

Coordination of the Water and Emergency Services Sectors: An Important Step to Better Response

Why is Water Sector Coordination with the Emergency Services Sector Important?

The services provided by the water sector, which includes both drinking water and wastewater utilities, are vital to the health, economy, and environment of a community. The water sector is vulnerable to many types of threats, such as natural disasters or man-made incidents that may disrupt normal operations. Disruptions to the water sector can impact communities in many ways, such as limiting the availability of water for firefighting and essential health care functions, as well as providing potable water for drinking and sanitation services. The consequences from an incident to the community will be reduced the faster these services can return to normal.

The emergency services sector is a network of services that provide functions such as law enforcement, emergency management, fire, and hazardous materials services. The emergency



services and water sectors rely on one another. For example, firefighters rely upon a pressurized water distribution system to supply water to fight fires. On the other hand, the water sector relies upon these disciplines to not only help protect water systems from disruptions, but also to respond and recover when incidents happen. For example, a water utility may rely on its local emergency management agency (EMA) to help supply bottled water during a service outage.



This fact sheet highlights why it is important for drinking water and wastewater utilities to establish working relationships with their local EMAs. Key aspects of this relationship are discussed, including why EMAs are important, suggested conversation topics with local EMAs, the benefits of the water sector-EMA relationship, how utilities can be better prepared, and why water sector services are important to EMAs.



What Are Some of the Vital Functions Utilities Provide?

- Safe drinking water and wastewater sanitation services for local businesses, industries, and hospitals as well as water for firefighting
- Alternate drinking and wastewater services when primary services are lost
- Public health protection by working with state and local agencies to provide water advisories to the community
- Support to other utilities during an emergency through mutual aid and assistance

Why Are Local Emergency Management Agencies Important?



Local emergency management agencies (EMAs) coordinate risk reduction, preparedness, response, and recovery from emergencies and disasters such as droughts, floods, hurricanes, tornados, wildfires, earthquakes, terrorism incidents, or hazardous materials spills in your community. In carrying out their mission to provide protection to citizens and property, EMAs will typically provide guidance and assistance to county and local governments, businesses, and nonprofit organizations. Local EMAs work to increase communities' resiliency in the face of disaster. Your EMA uses strategies such as planning, training, exercises, and public education to carry out its mission.

During an emergency, your EMA can provide you with valuable assistance. One very important action your EMA can take is to help you find a resource you may need during an emergency. For example, if the power is out and you need a generator, and you cannot get the generator you need from your mutual aid and assistance partners or local rental company,

then you should work with your local EMA. Your EMA may be able to locate the resource locally or, if necessary, the EMA can transfer your resource request up to the regional, state, and even federal level. Utilities should talk with their local EMA before an emergency occurs to see what kinds of assistance their EMA can offer.



During large emergencies, your local and/or state EMA may activate an Emergency Operations Center (EOC) to coordinate response activities. It is important that you know how to contact the EOC in addition to the EMA offices. You may also want to discuss water sector representation at the EOC with your EMA director or emergency management coordinator. For example, in some states representatives of the Water and Wastewater Agency Response Network (WARN) help staff local and/or state EOCs. This can greatly aid in the flow of incident related information between local utilities and the EOC, as well as help to efficiently and effectively locate needed water sector resources.



What Should I Talk about With My EMA?

You will find it helpful to introduce yourself to your EMA director or emergency management coordinator prior to an emergency. A breakfast or lunch meeting may be a good way to get the conversation started. In addition, the checklist below will help you identify some items that should be coordinated with your EMA before an emergency strikes. Be sure to take the last page of this document with you. It will help you to get a conversation started and provides an easy way to leave your phone number with your emergency management representative.

Item	Discussed?
1. Exchange on- and off-duty contact information (e.g., office numbers, cell phone numbers, email addresses)	
2. Location of your critical infrastructure (e.g., pump stations, intakes, outfalls)	
3. Conduct a tour of your utility (e.g., treatment processes in place, chemical use and storage, equipment, location of critical infrastructure, security procedures)	
4. Notification, alert, and communication systems used by the EMA in which you may wish to be included	
5. First responder credentialing <ul style="list-style-type: none"> • Is there a first responder credentialing effort underway by the EMA? • How will your utility staff identify themselves and gain access to restricted areas, if necessary? 	
6. Representation at the EOC <ul style="list-style-type: none"> • Does a local water utility staff member report to the EOC when it is activated? • If not, why not, and would it be helpful if someone did? 	
7. Conduct a tour of the EMA's EOC (e.g., location, agency representation, how and when activated, communication procedures, information flow)	
8. Alternate drinking water and sanitation plans <ul style="list-style-type: none"> • What plans does the EMA have? • Can your utility help with these plans? 	
9. Emergency plans and procedures <ul style="list-style-type: none"> • How do the community's or EMA's emergency response plans (ERPs) address drinking water or wastewater emergencies? • Have you compared these plans with your ERP to ensure consistency? 	
10. Participation on the Local Emergency Planning Committee (LEPC) <ul style="list-style-type: none"> • When and where does the LEPC meet? • Is there water sector representation at the LEPC? • If not, why not, and would it be helpful if someone from the water sector attended? 	



What Benefits Have Other Water Utilities Realized by Establishing Relationships with the Emergency Services Sector?

Funding Security Improvements

Every year the Delaware Emergency Management Agency announces funding sources through its Public Works Working Group. This group includes representatives from public works, emergency services personnel, and the Wilmington Water Department. The water department attended the working group meetings and participated on task forces. When the Working Group submitted an application to the Department of Homeland Security (DHS) for a block grant, \$173,000 was requested for the water department. The Working Group was successful in obtaining the grant, and the water department used its share to purchase software, chemical test kits, locks, ladder guards, and an emergency generator.

Funding Training

The Director of Water Treatment at the South Bend Water Works in Indiana took on the role of Emergency Planner at his utility, and he began to attend his county's LEPC meetings. The LEPC controlled federal preparedness grants received from the DHS, and most LEPC meetings were typically attended by local fire, police, and HazMat representatives, who decided how the grants funds would be spent. After a couple of unsuccessful attempts, the South Bend Water Works was able to secure a \$10,000 education grant from the LEPC to host two Incident Command System (ICS) trainings. The trainings were open to all first responders in the county, but the majority of attendees were from the South Bend Water Works.



Locating Resources

In advance of a brutal regional ice storm, the power company shut down the electrical grid serving the Cherry Valley/Rochdale Water District in Massachusetts. The Water District's emergency generator began to supply its electrical needs, but the generator failed within 24 hours. Since the superintendent of the district had established a good working relationship with his community's emergency management director, he knew that the incident planning meeting would occur at the EOC in a few hours where he could make this resource request. Once the superintendent briefed the emergency management director on the situation during the incident planning meeting at the EOC, the EMA director immediately contacted the state's regional EMA. The regional EMA then contacted the water superintendent directly to determine the kind and type of generator needed. Within an hour the generator was located and staged for the District. Power was soon restored and the Water District released the generator for use elsewhere within the incident area.



Building Relationships

Newport News Waterworks in Virginia takes security seriously, especially since its facilities are surrounded by five military installations and a nuclear power plant. The security and compliance manager at the waterworks wanted to strengthen ties with local law enforcement and made an effort to establish relationships with the five law enforcement jurisdictions where the waterworks owns property. At informal meetings, the waterworks and law enforcement agencies exchange intelligence information and coordinate their emergency response plans. Currently, police help the waterworks by providing increased patrols and security as needed. In exchange, local SWAT teams train on waterworks property.



Helping the Community

In preparation for a significant snow storm during the 2010 winter, a major east coast city contracted for additional snowplows. During a scheduled multi-agency coordination conference call at the city's EOC, the Highway Division realized that it would be very difficult to control and monitor all of the contracted snowplows that had been deployed. Although not typically involved in snow removal operations, the city's wastewater treatment plant provided drivers, radios, and 4x4 vehicles to follow, direct, and report on the contracted snowplows. This solution allowed the city's EMA to place its focus on more pressing public health issues such as establishing shelters for those without power and heat.

Tip: Page 8 can be given to your EMA director, emergency management coordinator, and other first responders when you meet with them. Make as many copies as you need.

What Do I Need to Do to Be Better Prepared?

Preparedness is achieved and maintained through a continuous cycle that includes planning, training, and exercising. Many programs and resources exist to help support the ongoing preparedness efforts of the water sector and those involved in emergency management and incident response activities to ensure coordination during times of crisis.

Planning

Emergency response plans (ERPs) describe the actions that a drinking water or wastewater utility would take in response to major incidents, such as natural disasters or man-made emergencies. All drinking water utilities serving over 3,300 customers are required to develop and/or update their ERPs under the Bioterrorism Act of 2002. EPA and other water sector associations have developed guidance documents to help utilities comply with the requirements of the Bioterrorism Act and to support other types of emergency response planning. You can find these resources at <http://water.epa.gov/infrastructure/watersecurity/emerplan/index.cfm>. ERPs should be coordinated with other response partners in the community, including your local emergency management agency and Local Emergency Planning Committee (LEPC), so that everyone is aware of each other's roles and responsibilities to return water services back to normal.

Training

The National Incident Management System (NIMS) outlines steps that all first responders need to take

to be prepared to react to emergencies, incidents, and disasters. The first step is training. All domestic incidents in the United States are managed under NIMS through the Incident Command System (ICS). The Incident Command System allows first responders from different backgrounds to work together under a shared management system. In addition to NIMS and ICS training, utilities should conduct training to familiarize staff with utility documents such as the Emergency Response Plan (ERP), business continuity plans, and other procedures and protocols that utility staff must follow during an emergency. The table below will help you to determine which NIMS and ICS trainings you should complete. The table is to be used as a guide only; utility management will ultimately decide the appropriate training for their staff.

All training can be completed for free online at <http://training.fema.gov/IS/NIMS.asp>, except for ICS-300 and 400, which must be taken in a classroom setting. The U.S. EPA offers classroom training tailored for the water sector for all the courses listed below, see <http://www.horsleywitten.com/workshops.html>. Additional information about these trainings can be found at <http://water.epa.gov/infrastructure/watersecurity/emerplan/index.cfm>. Your local or state emergency management agency may also offer ICS and NIMS training. In addition, water and wastewater utility employees are eligible to attend resident training at the Emergency Management Institute or the Center for Domestic Preparedness and have their travel expenses covered.

At my utility I am a:	Staff Member	First Line Supervisor	Emergency Planner	Middle Manager	Senior Manager
I should complete training* for:					
Introduction to NIMS (IS-700a)	•	•	•	•	•
Introduction to the NRF (IS-800b)			•		•
Introduction to ICS (IS-100b)	•	•	•	•	•
Initial Action Incidents ICS (IS-200b)	•	•	•	•	•
Intermediate ICS (ICS-300)			•	•	•
Advanced ICS (ICS-400)			•		•

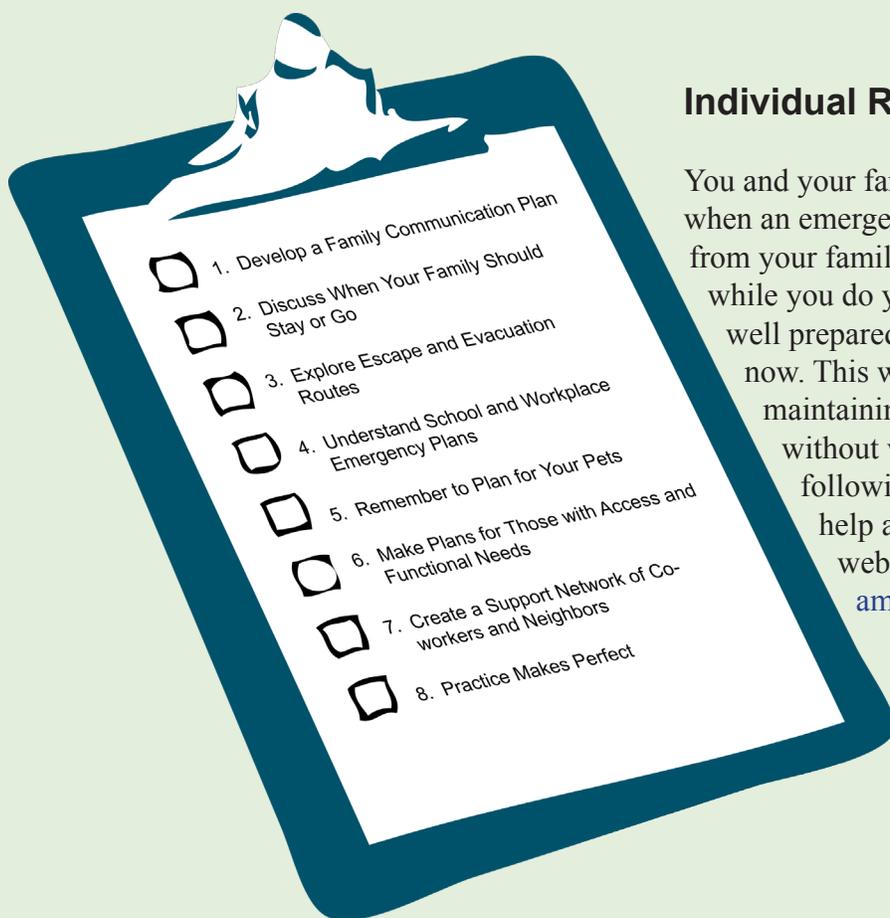
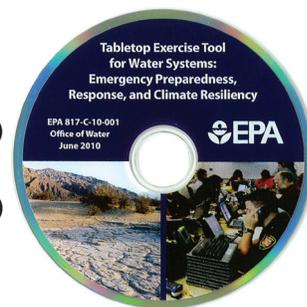
Exercises

Exercises help utilities assess, practice, and improve prevention, protection, response, and recovery capabilities in a risk-free environment. Exercises test your emergency plans, protocols, and procedures and identify what actions you may need to take to be better prepared.

Multi-agency, multi-jurisdictional exercises provide opportunities to meet people from outside agencies with whom you will likely work during a larger emergency (e.g., fire, law enforcement, public health, emergency management). Before an incident occurs, you will want to be sure that you get to know these people and learn about their emergency response plans, capabilities, and procedures.

You can learn more about exercises and how to conduct your own by using U.S. EPA's Tabletop Exercise Tool at <http://water.epa.gov/infrastructure/watersecurity/techtools/ttx.cfm>.

Additionally, you should always check with your local emergency management agency (EMA) and your local emergency planning committee (LEPC) to see what exercises they are conducting. With some advance notice, they can probably include a role for your utility in their exercises. Remember, they rely on water and wastewater services as a part of their response efforts. It is essential that they know about your utility's emergency plans and procedures.



Individual Readiness

You and your family may be in different locations when an emergency occurs, and you may be away from your family for an extended period of time while you do your job. Make sure your family is well prepared by creating an emergency plan now. This way, you will be able to focus on maintaining or restoring utility operations without worrying about your family. The following planning checklist should help as well as the “Ready Responder” website at <http://www.ready.gov/america/getakit/responder.html>.

ACTION:

Drinking Water and Wastewater Utilities should provide this page to their local Emergency Management Agency.

Why Are Water Sector Services Important to Emergency Management Agencies?

Imagine trying to do your job during an emergency without water or wastewater services. It would be hard to put out a fire without water pressure at the fire hydrants. Decontamination activities require a reliable source of water, and hospitals rely heavily on water and wastewater services to maintain sanitary conditions for patients. It would be difficult to open shelters without water and wastewater services.

The water you drink and the wastewater you flush all have to come from and go somewhere. Your local water utility treats water to drinking standards and distributes it to you via a network of pipes that you may not see since most of them are underground. The water you flush or that leaves your home through a drain, in many cases, goes to a wastewater utility that treats the wastewater to environmental standards before releasing it into a river or stream. Since so much water and wastewater infrastructure cannot be seen and the services provided are so reliable, it's easy to forget these facilities exist and are essential for daily life, as well as response operations. Utilities are vulnerable to man-made and natural disasters just like any other essential infrastructure in the community; remember, many utilities store hazardous chemicals on-site.

How Does the Water Sector Help the Emergency Services Sector?

The water sector plays an important role during response by providing safe drinking water and wastewater sanitation services, two critical and basic human needs. In addition, through the Water and Wastewater Agency Response Network (WARN), the Water Sector has its own mechanism to exchange sector-specific resources during an emergency. This frees emergency management personnel to focus on finding resources needed by "traditional" first responders such as police, fire, and emergency medical services.

Be sure to reach out to your water and wastewater utilities. Find out the provisions of their Emergency Response Plans, and identify the type of support they may need during an emergency. Go on a tour of their facilities and find out where their critical infrastructure is located. Knowing where water infrastructure is will help you to determine if a traffic accident, chemical release, or other incident may affect their operations and consequently public health.

Water Utility Operator: _____

Contact: _____

Wastewater Utility Operator: _____

Contact: _____

Case Study

The Pennsylvania Department of Environmental Protection (DEP), in conjunction with U.S. EPA Region 3, is conducting water sector tabletop exercises in all 67 counties of the state. The goal of these exercises is to enhance coordination and communication between drinking water and wastewater service providers and other emergency responders, and improve the agencies' understanding of each others' emergency roles and responsibilities during a water or wastewater incident.

At one exercise, a county EMA representative learned that a local water utility bottled its own water. Shortly after the exercise, three redundant private water systems at a local nursing home simultaneously failed, and the facility called their EMA to locate an alternate source of drinking water for its residents. Because the EMA attended DEP's exercise, EMA knew to contact the utility to provide bottled water to the nursing home until its water system could be restored.