

Last Updated: May 2021

Colorado Water Conservation Board

Water Plan Grant – Statement of Work – Exhibit A

Statement Of Work	
Date:	12/01/2023
Name of Grantee:	Colorado Trout Unlimited (CTU)
Name of Water Project:	(Lower) South Boulder Creek – Watershed Restoration Phase III – Engineering Design, Permitting and Stakeholder Outreach
Funding Source:	
Water Project Overview:	
<p>This will be the next in a series of projects recommended in the South Boulder Creek (SBC) SMP (April 2018 – September 2022) to be able to support the operation of an Environmental Pool (EP) being built as part of the Gross Reservoir Expansion Project. Additionally, the efforts required to modify ditch structures to pass and administer the EP minimum flow requirements presents opportunities to reconnect up to 7 miles of this 9-mile stretch (aquatic species / fish passage), improve in-stream and bank-side habitat, and update / improve ditch operations through structure improvements and automation.</p> <p>Lower SBC Watershed Restoration Phase I (“WSR PH I”) focused on structure modification conceptual designs for aquatic species passage / channel connectivity, flow management, associated operational improvement, and proximate habitat / environmental improvements. The WSR PH I project launched in August 2020 and concluded in September 2022. The deliverables included concept designs for 8 priority structures to be modified. One structure (East Boulder Ditch) was subsequently taken to 100% design by the ditch company. East Boulder Ditch is finalizing permitting and working through construction bids at this time.</p> <p>SBC Watershed Restoration Phase II (“WSR PH II”) is focused on progressing engineering designs, and associated permitting documents, for four (4) priority structures. The project is developing final (100%) designs for modifications of two diversion structures (current work has progressed to the 60% design level); and assisting with permitting documents required for a future construction phase of work. Additionally, the project is developing preliminary engineering designs (currently in process for January 2024 review with ditch companies) 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. This project commenced in October 2022 and is scheduled to complete by July 2024.</p> <p>The proposed SBC Watershed Restoration Phase III (“WSR PH III”) – this grant application - will (a.) progress the two final design structures from PH II through the permitting process required to initiate a future construction phase; (b.) progress three structures from concept (one structure) / preliminary design (2 structures) completed in PH II to final (100%) designs; (c.) progress the three structures completing final design in this phase through the permitting process required to initiate a future construction phase of work; and (d.) broaden previous stakeholder communications to a local public outreach and education effort to support permitting support from the stakeholders / community.</p>	

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All efforts have been and continue to be in partnership with local stakeholders, including:

City of Boulder, City of Lafayette, Denver Water, City of Louisville, Boulder County, and the five targeted ditches comprising 13 ditch companies

Scientific and engineering advisory stakeholders include: various municipal, State of Colorado (CPW, DWR) and US Fish & Wildlife Service personnel participate in proposed improvement concept / design reviews, and provide professional staff support, funding, access to data, and subject matter expertise. A subset of the stakeholders also make up the project steering committee,

Funds will be used primarily for contracted project management, and engineering and environmental consulting services, as well as for public outreach, education content, and associated meetings, discussions, etc.

Project Objectives:

The proposed SBC WSR PH III objectives are to:

1. Progress the most critical, longest lead-time structure modifications in a deliberate and overlapping series of projects to meet the SMP long term goals:
 - Support the operation of an Environmental Pool (EP) being built as part of the Gross Reservoir Expansion Project. Given estimated construction timelines for the expansion and the lead time for the EP to likely fill, we have approximately 7- 9 years to accomplish these goals. The county and federal permitting processes are the most significant WSR project timeline / risk factors.
 - Additionally, the efforts required to modify ditch structures to pass and administer the EP minimum flow requirements, presents opportunities to leverage resources to:
 - Reconnect up to 7 miles of this 9-mile stretch (aquatic species / fish passage)
 - Improve in-stream and bank-side habitat
 - Update / improve ditch operations and maintenance through structure improvements and automation
2. Continue to implement the major recommendations of the South Boulder Creek SMP, specifically regarding required modifications to 5 of the 8 high priority ditch structures (for the other 3, 1 structure is currently preparing for construction and two require only minor gate / flume changes). In this phase we propose to:
 - Progress the two final design structures from the current SBC WSR PH II through the permitting process required to initiate a future construction phase
 - Progress three structures from concepts (one structure) / preliminary designs (two structures) from the current SBC WSR PH II to final (100%) designs
 - Progress the three structures completing final design in SBC WSR PH II through the permitting process required to initiate a future construction phase of work
 - Broaden previous stakeholder communications through a local public outreach and education effort (in advance of public notices from the permitting process)

Tasks

Task 1 - Execute Structures Specific Outreach and Communications Plan



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Description of Task:
Communication and coordination required to design structure modifications (Davidson, Goodhue, Marshallville) and gain asset owner commitments
Method/Procedure:
Ditch owners / major ditch company shareholders, and proximate private landowners – through virtual meetings, documents, and field visits - Preparation for 25 meetings over 5 years (A) Ditch Owners: 3, 2 hr. field visits and 3, 2 hr. virtual meetings (preliminary design review, 60% review); and 3, 3 hr. field visits and 3, 2 hr. virtual meetings (90% reviews) - 12 meetings / 2 BFC / 3 Stakeholder / 1 PM / 2 TC (B) Stakeholders (municipalities (Boulder County, Cities of Louisville, Boulder, Lafayette), USFWS, CPW, DWR): 2, 4 hr. field visits and 1, 2 hr. virtual meetings - 3 meetings / 2 BFC / 8 Stakeholder / 1 PM / 3 TC (C) Immediately Proximate Private Landowners (Davidson - 2 upstream, Goodhue - 2 upstream and 2 downstream, Marshallville - 2 upstream and 8 downstream): 2, 2 hr. meetings for each of the three structures (6 total); kick off and 90% design - 6 meetings / 2 BFC / 3 Stakeholder / 1 PM / 1 TC
Deliverable:
<ul style="list-style-type: none">• Minutes, notes, presentation materials, and design / operational comments from all meetings• Preliminary Memos-of-Understanding (“MOUs”) with asset owners• Written feedback from governmental agencies, as required

Tasks



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Task 2 – Develop Structure Modification Engineering Designs Including Habitat and Operational Improvements
Description of Task: Develop a 100% design of proposed modifications for three (3) structures; and Associated Design Documents to Support Future Permitting Process – Proposed Structures: Davidson, Goodhue, Marshallville Integrate operational and habitat improvement into designs: 1) Operational – automated gate actuators, and upstream / downstream / down ditch flow measurement with telemetry, as required; 2) Habitat – proximate channel / bank, and maintenance / operational access improvements
Method/Procedure:

2.1 Coordination and Management (over 18 elapsed months) - Contract Technical, Municipality Staff, and TU Resources

2.2 Background Information / Data Collection

WSR PH II Existing Data (Goodhue and Marshallville)

- Prior Phases of Work Final Design Packages (NDCC, Howard, East Boulder Ditch), Permitting Process / Documents; Construction Estimates / Bids (East Boulder Ditch only) (05/2024)
- Prior Phase of Work Concept / Preliminary Design Document Package (Goodhue, Marshallville - 05/2024); (Davidson - 10/2022)
- Prior Phase of Work Final Report (6/2024)
- Prior Phase Topographic Maps
- Surveys and Utility Locates (8/2023)
- Structural Assessment (Goodhue only - 8/2023)
- Preliminary (1D) Hydraulic Modeling (Marshallville only - 10/2023)
- Geotechnical Reconnaissance (09/2023)
- Geomorphology Assessment Report (10/2023)
- Ecological Assessment Report (PMJM, Lady Trusses Orchid) (10/2023)
- Site Photos (2022 / 2023)
- Hydrology Report (Point Flow Model - 10/2022; and updated flow data from gauges (State DSS) (08/2023)

New Data Collection (Goodhue and Marshallville)

- Flow Measurement Plan (with DWR)
- Updates to Surveys, Utility Locates and other prior phase reports justified by significant changes in-situ



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- Hydraulic Modeling (2D) / Flood Plan Assessment
- Updated Hydrology Report (Point Flow Model - 10/2022; and updated flow data from gauges (State DSS)
- Structural Assessment (Marshallville only)

New Data Collection (Davidson)

- Surveys and Utility Locates
- Topographic Maps
- Hydraulic Modeling (2D) / Flood Plan Assessment
- Geotechnical Reconnaissance
- Geomorphology Assessment Report
- Ecological Assessment Report (PMJM, Lady Trusses Orchid)
- Site Photos
- Flow Measurement Plan (with DWR)
- Updated Hydrology Report (Point Flow Model - 10/2022; and updated flow data from gauges (State DSS)
- Structural Assessment

2.3 60% Design - All Structures

- H&H Analysis, Structural Assessment, Geo/Morph/Eco Reports, Draft Design Report, Draft Plan Set, Specifications & Cost Estimate, Client/Stakeholder Review & Comment
- Revised Plans, Report, Specs & Cost Estimate
- Ensure Documents Support Future Permitting Process (No Rise Certification, T&E, 404, SWMP, County Development, City Wetland, etc.)

2.4 90% Design – All Structures

- Revised Plans, Report, Specs & Cost Estimate

2.5 Final Design Construction Documents, including Specifications & Engineering Cost Estimate – All Structures

- Ensure Documents Support Future Permitting Process (No Rise Certification, T&E, 404, SWMP, County Development, City Wetland, etc.)

Deliverable:



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Document Scope and Purpose (in many cases these will build off prior phases of work - see above)

SURVEY: extensive background mapping including topographic data, utilities, drone aeriels, vegetation, evaluations, and floodplain delineations

GEOMORPHOLOGY: geomorphic assessment will establish a detailed, process-based understanding of creek behavior to inform the design. Will include the documentation of key geomorphic characteristics and collection of sediment sample (pebble counts) to assess bed material gradations for use in the design calculations. This information will help provide a comprehensive understanding of the main drivers of channel morphology at the project site, establishing the design criteria most appropriate for each site

ECOLOGICAL / TERRESTERAL HABITAT: understanding the resources in the area, including the resident and historic plants and animals assemblage on both sides of the diversions, and especially listed species PMJM and Lady Trusses Orchid, as well as replanting requirement to improve habitat

ECOLOGICAL/AQUATIC HABITAT: understanding of the ecological resources in the area, including the resident and historic fish assemblage on both sides of the diversions, their swimming abilities and habitat

HYDROLOGY: Existing hydrology will be utilized based on the point flow model and associated data as part of the early project phases, including low flow requirements as set in the Inter-Governmental Agreements between Boulder, Lafayette, and Denver Water

GEOTECHNICAL: Geotechnical site reconnaissance will be completed to provide guidance for foundation design and for temporary shoring during construction, and to inform whether a detailed site assessment and sampling effort is warranted

Tasks

Task 3 - Provide Permitting Process Support to Ditch and Land ("asset") Owners - Proposed: New Dry Creek Carrier and Howard (Ditch Owners), City of Boulder (Landowner)

Description of Task:

Assumption / Identified Risk: Conduct one permit process for both structures due to proximity and channel / terrain linkage

Method/Procedure:



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3.1 Consult Current Permit Requirements and Confirm Permit Process Elements, Agencies and Documents to Support Process, and Prepare Associated Documents

- General Documents
- Federal (ACOE, EPA, USFWS)
- Boulder County / City of Boulder

3.2 Review Prior Phase of Work and Final Design Documents and Update as Needed to Support Permit Document Development

- H&H Analysis, Structural Assessment, Geo/Morph/Eco Reports, Draft Design Report, Draft Plan Set, Specifications & Cost Estimate

3.3 Develop Approach, Document Support Needs, and Sequencing of Multi- Agency Permit Processes

3.4 Conduct Ditch, Landowner, Stakeholder Review & Gather / Incorporate Comments

- Permitting Process Update Meetings with Stakeholders - 1, 3 hr. meeting every 6 months over two years for process cycle - 4 meetings / 2 BFC / 2 Stakeholder / 1 PM / 1 TC

3.5 Manage Overall Permit Process, Contractors, and Deliverables

- Assume an interactive process, with overlapping agency needs and document comments

3.6 Support Communications and Collaboration with Permitting Organizations

- ACOE in conjunction with USFWS, EPA
- Boulder County
- City of Boulder
- State of Colorado - DWR, CPW, CWCB
- Ditch and Landowners (Asset) Owners

Deliverable:

Documents for Permitting - Current Assumptions:

General Documents

- Minutes, notes, presentation materials, and design / operational comments from all meetings
- Final Design and Construction Documents (from WSR PH II prior project)
- Cultural Assessment
- Biological Assessment
- Wetland delineation

Federal (ACOE, EPA, USFWS)

- 404 Wetland
- USFWS T&E
- NEPA - may not be required confirm with USFWS
- 404 Colorado Stream Quantification Tool – TBD. **Assumption / Identified Risk:** is not required at this time due to likely Nationwide 404 designation (if required estimate is additional \$30,000)

Boulder County / City of Boulder

- City of Boulder Wetland Permit
- City of Boulder Flood Plain Development Permit - Development in Conveyance or High Hazard Zone requiring hydraulic modeling
- City of Boulder OSMP Permitting
- Boulder County LISU Review
- Boulder County Grading Permit



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- FDP (no-rise certification)

Tasks

Task 4 - Provide Permitting Process Support to Ditch and Land ("asset") Owners - Proposed: Davidson, Goodhue, Marshallville (Ditch Owners), Various Private Landowners and City of Boulder (Landowner)

Description of Task:

Assumption: Conduct one permit process for each of the three structures (i.e., 3 permit cycles in total using the same task structure below) – due to distance and limited connectivity between structures

Method/Procedure:



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4.1 Consult Current Permit Requirements and Confirm Permit Process Elements, Agencies and Documents to Support Process

- General Documents
- Federal (ACOE, EPA, USFWS)
- Boulder County / City of Boulder

4.2 Review Prior Phase of Work and Final Design Documents and Update as Needed to Support Permit Document Development

- H&H Analysis, Structural Assessment, Geo/Morph/Eco Reports, Draft Design Report, Draft Plan Set, Specifications & Cost Estimate

4.3 Develop Approach, Document Support Needs, and Sequencing of Multi- Agency Permit Processes

4.4 Conduct Ditch, Landowner, Stakeholder Review & Gather / Incorporate Comments

- Permitting Process Update Meetings with Stakeholders - 1, 3 hr. meeting every 6 months over two years for process cycle - 4 meetings / 2 BFC / 2 Stakeholder / 1 PM / 1 TC

4.5 Manage Overall Permit Process, Contractors, and Deliverables

- Assume an interactive process, with overlapping agency needs and document comments

4.6 Support Communications and Collaboration with Permitting Organizations

- ACOE in conjunction with USFWS, EPA
- Boulder County
- City of Boulder
- State of Colorado - DWR, CPW, CWCB
- Ditch and Landowners (Asset) Owners

Deliverable:

Documents for Permitting - Current Assumptions:

General Documents

- Minutes, notes, presentation materials, and design / operational comments from all meetings
- Final Design and Construction Documents (from this WSR PH III prior task)
- Cultural Assessment
- Biological Assessment
- Wetland delineation

Federal (ACOE, EPA, USFWS)

- 404 Wetland
- USFWS T&E
- NEPA - may not be required confirm with USFWS
- 404 Colorado Stream Quantification Tool – TBD. **Assumption / Identified Risk:** is not required at this time due to likely Nationwide 404 designation (if required estimate is additional \$30,000)

Boulder County / City of Boulder



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- City of Boulder Wetland Permit
- City of Boulder Flood Plain Development Permit - Development in Conveyance or High Hazard Zone requiring hydraulic modeling
- City of Boulder OSMP Permitting
- Boulder County LISU Review
- Boulder County Grading Permit
- FDP (no-rise certification)

Tasks

Task 5 - Local Private Landowners and General Public Education and Project Outreach

Description of Task:

Broaden previous stakeholder communications to a local public outreach and education effort to gain permitting support from the stakeholders / community, and in advance of public notices from the permitting process

Method/Procedure:

5.1 Develop Communications Plan (use SMP Communications Plan as starting point)

- Update the SMP Communications Plan, Confirm Target Audiences, Outline Communications Needs by Audience, and Define Channels / Methods for Communication

5.2 Create Detail Communications Plan by Audience

- Mailings, Neighborhood Meetings, One-on-One Discussions, Media and Website Content, Identifying Local Neighborhood Champions, etc.

5.3 Develop Basic Website

- Host project content relevant to private landowners, water interests, and general public

5.4 Landscaping Education Component (landowners proximate to ditch construction projects)

- Work with City of Boulder / Boulder County on educating private landowners on benefits of changing hardened bank erosion controls / non-native plantings to more natural controls / native plantings
- Include in communication and web content, conduct workshops for neighborhoods, and offer individual consultation with landowners



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5.5 Execute Outreach Plans

- Attend meetings, meet with landowners, and communicate with interested parties above and beyond Task 1.0 defined meetings

5.6 On-Going Management and Monitoring

- Content development, inquiries, etc.

Deliverable:

Updated the SMP Communications Plan

Mailings

Neighborhood Meeting Content

Media and Website Content

Notes and Correspondence

Tasks

Task 6 - Program Management and Administration

Description of Task:

General Project Management, Administration, Contracting, Reporting and Deliverables Distribution



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Method/Procedure:
<p>6.1 Staff and Continue Program Management Office</p> <ul style="list-style-type: none">• Contract for 3rd Party Project Coordinator, functions, staffing and costs <p>6.2 Funding Sources Reporting</p> <ul style="list-style-type: none">• Grant administration and reporting. Periodic reporting to governance and other interested parties <p>6.3 Third Party/Contract Services (project consultants and other third parties – split management with municipalities)</p> <ul style="list-style-type: none">• Continue established and / or use asset owners' versions of contracting standards• Prepare scope and fee agreements• Manage and report on third party contracts• Support RFP process(es) to select and contract with construction, environmental and other specialty consulting firm to prepare for construction phase complete permit conditions requirements <p>6.4 Budget Tracking and Management</p> <ul style="list-style-type: none">• Budget tracking and management• In-kind and third-party donations <p>6.5 Manage Deliverables (split mgmt. with municipalities)</p> <ul style="list-style-type: none">• Oversee and critique task level deliverables; Consolidate findings, recommendations, projects, and next steps as developed <p>6.6 Project Final Reports / Deliverables to Funding Sources</p> <ul style="list-style-type: none">• Manage the creation and distribution of final deliverables
Deliverable:
<p>Contracts with third parties</p> <p>Grant and Funder required on-going status and budget reports</p> <p>On-going budget and schedule analysis</p> <p>Invoice support for grants and third parties</p> <p>Ensure completeness of deliverables and compilation of final reports</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 because of this contract must be provided to as part of the project documentation.

Performance Measures

Performance measures for this contract shall include the following:

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

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



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

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

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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)?
The proposed South Boulder Creek Watershed Restoration Phase III (“WSR PH III”) – this grant application - will (a.) progress the two final design structures from PH II through the permitting process required to initiate a future construction phase; (b.) progress three structures from concept (one structure) / preliminary design (2 structures) completed in PH II to final (100%) designs; (c.) progress the three structures completing final design in this phase through the permitting process required to initiate a future construction phase of work; and (d.) broaden previous stakeholder communications to a local public outreach and education effort to support permitting support from the stakeholders / community.
Who is/are the target audience(s)? How will you reach them? How will you involve the community?
<p>Target Audience:</p> <p>Immediately proximate private landowners: Davidson - 2 upstream, Goodhue - 2 upstream and 2 downstream, Marshallville - 2 upstream and 8 downstream</p> <ul style="list-style-type: none"> • Direct contact and in-person / telephone / in-person communications and website <p>Proximate to South Boulder Creek - Senda Rocosa, Prado, Marshallville, and Keewayden neighborhoods</p> <ul style="list-style-type: none"> • Neighborhood public meeting, mailings, website <p>General public as related to publicity resulting from permitting process</p> <ul style="list-style-type: none"> • Editorial content, website <p>Water and open space advocacy organizations</p> <ul style="list-style-type: none"> • Direct contact with Boulder Creek Watershed advocacy groups – approximately 8



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<p>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?</p>
<p>All efforts have been and continue to be in partnership with local stakeholders, including:</p> <ul style="list-style-type: none">• The City of Boulder, City of Lafayette, Denver Water, City of Louisville, Boulder County• The five (5) targeted ditch owners (representing 12 ditch operating companies)• Commercial Stakeholders<ul style="list-style-type: none">○ Xcel Energy○ Eldorado Springs Artesian Water• Scientific and engineering advisory stakeholders include<ul style="list-style-type: none">○ Above named municipal staffs○ State of Colorado (CPW, DWR)○ US Fish & Wildlife Service○ The project Steering Committee made up of City of Boulder, City of Lafayette, Denver Water and Trout Unlimited <p>Funding Partners include:</p> <ul style="list-style-type: none">• CWCB• Metro RT• South Platte Basin RT• US Fish & Wildlife Service• City of Boulder• City of Lafayette• Ditch Companies• Trout Unlimited
<p>Describe how you plan to measure and evaluate the success and impact of the project?</p>
<p>Number and level of participation at public events Willingness of immediate proximate and owners to engage with the team Responses to number of mailings and other contact vehicles Number of editorials or other news articles published Ability to keep the stakeholder group engaged and providing letters of support and matching funds</p>
<p>What research, evidence, and data support your project?</p>
<p>A series of projects that provided the underlying scientific and operational basis for these projects</p> <ul style="list-style-type: none">• Gross Reservoir Expansion – EPA / ACOE permit and scientific documents• Inter-Governmental Agreement between Cities of Boulder and Lafayette with Denver Water to include the Environmental Pool in the Gross Reservoir Expansion• South Boulder Creek Stream Management Plan – Phases I & II• South Boulder Creek Data Project (consolidating available data from various sources, and adding new data to a central repository)• South Boulder Creek Watershed Restoration Phase I

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Describe potential short- and long-term challenges with this project.
<ul style="list-style-type: none"> • Continuing to keep the stakeholders engaged in what will be a nearly 10-year effort to achieve all goals • Continue to receive funding – primarily through grants – to execute the Stream Management Plan recommendations • Unpredictability of permitting processes timelines and requirements, especially regarding Boulder County and Federal. People come and go, rules change, and the science evolves, all challenging plans over several years • Difficulty to get private landowners to respond. Efforts at direct contact to date have produced limited owners that would engage with the issues. • The Boulder community can become very active and animated when water project become known

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.”
See information above
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.
These projects help to advance multiple elements of the South Platte BIP. Assisting with planned mitigation for the Moffat Firming Project will help “maximize the implementation of IPPs” (5.1.1). Developing next steps for environmental flow management, fish passage, and potential habitat improvement projects along a stream reach with significant public access, will also “protect and enhance environmental and recreation attributes” (5.5.5). Finally, planned community outreach will advance the BIP element to “facilitate South Platte communications and outreach programs” (5.5.9).
Describe how the project achieves the education, outreach, and public engagement goals set forth in the applicable Basin Implementation Plan(s).
See information above
Describe how the project achieves the basin roundtable’s PEPO Education Action Plans.



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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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**Water Plan Grant - Exhibit C - 1
 Budget and Schedule**

Prepared Date: 01 December 2023

Name of Applicant: Colorado Trout Unlimited

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

Project Start Date: 01 July 2024

Project End Date: 01 July 2029

Task No.	Task Description	Task Start Date	Task End Date	Grant Funding Request	Match Funding	Total
1	Task 1 - Execute Structures Specific Outreach and Communications Plan	09/01/24	02/28/26	\$ 49,249.71	\$ 29,549.82	\$ 78,799.53
2	Task 2 – Develop Structure Modification Engineering Designs Including Habitat and Operational Improvements	09/01/24	02/28/26	\$ 361,181.79	\$ 216,709.07	\$ 577,890.86
3	Task 3 - Provide Permitting Process Support to Ditch and Land ("asset") Owners - Proposed: New Dry Creek Carrier and Howard (Ditch Owners), City of Boulder (Landowner)	09/01/24	08/31/26	\$ 108,171.97	\$ 64,903.18	\$ 173,075.15
4	Task 4 - Provide Permitting Process Support to Ditch and Land ("asset") Owners - Proposed: Davidson, Goodhue, Marshallville (Ditch Owners), Various Private Landowners and City of Boulder (Landowner)	01/01/27	01/31/29	\$ 266,168.27	\$ 159,700.96	\$ 425,869.23
5	Task 5 - Local Private Landowners and General Public Education and Project Outreach	09/01/24	06/30/29	\$ 31,782.12	\$ 19,069.27	\$ 50,851.39
6	Task 6 - Program Management and Administration	09/01/24	08/31/29	\$ 183,446.15	\$ 110,067.69	\$ 293,513.84
						\$ -
						\$ -
						\$ -
						\$ -
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						\$ -
Total				\$ 1,000,000.00	\$ 600,000.00	\$ 1,600,000.00

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Water Plan Grant - Detailed Budget Estimate
Fair and Reasonable Estimate

BASELINE BUDGET WITH TASK LEVEL INFLATION ADJUSTMENTS

Prepared Date: 01 December 2023

Exhibit C – 2

Name of Applicant: Colorado Trout Unlimited

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

aver hrly rate: \$31.50

aver hrly rate: \$50.00

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Stakeholder and Public Outreach / Education; and Support for Fish Passage, Low Flow Passage / Administration, Operational / Habitat Improvement Modifications

Task	Description	Target Start Date	Revised Start Date	Target End Date	Revised End Date	BFC / TU In-Kind				Stakeholder In-Kind				Contract Project Manager				Contract Technical Consultants								
						Hourly Rate	# Hours	Sub-total	Inflation Adjusted Amt	Hourly Rate	# Hours	Sub-total	Inflation Adjusted Amt	Hourly Rate	# Hours	Sub-Total	Inflation Adjusted Amt	Hourly Rate	# Hours	Sub-Total						
Federal (ACOE, EPA, USFWS)	404 Wetland USFWS T&E NEPA - may not be required confirm with USFWS 404 Colorado Stream Quantification Tool - TBD / assumption is not required at this time due to likely Nationwide 404 designation (if required estimate is \$30,000 / permit cycle)																		50.00							
																			40.00							
																			0.00							
																			0.00							
Boulder County / City of Boulder	City of Boulder Wetland Permit																		40.00							
	City of Boulder Flood Plain Development Permit - Development in Conveyance or High Hazard Zone requiring hydraulic modeling????																		0.00							
	City of Boulder OSMP Permitting																		20.00							
	Boulder County LISU Review																		70.00							
	Boulder County Grading Permit																		80.00							
	FDP (no-rise certification)																		80.00							
4.2 Review Prior Phase of Work and Final Design Documents and Update as Needed to Support Permit Document Development						\$	31.50	0.00	\$ -			\$	50.00	0.00	\$ -			\$	77.00	40.00	\$ 3,080.00	\$	180.00	8.00	\$ 1,440.00	
	H&H Analysis, Structural Assessment, Geo/Morph/Eco Reports, Draft Design Report, Draft Plan Set, Specifications & Cost Estimate																									
4.3 Develop Approach, Document Support Needs, and Sequencing of Multi-Agency Permit Processes						\$	31.50	16.00	\$ 504.00			\$	50.00	16.00	\$ 800.00			\$	77.00	80.00	\$ 6,160.00	\$	180.00	8.00	\$ 1,440.00	
4.4 Conduct Ditch, Landowner, Stakeholder Review & Gather / Incorporate Comments						\$	31.50	24.00	\$ 756.00			\$	50.00	24.00	\$ 1,200.00			\$	77.00	12.00	\$ 924.00	\$	180.00	12.00	\$ 2,160.00	
	Permitting Process Update Meetings with Stakeholders - 1, 3 hr. meeting every 6 months over two years for process cycle - 4 meetings / 2 BFC / 2 Stakeholder / 1 PM / 1 TC																									
4.5 Manage Overall Permit Process, Contractors and Deliverables						\$	31.50	48.00	\$ 1,512.00			\$	50.00	48.00	\$ 2,400.00			\$	77.00	192.00	\$ 14,784.00	\$	180.00	0.00	\$ -	
	Assume an interactive process, with overlapping agency needs and document comments																									
4.6 Support Communications and Collaboration with Permitting Organizations						\$	31.50	48.00	\$ 1,512.00			\$	50.00	48.00	\$ 2,400.00			\$	77.00	96.00	\$ 7,392.00	\$	180.00	48.00	\$ 8,640.00	
	ACOE in conjunction with USFWS, EPA Boulder County City of Boulder State of Colorado - DWR, CPW, CWCB																									
	Ditch and Landowners (Asset) Owners																									
TASK 4 LABOR COSTS (for 1 cycle)								136.00	\$ 4,284.00											420.00	\$ 32,340.00				1,046.00	\$ 100,980.00
TASK 4 LABOR COSTS (for 3 cycles) - learning curve factor = 2.7								367.20	\$ 11,566.80	\$ 12,418.17				367.20	\$ 18,360.00	\$ 19,711.38				1,134.00	\$ 87,318.00	\$ 93,745.01			2,824.20	\$ 272,646.00
LUMP SUM COSTS:						Cost Per	Quantity					Cost Per	Quantity			Cost Per	Quantity		Cost Per	Quantity		Cost Per	Quantity			
	A. Other Boulder County Items: erosion control, traffic plan, OIM, other necessary engineering reports					\$ -	0.00	\$ -			\$ -	0.00	\$ -		\$ 3,000.00	3.00	\$ 9,000.00		\$ -	0.00	\$ -		\$ -	0.00	\$ -	
TASK 4 TOTAL COSTS																									0.00	\$ 9,000.00
																									4,692.60	\$ 398,890.80
Task 5 - Local Private Landowners and General Public Education and Project Outreach																										
5.1 Develop Communications Plan (use SMP Communications Plan as starting point)		9/1/2024		6/30/2029		\$	31.50	40.00	\$ 1,260.00			\$	50.00	0.00	\$ -			\$	77.00	70.00	\$ 5,390.00	\$	180.00	70.00	\$ 12,600.00	
	Update the SMP Communications Plan, Confirm Target Audiences, Outline Communications Needs by Audience, and Define Channels / Methods for Communication																									
5.2 Create Detail Communications Plan by Audience						\$	31.50	20.00	\$ 630.00			\$	50.00	0.00	\$ -			\$	77.00	0.00	\$ -	\$	180.00	0.00	\$ -	

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

Task	Description	Target Start Date	Revised Start Date	Target End Date	Revised End Date	BFC / TU In-Kind				Stakeholder In-Kind				Contract Project Manager				Contract Technical Consultants		
						Hourly Rate	# Hours	Sub-total	Inflation Adjusted Amt	Hourly Rate	# Hours	Sub-total	Inflation Adjusted Amt	Hourly Rate	# Hours	Sub-Total	Inflation Adjusted Amt	Hourly Rate	# Hours	Sub-Total
						aver hrly rate: \$31.50				aver hrly rate: \$50.00				aver hrly rate: \$77.00				aver hrly rate: \$180.00		
5.3 Develop Basic Website	Mailings, Neighborhood Meetings, One-on-One Discussions, Media and Website Content, Identifying Local Neighborhood Champions, etc.					\$ 31.50	80.00	\$ 2,520.00		\$ 50.00	0.00	\$ -		\$ 77.00	0.00	\$ -		\$ 180.00	0.00	\$ -
5.4 Landscaping Education Component (landowners proximate to ditch construction projects)	Host project content relevant to private landowners, water interests, and general public					\$ 31.50	60.00	\$ 1,890.00		\$ 50.00	0.00	\$ -		\$ 77.00	60.00	\$ 4,620.00		\$ 180.00	0.00	\$ -
5.5 Execute Outreach Plans	Work with City of Boulder / Boulder County on educating private landowners on benefits of changing hardened bank erosion controls / non-native plantings to more natural controls / native plantings Include in communication and web content, conduct workshops for neighborhoods, and offer individual consultation with landowners					\$ 31.50	120.00	\$ 3,780.00		\$ 50.00	40.00	\$ 2,000.00		\$ 77.00	40.00	\$ 3,080.00		\$ 180.00	0.00	\$ -
5.6 On-Going Management and Monitoring	Attend meetings, meet with landowners, and communicate with interested parties above and beyond Task 1.0 defined meetings					\$ 31.50	120.00	\$ 3,780.00		\$ 50.00	0.00	\$ -		\$ 77.00	40.00	\$ 3,080.00		\$ 180.00	0.00	\$ -
Content development, inquiries, etc.																				
TASK 5 LABOR COSTS							440.00	\$ 13,860.00	\$ 14,835.12		40.00	\$ 2,000.00	\$ 2,140.71		210.00	\$ 16,170.00	\$ 17,307.64		70.00	\$ 12,600.00
LUMP SUM COSTS:						Cost Per	Quantity			Cost Per	Quantity			Cost Per	Quantity			Cost Per	Quantity	
(A) Acquire audience data from city / county records - start with WSR PH II landowner lists						\$ -	0.00	\$ -		\$ -	0.00	\$ -		\$ -	0.00	\$ -		\$ -	0.00	\$ -
(B) Costs to setup and host website						\$ -	0.00	\$ -		\$ -	0.00	\$ -		\$ -	0.00	\$ -		\$ -	0.00	\$ -
(C) Costs to publish and circulate content						\$ -	0.00	\$ -		\$ -	0.00	\$ -		\$ 3,000.00	1.00	\$ 3,000.00		\$ -	0.00	\$ -
TASK 5 LUMP SUM COSTS								\$ -				\$ -			\$ 3,000.00					\$ -
TASK 5 TOTAL COSTS																			760.00	\$ 47,630.00
Task 6 - Program Management and Administration		9/1/2024		8/31/2029																
6.1 Staff and Continue Program Management Office	Contract for 3rd Party Project Coordinator, Functions, staffing and costs					\$ 31.50	480.00	\$ 15,120.00		\$ 50.00	0.00	\$ -		\$ 77.00	0.00	\$ -		\$ 180.00	0.00	\$ -
6.2 Funding Sources Reporting	Grant administration and reporting; Periodic reporting to governance and other interested parties					\$ 31.50	160.00	\$ 5,040.00		\$ 50.00	0.00	\$ -		\$ 77.00	160.00	\$ 12,320.00		\$ 180.00	0.00	\$ -
6.3 Third Party/Contract Services (project consultants and other third parties – split management with municipalities)	Continue established and / or use asset owners' versions of contracting standards; Prepare scope and fee agreements; Manage and report on third party contracts Support RFP process(es) to select and contract with construction, environmental and other specialty consulting firms to prepare for construction phase complete permit conditions requirements					\$ 31.50	160.00	\$ 5,040.00		\$ 50.00	144.00	\$ 7,200.00		\$ 77.00	200.00	\$ 15,400.00		\$ 180.00	0.00	\$ -
6.4 Budget Tracking and Management	Budget tracking and management; In-kind and third party donations					\$ 31.50	160.00	\$ 5,040.00		\$ 50.00	0.00	\$ -		\$ 77.00	320.00	\$ 24,640.00		\$ 180.00	480.00	\$ 86,400.00
6.5 Manage Deliverables (split mgmt. with municipalities)	Oversee and critique task level deliverables; Consolidate findings, recommendations, projects and next steps as developed					\$ 31.50	160.00	\$ 5,040.00		\$ 50.00	40.00	\$ 2,000.00		\$ 77.00	480.00	\$ 36,960.00		\$ 180.00	0.00	\$ -
6.6 Project Final Reports/Deliverables to Funding Sources						\$ 31.50	240.00	\$ 7,560.00		\$ 50.00	0.00	\$ -		\$ 77.00	480.00	\$ 36,960.00		\$ 180.00	40.00	\$ 7,200.00

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						Hourly Rate	# Hours	Sub-total	Inflation Adjusted Amt	Hourly Rate	# Hours	Sub-total	Inflation Adjusted Amt	Hourly Rate	# Hours	Sub-Total	Inflation Adjusted Amt	Hourly Rate	# Hours	Sub-Total			
	Create and/or manage the creation of final deliverables																						
TASK 5 LABOR COSTS							1,360.00	\$ 42,840.00	\$ 45,853.85			184.00	\$ 9,200.00	\$ 9,847.23			1,640.00	\$ 126,280.00	\$ 135,163.97			520.00	\$ 93,600.00
LUMP SUM COSTS:						Cost Per	Quantity			Cost Per	Quantity			Cost Per	Quantity			Cost Per	Quantity				
	A. Misc. Costs (Supplies, printing, copying, mailing, etc.)					\$ -	0.00	\$ -		\$ -	0.00	\$ -		\$ 1,000.00	1.00	\$ 1,000.00		\$ -	0.00		\$ -		
	A. Costs to publish and circulate RFP materials, hold meeting and minor travel					\$ -	0.00	\$ -		\$ -	0.00	\$ -		\$ 1,000.00	1.00	\$ 1,000.00		\$ -	0.00		\$ -		
	A. Costs to publish and circulate final reports hold meetings with stakeholders and minor travel					\$ -	0.00	\$ -		\$ -	0.00	\$ -		\$ 1,000.00	1.00	\$ 1,000.00		\$ -	0.00		\$ -		
TASK 5 LUMP SUM COSTS								\$ -				\$ -				\$ 3,000.00							\$ -
TASK 5 TOTAL COSTS																						0.00	\$ 3,000.00
TASK 5 TOTAL COSTS																						3,704.00	\$ 274,920.00
PROJECT LABOR COSTS TOTAL							3,004.30	\$ 94,635.45	\$ 101,147.40		1,275.20	\$ 69,760.00	\$ 74,448.03		4,800.00	\$ 369,600.00	\$ 394,938.59				6,959.20	\$ 929,646.00	
PROJECT LUMP SUM TOTAL																						16,038.70	\$ 1,463,641.45
																						0.00	\$ 35,000.00