

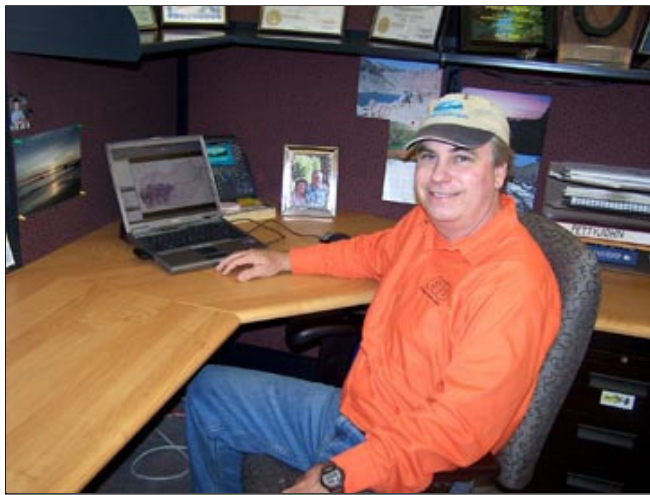
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Inside EID: Meter reading goes high tech

By Michael Raffety | Editor | June 01, 2010 15:40



PHILIP PETTYJOHN arranges his day with the help of GPS maps to help construction crews and private contractors locate EID lines so they won't dig into them. Democrat photo by Michael Raffety

From four-wheeling through poison oak to parking on a hill with great views to read radio transmitting meter readings, El Dorado Irrigation District meter readers are the front line in the bimonthly billing cycle.

Being on the front line sometimes means finding a rattlesnake inside a meter box.

Jim Pritchard, meter services supervisor, says in the case of the rattlesnake they just try not to disturb it while reading the meter.

The meter reader's day begins after senior meter tech Earl Reese downloads the routes for the week into hand held computers. The routes include the most efficient sequence in which to read the meters. Information attached to each meter includes the meter number, the address and the billing account number, plus notes about its location. The

day ends with the meter computers being returned to the loading dock to have the freshly gathered readings uploaded into the computer.

With 42,000 water and recycled water meters it takes two months to run through the eight routes into which the district is divided.

Usually a meter reader will get through his route in four days. Then the fifth day is used to check on meters that appear to be stopped. A meter will be stopped if a house is empty or if the movement inside the meter is clogged up. The meter techs will test the meter and replace it if it appears to be malfunctioning.

On a recent Monday Rick Tulone showed how in 15 minutes he could shut off the water, remove a faulty meter, wash it off, replace its interior mechanism and then replace the meter itself with a radio transmitter meter, then reinstall it, check for leaks and tighten it sufficiently to stop any leaks. Tulone wears latex gloves when working with meters, a practice he learned after his hands cracked from spending too much time wet.

Pete Heape rolls up his windows before taking the small EID truck down a dirt path to access a meter at a horse watering trough owned by Folsom Lake State Park. The rolled-up windows keep him from being whapped in the face by poison oak limbs that line the dirt track like an itchy gauntlet. From the

horse watering trough Heape can then read three of four meters in the back of some nearby ranchettes. At this time the grass hadn't grown too tall and was green, so he could drive along the meters and then back up to the poison oak path. In the summer when the grass is dried he will walk to read the meters.

Heape still laughs about the time in 1987 when Mountain Democrat editors tried to get Heape's 4-H pig into the front seat of the publisher's Volkswagen convertible and put sunglasses on the pig for a cover photo of a fair special section. The pig squealed unmercifully and refused to stay in the car, but the crazy scene still made a good cover shot. Heape's hog won reserve champion that year.

For home builders and other construction projects, even digging to install a new garden, EID asks that everyone call 811. Anyone doing excavation is required to make the call to 811. That system alerts utilities such as PG&E, AT&T and EID. Each day Phil Pettyjohn takes these alerts and construction applications called in or filed with EID and makes out his schedule for the day. He arrives very early in the morning so he can get to the construction sites in the morning. He starts with GPS based maps of the district's water lines and brings equipment that can detect water lines. If an excavation site is near a water line the crew is required to hand dig to locate the line. Among those for whom Pettyjohn is called out to locate water lines are PG&E crews putting in new utility poles. Each pole requires a hole eight feet wide and 12 feet deep.

EID has five meter techs and three customer field techs who track down issues with leaks or faulty meters and do water line location work. The meter techs will also test and adjust or replace big commercial meters at a shop by the reservoir on Pleasant Valley Road.

While a meter reader can manually read 150-200 meters a day, depending on the weather, a meter reader with a special antenna temporarily mounted on top of his truck and a laptop hooked up to a receiver can read 1,000 meters a day.

Meter Services Supervisor Jim Pritchard demonstrated the radio reader in Serrano in El Dorado Hills where most of the meters are automatic meters. Sometimes he would have to drive down individual streets to get a reading from the meters as the truck drives by. But go up on a hill and a lot more meters will "light up" on the computer screen, including some from across the valley on the hill west of El Dorado Hills Boulevard.

Each meter, including recycled water meters, will transmit its current reading, its meter number and billing account number and GPS location. The system can do an "interrogation" every 8 seconds and read 10-12 meters per interrogation. In three to five minutes Pritchard quickly reads 108 meters, racking up 712 in 15-20 minutes. The majority of El Dorado Hills has radio readable meters and all of Serrano.

The other area that is getting a lot of the new radio transmitter meters is Pollock Pines, because it's hard to find a meter under a couple of feet of snow in the winter.

The increasing number of radio readable meters means EID can handle more accounts without expanding its meter reading staff. In fact, in 2008 one meter reader was among the 31 employees the district laid off.

Meter readers are EID's front line in the bimonthly billing cycle and in personal contact with the customers. They can read the meters and fix them and they are ever watchful for those sneaky meter snakes.

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