

Exhibit A1

Statement of Work

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

(Revised January 2014)

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~~ **27%** CWCB-Grant/ **73%** 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 *Revised* Program Funding

Internal Funding		
Base-Rate Increase	\$ 5	\$/EQR-QTR
No. EQR	5196	EQR
Internal Funding	\$ 25,980	\$/QTR
Project Completion Goal	10.25	QTR
Sub-Total	\$ 266,295	
External Funding		
Year 1 Grant Funding	\$ 50,000	
Year 2 Grant Funding	\$ 50,000	
Sub-Total	\$ 100,000	
TOTAL PROGRAM FUNDING	\$ 366,295	

II. *Revised* Project Schedule

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