## Water Supply Reserve Account – Grant and Loan Program Water Activity Summary Sheet May 21-22, 2014 Agenda Item 23(c)

**Applicant:** Stewart Mesa Water Company

Water Activity Name: Stewart Mesa Water Company Improvement Project

Water Activity Purpose: Agriculture and M&I

County: Gunnison

Drainage Basin: Gunnison

Water Source: Town of Paonia

Amount Requested: \$12,876

Source of Funds: Gunnison Basin Account

Matching Funds: \$27,744; 68% of total project costs (refer to Funding overview/Matching Summary)

**Staff Recommendation** 

Staff recommends approval of up to \$12,876 from the Gunnison Basin Account to assist in the funding of the project titled: Stewart Mesa Water Company Improvement Project

**Water Activity Summary:** The funding being requested by SMWC is to be used in two areas in the water distribution system. The first being the completion of the system monitor meter program by installing the last two monitor meters. The installation of monitor meters completes a system-wide water auditing tool used in the company's leak detection program. The second part of our funding request will complete a system engineering analysis of the entire water system. At no time has a hydraulic analysis been performed on this hundred-plus-year-old system. Contemporary system water load demands require the company have an expanded knowledge of the systems strengths and weaknesses. No longer can accurate infrastructure improvement or expansion decisions be made without the information the analysis will provide. Additionally, leak detection and control are high priority issues for SMWC as the existing system presently experiences approximately 25% leaking of purchased water. The funding requested will enable the company to implement a plan to get leakage under 10%. The proposed system analysis will define structural improvements to eliminate leak issues and better ways to identify, locate, and repair leaks.

#### **Discussion:**

No additional discussion is required.

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

No issues or additional needs have been identified.

#### Funding Overview/Matching Funds

	Cash	<u>In-kind</u>	<u>Total</u>
WSRA Gunnison Basin Account	\$12,876	n/a	\$12,876
Stewart Mesa Water Company	\$9,100	\$6,800	\$15,900
Colorado Water River Conservation District	\$11,124	\$0	\$11,124
Paonia Fire Department	<u>\$0</u>	<u>\$720</u>	<u>\$720</u>
Total Project Costs	\$33,100	\$7,520	\$40,620

### **Staff Recommendation:**

Staff recommends approval of up to \$12,876 from the Gunnison Basin Account to assist in the funding of the project titled: Stewart Mesa Water Company Improvement Project.

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 and Final Deliverable:** 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. 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.

The Gunnison Basin Roundtable 501 Palmer Street Delta, CO 81416

March 4, 2014

Mr. Craig Godbout Intrastate Water Management and Development Section COLORADO WATER CONSERVATION BOARD 1580 Logan Street, Suite 600 Denver, CO 80203

Re: Grant Request from the Water Supply Reserve Account Stewart Mesa Water Company Stewart Mesa Water Company Improvement Project

Dear Mr. Godbout:

This letter is presented to advise you that the grant application submitted by the Stewart Mesa Water Company for \$12,876 from Basin Account funds from the Water Supply Reserve Account for its Stewart Mesa Water Company Improvement Project was reviewed by the Gunnison Basin Roundtable and its Project Screening Committee, and was approved by a unanimous vote of the Gunnison Basin Roundtable during our meeting on March 3, 2014.

This water activity meets the provisions of Section 37-75-104(2), Colorado Revised Statutes. The requirements/language from the statute is provided in Part 3 of the Criteria and Guidelines.

This activity furthers basin-wide consumptive needs for the Gunnison Basin by assisting small municipal providers in improving aging infrastructure.

Sincerely,

Michelle Pierce Chair

cc: Tom Alvey (e-mail)



## COLORADO WATER CONSERVATION BOARD

## WATER SUPPLY RESERVE ACCOUNT APPLICATION FORM



Stewart Mesa Water Company Improvement Project

## Name of Water Activity/Project

### Stewart Mesa Water Company

## Name of Applicant

Gunnison Basin Roundtable Amount from Statewide Account:

\$0.00

\$12,876.00

\$12,876.00

Amount from Basin Account(s):

**Total WSRA Funds Requested:** 

Approving Basin Roundtable(s)

(If multiple basins specify amounts in parentheses.)

## **Application Content**

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## **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)

## **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 (CWCB). 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 CWCB 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 CWCB website at: <u>http://cwcb.state.co.us</u> 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: <u>http://cwcb.state.co.us/LoansGrants/water-supply-reserve-account-</u>grants/Documents/WSRACriteriaGuidelines.pdf

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:

Greg Johnson – WSRA Application Colorado Water Conservation Board 1580 Logan Street, Suite 200 Denver, CO 80203 gregory.johnson@state.co.us

If you have questions or need additional assistance, please contact Greg Johnson at: 303-866-3441 x3249 or gregory.johnson@state.co.us.

1.	Applicant Name(s):	Stewart Mesa Water Company				
	Mailing address:	PO Box 1315 Paonia, CO 81428				
	Taxpayer ID#:	19-8715873				
	Primary Contact:	David Herz	Position/Title:	President of the Board		
	Email:	daveh5 tds.net				
	Phone Numbers:	Cell:	Office:	(970) 527-7994		
	Alternate Contact:	Kerry Smith	Position/Title:	Secretary/Treasurer		
	Email:	smwch2o@gmail.com				
	Phone Numbers:	Cell:	Office:	(970) 527-4336		

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

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.

#### 3. Provide a brief description of your organization

The Stewart Mesa Water Company (SMWC) is a privately held owner operated non-profit water company, incorporated in 1909. The SMWC began providing shareholders agricultural and domestic water before 1906. The company operates as a consecutive water system by direct connection to an 8" water main owned by the Town of Paonia, in Delta County. Water is metered at the point of diversion from the city water line. Water use is formalized by a contract with the city of Paonia which stipulates such things as types of service allowed and infrastructure limits such as water main pipe sizing. Originally, the SMWC had about 30 taps. Today the system has 79 taps of which 75 are active. The business of the SMWC is conducted by a five person volunteer board following the policy's set forth in Company By-Laws registered with the state of Colorado. The Board is elected by a vote of the membership yearly. Ownership in the Company is represented with the receipt of a stock certificate. Each stock certificate represents two (2) shares. One share is to be used for the member's household use and the other share is to be used for the watering of livestock and other agricultural use. The SMWC has two paid employees, a meter reader and a secretary who also keeps the books. SMWC asset is the water system. All system related work, including repairs and /or infrastructure improvements, is completed by volunteers from the company or a combination of contractors and volunteers. As per Colorado law, SMWC is under the supervision of a licensed Colorado potable water distribution authority.

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

NA

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.

There are no TABOR issues.

#### 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
X	Municipal/Industrial
	Needs Assessment
	Education
	Other Explain:

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

SMWC supplies both agricultural and domestic water to the shareholders; therefore, this project impacts both domestic and agricultural water supply. This project contains an implementation task and an engineering analysis task. The implementation task is the higher cost task.

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

Study	Х	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)
42,240	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:

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

Latitude:	38° 50′ 22.97″N	Longitude:	107°37′10.92″W	
		1		

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.

The funding being requested by SMWC is to be used in two areas in the water distribution system. The first being the completion of the system monitor meter program by installing the last two monitor meters. The installation of monitor meters completes a water auditing tool that is an important component in the company leak detection program. The second part of our funding request supports a complete system engineering analysis. The system is over one hundred years old and has been enlarged and extended over time. At no time has a hydraulic analysis been performed. Contemporary system water load demands require the company have an expanded knowledge of the systems strengths and weaknesses. We can no longer make accurate infrastructure improvement or expansion decisions without the information the analysis will provide. Additionally, leak detection and control are high priority issues for SMWC as we are presently leaking approximately 25 % of purchased water. The funding requested will enable the company to implement plans to get leakage under 10%. The proposed system analysis will define structural improvements to eliminate leak issues and better ways to identify, locate, and repair leaks. Our project consists of two specific tasks as follows:

- Task 1 Installation of improvements to the Main Line, and the McFarland and Travie Branches.
- Task 2 Complete an engineering analysis of our delivery system defining issues such as system capacity, improvements required to increase capacity, prioritizing improvements to reduce maintenance and enhance system sustainability, leak analysis including recommendations for leak reductions and recommendations on providing water for firefighting support.

WSRA funding will be used in Tasks 1 and 2.

#### Part III. - Threshold and Evaluation Criteria

- 1. <u>Describe how</u> 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.<sup>1</sup>

In that the water activity for which funding is being requested by the SMWC deals with infrastructure design and improvement, the company's request falls under the foundational principles and directives set forth in 37-75-101 CRS, 37-75-102 CRS and 37-75-104 (2) (c).

The underlying presuppositions of the Colorado Water for the 21<sup>st</sup> Century Act support activities which enhance and /or improve the use and conservation of water in Colorado. The funding being requested by SMWC is to be used in two areas in the water distribution system. The first being the completion of the system monitor meter program by installing the last two monitor meters. The installation of monitor meters is water auditing tool as well as an important component in the company leak detection program. The second part of our funding request seeks to finance a complete system engineering analysis. The system which is over one hundred years old has been enlarge and extended over time. This expansion has been a reaction to demand. At no time however has a hydraulic analysis been performed. Contemporary system water load demands require the company have an expanded knowledge of the systems strengths and weaknesses. We can no longer make accurate infrastructure improvement or expansion decisions without the information the analysis will provide. Additionally, leak detection and control are high priority issues for SMWC as we are presently leaking approximately 25 % of purchased water. The funding requested will enable the company to implement our plan to get leakage under 10%. The proposed system analysis will define structural improvements to eliminate leak issues and better ways to identify, locate, and repair leaks.

The SMWC seeks to operate its water distribution system in as efficient, leak free and cost effective way possible and by doing that reflect the highest possible water resource management standards.

b) The water activity underwent an evaluation and approval process and was approved by the Basin

<sup>&</sup>lt;sup>1</sup> 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.

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.

c) The water activity meets the provisions of Section 37-75-104(2), Colorado Revised Statutes.<sup>2</sup> 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 water activity meets the provisions of Section 37-75-104(2) because the basin roundtable's consumptive needs assessments include domestic and agriculture water improvement efforts. See the GBRT approval letter for details.

d) Matching Requirement: For requests from the Statewide Fund, the applicants is required to demonstrate a 20 percent (or greater) match of the request from the Statewide Account. Statewide requests must also include a minimum match of 5 percent of the total grant amount from Basin Funds. 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 application was submitted to the CWCB. 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 funding requested from the basin's WSRA is \$12,876. Match provided is \$27,744. The total project value is \$40,620. Funding requested from the basin account is 31.7% of the total project. The Match is 68.3% of the total project. SMWC is providing 39.1% of the total project.

<sup>&</sup>lt;sup>2</sup> 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.

2. For Applications that include a request for funds from the **Statewide Account**, <u>describe how</u> 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. 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.

#### <u>Tier 1: Promoting Collaboration/Cooperation and Meeting Water Management Goals and Identified Water</u> <u>Needs</u>

- 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.
- 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.

#### 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.

The water rights for the water used by SMWC were owned by the original founders of the company. However, in an agreement between the town of Paonia and SMWC, signed in 1906, all water rights were given to the town of Paonia. The agreement also included the details of the commitment of Paonia to provide the water needs for SMWC. Both the original agreement and the current agreement are contained in Exhibit C.

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

NA

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 5 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.

The above state Signature of A	pplicant: Durth	
Print Applicar	t's Name: David Herz	
Project Title:	Stewart Mesa Water Company Improvement Project	

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

Greg Johnson – WSRA Application Colorado Water Conservation Board 1580 Logan Street, Suite 200 Denver, CO 80203 gregory.johnson@state.co.us

## Exhibit A <u>Statement of Work</u>

WATER ACTIVITY NAME - Stewart Mesa Water Company Improvement Project

GRANT RECIPIENT - Stewart Mesa Water Company (SMWC)

FUNDING SOURCE - Water Supply Reserve Account - Basin Account

## **1. INTRODUCTION**

The SMWC began providing shareholders agricultural and domestic water before 1906 and was incorporated in 1909. SMWC is operated as a consecutive water system by direct connection to an 8" water main owned by the Town of Paonia, in Delta County. Originally, SMWC had about 30 taps. Today the system has 79 taps of which 75 are active. Ownership in the Company is represented with the recite of a stock certificate. Each stock certificate represents two shares. One share is for the member's household use and the other share is for the watering of livestock and other limited agricultural use. All system related work, including repairs and /or infrastructure improvements, is completed by company volunteers or a combination of contractors and volunteers. Our project consists of two specific tasks as follows:

- Task 1 Installation of improvements to the Main Line, the McFarland Service Branch, and the Travie Service Branch.
- Task 2 Complete an engineering analysis of our delivery system defining issues such as system capacity, improvements required to increase capacity, prioritizing improvements to reduce maintenance and enhance system sustainability, leak analysis including recommendations for leak reductions and recommendations on providing water for firefighting support.

## 2. OBJECTIVES

The project objectives include:

- Completing improvements on the Main Line, and the McFarland and Travie Service branches
- Completing an engineering analysis of the entire delivery system
- Improve water efficiency and reduce cost for the 79 share holders

## 3. Stewart Mesa Water Company (SMWC) Improvement Project

## Background

The funding being requested by SMWC is to be used in two areas in the water distribution system. The first being the completion of the system monitor meter program by installing the last two monitor meters. The installation of monitor meters completes a system-wide water auditing tool used in the company's leak detection program. The second part of our funding request will complete a system engineering analysis of the entire water system. Our hundred-plus-year-old system has been enlarge and extended multiple times. At no time has a hydraulic analysis been performed. Contemporary system water load demands require the company have an expanded knowledge of the systems strengths and weaknesses. We can no longer make accurate infrastructure improvement or expansion decisions without the information the analysis will provide. Additionally, leak detection and control are high priority issues for SMWC as we are presently leaking approximately 25 % of purchased water. The funding requested will enable the company to implement our plan to get leakage under 10%. The proposed system analysis will define structural improvements to eliminate leak issues and better ways to identify, locate, and repair leaks.

# TASK 1 – Installation of Improvements on the Main Line, and McFarland and Travie Branches Description of Task

Task 1 will complete the installation of monitor meters at the McFarland and Travie Branches and improvements to the main line. These improvements will result in reduced maintenance costs, increased system reliability and increased system leak detection.

Task 1 Phase A will be the McFarland service branch installation. This effort will start at the diversion point from the main company line and will include shutoff valves, a pressure reduction device, a monitor meter and a pressure gage. Additionally, a main line pressure reduction device will be installed at this location to provide a redundancy in main line water control. This main line pressure reduction device installation will include shut off valves, a strainer, a pressure reduction device, and pressure gages.

Task 1 Phase B will be the Travie service branch installation. This effort will start at the diversion point from the main company line and will include shutoff valves, a pressure reduction device, a monitor meter and a pressure gage.

## Method/Procedure

As with all infrastructure improvements or modifications the SMWC Board identified the need and developed a working budget and associated work scope. The installation complexity at the McFarland service line requires that the effort be done with both SMWC volunteer labor and a contractor with potable water installation expertise. The installation at the Travie service branch is less complex and will be completed by SMWC volunteer labor and shareholder equipment. The installation process to be used on the Travie branch has been used successfully numerous times before by SMWC.

A design with the necessary components has been determined as well as the installation layouts. These efforts determine the size of the underground vault that will have to be used. SMWC places installations of this type in underground water-proof concrete vaults for protection and easier maintenance. Materials will be ordered and inventoried and an assembly procedure determined. A state inspector will be on hand during the course of installation to ensure compliance with state potable water installation procedures. After installation, operational pressure reduction devices will be balanced before the water system is activated.

## Deliverable

The installation processes and results will be delivered in the final report.

## **TASK 2 – Engineering Analysis**

## **Description of Task**

The purpose of this task is to complete an engineering analysis of our delivery system defining issues such as:

- Current system capacity and improvements required to increase capacity,
- Prioritizing improvements to reduce maintenance requirements and enhance system sustainability,
- Leak analysis including recommendations for leak reductions
- System modification requirements for delivery of firefighting water support

## Method/Procedure

The starting point for the analysis will include:

- Current delivery system drawings, including identification of all repairs and modifications completed since the completion of the drawings
- Current system requirements defined in our contract with the Town of Paonia

The analysis effort will include evaluation of current system capacity, recommendations on operational pressures throughout the system, long-term maintenance, leak analysis and recommendations to reduce leaks, water tank storage requirements for firefighting support, and other items to be defined. The engineering analysis process will incorporate the latest analysis technologies that have been proven successful in the evaluation of water delivery systems.

SMWC will release a competitive procurement for the water system analysis effort from among engineering firms such as McLaughlin Engineering, Tetra-Tec and Buckhorn Geotech. The selection process will be based on a best-value approach and will not be based strictly on cost. Engineering capabilities and past performance will be weighted equally with the bid cost. The least risk, best-value proposal will be selected for award. The winning firm will be selected based on demonstrated engineering capabilities and proven past performance at a level that minimizes the risks of the project. The draft analysis report review process will include a review by board of SMWC, which includes three engineers.

## Deliverable

The engineering analysis will be delivered in the final report. All analysis efforts and approach methods will be documented. All models and data used in the analysis process will be supplied.

## TASK 3 – Final Report

## Description of Task

The effort of this task is to compile and document all of the activities of this project.

### Method/Procedure

The results of the first two tasks of the project will be documented in detail for the final report. The final report will be reviewed and approved by the Board of SMWC.

### Deliverable

The final report is the deliverable.

## 4. REPORTING AND FINAL DELIVERABLE

SMWC shall provide a progress report every 6 months, beginning from the date of the executed contract. Our progress reports 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. All deliverables defined for the tasks will be delivered in the progress reports.

At completion of the project, SMWC shall provide a final report that summarizes the project and documents how the project was completed. Our report may contain photographs, summaries of meetings, engineering reports/designs, and deliverables defined for each task.

## **5. PROJECT BENEFITS**

The completion of this project will result in the following benefits:

- Reduced maintenance costs
- Reduced cost of water to users
- Increased system reliability
- Increased system leak detection
- Conservation of water
- A complete engineering analysis of the current system with multiple recommendations for system improvements and the requirements for the firefighting water delivery

## 6. PROJECT SUPPORTERS

The Town of Paonia and the Paonia Fire Department are supporting this project. See Exhibit C for their letters of support.

## 7. BUDGET

The total project funds are given in the Grant Request Table. A total project budget by task is given in the following Table.

Grant Request Table					
Funder	Dollars funded		Status	Funding work areas	
Water Supply Reserve	\$	512,876	Proposal submitted	Task 1B - \$2,000	
Account – GBRT Basin				Task 2 - \$10,876	
Colorado River District	\$	511,124	Proposal submitted	Task 1A - \$7,000	
				Task 2 - \$4,124	
SMWC		\$9,100	Cash in hand	Task 1A - \$7,100	
				Task 1B - \$2,000	
SMWC		\$6,800	In-kind Labor	Task 1, 2 & 3	
Paonia Fire Department		\$720	In-kind Labor	Task 2	
Total Project Costs	\$	640,620			

GBRT's total cost is \$12,876. The total cost share is \$27,744. The cost share percentage is 68.3%.

SMWC Improvement and Analysis Project					
Task	ODC		In-Kind	Total	
Task 1		\$18,100	\$3,000	\$21,100	
Task 2		\$15,000	\$3,720	\$18,720	
Task 3			\$800	\$800	
Total		\$33,100	\$7,520	\$40,620	
000111					

ODC includes

Task 1 - Construction/Installation subcontract and parts - \$18,100

Task 2 – Engineering subcontract – \$15,000

In-kind Match							
Task	SMWC	\$ per	SMWC	PFD	\$ per	PFD	Total
	Hours	hour	Total	Hours	hour	Total	
Task 1 A	14	\$50	\$700				\$700
Task 1 B	46	\$50	\$2,300				\$2,300
Task 2	60	\$50	\$3,000	16	\$45	\$720	\$3,720
Task 3	16	\$50	\$800				\$800
Total	136		\$6,800				\$7,520

Task 1A - Construction and Installation Management hours

Task 1B - Construction and Installation Labor and Management hours

Task 2 – Request for Proposal writing, contractor selection, engineering analysis management and support hours

Task 3 – Writing final report hours

## 8. SCHEDULE

The following tables provide a project schedule including key milestones for each task and the completion dates.

Task	Start Date	Finish Date
SMWC Improvement Project	1/1/2014	12/15/14
Task 1 – Main and Branch	1/1/2014	7/30/2014
Improvements		
Task 1 Phase A McFarland	1/15/2014	2/15/2014
Branch		
Task 1 Phase B Travie Branch	7/1/2014	7/30/2014
Task 2 – System analysis	6/1/14	11/30/14
Task 2/Phase 1 Analysis	6/1/14	7/15/14
subcontract award		
Task 2/Phase 2 Analysis Effort	7/16/14	11/30/14
Task 3 – Final Report	8/15/14	12/15/14

## 9. PAYMENT

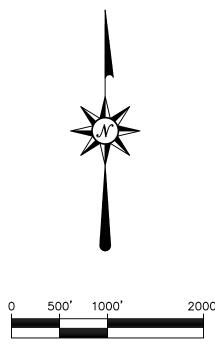
SMWC will request payment based on actual expenditures and invoice accordingly to CWCB. The request for payment will include a description of the work accomplished by major task, and estimate of the percent completion for individual tasks and the entire water activity in relation to the percentage of budget spent, identification of any major issues and proposed or implemented corrective actions. SMWC understands that the last 5 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 will 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 the Gunnison Basin Roundtable.

## **10.INSURANCE REQUIREMENTS**

SMWC will meet all insurance requirements taken from the standard contract apply to WSRA projects that exceed \$25,000 in accordance with the policies of the State Controller's Office. Proof of insurance as stated below will be provided upon notification of intent to award this grant.

## 11.W-9 FORM

SMWC's W-9 follows.



$\heartsuit$	VALVE
Ŵ	METER
	PRIVATE LINE
	COMPANY MAIN LINE
	PROPOSED MONITOR
	EXISTING MONITOR M

