COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Last Updated: June 2020

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	Matthew.Stearns@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	The Nature Conservancy
Name of Water Project	Maybell Headgate Replacement

CWP Grant Request Amount	$ 168,114
Other Funding Sources _____	$
Other Funding Sources _____	$
Other Funding Sources _____	$
Applicant Funding Contribution	$ 209,179
Total Project Cost	$ 377,293

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Applicant & Grantee Information
Name of Grantee(s) The Nature Conservancy, Colorado Field Office
Mailing Address 2424 Spruce St., Boulder, CO 80302
FEIN 53-0242652
Organization Contact
Position/Title: Jennifer Wellman, Freshwater Technical Project Manager
Email: jennifer.wellman@tnc.org
Phone: (505) 235-6280
Grant Management Contact
Position/Title: Linda Tsai, Grants Specialist
Email: linda.tsai@tnc.org
Phone: (720) 974-7001
Name of Applicant (if different than grantee)
Mailing Address
Position/Title
Email
Phone

Description of Grantee/Applicant
Provide a brief description of the grantee's organization (100 words or less).
The Nature Conservancy (TNC) is a District of Columbia, USA, non-profit corporation with its principal place of business in Arlington, Virginia, USA. Our mission is to conserve the lands and waters on which all life depends. TNC has offices across the U.S. and in over 79 countries and territories around the world. Since 1951, TNC has been working with communities to protect more than 125 million acres of land and 5,000 miles of rivers worldwide. The Colorado Field Office of TNC works with local agricultural communities to protect nature and livelihoods through improved land and water management.

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

Type of Water Project (check all that apply)	
	Study
X	Construction
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):*
X	Agricultural - Projects that provide technical assistance and improve agricultural efficiency. *Applicable Exhibit A Task(s):* Task 1 – Headgate Construction Task 2 – Project Management and Administration
X	Environmental & Recreation - Projects that promote watershed health, environmental health, and recreation. *Applicable Exhibit A Task(s):* Task 1 – Headgate Construction Task 2 – Project Management and Administration

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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	Moffat
Latitude	40.5177°N
Longitude	108.1407°W

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.
This CWP grant would fund the construction of new headgates as a critical component of updating and modernizing the Maybell irrigation diversion in the Lower Yampa River in Moffat County. New headgates will allow for easier operation and more precise control of irrigation water after many decades of disrepair. CWP funding will provide $168,114 (45% of total costs) toward headgate replacement; TNC will provide matching funding of $209,179. The entire project of rehabilitating the Maybell Diversion is estimated to cost $2.5 million. The project will modernize irrigation infrastructure, increase agricultural efficiency, benefit designated critical habitat of four endangered fish (the Humpback chub, Bonytail, Colorado pikeminnow, and the Razorback sucker), and improve safety for recreational boaters. Maybell Irrigation District diverts approximately 20,000 acre-feet annually to serve 18 producers and nearly 1,200 acres of hay pasture. This project will improve flows and habitat connectivity in at least 21 miles of the Yampa River and support the recovery of the four endangered fish while meeting water users' long-term irrigation needs. Partnerships between agricultural, environmental, and recreational interests are critical to increasing resilience to drought and climate impacts for the local community, river recreationists, native fish, and the riparian corridor.

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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)	
95,040	Length of Stream Restored or Protected (linear feet)	
Estimated at over 5,000 AFY	Efficiency Savings (indicate acre-feet/year OR dollars/year)	
	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	
100-200 recreational boaters positively impacted	Other	Explain: American Whitewater and CPW estimates an average of 200 people /year float the Yampa River through Juniper Canyon, near the Maybell Diversion. These grant funds will contribute to safer passage for recreational activities in the Yampa.

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;)

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The Maybell Diversion Restoration and Headgate Replacement project is an IPP within the Yampa-White-Green Basin Implementation Plan (updated November 2020). In addition to addressing local agricultural, environmental, and recreation concerns, these improvements will contribute more broadly to improving water efficiencies in the Colorado River Basin. The project has strong potential to preserve water security for agricultural producers on the Maybell Ditch while benefitting the natural environment, both of which are goals of the Colorado Water Plan.

More specifically, the project conforms to Colorado's Water Plan by the following criteria:

- Improves agricultural efficiency, watershed and environmental health, and recreation (2020 WPG Criteria and Guidelines pg. 1)
- Involves multiple stakeholders (Maybell Irrigation District, The Nature Conservancy, Friends of the Yampa, US Fish and Wildlife Service) (2020 WPG Criteria and Guidelines pgs. 3, 12; CWP p. 8-3)
- Consults a broad set of local stakeholders (Basin Roundtable, water users, Recovery Program) (2020 WPG Criteria and Guidelines pgs. 3, 12; CWP p. 9-43 & 9-44)
- Identified priority based on shovel-ready construction in 2021-2022 (see project schedule in Exhibit C) (2020 WPG Criteria and Guidelines pg. 3)
- Identified in a BIP (Yampa-White-Green BIP draft update, Nov. 2020, IPP# YW-2020-0012) (2020 WPG Criteria and Guidelines pg. 10)
- Demonstrates commitment to collaboration between CWCB, Y-W-G Basin Roundtable, Maybell Irrigation District, TNC, Maybell community, US Fish and Wildlife Service, Friends of the Yampa (2020 WPG Criteria and Guidelines pg. 10)
- Addresses an identified water gap (project was identified as a priority in Yampa Integrated Water Management Plan diversion assessment) (2020 WPG Criteria and Guidelines pg. 10)
- Enhances resilience to drought and climate change (2020 WPG Criteria and Guidelines pg. 10)
- Project avoids adverse effects to environmental and recreational interests (2020 WPG Criteria and Guidelines pg. 10; CWP 9-44)
- Project supports rural economic development and viability by modernizing irrigation diversion (2020 WPG Criteria and Guidelines pg. 10; CWP p. 10-10)
- Updates and improves aging infrastructure through modernization (2020 WPG Criteria and Guidelines pg. 10)
- Demonstrated intent to leverage any state grant with private and federal funding (The Nature Conservancy is contributing private funds, as well as applying for a National Fish and Wildlife Foundation, RESTORE Colorado grant and planning to apply for Bureau of Reclamation WaterSMART Small-Scale Projects Grant) (2020 WPG Criteria and Guidelines pgs. 11, 12; SWSI p. ES-28)
- Promotes recovery of endangered, threatened, and imperiled aquatic and riparian-dependent species (2020 WPG Criteria and Guidelines pg. 12)
- Involves stream restoration and riparian habitat improvement (2020 WPG Criteria and Guidelines pg. 12)
- Implements recommendations developed in Yampa integrated water management planning and diversion assessment (2020 WPG Criteria and Guidelines pg. 12)

The Project adheres to the Yampa-White-Green Basin Implementation Plan by:

- Protecting the YWG Basin from compact curtailment of existing decreed water uses (increased efficiency and flows)
- Defending agricultural uses of water in the YWG Basin within the context of private property rights (increased ease of operation and functionality of the headgate will allow irrigators to better measure and manage the diversion and thereby demonstrate beneficial use and compliance with water rights administration on the Yampa)
- Protecting environmental and recreational water uses at locations identified in the nonconsumptive needs study of the YWG BRT. (Project will dramatically increase safety of boat passage at both high and low flows)

- Restoring, maintaining, and modernizing water storage and distribution infrastructure. (Headgate replacement – see pictures In Exhibit C).
- Developing an integrated system of water use, storage, administration and delivery to reduce water shortages and meet environmental and recreational needs (Diversion and headgate replacement serve multiple interests).
- Improving agricultural water supplies to increase irrigated land and reduce shortages (Project goals include drought resilience and improving water supply to producers, thereby preventing shortages during low flows).

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.

This project is related to the following studies:

1. Maybell Ditch Diversion Rehabilitation and Headgate Modernization, final design and engineering, funded by CWCB (WPI & WSRF) and the Yampa-White-Green Basin Roundtable (In progress, 2020)
2. Maybell Diversion Assessment, Yampa-White-Green Basin Roundtable, Integrated Water Management Plan, August 2020.
3. Yampa-White-Green Basin Implementation Plan (BIP) update, Identified project and process (IPP#YW-2020-0012), November 2020 draft.
4. Environmental Assessment and Finding of No Significant Impact, US Bureau of Reclamation, Maybell Ditch Lining project, November 2019.

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.

1. The Nature Conservancy, Maybell Ditch Diversion Structure Rehabilitation and Headgate Modernization final design, YWG, May 2019, POGG1 PDAA 202000002457, 4% CWCB funded.
2. The Nature Conservancy, Wines Ditch Design-Permit, SWCO, May 2019, POGG1 PDAA 202000002458.
3. The Nature Conservancy, Williams Ditch – Yampa River Irrigation Delivery and Habitat Enhancement Project, SCTF, CMS148816, April 2020 – December 2022.
4. The Nature Conservancy, Wines Ditch Evaluation, SWCO, May 2016, POGG1 PDAA 201700000494.
5. The Nature Conservancy, COWCB CDM SWSI TO 1, May 2016, 2015-009 TO 1.
6. The Nature Conservancy, Morgan Bottom SCTF, CTBDAA2017-2254, Oct. 2016 – June 2018

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.

TABOR does not apply to The Nature Conservancy as a non-governmental organization.

Submittal Checklist

X	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)

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(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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EXHIBIT A

1. WPG Statement of Work
2. Project budget
3. Project schedule
4. Engineer's estimate of probable cost
5. Letter of commitment of funds from TNC

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Colorado Water Conservation Board
Water Plan Grant - Exhibit A

Statement Of Work	
Date:	**November 30, 2020**
Name of Grantee:	**The Nature Conservancy**
Name of Water Project:	**Maybell Headgate Modernization**
Funding Source:	**CWCB Water Plan Grant, Agricultural/Environmental/Recreation projects**

Water Project Overview:

Promote watershed health, riparian benefit, recreation.

The goal of the Maybell diversion and headgate modernization project is to provide drought resilience for people and nature in the Lower Yampa River system – improving flows to benefit four endangered fish species, provide safe recreation, and increase the efficiency of irrigation along the historic Maybell Ditch. This project will restore the Maybell diversion on the Yampa River, allowing for safe passage of fish and paddlers at a location that currently impedes fish movement and poses a boating hazard. This project also will replace the existing headgates and add telemetry for remote operation. The new headgate will allow Maybell to more precisely control water in the ditch to match irrigation needs, thereby reducing unused ditch "tail water".

The Maybell diversion restoration project is a priority of the Yampa-White-Green Basin Roundtable and Yampa IWMP technical assessments because it addresses multiple-use criteria: agricultural efficiency, environmental conservation, native fish passage, and recreational boat safety concerns. Over the past two years, project partners invested significant funds in Maybell's irrigation operation through lining segments of ditch, installing check dams, and designing a new irrigation diversion and headgate. Construction of a modern diversion and replacement of the headgates will benefit the rural community of ag producers; endangered fish, local wildlife, and riparian plant species; and recreators seeking safe passage along a popular float in the Lower Yampa.

Key project partners include the Maybell Irrigation District, the Yampa-White-Green Basin Roundtable, the US Fish and Wildlife Service, the Upper Colorado River Endangered Fish Recovery Program, Moffat County, Juniper Conservation District, and Friends of the Yampa.

Project Objectives:

1) Increase the efficiency and operational flexibility of the Maybell irrigation diversion by installing new headgates;
2) Promote safety for recreational boaters at the Maybell diversion;
3) Improve ecological conditions for four endangered fish [Humpback chub, Bonytail, Colorado pikeminnow, and Razorback sucker] and other aquatic and riparian species;
4) Improve flows and habitat connectivity for at least 21 miles while meeting water users' long-term irrigation needs.

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Tasks
Task 1 – Headgate construction
Description of Task:
The CWP-funded elements of the larger project include the following: 1. Construct and rehabilitate the Maybell headgates by following all permit specifications and requirements. 2. Purchase headgate(s) and related equipment according to technical and geographic requirements (to be determined by project engineer and Maybell Irrigation District). 3. Excavate project area in accordance with project earthwork plans and specifications 4. Install 4' x 6' culverts and precast concrete headwall 5. Mount headgate actuator, solar power, control integration at headgate 6. Develop telemetry plan in partnership with MID and install at existing bypass and flume controls. 7. Install radio repeater station for communication between diversion and bypass gates.
Method/Procedure:
Project partners and technical consultants are currently developing the final design, plans and specifications, and bid package for construction. The method/procedure(s) for this task will conform to engineering and design specifications (prepared by September 2021) for automated headgates to allow remote control and monitoring. Construction drawings will include demolition, layout, sections, and component installation details as required. Detailed design of the headgate structure, the existing ramp flume, invert elevations, and headgate alignment will conform to the final plans and specifications, developed in partnership with the agricultural water users, recreational boating advisors, and fish passage experts.
Deliverable:
Detailed report on the construction activities of the Maybell Diversion Rehabilitation and Headgate Modernization Project accomplished with the CWP grant. The contents of this report will include: 1. Summary of project and how the project was completed. 2. Description of obstacles encountered and how they were overcome or mitigated. 3. Confirmation that all matching commitments were fulfilled. 4. Photographs, summaries of meetings and engineering reports/designs.

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Tasks
Task 2 – Project Management and Administration
Description of Task:
The goal of this task is to oversee the project, supervise contractors, and provide updates to stakeholders and funding agencies. The task consists of the following: 1. Host and attend project management meetings with Maybell Irrigation District, construction crew, project engineer, and other interested parties. 2. Prepare contract documents, addendums and clarifications as necessary. 3. Review material and component submittals. 4. Respond to MID questions and concerns during construction. 5. Perform operational test of new headgates and telemetry in partnership with MID.
Method/Procedure:
1. Oversee construction contract for headgate replacement and installation. 2. Draft project reports to CWCB on a quarterly basis. 3. Provide updates to Yampa-White-Green Basin Roundtable. 4. Engage local stakeholders and interested parties by providing site visits as requested. 5. Staff and host meetings between project proponents, design engineer, and construction crew to ensure open project communication and safety requirements. 6. Provide education and outreach regarding project engineering and environmental elements.
Deliverable:
The grantee shall provide 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.

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2. Project Budget:

Project Budget – Maybell Diversion Restoration and Headgate Modernization

CWP Funding Request

Detailed Cost breakdown for Headgate Replacement, funded by CWCB CWP grant

Demolition of existing headgates and headwall	$9,000
Install precast 4' x 6' culverts, headwall	$160,000
Assemble 4' x 6' headgates, headgate actuator, solar power and battery, control panel	$80,000
Excavation, backfill, compaction	$12,000
Install bypass gate at Diversion, 36" CMP and headgate	$9,000
Incorporate telemetry equipment for bypass, gate controls, add repeater station	$32,500
Personnel	$3,000
Indirect Costs (NICRA 23.5%)	$71,793
TNC contribution (matching funds @55%)	$209,179
Total Project Cost	$377,293
CWCB CWP request for headgate replacement	$168,114

Estimated Project Costs for Diversion Restoration

Remaining estimated project costs for Maybell diversion restoration, permitting, contingencies, and project management

Construction Cost Estimate

Description		Unit	Quantity	Unit cost	Cost
Mobilization / Demobilization					
Earthwork and Construction Costs		LS	1	$120,000	$120,000
Roads/Access to project site					
Gravel road in canal – install and remove		CY	130	$2500	$325,000
Remove and reset existing flume		LS	1	$2000	$2,000
Earthwork					
Build-maintain coffer dams		CY	100	1000	$100,000
Dewatering pumps		DAY	30	750	$22,500
Boulder weir placement x3		DAY	30	4500	$135,000
Rock delivery – fish/boat passage		Ton	650	200	$130,000
Grout between boulders		CY	200	500	$100,000
Diversion dam, grouted rock 220ft, 1-2'		CY	250	600	$150,000
Special Construction					
Riparian veg and streambank restoration		SF	10,000	10	$100,000
Reseed disturbed diversion and staging		acres	2.5	3400	$8,500
				Construction Subtotal	$1,193,000
				Total Construction Cost Estimate including Contingency +25%	$1,491,250

Final Engineering / Permitting/Construction Observation

Final design engineering, permitting, technical assistance, construction observation (engineer's estimate)	$299,100
Project Management and Administration	$373,875
Estimated Total Construction/Permitting and Engineering of diversion and headgates	$2,466,725

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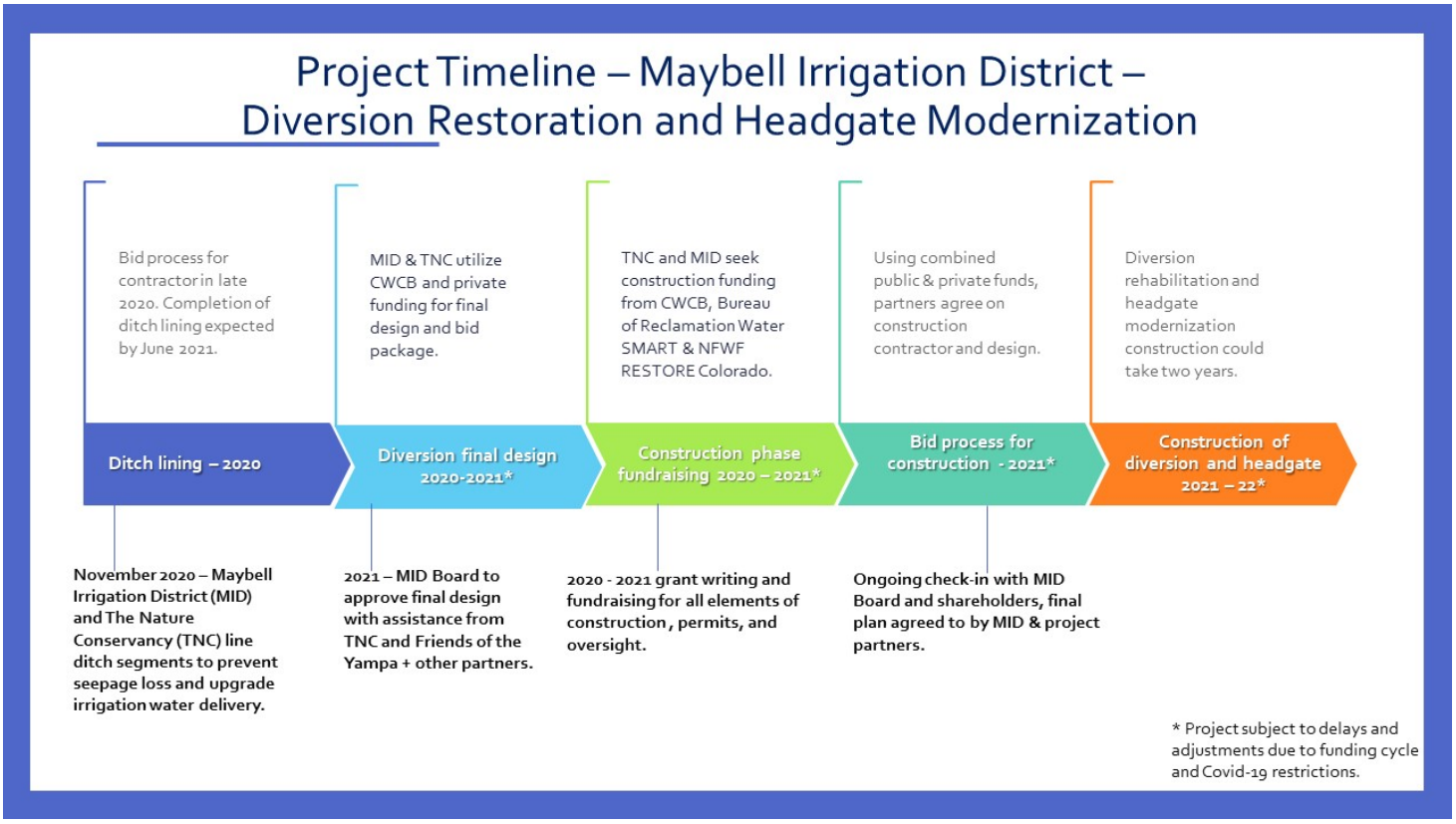
3. Project Schedule:



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4. Engineer's Estimate of Probable Cost:

Maybell Ditch
Diversion Improvements
Detailed Preliminary Opinion of Probable Cost

1-21-2019 Wayne E. Eckas, P.E.

Improvement Description	Unit	Quantity	Unit $	$
Maybell Ditch Diversion Improvements				
Mobilization	LS	1	$120,000	$120,000
Temporary Access/Site Modifications				
Roadbase/gravel in Canal for Vehicle/Truck Traffic 12" depth, 12' wide, 5500 ft.	CY	2500	$100	$250,000
Removal of road base/Gravel and dispose of off site at end of project	CY	2500	$30	$75,000
Remove & Reset Existing Flume	LS	1	$2,000	$2,000
Build and Remove Temporary Coffer Dams to Direct River Flow for Construction	CY	1000	$100	$100,000
Dewatering pumps	Day	30	$750	$22,500
Demolition of Existing Headgates and Headgate Structure				
Excavator, Dump Truck, 3 man crew - 3 days	day	3	$3,000	$9,000
Fish & Boat Passage at Diversion Dam				
Place 3'+ boulders, 120 per weir, 480 total	day	30	$4,500	$135,000
Boulders, delivered to site - (2/3 req., 1/3 found on site)	Ton	650	$200	$130,000
Grout in Boulders	CY	200	$500	$100,000
Build up Diversion Dam, south side of approach channel				
Grouted 24" Rip-Rap, 220 ft. long, 1-2' height	CY	250	$600	$150,000
Headgate Structure				
4'x6' Precast Concrete Culvert, 2 barrels, 40' each	Ft.	80	$1,500	$120,000
Precast Concrete Headwall	CY	20	$2,000	$40,000
4'x6' headgate	EA	2	$20,000	$40,000
Headgate Actuator, solar power, Control Integration per gate	EA	2	$20,000	$40,000
Excavation, Backfill, Compaction	CY	400	$30	$12,000
Bypass Gate @ Diversion				
36" diameter headgate	EA	1	$5,000	$5,000
36" CMP	LF	40	$100	$4,000
Telemetry/Controls				
Telemetry equipment at Existing Flume	LS	1	$15,000	$15,000
Integration of Existing bypass gate controls	LS	1	$10,000	$10,000
Radio repeater Station for communication between Diversion & Bypass	EA	3	$2,500	$7,500
Site & Stream Bank Restoration				
Bank and Site Restoration	SF	10000	$10	$100,000
Reseed Disturbed native turf Areas at Diversion	Acres	0.5	$5,000	$2,500
Reseed/Restore areas at Staging Area (location to be determined)	Acres	2	$3,000	$6,000
Sub-Total				**$1,495,500**
Engineering/Permitting/Bidding Assistance/Construciton Observation- 20%				**$299,100**
Contingency - 25%				**$373,875**
Total				**$2,168,475**

5. Letter of Commitment from The Nature Conservancy

The Nature Conservancy Colorado

The Nature Conservancy in Colorado
2424 Spruce Street
Boulder, CO 80302

tel (303) 444-2950
fax (303) 444-2985
nature.org/colorado

November 30, 2020

Alex Funk & Chris Sturm
Colorado Water Conservation Board
1313 Sherman St., Room 718
Denver, CO 80203

RE: Commitment of matching funds: Maybell headgate replacement

Dear Mr. Funk and Mr. Sturm:

The Nature Conservancy is grateful for the opportunity to submit a Water Plan Grant application to support restoration of Maybell Irrigation District's diversion and replacement of the headgates on the Yampa River. In 2021, we plan to begin the construction phase involving earthwork, site preparation, and surveying. TNC is currently seeking an array of funding sources for this project to cover construction of the in-stream diversion and replacement of the headgates.

Our current proposal to CWCB would cover costs for the new headgates and equipment including the culverts that pass water from the Yampa River into the Maybell Ditch. The headgates, once installed, will modernize and automate the diversion and allow remote control and monitoring of irrigation water use. This project will improve water management for 18 irrigators, sustain critical habitat for endangered fish, and provide recreational passage for boaters on the Yampa.

If this proposal is selected for funding, The Nature Conservancy will provide a cash contribution to the project equal to 55% of the headgate equipment construction costs. Our request to the CWCB is $168,114. Including The Nature Conservancy's contribution, the current WPG request covers $377,293 of headgate equipment installation. CWCB's grant will provide significant contribution towards the entire diversion modernization project which is estimated at $2.5 million in cost.

Partnerships with the US Fish and Wildlife Service, the Endangered Fish Recovery Program, the Yampa-White-Green Basin Roundtable, Moffat County, Friends of the Yampa, and the Juniper Conservation District highlight the essential community-based nature of this project. TNC is committed to safety during Covid-19 and anticipates moving the project forward with appropriate precautions. We appreciate the CWCB's continued support of this project.

Sincerely,

Carlos Fernandez, State Director
The Nature Conservancy in Colorado

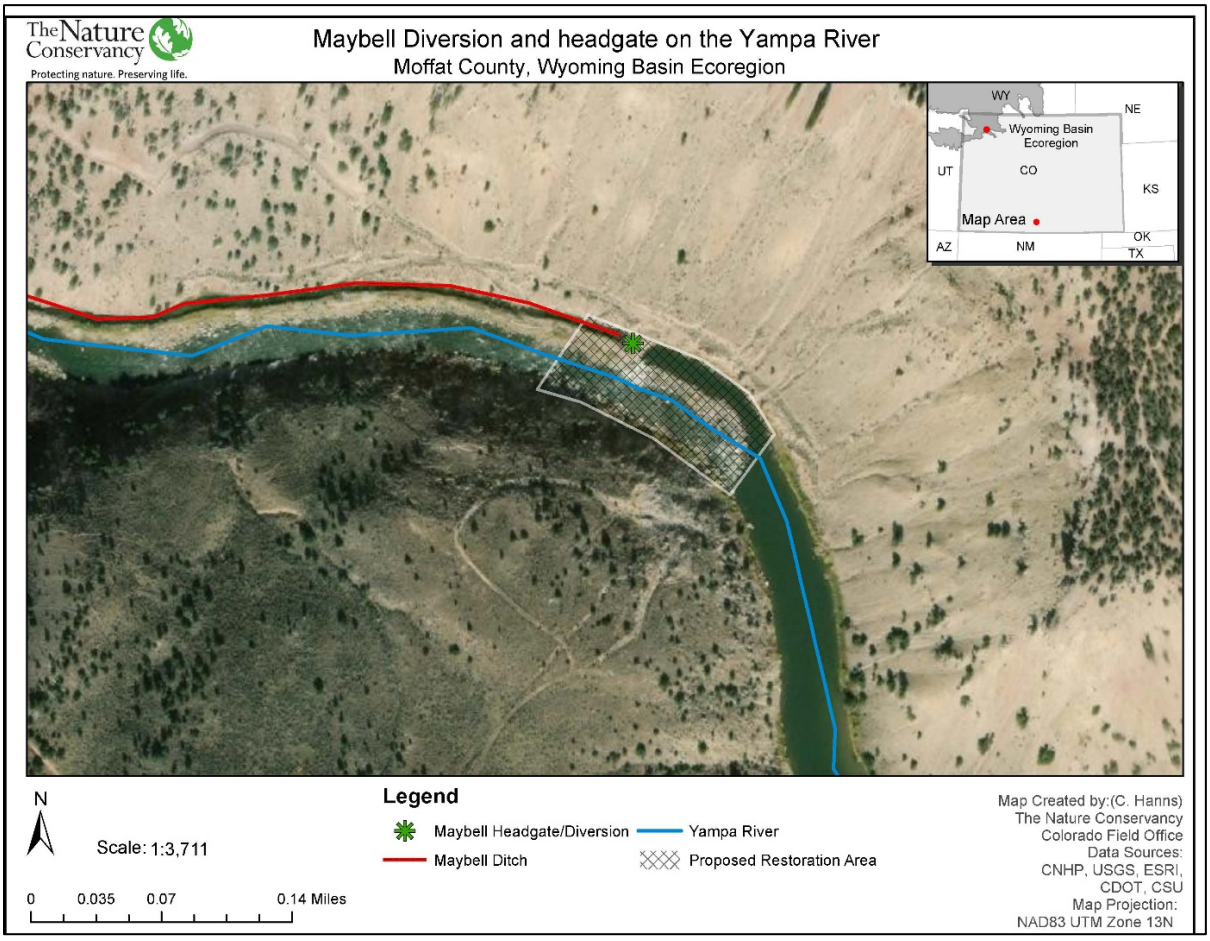
Last Updated: June 2020

EXHIBIT C

1. Map of Maybell Diversion and Headgate project area
2. Map of Maybell Ditch and Yampa River
3. Preliminary engineering design drawings
4. Project area photos
5. Letters of support
    a. Maybell Irrigation District
    b. Moffat County
    c. US Fish and Wildlife Service
    d. Friends of the Yampa

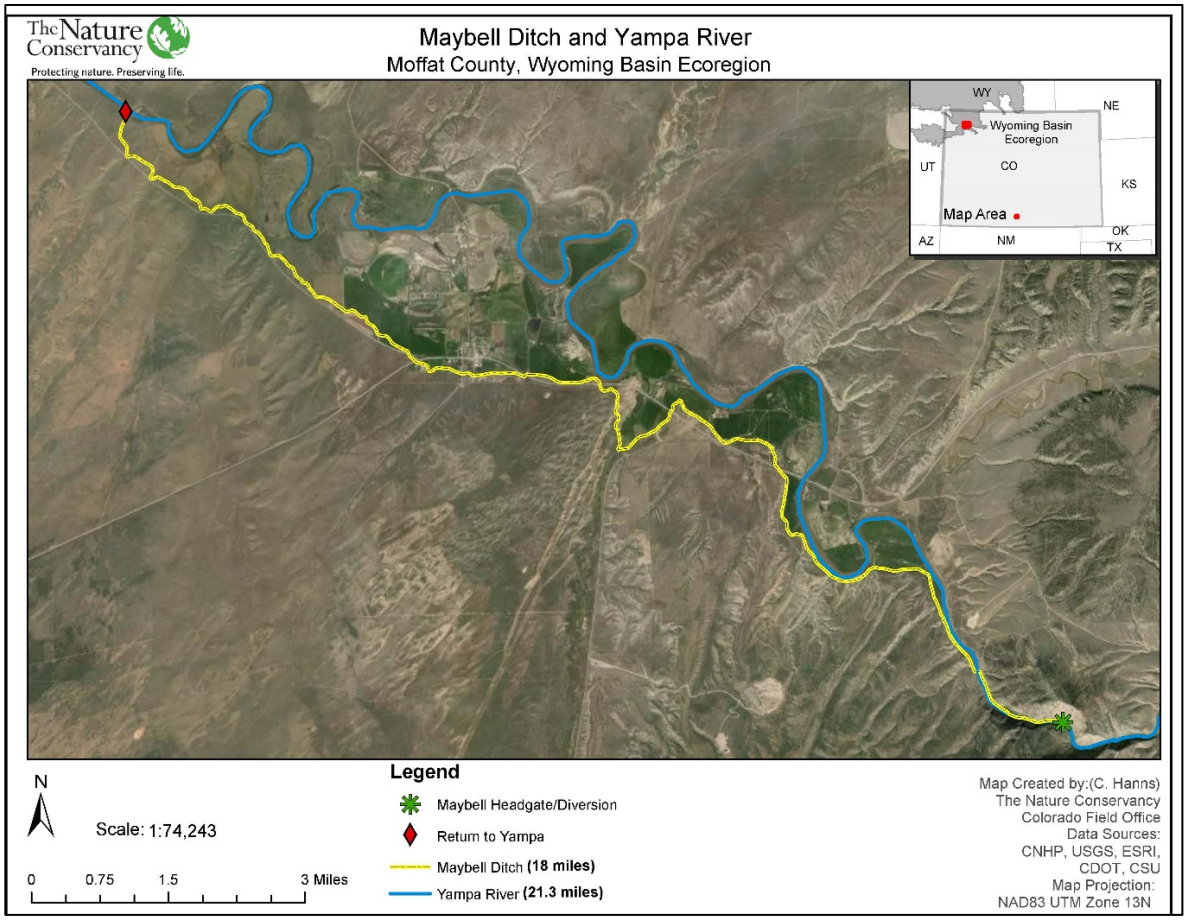
Last Updated: June 2020

1. Map of Maybell Diversion and Headgate project area



Last Updated: June 2020

2. Map of Maybell Ditch and Yampa River



3. Preliminary engineering design drawings

Last Updated: June 2020

PRELIMINARY

MAYBELL DITCH
CONCEPT DIVERSION IMPROVEMENTS PLANS

FOR THE
THE NATURE CONSERVANCY

January 2019

VICINITY MAP
NOT TO SCALE

KNOW WHAT'S BELOW
811
CALL BEFORE YOU DIG

Maybell Ditch
Diversion Improvements
Maybell Ditch Diversion Improvements – Cover Sheet

Wayne E. Eckes, P.E.

P–1

Maybell Ditch
Diversion Improvements
Maybell Ditch – Existing Structures Overall Plan

Wayne E. Eckes, P.E.

EX–1

Last Updated: June 2020

Last Updated: June 2020

4. Project area photos:

Maybell diversion and malfunctioning headgates, October 2020

Last Updated: June 2020

Maybell Point of Diversion on the Yampa River, downstream of Juniper Canyon, July 2020.

5. Letters of Support:

Maybell Irrigation District
P.O. Box 131
Maybell, CO. 81640

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

November 24, 2020

Dear CWCB Water Plan grant reviewers,

On behalf of Maybell Irrigation District, I am writing to support our partnership with The Nature Conservancy (TNC) to rehabilitate the diversion and replace the headgate on the Maybell Ditch. The current headgates have been out of alignment and difficult to operate for many years. TNC's proposal to the CWCB aligns with the Yampa-White-Green Roundtable's support for multi-benefit projects that benefit communities, recreators, and wildlife habitat on the river.

Over the past few years, Maybell Irrigation District has worked to improve our irrigation system by installing a wastegate, several check structures, and lined critical sections of our historic ditch with geomembrane material. We value the opportunity to submit a grant application to replace the headgates as part of the larger diversion restoration project. New automated headgates will improve the efficiency and ease of irrigation while improving the Maybell reach of the Yampa River for boat passage and fish movement. Through these advances, the Maybell Irrigation District can better work with the river to control the amount of water diverted on a real-time basis – generating positive impacts for habitat along the Yampa River as well as benefiting the Maybell ditch irrigators.

Maybell Irrigation District will continue to provide contribution of our time and expertise to this project. This includes site visits, meeting attendance with contractors and technical staff, and project oversight. We understand the importance of working collaboratively in the basin and have submitted this project to be prioritized in the Yampa-White-Green Roundtable's Basin Implementation Plan update in 2021.

We believe this project is a highlight for the Yampa Basin as it strengthens our commitment and collaboration on projects that generate benefits for irrigators, wildlife habitat and outdoor recreation. This project will serve as a model of protecting irrigation water security while benefiting the natural environment. We are so grateful for the CWCB's past support of this project and thank you for your consideration of our current proposal.

Mike Camblin
President
Maybell Irrigation District
PO Box 131
Maybell, CO 81640

November 24, 2020

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

Dear CWCB Water Plan Grant Reviewers,

The Moffat County Commissioners offer our support of Maybell Irrigation District (MID) and The Nature Conservancy's (TNC) efforts to rehabilitate the diversion and replace the headgates on the Maybell Ditch. This project has been a priority in Moffat County for quite some time as the current headgates do not operate properly and large-scale repairs are needed to update the diversion. We are appreciative of TNC's proposal to jointly work with the Maybell Ditch Company and CWCB to improve the Maybell Diversion and associated headgates.

The *Maybell Diversion Restoration and Headgate Modernization* project is a prime example of the importance of working collaboratively in the basin with many agencies, organizations, and private entities. The project is a locally driven, multi-benefit project to protect water security and increase efficiency for agricultural producers on the Maybell Canal while benefiting the natural environment, recreation, and fish passage. Maybell has a vested, long-term commitment to agriculture and the environment as they are one of the largest and oldest water users on the Yampa.

If you have any questions about Moffat County's support for the Maybell project, please contact any of the Moffat County Commissioners, or our Natural Resources Director, Jeff Comstock at the number listed below.

Respectfully,

Ray Beck, Chairman
Moffat County Commissioner

Don Cook, District 1
Moffat County Commissioner

Donald Broom, District 3
Moffat County Commissioner

221 West Victory Way, Ste 130
Craig, CO 81625
(970) 824-5517
(970) 824-9191 (fax)

Don Cook
District 1

Ray Beck
District 2

Donald Broom
District 3

United States Department of the Interior

FISH AND WILDLIFE SERVICE
134 Union Blvd
Lakewood, Colorado 80228

In Reply Refer to:
FWS/IR05/IR07

November 24, 2020

Colorado Water Conservation Board
Attn: Chris Sturm
1313 Sherman Street, Room 721
Denver, CO 80203

Re: Proposed Maybell Diversion Structure and Headgate Rehabilitation Project

Dear Colorado Water Conservation Board Water Plan Grant Reviewers:

With this letter, the Ecological Services Division of the U.S. Fish and Wildlife Service (FWS), Interior Regions 5 and 7 Regional Office expresses its support for The Nature Conservancy's Water Plan Grant application to rehabilitate the Maybell Ditch diversion structure and headgate located on the Yampa River in Moffat County, Colorado.

The Yampa River is vital to four endangered species in the upper Colorado River system: humpback chub (*Gila cypha*), bonytail (*Gila elegans*), Colorado pikeminnow (*Ptychocheilus lucius*), and razorback sucker (*Xyrauchen texanus*). The FWS has designated critical habitat for all four of these species within the lower reaches of the river. Adequate base flows are important to ensure sufficient resting and foraging habitat for these species, along with opportunities to move up and down the river while avoiding predation. Yampa River flows and sediment also benefit habitat for endangered fishes in the middle Green River downstream from the Yampa River confluence.

This proposed project has great potential to benefit streamflow conditions for the endangered fish during the irrigation season. As you know, multiple Yampa River water interests seek to maintain certain minimum flows for these fish during the annual low-flow period on the Yampa River and release water from Elkhead Reservoir for this purpose. This proposed project, together with other improvements being made to the Maybell Ditch delivery system, will allow irrigators to more reliably utilize their full allotment of water with less diversion at the Maybell Ditch headgate. This in turn will enhance instream flows through the Maybell reach and downstream. In addition, the headgate rehabilitation effort offers a welcome opportunity to improve fish passage at the diversion.

INTERIOR REGION 7
UPPER COLORADO RIVER BASIN
COLORADO, NEW MEXICO, UTAH, WYOMING

We are particularly pleased that these improvements benefiting endangered fish also will benefit agricultural water users and recreational interests in the lower Yampa River. The Ecological Services Division of the U.S. Fish and Wildlife Service, Interior Regions 5 and 7 Regional Office strongly supports solutions that benefit multiple water interests. Thank you for your interest in this effort.

Sincerely,

ANGELA ANDERS

Digitally signed by ANGELA ANDERS
Date: 2020.11.25 09:38:58 -07'00'

Angela D. Anders, Ph.D.
Acting Division Chief, Ecological Services
U.S. Fish and Wildlife Service
Interior Regions 5 and 7

Last Updated: June 2020

Friends of the Yampa

PO Box 774703,

Steamboat Springs, CO 80477

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

November 23, 2020

Dear CWCB Water Plan Grant review team,

On behalf of Friends of the Yampa (FOTY), we wholeheartedly support The Nature Conservancy's (TNC) proposal to improve the Maybell diversion and replace the headgate on the Maybell Ditch. We have worked on this project from its onset three years ago and improvement to this structure is identified as a goal of our organization's strategic plan. It would be difficult to find a project in the state of Colorado that better aligns with an objective to improve infrastructure and riverine habitat through a multi-benefit lens. Moreover, his project would address a *significant* safety concern created by the in-channel Maybell diversion structure that is in place today.

The Friends of the Yampa is a river advocacy group based on a common passion: a shared love for the Yampa River. We are a 501(c)3 organization and have deep roots in the regional community. Established in 1981, we have a long standing history of working for the river by organizing river clean ups; holding discussions about the Yampa River's important and rare attributes; funding, restoring, and enhancing river habitat and recreational features; as well as participating in a variety of local, regional and national policy efforts and campaigns. We recognize that a modern river management structure involves a collaborative approach between agricultural, municipal, recreational, and industrial water users with a keen eye toward nature and the impacts that water use may have on the natural environment.

FOTY is very familiar with Juniper Canyon. FOTY has done significant work in the river segment between Craig and Maybell in recent years partnering with the Bureau of Land Management, Colorado Parks and Wildlife, and the Juniper Mineral Hot Springs to provide recreational opportunities and increasing environmental stewardship including improving formal campsites, posting private property markers along the river, and making educational awareness information available to users of the Yampa River to protect and enhance its integrity. As a result, river users are beginning to frequent Juniper Canyon and, it's upstream neighbor, Little Yampa Canyon in greater numbers.

The current Maybell diversion presents a nearly impassable and, if unfamiliar with the area, a surprising rapid due to its inconsistency with the relatively calm river surrounds. During high flows its spillway arrangement and flow spread presents confusing, dramatic, and scary conditions. The current head gate arrangement presents another hazard as the force of the river pushes toward the structure creating a potential issue for any user that finds itself in an unfortunate situation of being pulled toward it. In low water conditions a less forceful but similarly dangerous condition presents itself to river users in the form of jagged boulders and rubble formed at a diagonal to the river's path. Due to the safety issues present to river users and the private property that surrounds the diversion, recreationalists currently face the lose-lose situation of choosing to disregard their personal safety or illegally trespassing on the streambank to scout and, more often than not, portage the diversion. The current structure presents the most significant barrier to safe, passable recreation along the approximately 200-mile stretch of the Yampa River leading from the headwaters to Maybell and Cross Mountain. Improvement to the diversion structure will vastly improve river user safety and reduce private property trespass.

Your consideration to award a CWCB grant to replace the headgate while making the Maybell reach of the Yampa River safer for boating and better for fish passage is greatly appreciated. This project will generate positive impacts for endangered fish and other species in the Yampa River as well as benefiting downstream irrigators. FOTY believes this project fits well within Colorado Water Plan priorities. Specifically, the project will contribute to "Enhancement and restoration of hydrology and connectivity for native species including aquatic habitat restoration and fish barrier installation/removal".

In partnership with TNC and Maybell, FOTY will continue to provide an in-kind contribution of our time and expertise to this project. Our current rate of $40/hour at 2 hours a month for 33 months allows our collaboration on this project to include recreation and river restoration. Our work also includes networking with paddlers and recreators and participating in project team meetings.

We believe this project aligns with the CWCB's commitment to fund projects that generate benefits for outdoor recreation and protect wildlife habitat and endangered fish in the Yampa River. Additionally, it has strong potential to preserve water security for agricultural producers while benefiting the natural environment – both of which are goals of the Colorado Water Plan. It is with the utmost enthusiasm that we submit this letter of support for consideration of allocation of grant dollars toward this worthy cause. If you have any further questions about Friends of the Yampa or our support for this request, I can be reached at bensbeall@gmail.com. Thank you for your consideration of this important project.

Warmest Regards,

Ben Beall

Vice President/Board member, Friends of the Yampa
257 Spruce Street
Steamboat Springs, Colorado 80487

Friends of the Yampa's mission is to protect and enhance the environmental and recreational integrity of the Yampa River and its tributaries, through stewardship, advocacy, education and partnerships.

Last Updated: June 2020

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.

Last Updated: June 2020

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 - Exhibit B
Budget Template Instructions

**** Please select the most appropriate budget template for your project from the worksheet tabs below. A general budget template is provided, as well as templates for studies, construction, and engineering projects.****

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Colorado Water Conservation Board

Water Plan Grant - Exhibit B
Budget and Schedule

Prepared Date: 11/30/2020

Name of Applicant: The Nature Conservancy

Name of Water Project: Maybell headgate replacement

Project Start Date: 10/30/2021

Project End Date: 12/30/2022

Task No.	Task Description	Task Start Date	Task End Date	Grant Funding Request	Match Funding	Total
1	Construction - Maybell headgate(s)	11/1/2021	12/30/2022	$136,125	$169,375	$305,500
2	Project Management and Administration	10/1/2021	12/30/2022	$31,989	$39,804	$71,793
	(at 23.5% NICRA indirect cost rate)					$0
						$0
						$0
						$0
						$0
						$0
						$0
						$0
			Total	$168,114	$209,179	$377,293

COLORADO
Colorado Water Conservation Board
Department of Natural Resources

Colorado Water Conservation Board

Water Plan Grant - Detailed Budget Estimate

Fair and Reasonable Estimate

Prepared Date: 11/30/2020
Name of Applicant: The Nature Conservancy
Name of Water Project: Maybell Headgate replacement

Exhibit B: Construction

Task 1 - Construction

Sub-task	Unit	Quantity	Unit Cost	Total Cost	CWCB Funds	Matching Funds
4' x 6' concrete culvert, 2 barrels	FT	80	$ 1,500	$ 120,000	$ 54,000	$ 66,000
Telemetry equipment	EA	1	$ 15,000	$ 15,000	$ 6,750	$ 8,250
Radio repeater and integration with existing gate controls	EA	1	$ 17,500	$ 17,500	$ 7,875	$ 9,625
Precast concrete headwall	CY	20	$ 2,000	$ 40,000	$ 18,000	$ 22,000
4' x 6' headgate(s)	EA	2	$ 20,000	$ 40,000	$ 18,000	$ 22,000
Headgate actuator, power source, control integration	EA	2	$ 20,000	$ 40,000	$ 18,000	$ 22,000
Excavation, backfill, compaction	CY	400	$30	$12,000	$ 5,400	$ 6,600
Bypass gate at diversion, 36" CMP	LF	40	100	$4,000	$ 1,800	$ 2,200
Bypass headgate	EA	1	5000	$5,000	$ 2,250	$ 2,750
Demolition of existing headgates	day	3	3000	$9,000	$ 4,050	$ 4,950
Task 2 - Project Management and Administration						
2.1 Personnel		50	60	$3,000		$3,000
subtotal				*$305,500*	*$136,125*	*$169,375*
2.2 Indirect costs	NICRA 23.5%			$71,793	$31,989	$39,804
TOTAL				$377,293	$ 168,114	$ 209,179