

~ WATER UTILITIES ~

2011 REPORT



~ Water & Sewer Commissioners ~

NH RSA-38 (referencing water systems) and NH RSA-149-I (referencing wastewater systems) empower the Board of Commissioners with the authority and responsibility to manage and oversee the operations of these two departments. The current members of the Milford Board of Water and Sewer Commissioners include Mr. Robert Courage, Chairman, Mike Putnam, Vice-Chairman, who simultaneously serves as a member of the Milford Board of Selectmen, and Mr. Dale White. The Commission's goal is always to have our Water Utilities Department provide quality service at reasonable cost to our customers.

The City of Nashua's purchase of the Pennichuck Water Company has been finalized. Milford's contract to purchase bulk water on an as needed basis with Pennichuck will be honored by Nashua. Our contract expires in 2020.

A priority of the Commission has been pursuing additional groundwater supply. We have two potential sites that are being considered. We believe that it will take a couple of years to provide the necessary groundwater data to NH DES, as is required in order to obtain a groundwater withdrawal permit for the construction of additional wells. Increasing our water supply will reduce our dependency of having to purchase water from Nashua when water use exceeds what we can safely pump from our Curtis Wells.

Construction began in late September on the new wastewater septage receiving station, approved by voters in 2010. Total available funding for this project is \$1,199,690.00. Milford received a 50% federal grant. The balance, \$599,845.00 is to be paid with a 20 year bond. Wilton's share of the bond and interest payment is at 14.89% and Milford's is 85.11%. The bond was obtained from the New Hampshire Revolving loan fund. The interest rate is 2.8264% and the project completion date is to be early fall 2012.

The Commission has instructed Dave Boucher, the Water Utilities Superintendent, to investigate other options regarding the disposal of the sewer sludge cake from the wastewater treatment process. Currently, this material is a major component in the composting operations and is the major contributor to the facility's odor problems.

Our last sewer rate increase was in 2007. Over the past four years the sewer fund has been operating at a loss. Revenues have not met expenses. The Commission asked Milford's Director of Finance to develop a rate study. The Commission is in agreement with the Finance Director's recommendation that a rate increase is necessary in 2012. A public hearing on the rate increase will be scheduled for late March.

As in the past, the commission appreciates the responsible water conservation efforts of the residents of Milford. Keep periodically checking your faucets and plumbing to correct water leaks. A special "thank you" is extended to the Water Utilities staff members for their dedicated service throughout 2011.

During 2012, the Commissioners plan to meet regularly on Tuesdays at 6:00 p.m., at the Water Utilities Department, 564 Nashua Street, on a two-week basis. Meetings are open to the public. Agendas and meeting minutes may be viewed at www.milford.nh.gov, click on Departments, then Water Utilities, then Water and Sewer Commissioners, then Agenda or Meeting Minutes.

Respectfully submitted,

Robert E. Courage, Chairman

Michael E. Putnam, Vice-Chairman

Dale A. White, Member

Reminder to Milford Water Customers

Consider the benefits of hiring a plumber to install a second, outside meter for irrigation purposes. Such a “bypass” meter will save you money because you will not be charged for the sewer portion for using water to improve your lawn or fill your pool. Planning ahead and making this investment in your home’s plumbing system will prevent you from receiving a bill with an unusually high “spike” from appearing on your quarterly water/sewer bill AND avoid the need for you to request an abatement of the Board of Commissioners. Such abatement requests are granted to property owners on a one-time approval basis.

Are You A Water Saver?

With each flush, old toilets use about 5 gallons (20 liters). After 7 or so flushes a day, a household with a family of four has used about 140 gallons of water. New toilets use about 1.6 gallons (6 liters) per flush. If you replace those 5-gallon-per-flush toilets with 1.6-gallon-per-flush toilets, a huge amount of water is saved, approximately 100 gallons per day per household. With a new toilet, you would use less water and save a lot of money on your quarterly billing. For the Town, there would be a big reduction in water usage, thereby saving the Town money in water treatment costs.

~ Water Utilities ~

The Water Department personnel repaired eleven water breaks during 2011. In conjunction with Public Works Department road resurfacing projects, 43 valve boxes were replaced. The Water Crew replaced 283 water meters and interface units as part of the on-going conversion to an automated meter reading system. As part of the initiative to reduce unaccounted water, several metered irrigation systems were installed throughout town parks. A 15-mile leak location survey verified water is not being “lost” due to faulty infrastructure.

The Union Street Water Main Replacement Project met its goal to replace 900 feet of 6-inch water main pipe with 12-inch pipe beginning about 75 feet north of the intersection of Orange and Union Street and terminating approximately 50 feet south of the Union Street railroad crossing. This project’s purposes included:

- implement part of an on-going plan to establish a new 12-inch transmission main from the Town’s 1.35 million gallon Holland water storage tank to the Town’s transmission mains on Lincoln, South and Nashua Streets
- eliminate a 6-inch bottleneck of water main between the Holland water storage tank and Lincoln Street

and the project benefits included:

- improve Holland water tank turnover
- improve fire protection in the area adjacent to proposed water main

To help Curtis Well #2 meet high water demands, a new supplemental well referred to as Curtis Well #2A was drilled. In anticipation of future well rehabilitation projects and to minimize downtime during repairs and well cleanings, upgrades at the well field site were completed, a new well tied in and three flushing hydrants were added.

During 2011, the Collection System Crew inspected and cleaned approximately 53,000’ of sewer main and inspected approximately 320 manholes in the east section of Milford. One new service connection was installed on North Street from the main to the property line. Sewer maps for the entire Town were updated. Efficient operations and inspections continued on a weekly basis at the Patch Hill and Emerson Road pump stations as well as on a monthly basis at the siphon chambers at four river crossings. During the Public Works Department paving project, the Collection System Crew readjusted castings replaced along the Milford Oval, Nashua, Johnson, South and Elm Streets. The staff continues to proactively investigate potential sources of unsolicited discharges to the Town sewer system.

Milford’s sanitary sewer system underwent a substantial rehabilitation project on Souhegan, Dearborn, King, Walker, Mill, Pine Valley and Prospect Streets where approximately 5400’ of sewer mains originally installed between the 1890s and 1940s were relined with a cured-in-place pipe epoxy-resin liner. Using a fiber weave cement grout, 27 brick manholes were sealed. The project’s purposes included:

- restore the structural integrity to sewer pipes and manholes

- repair broken pipes and damaged joints
- remove tree roots from the sewer system

and the project benefits included:

- elimination of costs to pump and treat infiltration
- allow the collection system crew to routinely clean/camera sewer mains more effectively
- minimize potential sewer back-ups
- extend the life of the sanitary sewer system infrastructure

In-house personnel efficiently went beyond performing routine operations and maintenance activities at the Wastewater Treatment Facility by installing:

- a new main raw water pump in the main pump station
- two rebuilt return activated sludge pumps and one new 8" pinch valve system
- a new 8" pinch valve on plant water line in the lower pump room (due to valve failure)
- a new plant water pump
- three rebuilt magnesium hydroxide gear reducers, and one newly purchased gear reducer

and maintained the following facility buildings and structures:

- pressure-washed and seal coated exterior tank cover panels of two gravity thickeners and the Ultra-Violet disinfection building
- pressure-washed and seal coated administration building and main pump station
- repaired and resurfaced floors in three aeration tanks

and equipment replaced by contractors included:

- a new expansion tank for boiler system
- a new compressor on rooftop air conditioning unit

Please remember to contact the Water Utilities Department at 249-0660 x 0 prior to scheduling in-ground excavation on your property, as the responsibility lies with each property owner. DIGSAFE does not automatically notify the Water Utilities Department.

To remain compliant with Milford's EPA-mandated Industrial Pretreatment Program, the Water Utilities staff, with the assistance of TeTon Environmental, issued one Industrial Discharge Permit (IDP), re-issued three IDPs, inspected six industrial users, and sampled wastewater discharges at four industrial users.

Operational tours may be scheduled during regular business hours, 7:00 a.m. – 3:30 p.m., Monday through Friday. Residents may pick up free compost during the spring, summer and fall seasons. Inquiries are welcome; call 249-0660 x 0.

Respectfully submitted,
David L. Boucher
Water Utilities Superintendent

WATER DEPARTMENT

2011 ANNUAL SUMMARY OF OPERATIONS

Curtis Well	315,593,000 Gallons
Pennichuck Water	40,161,000 Gallons
Total Water Pumped	355,754,000 Gallons
Average Demand	974,668 Gallons/Day
Over 1 Million Gallons*	82 Days
Annual Rainfall	59.66 Inches

*Number of days that the Town pumped 1 million gallons or more of water.

WASTEWATER FACILITY

2011 ANNUAL SUMMARY OF OPERATIONS

Milford Flow Treated	452,004,270 Gallons
Wilton Flow Treated**	53,531,000 Gallons
Septage Treated	1,124,730 Gallons
Total Flow Treated	506,660,000 Gallons
Average Flow Treated	1,388,110 Gallons/Day
Design Flow	2,150,000 Gallons/Day
Daily Average Hydraulic Load	64.6 % of Design
Annual Rainfall	59.66 Inches

** Wilton contributed 10.57% of the avg. daily flow