



Colorado Water Conservation Board

Exhibit A - Water Plan Grant – Statement of Work

Statement Of Work

Prepared Date:	May 1, 2023
Name of Grantee:	American Whitewater
Name of Water Project:	Quantifying recreational impacts and identifying enhancement opportunities
Funding Source:	
Water Project Overview:	
<p>This project seeks to identify high priority river reaches and recreation locations, plan for a way to address current environmental and climate needs, and identify a process for quantifying recreational water needs of the future statewide.</p> <p>This project plans to use existing data to identify current recreational needs. Flow Preference and Boatable Days studies provide data on recreational water needs and can be used to understand the demand side of the equation for some recreational water uses. The Grantee proposes using these existing analyses in addition to other available data identify high priority reaches and locations for flow enhancement for recreation.</p> <p>The project is envisioned to be completed in multiple phases. For each phase, the Grantee plans to consult with a Technical Advisory Group (TAG) to help identify available data, methods, and evaluation approach. This grant application requests funding for Phase 1 to assemble all existing data on river-based recreational use, issues, and impact. The outcome of this initial phase will identify any high priority recreation locations already seeing the impacts to recreation from reduced streamflow. The Grantee intends to scope out water sharing opportunities for up to three high priority recreation locations. This initial phase will inform future phases of this project.</p>	
Project Objectives:	
<p>The objective of this project is to identify river segments that provide important value to people across Colorado, to understand the issues that affect the public's opportunity to enjoy these rivers, to quantify existing impacts and future risks from diminished streamflows, and to identify opportunities to reduce those impacts and risks. This project seeks to take many factors into account that affect river recreational opportunities and use those data to support decisions that can maintain or improve conditions that allow for sustainable river recreation.</p>	



Tasks
Task 1 – Review and aggregate existing data on water-based recreation
Description of Task:
<p>There are a number of statewide and watershed level planning processes that have identified or quantified water based recreation. This task would collate all these data and categorize the information that gives insight into recreational opportunity and value.</p> <p>This task would also include meeting with Basin Roundtables as well as the identification and convening of a Technical Advisory Group that would review methods and approach throughout the tasks explained below.</p> <p>The purpose of this task is to identify the stream segments and locations that provide any type of recreational experience and qualify the type of existing data that gives insight into that recreational use.</p>
Method/Procedure:
<ul style="list-style-type: none">- Work with Basin Roundtables to identify recreational users to participate on the Technical Advisory Group.- Determine statewide recreational organizations to participate in Technical Advisory Group and reach out to identify appropriate individuals to participate.- Work with identified recreational users in each basin to identify areas within their basin that have recreational opportunities in the categories listed and to request input on available and useful data sources. Provide an up-front list of survey questions then schedule a 2-hour call for each basin to review and discuss.- Provide survey questions to identified statewide Technical Advisory Group participants then schedule a 2-hour call to review and discuss.- Perform and document literature review of the identified plans and studies in a searchable database or spreadsheet. Organize the review by recreational opportunity type and geographic location.
Deliverable:
<ul style="list-style-type: none">- A series of GIS layers identifying water based recreational amenity locations statewide.- Spreadsheet summary including references to data sources used



Tasks
Task 2 – Determine available information to identify impacts
Description of Task:
<p>The Grantee will identify available data to identify existing or potential detrimental impacts to river recreational values. Sources may be included in the review of the above task, however, this task will specifically look at what information can quantify those recreational opportunities and values at locations/reaches identified in Task 1.</p> <p>Stream gage data, Flow Preference Studies and other Non-Consumptive Needs tools will be identified to understand what is already known and quantified for recreational water needs and where more data is needed.</p> <p>Recreational water needs have not been evaluated on all reaches of river that provide recreational opportunities, have not included all recreation types and, in some cases, could benefit from an updated study. In addition, previous studies supporting Colorado’s Water Plan did not address non-river recreational water needs for recreational opportunities such as urban river corridors, flat-water recreation, ski recreation, waterfowl hunting, etc.</p>
Method/Procedure:
<ul style="list-style-type: none">- Develop data criteria for assessing recreational value and impacts by recreation type.- Quantify the available information for each of the locations/reaches identified in Task 1.- Convene Technical Advisory Group to review data sources used and to further refine data criteria.- Identify existing data gaps by location/categories and include categories where there is sufficient statewide data.- Develop recommendations for future data collection.
Deliverable:
<ul style="list-style-type: none">- Value and impact criteria categories added to a scoring framework to be populated in Task 3.- A document identifying existing data criteria gaps and recommendations for future data collection.

Tasks
Task 3 – Quantify current risks for recreational water needs based on available data from Task 2
Description of Task:
<p>In this task, the Grantee will define impacts based on Task 2 information. The Grantee will develop a scoring framework based on criteria developed in conjunction with the Technical Advisory Group.</p>



Method/Procedure:
<ul style="list-style-type: none">- Define a historical baseline (pre-2002) of Boatable Days (BDs) for all existing Flow Preference studies. Other baseline data may include historical reservoir contents, use of urban river paths and trails, waterfowl take, etc.- Identify trends/changes in baseline data over the past 20 years.- Overlay reaches that have had frequent mandatory and voluntary fishing closures to understand if these recent impacts are also represented in the Boatable Days data.- Quantify other data such as river hazards, economic impacts, use level trends, and community values to inform prioritization in Task 4 for both river and other water-related recreation. As noted in Task 2, some data may be qualitative or anecdotal.- Complete scoring framework with the above analysis and add scores as heat maps to GIS layers created in Task 1.
Deliverable:
<ul style="list-style-type: none">- Scoring framework documenting historical baseline and trends/changes in baseline conditions by location and recreation type. Documentation will specifically note where data is not available to develop defensible baseline conditions and capture qualitative data in an accompanying memo.- Heat maps displaying current impacts (from historical baseline) to water-based recreational amenity locations statewide. These heat maps will be added to the GIS layers developed in Task 1.

Tasks
Task 4 – Prioritize recreation locations based on impacts and value
Description of Task:
<p>The data collection and analysis performed in prior tasks will be used in this task to prioritize recreational locations based on relative value that are experiencing impacts from reduced streamflows.</p> <p>Identified projects and community values as well as impacts to recreational opportunities other than reduced streamflows will be useful in prioritization. Other prioritization projects, such as Basin Implementation Plans or local parks and rec plans, will be helpful in this task.</p>
Method/Procedure:
<ul style="list-style-type: none">- Rank recreation locations based on heat maps developed in Task 3.- Convene Technical Advisory Group to review ranked locations and provide site specific knowledge to take into account in final prioritization.- Identify and document locations where there is no upstream use and impacts are simply due to drought/climate change; therefore there are no options for water sharing.- Identify three to five high priority recreational locations that, based on discussions with Technical Advisory Group and basin knowledge, have likely opportunities for water sharing.- Present prioritized locations to relevant Basin Roundtables.



Deliverable:
<ul style="list-style-type: none">- Document of ranking recreation locations throughout the State.- Three to five recreational locations identified to move forward into Task 5.
Tasks
Task 5 – Recommend high priority recreational reaches/locations and scope potential water sharing project
Description of Task:
This task will identify opportunities for collaborative water sharing agreements by exploring potential water supplies for high priority reaches/locations from Task 4. This task will investigate other similar projects around the state. This task will focus on feasibility of water sharing and scope out opportunities for agreements.
Method/Procedure:
<ul style="list-style-type: none">- Review and document previous similar cooperative agreements- Reconnaissance analysis of potential Collaborative Water Sharing Agreements (CWSAs) that were identified as valuable and impacted in Task 4 and have opportunities for water sharing based on discussions with the Technical Advisory Group and Basin Roundtables in Task 4. Analysis will include due diligence on upstream water rights that could supply potential CWSA; specifically an analysis of current water right yield (physical and legal), operations, existing infrastructure, etc.- Development of Conceptual CWSAs and Plans of Operation<ul style="list-style-type: none">a) Analysis of opportunities for re-timing, infrastructure needs or improvements, efficiency measures, natural infrastructure opportunities (i.e., beaver dams)b) Construct the conceptual framework of a CWSA for discussion with key stakeholdersc) Develop outreach strategies to engage upstream water rights holdersd) Approach and educate upstream water users on water sharing benefits and opportunitiese) Review the proposed CWSAs with key stakeholdersf) Identify legal mechanisms to implement the CWSAsg) Identify program costs for operation and maintenanceh) Identify funding opportunities to implement the CWSAsi) Explore how the CWSA would be administered—is there a lead entity to administer the CWSA program?j) Develop conceptual plans of operation for up to three CWSAs (to be implemented in a separate effort)
Deliverable:



Tasks	
Task 5 – Recommend high priority recreational reaches/locations and scope potential water sharing project	
Description of Task:	This task will identify opportunities for collaborative water sharing agreements by exploring potential water supplies for high priority reaches/locations from Task 4. This task will investigate other similar projects around the state. This task will focus on feasibility of water sharing and scope out opportunities for agreements.
Method/Procedure:	<ul style="list-style-type: none">- Review and document previous similar cooperative agreements- Reconnaissance analysis of potential Collaborative Water Sharing Agreements (CWSAs) that were identified as valuable and impacted in Task 4 and have opportunities for water sharing based on discussions with the Technical Advisory Group and Basin Roundtables in Task 4. Analysis will include due diligence on upstream water rights that could supply potential CWSA; specifically an analysis of current water right yield (physical and legal), operations, existing infrastructure, etc.- Development of Conceptual CWSAs and Plans of Operation<ul style="list-style-type: none">a) Analysis of opportunities for re-timing, infrastructure needs or improvements, efficiency measures, natural infrastructure opportunities (i.e., beaver dams)b) Construct the conceptual framework of a CWSA for discussion with key stakeholdersc) Develop outreach strategies to engage upstream water rights holdersd) Approach and educate upstream water users on water sharing benefits and opportunitiese) Review the proposed CWSAs with key stakeholdersf) Identify legal mechanisms to implement the CWSAsg) Identify program costs for operation and maintenanceh) Identify funding opportunities to implement the CWSAsi) Explore how the CWSA would be administered—is there a lead entity to administer the CWSA program?j) Develop conceptual plans of operation for up to three CWSAs (to be implemented in a separate effort) <ul style="list-style-type: none">- Finalize prioritized list of recreational reaches/locations with opportunities for water sharing agreements- A memo describing conceptual plans of operation for up to three water sharing agreements on high priority recreational reaches/locations.



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:

- 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 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.