

## BERLIN WATER WORKS



Water Commissioners for this report period were Richard P. Fournier, Robert A. Delisle, Paul W. Poulin, Lucien F. Langlois and Stephen J. Tardiff; Ex-officio member was Mayor David J. Bertrand. At the April 15, 2009 meeting Commissioner Robert A. Delisle was presented a plaque by the Board for his eleven years of service to the Board, his membership on the Board was from June 2, 1998 to May 1, 2009. On April 20, 2009, Stephen J. Tardiff was appointed for a four-year term as Ward IV Commissioner.

The BWW has not increased water rates in eleven years. The Board of Water Commissioners did approve a lineal rate structure for the Assessment rate effective with the May 2009 Quarterly billing. The new rate is \$27.00 for the first 600 cubic feet and \$3.00 per additional 100 cubic over the 600 cubic feet of water used. The new lineal structure for assessment did create an increase for some customers and a decrease for others due to the change from a step structure to a lineal structure. There was no change in total revenue generated by the revised assessment billing. Berlin Water Works has been able to maintain water rates because of cross-training employees and elimination of work through planned improvements. The results of these efforts have been reduced cost through reduced staffing. There have also been continuous improvement efforts in reducing other operating cost. Finally, we have continued Forced Account work in order to offset operating cost by performing capital improvement projects with Berlin Water Works resources.

During the winter of 2008/2009, we had 141 people running water to prevent service line freeze-up. These customers started running the water from January 9, 2009 until shut-off on March 31, 2009. All of these customers were not running water for the full period time because they were started at different times. The balance of the 464 running water customers did not have to run the water in winter 2008/2009. We had fifty-five freeze-ups that required thawing. Efforts continue to reduce the number of running water customers, of which there were 1003 of 3500 customers in the winter of 2000-2001.

	FISCAL 2008	FISCAL 2009
Total Flow	365,441,705	325,131,444*
Difference from previous year	7.88% decrease	11% decrease
Gallons per Day	1.00 million gallons	.891 million gallons*
Running Water Customers	6*	141
Running Water Start - early	January 16, 2008	January 9, 2009
Running Water Start - regular	--	--
Running Water Finish	April 14, 2008	March 31, 2009
Frozen Water Calls - outside	1	55
Frozen Water Calls - inside	24	14
Hydrant Flushing	8/20/07 to 9/18/07	8/7/08 to 8/21/08
Number of main line breaks	7	7
Number of service line breaks	3	4

\* new record – low

Our lead and copper water sampling program passed the last four rounds of testing in June of 2006, December of 2006, September 2007 and September 2008. The testing results from September 2008 showed all passed for copper and three failed for lead. The State of NH Department of Environmental Services has dropped our sample test numbers down to thirty test sites rather than the original 60 sample sites. The overall average lead and copper sample levels have dropped to new low levels. Please note that the water leaving the Water Treatment Plant is free of lead and copper

and that the results are attributed to possibly old portions of the distribution system or customer pipe systems and dead end lines. Water sampling will continue to monitor lead and copper levels. A Water Quality Report for calendar year 2008 was distributed to all water customers as a bill stuffer in the May 2009 billing.

Melanson, Heath & Co PC was accepted by the Board to perform the Water Works financial report for period ending June 30, 2009 as well as FY 2010 and FY 2011. Our FY 2010 budget of \$3,100,027 as presented at the Commissioners May 28, 2009 budget hearing provided \$1,657,271 for operations and \$1,442,756 for water bond and loan debt, was approved June 17, 2009. The Board agreed that the budget would have to be adjusted to accommodate the spending of stimulus funding expected in FY2010.

The Board of Water Commissioners approved an updated Emergency Manual that was distributed to the Supervisors and separate departments in the City. A new policy for Identity Theft Protection was implemented by the Government and Berlin Water Works approved a Red Flags Rule policy on February 18, 2009 that will be updated yearly.

The City of Berlin applied and received a NH Department of Environmental Services Local Source Water Protection Grant to hire GeoInsight to perform a delineation study to better define and protect the aquifer at the Brown Farm Well Head. As of April 15, 2009 the City Manager had signed the grant and the consultants were authorized to begin the study to protect the well head area.

Berlin Water Works purchased a new tracing machine from Utilitronics to aid staff in day to day work activities. A trench compactor from Pro Quip, a Komatsu tooth

for the excavator, and a used 10 wheel dump truck, were purchased to support continued "force account" work. A Hyster Fork Truck was purchased at the Groveton Mill auction for use at the Ammonoosuc Plant. The Board also authorized the staff to purchase a new copy machine to replace the one that was purchased in 1996 that no longer had parts available for repair.

Berlin Water Works made improvements to several buildings. The resurfacing of Church Street, Church Street Pump Station and improved landscaping was completed. Two sheds were demolished and the roof reinforced at the 46 Willow Street garage. A new overhead door was installed at the 51 Willow Street garage. Also a new LP tankless hot water heater was installed at 55 Willow Street.

The staff completed the installation of new HDPE locked covers for vents and blow offs on all of the stand pipes and boulders were placed on either side of the vents to protect the Godfrey Dam Transmission line. Through the process of securing the transmission line the map of the transmission line will be updated. The improvements were completed due to the close proximity of the State OHRV trails at Jericho Lake State Park.

#### *IMPROVEMENT PROJECTS:*

Water Main Project BWW #02-1 funded through a Rural Development Grant has \$415,173.78 funding remaining. In Fiscal 2009, Superintendent Viens obtained approval from Gregg MacPherson of Rural Development to revise the scope for the remaining Rural Development funds. The scope change includes three water main railroad crossings, two HDPE-stainless steel headers and specialized valves for water storage tank mixing at Forbush Avenue and

a PAX mixing System for the Lancaster Street Storage Tank. The improvements for the Forbush Tank were completed this Fiscal Year. The PAX mixing system for the Lancaster water storage tank are on order. It will be installed under a trial program with a company looking for a test site in the Northeast, if the mixing system is successful Berlin Water Works will purchase the system if it is not successful it will be returned to the company, they are presently compiling information from probes that were installed in the tank for temperature. Provan and Lorber, Inc. will be doing the design work for the Railroad Crossings with Geo Insight.

Water Main Project BWW #02-2 is funded with a 1.5 million dollars EPA Grant in Fiscal Year 2002. The grant was closed in December of 2008. Berlin Water Works has completed the installation of water mains on Jolbert Street, Madigan Street, Hinchey Street, Willard Street and River Street in the past year.

Water Main Project BWW #04-1 includes significant improvements to the Berlin Water Works Distribution system. This EPA Grant funding is \$894,100 for Fiscal Year 2003. The grant was closed out January 8, 2009. Willard Street from Hillside Avenue to Emery Street and the remaining services on Wight Street were completed through this Grant in the past year.

Water Main Project scope for BWW #05-1, with \$497,000 of EPA Grant Funding, includes the replacement of water mains, installation of security fencing improvements, and sodium bicarbonate process improvements. The remaining amount in the grant fund is \$117,662.69. Work completed during FY 2009 was Twelfth Street to eliminate a 2" galvanized

main, School Street to eliminate old 6" unlined cast iron pipe, Main Street services from High Street to the Railroad Tracks and BWW started work on Abenaki Lane to replace old 6" water main. This grant will be fully expended in July 2009 and closed thereafter.

Water Main Project BWW #06-1 with \$599,067 of EPA Grant Funding has a balance of \$319,357. The Water Main Project BWW #06-1 includes the replacement of approximately 100 running water services and to replace old 2" galvanized lines. As of FY 2009 BWW has completed 63 of the running water services.

Water Main Project BWW #07-1 with \$492,900 of EPA Grant Funding has had no spending to-date. The scope of this project includes the elimination of a 6" cast iron main on Riverside Drive from Eleventh St to Morning Lane; it also includes the replacement of 6" cast iron mains with 8" mains on Hillside, Cedar, Willard, State and High Streets.

Jeff Malecha of the Federal Bureau of Prisons (FBOP) agreed to amend the original contract between FBOP and Berlin Water Works to include the price of a meter at \$12,306.34. The 10" Turbo meter, 10" strainer and transmitter were installed in the pump station at the Federal Prison Site. A temporary generator was brought in by the contractors and the entire system was filled with approximately 770,000 gallons of water for testing the system.

Berlin Water Works designed and estimated the cost for the tie-in at Riverside Heights Manufactured Housing Park. The low pressure Tie in on Riverside Drive was completed in October 2008. On March 18, 2009 the Board made a motion to accept the water distribution system easement for

Riverside Heights Development. In June of 2009, Riverside Heights purchased 800 feet of 8” HDPE pipe and hired Berlin Water Works to fuse the pipe. The pressure test passed, the pressure available at Riverside Heights is at 42 psi.

Berlin Water Works signed an engineering agreement with Provan & Lorber, Inc. to begin restoration work at the Godfrey Dam. An amendment to the Engineering Contract was signed in June to include the Environmental Review for the restoration work and the Design Build for the pedestrian bridge at the Godfrey Dam.

Berlin Water Works has applied for Rural Development Grants in the amount of \$4,000,000 for water main work and \$900,000 for resurfacing work at the Godfrey Dam. The Board signed an agreement with Provan & Lorber Inc. in the amount of \$5,000.00 for the Environmental Review of the Rural Development Grants.

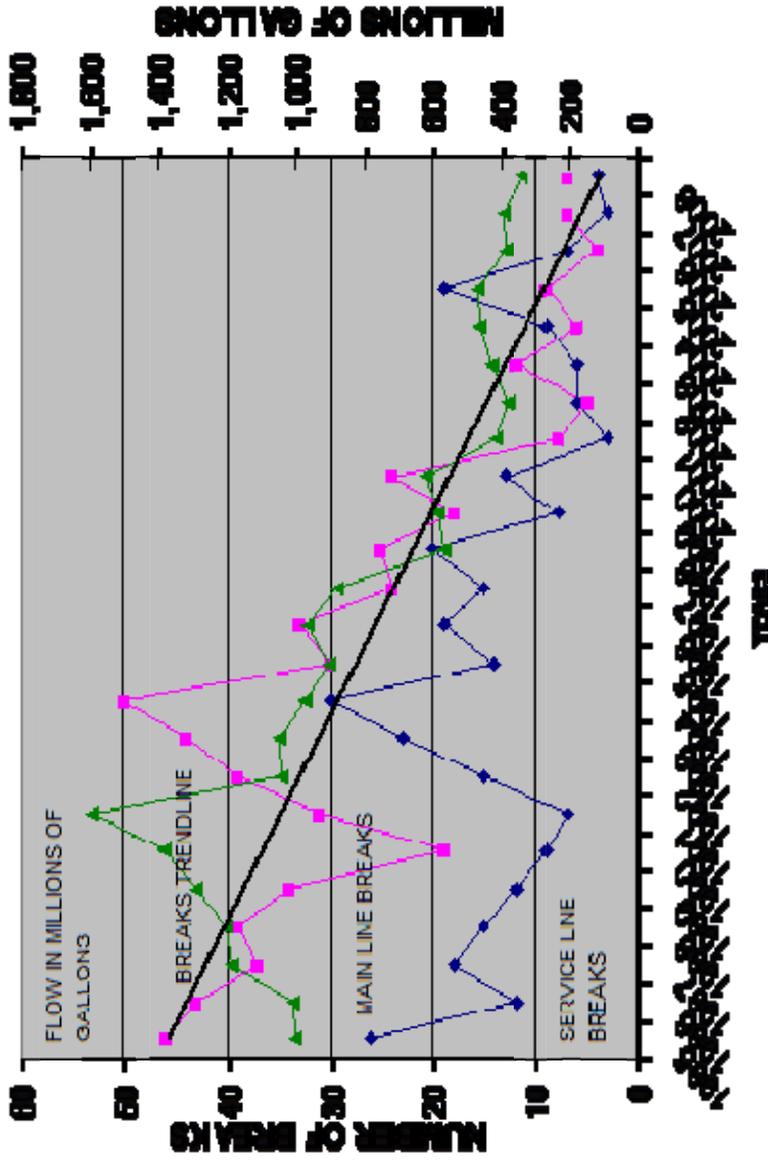
Berlin Water Works has applied for a State Revolving Loan in the amount of \$3,000,000.00 for the replacement of unlined cast iron water mains. On June 17, 2009 Superintendent Viens received good news from Richard Skarinka, the Governor signed the Loan Package for Berlin Water Works we were the first package signed by the Governor. Construction started on July 20, 2009 on Goebel Street

Superintendent Viens received a call from Senator Gregg’s office that the Berlin Water Works has received \$400,000 in FY 2009 EPA Grant funds. The funds will be used to continue the distribution system improvement program.

<b>Service</b>	<b>Total to Fiscal 2009</b>	<b>2008</b>	<b>2009</b>
Curb-to-curb street paving	10.24	0	.26
Number of New Meters	3547 total in system	252	163
Number of New hydrants	411 total in system	3	1
Number of Replaced services	3500 total in system	30	54
New water main installed – since 1990	19.87 miles	1.14 miles	.56 miles

Improvements to the water distribution in the City of Berlin continue with planned replacement of small diameter galvanized mains (1,935 feet remaining as of JULY 2009) and 1890 thru 1930’s vintage unlined cast iron mains (47,355 feet remaining as of December 2008) with the highest frequency problems corrected first. Also the replacement of water mains are selected and then designed to improve fire protection flow capabilities. The Berlin Water Works purchase of various pieces of construction equipment has supported Berlin Water Works staff in performing “in house” projects like water mains on Jolbert Street, Hinchey Street, Madigan Street, River Street, Westcott Street, Twelfth Street and School Street. The Berlin Water Works has expressed interest in working with the City to install the proposed sewer line extension for the new Federal Prison.

**BWWF - BREAKS HISTORY/CALENDAR YEAR**



Thanks to all Berlin Water Works employees, Water Works Commissioners, the Honorable Mayor David Bertrand, and the City of Berlin for their continued support for the past year. The Berlin Water Works has completed and is continuing work on significant improvements that will improve our water system and reduce our operating cost for many years into the future.

Respectfully Submitted,

*Roland L. Viens, P.E.*  
 Superintendent