

IWVWD General Manager's Column  
December 29, 2016

## **“Technology to Aid in Conservation and Efficiency”** **By Don Zdeba**

In previous columns I have mentioned the District is implementing an Automated Metering Infrastructure (AMI) pilot project utilizing Neptune's migratable R900® radio frequency (RF) technology. The pilot project involves 468 meters throughout our service area. Three new towers and five collector antennas have been installed to relay information from meters to the District office.

There are several reasons for migrating from manual walk-by reading, as the District is currently doing, to this technology. First, there is a significant amount of water loss each year associated with unanticipated use claims received by the District. Among the causes that result in an unanticipated use are a leaking toilet that goes unnoticed (up to 200 gallons per day) and a broken sprinkler or irrigation line. The loss of water from broken sprinklers can be staggering. A one-half inch sprinkler pipe will flow 13 to 16 gallons per minute (gpm) when broken. Unrepaired, 3,000 to 10,000 gallons per system will be lost and once the customer receives their monthly bill and notices the high use, it is often too late. According to one source, nationally, 18 billion gallons are wasted due to broken sprinkler system. That is enough to fill the Great Salt Lake in Utah twice. Locally, this year through the month of November, unanticipated use claims have resulted in losses totaling 6,735,740 gallons. Local households typically use about a half acre-foot (about 163,000 gallons) of water each year so that lost water would be enough to supply the annual needs of about 40 households.

The AMI system has a number of enhanced features and capabilities designed to allow customers to monitor their water consumption and the District to alert customers to unusual trends that could indicate a problem. With implementation of the AMI system, the District has the capability to send an alert by text, e-mail, or a phone call preventing the shock of a high bill as well as the waste of a significant volume of water. It also provides the District the ability to produce historical consumption graphs detailing daily or monthly usage for a single account when a customer has a concern about their bill.

Water is a precious resource in our high desert region and the recent extended statewide drought has made water conservation a way of life. With AMI technology, our customers have the ability to be proactive and monitor use with hourly, daily, and/or monthly consumption data.

Another benefit is the reduction in the need to roll out trucks to collect routine meter readings and re-reads. Eliminating the current practice of manual readings is also a benefit in terms of employee safety. Walk-by reading in extreme weather, both heat and cold, presents safety issues. Also, the hazard of exposure to snakes and spiders in meter boxes is greatly reduced as is potential injuries due to tripping hazards or dog bites. The Neptune R900® system does retain the option of walk-by or mobile reading should it be

necessary. Ultimately, the District plans full implementation of the AMI system. Once fully implemented, it will greatly reduce the need to manually read meters and allow staff to focus more on customer services such as water audits and providing conservation information and assistance. The list of advantages is long, but space is limited. I would encourage you to learn more about this technology by visiting Neptune's website, <https://www.neptunetg.com/systems/fixed-network-ami/>. The site features case studies including implementations within California in Indio and Oakland County.

In June, the District adopted a conservation target of 20% compared to 2013. This target is in effect at least until the end of January 2017. Through November, our customers have responded and achieved a cumulative decrease of 21.3% compared to the same period in 2013. The Board and staff appreciate the efforts our customers have made to date to accomplish this. I do want to take this opportunity to provide a reminder that Ordinance 100 remains in effect. Ordinance 100 allows one day per week landscape irrigation, either Saturday or Sunday depending on whether your address ends in an even or odd number, from November 1<sup>st</sup> through the end of February. Details of Ordinance 100 are available on the District's website, [www.iwvwd.com](http://www.iwvwd.com).

For information related to state and local water issues I encourage you to "Like" and regularly visit the District's Facebook page (IWV Water District). Again, the Board of Directors and staff of IWVWD thank you for using water responsibly.