

**Water Supply Reserve Account – Grant and Loan Program
Water Activity Summary Sheet
Agenda Item 5.j**

Applicant: Colorado State University Extension

Water Activity Name: Agricultural Weather Data Delivery Improvements to Uncompahgre Valley Irrigators

Water Activity Purpose: Study or analysis of nonstructural and consumptive activity

County: Various

Drainage Basin: Gunnison

Water Source: Gunnison/Uncompahgre

Amount Requested: \$112,347 (\$77,093 Gunnison Basin Account, \$35,254 Statewide Account)

Matching Funds: \$27,660 (25%)

Staff Recommendation
Staff recommends approval of up to \$35,000 from the Statewide Account and \$77,000 from the Gunnison Basin Account to help complete Agricultural Weather Data Delivery Improvements to Uncompahgre Valley Irrigators project.

Water Activity Summary:

The requested funds will be used to pilot improvements in the Colorado Climate Center’s CoAgMet (Colorado Agricultural Meteorological) weather station network with agricultural irrigators in the Uncompahgre Valley. Funds would be spent over two years to install or transfer additional weather stations, improve the website1 functionality, and provide more options for receiving irrigation scheduling information.

Efficiency improvements in on-farm irrigation are considered essential to complete a long term overhaul of water delivery and irrigation management within the Uncompahgre Valley. This is in part being driven by population growth but mostly by the recovery of four endangered fish species in the Lower Gunnison. Improved irrigation efficiency and management are considered a prudent and reasonable alternative to a “take” or injury to the fish which could jeopardize all water rights in the basin. An accurate, meaningful, and user-friendly CoAgMet is a key tool for making such improvements possible.

Improvements will include: (1) Providing the agricultural irrigator with a personalized CoAgMet.com account. This allows the producer to setup crop, soil, planting, and acreage information prior to the irrigation season. (2) Tracking water use throughout the season and calculating an estimate of consumptive use and efficiency. (3) Providing corn growth degree days (GDD) and real time temperature and wind speed for easier harvest scheduling and more effective aerial pesticide application. (4) Coordinating on-farm soil moisture sensor readings with weather station outputs.

Discussion:

Staff concurs with the applicant in that accurate and timely data allows for more efficient use of our water resource. The benefits may be realized by the farmer/irrigator by minimizing irrigation expenses (e.g. energy for pumping or man-hours irrigating), maximizing crop yields and minimizing problems associated with over-irrigation of farmland. Broader benefits including reductions in salinity and selenium will hopefully be achieved through the use of this system.

The application articulates how the project meets the Evaluation Criteria as summarized below:

“This water activity is proposed for the (Lower) Gunnison Basin. The CoAgMet network is currently available for all Colorado Irrigators but this pilot project would be confined to the Uncompahgre Valley. This is because the existing management of irrigation water in the valley is under unique pressure from the Endangered Species Act. The Programmatic Biological Opinion for reoperation of the Aspinall Unit lists irrigation efficiency improvements as one of the ten strategies that should be implemented for fish species recovery. A failure to make measureable improvement in Uncompahgre irrigation water management could jeopardize the ability of local agricultural stakeholders to utilize their water rights.

Improving and quantifying agricultural water use is also only a priority for certain areas of the state. Statewide funds have been requested (for the second year of the project) since resulting benefits of this pilot study will be ultimately available to other irrigators in the state. Other agricultural regions are also pursuing CoAgMet improvements specific to their regions through local roundtable funds as needed (North Platte, Arkansas).”

Issues/Additional Needs:

None

Staff Recommendation:

Staff recommends approval of up to \$35,000 from the Statewide Account and \$77,000 from the Gunnison Basin Account to help complete Agricultural Weather Data Delivery Improvements to Uncompahgre Valley Irrigators project.

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.