

BRIDGING THE GAP: Coordination between State Primacy Agencies and State Emergency Management Agencies

Water is essential for life. Manmade and natural disasters can significantly impact drinking water utility operations which, in turn, can affect the ability of a community to recover and resume normal life. When the severity or duration of disasters exceeds the ability of a water utility to respond and/or recover, often, they will turn to their state drinking water programs for support and assistance.

State drinking water agencies (or state primacy agencies) have statutory responsibilities to ensure that public water supplies meet all national primary drinking water regulations to achieve the goal of public health protection. State primacy agencies are well positioned to support water systems by providing advice on public health protection issues, furnishing resources and technical assistance, and offering guidance and direction on how best to mitigate the impacts of lost or diminished service.



State emergency management agencies (or EMAs) work with all levels of government to meet needs related to preparedness, response, recovery, and mitigation of impacts from disasters. Sometimes state emergency management agencies will be notified about state primacy and water utility resource needs. These two agencies have many of the same goals – protecting public health, ensuring the restoration of essential services, and reducing the risks faced by citizens in times of crisis. Yet, in many jurisdictions, these agencies have worked in isolation rather than in collaboration. These two agencies need to strengthen their collaborative efforts to support the needs of the public that they both serve.



“Bridging the Gap: Coordination between State Primacy Agencies and State Emergency Management Agencies” focuses on collaborative opportunities between public water and emergency management when an incident requires state involvement. The U.S. Environmental Protection Agency (EPA) has published a companion document entitled [“Coordination of the Water and Emergency Services Sectors: An Important Step to Better Response,”](#) (EPA 817-K-12-001) which provides helpful information to local water systems and local emergency management agencies on pre-incident planning activities. This “Bridging the Gap” effort expands the scope of coordination beyond the local level. This greater level of coordinated response will ensure that the most effective and efficient response is provided, that public health is protected, and that the affected communities can return to normal as quickly as possible.

Why Is Water Infrastructure Important?

Following an emergency incident, the restoration of drinking water infrastructure is vital to a community's recovery. Water systems provide safe drinking water for residences, local businesses, industries, and hospitals. Without a pressurized water distribution system, fighting fires becomes extremely challenging for local fire departments. Without potable water, community recovery is not possible.

What Does Water Infrastructure Need to Maintain Operations?

The water sector depends on other critical infrastructure sectors that help keep water systems running properly.

- Chemical – for disinfection and other treatment processes
- Transportation – for delivery of chemicals for treatment and fuel to power equipment and to enable employees to commute to their jobs
- Energy and Electricity – to power pumps and motors
- Communications – to maintain Supervisory Control and Data Acquisition (SCADA) systems

These dependencies must be considered when responding to an incident. Emergency responders need to understand where critical water facilities are located and what type of support they need to maintain operations.

What Types of Support Can State Primacy Agencies Provide before and during an Emergency?

State primacy agencies have both regulatory and non-regulatory responsibilities before, during and after an incident. As the agency responsible for administering the Safe Drinking Water Act (SDWA) in a state, the primacy agency is a vital component of water system resiliency during drinking water emergencies. Broadly, state primacy agency responsibilities can be grouped into three categories:



- **Compliance:** may include providing guidance to water systems on how to maintain statutory and regulatory compliance during a water service interruption. They can also direct drinking water utilities to issue unsafe water notifications (for example, boil water notices), and to cancel them when warranted.
- **Laboratory Services:** may include state guidance on sampling and laboratory analysis protocols. In addition, if a utility's lab facilities are out of service, the primacy agency can provide assistance with sample analysis or direct the utility to appropriate laboratory support services.
- **Damage Assessments:** may include assigning state personnel to help the utility assess facility damages to determine the severity, duration, and criticality of impacts to the facility's operation. State personnel may also help to identify the types of assistance and documentation needed in requesting state or Federal financial support or resources.

In addition, state primacy agency personnel can provide a variety of specialized knowledge and skills related to water systems, including:

Technical Support

- Providing knowledge of water systems components and limitations to help evaluate operational response options,
- Supporting threat assessments of potentially impacted water systems,

- Providing water sampling kits and field testing equipment,
- Helping to identify certified labs,
- Providing guidance and requirements for potential alternate water supplies, haulers, treatment, and interconnections, and
- Providing information on disinfection, decontamination, and flushing procedures.

Representation at the State Emergency Operations Center (EOC)

- Providing regulatory oversight and guidance in protecting public health,
- Sharing information with other agencies located in the EOC, including public health agencies and officials, EPA and water agencies,
- Supporting water system mutual aid and assistance efforts and interstate requests through coordination with the state Emergency Management Assistance Compact (EMAC) representative,
- Advising on water system response protocols and documentation,
- Providing situational awareness including status reports on affected water systems,
- Advising on resource allocation, availability, and identification of gaps, and
- Issuing and, when appropriate, cancelling unsafe water notices.

Incident Management Support in the Field

- Providing mapping and GIS locations of critical system components,
- Providing facility inventory and contacts at the system,
- Supporting public information and Joint Information Center (JIC) coordination, and
- Advising on water-related response objectives and priorities for the Incident Action Plan.



WARN Coordination

State-based Water and Wastewater Agency Response Networks (WARNs) can be key partners in state water sector response planning. Many state primacy agencies and state emergency management agencies support WARNs by providing input into WARN plans and procedures and by helping integrate the “utilities helping utilities” concept into the state’s response efforts. During large incidents, coordination among utility responders through WARNs, state and federal responders is important to ensure support is provided efficiently and effectively.

WARN Coordination - North Carolina

In North Carolina, the primacy agency has been actively involved in the NCWaterWARN. The primacy agency provided support to help get the program set up as a direct and effective way to deploy resources. The primacy agency serves on the advisory board of the NCWaterWARN, which allows them to report about water sector response progress to other emergency management partners.

Financing

State primacy agencies with active financing programs for water system infrastructure may be able to provide assistance to communities that have lost critical infrastructure. Agencies that administer EPA Drinking Water State Revolving Fund programs, for example, might be able to offer short-term loans for repairing/replacing disaster-damaged water and wastewater infrastructure to communities that will ultimately receive reimbursement from FEMA or other agencies.

What Types of Support Can Emergency Management Agencies Provide before and during an Emergency?

Planning, Training and Exercises

Each state has an overarching state emergency response plan that describes how the state will respond to a variety of incidents. It is important for the state primacy agency to coordinate with the state EMA to understand how water is addressed in this plan, and how it is integrated with response planning documents that are maintained by the state primacy agency.

Planning – Montana

In 2006, the state of Montana established the Water and Wastewater Critical Infrastructure Committee (WWCIC), which includes water and wastewater systems, emergency responders, public health, water agencies, the primacy agency, and law enforcement agencies. This multi-disciplinary group initiates necessary policies and acts as a water and wastewater contact to assist in collaboration of response planning. This committee streamlines information and facilitates all hazards response planning and information sharing. This group supports a variety of collaborative efforts including quarterly training webinars, annual in-person meeting, and fostering the development and support of Montana WARN.



State EMAs may offer training such as Incident Command System concepts, field equipment use, and EOC staffing.

Training – Tennessee

Tennessee Emergency Management Agency annually holds a 3-day Emergency Services Coordinator (ESC) Workshop at a Tennessee State Park. The workshop provides an opportunity for ESCs to practice their response to a major disaster in tabletop exercises and emergency response presentations. Primary and Alternate ESCs for all state departments, including Drinking Water Supply and Water Pollution Control (Wastewater) attend this workshop.

State Level Coordination

Both before and during an emergency, the state EMA can provide guidance and coordination among various state agencies such as health, environmental protection, emergency services, and police, as well as with WARNs and public utilities. The EOC can be a focal point of this coordination, and the state EMA can assist with multi-agency planning efforts.



EOC Coordination – Tennessee

During the flood that impacted Nashville, Tennessee, in May of 2010, the Drinking Water Supply ESCs staffed the state EOC 24/7 for four days and coordinated the collection of drinking water system operational status from regional field office staff via email and telephone. EPA Region 4 assisted field staff in collecting and documenting water system status reports. Boil water notices were tracked daily and reported to the Department of Environment and Conservation Public Information Officer (PIO).

Requesting Federal Assistance

During an incident covering an expansive area or a large number of facilities, there will be an increased demand for assistance. When local resources are exhausted, requests for assistance may go to the state and federal levels. The state EMA can help utilities and local EMAs coordinate with the Federal Emergency Management Agency (FEMA). FEMA may be able to offer assistance directly, or direct the request to another federal agency. State primacy agencies can position themselves to serve as resource agents to support state EMA or federal agency needs. Further, the state primacy agency can be the focal point of coordination with respect to federal funding through EPA.



Based on previous response experience and observations from past disasters, there are three general types of assistance that states have requested for the water sector:

- Water sector liaison(s) at the state EOC or primacy agency to help coordinate resource requests, coordinate efforts between the various local, state, and federal agencies involved, and to help the state understand and navigate the “federal system”.
- Water sector technical assistance and expertise to augment state personnel and help manage response and leadership for the sector.
- Goods or services for water utilities to begin initial restoration of services. This can include items such as bulk water, portable generators, temporary storage, treatment chemicals, treatment units, bypass pumps, and other commodities that cannot be acquired locally immediately after the disaster strikes.

State EMAs receive targeted federal funding to help communities prepare for and respond to an emergency. These funds may be a part of the regular state budget and are often augmented by funding from the U.S. Department of Homeland Security (DHS) or FEMA. The state primacy agency should coordinate with the state EMA to identify whether any of this funding is available to support water sector preparedness. In addition, state primacy agencies may be able to participate in the activities that this funding provides such as training, exercises, or response equipment purchases.



Other Support EMAs Can Provide

- Identifying alternate sources of drinking water
- Coordinating with other agencies to help with interdependencies
- Arranging for debris removal
- Coordinating primary restoration services
- Identifying sources of generators
- Developing appropriate messages for the public



Responding to an Incident – Pennsylvania

A water facility in Pennsylvania was without power for several days due to a snowstorm. The Pennsylvania Emergency Management Agency, Pennsylvania Department of Environmental Protection (the state primacy agency), and Pennsylvania WARN coordinated with the Pennsylvania Department of Transportation and the Public Utility Commission to plow snow off the facility's pump station access road and get the facility listed as a priority for restoration of electric services.

Responding to an Incident – California

In the 2010 El Sierra Mayor earthquake near Calexico, CA, water sector representatives engaged California WARN to assist the local water system in response and recovery of their water treatment plant. The water treatment plant was severely damaged and a temporary treatment technology was secured to help restore operations. The California Department of Public Health, Division of Drinking Water and Environmental Management (the state primacy agency) reviewed and approved the changes and modifications to assure that safe, wholesome, and potable water was delivered reliably and adequately. The state primacy agency also conducted inspections and assessments of the affected water infrastructure in the area and shared the information with the state EMA to support incident response planning.



What Should Primacy Agency Staff Discuss With Their EMA?

You will find it helpful to introduce yourself to your EMA director or emergency management coordinator prior to an emergency. The checklist below will help you identify some items that should be coordinated with your EMA before an emergency strikes.

	Discussed?
Coordination with state EMA to understand how water is addressed in the state Emergency Response Plan (State ERP)	
Integration of the State ERP with response planning documents maintained by the state primacy agency	
Coordination with the state EMA to identify whether any federal funding is available to support training and exercises for water sector preparedness	
Coordination with the state EMA to identify whether any federal funding is available to support response equipment purchases for water sector preparedness	
Participation in preparedness and response training and exercises sponsored by the state EMA. Encourage state EMAs to incorporate water-related scenarios, injects, and discussion questions into state tabletop and full-scale exercises	
Coordination with the state WARN program	
Coordination on staffing of a water desk in the state EOC	
Collaboration with the state EMA on multi-agency planning efforts	
Collaboration with the state EMA before and during an emergency to coordinate with state agencies such as health, environmental protection, emergency services, police, military affairs, and general services, as well as WARNs and public utilities	
Deployment of a resource agent to support state EMA or federal agency needs on requests for federal assistance; covers the following: <ul style="list-style-type: none"> – Water sector liaison(s) at the state EOC or primacy agency – Water sector technical assistance and expertise to augment state personnel – Goods or services needed for the utility to begin initial restoration of services 	

Notes:

Pulling it All Together – How to Be Better Prepared

State primacy agencies and EMAs can and should work collaboratively to develop and exercise planning documents and checklists that will enable them to function together more effectively when the need arises. The case study below shows how North Carolina has considered its needs and outlined responsibilities.

Understanding Each Other's Roles and Responsibilities – North Carolina

North Carolina maintains an Emergency Operations Plan that describes who has what responsibility in different types of incidents. Having this type of detail in a response plan allows the state EMA (i.e., The NC Department of Public Safety) and the State Primacy Agency (i.e., The NC Department of Environment and Natural Resources - NCDENR) and the Drinking Water Primacy Division (i.e., The Public Water Supply Section of the Division of Water Resources) to better coordinate their responsibilities. The following is suggested language to describe those responsibilities and relationships.

- A. Emergency Management Agency:** The EMA has state-wide and primary responsibility in preparing for and managing emergency operations. The EMA maintains an Emergency Operations Plan that serves as a framework for the preparation of emergency plans by state agencies and local governments. The EMA has overall state responsibility for coordinating the State Emergency Response Team (SERT) and providing direction for emergency response. Any state department or agency may be asked to provide emergency support once a disaster or emergency has been declared.
- B. State Primacy Agency:** State Primacy Agency responsibility is within a state Department that has varied responsibilities and programs including the drinking water program. Implementation of most State Primacy Agency responsibilities is delegated to the Drinking Water Primacy Division (i.e., The NCDENR, Public Water Supply Section of the Division of Water Resources). The State Primacy Agency has primacy responsibility for coordination and communication with the EMA and provides the Drinking Water Primacy Division with information regarding emergency situations that threaten public water systems.
- C. Drinking Water Primacy Division:** The Drinking Water Primacy Division provides public water systems information regarding the status of emergency situations and provides assistance with the following:
- Determine appropriate response and mitigation measures.
 - Complete damage assessments and communicate information to response agencies including the EMA and the State Primacy Agency.
 - Develop and distribute appropriate water use restriction advisories or notices.
 - Coordinate with local health departments to alert them to conditions at public water systems.
 - Coordination with Water Agency Response Network (WARN).
 - Provide technical assistance and guidance for sampling and analysis.
 - Provide access to assistance from the State laboratory.
 - Verify water quality before returning impacted facilities to service.

For Additional Information To learn more about your state drinking water primacy agency, please visit water.epa.gov/infrastructure/watersecurity/links.cfm#sdwp.

To learn more about your state emergency management agency, please visit fema.gov/regional-operations/state-offices-and-agencies-emergency-management.

To learn more about EPA's Water Security programs, please visit epa.gov/watersecurity or contact WSD-outreach@epa.gov.