Scope of Work

GRANTEE and FISCAL AGENT (if different) - Land Trust of the Upper Arkansas

PRIMARY CONTACT – Andrew Mackie, Executive Director

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PROJECT NAME – Monitoring Water Quality along the South Arkansas River

GRANT AMOUNT - $3,837

INTRODUCTION AND BACKGROUND
Provide a brief description of the project. (Please limit to half a page)

The South Arkansas Watershed is centered on the South Arkansas River, a major tributary of the Upper Arkansas River. The South Arkansas River is in Chaffee County, Colorado and flows through the City of Salida and the Town of Poncha Springs. The River has not been the focus of any major protection or restoration work over the last few decades. The Land Trust of the Upper Arkansas has committed its resources to change this picture. In partnership with the Collegiate Peaks Anglers Chapter of Trout Unlimited, the Land Trust created the South Arkansas Watershed Coalition to help restore in-stream, riparian, and water quality characteristics important for people and wildlife.

The Coalition found the funding and contracted for an overall assessment of the South Arkansas River. This assessment is addressing the physical, biological, and chemical conditions of the South Arkansas. The Land Trust started water testing in the South Arkansas in 2012 and is working to develop this effort into a long-term comprehensive baseline data source. This data will help the Land Trust evaluate the results of restoration projects and provide a framework for additional needs along the River. Water quality testing will serve as a baseline and additional testing during storm events will help identify problem areas to address point and non-point source pollution locations. We will test for temperature, pH, dissolved oxygen, calcium, magnesium, sodium, potassium, carbonate, bicarbonate, chloride, sulfate, nitrate, phosphorus, iron, manganese, zinc, copper, ammonia, alkalinity, hardness, total dissolved solids, and bacteria. The protocol calls for testing five sites identified at various points along the River a total of three times covering a time span of 18 months. In addition, we will draw water samples twice during storm events to compare conditions from normal flow.

OBJECTIVES
List the objectives of the project. Please include objectives for all aspects of the project whether funded by the CWCB or not

- Determine current water quality parameters along the South Arkansas River
- Start to create a baseline of water quality data for future comparison
- Compare water quality between normal flows with storm events
- Develop a source of data to use for evaluating the success of restoration projects
- Create a volunteer structure able to test water quality on the South Arkansas and other local creeks and rivers

TASKS
Provide a detailed description of each task using the following format. Detailed descriptions are only required for CWCB funded tasks. Other tasks should be identified but do not require details beyond a brief description.

TASK 1 – Water Meter

Description of Task

Acquire meter for pH, temperature, and dissolved oxygen testing.

Method/Procedure

Purchase meter.

Deliverable

Temperature, pH, and dissolved oxygen data for 5 sites along the South Arkansas 3x over 18 months, in addition two additional sites during storm events.

TASK 2 – Water Testing #1

Description of Task

Collect water samples from five sites along the South Arkansas River and send to Colorado State University and Pueblo Department of Health for testing.

Method/Procedure

Collect water is sample containers provided for this purpose. Sample sites are marked with GPS points and relevant landmarks. Water samples are taken on a certain schedule 2x per year.

Deliverable

Results of laboratory testing of water samples.

TASK 3 – Water Testing #2

Description of Task

Collect water samples from five sites along the South Arkansas River and send to Colorado State University and Pueblo Department of Health for testing.

Method/Procedure

Collect water is sample containers provided for this purpose. Sample sites are marked with GPS points and relevant landmarks. Water samples are taken on a certain schedule 2x per year.

Deliverable

Results of laboratory testing of water samples.

TASK 4 – Water Testing #3

Description of Task

Collect water samples from five sites along the South Arkansas River and send to Colorado State University and Pueblo Department of Health for testing.

Method/Procedure

Collect water is sample containers provided for this purpose. Sample sites are marked with GPS points and relevant landmarks. Water samples are taken on a certain schedule 2x per year.

Deliverable

Results of laboratory testing of water samples.

TASK 5 – Storm Testing #1

Description of Task

Collect water samples from sites along the South Arkansas River during major storm event and send to Colorado State University and Pueblo Department of Health for testing.

Method/Procedure

Collect water is sample containers provided for this purpose. Water samples collected during a major storm event with the possibility the storm is changing inflows and stirring up potential contaminants.

Deliverable

Results of laboratory testing of water samples.

TASK 6 – Storm Testing #2

Description of Task

Collect water samples from sites along the South Arkansas River during major storm event and send to Colorado State University and Pueblo Department of Health for testing.

Method/Procedure

Collect water is sample containers provided for this purpose. Water samples collected during a major storm event with the possibility the storm is changing inflows and stirring up potential contaminants.

Deliverable

Results of laboratory testing of water samples.

REPORTING AND FINAL DELIVERABLE

Reporting: The applicant shall provide the CWCB a progress report every 6 months, beginning from the date of the executed contract. The progress report shall describe the completion or partial completion 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 Deliverable: At completion of the project, the applicant shall provide the CWCB a final report that summarizes the project and documents how the project was completed. This report may contain photographs, summaries of meetings and engineering reports/designs.