

The evolution of reading your meter

What took a handful of men to do 15 years ago now takes Janet Miller less than three days.

Janet, the public works administrative assistant, is what affectionately is called the meter reader. Today, with modern technology, she's able to capture water meter readings electronically – often from the comfort and safety of her city vehicle.

It isn't always as easy as riding in the car since there are about three dozen meters she has to manually read. And in this hilly terrain we call our home, that sometimes requires walking up steep hills or through overgrown brush to find a metal-encased meter pit where the actual meter could be three feet below the surface of the ground.

Like clockwork, close to the 15th of the month, Janet readies the city's little Ford Escape for her route around the city to record meter readings from about 1,200 meters. Please note, that number doesn't reflect the population of Lake Ozark because many multi-family complexes are served by one meter. Individual units are not metered in some instances.

Her routine is the same nearly every time, but there are special side trips to deliver "Red Tags." These are door hangers which are usually unwelcome notices to property owners or renters that water/sewer service will be disconnected if payment is not received within 48 hours. Most residents scurry to City Hall to pay their overdue bill.

Before the city began to transition its meter reading system from hand writing each reading in a small black folder to electronically, it took public works employees about a month to make the circuit. They worked reading meters in between their regular duties.

Janet was hired in 2004 as an office assistant and was soon tasked with taking over the meter reading duties. For four years, she drove from property-to-property, exiting her vehicle, sometimes thrashing through underbrush, to manually read meters. Sure, most water meters are conveniently attached to a home or business, but some are buried three feet in a manhole on the side of a hill surrounded by bothersome scrub brush.

And then city officials decided to move their community forward and join the electronic world.

The challenge has been attaching electronic devices on each water meter so hand-held radios can electronically record the meter reading. The cost of the equipment – about \$120 each -- and the labor to upgrade each of the thousand-plus meters is daunting.

But over time, progress has been made. Eventually – hopefully within the next several years as the budget allows – all water meters will be adapted to flex meters which were introduced into the metering system in 2016. Currently, there are 571 flex meters. The readings from these meters are captured wirelessly to a laptop computer that sits on the passenger seat.



Janet Miller, the city's public works administrative assistant, is also the city's water meter reader. Top photo, some of her meters are located on hillsides and can be a challenge to read. Bottom photo, Janet most often can use the hand-held device to capture the meter reading from her car. An emerging system uses a laptop computer and small antenna on the car's dashboard to automatically collect the meter readings.

The beauty of the flex system is that it begins to collect data immediately after Janet logs on to her laptop regardless of her location. The locations of all of the flex meters are displayed on the laptop screen and as the meters are read the symbol changes so she knows which are read.

The remainder of the meters –

roughly 1,500 – are read through a hand-held device that resembles an oversized calculator. A portable, remote antenna on the vehicle's dashboard relays the info to the device.

Janet knows every street, every address and the location of every meter. She cross-references meter readings to make sure no meter is

overlooked by either the flex system or radio read system. Data collected via the radio read system is downloaded onto a computer at the City Hall where Trisha Kane, utility clerk, takes over the monthly utility billing process. Data collected through the flex system on the computer is saved to a thumb drive (memory stick) that is also downloaded to a computer at the office.

Janet knows the system so well that she can usually tell if someone has a water leak based on a higher-than-usual reading. Average residential use for a family of four is between 5,000 and 10,000 gallons. If Janet or the City Hall office staff see a sudden spike in usage, they ask a Public Works employee to investigate or they alert the homeowner or business owner.

Janet is quick to point out that meter reading isn't only done to gather data used to create water bills. It's also a way to monitor water loss from the system. She also reads meters at each water tower – one located on Oakridge Drive to serve the southern side of Lake Ozark and the other on Mockingbird Road for the northern side of the city.

The loss is the difference between the water tower readings and the total gallons used by residents and businesses. A loss can indicate a leak in the water system, flushing of a fire hydrant or gallons used by the Lake Ozark Fire Department at a fire.

The drive that Janet takes each month isn't all work. She carries with her bags of dog treats for residents and their dogs she might encounter while making her route. Janet stops, offers a treat, visits with the resident before continuing on.

Your utility bill

City of Lake Ozark residents receive their utility bill about the first of the month after Janet completes her reading process by the 20th of each month.

Residents' actual bills are based on 1,000 gallons of water used. A base rate is charged for 999 gallons of use and begins incremental adjustments at 1,000 gallons. If a resident uses 1,999 gallons of water, they're billed at the base rate for the first 999 gallons. When water usage reaches 1,000 gallons, for example, the rate is then calculated at a higher rate.

Residential rates are different than commercial rates.

A resident's sewer bill – part of the utility bill -- is based on the 1,000-gallon rate as well as a flat fee of \$3.31 per 1,000 gallons of water used. Many residents who irrigate their properties have a separate irrigation meter installed to avoid the sewer fee since the water does not flow through the sanitary sewer system.

As an added bonus for residents, utility bills can now be paid online at www.cityoflakeozark.net. At the bottom of the page is a link "Online Bill Pay."