

Lower South Boulder Creek Watershed Restoration Phase II Colorado Trout Unlimited

March 2022 Board Meeting

Water Plan Grant Program Application



DETAILS		
Total Project Cost: \$502,00	0	
WPG Request: \$250,00	0	
Recommended amount: \$250,00	0	
Other CWCB Funding: \$	0	
Other Funding Amount: \$	0	
Applicant Match: \$174,00		
Project Type(s): Design	ļ	
Project Category(Categories): Environment &		
Recreation		
Measurable Result: 100% designs on 2 ditches and		
preliminary designs on 2 ditches		

The current Phase I of this project has focused on preliminary designs for high priority structures with modifications that are primarily to allow low flow passage and administration, but also incorporate modifications to improve channel connectivity and habitat. In preparing the conceptual designs in Phase I, the project team prioritized modifications needed to address:

- Low flow management/passage
- Restoring channel connectivity for fish/aquatic organism passage
- Improving operational efficiency, where possible
- Improving stream resilience and proximate habitat

Phase II will focus on progressing engineering designs and associated permitting for four priority structures. Designs will also include automated gate actuators and upstream/downstream/down-ditch networked flow measurement design elements. All efforts have been and continue to be in partnership with local stakeholders, including the City of Boulder, City of Lafayette, Denver Water, City of Louisville, Boulder County, and the four targeted ditch owners

This project will accomplish the following:

- Develop 100% design of modifications for two diversion structures: New Dry Creek Carrier and Howard
- Permitting required for a future construction phase of work
- Develop preliminary engineering design for modifications of two additional structures to the level required to commence RFP process(es) required for a final design and permitting future phase of work: Goodhue and Marshallville



• All work will be accomplished using sound design incorporating the latest knowledge of the local species and passage techniques. Appropriate aquatic management practices will be followed to maximize fish passage goals, with realistic expectations of barrier operators, and in accordance with practices supported by Colorado Parks and Wildlife and US Fish and Wildlife Service.

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 & Supply 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
Water Sharing & ATM 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 Projec		t Summary
Name of Applicant Colorado Trout		Jnlimited
Name of Water Project	Lower South Bou Engineering Des Structures, Inclu Operational / Ha	ulder Creek – Watershed Restoration Phase II: ign and Permitting for Priority Diversion ding Fish Passage, Flow Management and bitat Improvement Modifications ("WSR PH II")
CWP Grant Request Amount		\$250,000
Other Funding Sources City of Boulder		\$100,000 (cash match)
Other Funding Sources <u>Cities of Boulder /</u> Lafayette		\$ 22,000 (in-kind match)
Other Funding Sources US Fish & Wildlife Service		\$112,000 (cash match)
Applicant Funding Contribution		\$ 18,000 (in-kind match)
Total Project Cost		\$502,000

Applicant & Grantee Information
Name of Grantee(s) Colorado Trout Unlimited
Mailing Address 1536 Wynkoop Strret, Suite 320, Denver, CO 80808
FEIN 84-0628113
Organization Contact David Nickum
Position/Title Executive Director
Email david.nickum@tu.org
Phone 303-440-2937
Grant Management Contact David Nickum
Position/Title Executive Director
Email david.nickum@tu.org
Phone 303-440-2937
Name of Applicant Stephen Brant – (representing Boulder Flycasters Chapter of Trout Unlimited)
(if different than grantee)
Mailing Address PO Box 541, Boulder, CO 80306
Position/Title Project Sponsors' Representative / Project Coordinator
Email slbrant62@gmail.com
Phone 303-885-4141
Description of Grantee/Applicant
Provide a brief description of the grantee's organization (100 words or less).

CTU is a statewide organization of more than 12,000 members in 24 local chapters dedicated to conserving, protecting, and restoring Colorado's coldwater fisheries and their watersheds. CTU is coordinating with its Boulder Flycasters Chapter, which led previous South Boulder Creek (SBC) Stream Management Plan (SMP PH I & II) and Watershed Restoration – Engineering (WSR PH I) project phases. CTU works through collaboration, education, grassroots action, and on-the-ground volunteerism. Current efforts include cooperation with front range and west slope water users on "Learning by Doing" in the Colorado headwaters; partnership with Colorado Parks and Wildlife on native trout restoration; and local youth education initiatives.

|--|

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)		
Х	Study		
	Construction		
Х	Other Engineering Designs		

Category of Water Project (check the primary category that applies and include relevant tasks)

artificial capacity, nose d gap.
<u>1</u>
h, and
у.
alth, and

Other	Exp
-------	-----

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	Boulder
Latitude	From: 39.932 To: 40.033
Longitude	From: -105.281 To: -105.217

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.

In 2020, the previous CWCB funded WSR PH I project was launched (stakeholder outreach, structure modification conceptual designs, expanded coalition building). WSR PH I field work is largely complete, and the coalition expanded. The resulting diversion structure conceptual designs required for a combination of fish / aquatic species passage, low flow management / passage, and habitat / operational improvement are complete.

This WSR PH II proposal focuses on progressing engineering designs (as described above) and associated permitting documents and process for four (4) priority structures. The designs will also include automated gate actuators, and upstream / downstream / down-ditch networked flow measurement design elements.

All efforts have been and continue to be in partnership with local stakeholders, including: the City of Boulder, City of Lafayette, Denver Water, City of Louisville, Boulder County and the four (4) targeted ditch owners. Scientific and engineering advisory stakeholders include various municipal, State of Colorado and US Fish & Wildlife Service personnel. The stakeholders, or subsets of, make up the project steering committee, participate in proposed improvement concept reviews, and provide profession staff support, funding, access to data, and subject matter expertise.

Funds will be used primarily for contracted engineering and environmental consulting services.

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),
	Existing Storage Preserved or Enhanced (acre-feet)
~5 miles of 9 mile reach	Length of Stream Restored or Protected (linear feet)
	Efficiency Savings (indicate acre-feet/year OR dollars/year)
	Area of Restored or Preserved Habitat (acres)
	Quantity of Water Shared through Alternative Transfer Mechanisms or
	Number of Coloradans Impacted by Incorporating Water-Saving Actions

into La	nd Use Planning
Numbe	er of Coloradans Impacted by Engagement Activity
Other	Explain:

Water Project Justification

Provide a description of how this water project supports the goals of <u>Colorado's Water Plan</u>, the <u>Analysis and</u> Technical Update to the Water Plan

South Boulder Creek's environmental and recreational attributes were called out in the South Platte Basin nonconsumptive use analysis, and this initiative will help achieve the CWP goal by progressing design / construct / implement projects for that important waterway. (SWP p. 10-12). The CWP further calls for planning "that compiles and develops near-term projects and methods to support economically important water-based recreation" South Boulder Creek is an important recreational resource close to major population areas, with extensive public access through local open space properties.

The CWP also identifies as a critical action for its storage goal (SWP p.10-11). The SBC WSR PH II will support successful efficient use of current available flows, as well as the potential Gross Reservoir Environmental Pool flows, part of the multi-purpose Moffat Collection System IPP

In a similar vein, by focusing on progressing engineering designs and permitting for fish / aquatic species passage and related efforts (habitat, flow management), as well as ditch automation, this project will help progress multiple elements of the South Platte Basin Implementation Plan.

- Assisting with planned mitigation for the Moffat Firming Project (BIP 5.5.1)
- Developing designs for environmental flow management, fish passage, and potential habitat improvement projects along a stream stretch with significant public access (BIP 5.5.5)
- On-going community outreach will advance the BIP (BIP 5.5.9)

This project complies with the criteria for state support

- It demonstrates "a commitment to collaboration" (SWP p.9-43)
- The past phases and the proposed WSR PH II will continue to facilitate the multi-purpose aspects of the Moffat Collection System IPP and provide multiple stakeholders opportunities for input (SWP p.9-44)

By helping fill the non-consumptive gap on South Boulder Creek – and insofar as this also assists in implementing required mitigation for the Moffat Collection System project, indirectly helping with the region's consumptive (sustainability) gap as well. Avoiding adverse impacts and creating positive impacts on the environment through proximate habitat improvement, water use efficiency, and facilitating a water-sharing program through which water delivered for municipal use will create environmental and recreational benefits. (SWP p.9-44)

Finally, the results of the SMP and WSR projects to date and plans going forward demonstrate "fiscal and technical feasibility" (SWP p.9-44). Local partners are contributing both cash and in-kind to the project, and the combination of Denver Water, Cities of Lafayette and Boulder, and ditch companies have the capacity and commitment to provide implementation funds for this and future phases.



Colorado Water Conservation Board

Water Plan Grant – Statement of Work – Exhibit A

Statement Of Work		
Date:	01 December 2021	
Name of Grantee:	Colorado Trout Unlimited	
Name of Water Project:	Lower South Boulder Creek – Watershed Restoration Phase II: (Engineering Design and Permitting for Priority Diversion Structures, Including Fish Passage, Flow Management and Operational / Habitat Improvement Modifications)	
Funding Source:	Colorado Water Plan Grant	

Water Project Overview:

The current WSR PH I project task for infrastructure assessment determined that modification to 4 of 6 priority ditch structures would reconnect five of nine miles of lower SBC. In preparing the conceptual designs in WSR PH I, the project team prioritized modifications needed to address:

- Low flow management / passage
- Restoring channel connectivity for fish / aquatic organism passage
- Improving operational efficiency where possible
- Improving stream resilience and proximate habitat

High level, diversion structure conceptual designs, and associated operational and habitat improvements, are complete for the original eight structures within the WSR PH I SOW. Of these, there are six structures targeted for moderate to extensive restructuring to meet the above criteria. The ditch owners of these structures were actively involved in discussions of needs, and reviewing conceptual designs. Two of the eight structures meet requirements for low flow passage and administration, but are not targeted for fish passage at this time. These two structures will require simple modifications.

This proposal focuses on progressing engineering designs and permitting for four high priority diversion structures. The project will:

- Continue to execute the Communications Plan developed in the SMP
- Conduct RFP process(es) to select and contract engineering / consulting firm(s)
 - The selected firm(s) would:
 - Develop 100% design of modifications for two diversion structures (Group 1)
 - Assist with permitting document development and process(es) required for a future construction phase of work (Group 1)
 - Develop preliminary engineering design for modifications of two additional structures to the level required to commence RFP process(es) required for a final design and permitting future phase of work (Group 2)
 - All work will be accomplished using sound design incorporating the latest knowledge of the local species and passage techniques. Appropriate aquatic management practices will be followed to maximize fish passage goals, with realistic expectations of barrier operators, and in accordance with practices supported by Colorado Parks and Wildlife



- and US Fish and Wildlife Service.
- Provide overall program management and administration

The proposed project outcomes and deliverables include:

- Communications material and tools / digital components to support stakeholder outreach
- Engineering Design Documents
- Final Reports

These outcomes support the overall objectives of the SMP, as well as stakeholder goals for continuous improvement of SBC over the next 7 - 10 years

This work would be completed over approximately18 months (subject to permitting process document requirements) from the availability of funding. The proposed general timeline is to:

- Issue the RFP in Q3 2022
- Conduct field surveys in Q4 2022 / Q1 2023
- Complete designs and finalize with stakeholders in Q2 / Q3 2023
- Finalize documentation and prepare final reports in Q3 / Q4 2023

This estimated high level timeline is subject to the timing of funds availability from this and other grant / matching sources.

Project Objectives:

This proposal focuses on progressing engineering designs and permitting for fish / aquatic species passage and related habitat improvement efforts. Combined with developing and employing baseline data, systematically addressing disruption factors, and monitoring progress into the future, we plan to raise the overall watershed health of lower SBC. The proposed structure modification designs (for all eight structures), once constructed and implemented, would:

- Reconnect approximately seven miles of the overall nine-mile reach to fish / aquatic species passage, from the FRICo Community Ditch to the Leggett Canal Complex (long term goal)
 - Completion of the four highest priority structures (for which designs are to be completed in this proposal for WSR PH II) would ultimately achieve ~five miles of reconnected channel once constructed in a subsequent phase of work
- Benefit priority native species (plains topminnow and orangespotted sunfish) within their historic range
 - Per our partners at Boulder Open Space & Mountain Parks and Colorado Parks & Wildlife, other native species within the watershed include central stoneroller, creek chub, fathead minnow, green sunfish, longnose dace, longnose sucker, and white sucker; and non-native species including rainbow trout and brown trout
- Restrict the movement of non-native, invasive, warm-water species such as catfish, carp, and bass
- Further year-round minimum stream flow objectives, and improved: stream habitat, water management infrastructure efficiency, and proximate habitat, as well as overall stream function / resiliency through automation of head gates and deployment of additional electronic / networked flow gauges

Tasks

Task 1 – Execute Stakeholder Communications Plan

Description of Task:



A comprehensive Communications Plan was developed during SMP PH I and then updated during SMP PH II. This plan will guide the project interactions with multiple stakeholder groups. We will organize communications and degree of interaction around four stakeholder groups

- 1. Steering Committee (Direct Project Partners)
 - City of Boulder
 - City of Lafayette
 - Denver Water
- 2. Core (Directly Effected) Stakeholders examples:
 - Boulder County
 - City of Louisville
 - Ditch companies Davidson, Goodhue, Marshallville, New Dry Creek Carrier (owned by 7 ditch / storage companies receiving water from the carrier ditch), Howard, East Boulder Ditch
 - Proximate private landowners / homeowners
- 3. Secondary (Indirectly Effected) Stakeholders
 - Other landowners / homeowners and entities with land and / or water rights in SBC
- 4. Direct interactions with organizations that are providing support, funding and / or expertise (collectively referred to as "Advisors")
 - Colorado Water Conservation Board
 - Colorado Parks & Wildlife
 - Colorado Division of Water Resources
 - US Fish & Wildlife Service
 - Cities of Boulder / Lafayette and Denver Water profession staff personnel

Coordination will be as follows:

- Bi-monthly Steering Committee meetings (ex: 20 held between 2018 and 2021)
- Alternate bi-monthly check-in meetings with cities of Boulder and Lafayette and their staffs (ex: 10 held between 2019 and 2021)
- Direct interactions, meetings and field visits with Core Stakeholders (ex: 14 held between 2020 and 2021)
- Mailings and meetings for all other stakeholders (ex: 1 mailing sent and 4 in-person meetings held in 2021)

Sub-tasks

1.1 Communication and coordination required to design and implement demonstration project

Ditch owners and major ditch company shareholders, and proximate private landowners with direct involvement in designs – through meetings, documents and field visits



1.2 Interact with Secondary Stakeholders

Using mailings and on-line resources, interact with municipalities, commercial / industrial users, landowners and other ditch companies not directly part of any recommended actions

Tasks

Task 2 – Develop Structure Modification Engineering Designs Including Habitat and Operational Improvements

Description of Task:

2.1 Develop a 100% design of proposed modifications for two structures (Group 1) – proposed: New Dry Creek Carrier and Howard (note: East Boulder Ditch identified in WSR PH I has been taken to 100% design by the owners after the WSR PH I project scope of 20% design level was achieved. The owners are now in the permitting process for construction)

- Integrate operational and habitat improvement into designs: 1) Operational automated gate actuators, and upstream / downstream / down ditch flow measurement, as required; 2) Habitat – proximate channel, bank and maintenance / operational access improvements
- Coordination / Management Meetings
- Background Information / Data Collection additional Survey, Field Reconnaissance
- 60% Design H&H Analysis, Draft Design Report, Draft Plan Set, Specifications & Cost Estimate, Client/Stakeholder Review & Comment
- Permitting Assistance (No Rise Certification, T&E, 404, SWMP, County Development, City Wetland)
- 90% Design Revised Plans, Report, Specs & Cost Estimate
- Final Construction Documents, including Specifications & Engineering Cost Estimate

2.2 Develop a preliminary engineering design for modification of two additional structures (Group 2) – proposed: Goodhue and Marshallville

- Integrate operational and habitat improvement into designs: 1) Operational automated gate actuators, and upstream / downstream / down ditch flow measurement, as required; 2) Habitat – proximate channel, bank and maintenance / operational access improvements
- Coordination / Management Meetings
- Background Information / Data Collection Survey, Field Reconnaissance
- Preliminary Hydraulic Modeling
- Draft Design
- Stakeholder Review and Input

Method/Procedure:



All work will be accomplished using sound design incorporating the latest knowledge of the local species and passage techniques. Appropriate aquatic management practices will be followed to maximize fish passage goals, with realistic expectations of barrier operators, and in accordance with practices supported by Colorado Parks and Wildlife and US Fish and Wildlife Service.

Deliverable:

2.1 Property / topographical surveys, maps, hydraulic modeling, photos and engineering designs meeting federal, state and local entities' requirements, and assistance with all required permitting documents necessary to move into a future construction phase

2.2 Property / topographical surveys, maps, photos and engineering design to the level required to commence an RFP process for final design and permitting in a future phase of work.

Task 3 – Program Management and Administration

Description of Task:

3.1 Continue Program Management Office

3.2 Funding Sources Reporting

3.3 Third Party/Contract Services (project consultants and other third parties – split management with municipalities). Conduct RFP process(es) to select and contract with engineering / consulting firm(s)

3.4 Budget Tracking and Management

3.5 Manage Deliverables (split management with municipalities)

3.6 Project Final Reports/Deliverables to Funding Sources

Method/Procedure:



Utilize generally accepted project / program management techniques and processes. Follow grant / funding source reporting and status update requirements

Deliverable:

3.1 Functions, staffing and costs management spreadsheets

3.2 Grant administration and reporting and periodic reporting to governance and other interested parties

3.3 Continue established contracting standards; Prepare scope and fee agreements; Manage and report on third party contracts; Publish and circulate RFP materials, hold meeting and document RFP results

3.4 Budget tracking and management; In-kind and third party time sheets

3.5 Oversee and critique task level deliverables; Consolidate findings, recommendations, projects and next steps as developed

3.6 Create and/or manage the creation of final deliverables. Publish and circulate final reports. Document meetings with stakeholders

Budget and Schedule

This Statement of Work shall be accompanied by a combined Budget and Schedule that reflects the Tasks identified in the Statement of Work and shall be submitted to CWCB in excel format.

Reporting Requirements

Progress Reports: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of issuance of a purchase order, or the execution of a contract. The progress report shall describe the status of the tasks identified in the statement of work, including a description of any major issues that have occurred and any corrective action taken to address these issues.



Final Report: At completion of the project, the applicant shall provide the CWCB a Final Report on the applicant's letterhead that:

- Summarizes the project and how the project was completed.
- Describes any obstacles encountered, and how these obstacles were overcome.
- Confirms that all matching commitments have been fulfilled.
- Includes photographs, summaries of meetings and engineering reports/designs.

The CWCB will pay out the last 10% of the budget when the Final Report is completed to the satisfaction of CWCB staff. Once the Final Report has been accepted, and final payment has been issued, the purchase order or grant will be closed without any further payment.

Payment

Payment will be made based on actual expenditures and must include invoices for all work completed. The request for payment must include a description of the work accomplished by task, an estimate of the percent completion for individual tasks and the entire Project in relation to the percentage of budget spent, identification of any major issues, and proposed or implemented corrective actions.

Costs incurred prior to the effective date of this contract are not reimbursable. The last 10% of the entire grant will be paid out when the final deliverable has been received. All products, data and information developed as a result of this contract must be provided to as part of the project documentation.

Performance Measures

Performance measures for this contract shall include the following:

(a) Performance standards and evaluation: Grantee will produce detailed deliverables for each task as specified. Grantee shall maintain receipts for all project expenses and documentation of the minimum inkind contributions (if applicable) per the budget in Exhibit C. Per Grant Guidelines, the CWCB will pay out the last 10% of the budget when the Final Report is completed to the satisfaction of CWCB staff. Once the Final Report has been accepted, and final payment has been issued, the purchase order or grant will be closed without any further payment.

(b) Accountability: Per Grant Guidelines full documentation of project progress must be submitted with each invoice for reimbursement. Grantee must confirm that all grant conditions have been complied with on each invoice. In addition, per Grant Guidelines, Progress Reports must be submitted at least once every 6 months. A Final Report must be submitted and approved before final project payment.

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

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





EXHIBIT B: Summary Budget and Funding Sources

Summary Budget

	PROJECT BUDGET												
Task No.	Task Description	Grant Funding Request	Match Funding	Total									
1	Execute Stakeholder Communications Plan	\$9,500	\$9,900	\$19,400									
2	Develop Structure Modification Engineering Designs Including Habitat and Operational Improvements												
2.1	Develop a 100% design of proposed modifications two structures (Group 1) – proposed: New Dry Creek Carrier and Howard	\$170,900	\$170,900	\$341,800									
2.2	Develop a 15-20% preliminary engineering design for modification of two additional structures (Group 2) – proposed: Goodhue and Marshaville	\$51,200	\$51,300	\$102,500									
3	Program Management and Administration	\$18,400	\$19,900	\$38,300									
	PROJECT TOTAL	\$250,000	\$252,000	\$502,000									

Funding Sources

FUNDING												
SOURCE	CASH	IN-KIND	TOTAL	PERCENT								
Colorado Water Conservation Board	\$250,000	\$0	\$250,000	50%								
Municipalities / Ditch Companies												
(confirmed)	\$100,000	\$22,000	\$122,000	24%								
US Fish & Wildlife Service – Fish Passage												
(application in process)	\$112,000	\$0	\$112,000	22%								
Trout Unlimited (confirmed)	\$0	\$18,000	\$18,000	4%								
TOTAL	\$462,000	\$40,000	\$502,000	100%								

These amounts are based on a detail, task level budget narrative and estimate (see Exhibit C). We used actual results from earlier projects, and used current engineering and consulting contractors to review our task requirements and to verify our estimated hours to accomplish each task.



COLORADO Colorado Water Conservation Board

Department of Natural Resources

Colorado Water Conservation Board

Water Plan Grant - Exhibit C – 1

Budget and Schedule

Prepared Date: 01 December 2021

Name of Applicant: Colorado Trout Unlimited

Name of Water Project: Lower South Boulder Creek (SBC) – Watershed Restoration Phase II – Engineering Design and Permitting for Priority Diversion Structures

Project Start Date: 01 July 2022

Task No.	Task Description	Task Start Date	Task End Date	Grant Funding Request	Match Funding	Total
1	Task 1 - Execute Stakeholder Communications Plan	07/01/22	12/31/23	\$9,500.00	\$9,900	\$19,400.00
2	Task 2 – Develop Structure Modification Engineering Designs Including Habitat and Operational Improvements					
	2.1 Develop a 100% design of proposed modifications two structures (Group 1) – proposed: New Dry Creek Carrier and Howard	08/1/22	11/30/23	\$170,900	\$170,900	\$341,800
	2.2 Develop a preliminary engineering design for modification of two additional structures (Group 2) – proposed: Goodhue and Marshaville	08/1/22	11/30/23	\$51,200	\$51,300	\$102,500
3	Task 3 - Program Management and Administration	07/1/22	12/31/23	\$18,400	\$19,900	\$38,300
						\$0
						\$0
						\$0
						\$0
						\$0
						\$0
						\$0
						\$0
						\$0
						\$0
			Total	\$250,000	\$252,000	\$502,000
		Page 1	of 1			



COLORADO Colorado Water **Conservation Board** Department of Natural Resources

0.00 \$

0.00 \$

0.00 \$

0.00 \$

0.00 \$

Prepared Date: 01 December 2021

Exhibit C – 2

Name of Applicant: Colorado Trout Unlimited Name of Water Project: Lower South Boulder Creek (SBC) – Watershed Restoration Phase II – Engineering Design and Permitting for Priority Diversion Structures Fish Passage, Low Flow Passage / Administration and Operational / Habitat Improvement Modifications (WSR PH II)

Engineering / Automation Design, Repair and Installation Aver Hrly Rate = \$30.80 Aver Hrly Rate = Trout Unlimited In-Kind Municipal / Ditch CO In-Task Description Hourly Rate # Hours Sub-total Hourly Rate # Hours Task 1 - Execute Stakeholder Communications Plan Sub-tasks 1.1 Communication and coordination required to design and implement demonstration project Ditch owners and major ditch company 45.00 \$ shareholders, and proximate private landowners \$ 30.80 60.00 \$ 1,848.00 \$ 55.00 - through meetings, documents and field visits 1.2 Interact with Secondary Stakeholders Using mailings and on-line resources, interact with municipalities, commercial / industrial Ś 60.00 \$ 1,848.00 \$ 55.00 0.00 \$ 30.80 users, landowners and other ditch companies not directly part of any recommended actions A. Misc Costs (Printing, Supplies, Web / 0.00 \$ Ś 0.00 \$ - \$ --Graphics) B. Development of online communications tools 0.00 \$ 0.00 \$ - \$ and content SUB-TASK TOTAL 120.00 \$3,696.00 45.00 TASK 1 TOTAL 120.00 \$ 3,696.00 45.00 \$ Task 2 – Develop Structure Modification Engineering **Designs Including Habitat and Operational Improvements** Sub-tasks 2.1 Develop a 100% design of proposed modifications two structures (Group 1) – proposed: New Dry Creek Carrier and Howard integrate operational and napitat improvement into designs: 1) Operational – automated gate actuators, and upstream / downstream / down ditch flow measurement with telemetry, as \$ 30.80 40.00 \$ 1,232.00 \$ 55.00 40.00 \$ required; 2) Habitat – proximate channel, bank and maintenance / operational access imnrovements 2.1.1 Coordination/Management/Meetings 0.00 \$ 0.00 \$ - \$ --Ś 2.1.2 Background Information/Data Collection -

additional Survey, Field Reconnaissance

2.1.4 Permitting Assistance (No Rise Certification, T&E, 404, SWMP, County

Development, City Wetland)

& Cost Estimate

2.1.3 60% Design - H&H Analysis, Draft Design Report, Draft Plan Set, Specifications & Cost

Estimate, Client/Stakeholder Review & Comment

2.1.5 90% Design - Revised Plans, Report, Specs

Specifications & Engineering Cost Estimate A. Maps, hydraulic modeling, photos and engineering designs meeting federal, state and

2.1.6 Final Construction Documents, including

Lump Costs	local entities' requirements, and all required	\$ -	0.00 \$	-	\$	-	0.00 \$	-	\$	-	0.00 \$	-	0.00	\$	-
	permitting documents necessary to move into a														
	future construction phase B. Property / topographical surveys (50% Tasks 2.1 / 2.2 property / topological surveys)	\$ -	0.00 \$	-	\$	-	0.00 \$	-	\$	-	0.00 \$	-	0.00	\$	-
SUB-TASK TOTAL			40.00 \$	1,232.00)		40.00 \$	2,200.00)		1,400.00 \$	323,400.00	1,480.00	\$ 326	6,832.00
2.2 Develop a preliminary engineering design for															
modification of two additional structures (Group 2) –															
proposed: Goodhue and Marshaville	Integrate operational and hapitat improvement														
	into designs: 1) Operational – automated gate														
	actuators, and upstream / downstream / down														
	ditch flow measurement with telemetry, as	\$ 30.80	40.00 \$	1,232.00) \$	55.00	40.00 \$	2,200.00) \$	-	0.00 \$	-	80.00	\$ 3	3,432.00
	required; 2) Habitat – proximate channel, bank														
	and maintenance / operational access														
	improvements 2.2.1 Coordination/Management/Meetings	\$ -	0.00 \$	-	\$	-	0.00 \$	-	\$	231.00	37.50 \$	8,662.50	37.50	\$ 8	8,662.50

0.00 \$

- \$

0.00 \$ - \$ -

0.00 \$ - \$ -

0.00 \$ - \$ -

0.00 \$ - \$

-

-

-

-

\$-

-

-

\$

Ś

Colorado Water Conservation Board

Water Plan Grant - Detailed Budget Estimate Fair and Reasonable Estimate

L	\$55.00		Aver Hrly	Rate =	\$231.00	Comio		atala													
· r	Sub-total	Ηοι	Irly Rate	# Hours	Sub-Total	Hours		Amount		1	Item Cost	Item Cost Item Quantity	Item Cost Item Quantity	Item Sub- Item Cost Item Quantity Total	Item Sub- Item Cost Item Quantity Total	Item Sub- Item Cost Item Quantity Total	Item Sub- Item Cost Item Quantity Total Total	Item Sub- Item Cost Item Quantity Total CV	Item Sub- Item Cost Item Quantity Total CWCB Funds	Item Sub- Item Cost Item Quantity Total CWCB Funds	Item Sub- Item Cost Item Quantity Total Fur
									•												
	2,475.00	\$	231.00	42.00 \$	\$ 9,702.00	147.00	\$	14,025.00													
		ć	221.00	0.00	÷	60.00	ć	1 949 00													
•	-	Ş	231.00	0.00	> -	60.00	Ş	1,848.00													
5	-	\$	-	0.00	\$-	0.00	\$	-		\$	\$ 500.00	\$ 500.00 1.00	\$ 500.00 1.00 \$	\$ 500.00 1.00 \$ 500.00	\$ 500.00 1.00 \$ 500.00	\$ 500.00 1.00 \$ 500.00	\$ 500.00 1.00 \$ 500.00	\$ 500.00 1.00 \$ 500.00	\$ 500.00 1.00 \$ 500.00	\$ 500.00 1.00 \$ 500.00	\$ 500.00 1.00 \$ 500.00
5	-	Ś	-	0.00	\$ -	0.00	\$	-		Ś	\$ 3,000.00	\$ 3,000.00 1.00	\$ 3,000.00 1.00 \$	\$ 3,000.00 1.00 \$ 3,000.00	\$ 3.000.00 1.00 \$ 3.000.00	\$ 3.000.00 1.00 \$ 3.000.00	\$ 3.000.00 1.00 \$ 3.000.00	\$ 3.000.00 1.00 \$ 3.000.00	\$ 3.000.00 1.00 \$ 3.000.00	\$ 3.000.00 1.00 \$ 3.000.00	\$ 3.000.00 1.00 \$ 3.000.00
	62 475 00			42.02		207.00	•	645 072 00			¢ 2,500,00	÷ 2,500,00	<u> </u>								
	\$2,475.00			42.00	\$9,702.00	207.00	ć	\$15,873.00		<u>></u>	\$ 3,500.00	\$ 3,500.00	\$ 3,500.00 \$	\$ 3,500.00 \$ 3,500.00 \$ 3,500.00	\$ 3,500.00 \$ 3,500.00	\$ 3,500.00 \$ 3,500.00 \$ 5,500.00 \$ 5,500.00 \$	\$ 3,500.00 \$ 3,500.00 \$ 3,500.00 \$ 19,373.00 \$ 19,373.00	\$ 3,500.00 \$ 3,500.00 \$ 19,373.00 \$ 2,500.00 \$ 10,373.00 \$ 10,373.00	\$ 3,500.00 \$ 3,500.00 \$ 19,373.00 \$ 19,373.00	\$ 3,500.00 \$ 3,500.00 \$ 19,373.00 \$ 19,373.00 \$ 19,373.00	\$ 3,500.00 \$ 3,500.00 \$ 19,373.00 \$ 19,373.00 \$ 19,373.00 \$ 19,373.00

2,200.00	\$ -	0.00	\$ -	80.00	\$ 3,432.00				
-	\$ 231.00	112.00	\$ 25,872.00	112.00	\$ 25,872.00				
-	\$ 231.00	168.00	\$ 38,808.00	168.00	\$ 38,808.00				
-	\$ 231.00	490.00	\$ 113,190.00	490.00	\$ 113,190.00				
-	\$ 231.00	280.00	\$ 64,680.00	280.00	\$ 64,680.00				
-	\$ 231.00	238.00	\$ 54,978.00	238.00	\$ 54,978.00				
-	\$ 231.00	112.00	\$ 25,872.00	112.00	\$ 25,872.00				
-	\$ -	0.00	\$ -	0.00	\$ -	\$	5,000.00	1.00	\$ 5,000.00
-	\$ -	0.00	\$ -	0.00	\$ -	\$	10,000.00	1.00	\$ 10,000.00
2,200.00		1,400.00	\$ 323,400.00	1,480.00	\$ 326,832.00	\$	15,000.00		\$ 15,000.00

|--|

Percent	
49%	
50%	

	2.2.2 Background Information/Data Collection - Survey, Field Reconnaissance	\$	- 0.00 \$ -	\$-	0.00 \$ - \$ 231.00	37.50 \$ 8,662.50	37.50 \$ 8,662.50			
	2.2.3 Preliminary Hydraulic Modeling	\$	- 0.00 \$ -	Ş -		93.75 \$ 21,656.25	93.75 \$ 21,656.25			
	2.2.4 Draft Design	Ş	- 0.00 \$ -	Ş -	0.00 \$ - \$ 231.00	168.75 \$ 38,981.25	168.75 \$ 38,981.25			
	2.2.5 Stakeholder Review and Input A. Maps, photos and engineering design to the	Ş	- 0.00 \$ -	Ş -	0.00 \$ - \$ 231.00	37.50 \$ 8,662.50	37.50 \$ 8,662.50			
Lump Costs	level required to commence an RFP process for final design and permitting in a future phase of	\$	- 0.00 \$ -	\$-	0.00 \$ - \$ -	0.00 \$ -	0.00 \$ -	\$ 2,500.00	1.00 \$ 2,500.00	
	work. B. Property / topographical surveys (50% Tasks 2.1 / 2.2 property / topological surveys)	\$	- 0.00 \$ -	\$-	0.00 \$ - \$ -	0.00 \$ -	0.00 \$ -	\$ 10,000.00	1.00 \$ 10,000.00	
SUB-TASK TOTAI			40.00 \$ 1,232.00		40.00 \$ 2,200.00	375.00 \$ 86,625.00	455.00 \$ 90,057.00	\$ 12,500.00	\$ 12,500.00	\$ 102,557.00 \$ 51,278.50 \$ 51,278.50
TASK 2 TOTAI			80.00 \$ 2,464.00		80.00 \$ 4,400.00	1,775.00 \$ 410,025.00	1,935.00 \$416,889.00	\$ 27,500.00	\$ 27,500.00	\$ 444,389.00 222,194.50 \$ 222,194.50
Task 3 - Program Management and Administration Sub-tasks 3.1 Continue Program Management Office										
	Functions, staffing and costs	\$ 30	.80 40.00 \$ 1,232.00	\$ 55.00	0.00 \$ - \$ 231.00	48.00 \$ 11,088.00	88.00 \$ 12,320.00			
Lump Costs	A. Misc Costs (Supplies, printing, copying, mailing, etc.)	\$	- 0.00 \$ -	\$-	0.00 \$ - \$ -	0.00 \$ -	0.00 \$ -	\$ 250.00	1.00 \$ 250.00	
SUB-TASK TOTAL			40.00 \$ 1,232.00		\$ - \$ -	48 \$ 11,088.00	88.00 \$ 12,320.00	\$ 250.00	\$ 250.00	
3.2 Funding Sources Reporting			, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		· · ·					
	Grant administration and reporting;									
	Periodic reporting to governance and other interested parties	\$ 30	.80 80.00 \$ 2,464.00	\$ 55.00	0.00 \$ - \$ 231.00	0.00 \$ -	80.00 \$ 2,464.00			
SUB-TASK TOTAI			80.00 \$ 2,464.00		0.00 \$ -	0.00 \$ -	80.00 2,464.00			
3.3 Third Party/Contract Services (project consultants and other third parties – split management with municipalities)		1								
	Continue established contracting standards; Prepare scope and fee agreements; Manage and report on third party contracts	\$ 30	.80 72.00 \$ 2,217.60	\$ 55.00	144.00 \$ 7,920.00 \$ 231.00	0.00 \$ -	216.00 \$ 10,137.60			
	Conduct RFP process(es) to select and contract with engineering / consulting firm(s)	\$ 30	.80 8.00 \$ 246.40	\$ 55.00	80.00 \$ 4,400.00 \$ 231.00	0.00 \$ -	88.00 \$ 4,646.40			
Lump Costs	A. Costs to publish and circulate RFP materials, hold meeting and minor travel	\$	- 0.00 \$ -	\$-	0.00 \$ - \$ -	0.00 \$ -	0.00 \$ -	\$ 500.00	1.00 \$ 500.00	
SUB-TASK TOTAL			80.00 \$ 2,464.00		224.00 \$ 12,320.00	0.00 \$ -	304.00 \$ 14,784.00	\$ 500.00	\$ 500.00	
3.4 Budget Tracking and Management	Budget tracking and management; In-kind and third party donations	\$ 30	.80 72.00 \$ 2,217.60	\$ 55.00	0.00 \$ - \$ 231.00	0.00 \$ -	72.00 \$ 2,217.60			
SUB-TASK TOTAI			72.00 \$ 2,217.60		0.00 \$ -	0.00 \$ -	72.00 \$ 2,217.60	\$ -	\$ -	
3.5 Manage Deliverables (split mgmt with municipalities)										
	Oversee and critique task level deliverables; Consolidate findings, recommendations, projects and next steps as developed	5 \$ 30	.80 40.00 \$ 1,232.00	\$ 55.00	40.00 \$ 2,200.00 \$ 231.00	0.00 \$ -	80.00 \$ 3,432.00			
SUB-TASK TOTAL			40.00 \$ 1,232.00		40.00 \$ 2,200.00	0.00 \$ -	80.00 \$ 3,432.00	\$ -	\$ -	
3.6 Project Final Reports/Deliverables to Funding Sources										
	Create and/or manage the creation of final deliverables	\$ 30	.80 60.00 \$ 1,848.00	\$ 55.00	0.00 \$ - \$ 231.00	0.00 \$ -	60.00 \$ 1,848.00			
	A. Costs to publish and circulate final reports hold meetings with stakeholders and minor	\$	- 0.00 \$ -	\$-	0.00 \$ - \$ -	0.00 \$ -	0.00 \$ -	\$ 500.00	1.00 \$ 500.00	
Lump Costs	travel									
SUB-TASK TOTAL	·		60.00 \$ 1,848.00		0.00 \$ -	0.00 \$ -	60.00 \$ 1,848.00	\$ 500.00	\$ 500.00	\$ 2,348.00
TASK 3 TOTAL			372.00 \$ 11,457.60		264.00 \$ 14,520.00	48.00 \$ 11,088.00	684.00 \$37,065.60	\$ 1,250.00	\$ 1,250.00	\$ 38,315.60 \$ 18,391.49 \$ 19,924.11
TOTAL PROJECT			572.00 \$ 17,617.60		389.00 \$ 21,395.00	1,865.00 \$ 430,815.00	2,826.00 \$469,827.60	\$ 32,250.00	\$ 32,250.00 Rounded	<u>\$ 502,077.60</u> \$ 250,078.76 \$ 251,998.84 502,000 250,000 252,000



EXHIBIT D: PRIOITY STRUCTURE PHOTOS

Davidson Ditch – Head Gate and Concrete Weir



EXHIBIT D: PRIOITY STRUCTURE PHOTOS Goodhue Ditch



Head Gate and Weir



Page 2 of 5

Marshallville Ditch

Point of Diversion



Head-Gate and Return Channel



Diversion Side Channel



Head-Gate Flume



EXHIBIT D: PRIOITY STRUCTURE PHOTOS

New Dry Creek Carrier Ditch – Head Gate; Weir; Downstream of Head Gate Monitoring Location with ALERT Network







Compiled by Trout Unlimited Boulder Flycasters Chapter - South Boulder Creek Working Group Use Only

EXHIBIT D: PRIOITY STRUCTURE PHOTOS Howard Ditch – Head Gate; Weir (flood damage)









EXHIBIT E: LETTERS OF SUPPORT

To reviewers of this grant request:

Most of the letters of support attached were originally requested and acquired when the expectations for the Watershed Restoration Project Phase II was to include the WSR Ditch Structure Automation Demonstration Project as part of a single grant request. Based on later consultation with CWCB personnel, the project was split into two grant requests, as follows:

- 1. <u>Colorado Water Plan Grant Application</u>: Lower South Boulder Creek Watershed Restoration Phase II: Engineering Design and Permitting for Priority Diversion Structures, Including Fish Passage, Flow Management and Operational / Habitat Improvement Modifications ("WSR PH II")
- 2. <u>Water Supply Reserve Fund Grant Application</u>: Lower South Boulder Creek WSR Ditch Structure Automation Demonstration Project

As a result of the letter of support request timing, the letters typically reference both project aspects. Our intent is to use these letters to show support for both of the above referenced projects. Additional letters of support are still in process and will reference the two projects as appropriate.

November 1, 2021

Chris Sturm <u>chris.sturm@state.co.us</u> Colorado Water Conservation Board 1313 Sherman Street, Room 721 Denver, CO 80203

RE: Letter of support for the South Boulder Creek - Watershed Restoration Grant Phase II Application by Colorado Trout Unlimited (CTU) and Boulder Flycasters Chapter (BFC) of Trout Unlimited (TU)

Dear Mr. Sturm:

On behalf of the Metro Roundtable I am pleased to write in support of the Colorado Water Conservation Board, Water Plan grant application submitted by Trout Unlimited for the Watershed Restoration Phase II (WSR PH II) project. TU presented the project to the Metro Roundtable on October 14, 2021, and the Roundtable voted in support of the Water Plan grant request. Specifically, WSR PH II will: 1) further develop engineering designs to modify high priority diversion structures and associated facilities to provide low flow management and fish passage, and 2.) improve operations and reduce maintenance requirements of these diversion structures. These tasks, combined with proximate habitat improvement, will further our mutual goals of water use efficiency and watershed resiliency.

During previous phases of the SMP and associated WSR projects, TU have done a very good job coordinating with appropriate lower SBC stakeholders and building support for resulting implementation projects. To date, these stakeholders and TU identified priority needs for stream restoration, and promoted opportunities for multi-benefit partnerships, among conservationists, recreationists, municipalities, agricultural, and commercial entities. The TU proposal will result in moving forward with implementation projects recommended in the SMP and endorsed by stakeholders.

We are particularly pleased that the proposed next phase (WSR PH II) will address important stakeholder needs. Specifically, advancing engineering designs and the permitting processes on two important structures that, in combination with the existing, in-process, rebuild of East Boulder Ditch, are important to restoring a significant reach of SBC within City of Boulder open space lands. We also endorse progressing the development of preliminary designs on two additional priority structures to ensure momentum into 2023 and beyond.

Importantly for our roundtable, the proposed WSR PH II addresses multiple objectives from our Basin Implementation Plan. It promotes environmental and recreational attributes on a significant stream reach for the basin. By supporting implementation of the Environmental Pool, part of the mitigation on the proposed expansion of Gross Reservoir, the project, through low flow management and increased operations efficiency, supports successful completion of multipurpose storage with one of our basin's identified projects and processes (IPP). Finally, the public outreach components of the project advance our goals for community outreach and education on water matters within the South Platte watershed.

We encourage CWCB to support WSR PH II. Judging from sources of funding and letters of support to date, there is a high probability of sustained activity and support to carry these projects to full implementation in the next few years. We support and look forward to the transition to design and build/implement phases for structures and habitat to improve lower South Boulder Creek's health and resiliency.

Sincerely,

Barran togo

Barbara Biggs, Chair, Metro Basin Roundtable

Garrett Varra, South Platte Basin Roundtable Chair

11/29/2021

Chris Sturm <u>chris.sturm@state.co.us</u> Colorado Water Conservation Board 1313 Sherman Street, Room 721 Denver, CO 80203

RE: Letter of support for the South Boulder Creek – Colorado Water Plan Watershed Restoration Grant Phase II Application by Colorado Trout Unlimited (CTU) and Boulder Flycasters Chapter (BFC) of Trout Unlimited (TU)

Dear Mr. Sturm:

On behalf of the South Platte Basin Roundtable I am pleased to write in support of the Colorado Water Conservation Board, Water Plan grant application submitted by Trout Unlimited for the Watershed Restoration Phase II (WSR PH II) project. TU presented the project to the South Platte Basin Roundtable on November 9, 2021, and the we voted in support of the Water Plan grant request. Specifically, WSR PH II will: 1) further develop engineering designs to modify high priority diversion structures and associated facilities to provide low flow management and fish passage, and 2.) improve operations and reduce maintenance requirements of these diversion structures. These tasks, combined with proximate habitat improvement, will further our mutual goals of water use efficiency and watershed resiliency. The South Platte basin Roundtable Voted unanimously to support this project at the November 9, 2021 meeting. A quorum of the membership was present.

During previous phases of the SMP and associated WSR projects, and based on stakeholder letters of support, TU have done a very good job coordinating with appropriate lower SBC stakeholders and building support for resulting implementation projects. To date, these stakeholders and TU identified priority needs for stream restoration, and promoted opportunities for multi-benefit partnerships, among conservationists, recreationists, municipalities, agricultural, and commercial entities. The TU proposal will result in moving forward with implementation projects recommended in the SMP and endorsed by stakeholders.

We are particularly pleased that the proposed next phase (WSR PH II) will address important stakeholder needs. Specifically, advancing engineering designs and the permitting processes on two important structures that, in combination with the existing, in-process, rebuild of East Boulder Ditch, are important to restoring a significant reach of SBC within City of Boulder open space lands. We also endorse progressing the development of preliminary designs on two additional priority structures to ensure momentum into 2023 and beyond.

Importantly, for our Roundtable, the proposed WSR PH II addresses multiple objectives from our Basin Implementation Plan. It promotes environmental and recreational attributes on a significant stream reach for the basin. By supporting implementation of the Environmental Pool, part of the mitigation on the proposed expansion of Gross Reservoir, the project, through low flow management and increased operations efficiency, supports successful completion of multi-purpose storage with one of our basin's identified projects and processes (IPP). Finally, the public outreach components of the project process advance our goals for community outreach and education on water matters within the South Platte watershed.

We encourage CWCB to support WSR PH II. Judging from sources of funding and letters of support to date, there a high probability of sustained activity and support to carry these projects to full implementation in the next few years. We support and look forward to the transition to design and build / implement phases for structures and habitat to improve lower South Boulder Creek's health and resiliency.

Sincerely,

Gan

Garrett Varra, South Platte Basin Roundtable Chair



City of Boulder Open Space and Mountain Parks

2520 55th Street, Boulder, CO 80301; 303-441-3440 http://www.osmp.org

26 October 2021

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

RE: Letter of support for the South Boulder Creek Watershed Restoration Grant Phase II Application by Colorado Trout Unlimited (CTU) and Boulder Flycasters Chapter (BFC) of Trout Unlimited (TU)

Dear Mr. Sturm:

The City of Boulder Open Space and Mountain Parks (OSMP) is pleased to provide our support for the proposed projects for lower South Boulder Creek (SBC) that are resulting from the Stream Management Plan (SMP). Specifically, Phase II of the Watershed Restoration project will: 1) further develop engineering designs to modify high priority diversion structures and associated facilities to provide low flow management and fish passage, and 2) improve operation and reduce maintenance requirements of these diversion structures. These tasks, combined with proximate riparian habitat restoration, will further our mutual goals of water use efficiency and watershed resiliency.

During previous phases of the SMP and associated Watershed Restoration (WSR) projects, TU has done an excellent job coordinating with appropriate SBC stakeholders. To date, these stakeholders and TU identified priority needs for stream restoration and promoted opportunities for multi-benefit partnerships among conservationists, recreationists, municipalities, agricultural, and other stakeholders. The TU proposal will result in moving forward with implementation projects recommended in the SMP and endorsed by stakeholders.

We are particularly pleased that the proposed next phase of projects will address important stakeholder needs. Specifically, advancing engineering designs and the permitting processes on two important structures that, in combination with the existing project to provide fish passage at the East Boulder Ditch, are important to restoring a significant reach of SBC within City of Boulder open space lands. We endorse progressing the development of preliminary designs on two additional priority structures to ensure momentum into 2023 and beyond. Lastly, the ditch operations automation demonstration sub-project has potential to bring more stakeholders to the process in the next few years, and aligns with DWR's direction for more efficient water management.

The City of Boulder is currently planning out-year budgets. We hope to have these budgets finalized in the next 60 days to be able to support this project, both through cash and in-kind services. Additionally, we would like to make CWCB aware of the recent level of financial support that includes staff time in-kind match for SMP PH II / WSR PH I, and \$20,000 cash match to support progressing the East Boulder Ditch fish passage project (WSR PHI). The City also funded an additional approximately \$65,000 to complete the East Boulder Ditch fish passage design and began permitting for construction in 2022. Construction is estimated to be approximately \$600,000 and will be funded by the City and Xcel Energy. The new structure will include instrumentation to support low flow management.

We look forward to working with TU to transition to the design/build and implement phases for structures and habitat to improve lower SBC's health and resiliency.

Sincerely,

Julilon.

Don D'Amico

Senior Resource Project Manager/Wetland Ecologist City of Boulder Open Space and Mountain Parks 2520 55th Street Boulder CO 80301 <u>damicod@bouldercolorado.gov</u> 303.579.0583



City of Boulder Open Space and Mountain Parks

2520 55th Street, Boulder, CO 80301; 303-441-3440 http://www.osmp.org

9 November 2021

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

RE: Letter of support for the South Boulder Creek Watershed Restoration Grant Phase II Application by Colorado Trout Unlimited (CTU) and Boulder Flycasters Chapter (BFC) of Trout Unlimited (TU)

Dear Mr. Sturm:

On behalf of the City of Boulder we are pleased to support the proposed projects for lower South Boulder Creek (SBC) resulting from the Stream Management Plan (SMP). Specifically, Phase II of the Watershed Restoration project will: 1) further develop engineering designs to modify high priority diversion structures and associated facilities to provide low flow management and fish passage, and 2.) improve operation and reduce maintenance requirements of these diversion structures. These tasks, combined with proximate riparian and aquatic habitat improvement, will further our mutual goals of water use efficiency and watershed resiliency.

During previous phases of the SMP and associated Watershed Restoration (WSR) projects, TU has done an excellent job coordinating with the appropriate lower SBC stakeholders. To date, these stakeholders and TU identified priority needs for stream restoration and promoted opportunities for multi-benefit partnerships among conservationists, recreationists, municipalities, agricultural, and other stakeholders. The TU proposal will result in moving forward with implementation projects recommended in the SMP and endorsed by stakeholders.

We are particularly pleased that the proposed next phase of projects will address important stakeholder needs. Specifically, advancing engineering designs and the permitting processes on two important structures that, in combination with the existing fish passage project on the East Boulder Ditch, are important to restoring a significant reach of SBC within City of Boulder Open Space lands. We endorse progressing the development of preliminary designs on two additional priority structures to ensure momentum into 2023 and beyond.

The City of Boulder is currently planning out-year budgets. We are confident that we will be able to provide up to \$100,000 in funding for the WSR projects in 2022 and 2023.

We look forward to working with TU to improve habitat and further our mutual goals of water use efficiency and watershed resiliency.

Sincerely,

JULDA.

Don D'Amico

Senior Resource Project Manager/Wetland Ecologist City of Boulder Open Space and Mountain Parks 2520 55th Street Boulder CO 80301 <u>damicod@bouldercolorado.gov</u> 303.579.0583



September 30, 2021

Chris Sturm chris.sturm@state.co.us Colorado Water Conservation Board 1313 Sherman Street, Room 721 Denver, CO 80203

RE: Letter of support for the South Boulder Creek Watershed Restoration Grant Phase II Application by Colorado Trout Unlimited (CTU) and Boulder Flycasters Chapter (BFC) of Trout Unlimited (TU)

Dear Mr. Sturm,

I am providing this letter in continued support of the watershed restoration (WSR) and stream management work that CTU and BFC are doing on South Boulder Creek (SBC). Currently Phase II is being completed moving toward final design and recommendations for SBC.

We have appreciated being involved as a member of the steering committee in the development of the proposed plans to improve operation and maintenance of the New Dry Creek Carrier Diversion/South Boulder Creek structures. We look forward to the next phase of the project, moving into design engineering and permitting. The potential improvements will be beneficial to not only New Dry Creek Carrier water users, but also to other landowners and agencies on SBC. Lastly, the ditch operations automation demonstration sub-project has potential to bring more stakeholders to the process in the next few years and aligns with DWR's direction for more efficient water management.

The City of Lafayette, as a significant owner of SBC water rights, and associated ditch / storage companies, will continue to work with CTU and BFC on ways that the Environmental Pool of the Gross Reservoir Expansion can aid in creek health when constructed. The City of Lafayette is currently working through budgets for 2022. We hope to have concrete numbers in the next 60 days to be able to support this project. Once Gross Reservoir is permitted, budgets can again be reviewed to determine financial and manpower support available to the WSR grant.

We look forward to continuing the work with CTU and BFC as we move into this next phase of the projects.

Sincerely

Melanie asquith

Melanie Asquith, PE Principal Utility Engineer and Water Resources Manager



September 29, 2021

Chris Sturm <u>chris.sturm@state.co.us</u> Colorado Water Conservation Board 1313 Sherman Street, Room 721 Denver, CO 80203

RE: Letter of support for the South Boulder Creek Watershed Restoration Grant Phase II Application by Colorado Trout Unlimited (CTU) and Boulder Flycasters Chapter (BFC) of Trout Unlimited (TU)

Dear Mr. Sturm:

On behalf of the water users of the Dry Creek Carrier Ditch, I express my support of the proposed ongoing development of the South Boulder Creek Stream Management Plan which is the subject of this grant application. Specifically, Phase II of the Watershed Restoration project will further develop concepts to modify the Dry Creek Carrier Ditch Diversion Structure and associated facilities to provide low flow management and fish passage in South Boulder Creek, and improve operation and reduce maintenance requirements of the Dry Creek Carrier Ditch diversion.

During previous phases of the Stream Management Plan and the associated Watershed Restoration project members of our various water user organizations have had the opportunity to interact with the CTU/BFC study team. We have provided information on our operation, our challenges, and our objectives for the future. In onsite meetings we identified several modifications to the diversion system that could be beneficial to the environment and to operation of the Dry Creek Carrier Ditch.

We would like to continue to work with CTU/BFC project team to further develop these concepts into a design that could be carried forward to final design and construction at the appropriate time. We understand that the Dry Creek Carrier Ditch shareholders will have the opportunity to be involved in review and approval of all project deliverables prior to publication, and that no physical modifications to our facilities or monetary commitments (of the users) will be made without the expressed, written approval of the Dry Creek Carrier Ditch water users.

We hope you will act favorably on this grant application to support our ongoing efforts

Sincerely, On behalf of the Water Users of the Dry Creek Carrier Ditch

Melanie Asquith Melanie Asquith, P.E.

President, Base Line Land and Reservoir Company and Water Resource Manager, City of Lafayette

October 1, 2021

Chris Sturm <u>chris.sturm@state.co.us</u> Colorado Water Conservation Board 1313 Sherman Street, Room 721 Denver, CO 80203

RE: Letter of support for the South Boulder Creek Watershed Restoration Grant Phase II Application by Colorado Trout Unlimited (CTU) and Boulder Flycasters Chapter (BFC) of Trout Unlimited (TU)

Dear Mr. Sturm:

On behalf of the Board of Directors of the Howard Ditch Company we are pleased to indicate our support of the proposed ongoing development of the South Boulder Creek Stream Management Plan which is the subject of this grant application. Specifically, Phase II of the Watershed Restoration project will further develop concepts to modify the Howard Ditch Diversion Structure and associated facilities to provide low flow management and fish passage in South Boulder Creek, and improve operation and reduce maintenance requirements of the Howard Diversion.

During previous phases of the Stream Management Plan and the associated Watershed Restoration project our staff and members of our shareholder organizations have had the opportunity to interact with the CTU/BFC study team. We have provided information on our operation, our challenges, and our objectives for the future. In an onsite meeting with the study team we identified a number of modifications to the diversion system that could be beneficial to the environment and to operation of the Howard Ditch and our shareholders flow management systems.

We would like to continue to work with CTU/BFC project team to further develop these concepts into a final design that could be carried forward to construction at the appropriate time. We understand that the Howard Ditch Company will be involved in review and approval of all project deliverables prior to publication, and that no physical modifications to our facilities will be made without the expressed, written approval of the Howard Ditch Company.

We hope you will act favorably on this grant application to support our ongoing efforts

Sincerely, Kannette Hillery Jeannette Hillery

Jeannette Hillery President Howard Ditch Company

GOODHUE DITCH COMPANY

October 1, 2021

Chris Sturm <u>chris.sturm@state.co.us</u> Colorado Water Conservation Board 1313 Sherman Street, Room 721 Denver, CO 80203

RE: Letter of support for the South Boulder Creek Watershed Restoration Grant Phase II Application by Colorado Trout Unlimited (CTU) and Boulder Flycasters Chapter (BFC) of Trout Unlimited (TU)

Dear Mr. Sturm:

On behalf of the Board of Directors of the Goodhue Ditch and Reservoir Company we are pleased to indicate our support of the proposed ongoing development of the South Boulder Creek Stream Management Plan which is the subject of this grant application. Specifically, Phase II of the Watershed Restoration project will further develop concepts to modify the Goodhue Ditch Diversion Structure and associated facilities to provide low flow management and fish passage in South Boulder Creek, and improve operation and reduce maintenance requirements of the Goodhue diversion.

During previous phases of the Stream Management Plan and the associated Watershed Restoration project our staff and I have had the opportunity to interact with the CTU/BFC study team. We have provided information on our operation, our challenges, and our objectives for the future. In an onsite meeting with the study team we identified a number of modifications to the diversion system that could be beneficial to the environment and to operation of the Goodhue Ditch.

We would like to continue to work with CTU/BFC project team to further develop these concepts into a preliminary design that could be carried forward to final design at the appropriate time. We understand that the Goodhue Ditch and Reservoir Company will be involved in review and approval of all project deliverables prior to publication, and that no physical modifications to our facilities or financial participation will be made without the expressed, written approval by the Board of Directors of the Goodhue Ditch and Reservoir Company.

We hope you will act favorably on this grant application to support our ongoing efforts

Sincerely,

ory Peter

Cory Peterson City of Louisville, Serving as the President of Goodhue Ditch and Reservoir Company Goodhue Ditch Company

September 30, 2021

Chris Sturm <u>chris.sturm@state.co.us</u> Colorado Water Conservation Board 1313 Sherman Street, Room 721 Denver, CO 80203

RE: Letter of support for the South Boulder Creek Watershed Restoration Grant Phase II Application by Colorado Trout Unlimited (CTU) and Boulder Flycasters Chapter (BFC) of Trout Unlimited (TU)

Dear Mr. Sturm:

On behalf of the Board of Directors of the Marshallville Ditch Company we are pleased to indicate our support of the proposed ongoing development of the South Boulder Creek Stream Management Plan which is the subject of this grant application. Specifically, Phase II of the Watershed Restoration project will further develop concepts to modify the Marshallville Ditch Diversion Structure and associated facilities to provide low flow management and fish passage in South Boulder Creek, and improve operation and reduce maintenance requirements of the Marshallville diversion.

During previous phases of the Stream Management Plan and the associated Watershed Restoration project our staff and members of our Board have had the opportunity to interact with the CTU/BFC study team. We have provided information on our operation, our challenges, and our objectives for the future. In an onsite meeting with our staff and several Board members we identified a number of modifications to the diversion system that could be beneficial to the environment and to operation of the Marshallville Ditch.

We would like to continue to work with CTU/BFC project team to further develop these concepts into a preliminary design that could be carried forward to final design at the appropriate time. We understand that the Marshallville Ditch Company will be involved in review and approval of all project deliverables prior to publication, and that no physical modifications to our facilities will be made without the expressed, written approval of the Marshallville Ditch Company.

We hope you will act favorably on this grant application to support our ongoing efforts.

Sincerely,

de Ander Belle

Linda Anderson-Biella Secretary-Treasurer Marshallville Ditch Company

EXHIBIT F – REACH MAP

WSR PH II Scope

Conduct RFP process(es) to select and contract engineering / consulting firm(s)

The selected firm(s) would:

- Develop a 100% design of modifications for two diversion structures (Group 1)
- Assist with permitting process(es) required for a future construction phase of work (Group 1)
- Develop a preliminary engineering design for modification of two additional structures to the level required to commence RFP process(es) required for a final design and permitting future phase of work (Group 2)

Outcomes:

- Group 1: Maps, surveys, hydraulic modeling, photos and engineering designs meeting federal, state and local entities' permitting requirements necessary to move into a future construction phase
- Group 2: Maps, surveys, photos and engineering design to the level required to commence RFP process(es) for a final design and permitting future phase of work

NOTE: **East Boulder Ditch** has already successfully progressed from the preliminary design work in WSR PH I to full design by East Boulder Ditch Company (City of Boulder and Xcel Energy). It is currently in the permitting process and will go to construction bid in 2022 (circled in black)



11/30/2021