CHAIRMAN Thomas B. Getz

COMMISSIONERS Clifton C. Below Amy L. Ignatius

EXECUTIVE DIRECTOR AND SECRETARY Debra A. Howland

THE STATE OF NEW HAMPSHIRE



PUBLIC UTILITIES COMMISSION 21 S. Fruit Street, Suite 10 Concord, N.H. 03301-2429

June 29, 2011

TDD Access: Relav NH 1-800-735-2964 Website: www.puc.nh.gov

Tel. (603) 271-2431

FAX (603) 271-3878

Debra A. Howland, Executive Director N.H. Public Utilities Commission 21 South Fruit Street, Suite 10 Concord, NH 03301

> Re: DW 11-117 Rosebrook Water Company, Inc. Request to Use CIAC Funds for 2011 Capital Improvement Plan

Dear Ms. Howland:

On May 26, 2011 Rosebrook Water Company, Inc. (Rosebrook) filed a request to use funds from a CIAC account for specified capital improvements to be constructed in 2011. Rosebrook provides service to some 400 customers within its franchise covering limited portions of the towns of Bethlehem and Carroll and of the unincorporated township of Crawford's Purchase. Its customers comprise the Bretton Woods resort community, including the company's largest customer, the Mount Washington Hotel (MWH).

By way of background, the CIAC fund was established in 2000 by Order 23,441 (85 NH PUC 150 (2000)) to receive monies contributed by the Town of Carroll and MWH, the latter under a 5-year special contract approved by Order No. 23,379 (85 NH PUC 1 (2000)). While contributions from both sources have since ceased, approximately \$212,350 remains in the account. The status of the account was most recently addressed in Docket No. DW 06-149, and a more complete history is given in Order 24,773 in that docket (92 NH PUC 266 (2007)). Docket No. DW 06-149 was opened to consider the sale and transfer of Rosebrook's stock from the then-owner of MWH to BW Land Holdings, LLC (BW). Order No. 24,773 addressed, among other things, a number of reporting and compliance issues regarding use of the account, as well as the need for capital improvements in the system.

On March 25, 2011, Staff met with the company at its request to review the status of various requirements contained in the settlement agreement approved in DW 06-149. The company acknowledged it had not complied with a number of those requirements, and followed up with a letter to Mark A. Naylor, Director of the Gas and Water Division, on March 31, 2011. That letter is attached.

Issues related to the proposed capital improvements, CIAC fund compliance and other matters are addressed under separate headings below.

DW 11-117 Rosebrook Water Company, Inc. Request to Use CIAC Funds for 2011 Capital Improvement Plan Page 2 of 3

A. Capital Improvements

One of the conditions of use of the CIAC fund is preapproval of any expenditure from it (see Order 23,441 above). As such, the company is requesting permission in the current docket to use most or all of the remaining monies in the fund on specified capital improvements to be constructed this year and estimated to cost between \$200,000 and \$220,000. A summary of the improvements is provided in the filing.

The March 31, 2011 letter to Staff noted a number of recent positive efforts by the company to address operational and improvements needs in the areas of: leak detection, backflow prevention, pump station upgrades, servicing of distribution system valves, and metering. The proposed 2011 improvements will significantly add to this list. The March 31 letter brought the company current on capital improvement reporting requirements stemming from DW 06-149, and the company committed to continue that compliance going forward. The company also provided responses, dated June 14, 2011, to data requests from Staff regarding the improvements and other matters, and those responses are attached.

Some of the proposed 2011 improvements address deficiencies identified in an October 22, 2010 NH Department of Environmental Services Sanitary Survey report (attached). Others address other longstanding system needs identified in Order 24,773 and elsewhere. Specifically, the improvements will address the deteriorating structural integrity of the water storage tank roof, provide permanent power to the tank level telemetry system to prevent recurring tank overflows, help attenuate the very high pressures in the Rosebrook system, and generally provide additional reliability of service to this resort area, including during prolonged power outages. As such Staff recommends approval of use of the CIAC funds for the projects proposed.

B. CIAC Fund Compliance

Order 23,441 established conditions for use of the CIAC fund including not only preauthorization of expenditures from the fund, but various reporting requirements as well. The company's past failure to comply with those requirements under previous ownership was noted in Order 24,773. Regarding pre-authorization, in DW 06-149 the company "sought approval after the fact for \$89,643.26 in expenditures it made" from the fund (Order 24,773, btm of p. 3). However, on a going-forward basis the company "agreed to assume the responsibilities of managing the CIAC account in strict accordance with the 2000 order approving the fund, including: (a) seeking prior approval of the Commission regarding use of funds from the CIAC account, and (b) providing semi-annual detailed report accounting for all receipts and disbursements from the CIAC account." (Order 24,773, p. 7) However, as noted in the March 31, 2011 letter to Staff, the company failed to comply with the reporting requirements, and expended \$16,578 from the fund in October 2008 for purchase of a truck without authorization.

DW 11-117 Rosebrook Water Company, Inc. Request to Use CIAC Funds for 2011 Capital Improvement Plan Page 3 of 3

C. Auction

Staff notes that a foreclosure auction of some 900 acres of Bretton Woods area properties, surrounding but not including MWH and the Bretton Woods Ski Area, occurred on June 22, 2011. The properties include two golf courses and a number of planned residential development areas. Rosebrook was among the properties auctioned, purportedly conditioned on approval by this commission. The buyer is reported to be CNL Lifestyle Properties, which already owns MWH and the ski area. Rosebrook has indicated the transfer is expected to have no impact on completion of the proposed 2011 improvements (responses to Staff 1-6 and 1-7).

Staff believes the transfer of Rosebrook requires Commission approval, and we would anticipate a filing in the near future.

D. Tariff

Staff has also identified issues with the company's tariff needing clarification or resolution, and is awaiting the company's response to same. The company has indicated it would be able to formulate a response by June 30, 2011 (response to Staff 1-4).

Staff has reviewed the company's filing, data responses, and other materials as outlined above. Staff recommends approval of the use of CIAC funds for the proposed 2011 capital improvements, under the strict conditions that those funds be retained by the company and used only for the purposes intended.

Given the circumstances surrounding the CIAC fund, Staff also recommends approval *nunc pro tunc* of the 2008 withdrawal of \$16,578 for the vehicle purchase. While in no way excusing the company's compliance failures, the fact that the fund may essentially be depleted if the projects are approved and constructed as planned may make the requirements related to the fund somewhat moot unless and until the fund is replenished from some source.

If there are any questions regarding these matters, please let me know.

Sincerely,

Dougho ha Drogan

Douglas W. Brogan Utility Engineer

Attachments

cc: Service List

210 Mount Washington Hotel Road, Bretton Woods, NH 03575

March 31, 2011

Mark A. Naylor, Director Gas and Water Division NH Public Utilities Commission 21 S. Fruit Street, Suite 10 Concord, NH 03301

Re: Rosebrook Water Company, Inc. ("Rosebrook Water") April 10, 2007 Settlement Agreement.

Dear Mr. Naylor:

Thank you for meeting with Mike Brunetti, Dana Bisbee and me last Friday. We appreciated your taking time to work through our questions and mutual issues of interest. This letter attempts to comprehensively address the terms of the April 10, 2007 Settlement Agreement among the PUC Staff, Rosebrook Water Company, Inc., MWH Preservation Limited Partnership and BW Land Holdings, LLC. We submit herewith the semi-annual report required by Par. D.5.b of the Agreement on the Contribution in Aid of Construction (CAIC) Fund and the annual reporting requirements by Par. D.8. Each of these reports is enclosed.

We have not provided you all of the documentation in the manner and frequency required; this oversight will not be repeated.

D.1. Deposit of \$105,000 into CIAC account.

On 01/08/2008 the Company received the \$105,000 payment from the MWH and deposited it into the operating account to replace the \$105,000 the Company had transferred to the CIAC fund in August 2007. The original deposit is listed on the attached CIAC report.

D.2 Revise Company tariff

From our discussion on March 25, 2011 it appeared to both the Commission and the Company that the Company tariff has not been updated beyond the version issued from Robert

Rosebrook Water Company, Inc. 210 Mount Washington Hotel Road, Bretton Woods, NH 03575

Satter on April 30, 1996 with an additional revision issued from Wayne Presby on April 01, 2000. The usage rate of \$.404 per hundred gallons is still in effect today. Any tariff revisions will be addressed after an analysis of the 2010 financial statements and most appropriate use of existing CIAC funds.

D.3 Special Contract with CNL

The special contract with the Mount Washington Hotel was eliminated.

D.4 Reconstruct accounting

All available accounting records were researched to determine the transfer details from the three different accounting systems under owners Satter to Presby to BW Land Holdings, LLC. These were coordinated with each year's PUC report, [Section F-8 UTILITY PLANT IN SERVICE (ACCOUNTS 101 and 104)], and further coordinated with each annual depreciation expense/accumulated depreciation schedule. This spreadsheet lists assets within each asset class in as much detail as could be located; in particular it breaks out the June 2000 opening entry on QuickBooks-Rosebrook Water, LLC "PP&E - \$567,966.69" into eight distinct asset categories. This amount was reduced at year end 2000 to \$502,274 by an accumulated depreciation re-class of \$62,569 and three disposals and is still carried at that amount through 2010. The spreadsheet has complete detail from 1999 to 2010. This spreadsheet will be updated as the Company adds to plant in 2011 and future years. Depreciation is recorded monthly and adjusted at year end.

D.5. PUC approval re: use of CIAC funds / Semi-annual detailed report

The Company anticipates making a request for use of CIAC funds.

The Company has reported on CIAC as part of its PUC Annual Report. However, we have not provided the semi-annual detailed report accounting for all receipts and disbursements. Aside from the \$105,000 deposit, the CAIC account has only two types of activity from 2007 to present: monthly interest and the purchase in October, 2008 of a GMC SIERRA 1500 1/2 ton short bed 4X4. The amortization of CIAC is recorded monthly and adjusted at year end. See the enclosed Semi-annual Report Section D.5b.

D.6. Replace elbow/fitting / Potential system improvements

On May 10, 2010, work began on replacing the rusted elbow in the Rosebrook Water pump house. Initially, the plan was to replace piping from the 10" elbow under the pump house floor to and including the 6" flange tee on the pump discharge. A pipe joint restraint failed in the early morning that day causing a major flood in the pump station. Because of this, additional piping (approx. 40' of 10" DI), joints and gaskets had to be installed. Due to the extra work involved, the job was finally completed on May 20, 2010.

See the enclosed Rosebrook Water additional annual reporting requirements Section D.8a for significant improvements in 2010 and attachment D.8c for planned improvements in 2011.

D.7 Replace solar panel / Meter water used for snowmaking on the tubing hill

The solar panels at the water tank will be replaced with a hard-wired system by October 1, 2011. The water tank cover itself needs improvements that must be completed by this date per the NHDES. We intend to do all work within the same time frame.

In November 2007, a portable meter and separate backflow preventer were purchased to be used for metering water used to make snow for the tubing hill and other locations where meters were not installed. Two additional combined meters and backflow preventers were purchased in November 2009.

D.8. Rosebrook Water additional annual reporting requirements - See Enclosed

- a. See Section D.8a for list of significant improvements during 2010.
- b. See Section D.8b for list of engineering studies / report.
- c. See Section D.8c for list of planned improvements for 2011
- d. See Section D.8d for report detailing water produced, consumed and lost.
- e. See Section D.8e for summary of leak detection and other measures.

With this comprehensive submittal, the Company believes that it has complied with the term of the Settlement Agreement. For those provisions (D.5b and D.8 a -e) of the Settlement Agreement that are on-going, we commit to provide such information regularly and on time.

Thank you very much, Mark, for your review and consideration of this submittal, and again for meeting with us last week.

Very truly yours,

Kayon Tagk

Marjory Taylor Controller, RBW cc: Charles Adams

Rosebrook Water Company, Inc. 210 Mount Washington Hotel Road, Bretton Woods, NH 03575

ROSEBROOK WATER COMPANY, INC.

ANNUAL REPORT REQUIRED BY PARAGRAPH D.8 OF THE APRIL 10, 2007 SETTLEMENT AGREEMENT (Submitted March 31, 2011)

a. <u>Significant Improvements to the Water System:</u>

- 1. In November 2007, a portable meter and separate backflow preventer were purchased to be used for metering water used to make snow for the tubing hill and other locations where meters were not installed. Two additional combined meters and backflow preventers were purchased in November 2009.
- 2. On May 10, 2010, work began on replacing the rusted elbow in the Rosebrook Water pump house. Initially, the plan was to replace piping from the 10" elbow under the pump house floor to and including the 6" flange tee on the pump discharge. A pipe joint restraint failed on late 5/10/11 or early morning 5/11/2011 causing a major flood in the pump station. Because of this, additional piping (approximately 40' of 10" **DI**), joints and gaskets had to be installed. Due to the extra work involved, the job was finally completed on May 20, 2010.
- 3. In December 2010 we began enforcing the cross-connection program as outlined in the Tariff. Testing of all backflow preventers was completed and owners of either failed or non-existent backflows were told to repair them or install new ones. As of March 2011, this process is almost complete. A total of 11 backflow preventers were repaired or installed.
- 4. In the summer of 2010 we began repairing, cleaning out, installing extensions on and exercising water service valves. Approximately 25 extensions were installed.
- 5. The solar panels at the water tank will be replaced with a hard-wired system by October 1, 2011. The water tank itself needs improvements that must be completed by this date per the NHDES. We intend to do all work within the same time frame.

b. Engineering or Other Reviews: Copies of Original Reports to follow

- 1. Horizons Engineering Report: Project No. 09125 Rosebrook Water "Pressure Surge Assessment for Rosebrook"
- 2. Horizons Engineering Report: Project No. 10305 Storage Tank Inspection
- 3. Horizons Engineering Report: Project No. 07003 BW Resort Management Company – Mount Washington Hotel Water Supply
- 4. Horizons Engineering Report: Project No. 10150 Rosebrook Water Company – Pump Station Rehabilitation.

c. Capital Improvements Plan and Budget for 2011:

See attached.

d. <u>Report on Water Production, Consumption and Loss:</u>

This information has been regularly provided to Commission Staff on a quarterly basis.

e. <u>Summary of Leak Detection and Other Measures to Address Water Loss:</u>

In 2009, Granite State Rural Water Association performed leak detection on hydrants, some mains, and service shut offs. Six leaks were located and repaired.

In 2010, Heath Consultants performed leak detection on all main valves, service valves and hydrants. Seven leaks were located. All except 2 hydrants with small leaks have been repaired.

We will continue with leak detection through GSRWA in 2011 unless they lose Federal funding and are unable to provide this service.

Rosebrook Water Company, Inc. 2011 Capital Improvement Plan (CIP) March 31, 2011

Description	 20)11		Notes
	Low Est.		High Est.	
Power to water tank	\$ 7,500	\$	10,000	"lesser deficiency" in San Survey
Replace water tank cover/repairs to tank.				must be completed by 9/1/11.
Design/Engineering	\$ 42,000	\$	42,000	
Roof Construction/Tank Repairs	\$ 40,000	\$	40,000	
Install pressure reducer in water main	\$ 50,000	\$	65,000	"lesser deficiency" in San Survey
Generator for water pumps	\$ 27,000	\$	27,000	"lesser deficiency" in San Survey
Valve Exerciser	\$ 5,000	\$	7,000	
Replace broken valves(2-3/year) located while exercising them	\$ 4,000	\$	6,000	Horizons did valve study
Backup submersible pump for pump house	\$ 10,000	\$	12,000	
Soda ash pumps (2)	\$ 2,000			spare
Chlorine pumps (2)	\$ 500			spare
Mud hen	\$ 3,000			
Subtotal	\$ 191,000	\$	209,000	
5% Contigency	\$ 9,550	\$	10,450	
Total Requested from CIAC	\$ 200,550	\$	219,450	
Current Balance of CIAC Fund	\$ 212,350	\$	212,350	
Escrow remaining (needed)	11,800		(7,100)	

ROSEBROOK WATER COMPANY, INC.

SEMI-ANNUAL REPORT REQUIRED BY PARAGRAPH D.5.d OF THE APRIL 10, 2007 SETTLEMENT AGREEMENT (In re Contribution in Aid of Construction Fund) (Submitted March 31, 2011)

The following RBW General Ledger report sets forth the current balance, interest accrued and disbursements made from the Rosebrook Water Company's Contribution in Aid of Construction Fund:

Туре	Date	Num	Name	Memo	Amount	Balance
131.2c · Meredith 90-500149						117,662.95
Deposit	04/30/2007			Interest	58.96	117,721.91
Deposit	05/31/2007			Interest	57.09	117,779.00
Deposit	07/05/2007			Interest	57.12	117,836.12
Deposit	08/05/2007			Interest	59.04	117,895.16
Deposit	08/22/2007			Deposit	105,000.00	222,895.16
Deposit	09/05/2007			Interest	124.84	223,020.00
Deposit	09/30/2007			Deposit	207.69	223,227.69
Deposit	10/31/2007			Interest	176.38	223,404.07
Deposit	11/30/2007			Interest	189.13	223,593.20
Deposit	12/31/2007			Interest	201.90	223,795.10
Deposit	01/31/2008			Interest	189.46	223,984.56
Deposit	02/29/2008			Interest	183.30	224,167.86
Deposit	03/31/2008			Interest	202.43	224,370.29
Deposit	04/30/2008			Interest	183.61	224,553.90
Deposit	05/31/2008			Interest	196.44	224,750.34
Deposit	06/30/2008			Interest	196.61	224,946.95
Deposit	07/31/2008			Interest	190.44	225,137.39
Deposit	08/31/2008			Interest	209.65	225,347.04
Deposit	09/30/2008			Interest	178.06	225,525.10
Check	10/27/2008	233	Banks Chevrolet		-16,578.00	208,947.10
Deposit	10/31/2008			Interest	196.82	209,143.92
Deposit	11/30/2008			Interest	188.86	209,332.78
Deposit	12/31/2008			Interest	171.31	209,504.09
Deposit	01/31/2009			Interest	183.27	209,687.36
Deposit	02/28/2009			Interest	165.68	209,853.04

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Deposit	03/31/2009	Interest	183.58	210,036.62
Deposit	04/30/2009	Interest	177.81	210,214.43
Deposit	05/31/2009	Interest	193.46	210,407.89
Deposit	06/30/2009	Interest	150.11	210,558.00
Deposit	07/31/2009	Interest	156.62	210,714.62
Deposit	08/31/2009	Interest	161.93	210,876.55
Deposit	09/30/2009	Interest	137.50	211,014.05
Deposit	10/31/2009	Interest	138.46	211,152.51
Deposit	11/30/2009	Interest	98.64	211,251.15
Deposit	12/31/2009	Interest	95.49	211,346.64
Deposit	01/31/2010	Interest	101.28	211,447.92
Deposit	02/28/2010	Interest	79.48	211,527.40
Deposit	03/31/2010	Interest	80.15	211,607.55
Deposit	04/30/2010	Interest	81.74	211,689.29
Deposit	05/31/2010	Interest	84.33	211,773.62
Deposit	06/30/2010	Interest	75.71	211,849.33
Deposit	07/31/2010	Interest	80.97	211,930.30
Deposit	08/31/2010	Interest	82.16	212,012.46
Deposit	09/30/2010	Interest	67.38	212,079.84
Deposit	10/31/2010	Interest	69.67	212,149.51
Deposit	11/30/2010	Interest	47.19	212,196.70
Deposit	12/31/2010	Interest	52.27	212,248.97
Deposit	01/31/2011	Interest	53.96	212,302.93
Deposit	02/28/2011	Interest	47.23	212,350.16
			94,687.21	212,350.16



24 State Route 25 • P.O. Box 177 Mereclin, NH 03253-0177 (603) 279 7986 - 1-800-922-6872 www.mvsb.com

> Date 3/04/11 Primary Account Images

Page 1 90500149

MWH Preservation Ltd Partnership DBA Rosebrook water Co Inc Mt Washington Hotel Route 302 Bretton woods NH 03575

For questions regarding this statement our toll free number is 800-922-6872.

CHECKING ACCOUNTS

Resource Money Market Account		Number of Enclosures	0
Account Number	90500149	Statement Dates 2/07/11 thru	3/06/11
Previous Balance	212,302.93	Days in the statement period	28
Deposits/Credits	.00		12,302.93
Checks/Debits	.00	Avg Collected Balance 2	12,302.93
Service Charge	.00	Interest Earned	47.23
Interest Paid	47.23	Annual Percentage Yield Earned	0.29%
Statement Balance	212,350.16	2011 Interest Paid	153.46

	Total This Period	Total Year-to-Date
Total Overdraft Fees	\$.00	\$.00
Total Returned Item Fees	\$.00	\$.00
	li	

Deposits and Other Credits Date Description 3/06 Interest Paid

Amount 47.23

Daily Balance InformationDate......Balance2/07212,302.933/06212,350.16

For 24 Hour Customer Service call 279-5603 or our toll free number, 800-394-8769.

Date Request Received: 06/07/11

Date of Response: 06/14/11

Staff 1-1

Witness: Nancy Oleson

Please indicate generally how capital improvements needs are prioritized for the system, including the specific resources (in-house engineering expertise, recommendations of outside engineering consultants, etc.) relied on.

Response:

In general, capital improvements are prioritized according to:

- 1. Governmental agency requirements or recommendations;
- 2. Company management expertise, and
- 3. Outside engineering consultants.

Date Request Received: 06/07/11

Date of Response: 06/14/11

<u>Staff 1-2</u>

Witness: Nancy Oleson

Please provide a copy of the 2010 NHDES Sanitary Survey referenced in the descriptions of several of the proposed projects.

Response:

One hard copy of the 2010 NHDES Sanitary Survey will mailed under separate cover letter addressed to Doug Brogan, PUC Staff Engineer.

Date Request Received: 06/07/11

Date of Response: 06/14/11

Staff 1-3

Witness: Nancy Oleson

Please provide copies of the four Horizons Engineering reports identified on the fifth page of the company's March 31, 2011 letter to Staff.

Response:

One hard copy of the following Horizon Engineering reports will mailed under separate cover letter addressed to Doug Brogan, PUC Staff Engineer:

Horizon Engineering Project No. 09125

Horizon Engineering Project No. 10305

Horizon Engineering Project No. 07003

Horizon Engineering Project No. 10150

Date Request Received: 06/07/11

Date of Response: 06/14/11

<u>Staff 1-4</u>

Witness: Marjory Taylor

Please indicate the current status of efforts to resolve tariff issues raised by Staff in conjunction with the March 25, 2011 meeting between Staff and the company.

Response:

Due to the limited time availability of the associated personnel and the more pressing issue of the CIAC request, there has been no progress to date in the resolution of tariff issues raised by Staff in conjunction with the March 25, 2011 meeting between Staff and the Company. The Company intends to resolve this matter by June 30, 2011.

Date Request Received: 06/07/11

Date of Response: 06/14/11

Staff 1-5

Witness: Marjory Taylor

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Has consideration been given to applying for State Revolving Loan Fund (SRF) monies available through the Department of Environmental Services, or other grant or low interest funding, for any of the proposed projects?

Response:

Given the availability of contributed capital, there has been no consideration to applying for State Revolving Loan Fund (SRF) monies available through the Department of Environmental Services, or other grant or low interest funding for any of the proposed projects. The Company has begun to investigate the requirements of SRF funding for other future projects.

Date Request Received: 06/07/11

Date of Response: 06/14/11

<u>Staff 1-6</u>

Witness: Michael Brunetti

It is Staff's understanding that Rosebrook will be included in the June 22, 2011 foreclosure auction. What effect does the impending foreclosure have on Rosebrook's overall operations?

Response:

The Company expects no impact on operations from the planned auction sale of the assets. Under any reasonable scenario (the most likely being that the lender – Wells Fargo – will purchase the assets at auction), operations and operational staff will continue on as now.

Date Request Received: 06/07/11

Date of Response: 06/14/11

<u>Staff 1-7</u>

Witness: Michael Brunetti

What impact does the impending foreclosure have on the projects proposed in this docket?

Response:

There should be no impact from the planned auction on the capital projects identified in this docket. The projects are necessary, and need to be done soon. Most are identified as needed work items in the sanitary survey, and the Company knows that the Department of Environmental Services is especially concerned that the water tank cover work be done immediately.

NHDES

The State of New Hampshire DEPARTMENT OF ENVIRONMENTAL SERVICES

Thomas S. Burack, Commissioner



October 22, 2010

Michael Brunetti Rosebrook Water Company Mt.Washington Hotel 310 Mt. Washington Hotel Drive Bretton Woods, NH 03575

Subject: MWS Carroll, Rosebrook Water Company (0382010) Sanitary Survey 10/20/10

Dear Mr. Brunetti:

On October 20, 2010, I met with Nancy Oleson and Brian Sullivan to review facilities and management of the Rosebrook Water Company. The purpose of this survey, normally performed every three years, is to review the capacity of the system's source, treatment, distribution and management to continuously produce safe drinking water. I thank Ms. Oleson and Mr. Sullivan for their assistance.

FACILITIES SUMMARY

The Rosebrook water system consists of two gravel packed wells, a single 650,000-gallon storage tank and a network of distribution piping, mostly ductile iron from 8 to 16 inches in diameter. The system serves 402 service connections, among which are the Mount Washington Hotel, several other commercial properties, and a community of second homes and condominiums. Estimated peak population served is in excess of 1,000 people. The system serves fire demand by way of some internal sprinkle systems and 63 exterior hydrants. There is also some limited outdoor water use, including for snowmaking on the tubing hill at the Nordic Center.

Water demand varies widely with the seasons and occupancy of the facilities served. Average year-round daily demand in 2008 and 2009 was about 154,000 gallons per day (gpd). Miaximum daily demand is estimated to be as high as 500,000 gpd. Although construction is not moving forward at this time, currently planned residential and commercial construction is estimated to increase peak demand to about 740,000 gpd at full build-out.

The two gravel packed wells are summarized as follows:

Well	DES No.	Depth	Nominal well capacity (gpm)	Treatment
1	001	43`	350	Chlorine, soda ash
2	002	52'	450	Chlorine, soda ash

DES Web site: www.des.nh.gov P.O. Box 95, 29 Hazen Drive, Concord, New Hampshire 03302-0095 Telephone: (603) 271-2513 • Fax: (603) 271-5171 • TDD Access: Relay NH 1-800-735-2964 P.1/4

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Rosebrook Water Company October 22, 2010 Page 2 of 4

Well 1 is located within the pumping station, while well 2 is located 90 fect away. Well 1 is equipped with soft start to minimize hydraulic surges at startup. Injection of chlorine for disinfection and soda ash for corrosion control takes place within the pumphouse. Disclarge pressure is normally about 185 psi, which is exceptionally high for residential water supplies.

As of our last survey in 2007, a replacement well field was planned and the current well; and pumphouse were scheduled for abandonment. Those plans have reportedly been put on hold with the current pace of development in the service area. A pipe break in the pump discharge main within the pumphouse in May 2010 did extensive damage the pumphouse structure, electrical and instrumentation. The incident pointed out sub-standard piping and structural work at the facility.

The 650,000-gallon tank is located adjacent to ski trails toward the westerly side of the service area. The flat tank cover, noted as structurally defective in past inspections, is covered with a synthetic membrane and cannot be inspected from the exterior. Steel members around the access hatch opening show serious corrosion. Tank water level is transmitted to the pumping station by way of a battery-powered radio signal pack with solar recharge. Pump operating range is currently from 10 to 12 feet in tank depth, with a total tank depth of 13 feet. Batteries are reportedly changed out weekly to maintain tank/pumping station communications until line power installation can be completed.

The distribution system is primarily ductile iron supplies an estimated 1500 to 1800 gpm can reportedly be supplied throughout the scrvice area. However, maximum pressure is about 185 psi, significantly higher than the 100 psi allowed in state design standards. There are reportedly a total of six testable double check valves associated with fire loops in the system. Frequency of testing of these valves is questionable.

STAFFING AND CERTIFIED OPERATOR VERIFICATION

This water system is required to retain a primary certified operator certified at treatment grade 1 and distribution grade 2. The following are certified operators according to our files:

Operator	Cerificate No.	Treatment Level	Distribution Level
Nancy Oleson	2767	2	2
Brian Sullivan	3059	2	2

ISSUES AND RECOMMENDATIONS

Acknowledgments

The following are among the positive features which were noted during this survey:

Rosebrook Water Company October 22, 2010 Page 3 of 4

- 1. System staff interviewed as part of this survey are knowledgeable about the water system and approach their jobs in a professional manner.
- 2. The water system analyzes 2 samples each month for coliform bacteria. There have been no recorded violations of bacterial water quality standards since 1998.
- 3. Water quality monitoring records show that the Rosebrook water system is in compliance with all current primary water quality standards. The system was not in compliance with action levels for lead and copper in 2006, but chemical treatment and modified sample collection has brought the system into compliance.

Significant Deficiencies

There were deficiencies noted during this inspection which are termed 'significant' deficiencies as they have the potential to affect system safety and reliability. Although certain of these deficiencies are relatively simple, others may be more complex and subject to engineering evaluation. The significant deficiencies must be corrected within 30 days. Alternately, for deliciencies which cannot be corrected within that time period, a 'corrective action plan' (CAP), identifying the action proposed to be taken, shall be forwarded to this office within 30 days. If any of the significant deficiencies cannot be corrected within 120 days, the CAP submitted by the system owner shall identify interim measures that will be taken in order to protect the health and safety of persons served by the system pending final action. Note that the owner shill not make any modifications to the approved CAP without first obtaining approval for the modifications from DES. Also note you are required to notify this office within 30 days of completing actions to address the deficiencies.

The following significant deficiencies were noted:

- 1. The storage tank roof slab is seriously deflected, indicating possible structural failure. Collapse of the cover would have serious consequences in system operation. A structural evaluation has reportedly been performed in the past. We recommend a structural evaluation and follow-up action as soon as possible.
- 2. The area around the pumping station needs to be cleared of discarded items and cebris which appear to have been left from past station reconstruction.
- 3. The pumping station, which saw major damage during the pipe breakage of April 2010, needs to be repaired before cold weather, including insulation, electrical work and instrumentation.
- 4. As the system has increased in size over time, a formal, enforceable cross-connection control program, involving installation and testing of backflow devices, needs to be adopted. Because of the governance and type of service provided by this system; the appropriate form of this program needs to be discussed with you further. Inclusion of construction standards and operator authority into a more comprehensive ordinance will be required as noted below.

Minor Deficiencies

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Though less urgent than the deficiencies noted above, the following lesser deficiencies should be addressed in the course of system operation:

- Pressure in the distribution system, as a result of storage tank elevation, is much higher than necessary for adequate water service and fire flow. This pressure presents serious questions about power consumption and about safety of the operator when making pipe repairs. We urge the system owner to consider alternate ways of using the existing tank and adopting a lower pressure gradient as part of the major expansion which is currently envisioned.
- 2. Pump cycles are difficult to control given the unreliable communication between the storage tank and the pumping station. Line power to the tank site replacing the existing battery-powered system will be more reliable. We urge the owner to consider a SCADA system as part of planned improvements to further improve system reliability, operator efficiency and emergency response.
- 3. Although an emergency generator is available from the ski area, there is currently no permanent backup power at the well site. An extended power outage would caule serious disruption, especially at times of peak water use. As it now appears that the existing wells will remain in service for the foreseeable future, we urge the owner to make this improvement at the pumping station.
- 4. We urge the owner and primary operator to review the respective requirements appearing in state administrative rules regarding the duties of each. The operator is responsible for oversight or supervision over all maintenance and repair of the system, including main repairs, pressure testing, and disinfection. Ordinances and bylaws, appropriate to the business structure of the Rosebrook Water Company, must reflect these responsibilities. A copy of Administrative Rules Env-Dw 502.21 and 502.22 is enclosed.

I can be reached at 271-2953 or <u>imann@des.state.nh.us</u> if there are any questions regarding this letter.

Sincerely. Arbert Mamm

Robert Mann, P.B. Drinking Water and Groundwater Bureau

cc. Nancy Oleson, Certified Operator