



COLORADO

**Colorado Water
Conservation Board**

Department of Natural Resources

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John Hickenlooper, Governor

Robert Randall, Interim DNR
Executive Director

James Eklund, CWCB Director

TO: Colorado Water Conservation Board Members

FROM: Anna Mauss P.E., Project Manager
Kirk Russell, P.E., Finance Section Chief

DATE: March 16-17, 2016 Board Meeting

AGENDA ITEM: 13a. Water Project Loans / WSRA Grants
City of Grand Junction - Hallenbeck Reservoir No. 1 Dam Rehabilitation

Introduction

The City of Grand Junction (City), acting by and through its water activity enterprise, is applying for a loan and grant for the Hallenbeck Reservoir No. 1 Dam Rehabilitation (Project). In June of 2014, Hallenbeck Reservoir No. 1 (aka Purdy Mesa) developed an 80-foot crack on the downstream slope of the dam. The City immediately contacted the Office of the State Engineer (SEO) Dam Safety Branch and voluntarily drained the reservoir. The purpose of the Project is to repair the dam and restore the full storage capacity of the reservoir. The total Project cost is estimated to be \$1,153,800. The City is requesting a loan from the CWCB for approximately 87% of the Project cost and WSRA grants for the 9% of the Project cost. The balance will be funded by cash from the City. See attached Project Data Sheet for a location map and Project summary.

Staff Recommendation for CWCB Loan

Staff recommends the Board approve a loan not to exceed \$1,010,000 (\$1,000,000 for Project costs and \$10,000 for the 1% service fee) to the City of Grand Junction, acting by and through its water activity enterprise, for costs related to the Hallenbeck Reservoir No. 1 Dam Rehabilitation Project from the Construction Fund. The loan terms shall be 20 years at the reduced middle-income municipal interest rate of 2.65% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.

Staff Recommendation for WSRA Grant

Staff recommends approval of up to \$75,000 from the Statewide Account and \$25,000 from the Gunnison Basin Account to the City of Grand Junction, acting by and through its water activity enterprise, for costs related to the Hallenbeck Reservoir No. 1 Dam Rehabilitation Project.



Background

The City's water service area is approximately 8.5 square miles and serves 27,100 customers through 9,500 taps. The City owns and maintains a water treatment facility and operates a raw water supply system that consists of 14 reservoirs. Twelve of these are located on top of the Grand Mesa and have a capacity of approximately 5,100 acre-feet. The other two reservoirs are in the lower Kannah Creek drainage and are off-channel with a capacity of 7,900 acre-feet.

The two lower terminal reservoirs, Hallenbeck Reservoir No. 1 being one of the two, can supply the City's municipal needs for approximately one year. The reservoirs on top of the Grand Mesa are generally used for irrigation purposes on City owned land and other agricultural land within the basins. The City maintains in reserve a portion of the water in these reservoirs each year for use the following year in case of drought.

Hallenbeck Reservoir No. 1 has a storage capacity of 699 acre-feet and is fed by Juniata Reservoir. It is primarily used as a supplemental reservoir for irrigation water for downstream lessees in average to above average water years. It also provides critical drought supply water for the City. Normal operating procedures for Hallenbeck Reservoir No.1 are to fill the reservoir during the winter months with the goal of having it full by April 1. In cooperation with Colorado Parks and Wildlife the City tries to maintain a minimum pool of 200 acre-feet in the reservoir year-round to provide habitat and warm water public fishing opportunities.

In 2014 the City developed plans to mitigate seepage through the dam. As the City was in the process of gradually filling the reservoir to its capacity in an effort to fully identify limits of seepage across the downstream face of the earthen dam, the dam developed a longitudinal crack. The crack appeared over a two-day period and was roughly 80 feet in length. An emergency inspection was performed with assistance from the local Dam Safety Engineer from Division 5. The Emergency Action Plan (EAP) was executed, emergency managers from the area were alerted, and water was released from the reservoir in an effort to relieve hydrostatic pressure within the dam. Increased seepage through the embankment around the two toe drain pipes was observed during the drawdown process that resulted in the reservoir being drained entirely as a precautionary measure.

Upon completion of the drawdown process, the City selected URS/AECOM to complete a forensic evaluation of the dam. The evaluation included a geotechnical investigation and structural evaluation of the dam.

Loan Feasibility Study

Bret Guillory P.E., Utility Engineer, City of Grand Junction, prepared the Loan Feasibility Study, titled "Loan Feasibility Study for Hallenbeck Reservoir No. 1 Dam Failure Mitigation Project," dated January 2016. The feasibility study was prepared in accordance with the CWCB guidelines and includes an analysis of alternatives, preliminary engineering design, and construction cost estimates. Financial reports were prepared by Jodi Romero, Financial Operations Director, City of Grand Junction.

Borrower - City of Grand Junction

The City of Grand Junction is a municipal corporation created under the authority of Article XX of the Colorado State Constitution and a Charter being adopted September 14, 1909. The City created a Water Enterprise Fund in 1936 to manage and operate the water system. The Water Enterprise Fund is wholly supported by water user fees.

The average monthly water bill is approximately \$16.50. On average, the City delivers 5,218 acre-feet annually; therefore it is a Covered Entity as defined in §37-60-126(1)(b), C.R.S. (2014) requiring a water conservation plan in order to execute a loan contract with the CWCB. The City is part of the Grand Valley

Regional Water Conservation Plan, along with the Ute Water Conservancy District and Clifton Water District. The plan was approved in 2012.

Water Rights

The reservoir storage decrees related to this Project are:

TABLE 1: WATER STORAGE RIGHTS

Name	Amount	Appropriation Date	Adjudication Date	Use
Hallenbeck Reservoir No. 1	863.1 AF (Absolute)	09/01/1939	07/25/1941	Irrigation
Hallenbeck Reservoir No. 1	659 AF (Conditional)	12/15/1993	12/31/1993	Municipal

Project Description

The purpose of this Project is to restore the storage capacity of the reservoir. The following alternatives were considered:

Alternative 1 - No-Action: This alternative was considered unacceptable as it would cost the City 699 acre-feet of raw water storage.

Selected Alternative 2 - Dam Rehabilitation: This alternative was selected because it will address the dam safety concerns and preserve the City's storage right for drought mitigation and irrigation. It involves removal of several feet of material on the downstream face of the dam, removal of the existing toe drain system, installation of a blanket filter on the downstream face, installation of a new toe drain system, installation of a buttress on the downstream face, and installation of new piezometers and monuments.

The cost associated with this alternative is \$1,153,800 as shown in Table 2.

TABLE 2: PROJECT COST

Task	COST
Design Engineering	\$126,500
Construction	\$964,100
Construction Management	\$15,000
Contingency	\$48,200
TOTAL	\$1,153,800

TABLE 3: PROJECT FUNDING SUMMARY

Task	Cash	In-Kind	Total
City of Grand Junction	\$53,800	n/a	\$53,800
CWCB Loan	\$1,000,000	n/a	\$1,000,000
Sub-total matching funds	\$1,053,800	n/a	\$1,053,800
Gunnison Basin Account	\$25,000	n/a	\$25,000
WSRA Statewide Account	\$75,000	n/a	\$75,000
Total	\$1,153,800	n/a	\$1,153,800

The City paid \$126,470 to date in engineering and anticipates rolling those costs into the CWCB loan. Because the grant cannot fund those costs (as they predate the execution of a grant contract), CWCB funds will be disbursed as follows:

- \$126,500 in loan funds will be disbursed for engineering, leaving an anticipated Project balance of \$1,027,300.
- As invoices are submitted for construction and construction management, 85% of each invoice will be paid by the CWCB loan, 9% will be paid by the WSRA grant, and 6% will come from the City's cash match.

Permitting: Plans are currently under review by the SEO with approval anticipated in spring of 2016.

The Project is located within City owned property. It is located on upland areas with no disruption to wetlands or waters of the United States; therefore, there is not a need for a US Army Corps permit.

Schedule: The City will solicit bids for construction in the spring of 2016. Construction is expected to begin in May 2016 with completion in the fall of 2016.

Water Supply Reserve Account Grant

Applicant & Fiscal Agent: City of Grand Junction
Water Activity Name: Hallenbeck Reservoir No. 1 Dam Rehabilitation / Purdy Mesa Dam Rehabilitation
Water Activity Purpose: Municipal/Industrial
County: Mesa
Drainage Basin: Gunnison
Water Source: Kannah Creek

At the February Gunnison Basin Roundtable meeting, the Roundtable recommended approval of the Hallenbeck Reservoir No. 1 Dam Rehabilitation / Purdy Mesa Dam Rehabilitation Project application request for the following Basin and Statewide Funds:

Amount Requested/Source of Funds:	\$25,000	Gunnison Basin Account
	<u>\$75,000</u>	<u>Statewide Account</u>
	\$100,000	Total Grant Request

Matching Funds: Basin Account Match: \$25,000 = 25% of total grant request (meets 5% min);
Basin Account & Applicant Match: \$1,078,800 = 1079% of total grant request (meets 25% min);
Applicant Match: \$1,053,800 = 91% of total project costs (\$1,153,800)
(refer to *Funding Summary/Matching Funds* section)

Objective: The objective of this grant is to fund repairs to the dam so that the City restore 699 acre-feet of storage.

Discussion: This project aligns with Colorado's Water Plan as described in Section 6.5 Municipal, Industrial, and Agricultural Infrastructure Projects and Methods. It also aligns with the Plan's Measurable Objectives and Adaptive Management storage goals outlined in section 10.2. The Project was also listed in the Gunnison Basin Implementation Plan as a Tier 1 project (Table 7, Ref. No. 26), meaning its implementation is likely feasible by 2025 and the project would excel at meeting basin goals.

Issues/Additional Needs: No issues or additional needs have been identified.

Threshold and Evaluation Criteria:
The application meets all four Threshold Criteria.

Tier 1-3 Evaluation Criteria:

Staff has reviewed and evaluated the applicant's grant documents and determined that it satisfies the Evaluation Criteria. Please refer to WSRA Application for applicant's detailed response.

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 shall 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.

CWCB Loan Program

Financial Analysis

The City qualifies for the current middle-income municipal interest rate of 2.90% for a 30-year term; however, because the City chose a 20-year term, the interest rate will be reduced by 0.25% to 2.65% (per Financial Policy #7). Table 3 provides a summary of the Project's financial aspects.

TABLE 4: FINANCIAL SUMMARY

Total Project Cost	\$1,153,800
Grant and Borrowers Contribution	\$153,800
CWCB Loan Amount	\$1,000,000
CWCB Loan Amount (Including 1% Service Fee)	\$1,010,000
CWCB Annual Loan Payment	\$65,710
CWCB Annual Loan Obligation (1 st Ten Years)	\$72,281
Number of Taps	9,500
Monthly Project Cost per Tap (based on loan obligation 1 st 10 Yrs)	\$0.63
Project Cost per Storage Capacity (699 AF)	\$1,651/AF

Creditworthiness: In 1990, the City executed a \$195,000 loan with the CWCB for the Juanita Pipeline Project. That loan paid off early in 2009. The City's water activity enterprise has two current loans with the Colorado Water Resources and Power Development Authority. Both loans are in good standing. Additionally, the City does not anticipate raising water rates in order to make the annual CWCB loan payments for this Project.

TABLE 5: EXISTING DEBT

Lender	Project	Current Balance	Annual Payment	Maturity Date	Collateral
Colorado Water Resources and Power Development Authority	Water system improvements	\$1,451,930	\$277,610	2022	Water Enterprise Revenues
Colorado Water Resources and Power Development Authority	Water system improvements	\$2,961,332	\$244,738	2030	Water Enterprise Revenues

TABLE 6: FINANCIAL RATIOS

Financial Ratio	Past 3 Years	Future w/ Project
Operating Ratio (revenues/expenses) weak: <100% - average: 100% - 120% - strong: >120%	115% (Average) \$5.5M/\$4.8M	112% (Average) \$5.5M/\$4.9M
Debt Service Coverage Ratio (revenues-expenses)/debt service weak: <100% - average: 100% - 120% - strong: >120%	230% (Strong) \$5.5M-\$4.3M/ \$522K	202% (Strong) \$5.5M-\$4.3M/ \$595K
Cash Reserves to Current Expenses weak: <50% - average: 50% - 100% - strong: >100%	42% (Weak) \$2.0M/\$4.8M	41% (Weak) \$2.0M/\$4.9M
Average Monthly Water Bill weak: >\$60 - average: \$30 - \$60 - strong: <\$30	\$16.50 (Strong)	\$16.50 (Strong)
Debt per Tap (9,500 taps) weak: >\$5,000 - average: \$2,500-\$5,000 - strong: <\$2,500	\$463 (Strong) \$4.4M/9,500	\$568 (Strong) \$5.4M/9,500

Collateral: Security for this loan will be a pledge of the City's water enterprise revenues backed by a rate covenant and evidenced by annual financial reporting. This is in compliance with the CWCB Financial Policy #5 (Collateral).

cc: Rick Brinkman / Bret Guillory, City of Grand Junction
 Susan Schneider/Jennifer Mele, Colorado Attorney General's Office

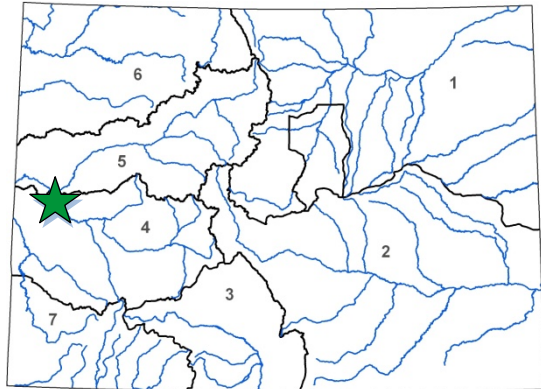
Attachment: Water Project Loan Program - Project Data Sheet
 WSRG Grant Application



Hallenbeck Reservoir No. 1 Dam Rehabilitation

City of Grand Junction
March 2016 Board Meeting

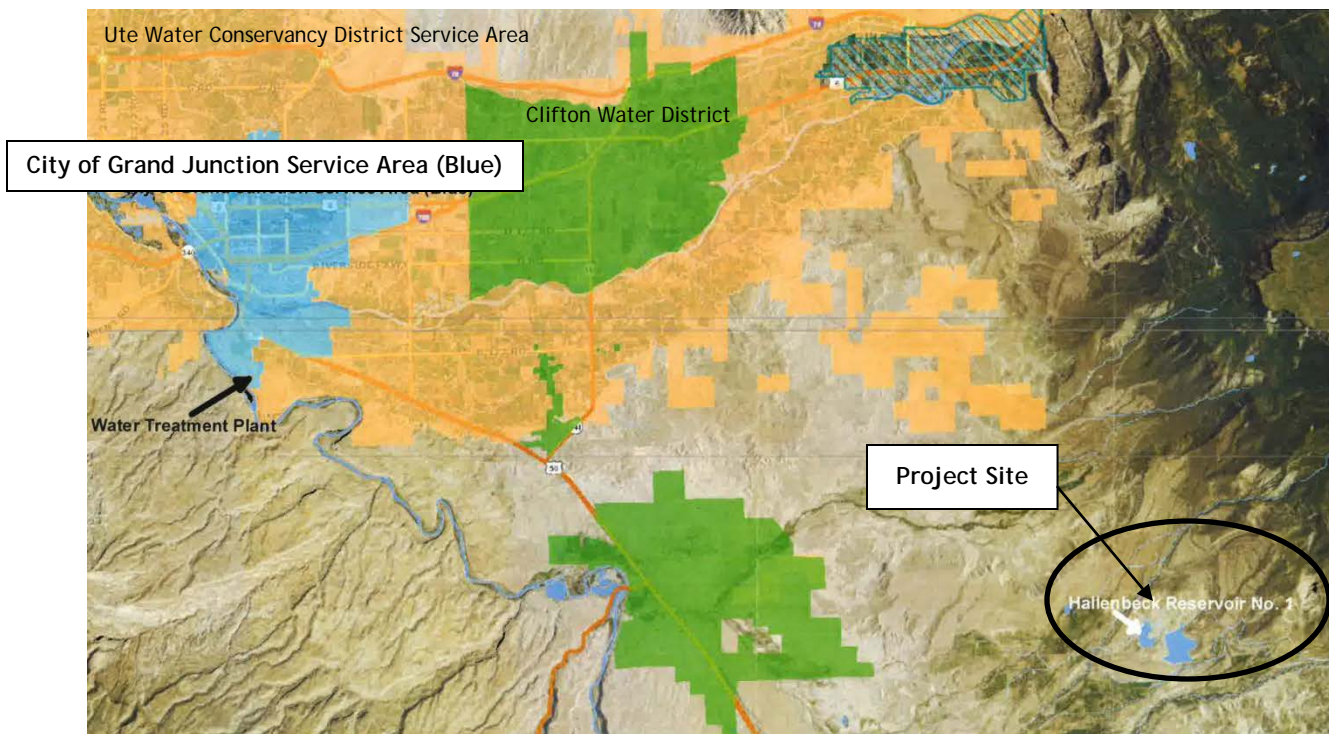
L O A N D E T A I L S	
Project Cost:	\$1,153,782
CWCB Loan (with Service Fee):	\$1,010,000
Loan Term and Interest Rate:	20 years @ 2.65%
Funding Source:	Construction Fund and WSRA Grants
B O R R O W E R T Y P E	
Agriculture	Municipal Commercial
0%	0% Low - 100% Mid - 0% High 0%
P R O J E C T D E T A I L S	
Project Type:	Dam Rehabilitation
Average Annual Delivery:	5,218 AF
Recovered Storage:	699 AF



L O C A T I O N	
County:	Mesa
Water Source:	Kannah Creek
Drainage Basin:	Gunnison
Division:	4 District: 42

Hallenbeck Reservoir No. 1 is one of the City of Grand Junction's 14 reservoirs. It has a capacity of 699 acre-feet. In 2014 the City of Grand Junction developed plans to mitigate seepage through the dam; however, during the evaluation process, seepage increased and an 80-foot crack developed on the downstream face of the dam.

Water was immediately released from the reservoir in an effort to relieve hydrostatic pressure within the dam. The City completed a forensic evaluation of the dam that included a geotechnical investigation and structural evaluation. The purpose of this project is to repair the dam to allow the City to use all if the storage capacity. Construction involves removal of several feet of material on the downstream face of the dam, removal of the existing toe drain system, installation of a blanket filter on the downstream face, installation of a new toe drain system, installation of a buttress on the downstream face, and installation of new piezometers and monuments. This will allow the City to make use of its 1939 absolute irrigation right, and 1993 conditional municipal right. Construction is expected to occur in the summer of 2016.





COLORADO WATER CONSERVATION BOARD



WATER SUPPLY RESERVE ACCOUNT APPLICATION FORM

Today's Date: December 30, 2015

Purdy Mesa Dam Rehabilitation

Name of Water Activity/Project

City of Grand Junction Water Enterprise Fund

Name of Applicant

Gunnison

Amount from Statewide Account:

75,000

Amount from Basin Account(s):

25,000

Total WSRA Funds Requested:

100,000

Approving Basin Roundtable(s)

(If multiple basins specify amounts in parentheses.)

FEIN:

Application Content

Application Instructions	page 2
Part I – Description of the Applicant	page 3
Part II – Description of the Water Activity	page 5
Part III – Threshold and Evaluation Criteria	page 7
Part IV – Required Supporting Material	
Water Rights, Availability, and Sustainability	page 10
Related Studies	page 10
Signature Page	page 12

Required Exhibits

- A. Statement of Work, Budget, and Schedule
- B. Project Map
- C. As Needed (i.e. letters of support, photos, maps, etc.)

Appendices – Reference Material

- 1. Program Information
- 2. Insurance Requirements
- 3. WSRA Standard Contract Information (Required for Projects Over \$100,000)
- 4. W-9 Form (Required for All Projects Prior to Contracting)

Water Supply Reserve Account – Application Form

Revised October 2013

Instructions

To receive funding from the Water Supply Reserve Account (WSRA), a proposed water activity must be approved by the local Basin Roundtable **AND** the Colorado Water Conservation Board (CWCBC). The process for Basin Roundtable consideration and approval is outlined in materials in Appendix 1.

Once approved by the local Basin Roundtable, the applicant should submit this application **with a detailed statement of work including budget and schedule as Exhibit A** to CWCBC staff by the application deadline.

WSRA applications are due with the roundtable letter of support 60 calendar days prior to the bi-monthly Board meeting at which it will be considered. Board meetings are held in January, March, May, July, September, and November. Meeting details, including scheduled dates, agendas, etc. are posted on the CWCBC website at: <http://cwcb.state.co.us> Applications to the WSRA Basin Account are considered at every board meeting, while applications to the WSRA Statewide Account are only considered at the March and September board meetings.

When completing this application, the applicant should refer to the WSRA Criteria and Guidelines available at: <http://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-grants/Documents/WSRACriteriaGuidelines.pdf>. In addition, the applicant should also refer to the [Supplemental Scoring Matrix](#) applied to Evaluation Criteria Tiers 1-3 for Statewide Account requests .

The application, statement of work, budget, and schedule **must be submitted in electronic format** (Microsoft Word or text-enabled PDF are preferred) and can be emailed or mailed on a disk to:

Craig Godbout - WSRA Application
Colorado Water Conservation Board
1313 Sherman St., Room 721
Denver, CO 80203
Craig.godbout@state.co.us

If you have questions or need additional assistance, please contact Craig Godbout at: 303-866-3441 x3210 or craig.godbout@state.co.us.

Water Supply Reserve Account – Application Form

Revised October 2013

Part I. - Description of the Applicant (Project Sponsor or Owner);

1.	Applicant Name(s):	City of Grand Junction Water Enterprise Fund		
	Mailing address:	250 North 5 th Street Grand Junction, CO 81501		
	FEIN #:			
	Primary Contact:	Bret Guillory	Position/Title:	Utility Engineer
	Email:	bretg@gjcity.org		
	Phone Numbers:	Cell: 970-201-1341	Office:	970-244-1590
	Alternate Contact:	Rick Brinkman	Position/Title:	Water Manager
	Email:	rickbr@gjcity.org		
	Phone Numbers:	Cell: 970-640-8419	Office:	970-244-1429

2. Eligible entities for WSRA funds include the following. What type of entity is the Applicant?

- ☒ Public (Government) – municipalities, enterprises, counties, and State of Colorado agencies. Federal agencies are encouraged to work with local entities and the local entity should be the grant recipient. Federal agencies are eligible, but only if they can make a compelling case for why a local partner cannot be the grant recipient.
- ☐ Public (Districts) – authorities, Title 32/special districts, (conservancy, conservation, and irrigation districts), and water activity enterprises.
- ☐ Private Incorporated – mutual ditch companies, homeowners associations, corporations.
- ☐ Private individuals, partnerships, and sole proprietors are eligible for funding from the Basin Accounts but not for funding from the Statewide Account.
- ☐ Non-governmental organizations – broadly defined as any organization that is not part of the government.

Water Supply Reserve Account – Application Form

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3. Provide a brief description of your organization

The City of Grand Junction is a municipal corporation created under the authority of Article XX of the Colorado State Constitution with our Charter being adopted September 14, 1909. It is a council/manager form of government.

The City of Grand Junction, under Tabor guidelines, created a Water Enterprise Fund to manage and operate the water system.

The Water Enterprise Fund is managed under direction of the Water Services Manager who reports to the Public Works Director, who reports to the City Manager.

Rick Brinkman, Water Services Manager, 333 West Avenue BLDG E, Grand Junction, Colorado, 81501

The water system has a service area of approximately 8.5 square miles and currently serves 27,100 customers through 9,500 taps. The service area and growth potential for new customers is non-existent due to being entirely surrounded by another water utility. Actual average growth rate for last five years has been 0.10%. The Water Enterprise Fund is wholly supported by water user fees.

The City owns and maintains a water treatment facility with a capacity of 16.0 million gallons per day with an average daily rate of 6.0 million gallons per day and a peak flow of 11.5 million gallons per day.

The City also owns and operates a vast raw water supply system that consists of 14 reservoirs, with twelve of these on top of Grand Mesa. These 12 reservoirs hold approximately 5,100 acre feet of water when full. The other two reservoirs are in the lower Kannah Creek drainage and are off channel reservoirs and have a capacity of 7,900 acre feet. The two lower terminal reservoirs will supply the City's municipal needs for approximately one year.

The reservoirs on top of the Grand Mesa are generally used for irrigation purposes on City owned land and other agricultural land within the basins. The City maintains in reserve a portion of the water in these reservoirs each year for use the following year in case of drought. This allots what is needed for City properties and if any excess water is available, it is then leased out to other ranchers in the basins.

4. If the Contracting Entity is different then the Applicant (Project Sponsor or Owner) please describe the Contracting Entity here.

Contracting entity is the applicant.

Water Supply Reserve Account – Application Form

Revised October 2013

5. Successful applicants will have to execute a contract with the CWCB prior to beginning work on the portion of the project funded by the WSRA grant. In order to expedite the contracting process the CWCB has established a standard contract with provisions the applicant must adhere to. A link to this standard contract is included in Appendix 3. Please review this contract and check the appropriate box.

☒

The Applicant will be able to contract with the CWCB using the Standard Contract

☐

The Applicant has reviewed the standard contract and has some questions/issues/concerns. Please be aware that any deviation from the standard contract could result in a significant delay between grant approval and the funds being available.

6. The Tax Payer Bill of Rights (TABOR) may limit the amount of grant money an entity can receive. Please describe any relevant TABOR issues that may affect the applicant.

None

Water Supply Reserve Account – Application Form

Revised October 2013

Part II. - Description of the Water Activity/Project

1. What is the primary purpose of this grant application? (Please check only one)

☐ Nonconsumptive (Environmental or Recreational)

☐ Agricultural

☒ Municipal/Industrial

☐ Needs Assessment

☐ Education

☐ Other Explain:

2. If you feel this project addresses multiple purposes please explain.

Hallenbeck No. 1 (aka Purdy Mesa) reservoir is primarily a municipal water supply, which provides drought protection to the City of Grand Junction.

In non-drought years the water is leased to area ranches for irrigation use.

The reservoir also provides for recreational use in the form of fishing. There is an ongoing fish management plan with Colorado Parks and Wildlife.

3. Is this project primarily a study or implementation of a water activity/project? (Please check only one)

☐ Study

☒ Implementation

4. To catalog measurable results achieved with WSRA funds can you provide any of the following numbers?

New Storage Created (acre-feet)

New Annual Water Supplies Developed, Consumptive or Nonconsumptive (acre-feet)

Existing Storage Preserved or Enhanced (acre-feet)

Length of Stream Restored or Protected (linear feet)

Length of Pipe/Canal Built or Improved (linear feet)

Efficiency Savings (acre-feet/year OR dollars/year – **circle one**)

Area of Restored or Preserved Habitat (acres)

Other -- Explain:

Water Supply Reserve Account – Application Form

Revised October 2013

4 To help us map WSRA projects please include a map (Exhibit B) and provide the general coordinates below:

Latitude:

38.968702

Longitude:

-108.294573

5. Please provide an overview/summary of the proposed water activity (no more than one page). Include a description of the overall water activity and specifically what the WSRA funding will be used for. A full **Statement of Work** with a detailed budget and schedule is required as **Exhibit A** of this application.

Hallenbeck No. 1, State Engineers Office Dam ID 420125, is a high hazard dam. The structure is 1,000 feet long, 40.5 feet high, with a dam crest width of 16 feet. The dam crest is at elevation 5,642 NAVD 88. Normal reservoir storage is 699.4 acre feet.

This project is being completed to mitigate a structural failure on the downstream slope of the Hallenbeck No. 1 Dam that occurred during fill of the reservoir on June 10, 2014. URS (AECOM) was hired in 2014 to complete a forensics evaluation of the dam to determine what may have caused a crack to appear on the downstream face of the dam, and make suggestions for mitigation of the failure. It was determined that the crack was the result of slip plane failure of previous fill material that had been placed on the downstream face.

The City of Grand Junction Water Department then contracted with AECOM in 2015 to design a mitigation project to correct the failure condition. The project will include installation of a blanket filter, new toe drain system, and buttress along the downstream slope of the dam. AECOM is currently completing final design for the mitigation project that is planned for summer of 2016, pending review and approval from the State Engineers Office.

WSRA Grant funding will be used for construction of the project. The City of Grand Junction Water department will be pursuing a loan through CWCB and the Water Project Loan Program for the balance of the project cost.

Water Supply Reserve Account – Application Form

Revised October 2013

Part III. – Threshold and Evaluation Criteria

1. Describe how the water activity meets these **Threshold Criteria**. (Detailed in Part 3 of the Water Supply Reserve Account Criteria and Guidelines.)
 - a) The water activity is consistent with Section 37-75-102 Colorado Revised Statutes.¹

This project does not supersede, abrogate or otherwise impair the current water allocation system within Colorado because there is already an existing conditional storage decree for this reservoir.

- b) The water activity underwent an evaluation and approval process and was approved by the Basin Roundtable (BRT) and the application includes a description of the results of the BRTs evaluation and approval of the activity. At a minimum, the description must include the level of agreement reached by the roundtable, including any minority opinion(s) if there was not general agreement for the activity. The description must also include reasons why general agreement was not reached (if it was not), including who opposed the activity and why they opposed it. Note- If this information is included in the letter from the roundtable chair simply reference that letter.

The project will reviewed by the Selection Committee of the Gunnison Basin Roundtable and then by the full Roundtable at their February 2016 meeting.

¹ 37-75-102. Water rights - protections. (1) It is the policy of the General Assembly that the current system of allocating water within Colorado shall not be superseded, abrogated, or otherwise impaired by this article. Nothing in this article shall be interpreted to repeal or in any manner amend the existing water rights adjudication system. The General Assembly affirms the state constitution's recognition of water rights as a private usufructuary property right, and this article is not intended to restrict the ability of the holder of a water right to use or to dispose of that water right in any manner permitted under Colorado law. (2) The General Assembly affirms the protections for contractual and property rights recognized by the contract and takings protections under the state constitution and related statutes. This article shall not be implemented in any way that would diminish, impair, or cause injury to any property or contractual right created by intergovernmental agreements, contracts, stipulations among parties to water cases, terms and conditions in water decrees, or any other similar document related to the allocation or use of water. This article shall not be construed to supersede, abrogate, or cause injury to vested water rights or decreed conditional water rights. The General Assembly affirms that this article does not impair, limit, or otherwise affect the rights of persons or entities to enter into agreements, contracts, or memoranda of understanding with other persons or entities relating to the appropriation, movement, or use of water under other provisions of law.

Water Supply Reserve Account – Application Form

Revised October 2013

- c) The water activity meets the provisions of Section 37-75-104(2), Colorado Revised Statutes.² The Basin Roundtable Chairs shall include in their approval letters for particular WSRA grant applications a description of how the water activity will assist in meeting the water supply needs identified in the basin roundtable's consumptive and/or non-consumptive needs assessments.

The Gunnison River Basin has completed a needs assessment for both non-consumptive and consumptive water supply needs. This project will help meet some of the current and future rural water needs in the Kannah Creek drainage along with reducing the vulnerability to drought for the Grand Junction municipal water supply.

- d) Matching Requirement: For requests from the **Statewide Fund**, the applicants will be required to demonstrate a **25 percent** (or greater) match of the total grant request from the other sources, including by not limited to Basin Funds. A minimum match of 5% of the total grant amount shall be from Basin funds. A minimum match of 5% of the total grant amount must come from the applicant or 3rd party sources. Sources of matching funds include but are not limited to Basin Funds, in-kind services, funding from other sources, and/or direct cash match. Past expenditures directly related to the project may be considered as matching funds if the expenditures occurred within 9 months of the date the contract or purchase order between the applicant and the State of Colorado is executed. Please describe the source(s) of matching funds. (NOTE: These matching funds should also be reflected in your Detailed Budget in **Exhibit A** of this application)

The City of Grand Junction Water Department has already completed a forensics evaluation of the dam to determine what caused the structural failure. Cost of this investigation was \$55,212. The engineering design report and construction plans and specifications are currently at 95% and are expected to be complete by January 2016. Cost incurred by the Water Department for design is \$71,258 (estimated).

This grant application of \$100,000 will have matching funds of \$927,312 included to meet anticipated construction costs for this mitigation project. The City will be providing matching funds through a loan from CWCB via the Water Project Loan Program.

² 37-75-104 (2)(c). Using data and information from the Statewide Water Supply Initiative and other appropriate sources and in cooperation with the on-going Statewide Water Supply Initiative, develop a basin-wide consumptive and nonconsumptive water supply needs assessment, conduct an analysis of available unappropriated waters within the basin, and propose projects or methods, both structural and nonstructural, for meeting those needs and utilizing those unappropriated waters where appropriate. Basin Roundtables shall actively seek the input and advice of affected local governments, water providers, and other interested stakeholders and persons in establishing its needs assessment, and shall propose projects or methods for meeting those needs. Recommendations from this assessment shall be forwarded to the Interbasin Compact Committee and other basin roundtables for analysis and consideration after the General Assembly has approved the Interbasin Compact Charter.

Water Supply Reserve Account – Application Form

Revised October 2013

2. For Applications that include a request for funds from the **Statewide Account**, describe how the water activity/project meets all applicable **Evaluation Criteria**. (Detailed in Part 3 of the Water Supply Reserve Account Criteria and Guidelines and repeated below.) Projects will be assessed on how well they meet the Evaluation Criteria. **Please attach additional pages as necessary.**

Evaluation Criteria – the following criteria will be utilized to further evaluate the merits of the water activity proposed for funding from the Statewide Account. In evaluation of proposed water activities, preference will be given to projects that meet one or more criteria from each of the three “tiers” or categories. Each “tier” is grouped in level of importance. For instance, projects that meet Tier 1 criteria will outweigh projects that only meet Tier 3 criteria. The applicant should also refer to the Supplemental Scoring Matrix applied to Evaluation Criteria Tiers 1-3 for Statewide Account requests. WSRA grant requests for projects that may qualify for loans through the CWCB loan program will receive preference in the Statewide Evaluation Criteria if the grant request is part of a CWCB loan/WSRA grant package. For these CWCB loan/WSRA grant packages, the applicant must have a CWCB loan/WSRA grant ratio of 1:1 or higher. Preference will be given to those with a higher loan/grant ratio.

Tier 1: Promoting Collaboration/Cooperation and Meeting Water Management Goals and Identified Water Needs

- a. The water activity addresses multiple needs or issues, including consumptive and/or non-consumptive needs, or the needs and issues of multiple interests or multiple basins. This can be demonstrated by obtaining letters of support from other basin roundtables (in addition to an approval letter from the sponsoring basin).
- b. The number and types of entities represented in the application and the degree to which the activity will promote cooperation and collaboration among traditional consumptive water interests and/or non-consumptive interests, and if applicable, the degree to which the water activity is effective in addressing intrabasin or interbasin needs or issues.
- c. The water activity helps implement projects and processes identified as helping meet Colorado’s future water needs, and/or addresses the gap areas between available water supply and future need as identified in SWSI or a roundtable’s basin-wide water needs assessment.

Tier 2: Facilitating Water Activity Implementation

- d. Funding from this Account will reduce the uncertainty that the water activity will be implemented. For this criterion the applicant should discuss how receiving funding from the Account will make a significant difference in the implementation of the water activity (i.e., how will receiving funding enable the water activity to move forward or the inability obtaining funding elsewhere).
- e. The amount of matching funds provided by the applicant via direct contributions, demonstrable in-kind contributions, and/or other sources demonstrates a significant & appropriate commitment to the project.

Tier 3: The Water Activity Addresses Other Issues of Statewide Value and Maximizes Benefits

- f. The water activity helps sustain agriculture & open space, or meets environmental or recreational needs.
- g. The water activity assists in the administration of compact-entitled waters or addresses problems related to compact entitled waters and compact compliance and the degree to which the activity promotes maximum utilization of state waters.

Water Supply Reserve Account – Application Form

Revised October 2013

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- h. The water activity assists in the recovery of threatened and endangered wildlife species or Colorado State species of concern.
 - i. The water activity provides a high level of benefit to Colorado in relationship to the amount of funds requested.
 - j. The water activity is complimentary to or assists in the implementation of other CWCB programs.
- Continued: Explanation of how the water activity/project meets all applicable **Evaluation Criteria**.
Please attach additional pages as necessary.

Water Supply Reserve Account – Application Form

Revised October 2013

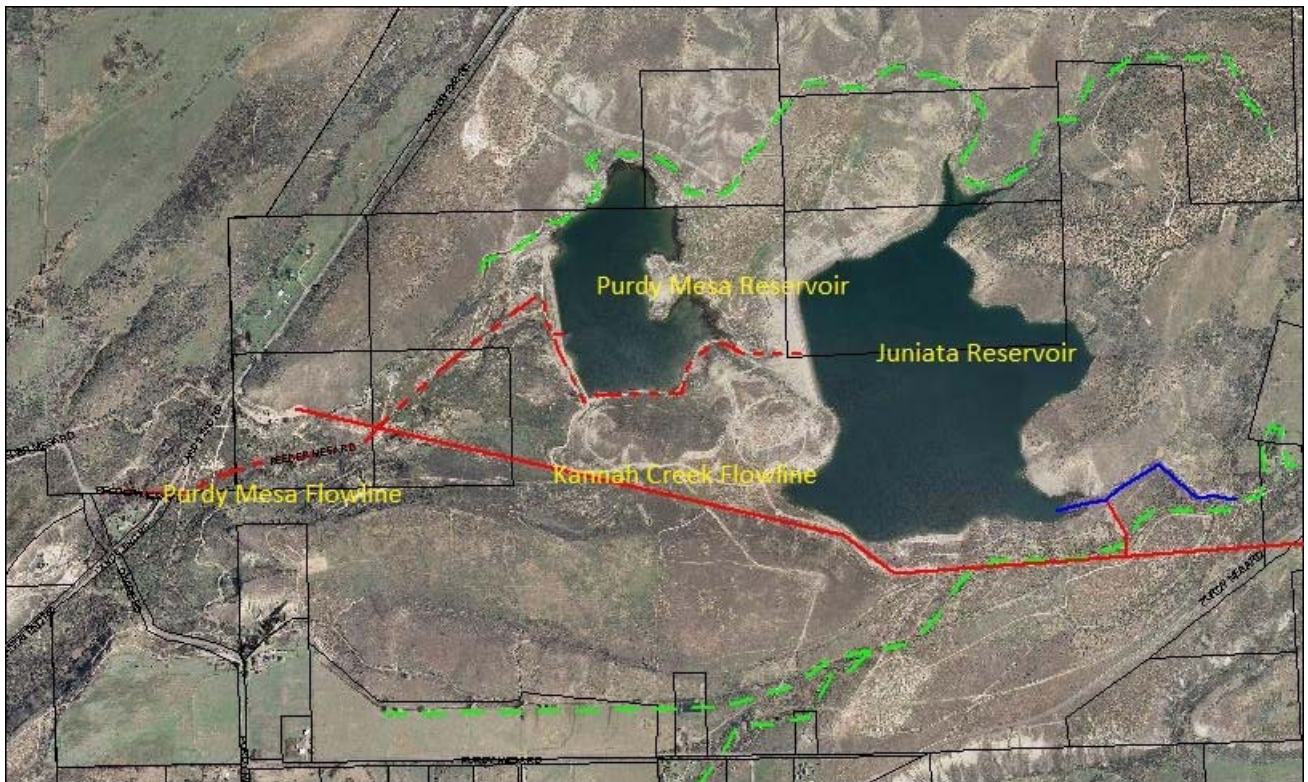
Part IV. – Required Supporting Material

1. **Water Rights, Availability, and Sustainability** – This information is needed to assess the viability of the water project or activity. Please provide a description of the water supply source to be utilized, or the water body to be affected by, the water activity. This should include a description of applicable water rights, and water rights issues, and the name/location of water bodies affected by the water activity.

Reservoir Storage Decrees

Structure	Decree Amount	Units	Use	Status	Adjudication Date	Appropriation Date
Hallenbeck Reservoir #1 aka Purdy Mesa	863.1	af	I	Absolute	07/25/1941	09/01/1939
	659	af	M	Conditional	12/31/1993	12/15/1993

Purdy Mesa Reservoir is fed by Juniata Reservoir and is used primarily as a supplemental feed reservoir for irrigation water for downstream lessees of irrigation water and also provides critical drought supply water for the City of Grand Junction municipal uses. Normal operating procedures for Purdy Mesa Reservoir are to fill the reservoir during the winter months with the goal of having it full by April 1st. During average to above average water years the water is leased out to downstream ranchers for irrigation use. In cooperation with Colorado Parks and Wildlife the City tries to maintain a minimum pool of 200 acre feet in the reservoir year round to provide habitat and warm water public fishing opportunities.



Water Supply Reserve Account – Application Form

Revised October 2013

2. Please provide a brief narrative of any related studies or permitting issues.

None

3. Statement of Work, Detailed Budget, and Project Schedule

The statement of work will form the basis for the contract between the Applicant and the State of Colorado. In short, the Applicant is agreeing to undertake the work for the compensation outlined in the statement of work and budget, and in return, the State of Colorado is receiving the deliverables/products specified. **Please note that costs incurred prior to execution of a contract or purchase order are not subject to reimbursement.** All WSRA funds are disbursed on a reimbursement basis after review invoices and appropriate backup material.

Please provide a detailed statement of work using the template in Exhibit A. Additional sections or modifications may be included as necessary. Please define all acronyms and include page numbers.

REPORTING AND FINAL DELIVERABLE

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 statement 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.

PAYMENT

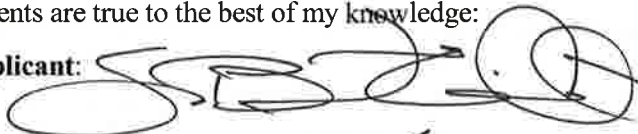
Payment will be made based on actual expenditures and invoicing by the applicant. Invoices from any other entity (i.e. subcontractors) cannot be processed by the State. The request for payment must include a description of the work accomplished by major task, and estimate of the percent completion for individual tasks and the entire water activity in relation to the percentage of budget spent, identification of any major issues and proposed or implemented corrective actions. The last 10 percent of the entire water activity budget will be withheld until final project/water activity documentation is completed. 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 help promote the development of a common technical platform.

Water Supply Reserve Account – Application Form

Revised October 2013

The above statements are true to the best of my knowledge:

Signature of Applicant:



Print Applicant's Name:

S. BRET GUTIERREZ, P.E.

Project Title:

PURDY MESA DAM REHABILITATION

Date:

2/9/16

Return an electronic version (hardcopy may also be submitted) of this application to:

Craig Godbout – WSRA Application
Colorado Water Conservation Board
1313 Sherman St., Room 721
Denver, CO 80203
303-866-3441, ext. 3210 (office)
303-547-8061 (cell)
craig.godbout@state.co.us