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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	Pitkin County Board of Commissioners
Name of Water Project	Robinson Ditch Diversion Modification

CWP Grant Request Amount	$ 171,216
Other Funding Sources WSRF Funds Awarded	$ 45,000
Other Funding Sources Fishing Is Fun Grant App Other Funding Sources GOCO Grant App	$ 80,000 $ 200,000
Other Funding Sources Eagle County Request Other Funding Sources In Development - TBD	$ 25,000 $ 193,784
Applicant Funding Contribution	$ 110,000
Total Project Cost	$ 800,000

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Applicant & Grantee Information
Name of Grantee(s) Pitkin County Board of County Commissioners
Mailing Address 530 East Main Street – Suite 302 – Aspen, CO 81611
FEIN 84-600794
Organization Contact: Greg Poschman
Position/Title: Board of County Commissioners Chairperson
Email greg.poschman@pitkincounty.com
Phone 970-920-5700
Grant Management Contact Lisa MacDonald
Position/Title Healthy Rivers Administrator
Email lisa.macdonald@pitkincounty.com
Phone 970-920-5191
Name of Applicant (if different than grantee) n/a
Mailing Address n/a
Position/Title n/a
Email n/a
Phone n/a

Description of Grantee/Applicant
Provide a brief description of the grantee's organization (100 words or less).
Pitkin County is one of the 64 counties in Colorado. Through its Healthy Rivers Program, Pitkin County is committed to maintaining and improving water quality and quantity within the Roaring Fork watershed and the Colorado Basin. Pitkin County works diligently to secure, create and augment minimum stream flows, collaborating with non-profits, granting agencies and appropriate State and Federal agencies to ensure ecological health, recreational opportunities, and wildlife & riparian habitat. Pitkin County promotes water conservation and supports the construction of improvements that contribute to the Healthy Rivers Program and Colorado Water Plan's goals and objectives.

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Type of Eligible Entity (check one)	
x	**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.
	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
x	Identified Projects and Processes (IPP)
	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): Tasks 1, 2*, 3, 4*, and 5*. (*tasks funded, in part, by grant request)*	
	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	Eagle County
Latitude	39.3697 degrees North
Longitude	107.0710 degrees West

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.

Robinson Diversion Modification Project is located in the Roaring Fork River, 2 miles east of El Jebel.

The Robinson Diversion structure is an existing 140’ wide channel spanning boulder structure that maintains pool elevations for Robinson Ditch, which is a major supply source for agricultural and municipal irrigation in mid-valley. The condition of the current in-channel structure has created a navigation hazard in the river, impeding downstream passage of recreational boaters and upstream passage of aquatic species.

The project includes a rehabilitation of the existing lower boulder structure, an engineered riffle and an additional boulder grade control structure at the upstream end of the project. The project will provide safe passage through the reach for recreational boaters and commercial fishing guides. It will also provide improved upstream passage for resident aquatic species. The 220’ long engineered riffle will provide 0.5 acres of aquatic habitat. The project will reduce in-channel maintenance performed by the ditch company, reducing impacts to the river associated with operation of heavy equipment below ordinary high water.

The Water Plan Grant funding request will be specifically used for construction of the engineered riffle, a portion of the lower boulder grade control structure and site restoration.

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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)		
325 feet	Length of Stream Restored or Protected (linear feet)		
	Efficiency Savings (indicate acre-feet/year OR dollars/year)		
0.5 acres	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		
	Number of Coloradans Impacted by Engagement Activity		
3.5 miles	Other	Length of river made more accessible to commercial and recreational boaters.	

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;)

GOALS SUPPORTED: Colorado Water Plan – Section 6.6
The policy of the State of Colorado is to identify and implement environmental and recreational projects and methods to achieve the following statewide long-term goals:

- Promote restoration, recovery, sustainability, and resiliency of endangered, threatened, and imperiled aquatic- and riparian-dependent species and plant communities.
- 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.
- Support the development of multipurpose projects and methods that benefit environmental and recreational water needs as well as water needs for communities or agriculture.
- 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.
- Maintain watershed health by protecting or restoring watersheds that could affect critical infrastructure and/or environmental and recreational areas.

This project promotes the recovery and sustainability of both aquatic & riparian communities. It

protects & enhances the economic value of the local and statewide economies of rafting, boating and fishing. It supports agricultural and municipal water needs via irrigation. It improves the condition of the river to promote long-term sustainability of the area by preventing deterioration from ongoing annual heavy-equipment maintenance and portage around the diversion. Overall it contributes to the watershed health by improving the infrastructure, minimizing the erosion and protecting the environment & recreational areas.

GOALS SUPPORTED: Statewide Water Supply Initiative (SWSI) - Section 8

1. Actively encourage projects to address multiple purposes, including municipal, industrial, environmental, recreational, agricultural, risk management, and compact compliance needs.

5. Support meeting Colorado's non-consumptive water needs by working with Colorado's water stakeholders to help:

- Promote recovery and sustainability of endangered, threatened, and imperiled species in a manner that allows the state to fully use its compact and decreed entitlements.
- Protect or enhance environmental and recreational values that benefit local and statewide economies.
- Encourage multi-purpose projects that benefit both water users and native species.
- Pursue projects and other strategies, including CWCB's In-stream Flow Program, that benefit consumptive water users, the riparian and aquatic environments, and stream recreation.
- Recognize the importance of environmental and recreational benefits derived from agricultural water use, storage reservoirs, and other consumptive water uses and water management.

This project addresses multiple purposes including recreational, agricultural, environmental and municipal. It supports Colorado non-consumptive water needs by promoting the sustainability of the aquatic species, and enhancing the environmental and recreational values. The project benefits both water users and the native species in the area. The project also benefits those using the river for recreation and irrigation, eliminating barriers to use and creating opportunities for ease in use, and recognizes the importance of the benefits derived from these uses.

GOALS SUPPORTED: Colorado Basin Roundtable Plan – CBIP: Section 4 – Roaring Fork Region

• Support the objectives of the Roaring Fork Watershed Plan
• Provide adequate in-stream flows to:
    • Promote healthy streams
    • Support the recreational economy
    • Mitigate/protect water quality
    • Sustain agriculture

This project promotes a healthy Roaring Fork River, supports the fishing and boating recreational economies, protects the water quality currently affected by annual heavy-equipment maintenance and portage round the hazard, and sustains agriculture by providing much-needed irrigation.

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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.

River Opportunities & Constraints, Town of Basalt- December 2015.
Study recommended improvements to the Robinson Diversion: Removal of this navigation hazard in the Roaring Fork River would open up an underutilized stretch of the river in mid-valley to recreational boaters and commercial fishing guides. The increased use in turn would result in higher commercial business revenue (restaurants, grocery/convenience stores, etc) in the Town of Basalt.

Commercial River Use in the State of Colorado 1988-2010 – Colorado River Outfitters Association. Study connects increased commercial user days to greater economic impacts.

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.

WSRF grant awarded in January 2019

1. Pitkin County
2. Robinson Ditch Diversion Modification
3. Colorado Basin Round Table
4. January 2019
5. In Development (not issued yet)
6. 6% ($45,000 of $800,000)

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.

None.

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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)
X	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)
X	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).

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:	**1/31/19**
Name of Grantee:	**Pitkin County**
Name of Water Project:	**Robinson Ditch Diversion Modification Project**
Funding Source:	**Water Plan Grant**

Water Project Overview:

The Robinson Ditch Project (Project) consists of a series of in-channel and bank improvements to the Roaring Fork River adjacent to the Robinson Ditch headgate. The improvements include modification of an existing boulder structure, construction of an engineered riffle and modifications to the Robinson Diversion inlet channel and headgate.

The existing structure has a change in water surface elevation greater than 2 feet, resulting in velocities and flow depths that prevent some fish species at certain life cycles from passing the structure. The configuration of the existing boulders creates a significant navigation hazard for commercial and private boaters.

Project improvements will halve the water surface drop across the structure and spread the remainder of the water surface elevation change upstream, creating several riffles. This will greatly improve navigation and increasing passage-ability for wider range of aquatic species.

Channel and bank stability created by the project improvements will reduce annual in-channel, heavy-equipment maintenance activities to remove sediment accumulation, readjust boulders, remove large woody debris, and rebuild of push up dams to maintain water surface elevations at the headgate.

Water Plan Grant funding will be used for the site restoration (included in Task 2 described below), construction of the engineered riffle (Task 4 described below) and a portion of the improvements to the lower boulder grade control structure (Task 5 described below).

Project Objectives:

Objectives of Robinson Ditch Diversion Modification Project:

- Safer boat passage
- Increased fish passage
- Improved headgate operations
- Improved stability in channel an on banks
- Reduced annual in-channel maintenance
- Pilot project for future diversion improvement projects in the Roaring Fork Watershed
- Enhance relationship with valley Irrigators

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Tasks
Task 1 – Project Planning, Design and Permitting
Description of Task:
Task 1 focuses on the continued development of project design including hydraulic modeling. As part of this task the project team will complete construction plans and technical specifications. These construction documents will be used for the permitting process and for bidding and construction of the proposed improvements. The project team will complete and apply for permits with the US Army Corps of Engineers, the State of Colorado and Eagle County. Project planning will include coordination with project stakeholders and local, state and federal regulators. The project is currently at the 30% design stage with the plan of submitting permits in the fall of 2019 **The team has and will continue to solicit review and feedback from state and local stakeholders, including CPW and CWCB staff.** **Note this task is not included in the current grant ask all will paid for through other funding sources described in this application.**
Method/Procedure:
Standard engineering practices will be used to develop a design that meets the project's goals and objectives. Hydraulic models developed in HEC-RAS and SRH-2D will be used for information design decisions as it pertains to navigability, passage of aquatic species, channel and bank stability and flood conveyance. Construction plans will be created using AutoCAD Civil 3D and will follow standard engineering practices. Permit applications will be completed per the guidance of each respective regulatory agency.
Deliverable:
Construction documents including plans, specifications and engineer's opinion of cost. Approved permits for the project from the US Army Corps of Engineers, State of Colorado and Eagle County. Electronic copies of:

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Tasks
Task 2 – Mobilization, Site Preparation, Construction Management
Description of Task:
Task 2 includes the mobilization of the construction contractor, preparation and maintenance of the site during construction and inspection and management of the project during construction. The majority of this task will be performed by the construction contractor, including the installation and maintenance of erosion/sediment control Best Management Practices, preparing site access and care of water facilities such as coffer dams and dewatering pumps and filters. The task also includes a series of inspections conducted by the Grantee or their representation to verify proper construction of the project per the construction plans and technical specifications developed as part of Task 1. **$15,000 requested in this Water Plan Grant will be used for site restoration including the regrading and replanting of the bank access points, ditch restoration, and curb refurbishment at the access point.**
Method/Procedure:
Preparation and management of the project site during construction will utilize construction techniques and Best Management Practices that are consistent with industry standards and in compliance with federal, state and local regulations. Regular inspections of the project during construction will be conducted. Equipment to be utilized will include excavators, dump trucks, front-end loaders and miscellaneous smaller earth moving equipment.
Deliverable:
The completed construction of the overall project as described in the project construction plans and specifications (to be developed as part of Task 1). Contractor invoices related to the construction of this component of the overall project. The balance of funding required for this task will be paid through other funding sources described in this application.

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Tasks
Task 3 - Upper Grade Control Structure
Description of Task:
Task 3 covers the materials, labor and equipment needed for construction of the Upper Grade Control Structure per the construction plans and technical specifications developed as part of Task 1. The upper grade control structure will be built in the Roaring Fork River approximately 185 feet upstream of the existing boulder grade control structure for the purpose of channel stability and to maintain the pool elevation in the inlet channel of the Robinson Diversion system. The structure includes approximately 425 tons of boulder and 175 cubic yards of alluvial backfill. **Note this task is not included in the current grant ask and will paid for through other funding sources described in this application.**
Method/Procedure:
Construction of the Upper Grade Control will utilize construction techniques and Best Management Practices that are consistent with industry standards and in compliance with federal, state and local regulations. Equipment to be utilized will include excavators, dump trucks, front-end loaders and miscellaneous smaller earth moving equipment.
Deliverable:
The completed construction of the Upper Grade Control Structure as described in the project construction plans and specifications (to be developed as part of Task 1). Contractor invoices related to the construction of this component of the overall project. Photo documentation and as-built survey of the completed Upper Grade Control Structure.

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Tasks
Task 4 – Engineered Riffle & Bank Improvements
Description of Task:
Task 4 covers the materials, labor and equipment needed for construction of the Engineered Riffle and Bank Improvements per the construction plans and technical specifications developed as part of Task 1. The engineered riffle and bank improvements will be built on the Roaring Fork River to spread out changes in water surface elevation over a longer horizontal distance, improving navigation for commercial and private boaters and improving upstream passage for aquatic specifies in the river. As a secondary benefit, the riffle will provide additional habitat for resident and transient fish and macroinvertebrates. Bank stability efforts will focus on existing banks through the project reach demonstration degradation and erosion. The riffle and bank improvements include approximately 430 tons of boulder and 460 cubic yards of alluvial backfill. **The $104,216. included in this Water Plan Grant request will be used to regrade the riffle, haul and dispose of the alluvial material (offsite), purchase, deliver and place riffle boulders, purchase deliver and place bank boulders, provide erosion control matting, purchase and place topsoil and revegetation of the bank.**
Method/Procedure:
Construction of the Engineered Riffle and Bank Improvements will utilize construction techniques and Best Management Practices that are consistent with industry standards and in compliance with federal, state and local regulations. Equipment to be utilized will include excavators, dump trucks, front-end loaders and miscellaneous smaller earth moving equipment.
Deliverable:
The completed construction of the Engineered Riffle & Bank Improvements as described in the project construction plans and specifications (to be developed as part of Task 1). Contractor invoices related to the construction of this component of the overall project. Photo documentation and as-built survey of the completed Engineered Riffle & Bank Improvements.

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Tasks
Task 5 – Lower Grade Control Structure
Description of Task:
Task 5 covers the materials, labor and equipment needed for construction of the Lower Grade Control Structure per the construction plans and technical specifications developed as part of Task 1. The lower grade control structure will be built in the Roaring Fork River at approximately the same location as the existing structure to maintain channel stability in this reach of the Roaring Fork River. The structure includes approximately 1000 tons of boulder and 220 cubic yards of alluvial backfill. 626 tons of the boulder total, are existing boulders located on the site. The CWCB grant funding awarded in January 2019 will be used for the purchase, transport and delivery of additional boulders for the lower grade control structure improvements. The new boulders will be stored on site adjacent to the Robinson Diversion inlet channel on the north bank. **The $8806 requested in this Water Plan Grant will be used for channel excavation of the lower grade structure. The $43,194 requested in this grant will be used to rework the existing 626 tons of boulders in the lower grade control structure.**
Method/Procedure:
Construction of the Lower Grade Control will utilize construction techniques and Best Management Practices that are consistent with industry standards and in compliance with federal, state and local regulations. Equipment to be utilized will include excavators, dump trucks, front-end loaders and miscellaneous smaller earth moving equipment.
Deliverable:
The completed construction of the Lower Grade Control Structure as described in the project construction plans and specifications (to be developed as part of Task 1). Contractor invoices related to the construction of this component of the overall project. Photo documentation and as-built survey of the completed Lower Grade Control Structure. The balance of funding required for this task will be paid through other funding sources described in this application.

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Tasks
Task 6 – Robinson Diversion Headgate Improvements
Description of Task:
Task 6 covers the materials, labor and equipment needed for construction of Robinson Diversion Headgate Improvements per the construction plans and technical specifications developed as part of Task 1. The improvements will be made to the existing headgate and inlet channel to reduce the need for maintenance activities in the main channel of the Roaring Fork River and to improve system efficiency. The improvements will likely include a new sluice gate structure to remove sediment from the inlet channel, 300 tons of boulder and 350 cubic yards of alluvial backfill. **Note this task is not included in the current grant ask and will paid for through other funding sources described in this application.**
Method/Procedure:
Construction of the Robinson Diversion Headgate Improvements will utilize construction techniques and Best Management Practices that are consistent with industry standards and in compliance with federal, state and local regulations. Equipment to be utilized will include excavators, dump trucks, front-end loaders and miscellaneous smaller earth moving equipment.
Deliverable:
The completed construction of the Robinson Diversion Headgate Improvements as described in the project construction plans and specifications (to be developed as part of Task 1). Contractor invoices related to the construction of this component of the overall project. Photo documentation and as-built survey of the completed Robinson Diversion Headgate Improvements

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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 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.

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Performance Measures
(c) Monitoring Requirements: Grantee is responsible for ongoing monitoring of project progress per Exhibit A. Progress shall be detailed in each invoice and in each Progress Report, as detailed above. Additional inspections or field consultations will be arranged as may be necessary. (d) Noncompliance Resolution: Payment will be withheld if grantee is not current on all grant conditions. Flagrant disregard for grant conditions will result in a stop work order and cancellation of the Grant Agreement.

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Colorado Water Conservation Board

Water Plan Grant - Detailed Budget Estimate
Fair and Reasonable Estimate

Prepared Date: January 31, 2019
Name of Applicant: Pitkin County
Name of Water Project: Robinson Ditch Diversion Modification

Project elements highlighted in orange proposed to be funded by the Water Plan Grant Funding Request

Planning, Design, Construction - Tasks 1-6

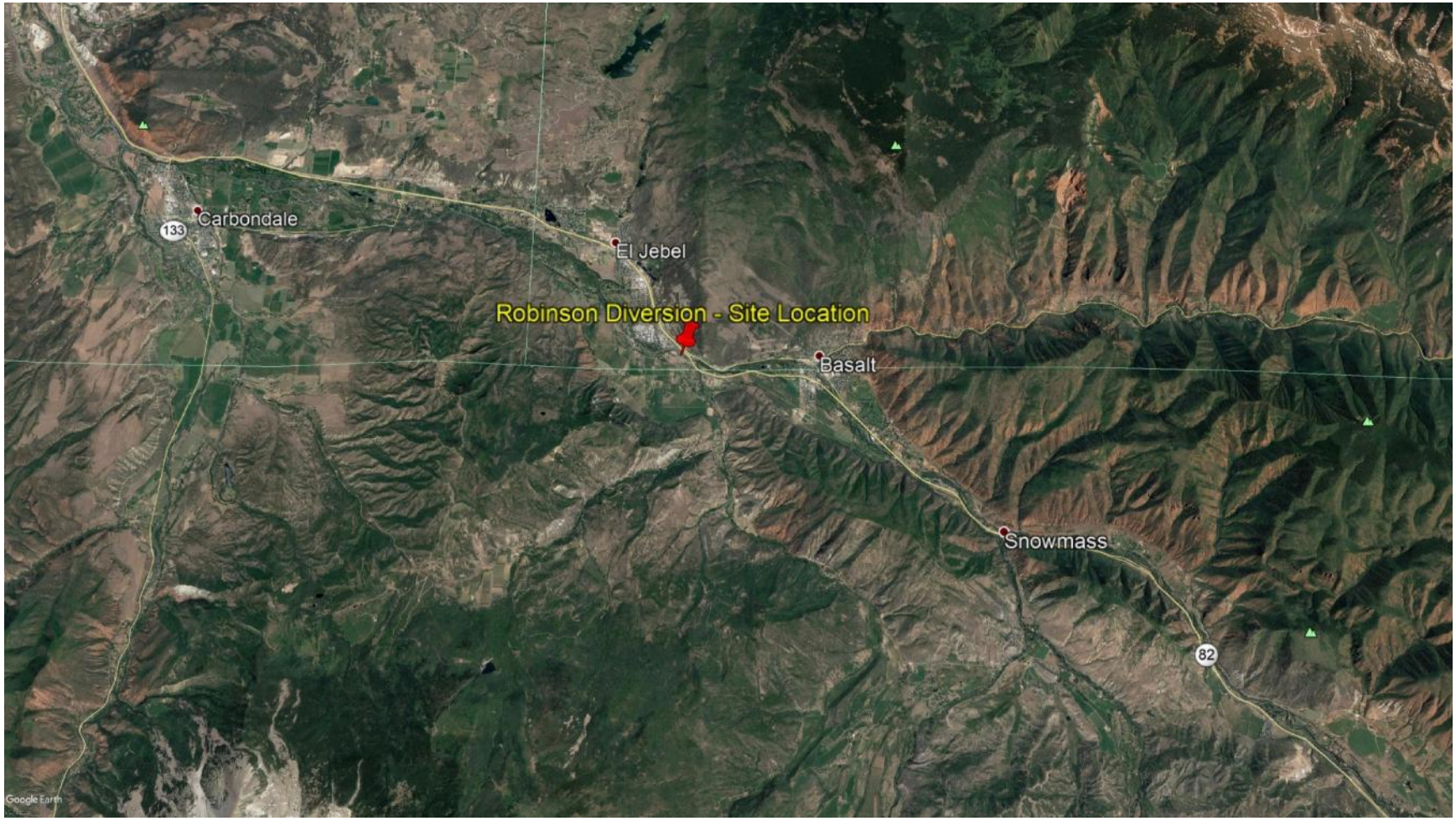
Description	Unit	Quantity	Unit Cost	Total Cost			
Task 2 - Mobilization and Site Preparation						**CWCB Funds**	**Matching Funds**
Erosion and Sediment Control	LS	1	$15,000	$ 15,000		$ -	$ 15,000
Site Access	LS	1	$25,000	$ 25,000		$ -	$ 25,000
Care of water	LS	1	$125,000	$ 125,000		$ -	$ 125,000
Site Restoration	LS	1	$15,000	$ 15,000		$ 15,000	$ -
Task 3 - Upper Grade Control Structure							
Channel Excavation	CY	391	$17	$ 6,647		$ -	$ 6,647
Furnish, Deliver and Place Boulder	TON	377	$127	$ 47,879		$ -	$ 47,879
Furnish, Deliver and Place Select Boulder	TON	50	$207	$ 10,350		$ -	$ 10,350
Alluvial Backfill	CY	176	$12	$ 2,112		$ -	$ 2,112
Haul and Disposal of Alluvial Material offsite	CY	215	$52	$ 11,180		$ -	$ 11,180
Task 4 - Engineered Riffle and Bank Improvements							
Regrade Riffle	CY	460	$29	$ 13,340		$ 13,340	$ -
Haul and Disposal of Alluvial Material offsite	CY	60	$52	$ 3,120		$ 3,120	$ -
Furnish, Deliver and Place Riffle Boulder	TON	188	$127	$ 23,876		$ 23,876	$ -
Furnish, Deliver and Place Bank Boulder	TON	240	$127	$ 30,480		$ 30,480	$ -
Erosion Control Matting	SY	600	$23	$ 13,800		$ 13,800	$ -
Top Soil	CY	100	$58	$ 5,800		$ 5,800	$ -
Bank Revegetation	SY	600	$23	$ 13,800		$ 13,800	$ -

Task 5 - Lower Grade Control Structure							
Channel Excavation	CY	518	$17	$ 8,806		$ 8,806	$ -
Furnish, Deliver and Place Boulder	TON	349	$127	$ 44,323		$ -	$ 44,323
Furnish, Deliver and Place Select Boulder	TON	100	$207	$ 20,700		$ -	$ 20,700
Rework Existing Boulder	TON	626	$69	$ 43,194		$ 43,194	$ -
Alluvial Backfill	CY	220	$12	$ 2,640		$ -	$ 2,640
Haul and Disposal of Alluvial Material offsite	CY	298	$52	$ 15,496		$ -	$ 15,496
Task 6 - Robinson Diversion Headgate Improvements							
Haul and Disposal of Alluvial Material offsite	CY	325	$52	$ 16,900		$ -	$ 16,900
Sluice Gate	LS	1	$46,000	$ 46,000		$ -	$ 46,000
Furnish, Deliver and Place Bank Boulder	TON	300	$127	$ 38,100		$ -	$ 38,100
Bank Grading	CY	350	$40	$ 14,000		$ -	$ 14,000
Erosion Control Matting	SY	150	$23	$ 3,450		$ -	$ 3,450
Task 1 - Project Planning, Design and Permitting							
Land Survey (LS)				$5,000		$ -	$ 5,000
Geotechnical Engineering				$0		$ -	$ -
Structural Engineering				$0		$ -	$ -
Utility Relocations				$0		$ -	$ -
Traffic Control				$2,000		$ -	$ 2,000
Hydrographic Survey				$3,000		$ -	$ 3,000
Cultural Resource Survey and Report				$0		$ -	$ -
Full Wetland Delineation				$0		$ -	$ -
Lands and Easements (Permanent)				$0		$ -	$ -
Lands and Easements (Construction)				$0		$ -	$ -
Lands and Easements Processing				$0		$ -	$ -
Construction Bonding/Ins (5%)				$30,742		$ -	$ 30,742
Mob and Demob (5%)				$30,742		$ -	$ 30,742
Environmental Assessment Recovery Prgm				$0		$ -	$ -

Public Outreach and Coordination				$5,000		$ -	$ 5,000
Engineering Design				$22,000		$ -	$ 22,000
Hydraulic Modeling				$17,000		$ -	$ 17,000
Permitting 404, 401				$12,000		$ -	$ 12,000
CDOT ROW License				$0		$ -	$ -
Permitting Floodplain				$7,523		$ -	$ 7,523
Plans and Specifications for bid				$25,000		$ -	$ 25,000
Construction Stakeout				$3,000		$ -	$ 3,000
Construction Review Observations				$20,000		$ -	$ 20,000
Vegetation Replacement YR 2				$1,000		$ -	$ 1,000
							$ 628,784
TOTAL PROJECT COST				**$ 800,000**		$ 171,216	$ 628,784

2019 Water Plan Grant – Exhibit C

Table of Contents



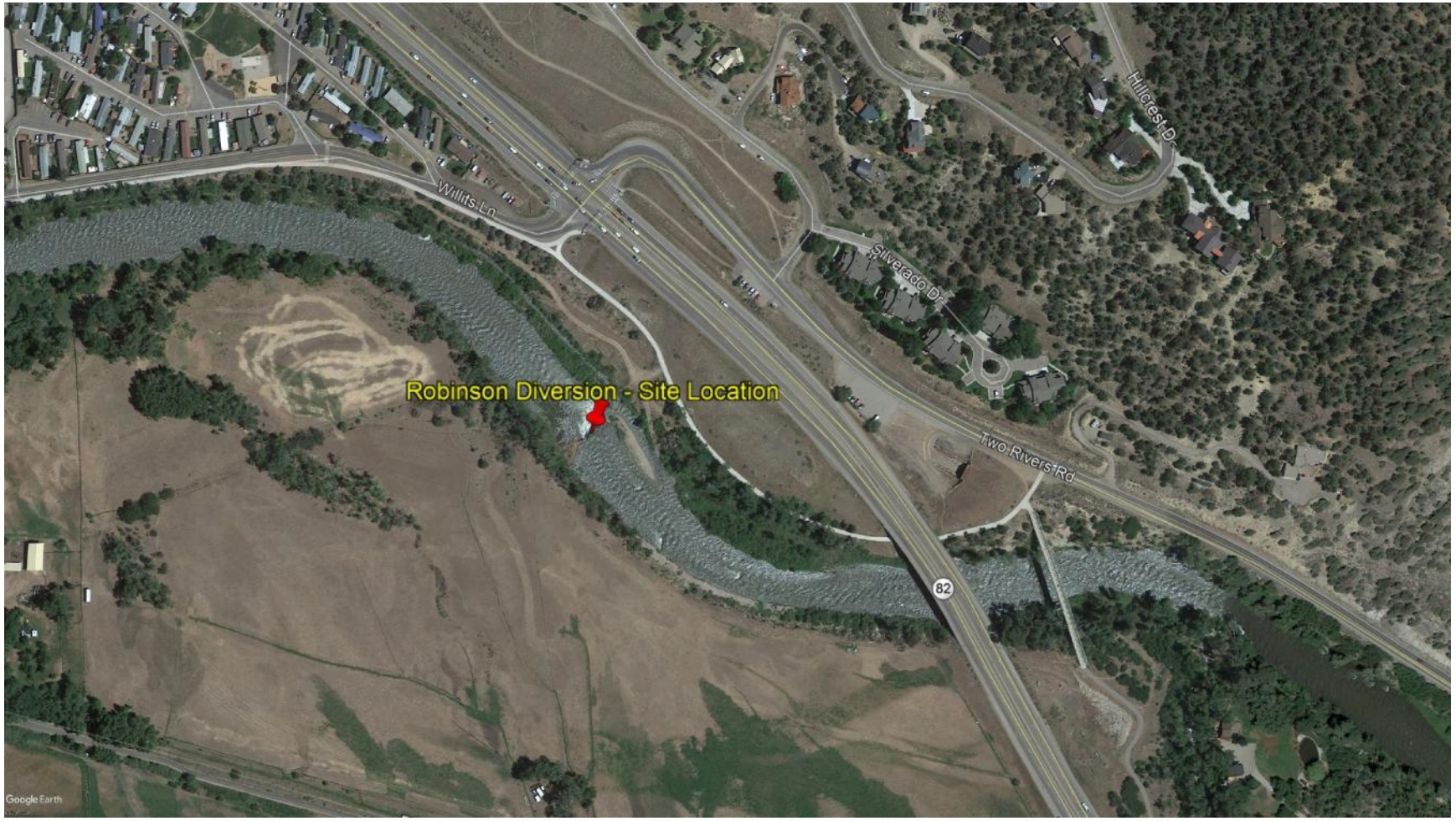
Robinson Diversion - Vicinity Map

Roaring Fork River flows from lower right corner to upper left corner.

Robinson Diversion - Location Map

Roaring Fork River flows from lower right corner to upper left corner.

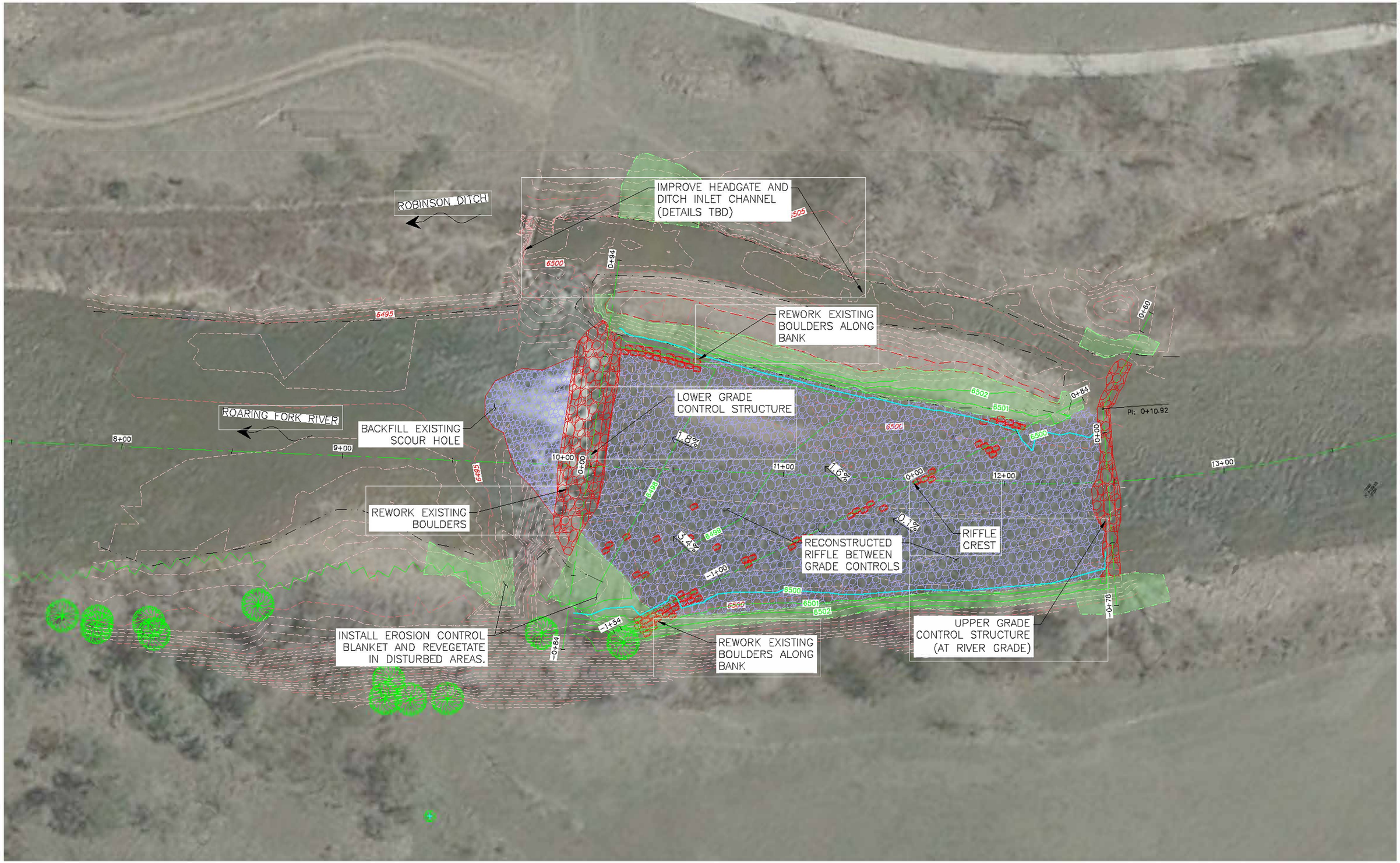
Frying Pan Rivers flows from upper right corner to its confluence with the Roaring Fork River in Basalt.

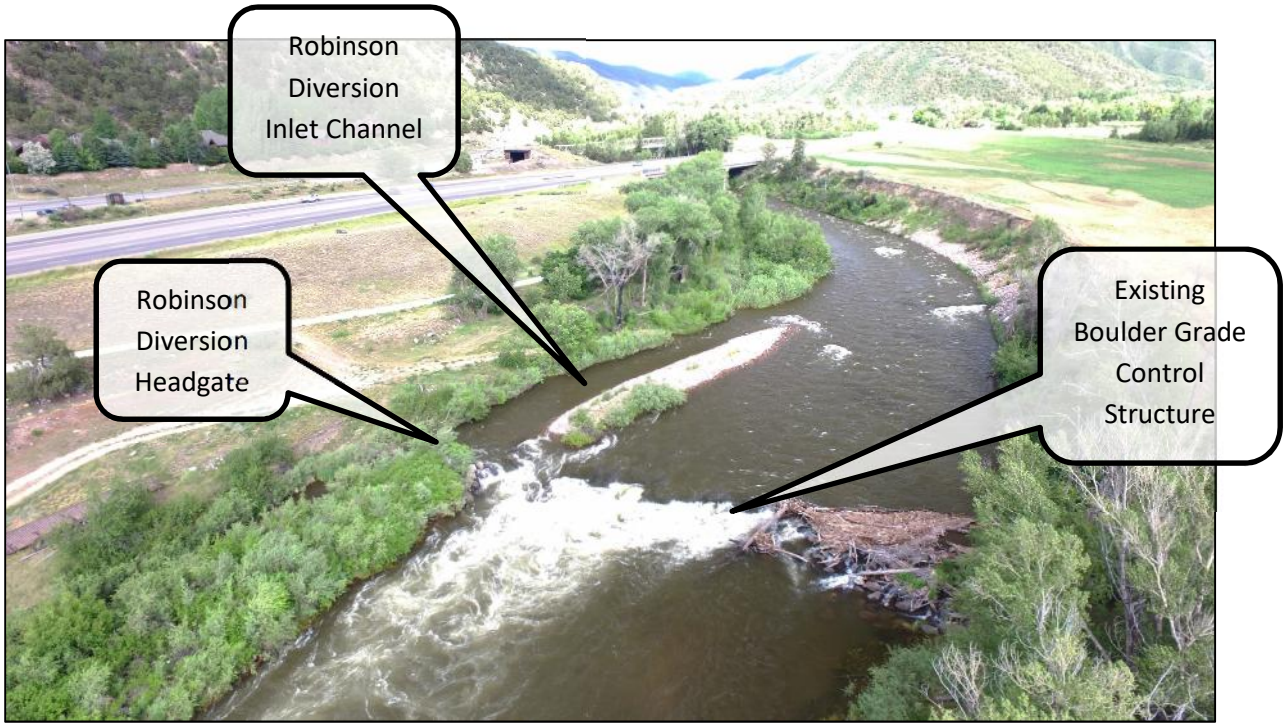


Robinson Diversion - Site Map

Roaring Fork River flows from lower right corner to upper left corner.

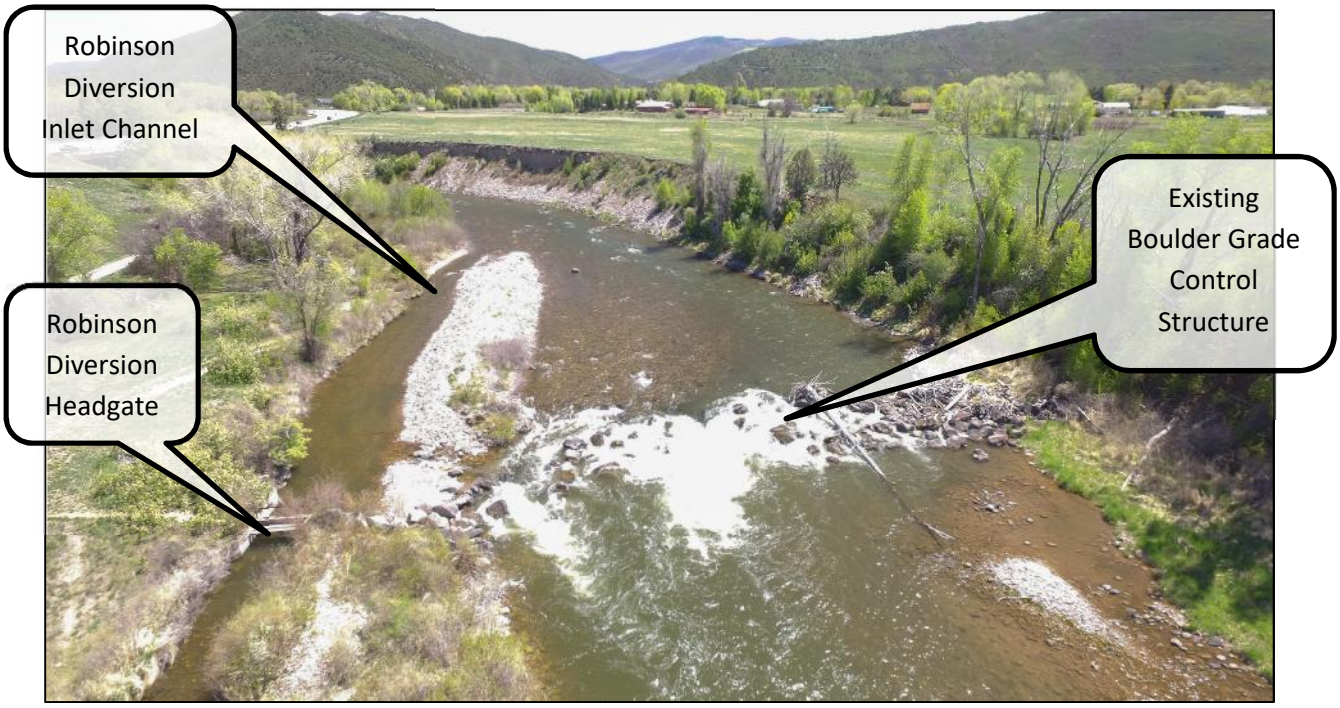
Exhibit C - Robinson Diversion Modification Project - Conceptual Drawing





Aerial photograph of Site. River flowing towards bottom of photograph.
June 7, 2017 – 2,750 cfs – Typical Runoff Flow

Ground level photograph of Site. River flowing towards right side of photograph.
June 7, 2017 – 2,750 cfs



Aerial photograph of Site. River flowing towards bottom of photograph.
May 5, 2017 – 500 cfs – Typical Low Flow

Ground level photograph of Site. River flowing towards right side of photograph.
May 24, 2017 – 550 cfs

Ground level photograph of Site looking up the Robinson Diversion inlet channel. Roaring Fork River flowing towards lower right side of photograph.

Ground level photograph of Site looking up Robinson Diversion inlet channel. Roaring Fork River flowing towards upper right side of photograph.

Robinson Ditch Company

c/o Mid Valley Metropolitan District

31 Duroux Lane, Suite A

Basalt, Colorado 81621

September 12, 2018

Mr. Jim Pokrandt, Director
Colorado River District

Via Email: jpokrandt@crwcd.org

Re: Letter of Support for Robinson Ditch Head Gate / Roaring Fork River Improvement Project

Dear Jim,

It is my understanding that the Colorado River Water Conservation Roundtable Committee is considering a grant request for a Roaring Fork River project to improve river access for all river users around the Robinson Ditch Head Gate close to the Emma “82” bridge. The Robinson Ditch Company is working with Healthy Rivers and River Restoration.Org on this project and the intent is to improve river access through this stretch for all users and to help the Robinson Ditch improve flows to its head gate during peak and low flows into the ditch.

As a bit of history, the Robinson Ditch was adversely impacted during the Highway 82 bridge installation years ago when the Basalt Bypass was constructed. An effort was made in the river to improve the channeling of water into the head gate with limited success. The efforts also further limited all recreational boating, rafting and kayak access. This project I believe will address the concerns.

On behalf of the Robinson Ditch Company, kindly accept this letter as a letter of support for the proposed project and your consideration for helping to fund this worthwhile river community project.

Kindest Regards,

Bill Reynolds

President

Robinson Ditch Company

ROARING FORK CONSERVANCY
Bringing People Together to Protect Our Rivers

September 25, 2018

Commissioner Patti Clapper, Chair
Board of County Commissioners
Pitkin County
530 E. Main Street, Suite 302
Aspen, CO 81611

RE: Support for Robinson Diversion Modification Project

Dear Commissioner Clapper,

Roaring Fork Conservancy has a vested interest in the health and vitality of the Roaring Fork River throughout the valley. The current boulder structure in the Roaring Fork River adjacent to the Robinson Diversion headgate is a known navigation hazard for private and commercial boaters. This project will create a safe connection in the Roaring Fork River through mid-valley for all river users. The project will also decrease the need for annual/biannual in-channel maintenance activities in this reach of the Roaring Fork, thus reducing impacts to the river channel.

On behalf Roaring Fork Conservancy, I am writing in support of the Robinson Diversion Project. The project will open up an underutilized reach of the Roaring Fork River through mid-valley for recreational users, improve connections for fish and reduce impacts to the river and its riparian corridor.

Please feel free to contact me if you have any questions or concerns.

Sincerely,

Rick Lofaro

Rick Lofaro
Executive Director

• ROARING FORK •
FISHING GUIDE ALLIANCE

September 27, 2018

Commissioner Patti Clapper, Chair
Board of County Commissioners
Pitkin County
530 E. Main Street, Suite 302
Aspen, CO 81611

RE: Support for Robinson Diversion Modification Project

Dear Commissioner Clapper,

Our group, the Roaring Fork Fishing Guide Alliance, has a keen interest in the health and vitality of the Roaring Fork River region. The current boulder structure in the Roaring Fork River adjacent to the Robinson Diversion headgate is a known navigation hazard for private and commercial rafters and boaters. At all water levels and especially lower levels, the area has been a real danger for our float guides and other recreational users. This project will improve safety and also make connections in the Roaring Fork River through the mid-valley for all river users. The project will also decrease the need for annual/biannual in-channel maintenance activities in this reach of the Roaring Fork, thus reducing impacts to the river channel. Since our beginning in 2014, we have advocated for change and improvement at the Robinson site. Ultimately, the project should improve the ability for trout to move up and down the river.

On behalf of the Roaring Fork Fishing Guide Alliance, I am writing in support of the Robinson Diversion Project. The project will open up an underutilized reach of the Roaring Fork River through the mid-valley for commercial and recreational users, and reduce impacts to the river and its riparian corridor. Please feel free to contact me if you have any questions or concerns.

P.O. Box 4112, Basalt, CO 81621

Sincerely,

John Livingston 'JL'
Secretary/Treasurer, RFFGA

Our mission statement: Professional fishing guides dedicated to the protection and conservation of the Roaring Fork region fisheries. Guides and anglers promoting awareness and stewardship for future generations.

September 27, 2018

Commissioner Patti Clapper, Chair
Board of County Commissioners
Pitkin County
530 E. Main Street, Suite 302
Aspen, CO 81611

RE: Support for Robinson Diversion Modification Project

Dear Commissioner Clapper,

The local Ferdinand Hayden Trout Unlimited chapter (FHTU) has a keen interest in the health and vitality of the Roaring Fork River through mid-valley. The current boulder structure in the Roaring Fork River adjacent to the Robinson Diversion headgate is a known navigation hazard for private and commercial boaters and likely a barrier to aquatic species.

This project will improve connections in the Roaring Fork River through mid-valley for all river users, including boaters and aquatic species. The project will also decrease the need for annual/biannual in-channel maintenance activities in this reach of the Roaring Fork, thus reducing impacts to the river channel.

At a recent meeting, our board voiced unanimous support for the Robinson Diversion Project, which will open up an underutilized reach of the Roaring Fork River through mid-valley for recreational users, improve connections for aquatic species and reduce impacts to the river and its riparian corridor. Please feel free to contact me if you have any questions or concerns.

Sincerely,
Matt Kelsic
FHTU president
(720) 560-4490
mkelsic@att.net

Collin Szewczyk
FHTU vice president
(773) 425-1074
onehandedflycaster@gmail.com

PITKIN COUNTY
HEALTHY RIVERS
protect. defend. enhance.

January 30, 2019

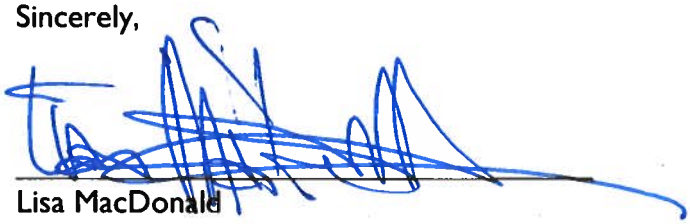
Chris Sturm and the CWCB Board of Directors
Colorado Water Conservation Board
1313 Sherman Street Room 721
Denver, CO 80203

Re: Letter of Commitment

Dear Mr. Sturm and Board of Directors:

Thank you for considering Pitkin County's Colorado Water Plan Grant Application. Pursuant to the Criteria and Guidelines, please let this letter serve as commitment to Pitkin County's Robinson Ditch Diversion Modification project. Funds have been budgeted in excess of $110,000 for the project within Pitkin County's Healthy Rivers' budget line items.

Sincerely,



Lisa MacDonald
Pitkin County Healthy Rivers Administrator