

**Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
Agenda Item 11b**

Applicant: City of Pueblo

Water Activity Name: Bedload/Sediment Collect and Removal Technology Study

Water Activity Purpose: Consumptive and Nonconsumptive Study or Analysis

County: Pueblo

Drainage Basin: Arkansas River

Water Source: Arkansas River

Amount Requested: \$150,000 (Statewide Account) and \$75,000 (Arkansas Basin Account)

Matching Funds: Approximately \$158,000

Staff Recommendation
The proposed project may help meet a consumptive and/or nonconsumptive water supply need in the Arkansas Basin. Staff recommends approval of up to \$150,000 from the Statewide Account and up to \$75,000 from the Arkansas Basin Account to partially fund the Bedload/Sediment Collect and Removal Technology Study for the City of Pueblo contingent on resolution of the items in the issues/additional needs section.

Water Activity Summary:

This project will install and monitor the success of a Bedload Monitoring Collector system that is to be placed in Fountain Creek approximately ½ mile upstream of the confluence with the Arkansas River. The project will assess changes in the water quality and any reductions in downstream sediment deposition as well as the creek's ability to manage high flow conditions. The improvements involve the placement of a pre-cast concrete sediment collector within the bed of the creek. The collector will serve as a research tool to gage the transport rates of sediment captured by a large scale collector and to verify the system's ability to remove and classify by granule size the sediment for the beneficial re-use by the City of Pueblo. This demonstration project will be conducted for a one year period with monitoring and testing completed at specific times and a variety of flow conditions. The project includes monitoring to assess the success of the project in relationship to establishing sediment transport modeling criteria, removal of contaminants from Fountain Creek, impacts to sediment and potential benefits in reduction of erosion and the re-establishment of a stable creek channel.

The major tasks of the project are provided below:

- Task 1: Complete Design, specifications and permitting for construction of system
- Task 2: Installation of the system
- Task 3: Monitor and test water quality and sediments
- Task 4: Reporting

Funding Overview

Total project cost is approximately \$383,000 of which the WSRA funds would contribute \$225,000. The remaining costs (\$158,000) being contributed by the City in cash or in-kind services. The Basin Roundtable indicated that \$75,000 is to be requested from the Arkansas Basin account and the remaining \$150,000 to be requested from the Statewide account.

Discussion:

While the applicant provides a good description of the project and how this project has the potential to remove substantial amounts of sediment that has been caused by various upstream activities, there could have been a greater connection to the Basin Roundtables consumptive and/or nonconsumptive needs within the Arkansas River basin. In addition to the needs assessments, the application does not emphasize other important efforts associated with the Fountain Creek watershed such as the Fountain Creek Task Force, the Fountain Creek Master Plan, relationship to the Southern Delivery System and the newly formed Fountain Creek Water Authority. The application did not address all of the evaluation criteria (I through T). As indicated, there are various implied connections to the efforts led by the Basin Roundtable yet were not explicitly described in the application.

Issues/Additional Needs:

- Please include a more detailed budget, updated schedule and scope of work.

Staff Recommendation:

The proposed project may help meet a consumptive and/or nonconsumptive water supply need in the Arkansas Basin. Staff recommends approval of up to \$150,000 from the Statewide Account and up to \$75,000 from the Arkansas Basin Account to partially fund the Bedload/Sediment Collect and Removal Technology Study for the City of Pueblo contingent on resolution of the items in the issues/additional needs section.

All products, data and information developed as a result of this grant must be provided to the CWCB in hard copy and electronic format as part of the project documentation. This information will in turn be made widely available to Basin Roundtables and the general public and will help promote the development of a common technical platform.

In accordance with the revised WSRA Criteria and Guidelines, staff would like to highlight additional reporting and final deliverable requirements. The specific requirements are provided below.

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 scope 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.

Engineering: All engineering work (as defined in the Engineers Practice Act (§12-25-102(10) C.R.S.)) performed under this grant shall be performed by or under the responsible charge of professional engineer licensed by the State of Colorado to practice Engineering.