

**Water Supply Reserve Account – Grant and Loan Program**  
**Water Activity Summary Sheet**  
**Consent Agenda Item 6.d**

**Applicant:** Santa Maria Reservoir Company

**Water Activity Name:** Santa Maria & Continental Reservoirs: Priority Studies to Restore Capacity

**Water Activity Purpose:** Study or Analysis of a Structural Water Project

**County:** Hinsdale

**Drainage Basin:** Rio Grande

**Water Source:** Rio Grande

**Amount Requested:** \$22,000

**Source of Funds:** Rio Grande Basin Account

**Matching Funds:** \$22,000 (applicant)

<b>Staff Recommendation</b>
Staff recommends approval of up to \$22,000 from the Rio Grande Basin Account to help complete the Santa Maria & Continental Reservoirs: Priority Studies to Restore Capacity.

**Water Activity Summary:**

This application seeks funds for the necessary continuation and expansion of an existing contract (Contract) between Santa Maria Reservoir Company (SMR) and the Colorado Water Conservation Board (CWCB). These funds will be used to conduct additional high priority engineering, surveying, and geotechnical studies at Continental Reservoir (Continental) and the 100 year old conveyance system between Continental and Santa Maria Reservoir (Santa Maria). The need for these additional funds arises in part from the findings of recently completed hydrology studies at Continental, performed under the Contract. Findings from these studies have provided a more thorough understanding of the complexities involved in restoring full capacity to Continental and Santa Maria, suggesting several alternative approaches to implementation, each of which requires full investigation.

For this reason, working with URS Corporation (the Contractor), SMR seeks to re-prioritize some of the tasks originally proposed in that Contract's Scope of Work, re-allocating some of those funds into higher priority studies and seeking additional funds for a more extensive examination of the different implementation options. With the primary objective of restoring full storage capacity to Continental and Santa Maria, SMR is hereby increasing its commitment of matching funds from the Contract's original \$18,000 to a total of \$40,000, and seeks an equal additional commitment of \$22,000 from the Rio Grande Basin's Water Supply Reserve Account, raising the total project cost from \$210,000 to \$254,060. By conducting these additional surveys and shifting the emphasis to specific and necessary geotechnical studies, SMR will be better able to assess potential alternatives and define the most viable method of rehabilitating and restoring full capacity to Continental Reservoir and Santa Maria Reservoir.

These studies will continue to address the following: Inadequate spillway capacity and left abutment seepage issues at Continental Dam; structural deterioration and potential re-design options for the diversion gate on the conveyance system; potential failure of the siphon support system, with a focus on alternative methods to reduce movement and resist lateral loads from the adjacent slide area; and surveys and hydraulic analyses of the severely deteriorated open ditch and underground pipeline conveyance system to determine the best means of restoring its full capacity from the Diversion Gate through the Open Ditch to Santa Maria Reservoir. SMR requests that Task 3.0 be eliminated from the Scope of Work described in the Contract, and that the \$36,695 funds for that Task be

redirected to fulfill the Scope of Work described in this proposal. The rationale for this decision is based on the relatively low return on investment of studying the capacity of Lakeman Lakes and Santa Maria conservation pool – as compared to determining the requirements to bring the Continental Reservoir back to its design capacity by specifically addressing the spillway and left abutment seepage issues. In recent months the Basin’s need for additional storage has become a priority as Groundwater Subdistricts seek storage to meet their depletion needs. Removing the SMR curtailment might provide as much as 6,000 AF of additional basin storage.

#### *Threshold and Evaluation Criteria*

The application meets all four Threshold Criteria.

#### **Discussion:**

This project will restore storage at Continental and Santa Maria Reservoirs. In addition the project will provide storage to CDOW, which owns and operates 3 transmountain diversions and does not have adequate storage capacity of its own. This Project has the effect of increasing the flexibility of CDOW to use its water more effectively and to the greatest benefit for a variety of wildlife and wildlife habitat. Water stored in both reservoirs is released to meet agricultural needs and to irrigate lands for waterfowl nesting, shelter and forage and sustain and improve big game winter range. As such, the Project will help expand the uses of the Santa Maria/Continental reservoir system to include and to more efficiently address both consumptive and non-consumptive needs of the Rio Grande Basin. This includes the potential to store additional water for irrigation, to store more water for third parties, and to increase storage of Rio Grande Compact water.

#### **Issues/Additional Needs:**

No issues or additional needs remain.

#### **Staff Recommendation:**

Staff recommends approval of up to \$22,000 from the Rio Grande Basin Account to help complete the Santa Maria & Continental Reservoirs: Priority Studies to Restore Capacity.

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.