

## DECISION MEMORANDUM

**TO: COMMISSIONER KEMPTON  
COMMISSIONER SMITH  
COMMISSIONER REDFORD  
COMMISSION SECRETARY  
LEGAL  
WORKING FILE**

**FROM: GERRY GALINATO  
TERRI CARLOCK**

**DATE: MAY 27, 2009**

**RE: APPLICATION OF BAR CIRCLE "S" WATER CORP. FOR  
AUTHORIZATION TO BORROW FUNDS TO MAKE WATER  
SYSTEM IMPROVEMENTS; CASE NO. BCS-W-09-01**

On May 4, 2009, Bar Circle "S" Water Company (Bar Circle "S"; Company) requested authority to borrow \$55,000 to pay for certain water system improvements which include: a) installing a 6-inch flow meter; b) abandonment of a well that is no longer in service, and c) conversion from manual meter reading to automated electronic reading system.

The Idaho Department of Environmental Quality (IDEQ) has instructed the Applicant to install a 6-inch recording flow meter on the discharge side of the Company's booster pumps by July 1, 2009. Exhibit 1 of Application. The total cost for the purchase and installation of the flow meter is estimated to be \$9,935. Exhibit 2 of Application. The Applicant has been informed that there is at least a four-week lead time for receipt of the meter from the date of the order. Bar Circle "S" has placed the order for the flow meter with United Pump and Drilling to insure installation prior to the July 1, 2009 date required by IDEQ.

Bar Circle "S" owns a 6-inch well that is no longer in service and must be abandoned in compliance with IDEQ and Idaho Department of Water Resources (IDWR) rules and regulations. IDAPA 37.03.09.12 and IDAPA 58.01.08.09. The estimated total cost to complete the abandonment of the well by United Pump and Drilling and Avondale Construction is \$4,500. Exhibits 3 and 4 of Application.

Finally, the Applicant intends to convert its current manual meter reading system to an automated electronic reading system. The Company claims that growth on the Bar Circle "S"

system has exceeded the capacity of current manual reading methods. Conversion to the automated system will avoid the necessity to hire additional part-time employees and will make it possible to read customer meters in the winter months when snow accumulation makes the manual reading impossible. The Company also indicates that its experience in the past has shown that the use of temporary or part-time employees generally produces numerous errors in meter reading and requires supervisory review. The quote received by the Company from General Pacific Inc. for all the equipment necessary to complete the conversion and training in its use is \$39,585.33. Exhibit 5 of Application. All individual customer meters will require a retrofit of the existing mechanical equipment with the electronic equipment. The estimated cost by Avondale Construction to complete the retrofit of customer meters is \$5,400. Exhibit 6 of Application. The total cost of converting to an automated meter reading system is \$44,985.33

The estimated total costs of all system improvements are summarized as follows:

a) Installation of flow meter	\$ 9,935.00
b) Abandonment of unused 6-inch well	\$ 4,500.00
c) Conversion to electronic meter reading system	<u>\$44,985.33</u>
<b>Total Cost of Improvements</b>	<b>\$59,420.33</b>

The Applicant has acquired a commitment for financing the improvements from Community Bank in Post Falls, Idaho in the amount of \$55,000. Exhibit 7 of Application. Interest on the loan will be a floating rate at one percentage point over the prime rate published in the Wall Street Journal and the term of the loan is for five years. The current interest rate would be 4.25%.

## **STAFF REVIEW**

At present, the two production wells owned and operated by the Company are equipped with flow measuring devices. Both of the production wells discharge to an 180,000 gallons storage reservoir. Water is drawn from the tank to supply the system by four booster pumps and one fire pump in parallel. The IDEQ letter to Bar Circle "S" on April 20, 2009 reiterates IDEQ's requirements of installing a recording flow meter on the discharge line of the four booster pumps and that this meter needs to be installed prior to July 1, 2009 in order to capture peak demand this summer.

Since the old well owned by the Company is no longer in service, the Company plans to

abandon the well in compliance with the current rules and regulations by the IDEQ and IDWR. The IDEQ rules pertaining to abandonment of wells are cited in **IDAPA 58.01.08.510.09 - Well Abandonment**. The Application erroneously cited IDAPA 58.01.08.09. The IDWR rules pertaining to abandonment of well are cited in **IDAPA 37.03.09.025.16 - Decommissioning (Abandoning) of Wells**. The Application erroneously cited IDAPA 37.03.09.12. The Idaho Department of Water Resources apprised Staff that the new rules for decommissioning wells were recently approved by the legislature and are effective May 8, 2009.

The Company plans to convert its manual meter reading system to an automated electronic reading system. The Company cited in its Application and from additional information provided to Staff several benefits of this conversion including: a) avoiding the necessity of hiring additional part-time employees to obtain monthly meter readings; b) avoid re-reading meters due to previous reading errors, potential leaks or customer complaints due to unusually high bills; c) avoid additional vehicle expenses due to travel from the office to meter sites to re-read meters and conduct investigations; d) avoid extra time and expense in correcting meter data computer input, recalculating water usage, preparation and sending revised bills to customers; e) be able to identify leaks at Company's service connection and/or broken meters in a timely fashion thus eliminating potential revenue lost and additional operating expense to the Company; f) be able to identify leaks on customer's services in a timely fashion; g) be able to absorb new customer growth with minimal future labor costs; h) ability to read the meters in winter season when snow accumulation makes manual reading impossible, and i) improves the Company's cash flow by being able to bill customers in an a monthly basis.

Staff believes there is now a trend nationwide for owners of public drinking water systems to convert from manual to some form of automated meter reading system because of the various benefits offered. In northern Idaho, the Water Department of the City of Coeur d'Alene, Central Shoshone Water in Kellogg and North Kootenai Water District have converted to automated meter reading systems. There are different levels of automated meter reading (AMR) technologies now available in the market from a simple hand-held (touch-read) system to advanced AMR/AMI system. Bar Circle "S" has selected to use a mid-level technology, the Mobile or Drive-by meter reading system. This technology requires installation of a radio frequency transmitter for each customer meter and the meter flow data is automatically read by a mobile reading device that includes navigational and mapping features.

As mentioned above, there are quantitative benefits and many qualitative benefits from AMR installation. To evaluate the cost-effectiveness of installing AMR in the Company's water system, Staff attempted to estimate the number of years of payback. This cost-effectiveness test is simply the amount of capital invested divided by the approximate amount of annual cost savings. Based on the information and data provided by the Company, the following potential annual cost savings were estimated:

Re-reading meters due to inaccuracy	\$ 2,250
Vehicle expenses in re-reading meters	273
Hiring extra help in reading meters	420
Additional staff time in revising bills	270
Lost revenue due to leaks	<u>625</u>
Potential Annual Savings (\$/yr)	\$ 3,838

See Attachment 1 for more detailed calculations of the above savings. Using the estimated AMR capital cost of \$45,000 and potential annual savings of \$3,838, the estimated simple payback is 11.7 years ( $\$45,000/\$3,838$ ). As noted above, there are also other benefits that are qualitative is hard to quantify. Staff believes that the estimated years of payback is reasonable and the Company's planned capital investment in installing AMR system would be prudent and beneficial to the Company and its customers.

Bar Circle "S" requests authority to borrow \$55,000. The commitment letter from Community Bank provides the necessary financing terms to approve the loan request. Upon completion of the loan, Staff recommends Bar Circle "S" be required to file all final executed loan-related documents with the Commission.

Staff also evaluated the potential ratemaking treatment for the AMR system. Contact with Company Consultant, Robert Smith, has been utilized to make the evaluation. Mr. Smith indicated a rate case was being prepared for Bar Circle "S". As part of that case, rate base treatment will be requested for the AMR. The loan costs will be included as the only debt component in the overall rate of return.

At this time, Staff believes the Company can justify the AMR installation provided rate base return over the life of the meters is used as the ratemaking treatment. This ratemaking treatment will allow for the final AMR cost quantification and evaluation in the rate case. Staff encourages the Company to continue exploring the availability of American Recovery and Reinvestment Act of 2009, ARRA or stimulus, funds that may be available to water systems.

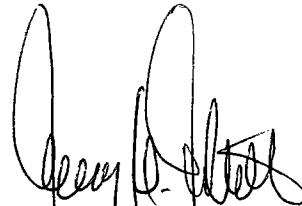
Bar Circle "S" has met the Commission's requirements for public notice (Exhibit 9 of Application). The proper filing fee of \$55.00 has been paid as provided by *Idaho Code* § 91-905.

### STAFF RECOMMENDATIONS

Staff recommends the Commission approve the request to borrow \$55,000 from Community Bank in Post Falls, Idaho. The proceeds will be used to finance several improvements of the Company's water system including: a) installation of recording flow meter as required by IDEQ; b) proper abandonment and sealing of a 6-inch well that is no longer serviceable, and c) the installation of electronic meter reading equipment to improve efficiency and accuracy of meter reading. These improvements will put the Company's water system to compliance and would generally benefit the customers of Bar Circle "S". Staff also recommends Bar Circle "S" be required to file all final executed loan-related documents with the Commission.

### COMMISSION DECISION

Does the Commission wish to approve the Company's request to borrow \$55,000 from the Community Bank? Will the Commission require the final loan documents to be filed with the Commission?



---

Gerry Galinato



---

Terri Carlock

udmemos/gg/bcsw09.1 dec memo

**ESTIMATED COST SAVINGS DUE TO AMR CONVERSION**

1. Re-reading meters due to suspected inaccuracies (i.e. unusually high water usage) or customer complaints: about 6 occurrences/cases per month; 6 months of meter reading per year; 5 hours to re-read meters, examine possible leaks or other problems, explain findings to customers, etc.; cost of labor is \$25/hour.

Cost Savings:  $5 \text{ hr/c} \times 3 \text{ c/mo} \times 6 \text{ mo/yr} \times \$25/\text{hr} = \$ 2,250/\text{yr}$

2. Reimbursement of travel expenses for Item 1 above: 30 miles round trip per case; 50.5 cents per mile (based on 2008 IRS Guidelines for cost of standard business mileage).

Cost Savings:  $30 \text{ mi/c} \times 3 \text{ c/mo} \times 6 \text{ mo/yr} \times \$0.505/\text{mi} = \$ 273/\text{yr}$

3. Hiring extra casual labor to help read meters manually: extra 5 hours of meter reading per month; hire part-time help 6 months a year; cost of labor is \$14/yr.

Cost Savings:  $5 \text{ hr/mo} \times 6 \text{ mo/yr} \times \$14/\text{hr} = \$ 420/\text{yr}$

4. Extra time and cost for Billing Department staff to correct computer input data, recalculating changes, revising and sending out revised bills to customers: 1 hour per customer; 3 cases per month; 6 months a year; \$ 15/hour.

Cost Savings:  $1 \text{ hr/c} \times 3 \text{ c/mo} \times 6 \text{ mo/yr} \times \$15/\text{hr} = \$ 270/\text{yr}$

5. Lost of revenue due to potential leaks (broken pipes/meters not discovered early especially during the winter season). Company experienced a \$625 revenue lost during the 2008-2009 winter season due to a broken meter. There were other leaks discovered during the 2009 spring reading but they occurred in the customers' service lines.

**Total Cost Savings:  $\$2,250 + \$273 + \$420 + \$270 + \$625 = \underline{\$3,838/\text{yr}}$**