

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

Applicant: City of Grand Junction Water Enterprise Fund

Water Activity Name: Juniata Reservoir Spillway Modification

Water Activity Purpose: Structural Water Project

County: Mesa County

Drainage Basin: Gunnison River Basin

Water Source: Kannah Creek

Amount Requested: \$97,000 (Gunnison Basin Account)

Matching Funds: \$97,586 (50.2%) of cash contributions are being allocated to this project.

Staff Recommendation
The proposed project helps provide drought protection for the City of Grand Junction. Staff recommends approval of up to \$97,000 from the Gunnison Basin Account to help enlarge the Juniata Reservoir.

Water Activity Summary:

City of Grand Junction Water Enterprise Fund is the applicant and fiscal agent for this application. It is part of the City of Grand Junction, a municipal corporation created under the authority of Article XX of the Colorado State Constitution in 1909.

Overview of Water Activity

The funds from the WSRA will be used for construction to raise the spillway on Juniata Reservoir. Design components, which are part of this project, have already been completed and were approved by the State Engineers Office, Colorado Water Resources Dam Safety Division. Design components included: a geotechnical investigation and structural evaluation of the dam, hydrologic study of the tributary basin, and hydraulic evaluation of the emergency spillway. The resulting design report, supported by geotechnical and hydrologic evaluations, including construction plans and specifications, demonstrate that the proposed storage enlargement will have no adverse impacts on the continued safe operation of the reservoir and comply fully with Rule 5 of the Colorado “Rules and Regulations for Dam Safety and Dam Construction,” dated 2007, as adopted by the Colorado SEO.

Raising the spillway three feet will allow for the additional storage of 445 acre feet of water. This additional storage will serve many purposes. This first and most important will be drought protection. The 445 acre feet of additional storage represents 7.5% of annual water demands in the City of Grand Junction domestic water system.

Water supplies are available in the basin to meet the needs of this project. Based on a flow model analysis using 64 years of record of flows in Kannah Creek and consumptive uses, there is approximately 2,037 acre feet of water available. There is currently a 500 acre foot conditional storage decree associated with the Juniata Reservoir. It is this decree that will be utilized once this project is completed.

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.

Funding Overview

The engineering estimate for this project is \$194,586. Of this estimate, \$61,745 was expended by the City of Grand Junction for the engineering and design portion of project. The construction portion is estimated at \$132,841, with the City contributing \$35,841 towards construction. The City is asking for \$97,000 from the Gunnison Basin Roundtable Account.

Discussion:

The drought of 2002 caused the water levels in Juniata Reservoir to drop almost 50% more than a normal year. This in turn caused significant concern with regard to drought protection and water quality. Some of the benefits identified with the project include:

- Perfecting a conditional water right for the reservoir.
- Increased drought protection.
- Increased ability to provide drinking water to Ute and Clifton water systems via City of Grand Junctions interconnections in cases of emergency.
- The decrease of water quality concerns that follow a drought like 2002-2003. Such concerns include high turbidity levels, increased usage of chemicals, blue-green algae blooms, and shortened filter run times.

Through increased storage capacity, the City of Grand Junction is able to meet its future water supply and water quality needs.

Issues/Additional Needs:

Although the Gunnison Basin Roundtable has not yet completed the consumptive needs assessment for the basin, the concerns that are mollified with this project without any significant harm identified to other water sources are substantial. No significant issues have been identified at this time.

Staff Recommendation:

Staff recommends approval of up to \$97,000 from the Gunnison Basin Account to enable the completion of the Juniata Reservoir enlargement project.

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.