COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Last Updated: July 2019

Colorado Water Conservation Board

Water Plan Grant Application

Instructions

To receive funding for a Water Plan Grant, applicant must demonstrate how the project, activity, or process (collectively referred to as "project") funded by the CWCB will help meet the measurable objectives and critical actions in the Water Plan. Grant guidelines are available on the CWCB website.

If you have questions, please contact CWCB at (303) 866-3441 or email the following staff to assist you with applications in the following areas:

Water Storage Projects	Anna.Mauss@state.co.us
Conservation, Land Use Planning	Kevin.Reidy@state.co.us
Engagement & Innovation Activities	Ben.Wade@state.co.us
Agricultural Projects	Alexander.Funk@state.co.us
Environmental & Recreation Projects	Chris.Sturm@state.co.us

FINAL SUBMISSION: Submit all application materials in one email to *waterplan.grants@state.co.us*
in the original file formats [Application (word); Statement of Work (word); Budget/Schedule (excel)]. Please do not combine documents. In the subject line, please include the funding category and name of the project.

Water Project Summary

Name of Applicant	High Country Conservation Advocates (HCCA)
Name of Water Project	Wet Meadows and riparian restoration, water attenuation, and climate change resiliency project

CWP Grant Request Amount	$49,000
Other Funding Sources NRCS Conservation Innovation Grant/Stimulus (awarded USFS)	$26,000 (cash)
Other Funding Sources US Forest Service	$12,000 (in-kind)
Other Funding Sources	
Applicant Funding Contribution HCCA	$12,000 (in-kind & cash)
Total Project Cost	$99,000

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Applicant & Grantee Information
Name of Grantee(s) High Country Conservation Advocates (HCCA)
Mailing Address PO Box 1066/716 Elk Ave, Crested Butte, CO 81224
FEIN 84-0772688
Organization Contact Julie Nania
Position/Title Water Director & Red Lady Program Director
Email julie@hccacb.org
Phone (509) 999-0012
Grant Management Contact Julie Nania
Position/Title Water Program Director & Red Lady Program Director
Email julie@hccacb.org
Phone (509) 999-0012
Name of Applicant (if different than grantee)
Mailing Address
Position/Title
Email
Phone

Description of Grantee/Applicant
Provide a brief description of the grantee's organization (100 words or less).
HCCA is an environmental advocacy organization that collaborates with local stakeholders and policymakers, applies sound science, educates, and upholds the environmental laws affecting our community. Our mission is to protect the health and natural beauty of the land, rivers and wildlife in and around Gunnison County now and for future generations. Part of fulfilling this mission is to support and partner with local groups to implement compatible stewardship projects in our basin. Our work ensures these iconic public lands, waters, and wildlife will be healthy for generations to come.

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Type of Eligible Entity (check one)	
	Public (Government): Municipalities, enterprises, counties, and State of Colorado agencies. Federal agencies are encouraged to work with local entities. Federal agencies are eligible, but only if they can make a compelling case for why a local partner cannot be the grant recipient.
	Public (Districts): Authorities, Title 32/special districts (conservancy, conservation, and irrigation districts), and water activity enterprises.
	Private Incorporated: Mutual ditch companies, homeowners associations, corporations.
	Private Individuals, Partnerships, and Sole Proprietors: Private parties may be eligible for funding.
X	**Non-governmental organizations (NGO):** Organization that is not part of the government and is non-profit in nature.
	Covered Entity: As defined in Section 37-60-126 Colorado Revised Statutes.

Type of Water Project (check all that apply)	
	Study
X	Construction
	Identified Projects and Processes (IPP)
X	Other

Category of Water Project (check the primary category that applies and include relevant tasks)		
	Water Storage - 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.. *Applicable Exhibit A Task(s):*	
	Conservation and Land Use Planning - Activities and projects that implement long-term strategies for conservation, land use, and drought planning. *Applicable Exhibit A Task(s):*	
	Engagement & Innovation - Activities and projects that support water education, outreach, and innovation efforts. Please fill out the Supplemental Application on the website. *Applicable Exhibit A Task(s):*	
	Agricultural - Projects that provide technical assistance and improve agricultural efficiency. *Applicable Exhibit A Task(s):*	
X	Environmental & Recreation - Projects that promote watershed health, environmental health, and recreation. *Applicable Exhibit A Task(s): We are requesting funding for portions of tasks 1,2,3,4 and 5*	
	Other	Explain:

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Location of Water Project	
Please provide the general county and coordinates of the proposed project below in **decimal degrees**. The Applicant shall also provide, in Exhibit C, a site map if applicable.	
County/Counties	Gunnison County Limits
Latitude	Multiple
Longitude	Multiple

Water Project Overview
Please provide a summary of the proposed water project (**200 words or less**). Include a description of the project and what the CWP Grant funding will be used for specifically (e.g., studies, permitting process, construction). Provide a description of the water supply source to be utilized or the water body affected by the project, where applicable. Include details such as acres under irrigation, types of crops irrigated, number of residential and commercial taps, length of ditch improvements, length of pipe installed, and area of habitat improvements, where applicable. If this project addresses multiple purposes or spans multiple basins, please explain. The Applicant shall also provide, in Exhibit A, a detailed Statement of Work, Budget, Other Funding Sources/Amounts and Schedule.
The Gunnison Basin Wet Meadows Project is an ongoing effort with broad public support to rehabilitate and sustain resilient ecosystems. Project areas are better able to withstand drought and climate chance by attenuating water across the landscape and by restoring historically wet areas to riparian sanctuaries. Restoration locations within Gunnison County for 2020 include the continuation of work at Flat Top Mountain and Black Sage Pass, as well as a pilot project site in Taylor Park. 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 and 2 stream miles. The project incorporates USFS 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. CWCB funding will be used for project materials, excavator costs, volunteer oversight, project design, and other activities identified in Tasks 1-6.

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Measurable Results		
To catalog measurable results achieved with the CWP Grant funds, please provide any of the following values as applicable:		
	New Storage Created (acre-feet)	
	New Annual Water Supplies Developed or Conserved (acre-feet), Consumptive or Nonconsumptive	
	Existing Storage Preserved or Enhanced (acre-feet)	
10,560	Length of Stream Restored or Protected (linear feet)	
	Efficiency Savings (indicate acre-feet/year OR dollars/year)	
300	Area of Restored or Preserved Habitat (acres)	
	Quantity of Water Shared through Alternative Transfer Mechanisms	
	Number of Coloradans Impacted by Incorporating Water-Saving Actions into Land Use Planning	
500	Number of Coloradans Impacted by Engagement Activity	
	Other	Explain This project will help attenuate runoff across the landscape

Water Project Justification

Provide a description of how this water project supports the goals of Colorado's Water Plan, the most recent Statewide Water Supply Initiative, and the applicable Roundtable Basin Implementation Plan and Education Action Plan. The Applicant is required to reference specific needs, goals, themes, or Identified Projects and Processes (IPPs), including citations (e.g. document, chapters, sections, or page numbers).

The proposed water project shall be evaluated based upon how well the proposal conforms to Colorado's Water Plan Framework for State of Colorado Support for a Water Project (CWP, Section 9.4, pp. 9-43 to 9-44;)

Wet Meadow work fits soundly within the Colorado's Water Plan because the projects 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	Page Reference	How Project Meets

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Promote restoration, recovery, sustainability, and resiliency of endangered, threatened, and imperiled aquatic- and riparian-dependent species and plant communities.	6-157	The Gunnison Sage grouse depends on wet meadow habitat to survive. Restoring their habitat contributes to species recovery.
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.	6-157	Birdwatchers, many from other states and countries, come to view the Gunnison Sage grouse's unique mating rituals.
Support the development of multipurpose projects and methods that benefit environmental and recreational water needs as well as water needs for communities or agriculture.	6-157	Restoring wet meadows improves range forage in addition to providing the environmental benefits discussed herein.
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.	6-157	This project is designed to restore high-elevation wetlands to enhance watershed resiliency in an arid landscape.
Maintain watershed health by protecting or restoring watersheds that could affect critical infrastructure and/or environmental and recreational areas.	6-157	The Taylor Park watershed drains into the Taylor Park Reservoir, a critical water supply for the Upper Gunnison Basin (pilot project).
Meet community water needs during times of drought	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

Please provide a list of any related studies, including if the water project is complementary to or assists in the implementation of other CWCB programs.

In preparation for the GMUG Forest Plan revision process, the USFS completed an assessment of overall watershed health for GMUG forest lands (see the Revised Draft Forest Assessments: Watersheds, Water and Soil Resources March 2018). This assessment found that of the 235 watersheds on the GMUG, 76 watersheds (approximately one- third of watersheds) are functioning at risk ("Class 2" watersheds).[1] The watershed ratings show that many of our watersheds are susceptible to erosion and impacted by roads, trails and erosion close to water and in riparian areas. Specific findings included:

- There are 6,103 road crossings on all land ownerships within the GMUG boundary.[2] 141 watersheds (61%) are rated as "poor" for proximity to water, and 57 (25%) as fair for proximity to water. 86% of GMUG watersheds are either in fair or poor condition with regards to trail and roads proximity to water.
- Many watersheds are also starting to show signs of erosion (approximately 26% have been identified as currently in fair condition for erosion). 41 % of the GMUG forest area was identified to have a moderate erosion hazard rating, and 31% either a severe or very severe rating. This means that most of our watersheds are vulnerable to erosion impacts. The watershed assessment describes that "Soils with severe or very severe EHRs are most prone to erosion when surface cover is removed and the soil surface is disturbed, such as by timber harvest activities or roads."[3]

Wet Meadows work often address degradation initially caused by roads and trails (including even historic wagon trails). The Gunnison National Forest Travel Management Plan in 2010 restricted all motorized travel to designated routes, and designated specific routes by use category. As general policy, any user-created (non-system or illegal) routes that exist on the ground not shown or listed in

[1] Revised Draft Forest Assessments: Watersheds, Water and Soil Resources March 2018.
[2] REVISED DRAFT Forest Plan Assessments: Watersheds, Water, and Soil Resources. Page 13.
[3] *Id.* at 28.

the 2010 decision are to be decommissioned. As part of the wet meadows work, illegal and closed routes have been decommissioned to improve sedimentation and drainage issues and to restore the area to pre-road hydrological conditions. This is achieved by getting the water and sediment flows off the road and into the adjacent meadows. It also includes breaking up the cut and fill banks that disrupt the hillside water regime.

In the same area as the Wet Meadow work there have been historical prescribed burning to encourage diversity of vegetation.

Lastly, the Wet Meadow project areas have active livestock grazing. The US Forest Service meets annually with livestock permittees to come to agreements on vegetation management objections, which are in alignment with Wet Meadow efforts.

Previous CWCB Grants, Loans or Other Funding

List all previous or current CWCB grants (including WSRF) awarded to both the Applicant and Grantee. Include: 1) Applicant name; 2) Water activity name; 3) Approving RT(s); 4) CWCB board meeting date; 5) Contract number or purchase order; 6) Percentage of other CWCB funding for your overall project.

The Applicant does not have any current or past CWCB grants or funding.

Taxpayer Bill of Rights

The Taxpayer Bill of Rights (TABOR) may limit the amount of grant money an entity can receive. Please describe any relevant TABOR issues that may affect your application.

Not applicable.

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Submittal Checklist	
	I acknowledge the Grantee will be able to contract with CWCB using the Standard Contract.
Exhibit A	
X	Statement of Work(1)
X	Budget & Schedule(1)
	Engineer's statement of probable cost (projects over $100,000)
X	Letters of Matching and/or Pending 3rd Party Commitments(1)
Exhibit C	
X	Map (if applicable)(1)
	Photos/Drawings/Reports
X	Letters of Support (Optional)
	Certificate of Insurance (General, Auto, & Workers' Comp.) (2)
	Certificate of Good Standing with Colorado Secretary of State(2)
	W-9(2)
	Independent Contractor Form(2) (If applicant is individual, not company/organization)
Engagement & Innovation Grant Applicants ONLY	
	Engagement & Innovation Supplemental Application(1)

(1) Required with application.
(2) Required for contracting. While optional at the time of this application, submission can expedite contracting upon CWCB Board approval.

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ENGAGEMENT & INNOVATION GRANT FUND SUPPLEMENTAL APPLICATION

Introduction & Purpose

Colorado's Water Plan calls for an outreach, education, public engagement, and innovation grant fund in Chapter 9.5.

The overall goal of the Engagement & Innovation Grant Fund is to enhance Colorado's water communication, outreach, education, and public engagement efforts; advance Colorado's water supply planning process; and support a statewide water innovation ecosystem.

The grant fund aims to engage the public to promote well-informed community discourse regarding balanced water solutions statewide. The grant fund aims to support water innovation in Colorado. The grant fund prioritizes measuring and evaluating the success of programs, projects, and initiatives. The grant fund prioritizes efforts designed using research, data, and best practices. The grant fund prioritizes a commitment to collaboration and community engagement. The grant fund will support local and statewide efforts.

The grant fund is divided into two tracks: engagement and innovation. The Engagement Track supports education, outreach, communication, and public participation efforts related to water. The Innovation Track supports efforts that advance the water innovation ecosystem in Colorado.

Application Questions

*The grant fund request is referred to as "project" in this application.

Overview (answer for both tracks)
In a few sentences, what is the overall goal of this project? How does it achieve the stated purpose of this grant fund (above)?
Who is/are the target audience(s)? How will you reach them? How will you involve the community?
Describe how the project is collaborative or engages a diverse group of stakeholders. Who are the partners in the project? Do you have other funding partners or sources?

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Overview (answer for both tracks)
Describe how you plan to measure and evaluate the success and impact of the project?
What research, evidence, and data support your project?
Describe potential short- and long-term challenges with this project.

Please fill out the applicable questions for either the Engagement Track or Innovation Track, unless your project contains elements in both tracks. If a question does not relate to your project, just leave it blank. Please answer each question that relates to your project. Please reference the relevant documents and use chapters and page numbers (Colorado's Water Plan, Basin Implementation Plan, PEPO Education Action Plan, etc.).

Engagement Track
Describe how the project achieves the education, outreach, and public engagement measurable objective set forth in Colorado's Water Plan to "significantly improve the level of public awareness and engagement regarding water issues statewide by 2020, as determined by water awareness surveys."
Describe how the project achieves the other measurable objectives and critical goals and actions laid out in Colorado's Water Plan around the supply and demand gap; conservation; land use; agriculture; storage; watershed health, environment, and recreation; funding; and additional.
Describe how the project achieves the education, outreach, and public engagement goals set forth in the applicable Basin Implementation Plan(s).

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Describe how the project achieves the basin roundtable's PEPO Education Action Plans.

Innovation Track
Describe how the project enhances water innovation efforts and supports a water innovation ecosystem in Colorado.
Describe how the project engages/leverages Colorado's innovation community to help solve our state's water challenges.
Describe how the project helps advance or develop a solution to a water need identified through TAP-IN and other water innovation challenges. What is the problem/need/challenge?
Describe how this project impacts current or emerging trends; technologies; clusters, sectors, or groups in water innovation.

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Colorado Water Conservation Board
Water Plan Grant - Exhibit A

Statement Of Work	
Date:	**1/31/2020**
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** (and matching sources)

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 2020 include the continuation of work Flat Top Mountain and Black Sage Pass, as well as a pilot project site in the Taylor Park area (to be identified by fluvial hazard zone mapping). 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 and 2 stream miles. The project incorporates USFS 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.

Field sites have been NEPA cleared (see attachment) and permitted by the Corp of Engineers (NWP27). Funding from the CWP Grant will be used to purchase/deliver rock, for installation of rock dams, earthwork by heavy equipment, and 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 & Design

Description of Task:

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Tasks
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 and the USFS to effectively direct contractors and volunteer crews during project implementation. CWCB funding will provide support for fluvial hazard zone mapping the Taylor Park watershed area to identify an additional potential pilot project and location in that sub-basin.
Method/Procedure:
- Site visits with HCCA and USFS staff to identify appropriate project location parameters, implementation techniques, materials staging sites, access issues/needs, and materials needs - Initial consultation and preliminary fluvial hazard zone mapping to identify potential pilot project location in the Taylor River basin. This will involve hiring a consultant to conduct this review.
Deliverable:
- Site specific work plans to direct contractors and volunteer labor - Identify, through fluvial hazard zone mapping, a pilot project location and design for treatment in the Taylor River watershed. This assessment will be provided to the CWCB. - Photographs and narrative descriptions of pre-work project locations during grant reporting

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Tasks
Task 2 – Rock purchase, delivery, and staging
Description of Task:
Task 2 involves the contracting and coordination for materials and staging for project implementation. In this task we will purchase rock from a local quarry and have it delivered within ¼ mile of restoration work sites. It will also require project coordination between partners, ensuring that projects tasks are scheduled and contracted to be completed within approved costs and timelines. It includes: - Contracting and coordinating for rock and other material delivery - Any additional permitting/access needs to facilitate delivery
Method/Procedure:
HCCA and USFS staff will work together to: - Contract and coordinate materials for site delivery - Complete invoicing and payment for materials
Deliverable:
- Copies of invoices for materials delivered provided to the CWCB

Tasks
Task 3 – Contractor, plug and spread implementation
Description of Task:

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Tasks
A skilled contractor will be hired to complete elements of the project that require heavy equipment. This includes elements like the construction of earthen dams where necessary, plug and spreads, and ripping if necessary to revegetate illegal roads and trails in the wet meadows area.
Method/Procedure:
- USFS hydrologist will direct excavator operator on site-specific design and implementation strategies - Plugs will be selected on the basis of having a diverse mix of local vegetation - Where appropriate, willow cuttings will be used for additional stability
Deliverable:
- Restoration work will improve 300 acres of meadow, riparian, and interfacing upland sagebrush habitat and 2 stream miles. - Earthen dams will be constructed where appropriate - Photos and descriptions of work will be provided to the CWCB
Task 4 – Volunteer coordination, training, and project construction
Description of Task:

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Tasks

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).

Task 4 also involves the actual construction of erosion control structures and working to restore stream/riparian areas and road closures on the ground. We apply a variety of restoration techniques to achieve our objectives and our techniques require off site rock sources to be delivered to our restoration sites. We will also work with materials found in-situ, including plugs and native plants harvested on-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 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
- Volunteer lunches
- 60 erosion control structures will be built that attenuate water across the project area, reduce erosion, and retain sediment
- Complete work plans from Flat Top Mountain and Black Sage Pass
- Ecosystem services achieved will include improved ungulate forage, water quality/quantity, habitat for federally listed threatened Gunnison sage-grouse, elk, deer, neotropical migratory birds, insects (pollinator species), and botanical resources.
- Photo documentation of project implementation for future communication

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Tasks
Task 5 – Monitoring
Description of Task:
Monitoring will occur both during project implementation and by 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 USFS 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 USFS staff will oversee construction of project components and review all individual structures. - USFS hydrologist Ashley Hom will work with the excavator operator to assure proper use of earthen dams and plug and spread techniques. - After several precipitation events HCCA and USFS 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.
Task 6 – Administration, contracting, permit compliance
Description of Task:

Last Updated: July 2019

Tasks
Task 2 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, 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.

Last Updated: July 2019

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 CWCB in hard copy and electronic format 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 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.

Last Updated: July 2019

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:
Name of Applicant:
Name of Water Project:

EXAMPLE A: Study or Project Coordination

Task 1 - [TASK NAME]

Sub-task	Item	Hourly Rate	# Hours	Sub-total	Item Cost	Item Quantity	Sub-total	Total	CWCB Funds	Matching Funds
Focus Groups										
	Participant Stipend			$ -	$ 50.00	20.00	$ 1,000.00	$ 1,000.00	$ 250.00	$ 750.00
	Catering			$ -	$ 15.00	20.00	$ 300.00	$ 300.00	$ 75.00	$ 225.00
	Feedback Survey			$ -	$ 0.50	20.00	$ 10.00	$ 10.00	$ 2.50	$ 7.50
	Staff Time	$ 40.00	10	$ 400.00				$ 400.00	$ 100.00	$ 300.00
Develop Exhibit										
	Exhibit Designer	$ 50.00	100	$ 5,000.00			$ -	$ 5,000.00		
	Staff Time Project Manager	$ 50.00	30	$ 1,500.00			$ -	$ 1,500.00		
	Staff Time Administrative	$ 35.00	20	$ 700.00			$ -	$ 700.00		
	Film Production (filming, editing, production)			$ -	$ 5,000.00	1.00	$ 5,000.00	$ 5,000.00		
				$ -			$ -	$ -		
TOTAL								**$ 13,910.00**		
Other Direct Costs (see below)								**$ 2,469.00**		
OVERALL TOTAL								**$ 16,379.00**		

Other Direct Costs

Item:	Copies & Printing (Black & White)	Copies & Printing (Color)	Materials and Final Report Production	Lodging and Meals	Travel Expenses (Airfare and Car Rental)	Mileage	Total
Units:	**No.**	**No.**	**Lump Sum**	**Per Diem**	**Lump Sum**	**Miles**	
Unit Cost:	**$0.10**	**$0.50**		**$ 100.00**		**$0.535**	
Project Initiation	150	100		2		400	$479
Report, Conclusions and Recommendations	150	150	$ 1,900	0		0	$1,990
Total Units:	300	250	1,900	2	0	400	
Total Cost:	$30	$125	$1,900	$200	$0	$214	**$2,469**

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:
Name of Applicant:
Name of Water Project:

EXAMPLE C: Construction

Task 1 - Construction

Sub-task	Unit	Quantity	Unit Cost	Total Cost	CWCB Funds	Matching Funds
Mobilization	LS	1	$ 50,000	$ 50,000	$ 10,000	$ 40,000
Coffer Dam	EA	1	$ 100,000	$ 100,000	$ 20,000	$ 80,000
Cut	CY	20,000	$ 4	$ 80,000	$ 16,000	$ 64,000
Fill	CY	18,000	$ 8	$ 144,000	$ 28,800	$ 115,200
Erosion Control	LS	1	$ 40,000	$ 40,000	$ 8,000	$ 32,000
18-inch HDPE	LF	500	$ 50	$ 25,000	$ 5,000	$ 20,000
18-inch Valve	EA	1	$ 10,500	$ 10,500	$ 2,100	$ 8,400
Etc…						

Task 2 - ?

TOTAL				$ 449,500.00	$ 89,900	$ 359,600

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:
Name of Applicant:
Name of Water Project:

EXAMPLE B: Engineering

Task 1 - Engineering	**Water Consultants**					Subcontracts						
Sub-task	Senior Principal Engineer	Senior Water Resources Engineer/ Consultant	Water Resources Engineer	Geologist/ Water Resources Analyst	**Subtotal**	Geotechnical	Environmental and Cultural Resources	(Other)	**Subtotal**	Project Total	**CWCB Funds**	**Matching Funds**
	$ 190	$ 160	$ 130	$ 100		Lump sum	Lump Sum					
	Estimated Hours					Estimated						
Project Initiation / Stakeholder identification	12	32		16	**$ 9,000**				**$ -**	$9,000		
Water Rights Evaluation	24	24	80	30	**$ 21,800**			$ 12,000	**$ 12,000**	$33,800		
Geotechnical	24			36	**$ 8,160**	$ 27,000			**$ 27,000**	$35,160		
Permitting		32		40	**$ 9,120**				**$ -**	$9,120		
Survey	4	24		8	**$ 5,400**				**$ -**	$5,400		
Design of XXX	160	60	100		**$ 12,640**				**$ -**	$12,640		
Preparation of construction documents (bid docs, specs)	40	10	30									
Project Management	20	30		24	**$ 11,000**				**$ -**	$11,000		
Report, Conclusions, & Recommendations	40	54	16	40	**$ 22,320**			$ 3,000	**$ 8,500**	$30,820		
Task 2 - ?												
TOTAL										**$146,940**		

Upper Gunnison River Water Conservancy District

210 West Spencer Avenue, Suite B • Gunnison, Colorado 81230
(970) 641-6065 • www.ugrwcd.org

Chris Sturm, Stream Restoration Coordinator
Colorado Water Conservation Board
chris.sturm@state.co.us

RE: High Country Conservation Advocates Wet Meadows Grant Application

Dear Colorado Water Conservation Board staff,

The Upper Gunnison River Water Conservancy District would like to offer our support for the grant application submitted by High Country Conservation Advocates (HCCA) for wet meadow restoration work in the Upper Gunnison basin. HCCA has been one of numerous partners working in the Upper Gunnison basin to restore hydrologic functioning and improve watershed health through the wet meadows restoration project. Supporting this proposal would facilitate additional restoration efforts in 2020.

The wet meadows restoration work is compatible with our District's goals to restore watershed health. Our wet meadows project director, Paul Jones, has been collaborating with the United States Forest Service and stakeholders to identify the project objectives that will be addressed by the proposed funding. We support this collaborative effort to restore wet meadows and stream ecosystems to provide benefits including improving water quality by reducing erosion, creating habitat for the federally listed threatened Gunnison sage-grouse, and attenuating the movement of water across sensitive areas.

Thank you for your time and consideration.

Sincerely,

Sonja Chavez

General Manager

Jesse Kruthaupt

January 29, 2020

Colorado Water Conservation Board
Colorado Water Plan Grants
Environmental Category

RE: Wet Meadows Restoration Upper Gunnison

Dear Mr. Sturm

Trout Unlimited (TU) would like to offer our support for High Country Conservation Advocates (HCCA) grant application to the Colorado Water Conservation Board (CWCB) to restore wet meadows in the Upper Gunnison Basin.

Restoring incised gullies using the methods proposed in the HCCA's grant application have proven to deliver outstanding conservation benefits. These structures aid in the transformation to and more natural hydraulic function by capturing sediment, allowing vegetation to thrive, slowing surface water, and increasing retention time of subsurface water.

The Wet Meadows Restoration work in the Upper Gunnison has been a long running conservation approach with wide ranging support from local officials, state and federal agencies, conservation groups, and agricultural producers. This work has provided vegetation and available water for wildlife and livestock in our alpine desert landscapes. Furthermore, the comprehensive effort to continue addressing degraded intermittent streams is expected to provide watershed benefits by dissipating high flow events and supporting low flow periods as retained subsurface water infiltrates back to the channel at a slower rate.

For those reasons, TU encourages the CWCB to approve this grant in the amount requested.

Thank you for your consideration,

Jesse Kruthaupt

Trout Unlimited: America's Leading Coldwater Fisheries Conservation Organization
604 Elsa Court, Gunnison, CO 81230
(970)209-0976 • www.tu.org

ATTACHMENT A: LETTERS OF MATCHING COMMITMENTS

* Matching from the NRCS has already been secured and is in-hand.

United States Department of Agriculture
Grand Mesa, Uncompahgre & Gunnison National Forests
Gunnison Ranger District 216 N. Colorado St. Gunnison, Co 81230

January 27th, 2020

Colorado Water Conservation Board (CWCB)
Water Plan Grant Application

Support of the High County Conservation Advocates (HCCA) Grant Application "Wet Meadows and riparian restoration and water attenuation and climate change resiliency project"

The US Forest Service (USFS) is in full support of HCCA Grant Application to the CWCB water plan grant. The USFS has completed $5,000 of in-kind work to complete NEPA and will provide a signed Decision Memo to be compliant with law. USFS will also provide $8,000 in-kind for the administration on oversite of the heavy equipment work. Lastly, the USFS will provide $4,000 in-kind for the support and oversite of volunteer work.

Wet Meadow work is crucial work for Gunnison District and has our full support in its implementation.

Thank you for your consideration,

Ashley Hom

Ashley Hom
Forest Hydrologist and Land Manager
Forest Service
Grand Mesa, Uncompahgre &
Gunnison National Forest (GMUG)
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Caring for the land and serving people