

**Water Supply Reserve Account – Grant and Loan Program**  
**Water Activity Summary Sheet**  
**November 19-20, 2013**  
**Agenda Item 22(c)**

**Applicant:** Snowmass Water and Sanitation District

**Water Activity Name:** Customer Meter Replacement Program

**Water Activity Purpose:** Nonconsumptive & Municipal/Industrial

**County:** Pitkin

**River Basin:** Colorado

**Water Source:** East Snowmass Creek Spring, East Snowmass Creek, West Fork of Brush Creek,  
and Snowmass Creek

**Amount Requested:** \$100,000 Colorado Basin Account

**Matching Funds:** \$266,217 cash match - Snowmass Water and Sanitation District

<b>Staff Recommendation:</b>
Staff recommends approval of up to \$100,000 over a two (2) year period from the Colorado Basin Account to fund the project titled: Snowmass Water and Sanitation District – Customer Meter Replacement Program.

**Water Activity Summary:** WSRA Grant funds will be expended by the applicant to undertake a systematic customer meter repair and replacement program by Snowmass Water and Sanitation District (SWCD). Approximately 588 residential and 140 commercial meters are targeted for repair or replacement over a 21-month period. As the system currently operates there are three specific shortcomings with the existing water meters, consisting of: older meters that have not been well maintained resulting in inaccurate customer usage accounting and inaccurate use and price-signals to customers; many of the meters targeted for replacement have manual-read technology requiring significant staff time to collect customer usage information resulting in quarterly meter-reading which will be increased to monthly reading; and replacement of commercial customer meters are selected based on “full-capacity” demands which do not accurately account for water during low-demand seasons.

Furthermore, the meter replacement program is a critical first step that SWSD is undertaking before implementing the CWCB-identified “Foundational Measures” identified in the 2012 Water Efficiency Planning guidance documents. Meter repair or replacement must be accomplished prior to establishing a baseline for monthly monitoring of its water efficiency activities, and to update its Water-Efficiency oriented rate structure to send accurate price-signals to customers that use water inefficiently.

Additionally, immediately downstream of SWSD’s Snowmass Creek pump station, CWCB holds a minimum Instream Flow Right of 7 cfs occurring during the winter. While CWCB’s right is junior to SWSD’s, the SWSD Board has adopted a “Stewardship Goal” to maintain Snowmass Instream Flows. As SWSD is the only winter diverted, this project represents a critical first step to improving water efficiency and will improve the chances of meeting the 7 cfs stewardship goal and minimum Instream Flow on Snowmass Creek.

*Threshold and Evaluation Criteria:*

The application meets all four Threshold Criteria.

*Funding/Match Summary:*

	<u>Cash</u>	<u>In-Kind</u>	<u>Total</u>
WSRA Colorado Basin Account	\$100,000	\$0	\$100,000
Snowmass Water & Sanitation District	\$266,217	\$0	\$266,217
<b>Total Project Costs</b>	<b>\$366,217</b>	<b>\$0</b>	<b>\$366,217</b>

**Discussion:**

The applicant requested \$184,357 from the Colorado Basin Roundtable, however the Colorado Basin Roundtable on September 23, 2013 approved \$100,000 over a two year period. Staff contacted the applicant to determine how the \$84,357 shortfall would be met. The applicant responded that the Snowmass Water and Sanitation District would contribute an additional \$84,357, raising their total contribution to \$266,217. WSRA funds to be distributed over a two (2) year period, consisting of \$50,000 during the first year and \$50,000 during the second year, as approved by the Colorado Basin Roundtable.

**Issues/Additional Needs:**

No additional issues or needs were identified.

**Staff Recommendation:**

Staff recommends approval of up to \$100,000 over a two (2) year period from the Colorado Basin Account for project titled: Snowmass Water and Sanitation District – Customer Meter Replacement Program.

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 COLORADO BASIN ROUNDTABLE***  
***C/O P.O. BOX 1120***  
***GLENWOOD SPRINGS, COLORADO***  
***81602***

Oct. 17, 2013

**Craig Godbout**  
**Colorado Water Conservation Board**  
**Water Supply Planning Section**  
1580 Logan Street, Suite 200  
Denver CO 80203  
[\(303\) 866-3441, ext 3210](tel:3038663441) (office)  
[\(970\) 218-9407](tel:9702189407) (cell)  
[craig.godbout@state.co.us](mailto:craig.godbout@state.co.us)

Dear Craig:

The Colorado Basin Roundtable voted at its Sept 23, 2013, meeting to approve a Basin Account-Water Supply Reserve application for consideration by the Colorado Water Conservation Board. The applicant is the Snowmass Water and Sanitation District, located in Snowmass Village, Colo., which is asking for financial support for a water meter replacement program. The Roundtable voted 19-3 in favor of allocating \$50,000 a year for two years, for a total of \$100,000. It is important to note that we are recommending less than the applicant had requested. I made this notation on the application cover sheet.

Dissenting voters noted that while the project is good, that utilities or customers should buy their own meters, that this was not a proper use of 1177 money and that maybe another district program would better benefit with financial support.

This grant addresses this municipal water provider's effort to be efficient, but in this case, with a direct bearing on withdrawals from the contentious Snowmass Creek. It is part of the district's "Stewardship Goal" of maintaining minimum streamflows. This goal is best explained in the Narrative No. 2 on page 5 of the application. We appreciate the staff and board's time devoted to this application.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Jim Pokrandt", with a long, sweeping horizontal stroke extending to the right.

Jim Pokrandt, Chair, Colorado Basin Roundtable

Attachment: CFWE grant application



# COLORADO WATER CONSERVATION BOARD

## WATER SUPPLY RESERVE ACCOUNT APPLICATION FORM



Snowmass Water and Sanitation District -  
Customer Meter Replacement Program

### Name of Water Activity/Project

Snowmass Water and Sanitation District

### Name of Applicant

Kit Hamby, District  
Manager

Amount from Statewide Account:

\$0

Amount from Basin Account(s):

\$184,357<sup>1</sup>

Total WSRA Funds Requested:

\$184,357<sup>1</sup>

### 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)

1. Requested over two 1-year disbursement periods of \$92,179 per year.

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Revised December 2011

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### **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: <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>

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](mailto: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](mailto:gregory.johnson@state.co.us).



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

1.	Applicant Name(s):	Snowmass Water and Sanitation District Kit Hamby, District Manager		
	Mailing address:	PO Box 5700 Snowmass Village, CO 81615		
	Taxpayer ID#:	98-02118-0000		
	Primary Contact:	Kit Hamby	Position/Title:	District Manager
	Email:	khamby@swsd.org		
	Phone Numbers:	Cell: 970-309-4773	Office:	970-923-2056
	Alternate Contact:	Shannon Ullmann	Position/Title:	Consulting Engineer
	Email:	shannonu@sgm-inc.com		
	Phone Numbers:	Cell:	Office:	970-384-9060

### 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.

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3. Provide a brief description of your organization

Snowmass Water & Sanitation District (SWSD) is a Colorado Special District. SWSD has been providing clean water and treating wastewater for the Town of Snowmass Village since 1968. SWSD is governed by a publicly elected five-member board of directors. District staff implements the policies and procedures as set by the Board and conducts daily operations of SWSD.

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

Not Applicable.

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.

Snowmass Water and Sanitation District constituents have voted to De-Bruce. The SWSD is therefore exempt from TABOR limitations.

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### Part II. - Description of the Water Activity/Project

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

<input checked="" type="checkbox"/>	Nonconsumptive (Environmental or Recreational)
<input type="checkbox"/>	Agricultural
<input checked="" type="checkbox"/>	Municipal/Industrial
<input type="checkbox"/>	Needs Assessment
<input type="checkbox"/>	Education
<input type="checkbox"/>	Other

Explain:

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

Non-Consumptive: SWSD diverts water from several local surface-water streams, including Snowmass Creek. Immediately downstream of SWSD's Snowmass Creek pump station, CWCB holds a minimum Instream Flow right. The minimum flow rate amount varies by season, with the absolute minimum of 7 CFS occurring in the winter. While CWCB's right is junior to SWSD's, the SWSD board has adopted a "Stewardship Goal" to maintain the Snowmass Creek Instream Flows. Although there are many diverters within that reach in the summer, SWSD is the only winter diverter, and therefore, the single user able to impact winter Snowmass Creek flows. This project represents a critical first step to improving water use efficiency within SWSD. Ultimately, that improved efficiency will make it easier for SWSD to meet the 7 CFS stewardship goal and minimum Instream Flow on Snowmass Creek.

Municipal/Industrial: SWSD is a municipal water provider for the Town of Snowmass Village and Brush Creek Metro District. The SWSD has begun the development of its first Water Efficiency Plan. As part of the planning process, SWSD has identified the need to proactively address its inability to accurately and frequently read customer water meters. Replacing old, direct-read meters with new, automatic-read versions will allow the SWSD to send frequent, accurate price signals to customers, and make conservation rate structure more effective. Such accounting is also critical in evaluating the measures that it will implement as part of its Water Efficiency Plan, and will help the SWSD strategically identify areas where Water Efficiency Measures will be most effective.

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

<input type="checkbox"/>	Study	<input checked="" type="checkbox"/>	Implementation
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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:

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

See Exhibit B.

Latitude: 39°13'13"N

Longitude: 106°55'22"W

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.

Snowmass Water and Sanitation District (SWSD) will undertake a systematic customer meter repair and replacement program. Approved funding will be used to pay approximately 50% of the full cost of the meter replacement program and will allow SWSD to expedite the program. The expedited process for this program is critical in order to use up-to-date, accurate meter data for strategic implementation of its upcoming Water Efficiency Plan.

As the system currently operates, there are three specific shortcomings with the existing water meters:

First, meter repair and maintenance is the responsibility of the customer. And, the SWSD does not currently have non-compliance fees in place to accommodate customer meter repair. As a result, many of the meters are old and have not been well maintained by their owners. Meter failure results in inaccurate customer usage accounting and sends inaccurate use and price-signals to those customers.

Second, many of the meters are old, manual-read technology. This requires significant SWSD staff time to collect customer usage information. For this reason, meter-reading frequency is quarterly. The SWSD board will increase meter-reading frequency to monthly, but first must convert manual-read meters to radio-read meters.

Third, commercial customer meters are selected based on anticipated "full-capacity" demands. The seasonal nature of Snowmass's commercial industry results in frequent periods of low water use for these customers. The large commercial meters do not accurately account for water during low-demand seasons.

SWSD's Meter Replacement Program is a critical first step that SWSD must undertake before implementing the CWCB-identified "Foundational Measures" identified in 2012 Water Efficiency Planning guidance documents. The SWSD must first replace and or repair the large number of customer meters that have failed or are manual read before it can:

- Establish a baseline from which to monthly monitor its water efficiency activities.
- Effectively update its Water-Efficiency oriented rate structure to send accurate price signals to customers that use water inefficiently.

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### 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.<sup>1</sup>

The program does not supersede, abrogate or otherwise impair water rights or the adjudication system because the proposed program simply aims to enhance the accuracy of the existing water accounting system thereby promoting water use efficiency. All proposed work would be conducted in accordance with the existing local, state and federal laws and procedures.

- 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 BRT's 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 applicant is soliciting grant funds only from the Colorado River Basin Round Table, and evaluation and approval of those funds will be pending the review of this submission. The Colorado River Basin Roundtable review process will be in compliance with this section.

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<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.



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- 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 consumptive needs within the Colorado River Basin have been evaluated as part of the Statewide Water Supply Initiative, evaluating water needs for M&I and SSI. Non-consumptive needs within the Colorado River Basin have been evaluated as part of the Colorado River Basin Roundtable's 2010 Non-Consumptive needs assessment. Both documents indicate need for improved water use efficiency within the existing M&I Sector for in-stream flow enhancement.

- 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 SWSD will match the grant 50%.

In May, 2013, the SWSD Board enacted a base-fee increase to pay for this meter repair and replacement program. The increase of \$5 per EQR each quarter will generate approximately \$104,000 per year. Without additional grant funding, this would allow the SWSD to replace the approximately 593 residential and 141 commercial meters in just over three years.

However, the SWSD understands that the project is time-sensitive; acceleration in the schedule is of great importance. The establishment of baseline water-use data will support SWSD's pending Water Efficiency Plan. It will allow SWSD to more accurately identify high-use customers and allow SWSD to measure its success.

If the grant is approved, SWSD will accelerate the program and complete meter upgrades in 7 quarters.

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<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.



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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. 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.
- 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.

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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.**

The applicant is not requesting funds from the Statewide Account.



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### 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 SWSD maintains water rights on East Snowmass Creek, Snowmass Creek, Brush Creek and the East and West Forks of Brush Creek. In total there are nearly 19 separate water rights, both absolute and conditional, with Adjudication dates that range from 1889 to 2010. In total, they include 62.55 cubic feet per second (CFS) of direct flow rights and 865 Acre-Feet of storage water rights.

The CWCB holds a junior instream flow water right on Snowmass Creek. That water right varies by season. Winter is a critical low-flow season on Snowmass Creek, during which the instream flow minimum is identified as 7 CFS. Although CWCB's water right is junior to SWSD's Snowmass Creek rights, SWSD, in cooperation with the Snowmass and Capitol Creek Caucus, has adopted the 7-CFS winter "Stewardship Goal" on Snowmass Creek. The burden of meeting the winter goal is carried entirely by SWSD, which represents the only Snowmass Creek diverter during that season.

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

- October 2006 – Dry Year Yield Analysis for Snowmass Creek Water Supplies and Evaluation of Raw Water Storage Requirements (W.W. Wheeler and Assoc.)

In 2006, SWSD sought to evaluate the availability of raw water during dry years. The "Wheeler" report compared 1977 and 2002/3 dry-year stream flows to anticipated future water demands within SWSD's service area. The report concluded that SWSD would be unlikely to meet all of its future demands AND maintain instream flow minimums without implementation of both:

1. Water conservation measures that effectively reduce the unit water demands of its customers
2. Creation of a new raw water storage reservoir to supplement dry-year municipal demands

In response to this report, SWSD initiated the Zeigler Reservoir Project and began to focus its efforts on implementing both mandatory and voluntary water conservation measures.

- In Progress – Snowmass Water Efficiency Plan (SWSD/SGM). To meet the "Stewardship Goal" under future dry-year conditions, SWSD has made a determined effort to improve efficiency of water use within the distribution system. SWSD has initiated a Water Efficiency Planning process. SWSD's Water Efficiency Plan will include several foundational water measures that will start SWSD down the path of

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improving how water is used both among its customers and as part of its own operation and distribution.

The initial Water Efficiency Planning effort quickly revealed, however, inadequacy in SWSD's water metering. SWSD's board recognizes the need to first establish accurate customer water usage metering capability. As such, the SWSD Board has initiated this customer water meter repair and replacement program, in order to increase the effectiveness of upcoming Water Efficiency Planning measures.

### 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.

See Exhibit A.



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### **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**

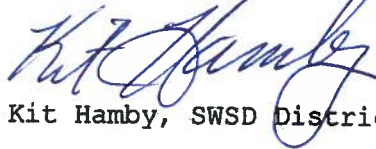
Payment will be made based on actual expenditures and invoicing by the applicant. Invoices from any other entity (i.e. subcontractors) cannot be processed by the State. The request for payment must include a description of the work accomplished by major task, and estimate of the percent completion for 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.

**Water Supply Reserve Account – Application Form**  
Revised December 2011

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

**Signature of Applicant:**



**Print Applicant's Name:** Kit Hamby, SWSD District Manager

**Project Title:** SWSD – Customer Meter Replacement Program

**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](mailto:gregory.johnson@state.co.us)

# Exhibit A1

## Statement of Work

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### I. Project Background

Snowmass Water and Sanitation District (SWSD) provides potable water to customers in the Town of Snowmass Village and Brush Creek Metro District. Its raw water sources include Snowmass Creek and its tributaries and the West Fork of Brush Creek and its tributaries. The SWSD is committed to working collaboratively with the local watershed protection group, the Snowmass and Capital Creek Caucus (the Caucus), to ensure that flows in Snowmass Creek are adequate for maintaining stream health.

In 2006, the SWSD conducted a dry-year availability of its raw water sources under future demand conditions (W.W. Wheeler, 2006). The report concluded that the SWSD would need to create a raw water storage reservoir and implement water conservation measures in order to meet future demands and maintain stream flow minimums. The SWSD initiated construction of Zeigler Reservoir in response to this report. The SWSD also enacted preliminary water conservation measures, though not as part of a formal Water Efficiency Plan.

Recently, the SWSD and the Caucus conducted an assessment of how the SWSD's current and future water needs will impact the flows in Snowmass Creek. In response to the assessment, the SWSD undertook a formal Water Efficiency Planning effort. Initial water accounting analysis associated with that effort revealed a strong need to first improve the accuracy of the SWSD's existing customer metering system.

An accurate and frequent metering system is critical for the following reasons:

- **Evaluating System Losses:** A key element in quantifying system leaks and losses is to compare PRODUCED total annual water to BILLED total annual water. Typical losses identified by this method range from 5-15%. SWSD's initial review showed these values varied from year to year, but were up to 40%. A critical element contributing to that value was that many of the SWSD's customer meters were either broken, or oversized to accurately measure water consumption during low-demand periods.
- **Targeting High-Water-Use Customers:** An effective mechanism for lowering customer demands is to identify customers whose water use is significantly greater than customers of similar size and type. Water providers can then partner with those customers to identify unique solutions for reducing water use over the long-term.
- **Sending Accurate and Timely Price Signals to Customers:** With quarterly billing supported by the current system of manual-read meters, customers do not receive pricing signals associated with peak month water use. Nor do they receive that signal in a timely fashion. Furthermore, many old meters may no longer register low flows. New radio read meters will capture more water

use and allow the sending of stronger, more frequent pricing signals to make the conservation rate structure effective.

- **Measurement of Program Effectiveness:** As SWSD initiates a formal Water Efficiency Plan, and throughout its early water conservation efforts, accurate customer meter records will provide insight into the effectiveness of some measures.

## **II. Project Goals**

Ultimately, the goal of the project is to increase the water use efficiency of SWSD customers. This program is among many of the mitigation measures that will be taken by SWSD to meet the “Stewardship Goal” associated with source water stream flows. Accuracy in customer water use accounting is a critical first step for the SWSD to effectively approach Water Efficiency Planning.

Subsequently, the SWSD’s meter replacement program will provide an effective means of taking “next-steps” associated with foundational Water Efficiency Plan measures. These include:

- Increasing billing frequency from quarterly to monthly. The importance of providing more frequent consumption records to each customer cannot be understated. Under quarterly billing frequency, customer leaks may go up to 3 months before they are detected. When the frequency is increased, leaks are more rapidly identified and repaired.
- Establishing ground-work for “real-time” customer use monitoring. Recent published pilot studies show that “real-time” customer use monitoring provides an even more effective mechanism for leak detection and repair. Such programs begin by installing identical radio-read meters among all customers. Next steps then include establishing continuous “communications” systems. Once in place, customer usage spikes are flagged and will then trigger timely staff response.
- Partnering with high-water-use customers to identify water efficiency improvements on a case-by-case basis.
- Modify billing rate structure to begin billing customers for all of the water they consume. In so doing, customers get a more accurate price signal and are given greater incentive to use water more efficiently.

## **III. Project Approach**

The SWSD has identified customer meters that are in need of replacement and will begin customer meter replacement as soon as funding becomes available. In May, 2013 the SWSD board voted to increase base rates in order to implement this program. Those funds will be available upon collection of water service fees from Quarter 2, 2013.

The SWSD will hire one contractor and dedicate three staff members to customer meter replacement throughout the duration of the program. Meter purchase and installation is anticipated to begin in Quarter 3, 2013. The program will be completed in Quarter 1, 2015, and has an anticipated duration of 7 quarters. SWSD will initiate the project using its own funding from the recent base rate increase prior



to CWCB fund disbursement (if approved). CWCB fund disbursement is expected to occur after CWCB approval in March 2014. CWCB funds will then be used to finance the remainder of the project, approximately 50% of the anticipated project costs.

#### **IV. Project Schedule**

See Exhibit A2.

# Exhibit A2

## Budget and Schedule

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### I. Project Budget

Project costs include labor and materials only. The SWSD will not solicit bids for the contractor, and therefore will not incur costs associated with bid process.

Material costs include purchase of new meters and appurtenances. **Table 1** provides a summary of the anticipated project costs.

- Residential meters: Neptune T10 Brass Meter with E-Coder and Radio Read MIU and related appurtenances. Residential meters vary in size from 5/8-inch to 2-inch.
- Commercial meters: vary from ¾-inch to 6-inch. Commercial meters 1.5-inch and smaller will be the same as residential meters. Meters 2-inch and larger will be Neptune TRU/FLO® Compound Meter with E-Coder and Radio Read MIU.

Labor costs include those associated with three SWSD staff members, responsible for “standard” meter replacement activities. SWSD will also hire one contracted laborer responsible for “technical” meter replacement activities that may have new or additional plumbing requirements to complete installation.

Project management and administrative costs are also included as part of this grant application. Those are costs associated with anticipated grant funding requirements, including retroactive application costs, Colorado River Basin Roundtable attendance, and project status reporting and contract coordination and invoicing time.

The project will be paid for through approximately fifty-fifty CWCB-Grant/SWSD-Match. SWSD project funding will be through revenues acquired as a result of base-fee increase implemented in May, 2013. **Table 2** provides a summary of the project funding.

Table 1 Program Expenditures

Residential Meter Replacement					
	Material	Labor	Total Unit	No.	
Size	Cost	Cost	Cost	Units	Total
5/8-inch	\$ 200	\$ 120	\$ 320	5	\$ 1,600
3/4-inch	\$ 200	\$ 120	\$ 320	323	\$ 103,360
1-inch	\$ 320	\$ 120	\$ 440	199	\$ 87,560
1-1/4-inch	\$ 400	\$ 120	\$ 520	6	\$ 3,120
1-1/2-inch	\$ 600	\$ 120	\$ 720	47	\$ 33,840
2-inch	\$ 800	\$ 120	\$ 920	8	\$ 7,360
Residential Meter Sub-Total				588	\$ 236,840
Commercial Meter Replacement					
	Material	Labor	Total Unit	No.	
Size	Cost	Cost	Cost	Units	Total
3/4-inch	\$ 200	\$ 120	\$ 320	9	\$ 2,880
1-inch	\$ 300	\$ 120	\$ 420	40	\$ 16,800
1-1/4-inch	\$ 400	\$ 120	\$ 520	1	\$ 520
1-1/2-inch	\$ 600	\$ 120	\$ 720	22	\$ 15,840
2-inch	\$ 800	\$ 120	\$ 920	58	\$ 53,360
2-1/2-inch	\$ 1,500	\$ 120	\$ 1,620	1	\$ 1,620
3-inch	\$ 1,800	\$ 120	\$ 1,920	5	\$ 9,600
4-inch	\$ 3,000	\$ 120	\$ 3,120	2	\$ 6,240
6-inch	\$ 8,000	\$ 120	\$ 8,120	2	\$ 16,240
Commercial Meter Sub-Total				140	\$ 123,100
Project Management and Administrative Costs					
Task Description					
Develop Draft CBRT Application (Retro-Active)					\$ 2,555
Attend September 2013 CBRT Meeting (Application Review)					\$ 690
Coordinate CWCB Contract					\$ 230
Submit monthly invoice to CWCB					\$ 672
50% Project Status Update					
Develop 50% Project Memorandum					\$ 605
Attend / Present 50% Project Status Update at CBRT Meeting					\$ 460
100% Project Completion Report					
Develop 100% Project Memorandum					\$ 605
Attend / Present 100% Project Completion Report at CBRT Meeting					\$ 460
Project Management and Administrative Sub-Total					\$ 6,277
Total Program Expenditures					\$ 366,217



**Table 2 Program Funding**

<b>Internal Funding</b>		
Base-Rate Increase	\$ 5	\$/EQR-QTR
No. EQR	5196	EQR
Internal Funding	\$ 25,980	\$/QTR
Project Completion Goal	7	QTR
Sub-Total	\$ 181,860	
<b>External Funding</b>		
Year 1 Grant Funding	\$ 92,179	
Year 2 Grant Funding	\$ 92,179	
Sub-Total	\$ 184,357	
<b>TOTAL PROGRAM FUNDING</b>	<b>\$ 366,217</b>	

## II. Project Schedule


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# Exhibit B

## Location Map

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 <b>W. W. Wheeler and Associates, Inc.</b> Water Resources Engineers	
<h1>Snowmass Water &amp; Sanitation District</h1> <h2>General Location Map</h2>	
Job Number <b>1257.0</b>	<b>Figure 1</b>

## Snowmass Water & Sanitation District General Location Map

Job Number  
1257.0

Figure 1