

Town of Milton

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A BETTER ACCOUNTING OF WATER USE

March 4, 2013

Notes Regarding Comparative Data

Meter readings do not correspond, by date, with pump readings. There may be as much as ten days' difference. This corresponds to 11% of the period – or approximately 3,355,000 gallons.

Improvements in technology on both the meter reading and pump production ends of the system will allow future reports to show the same date and to eliminate the margin of reporting error.

There is also the consideration of the amount of water that is in storage at any given time. This would account for a 150,000 gallon +/- margin of error.

In 2011, there was not a tracking of Water Loss Events. In the fourth quarter of 2012, estimated losses because of Water Loss Events was 388,000 gallons. Continued tracking of these events will provide more accurate reports. Not all such events can be avoided, though. Periodic hydrant flushing is necessary to maintain the quality of your water, as well as the system.

In 2012, approximately six miles of water “mains” in the Town of Milton were leak tested. There are several more miles of secondary and “lateral” lines that have not been tested. The mains showed no leaks. Water Loss Events typically occur on the laterals – which extend from the center of your street, to your home. It is likely that leaks are occurring, at some point, between the mains and the meters at each home or business.

The replacement of secondary lines and laterals, as a preventative measure, is most efficiently done when streets are re-paved. This would be part of a long term Capital Improvements Program.

The Town of Milton continues to grow at a rate of about 25 new residential homes per year. This will increase both the pump and metered usage data in a year to year comparison. The meter upgrades in 2012 should have the effect of decreasing the difference between that which is pumped and that which is billed for use, though. There are seventeen meters that still need to be replaced. In 2012, the percentage of customers metered was increased from 90% to 98%. In 2013, it will be 100%.

The installation of check valves (to stop water from being pushed back into wells, to be pumped and counted again) did not occur until January 2013. The installation of more accurate meters at the pump did not occur until late February 2013. Greater accuracy in the pump record, therefore, will not be evident in a comparison of 2011 Q4 versus 2012 Q4 pump production.

A comparison of pump production, from year to year, is useful for more than simply accounting purposes. Pumps are typically “cycled” from active to resting periods so that the motors are not over-worked and have a shorter lifespan as a consequence. The pumping periods are often similar. So, lowered production from a given well may be an indicator that the well (screens, etc.) is due for maintenance. Less production at one well, however, will be matched with greater production at another well. Consideration of well maintenance is part of the annual budget process.

Comparative Data

Pump Production vs. Metered Use 2011 – 2012 Comparison

2011 Q4 Production	2011 Q4 Net After Loss Events	2011 Q4 Metered	2011 Q4 Un-accounted (%)
29,403,000	29,403,000	17,953,833	11,449,167 (39%)

2012 Q4 Production	2012 Q4 Net After Loss Events	2012 Q4 Metered	2012 Q4 Un-accounted (%)
30,561,000	30,173,000	19,278,106	10,894,894 (36%)

Pump Production, By Well 2011 – 2012 Comparison

Well	Oct. '11	Oct. '12	Nov. '11	Nov. '12	Dec. '11	Dec. '12
#2	2,606,000	2,637,000	2,345,000	2,276,000	2,335,000	2,389,000
#4	4,468,000	3,133,000	4,238,000	2,705,000	4,284,000	2,852,000
#7	3,400,000	4,778,000	2,686,000	4,811,000	3,041,000	4,980,000
Total	10,474,000	10,548,000	9,269,000	9,792,000	9,895,000	10,221,000

Last of the Meter Upgrades

There are some homes, in the Town of Milton, in which the meters are inaccessible from the outside. Most of the homeowners have opened their doors to Water Department staff, by appointment. Some have not responded to our requests for access.

Water meter upgrades are necessary to ensure accuracy – and “fairness” to all with regard to the shared responsibility of maintaining a public water utility.

The Town of Milton has the option to install a meter pit at the curb stop of any home or business. For our “responsive” customers, the meter upgrades have come at no cost. For those that are un-responsive, the actual cost of installation will be billed to the customer. Labor and materials for a meter, pit and installation is \$925.

There are seventeen customers that will be given the option to either upgrade at no cost – or to have a meter pit installed at the curb stop, for \$925.

Tank Repairs in March

The water storage tank near the Memorial Park boatyard had a leak last summer. An emergency repair to the weld seam has weakened in the last month. A more comprehensive repair had been negotiated as part of the long term maintenance contract. This repair is scheduled to be done in the first week of March. Because this is not a peak use season, water use restrictions are not anticipated.