

Water Meter Replacement Program Overview

Why is the Water Department installing new meters?

The Lincoln Water Department is approximately half way through its meter modernization program and expects to finish the meter replacements by early 2015. Water meter accuracy degrades over time so meters require periodic replacement. The Department is taking this replacement opportunity to provide remote read capability to improve Department efficiency. The remote read feature will allow the Department to reduce meter reading to a one or two day event, compared to the one to two weeks it currently requires.

What type of water meter is being installed?

The new meters use radio frequency signals to transmit the water use information to the Department vehicle as it drives down the street during meter reading activities and also provide water leak detection.

The new meters display whether an intermittent or continuous leak condition has occurred over the previous 24-hour period. This feature can save customers the cost of the thousands of gallons of water that is frequently incurred during an undetected leak. Homeowners can check their meters at any time to determine if a leak condition exists. This information is also relayed to the Department when we read the meters and we typically mail a letter to the homeowners stating a leak was detected. The Department mailed over 80 such letters after the last reading. The meters store 96 days' worth of hourly water use data which can be downloaded at the homeowner's request in order to review water use patterns or to determine when a leak condition started.

Is it true that radio frequency meters can have negative health consequences?

Some residents may have a concern regarding the installation of a radio frequency equipped water meter in their home. There are adamant supporters on both side of this debate. What is known is that the water meters being installed send a seven millisecond signal every 14 seconds, which amounts to approximately 45 seconds of transmission a day from a single "D" cell battery. The manufacture states this battery will last 20 years. Also, radio waves follow the inverse square law, which means doubling the distance from the transmitter drops the strength to one quarter. So being further from the transmission source significantly decreases any potential risks from the radio waves.

I heard that burglars can use the signals to detect that a family is away from home.

The concern would be that someone could determine that no water had been used at the house, deduce that the occupants are out of town, and subsequently burgle the residence. This is highly unlikely. Although a brief search on the internet reveals websites that

supposedly provide information to the technically savvy individual on how to hack into a water meter, and reportedly there is a wireless antenna that can intercept specific water meter transmissions, a person driving by would detect multiple radio signals and be unable to determine which signal comes from which house. Moreover, the manufacturer of our water meters states that this antenna cannot decrypt the two layers of security used in the meters we are installing.

What if I just don't want a radio frequency meter in my house?

The Department appreciates that some residents may object to the installation of a radio frequency water meter at their home and, as a result, has developed an Opt-Out program for its customers. If requested, the Department will replace an existing analog water meter with a digital meter that does not have radio capabilities. This non-radio meter will require the Department to manually read the meter. The Department will charge \$25 per billing cycle for residents that have opted out of the radio program. An additional \$50 will be charged if a resident wishes to have an existing radio frequency water meter replaced with a non-radio version. This charge will cover the cost of time and materials to rewire the water meter to an older-style external reader. Another alternative available to residents is to have the radio antenna portion of the meter system mounted to the exterior of the house, separate from the digital meter.

Please contact Superintendent Greg Woods at 781-259-1329 if you have any questions regarding this information.