

BERLIN WATER WORKS

Water Commissioners for this report period were Richard P. Fournier, Robert A. Delisle, Paul W. Poulin, and Lucien F. Langlois; Ex-officio members were Mayor Robert A. Danderson and David J. Bertrand. On April 21, 2007, Paul Poulin was reappointed for an additional four-year term.

The BWW has not increased water rates in ten years. This has been possible because of cross-training employees and elimination of work through planned improvements. The results of these efforts have reduced cost through reduced staffing. There have also been continuous improvement efforts in reducing other operating cost. And finally, we have continued Forced Account work in order to offset operating cost by performing capital improvement projects with Berlin Water Works resources. The FY2008 BWW budget was \$3,145,947, of which

\$1,626,424 was the operating budget and \$1,519,523 was the debt payments. The Debt payments are a significant part of the total budget until 2015 when the '93, '94, and '95 water bonds are fully paid.

The winter of 2007/2008 started relatively mild and we had higher than usual snow fall amounts. BWW rented a skid steer to clean hydrants in December. We had only 6 people running the water this past winter. These customers started running the water from January 16, 2008 until shut-off on April 14, 2008. All of these customers were not running water for the full period time because they were started at different times. The balance of the 465 running water customers did not have to run the water in winter 2007/2008. We had two freeze-ups that we had to thaw. 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 2007	FISCAL 2008
Total Flow	394,242,291	365,441,705*
Difference from previous year	13.37% decrease	7.88% decrease
Gallons per Day	1.08 million gallons	1.00 million gallons *
Running Water Customers	155	6*
Running Water Start - early	February 1, 2007	January 16, 2008
Running Water Start - regular	--	--
Running Water Finish	April 23, 2007	April 14, 2008
Frozen Water Calls - outside	98	1
Frozen Water Calls - inside	11	24
Hydrant Flushing	9/7/06 to 10/10/06	8/20/07 to 9/18/07
Number of main line breaks	8	7
Number of service line breaks	10	3

* **new record – low**

Several improvements to the Ammonoosuc Treatment Plant Facility have been completed by BWW staff with the assistance of John Arsenault. The new SCADA central communication system was installed at the Ammonoosuc Treatment Plant facility rather

than the Androscoggin Treatment Plant facility and the Willow Street office building. The upgrade which includes two new computers will make the system more efficient for monitoring the distribution system. The new upgraded SCADA system

was installed by Electrical Installations, Inc. An operator coverage lap top computer with wireless phone connection capability was purchased for remote operation of the water treatment and distribution system.

Berlin Water Works acquired, through a trade of some salvaged valves from the Mill demolition project, a new hand held for reading meters that is radio read compatible unit. The Board approved the installation of up to 50 radio read meter devices per year on selected customers that require more time to read than normal. At present we have installed twenty-seven radio read remotes of the total 41 that were purchased. The Radio read remotes help to eliminate the need for keys to enter buildings for readings, they can read meters from eight hundred feet away and are guaranteed for twenty years. 252 upgraded water meters were installed last year and 155 old water meters remain in the distribution system. All accounts are now metered.

The Board of Water Commissioners established a rate on December 18, 2007 for hydrant flushing of privately owned hydrants. The fee is two man hours to be charged for flushing a private hydrant. Maintenance on private hydrants would be charged separately at Time and Materials.

Our lead and copper water sampling program passed the last three rounds of testing in June of 2006, December of 2006 and September 2007. The testing results from September 2007 showed all passed for copper and one 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. 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. Water quality Report for calendar year 2007 was distributed to all water customers as a bill stuffer in the May 2008 billing.

A proclamation for National Drinking Water Week was signed by Mayor Bertrand for the Week of May 4th thru May 10th, 2008. Water Week was successful; the Ammonoosuc Treatment Plant had several school bus tours and few members of the public it was a good turn out approximately 300 people toured the plant. Superintendent was also a guest on the local Forum radio talk show.

Robert L. Vachon, CPA of Vachon, Clukay & Co., PC was accepted by the Board to perform the Water Works financial report for period ending June 30, 2008. Our FY 2009 budget of \$3,115,774 as presented at the Commissioners May 29, 2008 budget hearing providing \$1,625,925 for operations and \$1,489,850 for water bond and loan debt, was approved June 25, 2008. A State Surface Water Filtration Grant payment in the amount of \$226,009.12 was applied for on June 6, 2008 for the State's share of water bond debt required for the surface water treatment rule infrastructure improvements.

Attorney James Michalik is no longer acting as legal council for Berlin Water Works he made the announcement to the Board of Water Commissioners on October 18, 2008, Attorney Paul Desjardins has accepted the position as legal council for Berlin Water Works.

There was a major water main break on the 16-inch ductile iron water main in the river at the Mason Street bridge. This leak was

repaired in June 2007 and a section of pipe replaced in September of 2007.

Two projects have been proposed that required careful review of potential impacts to the Brown Farm Well wellhead area and its' aquifer. The projects are the Greenova pellet plant and the proposed FBOP sewer lift station.

Berlin Water Works purchased a WA200L-5 wheel loader and a PC300 LC excavator with a large hammer from Komatsu, and also purchased a used Ford Dump Truck from Mt. Washington Auto Road. The PC300 with hammer is being used to remove ledge and to avoid the need to blast. This equipment was purchased to help with forced account work on water main installation projects. Three pieces of old equipment for disposal were bid on by outside persons and sold "as is" to the highest bidder. The dump truck sold for \$1,601, the loader for \$4,200 and the pick-up truck for \$401.

IMPROVEMENT PROJECTS:

Water Main Project BWW #02-1 funded through a Rural Development Grant has \$737,914.01 of funding remaining. Berlin Water Works has been continuing construction on the project streets under the Forced Accounting agreement. In Fiscal 2008, work continued on the south end of Western Avenue to the intersection of Mink Street. The final paving will be completed in FY 2009. A letter to the City Manager on January 16, 2008 showed the savings for final paving costs of the T Buck Construction water main replacement project in the amount of \$46,008.51. This amount will be carried over to final paving on Western Avenue from Williams Street to Mink Street. An additional amount for final

trench paving credit will be added by the BWW project to Western Avenue paving

Water Main Project BWW #02-2 is funded with a 1.5 million dollars EPA Grant in Fiscal Year 2002. An engineering contract was signed with CLD Consulting Engineers, Inc. for replacement-improvement to water mains including hydrants and appurtenances. The remaining fund balance in the Grant is \$447,795.76. The majority of this projects' scope is in the Northwestern part of the City. Berlin Water Works has completed the installation of water mains on Viking Street and Norway Street from Iceland Street to Viking Street

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 remaining balance of this grant is \$91,177.09. The elimination an old 6" CI water main on Wight Street will be completed in July 2008; customers' service lines will be moved from the 6" main to the 16" water main. The balance of this grants funds will then be expended on a water main replacement on Willard Street and this grant will be closed before it expired in December of 2008.

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 \$307,728.44. There was no construction work completed with this grand fund in FY2008.

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. At the end of Fiscal Year 2008, fifty-five of these services have been replaced under this project.

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.

In the fall of 2007, the Berlin Water Works signed a contract with the Federal Bureau of Prisons to install a new water service line north on East Milan Road to the entrance of the new Prison. This contract was in the amount of \$2,088,000. This new water main was completed on June 28, 2008 and put into service in August 2008 for FBOP use. The entire design, procurement, and installation was performed by Water Works employees and equipment except for some directional boring completed with Bore Tech. The crossing of Horne Brook was completed by boring without disturbing the surface area. This was very effective in crossing Horne Brook. In FY 2009 a meter and backflow prevention device will be installed and the water service will be completed to the prison pump station. This "force account" project contributed funding for the payment of our long term outstanding debt without increasing water rates.

Berlin Water Works entered into a contract with Great Lakes Hydro to install a new water service line to the Brookfield Power facility at Sawmill Hydro. A 4" HDPE service water line was slip lined into an existing 6" cast iron main to Sawmill Facility.

The City of Berlin finalized the sale of Jericho Lake and the Godfrey raw water transmission line property to the State of New Hampshire for an RV Park. Gravel Rights for this transaction with the State of NH pending.

The Wood Street Water main extension from Wood Street to the end of Bemis Street was completed following the receipt of an easement and receipt of connection fees. Two customers paid a connection fee of \$3,500 each to be connected to the new 8" water main. Future customers building in the area will have the option of connecting to the water line extension for the same connection fee of \$3,500 each. With this project Berlin Water Works also added a new fire hydrant for improved fire protection.

The Security Fencing Project partially funded by a grant from the State of NH Department of Environmental Services in the amount of \$4,500 and also to be funded by EPA Grant #6 has not been completed as of FY 2008. The Berlin Water Works received a time extension to September 30, 2008 from the NH Department of Environmental Services to complete the project.

Improvements to the water distribution in the City of Berlin continue with planned replacement of small diameter galvanized mains (3,895 feet remaining) and 1890 thru 1930's vintage unlined cast iron mains (46,106 feet remaining) with the highest frequency problems corrected first. Also the replacement 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"

	Total to Fiscal 2008	FISCAL 2007	FISCAL 2008
Curb-to-curb street paving	9.98	.09	0
Number of New Meters	3384	423	252
Number of New hydrants	410 in system	2	3
Number of Replaced services	3500 total in system	50	30
New water main installed – since 1990	19.31 miles	.39 miles	1.14 miles

projects like Western Avenue, Viking Street, Norway Street, Wight Street, Wood Street extension as well as the Federal Prison Water line installation. The Berlin Water Works has expressed interest in working with the City to install the proposed sewer line extension for the new Federal Prison.

Thanks to all Berlin Water Works employees, Water Works Commissioners, the Honorable Mayors, Robert Danderson and 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

BWW - BREAKS HISTORY-CALENDAR YEAR

