

# Town of Milton

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Agenda item 15. a)

Delaware Rural Water Association leak testing cost (\$6,000)

The following was reported in the May 7 “A Better Accounting of Water Use” report:

### Leak Detection

At the April 2, 2012 meeting, it was reported that the water lines that pass through the river or other natural drainage were examined for leaks. These places were a priority because leaks can be “masked” by the river, marsh or a natural spring. No leaks were found at the drainage crossings on Union, Mulberry and Lavinia Streets. The same was the case with Broad Street – where the spring that drains toward Magnolia Street originates.

The April 17<sup>th</sup> leak on Broadkill Road demonstrated how sandy soil can hide a significant leak, though. The same device used on the drainage crossings proved itself to be highly accurate when it detected the *exact place of the leak* – at quite a distance from where any evidence of a leak was observed.

It is a known fact that the water main system in town is, in many places, much more than forty years old. A comprehensive survey of these aged lines will help us to prioritize replacements. Using the time that it took to survey Broad Street and the street lengths listed in our inventory, an estimate of the time it takes to survey all streets in this class can be calculated.

The following are identified streets (abbreviated descriptions) and lengths:

Street	Length	Street	Length
Atlantic Ave (east of Union)	.53 mi.	Bennett St (N of Holland)	.11 mi.
Betts St (Mulbrry – Waples)	.10 mi.	Carey St. (Lake – Lavinia)	.09 mi.
Chandler (Union – end)	.18 mi.	Chestnut (New – Road St.)	.53 mi.
Collins St. (Coulter – Front)	.15 mi.	Coulter St. (Collins – Fed.)	.21 mi.
Front St. (Chestnut – Fed)	.05 mi.	Hazzard Ave. (Atlntc – Bay)	.11 mi.
Hazzard Lane (Chest – Fed)	.07 mi.	Holland (Palmer – Bennett)	.10 mi.
Lake Drive (Mulb – Carey)	.12 mi.	Lavinia St (west of Mulb)	.33 mi.
Magnolia St (Union – Mulb)	.13 mi.	Marshall (north of Federal)	.10 mi.
Mill St (Federal – Collins)	.21 mi.	Morris Ave (north of Union)	.16 mi.
New St. (Chestnut – Fed)	.10 mi.	Orchard St. (Union to .18 mi. east of Mulberry)	.33 mi.
Reed St. (Broad – Clifton)	.13 mi.	Reed St. (Clifton – Reed)	.05 mi.
Sand St. (Federal – Chest.)	.08 mi.	Tilney St. (Mulb – Union)	.12 mi.
Walnut St. (Atl. - .05 N of Front St.)	.27 mi.	Waples Place (Orchard – Orchard)	.05 mi.
Union St & Federal St.	North limit to south limit	(state-owned road)	2.43 mi.
Total (all targeted streets)	6.84 miles	@ .5 hrs per .1 miles = 34.2 hours (best estimate)	Equipment rental rate @ \$850/day x 5 days = \$4,250

There is an additional cost to rent equipment that will help to clean-out the valve boxes at the end of each section of water main. The total estimated cost (not including manpower) is less than \$6,000.

This project will also help us to meet the requirements noted in the Dec. 2011 letter from DNREC regarding our request to increase our water permit allocation.