

# Ice storm teaches lessons, cooperation

**O**n Tuesday, January 4, 2005, an ice storm swept across Kansas, prompting a disaster declaration for 56 counties. In Butler County, freezing rain coated trees and power lines, resulting in widespread power outages. Nearly 250,000 residents in the area were without power by the storm's end. Many of those power users were water systems. Not everyone was as prepared as we should have been.

The district I manage, Butler RWD 5 at Benton, was fortunate to find assistance when needed. Butler RWD 5 provides water to more than 5200 people through 1150 taps, including the supply to the City of Towanda.

Power at the office in Benton went off at noon, January 4. Thanks to the computer's having a battery backup, staff was able to view the SCADA (telemetry) system, even though other communication

was lost. Linda Hepburn, office assistant, kept the office open with the heat generated from a little shop propane heater. With power still available at the booster stations, staff was able to operate the water district manually. Luck was soon to change as during that night, ice laden tree branches and power lines started snapping. The lines went down and the power went out.

The district's's new 300,000-gallon storage tank in conjunction with the original 200,000-gallon tank at least provided the system enough water supply for a few

days. On Wednesday, January 5, the computer's battery back up was exhausted, ending utilization of the SCADA system. The shop propane heater kept the office from freezing. The original thinking was that the situation could be managed with determination and a couple of candles. A few hours of that and the cold simply won out. The district's maintenance man, Mike Roths, spent his time monitoring water levels at the tanks, checking power and assisting customers who called. Things however were steadily going downhill.

By Thursday morning, the district's water supplier, the City of El Dorado, had to bring a 250 hp pump on-line so water could be taken into the District system. However water could not be added to storage. Folks at Westar Energy heard from our office on numerous occasions, asking when power might again become available.

Between dealing with the water district issues, staff also had personal issues to contend with. In my case, I care for my mother, who was also without power. This generated a lot of hurried driving on icy roads, between my home and the office, to keep the fireplace going.

By 1 p.m. on January 6, the water district was within two or three hours of running out of water. It was apparent that power was not going to be restored. A

generator with enough capacity had to be found.

What happened next is nothing short of an incredible show of cooperation and generosity from government agencies, individuals and businesses. These entities came together to make sure water would continue flowing to district customers – many of whom had no idea that their water service was so close to being lost.

Butler County 911 had a generator available, but the job demanded a 60 kW, 480-volt, 3-phase generator; the unit available from 911 was not adequate. An electronic phone tree – with

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KRWA President



The 184<sup>th</sup> Air Refueling Wing (ARW), Kansas Air National Guard, Wichita, parked a fuel supply truck and operated a 60 kW generator for five days to ensure that Butler RWD 5 could continue water service during the January ice storm.

instructions to push this button and that button, answered calls to the National Guard. With fingers numbed from the cold—staff simply gave up on that process.

Having exhausted local and regional sources for a generator, the decision was made to order a generator from Central Detroit Diesel in Salina. The driver was to leave Salina at 6:30 p.m.

### **Air Guard brings equipment**

At 6 p.m., the office was notified by the Butler County Emergency Management Office that a generator had been located at McConnell Air Force Base in Wichita and the 184<sup>th</sup> Air Refueling Wing of the Kansas Air National Guard would be calling to advise of delivery. With that wonderful news, the order for the Salina rental unit was cancelled. The Kansas Air Guard also called to say that delivery of the generator and diesel fuel used would be without charge, plus Guard personnel would monitor it to make sure of continued operation. Hallelujah! What a relief to have equipment coming that would be able to pump water, and with no time to spare!

Three Kansas Air National Guard vehicles arrived at the pump station at 8:40 p.m. By 9:40 p.m., six Guardsmen and district workers had the generator wired in and operating. Water was being pumped!

Butler RWD 5 customers have the Kansas Army National Guard and district workers to thank for the operation of the generator that kept water flowing for the next three days.

Power was restored by the following Monday morning, January 10. It had been nearly a week since the power went off. Other cities and RWDs may have had outages that lasted longer – this was long enough as far as Butler RWD 5 was concerned.

### **Lessons learned**

The District has learned some lessons from this experience. First, the office now has a small generator in case of power outage. It'll be fired up periodically to ensure good operation for when it's needed. Second, the District is in the process of obtaining quotes for a generator to operate the main pumping station.

It is so important for water systems to know that if all sources at hand are exhausted and still need to obtain auxiliary power during an emergency, the County Emergency Management Office is the place to go for assistance. KRWA staff members referred several systems to those resources during this storm.

Another lesson taken to heart is the need to include these emergency numbers in an updated Emergency Response Plan (ERP).

And finally, an additional last lesson learned is that even though this was a near crisis for the district, as no water system wants customers to be without water, the district found that many people can work together within these emergency systems with an unselfish attitude of cooperation that ultimately gets the job done.

### **Attend, and learn**

*I want to take this opportunity to invite you to attend the 2005 KRWA conference. I especially want to invite cities and RWDs to*

*make sure that they have someone from their utility attend the session on Tuesday, March 29 beginning at 10 a.m.:*

*"Vulnerability Assessments for Small Water Systems in Kansas." This session includes a discussion on the preparation of Emergency Response Plans. A breakout session on the same topic will be held on Thursday, March 31 at 9:30 a.m. in Room 203.*

*KRWA staff work hard to help organize, manage and deliver one of the best conferences in the U.S. I think I can add that you won't find a better value. Not only is the program again loaded with outstanding topics that you can take home and put to immediate use, those who attend have the benefit of the largest shopping mall for water and wastewater products and services assembled at any one time in the Midwest. Put in some good down home fun, lots of food and warm hospitality, and the 2005 conference is sure to exceed anyone's expectations. It's your conference; make the most of it.*

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