



CITY OF RAPID CITY

RAPID CITY, SOUTH DAKOTA 57701

Public Works Department Engineering Services Division

300 Sixth Street

Telephone: (605) 394-4154 Fax: (605) 355-3083

Web: www.rcgov.org

January 10, 2012

To: Mayor and City Council

From: Terry Wolterstorff, P.E.
Public Works Director

Ref: State Water Plan Application
Consolidated Grant Renewal
Jackson Springs Water Treatment Plant

The City of Rapid City is currently constructing the Jackson Springs Water Treatment Plant (JSWTP) and the associated Raw Water Pumping Station (RWPS). The membrane filtration system and engineering associated with this facility are being purchased in part with funds from Consolidated Grant 2010G-203. The Date of Award for this grant was June 26, 2009. Therefore, the grant award will expire on June 26, 2012. The City of Rapid City has, to date, not expended all of the available Consolidated Grant funds. There is approximately \$640,000.00 of Consolidated Grant funding remaining.

The City of Rapid City issued a Notice of Award for construction of the JSWTP and RWPS on June 8, 2011. The City spent the time between the grant award and the project notice of award, finalizing the project funding, finalizing the project design, and obtaining property, easements and the permits necessary for construction of the project. The contracted completion date for the project is August 8, 2013. However, engineering services for the project will continue for 6 to 12 months beyond this date for start-up and commissioning of the plant.

The City of Rapid City is submitting this application as the first step to allow use of the remaining consolidated grant funds for the duration of the project. After the project is placed on the State Water Plan the City will submit an application for renewal of the Consolidated Grant.

The City of Rapid City has submitted the engineering and technical documentation for this project and as such it is on file with the SDDENR.



State Water Plan Application Form

Applicant City of Rapid City Address: 300 Sixth Street Rapid City, SD 57701 Phone Number: (605) 394-4154	Proposed Funding Package <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">Requested Funding</td> <td style="text-align: right; border-bottom: 1px solid black;">\$640,000</td> </tr> <tr> <td>Other <u>DW SRF Loan</u></td> <td style="text-align: right; border-bottom: 1px solid black;">\$6,000,000</td> </tr> <tr> <td>Other <u>Water Revenue Bond</u></td> <td style="text-align: right; border-bottom: 1px solid black;">38,030,420</td> </tr> <tr> <td>Other <u>Water Enterprise</u></td> <td style="text-align: right; border-bottom: 1px solid black;">\$412,465</td> </tr> <tr> <td>TOTAL</td> <td style="text-align: right; border-bottom: 3px double black;">45,082,885</td> </tr> </table>	Requested Funding	\$640,000	Other <u>DW SRF Loan</u>	\$6,000,000	Other <u>Water Revenue Bond</u>	38,030,420	Other <u>Water Enterprise</u>	\$412,465	TOTAL	45,082,885
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TOTAL	45,082,885										

Project Title: Rapid City Water Utility System Enhancements

Description: (Include present monthly utility rate and whether a reserve fund has been established for the utility to benefit from the project.)

The City of Rapid City, South Dakota is experiencing consistent growth, which has led to the need to plan for improved and/or added infrastructure for water utilities. After reviewing several alternatives it was determined that the best approach to ensure adequate water resources and water treatment needs are met is construction of the Jackson Springs Water Treatment Plant and raw water pumping station (RWPS) and a new treatment facility at the existing Mt. View Site. Both treatment facilities will utilize Membrane Filtration Systems to provide the most cost-effective and operator friendly treatment. The WTP designs also include pretreatment processes to remove elements that cause membrane fouling.

The 2012 monthly residential water rate for a 5/8" meter and 5,000 gallons consumed is \$26.20. City of Rapid City has an established Water Utility Reserve Fund.

The Applicant Certifies That:

I declare and affirm under the penalties of perjury that this application has been examined by me and, to the best of my knowledge and belief, is in all things true and correct.

Sam Kooiker, Mayor

 Name and Title of Authorized Signatory (Typed)
 Application Prepared By:

 Signature Date

Dan Coon (605) 394-4154

 Name and Title (Typed) Phone #

City of Rapid City

 Representing

Anthony Beeson (303) 721-9292

 Name of Engineer/Architect Phone #

Burns & McDonnell Engineering Co., Inc.

 Representing

7.1.1 Drinking Water Project Eligibility and Priority Point Self-Assessment

The engineering report must support all responses on this assessment.

Eligibility Assessment

YES **NO**

- | | | |
|---|--------------------------|-------------------------------------|
| 1. Is the project intended <u>mainly</u> for fire protection? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2. Is the project <u>primarily</u> intended to serve future growth?
<i>Note: providing service to existing homes or businesses not currently served is not considered future growth.</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

If the answer to either question is “yes” the project may not be eligible for an SRF loan. Contact the department for more information.

Priority Point Assessment

- | | | |
|--|--------------------------|-------------------------------------|
| 1. If the water system has experienced either situation described below in the past three years, will this project correct the deficiency? If so, indicate which situation applies. | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| A. occurrences of nitrates, fecal coliform, or E. coli bacteria that have exceeded the allowable limits as defined in ARSD 74:04:12; | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| B. occurrences of chronic primary drinking water contaminants that have exceeded the allowable limits as defined in ARSD 74:04:12 or the system is in violation of a treatment technique. | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2. Please provide the monthly user rate expected as a result of this project (based on 5,000 gallons for municipalities and sanitary districts and 7,000 gallons for other systems). | \$26.20 | |
| | (Dollars) | |
| 3. If the project will consolidate facilities, indicate which of the following best describes the project: | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| A. one or more community water systems will consolidate with another community water system, and the consolidation is cost effective; | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| B. A community water system will receive water from another community water system but will continue to operate its water system in some capacity. | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 4. If the water system has experienced occurrences of secondary drinking water contaminants that have exceeded the guidelines in the past three years, will this project address the suspected cause of these occurrences? Indicate all contaminants that have been exceeded. The specific contaminants and the maximum contaminant level are: | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| chloride..... 250 mg/L | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| color..... 15 color units | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| fluoride 2.0 mg/L | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| foaming agents..... 0.5 mg/L | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

iron.....	0.3 mg/L	<input type="checkbox"/>	<input checked="" type="checkbox"/>
manganese.....	0.05 mg/L	<input type="checkbox"/>	<input checked="" type="checkbox"/>
odor	3 threshold odor number	<input type="checkbox"/>	<input checked="" type="checkbox"/>
pH.....	range: 6.5 to 8.5	<input type="checkbox"/>	<input checked="" type="checkbox"/>
silver.....	0.1 mg/L	<input type="checkbox"/>	<input checked="" type="checkbox"/>
sulfate.....	250 mg/L	<input type="checkbox"/>	<input checked="" type="checkbox"/>
total dissolved solids	500 mg/L	<input type="checkbox"/>	<input checked="" type="checkbox"/>
zinc.....	5 mg/L	<input type="checkbox"/>	<input checked="" type="checkbox"/>

5. In the past three years has the water system experienced occurrences of total coliform that have exceeded the allowable limits, and will this project address the suspected cause of these occurrences?

6. The project is a rehabilitation of contaminated drinking water sources or development of new sources to replace contaminated sources.

7. The project is needed to develop sources due to inadequate supply.

8. Water meters are being installed and
 A. the meters are being installed on services that were previously unmetered; or
 B. the meters are replacing existing meters.

8. The project will replace transmission lines for the following reasons (indicate all that apply):
 A. removal of lead piping
 B. decrease water loss volume by 10% or more
 C. looping of lines to improve water quality
 D. lines are 50 years old or older

9. The project will construct storage for a system with capacity less than a peak day's demand or is needed to address low pressure problems. Low pressure is defined as less than 20 pounds per square inch.

10. The project will construct, upgrade, or replace a water treatment plant or its components to assure compliance with upcoming or existing regulations.

11. Population - For a project sponsored by a community or sanitary district, provide the population of the community as reported in the 2000 census. For regional systems, please provide the population of the area, based on the 2000 census, to benefit from the project. 59,607
 Population

Additional Comments:

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Print Form