

Water system losses report – April 23, 2012

- A good sized watermain leak was noticed by a pedestrian on Evergreen Avenue. It was repaired the following day on March 31, 2012. This should help the bottom line.
- District metering will begin with the April 20 read. This will separately meter the Village's three large pressure zones by classifying each billing account by zone and using zonal water meters to compare the net losses for each zone. If we find that one zone appears to be a particularly bad we will narrow the focus to detect the source by creating sub zones.
- We also found several large meters that were reading slow and a small meter that was stuck. This should help the bottom line.
- We are tentatively planning to replace large commercial meters this summer. The replacements would have begun already; however, several CBCWA members and the City of Appleton are planning meter replacements very soon. The Village should participate in the joint process that will reduce acquisition costs, standardize meters, and potentially share meter reading systems. New analytical software and management technology allow the instant acquisition of customer consumption information by the hour or by the minute. This has many advantages that allow automatic monitoring and detection of meter inaccuracies, and other types of warnings. Acoustical leak detection can also be implemented. The software will increase meter reading and billing efficiencies.

| <u>Water Service and Water Valve Exercising data</u> | <u>Current period</u> | <u>To date</u> |
|--|-----------------------|----------------|
| Curb boxes located | 0 | 5,524 |
| Curb boxes adjustment (completed/needed) | 0 | 1347/1,389 |
| Curb boxes GPS located | 0 | 5051 |
| Curb boxes leak tested | 0 | 5051 |
| Curb Box Leaks found & repaired (Village / Private) | 0/0 | 25/7 |
| Valve / Watermain Leaks found & repaired | 0/0 | |
| Valve Exercising (operate 50% of 1535 per year) | 0 | 885 |

| <u>Water meter data</u> | <u>Current period</u> | <u>To date</u> |
|-------------------------------------|-----------------------|----------------|
| Residential Meters changed / tested | 83 | 259 |
| Commercial Meters tested | 0 | 10 |

6 month average unsold water rate trend

| 2010 | <u>Jan</u> | <u>Feb</u> | <u>March</u> | <u>April</u> | <u>May</u> | <u>June</u> | <u>July</u> | <u>Aug</u> | <u>Sept</u> | <u>Oct</u> | <u>Nov</u> | <u>Dec</u> |
|------|------------|------------|--------------|--------------|------------|-------------|-------------|------------|-------------|------------|------------|------------|
| | | | | | | 21% | 20% | 22% | 21% | 22% | 20% | 23% |
| 2011 | <u>Jan</u> | <u>Feb</u> | <u>March</u> | <u>April</u> | <u>May</u> | <u>June</u> | <u>July</u> | <u>Aug</u> | <u>Sept</u> | <u>Oct</u> | <u>Nov</u> | <u>Dec</u> |
| | 23% | 23% | 23% | 24% | 25% | 25% | 24% | 25% | 25% | 24% | 23% | 25% |
| 2012 | <u>Jan</u> | <u>Feb</u> | <u>March</u> | <u>April</u> | <u>May</u> | <u>June</u> | <u>July</u> | <u>Aug</u> | <u>Sept</u> | <u>Oct</u> | <u>Nov</u> | <u>Dec</u> |
| | 26% | 25% | 26% | | | | | | | | | |

| <u>Year</u> | <u>Pumped</u> | <u>Sold</u> | <u>% Sold/Unsold</u> | <u>Not Sold (NS)</u> | <u>NS Acct*</u> | <u>NS UnAcct**</u> | <u>% Unaccounted</u> | <u>Cost of daily unsold water @ \$4.16 per thousand</u> |
|-------------|-----------------|-----------------|----------------------|----------------------|-----------------|--------------------|----------------------|---|
| 2000 | 598,898 | 414,683 | 69%/31% | 184,215 | 95,500 | 88,715 | 18% | \$2,099 |
| 2001 | 640,188 | 492,275 | 77%/23% | 147,913 | 101,000 | 46,913 | 7% | \$1,685 |
| 2002 | 631,980 | 474,974 | 75%/25% | 157,006 | 112,000 | 45,006 | 7% | \$1,789 |
| 2003 | 662,678 | 599,115 | 90%/10% | 63,563 | 30,500 | 33,063 | 5% | \$747 |
| 2004 | 701,227 | 616,448 | 88%/12% | 84,779 | 28,000 | 56,779 | 8% | \$966 |
| 2005 | 766,323 | 628,311 | 82%/18% | 138,012 | 29,800 | 108,212 | 14% | \$1,572 |
| 2006 | 732,793 | 692,154 | 94%/6% | 40,639 | 23,300 | 17,339 | 2% | \$463 |
| 2007 | 731,696 | 725,217@#99%/1% | | 6,479 | 5,700 | 779 | 0% | \$74 |
| 2008 | 623,490 | 557,077 | 89%/11% | 66,413 | 7,050 | 59,363 | 10% | \$760 |
| 2009 | 643,244^ | 513,143 | 80%/20% | 130,101 | 7,080 | 123,021 | 19% | \$1,482 |
| 2010 | 616,348 | 490,936 | 80%/20% | 125,412 | 18,050 | 107,362 | 17% | \$1,429 |
| 2011 | 676,803 | 495,692 | 73%/27% | 181,111 | 8,000 | 173,111 | 25% | \$2,064 |

CBCWA water supply began in Sept 2007

@ Monthly billing implemented in Jan 2007 and skewed sales

^ Bold data in 2009 corrected to actual pumpage. 2010 estimated data.

* 2010 – 0.05 M treatment process, 2 M Tank Overflows, 10 M system filling/flushing, 6 M fire fighting & training, 0 M meter errors, 5M detected watermain and service leakage.

** 2010 – 107,362 M unreported/undetected watermain and service leakage, vandalism & theft.

Automatic meter reading was implemented between Jan 2004 and June 2006