

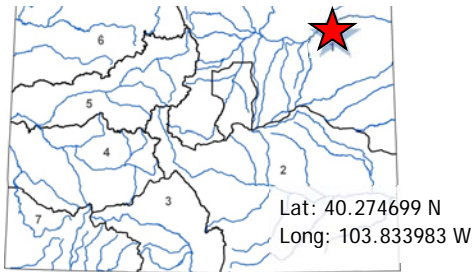


## Upper Platte & Beaver Diversion Structure Rehabilitation Project

### Upper Platte & Beaver Canal Company

May 2019 Board Meeting

## Water Plan Grant Application



L O C A T I O N	
County/Countries:	Morgan
Drainage Basin:	South Platte

D E T A I L S	
Total Project Cost:	\$4,392,380
Water Plan Grant Request:	\$1,098,095
Recommended Amount:	\$0
Other CWCB Funding:	\$0
Other Funding Amount:	\$0
Applicant Match:	\$3,294,285
Project Type(s):	Construction
Project Category(Categories):	Agricultural
Measurable Result:	Stream restoration (108,810 ft), agriculture efficiency savings (\$16,000/yr), habitat restoration (125 acres)

The Upper Platte and Beaver Canal Company (UPBCC) operates and maintains a diversion structure and ditch for irrigation and augmentation purposes. The UPBCC serves approximately 11,500 acres of irrigated agriculture.

UPBCC is requesting \$1,098,095 from Colorado's Water Plan (CWP) Grant Program to rehabilitate the UPBCC Diversion Structure. The diversion structure consists of a concrete rollover dam with a flashboard system to block off river flow and divert flow into the ditch. The current diversion structure is in poor condition and has issues with seepage, undermining, and sediment control. The structure also impedes fish passage and river connectivity.

The proposed project consists of the removal of the existing diversion structure and installation of a new concrete structure with two 80-foot long Obermeyer inflatable crest gates, two radial gates for sediment maintenance, and new intake headgate. The new diversion structure would also include provisions for fish passage through the incorporation of a vertical slot fish ladder, which would be designed to accommodate native fish species. The CWP funds requested would be used for the construction of diversion structure replacement and would also support the incorporation of the fish passage. The UPBCC is in the process of obtaining a CWCB loan to complete the project.

The application was reviewed by the CWP Agricultural Project review committee and Colorado Parks and Wildlife (CPW). The proposed project would provide multiple benefits include enhancing aquatic habitat, improving operational efficiency, and improving sediment transport. The project also scored high on several agricultural categories such as addressing a critical infrastructure need, efficiency savings, and readiness to proceed. However, feedback from CPW identified that the proposed vertical slot fish passage structure is not appropriate for native fish in this region and recommended incorporation of a rock ramp ladder design if possible. Furthermore, while the committee agreed that this is a multi-benefit project, the significant overall request did not meet the CWP Guidelines directing staff to attempt to distribute grant funds in a fair and equitable fashion.

Staff, for the reasons above, is not recommending funding at this time. However, staff encourages the applicant to work with CPW to continue with designs for incorporating fish passage. Staff will work with the applicant to explore other funding opportunities to support this work.

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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  
Conservation, Land Use Planning  
Engagement & Innovation Activities  
Agricultural Projects  
Environmental & Recreation  
Projects

Anna.Mauss@state.co.us  
Kevin.Reidy@state.co.us  
Ben.Wade@state.co.us  
Alexander.Funk@state.co.us  
Chris.Sturm@state.co.us

**FINAL SUBMISSION:** Submit all application materials in one email to

**[waterplan.grants@state.co.us](mailto: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	Upper Platte & Beaver Canal Company	
Name of Water Project	Upper Platte and Beaver Canal Diversion Structure Replacement Project	
CWP Grant Request Amount	\$ 1,098,095 (\$598,095 Ag, \$500,000 Env/Rec)	
Other Funding Sources <u>CWCB Water Project Loan</u>	\$ 3,294,285	
Other Funding Sources _____	\$	
Other Funding Sources _____	\$	
Applicant Funding Contribution	\$	
Total Project Cost	\$ 4,392,380	

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Applicant & Grantee Information	
Name of Grantee(s)	Upper Platte and Beaver Canal Company
Mailing Address	PO Box 205 Brush, CO 80723
FEIN	84-0405195
Organization Contact	Steve Griffith
Position/Title	President
Email	upbcccompany@gmail.com
Phone	(970) 842-2552
Grant Management Contact	Heather Kalous
Position/Title	Secretary
Email	upbcccompany@gmail.com
Phone	(970) 842-2552
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).	
<p>The Upper Platte and Beaver Canal Company (UPBCC) is a mutual ditch company and a non-profit corporation, established in 1888. The UPBCC is comprised of 100 stakeholders serving approximately 10,000 acres of irrigated agricultural land in Morgan County. The UPBCC operates and maintains a diversion structure on the South Platte River that it shares with the Deuel and Snyder Improvement Company (DSIC). In total, the UPBCC operates and maintains 21.8 miles of canal and delivers approximately 32,300 acre-feet of water per year.</p>	

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Type of Eligible Entity (check one)	
	<b>Public (Government):</b> 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.
	<b>Public (Districts):</b> Authorities, Title 32/special districts (conservancy, conservation, and irrigation districts), and water activity enterprises.
<input checked="" type="checkbox"/>	<b>Private Incorporated:</b> Mutual ditch companies, homeowners associations, corporations.
	<b>Private Individuals, Partnerships, and Sole Proprietors:</b> Private parties may be eligible for funding.
	<b>Non-governmental organizations (NGO):</b> Organization that is not part of the government and is non-profit in nature.
	<b>Covered Entity:</b> As defined in <a href="#">Section 37-60-126 Colorado Revised Statutes</a> .

Type of Water Project (check all that apply)	
	Study
<input checked="" type="checkbox"/>	Construction
	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.. <i>Applicable Exhibit A Task(s):</i>	
	Conservation and Land Use Planning - Activities and projects that implement long-term strategies for conservation, land use, and drought planning. <i>Applicable Exhibit A Task(s):</i>	
	Engagement & Innovation - Activities and projects that support water education, outreach, and innovation efforts. Please fill out the Supplemental Application on the website. <i>Applicable Exhibit A Task(s):</i>	
<input checked="" type="checkbox"/>	Agricultural - Projects that provide technical assistance and improve agricultural efficiency. <i>Applicable Exhibit A Task(s): Construction</i>	
<input checked="" type="checkbox"/>	Environmental & Recreation - Projects that promote watershed health, environmental health, and recreation. <i>Applicable Exhibit A Task(s): Construction (fish passage)</i>	
	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	Morgan County
Latitude	40.274699°
Longitude	-103.833983°

### Water Project Overview

Please provide a summary of the proposed water project (200 words or less). Include a description of the project and what the CWP Grant funding will be used for specifically (e.g., studies, permitting process, construction). Provide a description of the water supply source to be utilized or the water body affected by the project, where applicable. Include details such as acres under irrigation, types of crops irrigated, number of residential and commercial taps, length of ditch improvements, length of pipe installed, and area of habitat improvements, where applicable. If this project addresses multiple purposes or spans multiple basins, please explain.  
The Applicant shall also provide, in Exhibit A, a detailed Statement of Work, Budget, Other Funding Sources/Amounts and Schedule.

The UPBCC Diversion Structure Replacement Project is a multi-purpose project that will enhance the mobility of aquatic habitat, improve sediment transport and channel stability, improve operational efficiency, and increase the sectional flood flow capacity of the river channel.

The UPBCC diversion structure is located on the South Platte River in Morgan County. The structure serves to supply water for irrigation and augmentation to the UPBCC and the DSIC. Crops irrigated include corn, alfalfa, beans, sugar beets, and wheat. The structure was built in 1936 and is in a state of disrepair, the greatest concern being the compromised structural stability caused by seepage and erosion of the underlying shale formation that holds the structure in place.

The proposed project consists of the judicious removal of the existing structure and installation of a new structure upstream. The new structure will include provisions for fish passage and sediment control in addition to remote monitoring and automatic control capability that will reduce overhead and improve the operational efficiency of the structure.

The CWP grant funds requested will be used for construction of the project; specifically, requested funds will support the incorporation of a fish passage into the structure, which would otherwise be cost prohibitive.

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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)	
108,810	Length of Stream Restored or Protected (linear feet)	
\$16,000/yr	Efficiency Savings (indicate acre-feet/year OR dollars/year)	
125	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	
	Other	Explain:

Water Project Justification
<p>Provide a description of how this water project supports the goals of <a href="#">Colorado's Water Plan</a>, the most recent <a href="#">Statewide Water Supply Initiative</a>, and the applicable Roundtable <a href="#">Basin Implementation Plan</a> and <a href="#">Education Action Plan</a>. 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).</p> <p>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;)</p> <p>The Upper Platte and Beaver Diversion Structure Replacement Project is consistent with the following goals of the Colorado Water Plan (CWP Section 10, pgs. 3-4):</p> <ul style="list-style-type: none"> <li>• Supports a vibrant agricultural economy;</li> <li>• Improves the efficiency of water delivery infrastructure and</li> <li>• Promotes a strong and healthy environment by improving water quality in the South Platte River and restoring continuity for aquatic habitat, including the Brassy Minnow, a Tier 1 Species of Greatest Conservation Need (Colorado Parks and Wildlife, 2015).</li> </ul> <p>The project supports the Colorado Water Plan's identified Agricultural Critical Actions to (CWP Section 10, pg. 10):</p> <ul style="list-style-type: none"> <li>• Maintain agricultural viability; and</li> <li>• Support agricultural water conservation and efficiency.</li> </ul> <p>By providing more efficient and effective means of sediment and erosion control, and by incorporating a designated fish passage, this project supports Watershed Health, Environment and Recreation critical actions (CWP Section 10, pg. 12):</p>

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- Enhance environmental and recreational economic values;
- Recover imperiled species by restoring in-channel continuity critical aquatic habitat occupied by threatened fish species;
- Protect healthy environments;
- Promote protection and restoration of water quality.

This project also meets the following draft Vision Goals identified in the SWIS 2010 (ES-28):

- Meet agricultural demands;
- Optimize existing and future water supplies by minimizing non-beneficial consumptive use;
- Promote cost-effectiveness by achieving benefits at the lowest cost;
- Provide operational flexibility and coordinated infrastructure

The project supports the following South Platte Basin Roundtable goals (SP-BIP, Section 1, pgs. 29-30):

- Ensure that irrigated agriculture remains a viable statewide economic driver;
- Meet Colorado's Environmental and Recreational Needs by:
  - maintaining or increasing the amount of river miles available to river and flatwater boaters;
  - improving fish habitat by promoting connectivity; and,
  - improving watershed health through sedimentation and erosion control

The Upper Platte and Beaver Diversion Structure Replacement Project will improve the management of a combined 37,600 acre-feet/year of water diverted annually to the UPBCC and DSIC ditch systems from the South Platte River, maximizing the efficiency and control of water used to support approximately 11,500 irrigated acres of land in Morgan County, Colorado.

The proposed project will produce multi-purpose benefits. Stakeholders directly involved in the project as well as downstream water users will derive a benefit from the more efficient diversion of water. The automated response capability of the new headgate on the Upper Platte and Beaver Canal to fluctuations in river stage will allow water that would have otherwise been diverted during abrupt spikes in flow, or during the natural diurnal cycle, to remain in the river.

As compared to existing conditions, the new structure will significantly improve channel continuity and sediment transport along the reach. The pneumatic adjustable crest gate spillway will facilitate sediment passage and provide maximum flow conveyance during floods, reducing upstream backwater effects and improving overall channel stability. During intermediate flows, the gate has the ability to operate in a partially deflated mode to allow fish passage over the dam while maintaining the benefits of a partial pool upstream of the barrage for aquatic habitat and waterfowl. The project will restore connectivity of approximately 20.6 miles of river by providing a designated fish passage as part of the project design and implementation.

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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.

Upper Platte and Beaver Canal Company, 2016 Feasibility Study, TZA

### 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 Basin & State Fund Grants

Upper Platte and Beaver Canal Company  
PDAA 2500 WSRA UPBCC Feasibility Study  
CWCB Approval: October 14, 2015  
Contract No.: POGG1 2016-429  
WSRF Grants provided 75% of project costs

#### Water Project Loan

Upper Platte and Beaver Canal Company  
Hospital Road Recharge Facility and Bridge Widening Project  
CWCB Approval: July 17, 2014  
Contract No.: CT2015-101  
CWCB Loan provided 90% of project costs

#### Water Project Loan

Upper Platte and Beaver Canal Company  
Diversion Structure Rehabilitation Project  
CWCB Approval: March 21, 2002  
Contract No.: C150096  
CWCB Loan provided 90% of project costs

#### Water Project Loan

Upper Platte and Beaver Canal Company  
Badger Creek Well Augmentation Project  
CWCB Approval: May, 2003  
Contract No.: C150144  
CWCB Loan provided 90% of project costs



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<b>Taxpayer Bill of Rights</b>
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.
N/A

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

(1) Required with application.

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

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## ENGAGEMENT & INNOVATION GRANT FUND SUPPLEMENTAL APPLICATION

### Introduction & Purpose

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

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

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

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

### Application Questions

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

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

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

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

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

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

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

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Colorado Water Conservation Board	
Water Plan Grant - Exhibit A	

Statement Of Work	
<b>Date:</b>	January 28, 2019
<b>Name of Grantee:</b>	Upper Platte and Beaver Canal Company
<b>Name of Water Project:</b>	Upper Platte and Beaver Canal Diversion Structure Replacement Project
<b>Funding Source:</b>	CWCB
<b>Water Project Overview:</b>	
<p>The Upper Platte and Beaver Canal Company (UPBCC) diverts water from the South Platte River for both irrigation and augmentation purposes. Water deliveries are made through the Upper Platte and Beaver Canal to recharge sites and irrigation lands lying south of the river and east of the City of Fort Morgan, Colorado. UPBCC delivers irrigation water to approximately 10,000 acres of irrigated land and also operates a recharge and augmentation plan that provides augmentation water for wells used for agricultural irrigation. The UPBCC shares its diversion structure with the Deuel and Snyder Improvement Company (DSIC), which diverts water from the north side of the river and has a service area of approximately 1,500 irrigated acres.</p> <p>The UPBCC proposes to replace its deteriorating diversion structure on the South Platte River with a new concrete structure that includes an Obermeyer inflatable spillway for enhanced sediment control, flood passage and operational efficiency. The structure will also include a vertical slot fish ladder, designed to accommodate the Brassy Minnow, a Tier 1 Species of Greatest Conservation Need.</p> <p>The existing concrete structure has outlived its useful life; and is subject to significant seepage, structural instability due to erosion of the underlying shale bedrock, and undermining caused by scour.</p>	
<b>Project Objectives:</b>	
<p>Objectives of the proposed work:</p> <ul style="list-style-type: none"> <li>• Stabilize the Company's water diversion structure to ensure reliable water delivery;</li> <li>• Provide a flexible and robust sediment control system;</li> <li>• Improve in-channel flood passage;</li> <li>• Restore channel continuity for critical aquatic habitat; and</li> <li>• Improve operational efficiency and reduce maintenance overhead.</li> </ul>	

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Tasks
<b>Task 1 – Construction</b>
<p>Description of Task:</p> <p>Construction of the Upper Platte and Beaver Canal Diversion Structure, following all permit specifications and requirements.</p>
<p>Method/Procedure:</p> <p>Contractor selection will be performed through a competitive bid process. The selected contractor will be responsible for completing the project in accordance to approved plans and specifications. The selected contractor will determine actual construction means and methods and will supply all necessary equipment, tools, facilities, field offices, materials, labor, supplies, and other consumables necessary to complete the work.</p> <p>See Exhibit C for a detailed schedule of construction activities for which the requested funding will be used.</p>
<p>Deliverable:</p> <p>The grantee will provide the CWCB with copies of construction documentation including construction progress reports, change orders, meeting notes, and schedule summaries. As-built drawings of the project will be furnished upon completion of construction activities.</p>

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Tasks	
<b>Task 2 – Engineering</b>	
Description of Task:	
<p>Bid the project, provide on-site construction oversight of construction activities, and prepare as-built drawings of the constructed project.</p>	
Method/Procedure:	
<p>The Engineer will assist in the contractor selection process by preparing and distributing the project bid package, evaluating the results, and recommending award. The engineer will serve as the resident project representative qualified to interpret construction plans and specifications and will perform on-site monitoring to verify construction activities to are in conformance with approved plans and specifications. As-built drawings of the structure will be prepared by the engineer upon completion of construction. The engineer will review and approve contractor pay requests.</p>	
Deliverable:	
<p>The grantee will provide the CWCB with copies of design and construction documents.</p>	



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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

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### Performance Measures

payment.

(c) Monitoring Requirements: Grantee is responsible for ongoing monitoring of project progress per Exhibit A. Progress shall be detailed in each invoice and in each Progress Report, as detailed above. Additional inspections or field consultations will be arranged as may be necessary.

(d) Noncompliance Resolution: Payment will be withheld if grantee is not current on all grant conditions. Flagrant disregard for grant conditions will result in a stop work order and cancellation of the Grant Agreement.

**COLORADO**Colorado Water  
Conservation Board

Department of Natural Resources

## Colorado Water Conservation Board

### Water Plan Grant - Detailed Budget Estimate

#### Fair and Reasonable Estimate

Prepared Date: January 24, 2019

Name of Applicant: Upper Platte and Beaver Canal Company

Name of Water Project: Upper Platte and Beaver Canal Diversion Structure Replacement

**Task 1 - CONSTRUCTION**

Sub-task	Unit	Quantity	Unit Cost	Total Cost	CWCB Funds	Matching Funds
Mobilization	LS	1	\$ 15,000	\$ 15,000	\$ 3,750	\$ 11,250
De-Watering	LS	1	\$ 150,000	\$ 150,000	\$ 37,500	\$ 112,500
Provide and Install Bladder Gate, 80 Ft. X 9 Ft.	EA	2	\$ 483,264	\$ 966,528	\$ 241,632	\$ 724,896
Provide and Install Bladder Gate, 20 Ft. X 5 Ft.	EA	1	\$ 125,260	\$ 125,260	\$ 31,315	\$ 93,945
Concrete Control Building	EA	1	\$ 40,000	\$ 40,000	\$ 10,000	\$ 30,000
Provide and Install Radial Arm Gate, 10 Ft.	EA	1	\$ 37,972	\$ 37,972	\$ 9,493	\$ 28,479
Relocate UP&B Existing Radial Arm Gate	EA	1	\$ 3,000	\$ 3,000	\$ 750	\$ 2,250
New UP&B Ditch Channel	FT	940	\$ 76	\$ 71,158	\$ 17,790	\$ 53,369
Concrete Culvert Bridge, UP&B Channel	LS	1	\$ 54,000	\$ 54,000	\$ 13,500	\$ 40,500
Earthen Dike South Side of Structure	FT	550	\$ 76	\$ 41,635	\$ 10,409	\$ 31,226
Sheet Piling, 9" X 22", PZ22	SQ. FT.	10,500	\$ 14	\$ 147,000	\$ 36,750	\$ 110,250
HP Piling, 10X42	FT	2,250	\$ 27	\$ 60,750	\$ 15,188	\$ 45,563
Concrete Cut-Off Walls, 18" Wide Into Shale	FT	900	\$ 545	\$ 490,347	\$ 122,587	\$ 367,760
Diversion Structure	LS	1	\$ 1,222,805	\$ 1,222,805	\$ 305,701	\$ 917,104
Earthwork, Excavation to Shale	LS	1	\$ 511,250	\$ 511,250	\$ 127,813	\$ 383,438
Demo Existing Structure	FT	950	\$ 27	\$ 25,175	\$ 6,294	\$ 18,881
Place Rip-Rap	LS	1	\$ 18,000	\$ 18,000	\$ 4,500	\$ 13,500
Remove Old UP&B Canal Gates	LS	1	\$ 15,000	\$ 15,000	\$ 3,750	\$ 11,250
Fish Ladder	LS	1	\$ 135,000	\$ 135,000	\$ 33,750	\$ 101,250
Electrical Service, Electrical Contractor	LS	1	\$ 35,000	\$ 35,000	\$ 8,750	\$ 26,250
<b>TOTAL TASK 1</b>				<b>\$ 4,164,880</b>	<b>\$ 1,041,220</b>	<b>\$ 3,123,660</b>

**Task 2 - ENGINEERING, SURVEYS, INSPECTION, QUALITY CONTROL**

Sub-task	Unit	Quantity	Unit Cost	Total Cost	CWCB Funds	Matching Funds
Geotech Borehole Survey	LS	1	\$ 62,500	\$ 62,500	\$ 15,625	\$ 46,875
Engineering, Project Management	LS	1	\$ 75,000	\$ 75,000	\$ 18,750	\$ 56,250
Construction Inspection	LS	1	\$ 75,000	\$ 75,000	\$ 18,750	\$ 56,250
Materials Testing, Concrete	LS	1	\$ 15,000	\$ 15,000	\$ 3,750	\$ 11,250
<b>TOTAL TASK 2</b>				<b>\$ 227,500</b>	<b>\$ 56,875</b>	<b>\$ 170,625</b>

<b>TOTAL CONSTRUCTION PROJECT</b>				<b>\$ 4,392,380</b>	<b>\$ 1,098,095</b>	<b>\$ 3,294,285</b>
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April 3, 2019

Colorado Water Conservation Board  
1313 Sherman Street  
Denver, CO 80203

Dear CWCB Board Members,

The City of Brush is pleased to offer our support for the grant request made by the Upper Platte and Beaver Canal Company (UPBCC) for the Upper Platte and Beaver Canal Diversion Structure Replacement Project (Proposed Project). The UPBCC has demonstrated strong leadership in crafting a multi-purpose project that includes important agricultural water use and safety considerations, as well as consideration of environmental impact and aquatic habitat on the South Platte River.

The City of Brush recognizes the Proposed Project as an important opportunity to improve aging infrastructure that will protect water rights and preserve longstanding agricultural practices that are a vital component of our local economy, restore connectivity on the South Platte River to ensure habitat and recreational use, and improve irrigation system deliveries.

We recommend the Colorado Water Conservation Board consider funding this important project.

Thank you for your time and consideration. Any questions can be directed to our City Administrator, Monty Torres at 970-842-5001.

Sincerely,

A handwritten signature in blue ink that reads 'Charles R. Bain'.

Charles R Bain  
Mayor  
City of Brush!





**COLORADO**

**Parks and Wildlife**

Department of Natural Resources

28167 County Road T  
Brush, CO 80723  
P 970.842.6300

April 22, 2019

Mr. Alexander Funk  
Colorado Water Conservation Board  
1313 Sherman Street, Room 718  
Denver, CO 80203

RE: Letter of support for the Upper Platte and Beaver Ditch Diversion Structure Replacement Project

Dear Mr. Funk and CWCB Board:

On behalf of Colorado Parks and Wildlife (CPW), I am submitting a letter of support for the Upper Platte and Beaver Ditch Company's Colorado Water Plan Grant Application for the replacement of the company's river diversion structure. In particular, CPW supports the incorporation of fish passage into the new diversion design proposal. Fragmentation of fish habitat along the lower South Platte River, particularly for sensitive native plains fish species, is an issue of concern for CPW. Therefore, CPW supports the effort by the Upper Platte and Beaver Ditch to improve habitat connectivity through the inclusion of fish passage into the project design.

With respect to the design of a fish passage structure, CPW has had the opportunity to review preliminary design drawings that propose the use of a vertical slot fish ladder. CPW recommends that a rock ramp fish ladder be utilized in place of a vertical slot structure. Vertical slot fish ladders generally do not accommodate the passage of smaller bodied fish due to the creation of higher velocities which act as a barrier to movement. Rock ramp ladders have shown to be much more effective in allowing for the passage of these smaller plains fish, including state species of special concern that are known to inhabit the project area. We respectfully request that the applicant consult with CPW to ensure that the fish passage structure is designed as effectively as possible.

Thank you for your consideration and please do not hesitate to contact me with additional questions.

Sincerely,

Todd Schmidt  
Area Wildlife Manager  
Colorado Parks and Wildlife

