



Colorado Water Conservation Board

Water Plan Grant – Statement of Work – Exhibit A

Statement Of Work

Prepared Date:	April 18, 2023
Name of Grantee:	Trout Unlimited
Name of Water Project:	Halo Ranch Aquatic Habitat Enhancement
Funding Source:	Water Plan Grant Environmental and Recreation

Water Project Overview:

Trout Unlimited (TU) staff will work with Halo Ranch LLC and Freestone Aquatics to complete stream habitat enhancement of 1 mile of Tomichi Creek flowing through Halo Ranch property. This reach of stream is located 3 miles west of Sargents and 29 miles east of Gunnison, Colorado.

This aquatic habitat enhancement project will be conducted using a variety of common stream enhancement techniques and treatments. These techniques will increase aquatic functions and services within the stream-course while preserving the existing natural state. The proposed treatments include riffle enhancement, pool excavation, riparian area enhancement and bank stabilization. Work will be done moving from the top of the project reach downstream. All treatments will be performed from both dry streambank and in-channel locations with minimal disturbance to the existing conditions to the best extent practicable.

Freestone Aquatics completed baseline analysis of the reach in the spring of 2022. Restoration design as well as permitting were also completed in the fall of 2022. Project partners plan to break the reach into two segments and treat as Phase 1 and Phase 2. Construction of both phases is planned for 2023.

Project Objectives:

Complete Aquatic Habitat Enhancements on 1 mile of Tomichi Creek including:

- Enhance riffle/pool stream structure
- Streambank restoration
- Increase macro-invertebrates on the reach
- Increase riparian habitat through the reach.

Tasks

Task 1 – Baseline and Design

Description of Task:



This task has involved baseline monitoring, design and permitting. This was completed in 2022. Project partners realize that some expenses may (or may not) count as match depending on contracting date with CWCB.

Method/Procedure:

Baseline macroinvertebrate sampling was completed in April 2022 by Timberline Aquatics
Baseline stream assessment was completed in April 2022 by Freestone Aquatics
Design was completed Fall 2022 by Freestone Aquatics
Corps permit approved Nov. 2022

Deliverable:

Annual Macro sampling report
Annual Temperature data
Design and as-built post construction

Tasks

Task 2 – Habitat Enhancement Construction

Description of Task:

This task will involve implementation of aquatic enhancements on 1 mile of Tomichi Creek located on the Halo Ranch property. Enhancements include riffle structure, pool excavation, point bar development, bank stabilization and riparian vegetation improvement.

Method/Procedure:

Freestone Aquatics has completed design plan set for the project reach. The Freestone project team will begin Phase 1 in the summer of 2023 with mobilization of equipment and materials to the project site. Work will continue with Phase 2 following Phase 1 completion.

An excavator will be used to excavate, grade, and construct planned channel and bank structures. A tracked dump truck will be used to transport excess sediment material from the channel.

Freestone Aquatics has developed the following procedures to complete the project.

1. Riffle enhancement as detailed in the design set, will occur in areas where riffles currently exist. Slight increased riffle crest elevations and increased gradient will be added to existing riffles to improve velocity and dissolved oxygen levels. Riffles will be created using native cobble and supplemented with 12" riprap when needed. Riffles will be lightly compacted to ensure stability while maintaining adequate interstitial pore space within the riffle substrate to allow for macroinvertebrate community colonization and expansion.
2. Pools will also be added in areas with homogenous streambed characteristics, and/or where they have filled in with fine sediment due to poor sediment transport capabilities of the system. Homogenous streambed characteristics have been identified as lacking pool depth, low riffle gradients, and minimal in channel sinuosity. Excavation will be done using a tracked excavator from within the channel and from stable streambanks where appropriate and resulting in minimal disturbance. Pool depths will be determined based on location and are estimated to be between 3-5 feet upon completion. All excavated cobble material will be used for point bar and riffle



<p>enhancement. Cleanly excavated sands and silt will be placed in a tracked dump truck and relocated to an upland environment to minimize turbidity and prevent downstream deposition into reaches with limited sediment transport capabilities.</p> <p>3. Point Bar Enhancement treatments are prescribed in locations where adjacent streambanks are subject to mass wasting, sloughing, erosion during high flow events. Suitable material excavated from nearby or adjacent pool excavation treatment locations will be placed as fill to create or enhance point bar habitats. The treatment location will allow for increased sediment transport as the channel will be constricted, accelerating flows. The accelerated flows will result in increased dissolved oxygen levels as well as maintain stream temperatures (versus stream temperature increase associated with channel geometry displaying poor width to depth ratio). The location of the point bar habitats will allow for aggradation of fine sediments over time allowing for natural hydrophytic plant community establishment.</p> <p>4. Riparian Enhancement treatments will be performed in areas identified in the design set that are either lacking riparian plant communities or are subject to erosion sloughing or mass wasting. As detailed in the design set, the riparian enhancement treatment will consist of the grading back of existing incised streambanks, willow staking and seeding utilizing approved local seed mixes. In areas of bank grading treatments, mature willow stakes will be planted on 2 ft centers and placed at a depth to allow for water table interception. Within the design set, riparian enhancement areas are typically associated with locations affected by high flow regimes where historic agricultural practices have removed most of the upland/riparian/aquatic transitional zone.</p>
Deliverable:
1-mile aquatic habitat enhancement Photo documentation of completed structures and riparian treatments

Tasks
Task 3 – Permit Close out and Project Monitoring
Description of Task:
This task will involve permit close out coordination with Army Corps and post project monitoring.
Method/Procedure:
Freestone Aquatics will submit project close out documentation once the habitat enhancement work is completed. Monitoring for the Tomichi Creek Aquatic Habitat Enhancement Project will be performed on an annual basis, for a minimum of one year following construction completion, utilizing “real-time” photo documentation to assess performance of the constructed features and ecosystem function. Indicators for a project success will include sediment deposition amounts, riparian plant community success, stream bed heterogeneity. Post project monitoring will take place in the fall to ensure structures have maintained shape and function through peak discharge. Similarly, fall monitoring plans will allow for monitoring of vegetation growth through an entire growing season. All monitoring efforts will be recorded and analyzed to identify future maintenance needs on the project site. Reporting will also include any potential corrective measures to be taken to achieve optimal functionality of the implemented design features.
Deliverable:
Post Project photo points and drone Imagery Project completion summary document



Tasks
Task 4 – Grant Management
Description of Task:
This task will involve contracting, insurance, payments to contactors, reimbursement invoices to CWCB, and accounting of project expenses.
Method/Procedure:
15% of project equipment and contracted expenses is included in the budget
Deliverable:
Project oversight Six month and annual reporting CWCB Invoicing and grant tracking

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.

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: <ul style="list-style-type: none">• Summarizes the project and how the project was completed.• Describes any obstacles encountered, and how these obstacles were overcome.• Confirms that all matching commitments have been fulfilled.• Includes photographs, summaries of meetings and engineering reports/designs. The CWCB will pay out the last 10% of the budget when the Final Report is completed to the satisfaction of CWCB staff. Once the Final Report has been accepted, and final payment has been issued, the purchase order or grant will be closed without any further payment.

Payment



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

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

Performance Measures

Performance measures for this contract shall include the following:

- (a) Performance standards and evaluation: Grantee will produce detailed deliverables for each task as specified. Grantee shall maintain receipts for all project expenses and documentation of the minimum in-kind contributions (if applicable) per the budget in Exhibit B. Per 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.