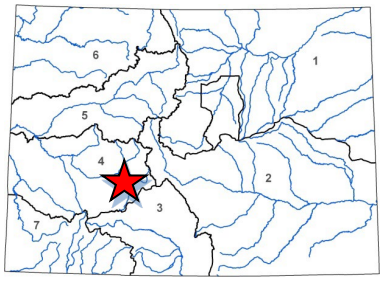
COLORADO
Colorado Water Conservation Board

Water Plan Grant Application

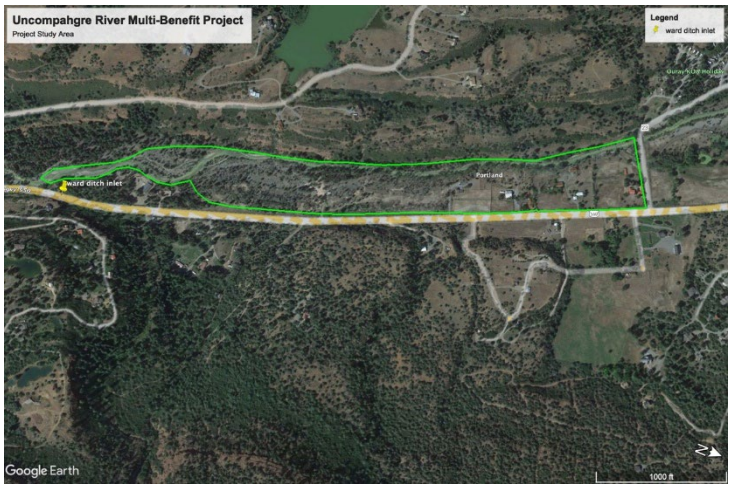
Uncompahgre River Multi-Benefit Project
American Rivers
September 2022 Board Meeting



LOCATION	
County/Counties:	Ouray
Drainage Basin:	Gunnison

DETAILS	
Total Project Cost:	$157,646
Water Plan Grant Request:	$71,446
Recommended amount:	$71,446
Other CWCB Funding:	$0
Other Funding Amount:	$43,100
Applicant Match:	$43,100
Project Type(s): Planning	
Project Category(Categories): Watershed Restoration and Recreation	
Measurable Result: Final design for a 1 mile stretch of stream restoration	

This collaborative, multi-benefit project seeks to improve habitat, water quality, water management and late season flows along an incised, degraded stretch of the Uncompahgre River between Ouray and Ridgway. Project components include infrastructure upgrades, river channel improvements, and floodplain restoration. In addition to the direct project benefits, the accessible location of the site makes it well-suited to demonstrate how river restoration activities can benefit water users as well as habitat.



The one-mile segment of the Uncompahgre River between the Ward Ditch Diversion and County Road 23 bridge near the town of Ouray has been heavily impacted by dredging and riprap placed on riverbanks, causing the river to be incised, unnaturally straight, disconnected from the floodplain, and lacking in diverse habitat. Native riparian trees are dying off and invasive trees like Russian Olives are establishing. The combination of mine tailing runoff, high aluminum and iron oxide levels, and lack of organic matter, riparian habitat, pools and fish refugia and reduced river flows have rendered this reach almost devoid of fish and aquatic invertebrates. In addition, nearby wells have run dry in recent years, and the Ward Ditch headgate is unable to divert and deliver water when river flows are below 250 cubic feet/second.

For this design phase, the project partners will utilize CWP funds to:

- Design and engineer headgate and ditch improvements.
- Design and permit river channel improvements, with the following steps:
  - Analyze current state of the 1-mile reach of the Uncompahgre River corridor to identify deficiencies and existing conditions.
  - Select sites and create designs for two restoration projects.
  - Conduct detailed design and permitting for in-channel structures.
- Conduct HEC-RAS analysis to optimize channel improvement design and avoid flooding impacts.
- Conduct well testing for baseline data on groundwater levels and water quality.

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Water Plan

Water Project Summary

Name of Applicant	American Rivers	
Name of Water Project	Uncompahgre River Multi-Benefit Project	
Grant Request Amount		**$71,446.00**
Primary Category		$71,446.00
Watershed Health & Recreation		
Total Applicant Match		**$43,100.00**
Applicant Cash Match		$31,000.00
Applicant In-Kind Match		$12,100.00
Total Other Sources of Funding		**$43,100.00**
Colorado River Water Conservation District		$25,000.00
Ward Water Group		$6,000.00
American Rivers		$6,000.00
Ward Water Group		$6,100.00
Total Project Cost		**$157,646.00**

Applicant & Grantee Information

Name of Grantee: American Rivers
Mailing Address: 1101 14th St NW Suite 1400 Washington DC 20005
FEIN: 237,305,963

Organization Contact: Fay Hartman
Position/Title:
Email: fhartman@americanrivers.org
Phone: 616-990-0049

Organization Contact - Alternate: Hannnah Holm
Position/Title:
Email: hholm@americanrivers.org
Phone:

Grant Management Contact: Fay Hartman
Position/Title:
Email: fhartman@americanrivers.org
Phone: 616-990-0049

Grant Management Contact - Alternate: Hannnah Holm
Position/Title:
Email: hholm@americanrivers.org
Phone:

Description of Grantee/Applicant

American Rivers protects and restores rivers and clean water for people and nature.

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	38.000000
Longitude	-107.000000
Lat Long Flag	
Water Source	
Basins	Gunnison
Counties	Ouray
Districts	

Water Project Overview

Major Water Use Type	
Type of Water Project	Planning (e.g. watershed)
Scheduled Start Date - Design	10/1/2022
Scheduled Start Date - Construction	

Description

This project will develop designs to improve habitat, water quality and water management along an incised, degraded stretch of the Uncompahgre River near Ouray. Components include infrastructure upgrades, river channel improvements, and floodplain restoration.

The one-mile segment of the Uncompahgre River between the Ward Ditch Diversion and County Road 23 bridge has been heavily impacted by development , dredging and riprap/levees, causing the river to be incised, unnaturally straight, disconnected from the floodplain, and lacking in diverse habitat. Native riparian trees are dying, and invasive trees are establishing. The lack of organic matter, riparian habitat, pools, fish refugia and high levels of iron oxide/aluminum have contributed to this reach being almost devoid of fish and aquatic invertebrates. In addition, nearby wells have run dry, and the Ward Ditch, which serves 4 parties irrigating 30 acres of hay meadow, is unable to divert water when river flows are below 250 cubic feet/ second.

This project will utilize CWP funds to:
- Design and engineer headgate and ditch improvements.
- Design and permit river channel improvements.
- Conduct HEC-RAS analysis to optimize channel improvement design and avoid flooding impacts.
- Conduct well testing for baseline data on groundwater levels and water quality.

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)
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
Number of Coloradans Impacted by Engagement Activity

Other
This project aims to restore 1 mile of the Uncompahgre RIver

Water Project Justification

This project supports the watershed health and agricultural water supply/ viability goals of statewide and Gunnison basin water planning efforts, as well as the Uncompahgre Watershed Plan, in the following ways.

Colorado Water Plan
CO Water Plan goals related to watershed health and agricultural viability are both supported by this project.

Watershed Health
Section 7.1, Page 7-3 of Colorado's Water Plan articulates the following goal:
Colorado's Water Plan promotes watershed health and supports the development of watershed coalitions and watershed master plans that address the needs of a diverse set of local stakeholders.

Section 10.3 (Critical Goals and Actions), subsection F (Watershed Health, Environment, and Recreation) on page 10-12 includes the critical goal to:
Protect Healthy Environments: 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 resiliency.

By designing projects to restore connectivity to the floodplain and instream habitat, this project directly supports the general goal of promoting watershed health, as well as the more specific goals to improve conditions of streams and wetlands and promoting self-sustaining fisheries and functional riparian and wetland habitats.

Agricultural Viability
Section 6.5.2 (page 6-138) on Agricultural Viability notes that upgrading irrigation and diversion systems is among the actions that can support the goal of agricultural viability. By upgrading the Ward Ditch headgate and associated ditch will enable water delivery under a broader range of flow conditions than is now possible, supporting agricultural irrigation.

CO Water Plan Updated Action Area Information Sheet for Thriving Watersheds
This information sheet opens with the following statement:
Watersheds face a number of pressures from competing water needs to climate-stressed hydrologies which have cascading impacts for - among other things - stream function, forest health, aquatic species, and wildlife.

This statement underscores the importance of the kind of stream and floodplain restoration work this project will design.

Gunnison Basin Implementation Plan
The 2022 Gunnison Basin Implementation Plan includes the following goals (page 13):
• Improve agricultural water supplies to reduce shortages
• Quantify and protect environmental and recreational uses.
• Maintain or, where necessary, improve water quality throughout the Gunnison Basin.
• Describe and encourage relationships among agricultural and environmental recreational water uses.

This project responds to the first three of these goals by designing measures to improve access to irrigation water and improve an impaired section of stream. It responds to the fourth by demonstrating how agricultural water users can collaborate on a project that benefits both water access and watershed health.

Uncompahgre Watershed Plan
The Uncompahgre Watershed Plan also seeks to address both water supply and watershed health concerns. Problems and relevant critical areas identified in the 2018 Uncompahgre Watershed plan include:
• Problem: State water planners have forecast gaps in water supplies which may impair existing water uses (Section 8, page 8-1), with “irrigation inefficiencies” listed as a source of the problem, and Ouray County and agricultural areas listed as critical areas.
• Problem: Altered sediment dynamics lead to river instability (Section 8, page 8-15), with the Uncompahgre River from Ouray to Ridgway (project is in this area) and the KOA near Ouray (adjacent to the project) listed as critical areas.
• Problem: In-stream and riparian habitat are limited (Section 8, page 8-16), with the Uncompahgre River from Ouray to Ridgway (pools and stream cover) listed as a critical area.

This project will directly address these problems in an identified critical area by designing irrigation infrastructure and river channel improvements, as well as improving the connection to the floodplain, which will also benefit riparian habitat.

Colorado’s Water Plan Framework for State of Colorado Support for a Water Project
This project is well-aligned with the framework in the following ways:
• It demonstrates a commitment to collaboration through the project partnership involving landowners, the

Uncompahgre Watershed Partnership, Trout Unlimited and American Rivers.
• It meets demonstrated water gaps identified in both the Gunnison BIP and the Uncompahgre Watershed Plan through plans to address both irrigation water needs and habitat needs in alignment with the Basin Implementation Plan and Uncompahgre Watershed Plan.
• It demonstrates sustainability by addressing watershed health and modernizing agricultural infrastructure.
• Fiscal and technical feasibility are supported by the expertise of the project team and the capability of the project partners to manage and carry out substantial portions of the work.

Related Studies

The study most directly related to this project is the 2018 Uncompahgre Watershed Plan, completed by the Uncompahgre Watershed Partnership. The Uncompahgre Watershed Partnership is part of the project team and, as noted above, this project will support addressing several problems related to watershed health and irrigation improvements identified in the plan, in a critical area.

The plan is available at:
https://www.uncompahgrewatershed.org/wp-content/uploads/2022/01/Uncompahgre-Watershed-Plan-2022.pdf

Taxpayer Bill of Rights

None

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Last Updated: May 2021

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

Statement Of Work	
Date:	**7/1/22**
Name of Grantee:	**American Rivers**
Name of Water Project:	**Uncompahgre River Multi-Benefit Project**
Funding Source:	**CO Water Plan Grant, Colorado River District, Proponent Match (cash and in-kind)**
Water Project Overview:	

This collaborative, multi-benefit project seeks to improve habitat, water quality, water management and late season flows along an incised, degraded stretch of the Uncompahgre River between Ouray and Ridgway. Project components include infrastructure upgrades, river channel improvements, and floodplain restoration. In addition to the direct project benefits, the accessible location of the site makes it well-suited to demonstrate how river restoration activities can benefit water users as well as habitat.

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Last Updated: May 2021

Project Objectives:
This is the first phase of the project – where we will conduct design and analysis. The completed project objectives include: • Improve access to and management of water for users of the Ward Ditch. • Improve in-stream and riparian habitat through river channel improvements and better connectivity with the floodplain. • Evaluate this demonstration project and share results to guide future restoration efforts within the Uncompahgre watershed.

Tasks
Task 1 – Headgate improvement design & engineering
Description of Task:
Work with engineer to develop and design plans for headgate improvements.
Method/Procedure:

Natural Channel Design (NCD) and Fred Phillips Consulting (FPC) will gather existing information on the headgate area of the Uncompahgre River. We will utilize existing lidar/topo information combined with limited on the ground survey, that can be utilized for the design. The team will develop a hydraulic model of existing conditions at the headgate that are creating the issues with ditch flow and stream stability. The team will then come up with an engineering design to improve ditch flow, river stability and create ecological uplift in regards to the aquatic and riparian habitats surrounding the headgate area.

This task will also include meetings, coordination and correspondence with project team and consultants working on this project.

Deliverable:

We will provide a design and cost estimate for the headgate improvement to CWCB.

Tasks

Task 2 – Ditch improvement design and engineering

Description of Task:

Evaluate diversion control and measurement need in order to outline future projects that could increase efficiency, control salinity, and improve water management/quality and restore riparian habitat.

Last Updated: May 2021

Method/Procedure:
In this task, NCD and FPC, along with the users of the Ward Water Group and Rewalt Plumber Ditches, will work together to evaluate diversion control and measurement need to outline future projects that could increase efficiency, control salinity, and improve water management/quality and restore riparian habitat along this section of Uncompahgre floodplain/upper terrace that the Ward Ditch runs through. The engineer will provide suggestions and design assistance on the diversion structures and measurement weir and will provide a list of recommendations for future improvements. This task will also include meetings, coordination and correspondence with project team and consultants working on this project.
Deliverable:
A report that includes recommendations and specifications for improvement of Ditch water conveyance and measurement.

Tasks
Task 3 - Assessment and site selection for restoration projects
Description of Task:
Analyze current state of the 1-mile reach of the Uncompahgre River corridor to identify deficiencies and existing conditions in order to select sites and create designs for 2 restoration projects. Our primary goal of the assessment process is to identify and prioritize the ongoing symptoms of degradation within the waterway and seek to understand the complex array of causes, both historic and current, that led to degradation. To that end, our restoration team will perform a rapid investigative analysis of the site to understand the numerous variables influencing the current condition of the impaired system and inform a holistic design.
Method/Procedure:

The Project Team will review existing reports and data related to the health of this stretch of the Uncompahgre River, consult with local experts, and research the history of impacts on the river. The Team will then assess the floodplain through the site using a variety of inventory methods and comparison to other parts of the basin and similar water sheds. Vegetation, Topography and cobble/sediment analysis will be completed in key areas. Native and non-native vegetation will be identified. Photo monitoring points will be established for future analysis. Site surveys, and aerial imagery will be used to analyze geomorphology of the river. Soil samples and water quality parameters will also be sampled.

This task will also include meetings, coordination and correspondence with project team and consultants working on this project.

Deliverable:

Memo on the existing conditions of the stream reach, deficiencies and rationale for why restoration sites were chosen.

Tasks
Task 4 – Design for Restoration Projects
Description of Task:
Using the collected data from the assessment process, a design using best management practices including process-based restoration tools will be created for restoration sites. This design will be used to secure proper permits including US Army Corps of Engineer permits.
Method/Procedure:

The Team will use the Uncompahgre River health report and site analysis information to identify opportunities and constraints for restoration best management practices in the project area. Part of developing restoration opportunities will include potential for specific projects and estimating their feasibility. The designs will include details on the process-based restoration features, revegetation of the fringe, riparian and upland habitats in the flood plain as well as details on non-native plant eradication, revegetation methods and short/long term management of the river corridor.

This task will also include meetings, coordination and correspondence with project team and consultants working on this project.

Deliverable:

Designs for restoration projects and a report detailing recommended restoration actions and overall best management practices for improving the health of this stretch of the Uncompahgre River. This report will include specific project synopsis prioritized by feasibility and level of importance for improving the health of Uncompahgre River and will include two conceptual designs for restoration demonstration projects within this reach of Uncompahgre River.

Tasks

Task 5 - HEC-RAS Analysis

Description of Task:

Undertake a HEC-RAS* analysis to optimize the design of channel improvements and avoid flooding impacts. The utilization of a 2D hydraulic model is helpful for analysis of several issues beyond just flooding. The modeling effort is not intended to inform Federal Emergency Management Agency (FEMA) decision making but will be focused on developing a tool for better understanding stream geomorphic and hydraulic function in relation to habitat sustainability and improvement potential. The model will be based on available Lidar data sets augmented with cross sections through the stream surveyed as part of this task. We plan to utilize HEC-RAS 2D as a modeling platform.

* US Army Corps of Engineers Hydrologic Engineering Center's (HEC) River Analysis System (**HEC-RAS**)

Method/Procedure:

We will run the model under several different flow conditions, (low intensity/high frequency flooding as well as high intensity/low frequency flooding to look at the streams ability to over bank and sustain wetland and riparian habitats, identify high stress areas which can lead to bank erosion or channel incision, identify potential areas for improvement and provide a guide for habitat improvements and land use decisions in the future.

This task will also include meetings, coordination and correspondence with project team and consultants working on this project.

Deliverable:

Model illustrating stream geomorphic and hydraulic function.

Tasks
Task 6 - Permitting for restoration projects
Description of Task:
Working with partners, complete and submit permitting to the United States Army Corps of Engineers.
Method/Procedure:

The project team will work with the USACE, Ouray County, USFWS and BOR to obtain the permits necessary to implement the project. This application does not include ESA surveys or an EIS. It is anticipated that the main permitting work will involve a USACE 404 permit. The work in previous tasks will be used for this permit application. A jurisdictional delineation may be required.

This task will also include meetings, coordination and correspondence with project team and consultants working on this project.

Deliverable:

Submitted permits

Tasks
Task 7 - Well sampling and testing
Description of Task:
Well testing in the project area for baseline data on water quality. Water quality testing will include testing any drinking water wells within the project floodplain area. This will in the following water quality indicators: 1. Total Coliforms 2. Fecal Coliforms 3. PH 4. Nitrates and VOC's
Method/Procedure:

Sample water in wells around project area and submit them for testing to understand water quality. This task will also include meetings, coordination and correspondence with project team and consultants working on this project.
Deliverable:
Reports from lab describing water quality.

Tasks
Task 8 – Grant Writing
Description of Task:
Grant writing and additional planning for development of WaterSmart Grant application for plan implementation
Method/Procedure:

American Rivers will work with landowners and Ward Water Group on the WaterSmart application. They will contract for grant writing support as needed for this work.

This task will also include meetings, coordination and correspondence with project team and consultants working on this project.

Deliverable:

Completed WaterSmart grant application.

Tasks
Task 9 – Project Management and Oversight
Description of Task:
Manage project tasks, budget, etc.
Method/Procedure:

Last Updated: May 2021

American Rivers will oversee the implementation of each task to ensure timely, on-budget completion and documentation. This task will also include meetings, coordination and correspondence with project team and consultants working on this project.
Deliverable:
Completed on time reporting and invoicing

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

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.

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Water Plan Grant - Exhibit C
Budget and Schedule

Prepared Date: July 1, 2022
Name of Grantee: American Rivers
Name of Project: Uncompahgre River Multi-benefit project
Project Start Date: September 2022
Project End Date: June 2023

Task No.	Task Description	Task Start Date	Task End Date	CWCB Grant Funding Request	Match and in-kind Funding	Total
1	**Headgate improvement design and engineering**					$19,522
	Engineer develops and designs plans for headgate improvement and determines cost assessment, plus meetings and coordination	Sep-22	Feb-23	$9,616	$9,906	
2	**Ditch improvement design and engineering**					$12,080
	Engineer develops and designs plans for ditch improvement and determines cost assessment, plus meetings and coordination	Sep-22	Feb-23	$5,000	$7,080	
3	**Assessment and site selection for restoration projects**					$12,992
	Analyze current state of the 1 mile reach of river, plus meetings and coordination	Sept 2022	December 2022	$8,000	$4,992	
4	**Design for restoration projects**					$26,770
	Design in-stream restoration projects, plus meetings and coordination	December 2022	March 2023	$23,770	$3,000	
5	**HEC RAZ analysis**					$9,940
	Analyze potential flooding impacts through HEC-RAZ analysis, plus meetings and coordination	Oct 2022	Feb 2023	$8,910	$1,030	
6	**Permitting for restoration projects**					$9,400
	Permitting for in-stream project, plus meetings and coordination	March 2023	June 2023	$7,150	$2,500	
7	**Well sampling and testing**					
	Well testing, plus meetings and coordination	Oct 2022	Dec 2022	$1,000	$500	$1,500
8	**Grant writing**					$8,842
	Grant writing and additional planning for development of WaterSmart Grant application for plan implementation, plus meetings and coordination	Jan 2023	June 2023	$0	$8,842	
9	**Project Management and Oversight**					$13,250
	Grant Administrative Costs, plus meetings and coordination	Sept 2022	June 2023	$8,000	$5,250	
			Total	$71,446	$43,100	$114,296
			Percentage breakdown	63%	38%	

Match breakdown

Cash Match - Ward Water Group	$6,000
Cash Match - Prospective RD funding	$25,000
In-kind match - AR	$6,000
In-kind match - Ward Water Group	$6,100

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Water Plan Grant - Detailed Budget Estimate
Fair and Reasonable Estimate

Prepared Date: 7/1/2022
Name of Applicant: American Rivers
Name of Water Project: Uncompahgre River Multi-benefit Project

EXAMPLE A: Study or Project Coordination

Task	Item	Hourly Rate	# Hours	Sub-total	Item Quantity	Item Cost	Sub-total	Total	CWCB Funds	Matching Funds	
Task 1 - Headgate improvement design and engineering, plus meetings and coordination associated with this task											
	Principal,Fisheries Biologist Principal, Restoration	$ 95.00	80	$ 7,600.00				$ 7,600.00	$ 1,600.00	$ 6,000.00	
	Ecologist	$ 105.00	20	$ 2,100.00				$ 2,100.00	$ 2,100.00	$ -	
	PE/Geomorphologist	$ 115.00	60	$ 6,900.00				$ 6,900.00	$ 4,674.00	$ 2,226.00	
	GIS/Landscape Architect	$ 85.00	8	$ 680.00				$ 680.00		$ 680.00	
	Ward Water Group Field Tech	$ 50.00	20	$ 1,000.00				$ 1,000.00	$ -	$ 1,000.00	
	Mileage (RT Flagstaff/Ouray)				800	$ 0.59	$ 468.00	$ 468.00	$ 468.00		
	Meal Perdiem				4	$ 66.00	$ 264.00	$ 264.00	$ 264.00		
	Lodging				2	$ 130.00	$ 260.00	$ 260.00	$ 260.00		
	Survey equipment				1	$ 250.00	$ 250.00	$ 250.00	$ 250.00		
								$ 19,522.00	**$ 9,616.00**	**$ 9,906.00**	**Total**
Task 2 - Ditch improvement design and engineering, plus meetings and coordination associated with this task											
	Principal,Fisheries Biologist Principal, Restoration	$ 95.00	30	$ 2,850.00			$ -	$ 2,850.00	$ 1,000.00	$ 1,850.00	
	Ecologist	$ 105.00	16	$ 1,680.00				$ 1,680.00	$ 1,000.00	$ 680.00	
	PE/Geomorphologist	$ 115.00	40	$ 4,600.00				$ 4,600.00	$ 2,000.00	$ 2,600.00	
	GIS/Landscape Architect	$ 85.00	20	$ 1,700.00				$ 1,700.00	$ 1,000.00	$ 700.00	
	Ward Water Group Field Tech	$ 50.00	20	$ 1,000.00				$ 1,000.00		$ 1,000.00	
	Survey equipment				1	$ 250.00	$ 250.00	$ 250.00		$ 250.00	
								$ 12,080.00	**$ 5,000.00**	**$ 7,080.00**	**Total**
Task 3 - Assessment and site selection for restoration projects, plus meetings and coordination associated with this task											
	Principal,Fisheries Biologist Principal, Restoration	$ 95.00	30	$ 2,850.00				$ 2,850.00	$ 2,000.00	$ 850.00	
	Ecologist	$ 105.00	30	$ 3,150.00				$ 3,150.00	$ 1,000.00	$ 2,150.00	
	PE/Geomorphologist	$ 115.00	24	$ 2,760.00				$ 2,760.00	$ 2,218.00	$ 542.00	
	GIS/Landscape Architect	$ 85.00	24	$ 2,040.00				$ 2,040.00	$ 2,040.00		
	Ward Water Group Field Tech	$ 50.00	24	$ 1,200.00				$ 1,200.00		$ 1,200.00	
	Meal Perdiem				2	$ 66.00	$ 132.00	$ 132.00	$ 132.00	$ -	
	Lodging				1	$ 130.00	$ 130.00	$ 130.00	$ 130.00	$ -	
	Survey equipment				1	$ 250.00	$ 250.00	$ 250.00		$ 250.00	
	Soil Sample Analysis and shipping				8	$ 60.00	$ 480.00	$ 480.00	$ 480.00		
								$ 12,992.00	**$ 8,000.00**	**$ 4,992.00**	**Total**
Task 4 - Design for restoration projects, plus meetings and coordination associated with this task											
	Principal,Fisheries Biologist Principal, Restoration	$ 95.00	40	$ 3,800.00			$ -	$ 3,800.00	$ 2,300.00	$ 1,500.00	
	Ecologist	$ 105.00	44	$ 4,620.00				$ 4,620.00	$ 4,620.00		
	PE/Geomorphologist	$ 115.00	80	$ 9,200.00				$ 9,200.00	$ 9,200.00		
	GIS/Landscape Architect	$ 85.00	90	$ 7,650.00				$ 7,650.00	$ 7,650.00		
	Ward Water Group Field Tech	$ 50.00	30	$ 1,500.00				$ 1,500.00		$ 1,500.00	
								$ 26,770.00	**$ 23,770.00**	**$ 3,000.00**	**Total**
Task 5 - HEC-RAS analysis, plus meetings and coordination associated with this task											
	Principal,Fisheries Biologist Principal, Restoration	$ 95.00	40	$ 3,800.00			$ -	$ 3,800.00	3800		
	Ecologist	$ 105.00	6	$ 630.00				$ 630.00		630	
	PE/Geomorphologist	$ 115.00	40	$ 4,600.00				$ 4,600.00	4600		
	GIS/Landscape Architect	$ 85.00	6	$ 510.00				$ 510.00	510		
	Ward Water Group Field Tech	$ 50.00	8	$ 400.00				$ 400.00		400	
								$ -			
								$ 9,940.00	**$ 8,910.00**	**$ 1,030.00**	**Total**
Task 6 - Permitting for restoration project, plus meetings and coordination associated with this task											
	Principal, Restoration										
	Ecologist	$ 105.00	40	$ 4,200.00			$ -	$ 4,200.00	$ 4,200.00		
	Principal,Fisheries Biologist	$ 95.00	10	$ 950.00				$ 950.00	$ 950.00		
	GIS/Landscape Architect	$ 85.00	50	$ 4,250.00			$ -	$ 4,250.00	$ 2,000.00	$ 2,500.00	
								$ 9,400.00	**$ 7,150.00**	**$ 2,500.00**	**Total**
Task 7 - Well sampling and testing, plus meetings and coordination associated with this task											
	Ward Water Group	$ 50.00	10	$ 500.00			$ -	$ 500.00		$ 500.00	
	sampling costs				$ 500.00	2.00	$ 1,000.00	$ 1,000.00	$ 1,000.00		
								$ 1,500.00	**$ 1,000.00**	**$ 500.00**	**Total**
Task 8 - Grant writing, plus meetings and coordination associated with this task											
	Grant writing support	$ 75.00	85	$ 6,375.00			$ -	$ 6,332.00	$ -	$ 6,332.00	
	Principal, Landscape Architect	$ 105.00	12	$ 1,260.00				$ 1,260.00	$ -	$ 1,260.00	
	AR staff time	$ 75.00	10	$ 750.00			$ -	$ 750.00	$ -	$ 750.00	
	Ward Water Group	$ 50.00	10	$ 500.00				$ 500.00	$ -	$ 500.00	
								$ 8,842.00	**$ -**	**$ 8,842.00**	**Total**
Task 9 - Project management and oversight, including participation in meetings and coordination for other tasks											
	AR staff time	$ 75.00	70	$ 5,250.00			$ -	$ 5,250.00		$ 5,250.00	
	Overhead				$ 8,000.00	1.00	$ 8,000.00	$ 8,000.00	$ 8,000.00		
								$ 13,250.00	**$ 8,000.00**	**$ 5,250.00**	**Total**
TOTAL								**$ 114,296.00**	**$ 71,446.00**	**$ 43,100.00**	
OVERALL TOTAL								**$ 114,296.00**	**$ 71,446.00**	**$ 43,100.00**	

P.O. BOX 392, RIDGWAY, CO 81432 • 970-325-3010 • UNCOMPAHGREWATERSHED.ORG

July 18, 2022

Colorado Water Conservation Board
1313 Sherman St., Room 718
Denver, CO 80203

RE: Letter of Support for Grant Funds for Ward Ditch Project

To Whom It May Concern:

I am pleased to express the support of the Uncompahgre Watershed Partnership (UWP) for the Colorado Water Plan grant application for the Uncompahgre River Multi-Benefit Project. We support the application for funding the planning stages of this project because the goals identified in the application align with those of the Uncompahgre Watershed Plan (Plan), which we updated in 2018.

UWP shares the proponents' concerns about the poor condition of the Uncompahgre River channel in the vicinity of the potential project and we expect the proponents' efforts to identify solutions that will advance the goals of UWP. We hope that the planning effort will include an analysis of the impacts on river flows, considering both amount and timing of flows and the impacts on downstream aquatic and riparian habitats of any configuration of the project that they consider. As their planning and study progresses, we look forward to the proponents sharing the outcomes as examples of how diversion structures can be redesigned and stream channels improved to better support in-channel habitat and floodplain connectivity, while providing reliable water access for agriculture.

Until specific components and features of a proposed project are identified, we cannot comment on the "project" itself. UWP looks forward to the opportunity, along with other interested parties, to have further input as the planning effort brings a specific project or projects into focus.

Thank you for your consideration,

Amanda Clements
Board Vice President
Uncompahgre Watershed Partnership

LYNN PADGETT
JAKE NIECE
BEN TISDEL

BOARD OF COUNTY COMMISSIONERS

541 4th Street • P.O. Box C • Ouray, Colorado 81427 • 970-325-7320 • FAX: 970-325-0452

July 26, 2022

Colorado Water Conservation Board
Colorado Water Plan Grant Program
RE: Ouray County Support for Uncompahgre River Multi-Benefit Project Application
Via Email: waterplan.grants@state.co.us

Dear Responsible Officials,

The Board of Commissioners (BOCC) of Ouray County is aware of the American Rivers application for the planning and design phase of the "**Uncompahgre River Multi-Benefit Project**" to receive grant funding from the Colorado Water Conservation Board's (CWCB) Water Plan Grant Program. While the primary category of this project is *Watershed Health & Recreation*, it will also provide much-needed improvements to the Ward Ditch headgate and water delivery system and drinking water well testing. We support this project and urge CWCB to provide the requested funding.

The Uncompahgre River Multi-Benefit Project is a phased project which will accomplish several objectives:

- Improve access to and management of water for users of the Ward Ditch.
- Improve in-stream and riparian habitat through river channel improvements and better connectivity with the floodplain.
- Evaluate this demonstration project and share results to guide future restoration efforts within the Uncompahgre watershed.

Project Phases:

Phase 1: Detailed planning and analysis

a. Engineering design for headgate, river diversion and ditch improvements.
b. HEC-RAS analysis to optimize design of channel improvements and avoid creating flooding problems.
c. Design & permitting for in-channel structures.
d. Well testing for baseline data on groundwater levels and water quality.

Phase 2: Project Implementation

a. Headgate and river diversion improvements
b. 8-10 Instream trout habitat and grade control structures
c. Revegetation, seeding and exotic plant control
d. Maintenance and monitoring
e. Ditch efficiency improvements

American Rivers is applying for this grant on behalf of a collaborative stakeholder group of project partners, which include: Ward Water Group (landowners along the river), Fred Phillips Consulting, Trout Unlimited, Uncompahgre Watershed Partnership, and American Rivers. This work will build on habitat improvement work several landowners have already initiated.

This collaborative, multi-benefit project seeks to improve habitat, water quality, water management, and late season flows along an incised, degraded stretch of the Uncompahgre River between Ouray and Ridgway. Project

revegetation. In addition to the direct project benefits, the accessible location of the site makes it well-suited to demonstrate how river restoration activities can benefit water users as well as habitat.

The one-mile segment of the Uncompahgre River between the Ward Ditch Diversion and County Road 23 bridge near the town of Ouray has been heavily impacted by dredging and riprap placed on riverbanks, causing the river to be incised, unnaturally straight, disconnected from the floodplain, and lacking in diverse habitat. Native riparian trees are dying off and invasive trees like Russian Olives are establishing. The combination of mine tailing runoff, high aluminum, and iron oxide levels, reduced river flows and lack of organic matter, riparian habitat, pools, and fish refugia have rendered this reach almost devoid of fish and aquatic invertebrates. In addition, nearby wells have run dry in recent years, and the Ward Ditch headgate is unable to divert and deliver water when river flows are below 250 cubic feet/ second.

The stakeholder group envisions addressing these problems by:

- Fixing the Ward Ditch headgate.
- Improving ditch efficiency by installing culverts and splitter boxes.
- Creating a series of riffles and drop structures in the river channel that will improve in-stream habitat, raise the water table and restore connectivity to the floodplain.
- Removing invasive riparian vegetation and replacing it with suitable native plants.

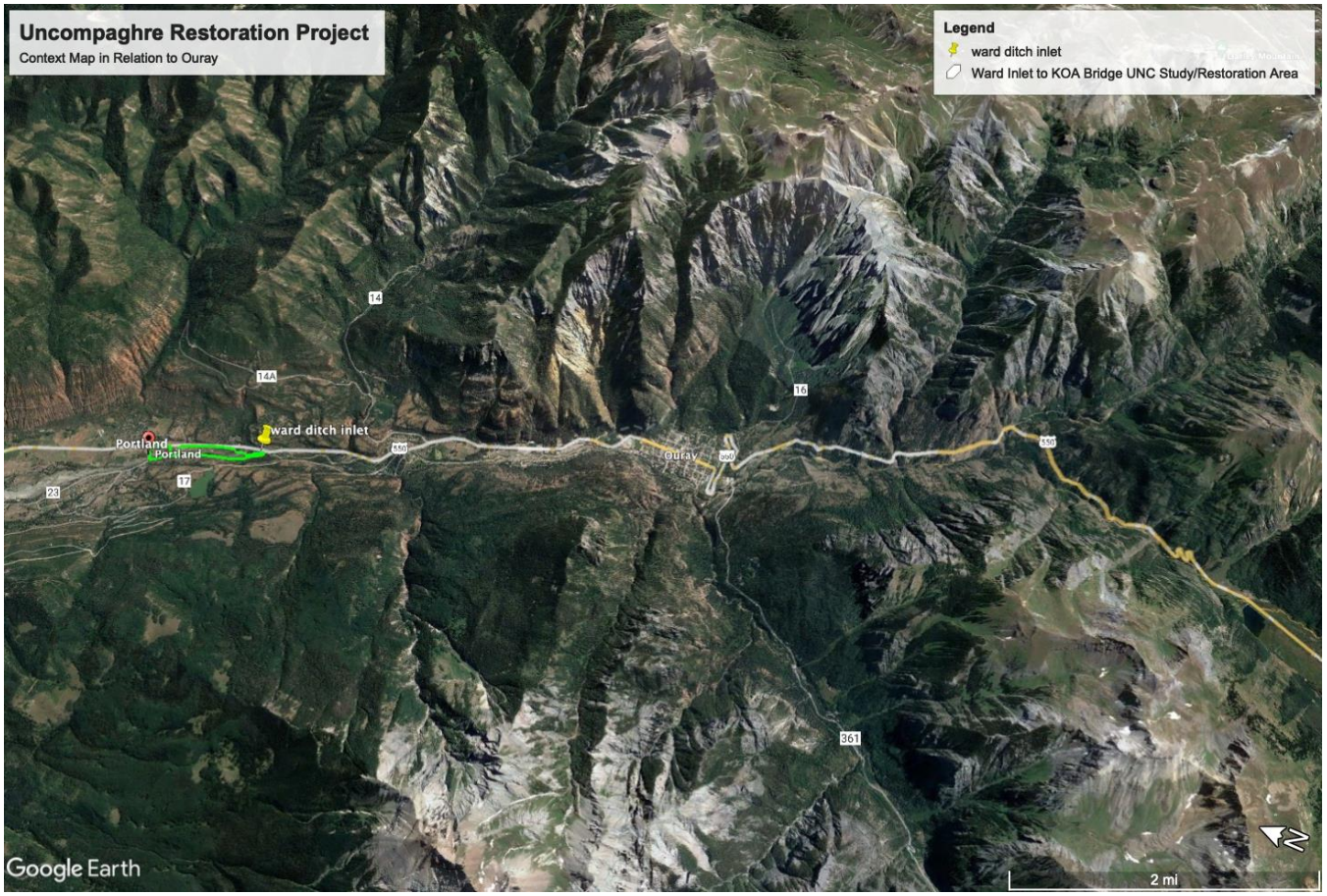
The combination of better water infrastructure and a more functional floodplain will improve opportunities for access and efficient management for water users throughout the irrigation season, restore habitat and, by dispersing heavy-metal laden runoff across the floodplain, improve downstream water quality. Maps of the project area are provided below.

Respectfully,

Lynn M. Padgett, Chair

Jake Niece, Vice-Chair

Ben Tisdel, Member


Uncompaghre Restoration Project
Context Map in Relation to Ouray
Legend
ward ditch inlet
Ward Inlet to KOA Bridge UNC Study/Restoration Area
14
14A
16
ward ditch inlet
Portland
Portland
Ouray
17
23
361
Google Earth
2 mi

Uncompahgre River Multi-Benefit Project

Project Study Area

Legend

ward ditch inlet