

**Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
Agenda Item 7.f.**

Applicant: Upper Gunnison River Water Conservancy District (UGRWCD)

Water Activity Name: Agricultural Water Needs Assessment and Water Supply Analysis

Water Activity Purpose: Study of Consumptive Needs

Counties: Gunnison, Montrose, Ouray, and portions of Delta, Mesa, Hinsdale, and Saguache counties

Drainage Basin: Gunnison River Basin

Water Source: Basin-wide

Amount Requested: \$120,560 (Gunnison Basin Account)

Matching Funds: \$12,400 (6.7%) of in-kind contributions are being allocated to this project. Of this \$8,250 is being donated by the UGRWCD for project administration.

Staff Recommendation
The proposed project helps understand a major concern of the Gunnison Basin. Staff recommends approval of up to \$120,560 from the Gunnison Basin Account to help better understand the agricultural water needs of the basin.

Water Activity Summary:

UGRWCD is the applicant and fiscal agent for this application, acting on behalf the Gunnison Basin Roundtable. The District is a statutorily authorized Water Conservancy District.

Overview of Water Activity

The funds from the WSRA will be used for a study to identify agricultural water needs and shortages in the Gunnison River Basin. Upon approval and receipt of a Notice to Proceed, the plan of work is anticipated to be executed in 18 months. The following objectives are to be accomplished:

1. To interview, on a sub-basin level, water users and other sources of local information for agricultural physical and legal water supply issues during the most recent drought period, 2000 – 2007.
2. Based on the results of those interviews, refine and update estimates of current agricultural water demands, supplies, and shortages for the Gunnison River Basin, including the State's Decision Support System (DSS) models and updated data.

The deliverables from the project include a report that will include: 1) a description of water short irrigation systems with the type(s) of shortages for each sub-basin, including an estimate of shortages in a 2002 type runoff year; 2) a description of the methodology, assumptions, and results of interviews; 3) simulation inputs and outputs used in presented analysis of current water shortages; 4) spreadsheets used in the calculation of shortages; 5) a description of the methodology, assumptions and results of the revised analysis.

Threshold and Evaluation Criteria

The application/project meets all four Threshold Criteria. No Statewide funds are being requested, therefore the evaluation criteria does not apply.

Discussion:

Overall the application for funding was well prepared and the study is needed to complete a basin-wide water needs assessment for this roundtable. The Roundtable believes that the magnitude of existing irrigation shortages was underestimated in the 2003 Statewide Water Supply Initiative. The nature of their concerns can be grouped into three areas: 1) The 2003 estimates did not use the most recent high altitude crop

coefficient, thus underestimating the demand for water in the Gunnison River Basin; 2) The correct efficiencies for the various component structures in the basin may not have received detailed analysis and possibly underestimating agricultural water demand at points of diversion; and 3) The North Fork of the Gunnison River needs further analysis, including areas around the towns of Delta, Cedaredge, Hotchkiss, Paonia, and Crawford.

A better estimate of agricultural needs will help determine how much water storage is needed, the potential future demand for supplemental irrigation water out of the Aspinall Unit, and better determine the amount of agricultural shortages that occur in the basin. Given this background, it is appropriate to undertake a study to identify agricultural water needs and shortages in the basin.

The scope of the study was reduced by \$65,240 for which the roundtable will submit a separate grant for the statewide funds when they become available.

Issues/Additional Needs:

- The application includes a cost estimate for each task but does not include the details behind these cost estimates, rates, or a schedule. The applicant should provide their assumptions on the cost estimates and a preliminary schedule, including a breakdown by sub-task. A final schedule and rate sheet will be needed prior to contracting.
- Please amend scope of work to explicitly identify coordination with the Colorado River Supply Availability Study, contingent upon Phase II being funded.
- This study uses the state's Decisions Support System (DSS) modeling features. As this study is undertaken, coordination with and concurrence of CWCB will be essential.
- The study doesn't include potential projects or processes to meet agricultural needs. It is recommended that this be considered part of an amended scope of work.
- It is also recommended that the applicant consider incorporated one aspect of the original scope of work, namely comparing water user identified water short agricultural water systems with those identified in the DSS.

Staff Recommendation:

The application is well prepared and the proposed project addresses a critical part of the Roundtable's basin-wide water needs assessment. Staff recommends approval of up to \$120,560 from the Gunnison Basin Account to complete the Agricultural Water Needs Assessment study 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 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.