



Being Prepared
BEFORE
the Next Disaster Strikes
*Water and Wastewater Agency Response
Networks Provide a Good Foundation*

By **Natalie Eddy**
NESCS Staff Writer

Maintaining safe drinking water and wastewater service for your community after a natural or human-made disaster—time consuming, difficult, and expensive. Being prepared with a Water and Wastewater Agency Response Network (WARN) plan in place before the next disaster strikes—priceless.

That commercial catch phrase sums up the peace of mind many water and wastewater plant operators are experiencing by implementing a new utility-helping-utility plan called WARN. Simply put, WARN is an agreement that allows neighboring water and wastewater treatment plants to cross jurisdictional boundaries enabling them to provide mutual aid quickly during and following an emergency, bypassing any bureaucratic red tape.

To date, 37 states have joined the network of utilities that will provide a fast response to help get water or wastewater utilities back online in the event of service interruption. The program's objective is to put into place agreements that will provide rapid, short-term deployment of emergency services to restore the critical operations of the affected water or wastewater utility.

"WARN is a very low-cost investment for utilities for a potentially high return on their overall operational mission to ensure continued service," says Kevin Morley, security and preparedness program manager with the American Water Works Association's (AWWA) government affairs office in Washington, D.C. "There is a certain tangible benefit to ensuring continuity of operation. It's part of the strategy of a utility's emergency operation plan."

An Oldie but Goodie

The idea of mutual aid enjoyed a resurgence after the Hurricane Katrina disaster when emergency response was negligible, but, according to Morley, the concept was not new. "I've been doing some research into journal archives and have found a series of articles in the mid-1940s where, primarily driven by similar economic circumstances and World War II, mutual aid was happening," Morley says.

Based on the necessary American frugal and cautious mindset of the times, utilities shared resources including staff, equipment, and materials during those difficult financial times to prepare themselves for potential catastrophic incidents.

"In my research I saw multiple discussions about this sharing being a great resource. Then, in the 1950s era of happy times when they didn't have the threat of war, the idea kind of waned away," he adds.

The concept resurfaced briefly in California in the early 1990s when several devastating earthquakes caused some service interruption issues for utilities. "The utilities realized they had to help each other. California is kind of the four seasons of disaster, facing challenges constantly," says Morley. "So, it was really the rebirth place of the modern WARN concept."

After hurricanes Katrina and Rita, the water sector began refining the concept of shared resources. Today's economic challenges and potential for disaster have breathed a renewed interest in the idea, and now history is repeating itself.

A similar program that encompasses all types of public utilities is already in place, but oftentimes isn't employed for the water sector.

The Emergency Management Assistance Compact Agreement (EMAC) between state governors provides assistance across jurisdictions. Established by Congress in 1996, the EMAC is similar to WARN providing interstate mutual aid agreements for sharing personnel, equipment, and resources.

However, Morley said that many times the EMAC is not implemented with respect to the water sector. "For whatever reason, they did not execute the EMAC agreements with either hurricanes Gustav or Ike," he said. "Traditionally, the EMAC has

been reserved for services like fire, police, and electricity. Water is a new dimension to the emergency management folks."

Getting Established

To establish a WARN, a state needs to have authorization from at least three utilities. "Once you get an agreement between more than two utilities, that's when the state goes green for WARN," Morley says. "A network has to be more than two. Typically, once three agree, more follow.

If Jacksonville, Orlando, and Tallahassee, leaders sign up, then you may have Tampa and Fort Myers entering. That's how it works."

A natural disaster also seems to spur enrollment in the program along, according to Morley. "When you have an incident, that's probably the biggest recruitment tool," he adds.

To accelerate the program's growth, AWWA created an action plan to assist utilities in developing a WARN program for their state. The action plan, titled "Utilities Helping Utilities: An Action Plan for Mutual Aid and Assistance Networks," has become the foundation of the present-day WARN program.

The document lists a checklist of 10 steps to start a mutual aid and assistance network:

1. Identify interest in starting a program to establish water and wastewater utility partners;
2. Form a leadership team to facilitate meetings and identify potential leaders;
3. Prepare a kickoff session regionally or larger for those utilities, associations, and response agencies that are targeted for membership;
4. Establish a steering committee to identify committee membership, confirm mutual aid and assistance criteria, and basic operational activities;
5. Identify a mission for the program and steering committee goals;
6. Review use of state regions to determine the need to organize the program into regions of the state;
7. Identify mutual aid and assistance activation criteria;

8. Draft an agreement to identify parameters and determine the need for legal review;
9. Create facilitation tools and training to deliver workshops; and
10. Maintain the program through regional and annual meetings, establishment of routine communication, and identification of possible funding.

Soon after the action plan was published, AWWA began a series of workshops across the country to bring together utility owners and operators to establish a WARN network, with key partners, such as state emergency management and water and wastewater officials.


"It's been two years of being on the road," says Morley. "All 50 states have participated in at least one of the workshops, if not more. Some states are further ahead than others."

The Backbone

Mutual aid assistance agreements are the backbone of the WARN program for states. These agreements provide a mechanism to establish a WARN. "Each state has different laws and regulations," says Morley. "States should try to look at the base model agreement; then part of it is to evaluate your own state's provisions that allow you to enter into a mutual aid agreement."

The mutual aid assistance agreement establishes a cost recovery process for utilities before a disaster strikes, and it also sets up the expectation for reimbursement unless otherwise agreed to. But it's up to the utilities if they want to charge the receiving utility. "If the two utilities decide to act upon reimbursement, that's their prerogative. If not, that's also okay. The provider may decide not to seek recovery," Morley says.

Any cost recovery that is invoiced is completely independent and not tied to any provision of funds from the state or federal government. In fact, one of the biggest benefits of joining a WARN is the revenue it can save a utility. "Maybe XYZ utility can't afford to have 20



West Virginia joins ranks of

WARN

West Virginia is among the latest states to officially join the ranks of the Water and Wastewater Agency Response Network (WARN) formed to help utilities become self-sufficient and respond to their community's needs during disasters.

The National Environmental Services Center (NESC) is a part of the steering committee to establish the network in the state. Zane Satterfield, an engineering scientist from NESC, says, "The goal of the program is to be prepared. WARN is a tool that will help utilities in times of disasters. If one utility is knocked out, it can get help from another for repairs."

Through mutual aid assistance agreements signed by participating members, utilities can provide rapid, short-term deployment of emergency services to restore the critical operations to other water or wastewater utilities in need of assistance.

Satterfield says there are several weather-related instances in which having the WARN program previously would have been helpful in West Virginia, including many of the flooding incidents that have occurred in the southern part of the state. "It's not just for natural disasters though," he adds.

"Having this system in place can help when there's a major line break at a small system that might not have the materials to fix it. Now all they'll have to do is contact another utility in the WARN system to get assistance."

Bonnie Serrett, chairman of the West Virginia WARN steering committee, says it took approximately a year for West Virginia to go "green" and become a member of the network. "We started out basically bringing in as many utilities as we could get interested, as well as advisory people," she says. "Those advisory people, who were from state and federal agencies and health departments, set the goals necessary to become a green WARN state. Next, we began to form different committees to reach those goals."

Similar to other WARN efforts around the country, key state leaders helped the project gain traction. In this case, Bob Hart and Craig Cobb, with West Virginia's Bureau of Public Health, were instrumental in getting WARN started and keeping it going.

As the project moved forward, committees were formed to address the needs of a setting up a Web site, developing a brochure, and refining the application process. "When we meet, each committee reports on their progress," Serrett says. "It has just been a group effort, not one person's individual work, but everyone working as a whole that has led to our success. Everyone was tickled to death the day we turned green. I feel proud of the fact that we got there in such a short time.

"My advice to anyone else is to not have an 'I' attitude," she advises. "For this to work, it has to be a 'we-as-a-team' attitude. You can't go in with the attitude that you have all the answers. It's listening and making everyone feel they are a part of the process that works. There can't be any egos."

Serrett adds that WARN will make it easier the next time disaster strikes. "The WARN program makes it easier to cut through a lot of the red tape and will make it easier. It will be easier to know which utility has which resource. If you need a big truck, you can find it much easier," she says. "It will especially help smaller utilities find what they need faster. It was not a hard sell at all. West Virginians understand that we need to be good neighbors and help each other."

For more information about the West Virginia WARN visit their Web site at www.wvwarn.org. You may contact Satterfield at (800) 624-8301 or Zane.Satterfield@mail.wvu.edu or Serrett at (304) 335-2035 or hpsd@frontiernet.net.

generators. They can only afford to buy five; but because they are part of the WARN program, they can bring in generators from neighboring utilities to cover their need," Morley explains.

Also, issues like workman's compensation, insurance, or damaged equipment are handled up front in the agreement. "Then you're not standing around wondering if you can or can't take a certain action," Morley says. "All the legal mechanisms have been worked out, and it

just becomes a process of communication."

Utilities are not mandated to provide assistance to their fellow utilities. "That's the beauty of the program. It's strictly voluntary. You're not obligated to provide help, but you can," he says.

Employee Relief

In addition to physical infrastructure, another valuable resource provided through WARN is employee relief. In the wake of a terrorism disaster like 911, WARN can be a big

help in providing time for employees to take care of their families or just to get some rest.

"During the 911 episode, there was a massive infrastructure failure. It was not just limited to the towers. The underground infrastructure was also damaged and that exceeded the capacity of the New York City water department," Morley recalls. "A WARN agreement can help manage an actual incident so employees can go home and deal with their own loss and issues of family."

National WARN Status Map



And this not only applies to terrorism; it may also be necessary with natural disasters, such as the Iowa floods. "A small utility might not have the recruitment to handle physical damage to their system," Morley observes. "Like when a hurricane occurs, a utility might not have the capacity of its own crews to handle the emergency, so they bring in workers from other utilities to help re-establish service. They can get the system stabilized in quick order and leave out all the mumbo jumbo legal stuff. You don't want to deal with that when the crap is hitting the fan."

"In the Des Moines and Cedar Rapids floods, major parts of the city had to be evacuated," he continues. "If you can bring in workers from another utility from an unaffected part of the state, that allows your employees to deal with the things they need to deal with. That's a huge benefit."

The WARN Identity

Although 37 states are now identified as WARN states, much work remains to be done. "We've paid for the car, now we've got to

do driver's education," Morely says. "A lot of it comes down to communications and understanding. How do we ask for and respond to each other with a request efficiently? It really is a partnership. We need to understand how we work with each other."

One method of ironing out the kinks of the program is to implement a universal supply list. Morley said enacting the WARN agreements sufficiently will require all utilities to use the same language. "Each utility has a different level of sophistication," he says. "At its basic form, communication is the optimal way a request should go out. For example, say one utility asks another utility for a telephone. The question is, are you looking for a punch-button telephone or a rotary? You need to be specific in what you're asking for."

To address this issue, AWWA is in the process of developing a resource manual to establish a common request list that identifies and sets parameters on resources to eliminate a lot of back and forth communication between utilities in a time of crisis.

Growth Rate

The WARN program has grown at a rate that was unanticipated and is adding members monthly, according to Morley. "We had no preconceived notion of how many states and utilities would recognize the value of this. We thought for sure we could get the Gulf Coast states, which have been hammered by hurricanes," he explains. "We knew those folks would see the value in the program, but we didn't anticipate states like South Dakota and North Dakota readily recognizing that they have needs like this too. There is no state in the union that is immune from natural disaster. Even taking terrorism off the table, nine times out of 10, utilities will be dealing with mother nature."

Morley said the water industry's ability to respond to a disaster has been greatly improved due to the WARN program. "I think we have significantly enhanced the water sector's capability to respond to an incident. Do I think it's complete? Absolutely not. There is still a lot of work to be done," he says. "In these difficult economic conditions, it's even more important for utilities to be part of a WARN. They are in a resource-strained environment. Whatever you can do to maximize resiliency, the better off you will be."

More Information

To learn more about WARNs, visit the AWWA WARN Web site at www.nationalwarn.org. AWWA has a sample WARN agreement on its Web site at www.awwa.org/Government/Content.cfm?ItemNumber=3837.

The guide "Utilities Helping Utilities: An Action Plan for Mutual Aid and Assistance Networks," may be accessed at www.awwa.org/files/Advocacy/Govtaff/Documents/Utilities_Helping_Utilities.pdf.

To help publicize WARNs, EPA has created a three-panel poster that can be downloaded from www.epa.gov/safewater/watersecurity/pubs/poster_warn.pdf.