

Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
September 11-12, 2014
Agenda Item 13(i)

Applicant & Program Sponsor: Elbert County

Water Activity Name: Rural Elbert County Groundwater-Level Monitoring Network

Water Activity Purpose: Needs Assessment Study

County: Elbert

River Basin: South Platte

Water Source: Groundwater

Total Amount Requested: \$114,500

Source of Funds: \$12,000 Metro Account; \$6,000 South Platte Basin Account; and \$96,500 Statewide Account

Matching Funds: Basin Account Matches (\$18,000) = 15.7% of total amount request
Basin Account & Applicant Match (\$165,500) = 144.5% of total amount request
Applicant Match (cash & in-kind: \$147,500) = 56.3% of total project costs (\$262,000)
(refer to *Funding Summary/Matching Funds*)

Staff Recommendation:
Staff recommends approval of up to \$12,000 from the Metro Account; \$6,000 from the South Platte Basin Account; and \$96,500 from the Statewide Account to fund the study titled: Elbert County Groundwater-Level Monitoring Network.

Water Activity Summary: Elbert County relies heavily on nonrenewable groundwater from the Denver Basin aquifers for water supply. Population growth in the county has placed increasing demands on groundwater resources, and future groundwater withdrawals are expected to increase as the population continues to grow. A detailed program to monitor groundwater levels in the Denver Basin aquifers throughout the county is needed to assist the Elbert County Board of Commissioners with making informed policy decisions about limited groundwater resources.

The objectives of the study are to establish a well network for long-term monitoring of groundwater levels in the Denver Basin aquifers throughout Elbert County and to use the network to collect frequent groundwater-level data. The network will utilize about 30 existing wells and will include wells in each of the Denver Basin aquifer units--the Dawson, Denver, Arapahoe, and Laramie-Fox Hills aquifers. Groundwater levels will be measured bi-monthly in all wells, and a portion of the wells will be instrumented with pressure transducers and data logger to record more frequent water levels. Funds from this grant will be used in 2014 and 2015

to design the well network, establish the sites as monitoring locations, and initiate groundwater level monitoring which will run through 2018. These frequent water-level measurements will be used to describe seasonal and long-term water-level trends in the Denver Basin aquifers within Elbert County and to characterize groundwater-level changes across the county.

Discussion:

No further discussion is required.

Issues/Additional Needs:

No issues or additional needs were identified.

Threshold and Evaluation Criteria:

The application meets all four Threshold Criteria.

Tier 1-3 Evaluation Criteria:

Tier 1: (a) The water activity addresses multiple needs and interests by examining groundwater levels that could affect M&I and agricultural uses within the Metro, South Platte and Arkansas Basins. Data provided through this study is needed to support improved policy development, contributing to more efficient uses of water. A better understanding of these levels can also help protect and enhance environmental and recreation objectives within the Basins. The project is supported by both the Metro and South Platte Basin Roundtables.

(b) The water activity has committed support from the US Geological Survey, the Kiowa Conservation District, and the Town of Elizabeth. Additional entities represented in the application include the US Geological Survey, the State of Colorado and Elbert County. The project fosters cooperation among water interests in quantifying the M&I gap, and will provide empirical data to support water users and policy makers in planning for future demands.

(c) The data collected will support multiple purposes, including compact compliance needs as identified in the SWSI 2010 Report, and reflected in the needs assessments of all Front Range Roundtables. Better policy development supports SWSI 2010 findings to pursue projects that benefit consumptive water users and riparian environments, and helps capitalize on the environmental and recreational benefits derived from more efficient water management. Additionally, the project supports the following defined concerns addressed in SWSI 2010:

- Encourages projects addressing multiple purposes
- Utilizes existing funding opportunities to meet consumptive & nonconsumptive water supply needs
- Fosters cooperation among water interests within and between basins
- Addresses concerns in addressing the M&I gap
- Supports efforts to meet non-consumptive water needs
- Helps meet agricultural water needs by incorporating and supporting the implementation of multi-purpose agricultural water supply projects

Tier 2: (d) Without the grant funding requested, the project cannot accomplish the comprehensive data collection effort across Elbert County necessary to meet the goals and objectives.

(e) Funding from Statewide Funds, as well as federal monies (\$82,600 from the USGS), allows this project to be as comprehensive as it must be to produce a significant impact on the region's water future. The amount of matching funds coordinated by the applicant and secured from federal agencies demonstrates a significant and appropriate commitment to the project.

Tier 3: (f) The water activity will provide data crucial to policy decisions and assist the assessment of the deep groundwater aquifers and their capacity to meet the needs of multiple water uses, including agriculture, open space, M&I needs, environmental and recreational uses, risk management requirements, compact compliance needs, as well as the future needs within Elbert County.

(g) The assessment of deep groundwater supply bears on the water management decisions affecting compact compliance. The future availability of groundwater supply is a factor in determining compact entitlements, water conservation strategies, and associated water supply development decisions.

(h) The project is aimed at developing a better understanding of available water resources, which helps determine an appropriate combination of strategies to preserve threatened and endangered species.

(i) The water project will provide a high level of benefit to Colorado by guiding policy decisions toward a sustainable water future for the region, and complement CWCB efforts to identify human, environmental and recreational water needs, and to evaluate the water supplies in each basin.

(j) The project is well-aligned with other CWCB-funded efforts in addressing multiple issues of local, basin and statewide interest.

Funding Overview/Matching Funds:

	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>
WSRA Statewide Basin Account	\$96,500	n/a	\$96,500
WSRA Metro Account	\$12,000	n/a	\$12,000
WSRA South Platte Basin Account	\$6,000	n/a	\$6,000
USGS Cooperative Water Program	\$55,700	\$0	\$55,700
CWCB Severance Tax Grant	\$49,900	\$0	\$49,900
USGS Match of CWCB Severance Tax Grant	\$26,900	\$0	\$26,900
Elbert County Volunteers	\$0	\$15,000	\$15,000
Total study costs	\$247,000	\$15,000	\$262,000

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 and Final Deliverable: 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. 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.