

**Water Supply Reserve Account – Grant and Loan Program  
Water Activity Summary Sheet  
Agenda Item 22d**

**Applicant:** Dolores Water Conservancy District

**Water Activity Name:** Totten Reservoir Hydrographic Survey

**Water Activity Purpose:** Nonstructural Activity

**County:** Montezuma

**Drainage Basin:** Southwest

**Water Source:** Dolores River

**Amount Requested:** \$29,500 (Southwest Basin Account)

**Matching Funds:** \$5,500 (In-Kind from Applicant)

<b>Staff Recommendation</b>
Staff recommends approval of up to \$29,500 from the Southwest Basin Account to help complete the Totten Reservoir Hydrographic Survey.

**Water Activity Summary:**

The Dolores Water Conservancy District (DWCD) seeks to update the Totten Reservoir area capacity data as required under Colorado Law. To perform the Totten Reservoir Hydrographic Survey, DWCD plans to hire the United States Geological Survey (USGS). The USGS will complete the required Hydrographic Survey Report. This work will include:

- Performing a bathymetry survey. The survey will account for the additional volume that is between the working depth of the echo-sounder sensor and the current lake level. This also includes land surveying for the additional volume above the current lake level (5 feet plus some additional freeboard).
- Process the surveys (above and below waterline) to remove anomalies.
- Generate single-mesh, construct maps of the reservoir area.
- Generate a stage-storage-surface area rating table.
- Write a Scientific Investigative Report (SIR) to be posted on website.

Totten Reservoir was previously part of the Montezuma Valley Irrigation Company (MVIC) system, but was severed from the system by the creation of the Dolores Project. As a result MVIC received replacement storage in McPhee Reservoir. Totten Reservoir was acquired by DWCD in 2002 with the intent to put it back into productive use. As such, DWCD has a decree to use Totten to provide an exchange in the McElmo drainage to assist future development. DWCD also continues to pursue additional fill sources to develop water in the basin. Since 2002, DWCD has spent over \$50,000 on direct operations and capital improvement to modernize Totten for future use.

The CDOW leases the surface access and fishery of Totten Reservoir. In addition, the Montezuma Land Conservancy has a protective easement adjacent to the northeast inlet for wildlife habitat in an area of private wetlands.

**Discussion:**

The proposed project is an IPP to bring an existing 3,400 acre-foot reservoir into compliance with Colorado Division of Water Resources Requirements. The reservoir provides water for supplemental irrigation as well as M&I uses. Revenue to operate and maintain this reservoir also supports mitigation wetlands and recreational uses such as fishing, boating, and bird watching, including a 500 acre-feet fish pool. In addition, this project will improve water rights administration by more accurately measuring the storage capacity of Totten Reservoir.

**Issues/Additional Needs:** No issues have been identified.

**Staff Recommendation:**

Staff recommends approval of up to \$29,500 from the Southwest Basin Account to help complete the Totten Reservoir Hydrographic Survey.

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.