

CASE STUDY

ORION®

Radio Frequency System



Consolidated Water Works in Terrebonne Parish, Louisiana

ORION® continues to perform reliably through hurricane surges and tidal flooding

By: Dave Marsh

The residents of Terrebonne Parish, Louisiana feel fortunate to have missed the devastation suffered by New Orleans during the catastrophic 2005 hurricane season. Terrebonne Parish lies about 65 miles southwest of New Orleans. Although the parish suffered some damage, it escaped the destructive tidal surges of Hurricane Katrina that swamped New Orleans, and from Hurricane Rita that roared ashore further to the west.

Those that live along the gulf coast have learned to deal with the effects of the gulf tides that impact many aspects of everyday life. Stephen Hornsby is the general manager of Consolidated Water Works, the utility that provides Terrebonne Parish with its drinking water. Brackish water driven by storms and daily tidal movement routinely submerge portions of his service area, which makes Consolidated Water Works a real-world laboratory to test the durability and reliability of water meters. Badger Meter has been testing its water meters here for years, and seeing the results first hand may be one of the reasons that most of Hornsby's 40,000 water meters came from Badger.

"We live with these brackish water conditions day in and day out. Flooding or tidal movements will submerge some of our water meters, which is why we've been a test site for Badger through the years," said Hornsby. "On the lower end of our parish we have saltwater marshes. Some of our customers have weekend camp sites in these low lying areas that might be exposed to inches of brackish water every day because of tidal movements."

"As a result of Hurricane Rita the water level in some of these sites rose 9 feet above normal. In other sections some levees were breached and homes were flooded, but thankfully not as extensive as in the New Orleans and Lake Charles areas. When the waters subsided marsh mud several inches deep and debris were left on top of the meter boxes. Where ORION or TRACE® equipped meters were installed we were able to read the majority of these meters with our mobile meter reading equipment."

"These meters routinely get flooded, are exposed to the atmosphere and then re-flooded again. Corrosion is the primary thing we worry about, but Badger Meters have stood up well to that. When they have a new product

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TERREBONNE CASE



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they install them in our area because if they can perform reliably here, they probably will work anywhere.”

Because Badger Meter tests its new technology in this hostile operating environment Terrebonne Parish is often one of the first areas exposed to new technology. In 1992 Consolidated Water Works recognized how Automatic Meter Reading (AMR) technology would address some of its challenges and upgraded to Badger[®] meters equipped with TRACE[®] AMR. “Reading the old manual meters has always been a challenge in our area,” said Hornsby. “Water, mud, and salt deposits accumulate on the meter registers, and they fog up in our high humidity. All of this makes it difficult for our meter readers to read the meters while using the handheld recorders.”

In 2004 Consolidated Water Works again saw how it would benefit from new Badger Meter technology and adopted the ORION[®] AMR system. “We use cast iron meter boxes that make it

somewhat difficult for the electronics to read the meters,” said Hornsby. “The ORION system does a superior job reading through cast iron. In some cases we’re reading through cast iron from several hundred feet away.” Because Badger[®] meters have been able to withstand the gulf’s caustic tidal conditions, Consolidated Water Works has been able to reap the benefits of Badger AMR technology that other communities enjoy. “Our meter department has a staff of 13 that work with meters. They read meters, change out old meters and do connects and disconnects. Although we have the same number of people working with the meters that we used to, they are now servicing a much larger customer base,” said Hornsby. “We’re adding about 700 customers a year and we have not had to increase our staff to handle them. By making our meter readers much more productive they can do many other tasks, including changing out meters when they are not out reading.” ■



Badger[®] Recordall[®] Disc Model 70 with ORION[®] for Bayou Terrebonne Control Structure



Bayou Terrebonne Water Control Structure