



Colorado Water Conservation Board

Water Plan Grant – Statement of Work – Exhibit A

Statement Of Work

Date Prepared:	5/15/2023
Name of Grantee:	River Science
Name of Water Project:	Next Generation Water Leaders Program
Funding Source:	Water Plan Grant - Education & Innovation Category

Water Project Overview:

The Next Generation Water Leaders Program currently includes two courses (1) Water Quality & Ecology and (2) Hydrology & Watersheds. These courses are designed to give students a foundational knowledge of water quality and water quantity, build student skill sets, provide student experiences, and spark an interest in water-related careers.

The curricula follow the Colorado Water Plan and the Statewide Water Education Action Plan's guiding principles and critical water concepts. Students in this course are introduced to key concepts in hydrology including streamflow, groundwater, and watersheds. Students engage in skillset-building activities, including stream gaging, groundwater data collection, and local projects. Students are connected to community stakeholders who represent municipal supply, agriculture, recreation, and the environment and are introduced to technologies and online resources, including the Colorado Decision Support System. Lastly, students develop a final project about their local watersheds where they identify basin characteristics, perform field analysis, and connect with local stakeholders. Schools participating in this course are eligible for Career Development Incentive Program (CDIP) and students receive certificates for skillsets developed through the program.

Now that River Science has established these courses and conducted initial pilot programs, the organization is interested in exploring how to expand these opportunities statewide. The Water Quality & Ecology course is moving along with eight schools currently enrolled in the program, but River Science will continue to identify opportunities for improvement. River Science built the Hydrology & Watersheds course specifically for Canon City High School and the Arkansas River Basin. River Science will explore how to tailor this CDIP course to serve other schools within the Arkansas River Basin as well as adapt it for other river basins.

Project Objectives:

- Connect and engage with regional partners (schools, teachers, water leaders, local organizations, basin roundtable representatives).
- Integrate, tailor, and adapt the current curriculum to new areas through the development of regional resource guides to connect schools to their local water communities.
- Develop teacher training materials and execute a pilot teacher training program.



Tasks
Task 1 – Engage with Partners and Develop Strategic Plans
Description of Task:
This task focuses on continued support of existing partnerships and exploring new partnerships across the State. River Science and River Watch will continue to connect with interested partners across the state that find their program to be mutually beneficial. As a small non-profit with limited capacity, River Science’s success is dependent on the development of local partnerships. River Science seeks to find local organizations, teachers, and water professionals who are interested in working together to integrate River Science’s curricula into their existing programs, projects, and communities. River Science also knows that each basin and community is unique. By working with local partners, River Science can tailor and adapt our program to be reflective of each community providing place-based resources, student experiences, and opportunities.
Method/Procedure:
<ul style="list-style-type: none">• Continue to support and learn from our current pilot programs and partnerships (currently serving 8 schools through CDIP programs).• Engage with existing River Watch schools who are interested in expanding to the Water Quality & Ecology / Hydrology & Watersheds CDIP programs.• Engage with existing statewide partners who are interested in supporting local schools through our programs.• Explore new partnerships and understand existing programming in new regions.• Explore interest with partners in new regions who have a shared interest and want to explore collaboration around youth education in their communities.• Development of strategic plans and resource lists.
Deliverable:
Regional resource lists of interested partners, resources, and opportunities. Reporting on continued support of existing programs and strategic plans for expansion into new communities.

Tasks
Task 2 – Research and Develop Regional Resource Guides (to Supplement Curriculum)
Description of Task:
Building off task 1, River Science and River Watch will work with identified partners to develop regional resource guides that will be included as part of the teacher training program. The regional resources guides will include resources specific to their location and provide information on their local watersheds, stakeholders, and local organizations. The resource guides may include:
<ul style="list-style-type: none">• Lists of local partners who are interested in providing youth education around water (non-profits, water providers, conservation districts, state and federal agencies, etc.).• Information and resources on their river basin (basin implementation plans, websites, general information, etc.)



- Schedule of ongoing events that can be incorporated into curriculum (water festivals, events, conferences, workshops, projects, etc.)

Method/Procedure:

- Research and identify regional characteristics, existing resources, and partnerships
- Working with partners identify existing programs, student activities, and experiences that can be integrated into the curriculum
- Develop regional resource guides for each identified location.

Deliverable:

The deliverable for this task will be the three regional resource guides that can be provided to interested schools who join the program. The resource guides will provide information on their local watersheds, contacts to local organizations, and information about local projects, programs, and activities.

Tasks

Task 3 – Develop and Implement Pilot Teacher Training Program

Description of Task:

River Science and River Watch will work together to explore opportunities to (1) improve the existing River Watch training program (2) integrate Hydrology & Watersheds training into the program, and (3) implement one pilot training program as part of River Watch’s 2023 training series. By working together, River Science can improve the current River Watch program as well as share resources and provide new opportunities for schools, teachers, and students.

Teacher training materials for the Hydrology & Watersheds course will be developed and will include presentations, hands-on activities, and resources. The training will be conducted by water or industry professionals and topics covered may include:

1. Hydrology & Hydraulics: precipitation patterns, drought/fire/flood, landcover, manning’s equation, stream cross-sections, stream gaging, field data collection, Community Collaborative Rain, Hail and Snow Network (CoCoRaHS), etc.
2. Stakeholders & Use: agriculture, environment, recreation, forest health, storage, municipal & industrial use.
3. Intro to Law & Policy: Colorado water law, the Colorado Water Plan and Basin Implementation Plans, Water for the 21st Century Act, 1969 Act, agency roles including the Department of Natural Resources, Colorado Water Conservation Board, Division of Water Resources, water conservancy districts, etc.
4. Online Tools & Databases: stream stats, Colorado Decision Support System, Google Earth, etc.
5. Development of final projects: explore your watershed (basin characteristics, issues, needs, stakeholders, projects, experiences)

Method/Procedure:



- Explore how River Science and River Watch can improve the existing training program.
- Identify opportunities and barriers to expanding the annual training program to include teacher training in Hydrology & Watersheds course material.
- Work with River Watch to identify needed resources and examine budgets, logistics, and scheduling.
- Develop teacher training resources, activities, and training modules.
- Purchase equipment and materials needed for training and implementation at schools.
- Implement a pilot teacher training program (2023).
- Based on the pilot training program, improve, and restructure the program to be available to any interested school/teacher in the future.
- Survey teacher participants to measure how many students were reached by current curricula, how many students pursued CDIP certification, and how many students are projected to pursue the Hydrology and Watershed certificate.

Deliverable:

- Materials and resources developed for training program (River Science teacher training guides, training agenda to use/refine in the future, datasheets for data collection, etc.).
- Implementation of the one 2023 pilot training program.
- Written report on findings, experiences, and strategic plan for future training programs, including teacher survey results and forecasted student participation.

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 six 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 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 six 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.