as detailed above. Additional inspections or field consultations will be arranged as may be necessary.
(d) Noncompliance Resolution: Payment will be withheld if grantee is not current on all grant conditions. Flagrant disregard for grant conditions will result in a stop work order and cancellation of the Grant Agreement.

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Colorado Water Conservation Board

Water Plan Grant - Exhibit C
Budget and Schedule

Prepared Date: 11/30/21

Name of Applicant: High Country Conservation Advocates

Name of Water Project: Wet Meadows and riparian restoration, water attenuation, and climate change resiliency project

Project Start Date: 4/1/22

Project End Date: 12/31/23

Task No.	Task Description	Task Start Date	Task End Date	Grant Funding Request	Match Funding	Total
1	Localized Site Review and Design	4/1/22	12/31/23	$5,000	$5,000	$10,000
2	Volunteer Coordination, training, and project construction	4/1/22	12/31/23	$20,000	$19,000	$39,000
3	Monitoring	4/1/22	12/31/23		$1,000	$1,000
4	Administration, contracting, permits	4/1/22	12/31/23	$5,000	$5,000	$10,000
						$0
						$0
						$0
						$0
						$0
						$0
						$0
						$0
						$0
			Total	$30,000	$30,000	$60,000

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Colorado Water Conservation Board

Water Plan Grant - Detailed Budget Estimate
Fair and Reasonable Estimate

Prepared Date: 11/30/21
Name of Applicant: High Country Conservation Advocates
Name of Water Project: Wet Meadows and riparian restoration, water attenuation, and climate change resiliency project

EXAMPLE C: Construction

Task 1 -Localized Site Review and Design

Sub-task	Unit	Quantity	Unit Cost	Total Cost	CWCB Funds	Matching Funds
Review and Site Design	HR	118	$ 85	$ 10,000	$ 5,000	$ 5,000
Task 2 - Volunteer Coordination, training and project construction						
Staff Time to complete project	HR	1560	$ 25	$ 39,000	$ 20,000	$ 19,000
Task 3 - Monitoring						
Monitoring of construction and implementation	HR	40	$ 25	$ 1,000	$ -	$ 1,000
Task 4 - Administration, contracting and permits						
Administration of funding and coordination of permits and contractor	HR	222	$ 45	$ 10,000	$ 5,000	$ 5,000
TOTAL				$ 60,000	$ 30,000	$ 30,000

WESTERN
COLORADO UNIVERSITY

Master in Environmental Management

PHONE | 970.943.2248

EMAIL | mem@western.edu

November 30, 2021

To whom it may concern:

On behalf of the Western Colorado University *Master in Environmental Management* (MEM) program, I am writing to strongly endorse the High Country Conservation Advocates' (HCCA) application for funding through the Water Plan Grant Program. HCCA is an essential voice for the preservation of natural resources and community vitality in our region. In addition to advocating for the integrity of our public lands and water resources, they mobilize volunteers to participate in stewardship projects. These events have empowered our community members and university students to respond to increasing pressures on scarce water resources and imperiled wildlife habitats, especially wetlands and wet meadows. Given HCCA's long history in the community, they are uniquely positioned to coordinate projects and volunteers for the benefit of the larger multi-agency collaboration working on water resiliency issues, which includes the US Forest Service, Bureau of Land Management, Western Colorado University, and others. Funding to build HCCA's capacity to do so benefits all of our efforts to address CWCB's goals, namely: water education and outreach, watershed health project implementation and innovation, and locally-driven adaptation to long-term drought.

The interdisciplinary MEM program prepares students to work in the fields of integrative public lands management, sustainable and resilient communities, and global sustainability. Residential students, as well as distance students from around the globe, complete a 600-hour project that supplements the capacity of a local, regional, or international environmental organization. Several Western students have advanced their learning and careers by working for, and alongside, HCCA. We therefore continue to seek ways to support HCCA and partner with them on initiatives that involve student volunteers. Thank you for considering this request. We believe, in all sincerity, that HCCA will put these funds to effective use, harnessing community momentum to make the Gunnison Valley more water resilient.

With gratitude,

Micah Russell

Micah Russell, Ph.D.
Assistant Professor and Integrated and Public Lands Management Track Director

COLORADO
Parks and Wildlife
Department of Natural Resources

Gunnison Office
300 W. New York
Gunnison, CO 81230
P 970.641.7060 | F 970.641.7883

November 23, 2021

Chris Sturm
Colorado Water Conservation Board
Water Plan Grant Application
Chris.Sturm@state.co.us

Dear Mr. Sturm:

Colorado Parks and Wildlife's Gunnison Field Office would like to support High Country Conservation Advocate's (HCCA) application for additional funding to support our local Wet Meadow Restoration and Resiliency Building project (WMRRB), a collaborative effort to enhance critical brood-rearing and summer-fall habitat for the threatened Gunnison sage-grouse (*Centrocercus minimus*) in the face of a changing climate. Colorado Parks and Wildlife research has demonstrated that the viability of Gunnison sage-grouse populations depends heavily on early chick survival and availability of quality brood-rearing habitat such as wet meadows and seeps to help chicks quickly mature and be recruited into the population.

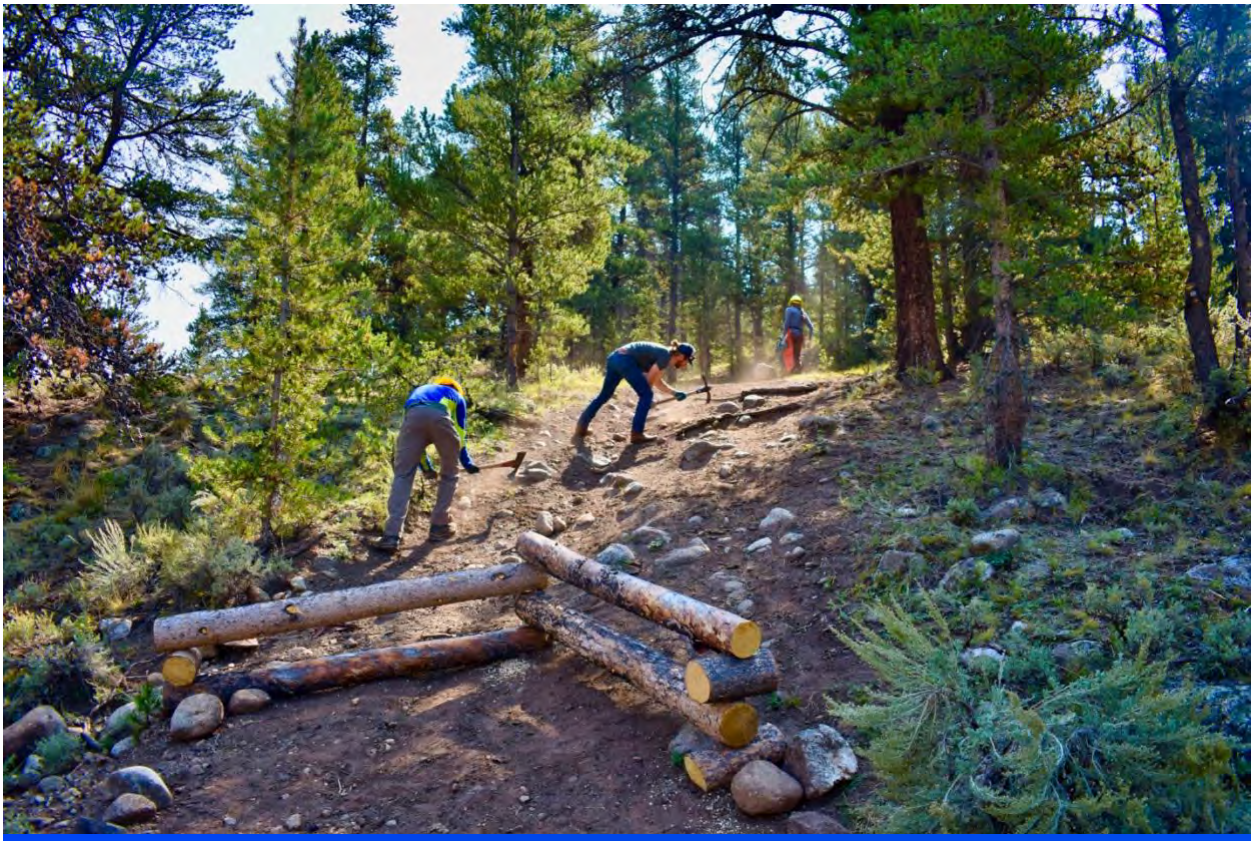
Wet meadow restoration is essential to increasing drought resiliency, which ultimately benefits all water users and dependent wildlife by increasing natural water storage in the headwaters and promoting late season water flows down-stream. Vegetation monitoring conducted by the Colorado Natural Heritage Program has demonstrated that our restoration efforts are positively affecting the productivity of vegetation by converting encroaching xeric species to more water dependent plant species because of our increase in water retention. I firmly believe that this conversion to a more diverse mesic plant community will help attract and produce greater invertebrates, which make up the majority of early chicks' diets, promoting greater survival.

Over the past couple years HCCA has become an important source of volunteer labor for the construction of restoration structures. Each year we continue to gain more volunteers and expertise to expand our locally lead climate adaptation strategies. I believe our WMRRB project is an excellent example of a successful partnership working to provide stewardship and restoration activities on our public lands throughout the Gunnison Basin. Colorado Parks and Wildlife hopes the Colorado Water Conservation Board will continue to support our local efforts to improve rangeland health, wet meadow productivity, and wildlife habitat. If you have any questions or would like to discuss further, please contact me at Nathan.Seward@state.co.us or (970) 641-7882.

Sincerely,

Nathan W. Seward
Wildlife Conservation Biologist

Photos from the 2021 stewardship season made possible in part by funding from CWCB



Photos from the 2021 stewardship season made possible in part by funding from CWCB

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