

IWVWD General Manager's Column
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Meter Reading Changes Being Implemented

By Don Zdeba

Over the past couple of months, you may have noticed individuals wearing Water District shirts walking your neighborhood; something you have not seen in recent years. I would like to take this opportunity to explain the reason our Field Service personnel are walking some routes and manually reading meters.

Automated meter reading (AMR) has grown in popularity among utilities in the past decade. An AMR system has many advantages and benefits for both the customer and the utility. Chief among them, meter reading can be accomplished in much less time, the units can store a history of customer usage that can assist in resolving unusual use patterns, and they can help identify the existence of a leak or problem with the customer's irrigation system. Many water districts find it is an important tool to promote conservation. Following a lengthy period of research and testing during which systems from several manufacturers were considered, the District initiated a project to install an AMR system in 2006. Based on cost, compatibility with a variety of meter manufacturers, and visits to other utilities using the technology, the decision was made to select Firefly® units manufactured and distributed by Datamatic. Ltd.

The Firefly® units have resulted in a significant change to the task of reading meters. By driving instead of walking our customer billing routes, our Field Service technicians can collect data much faster and safer thereby improving their efficiency and productivity. They are not exposed to weather extremes, insects and spiders, or the occasional angry dog. Also, Firefly® usage history reports have been used countless times to help customers identify the cause of unusual usage on their bills. Over time, though, as the batteries wear out, staff spends a great deal of time each month replacing units and manually obtaining reads.

Within the past year, Datamatic has experienced financial issues that led to restructuring and had an effect on their ability to service their product in a timely manner. Though they are continuing to honor warranty claims, their ability to provide replacement or repaired units within a reasonable time has been impacted. To continue to ensure that our personnel are working in an efficient manner and collecting accurate information for billing purposes, the decision was made to transition to manually read 70% of meters over the coming months. Essentially, the routes within the city proper, which contain approximately 8,500 of the 12,000 meters installed, are being restructured for manual reading. We will continue to focus use of the Firefly® units within the outlying areas where meters are spread over a wider distance and can be more difficult to access. The initial cycle of billing using the manual reads will serve as a meter verification opportunity and the results may prove we can enlarge the area where we continue to rely on the AMR system. One benefit of resurrecting manual reading is that it provides our staff the opportunity to dedicate time to meter box maintenance, which has been

somewhat neglected with the implementation and continued maintenance of the AMR system. Meter boxes are being cleared of sand buildup, roots, insect nests, etc.

With uncertainty in the stability and future of Datamatic, we anticipate continuing with a combined program of manual readings and the AMR system for the foreseeable future. District staff has already started the process of researching alternative systems including both AMR and AMI (advanced metering infrastructure) technologies. AMI represents networking technology of fixed network meter systems that go beyond AMR systems into remote utility management eliminating the need to walk or drive routes. The meters in an AMI system are often referred to as smart meters since they can use collected data based on programmed logic. New technology advancements now allow water districts to immediately contact customers by phone, text, or e-mail to notify them of leaks or tampering by detecting changes in water pressure. Customers also can have the ability to see their usage in real time.

Though we expect that any change will occur over many months, we will keep you updated on our progress as new information is available. Should you have any questions about this or any other facet of the District's activities, please do not hesitate to contact our office at (760) 375-5086.