EPA United States Environmental Protection Agency

Water and Emergency Services
A Critical Community Interdependency

What are Water Sector Interdependencies?

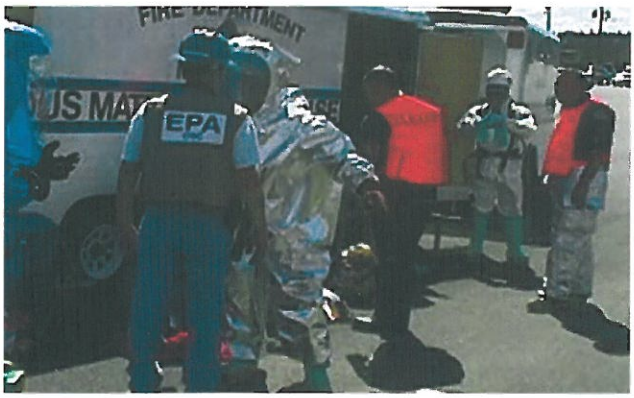
Many critical emergency services and functions rely on water services to operate. For example, firefighting capabilities would be jeopardized if water were unavailable. Similarly, the Water Sector (drinking water and wastewater infrastructure) relies on a number of emergency services to ensure that water infrastructure is secure in the face of natural disasters and manmade threats. This relationship is considered an *interdependency*.

Both Water and Emergency Services have been designated as Critical Infrastructure/Key Resources (CIKR) sectors by the U.S. Department of Homeland Security (DHS). As such, the protection and security of water and emergency services infrastructure is a national priority. Recognizing the *infrastructure interdependencies* between the Emergency Services Sector (ESS) and Water Sector, and accounting for them in emergency planning at the local, state, and national levels, are critical to mitigating the negative impacts of water service interruptions, or interruptions in emergency operations.

Overview of Emergency Services Infrastructure

ESS is a network of preventative, response, and recovery services, of which there are five main functions: Law Enforcement; Fire and Emergency Services; Emergency Management; Emergency Medical Services; and, Public Works.

Additionally, ESS is responsible for specialized functions, including: Hazardous Materials (HazMat), Search and Rescue, Explosive Ordnance Training, Special Weapons and Tactics and Tactical Operations, Aviation Units, and Public Safety Answers Points.



Examples of Emergency Services and Water Sector Dependencies

Emergency Services Sector Dependencies with the Water Sector include:

- **Fire and Rescue** – Provide water for firefighting
- **Emergency Medical Services** – Sterilize on-scene medical equipment and hydrate emergency medical technicians (EMTs), paramedics, and accident victims
- **Emergency Management** – Provide drinking water and wastewater services for emergency shelter operations

Water Sector Dependencies with Emergency Services Sector include:

- **Law Enforcement** – Protect water infrastructure; investigate criminal acts at water utilities sites (vandalism, contamination, or trespassing)
- **Emergency Medical Services** – Respond to public health impacts of water service interruptions, particularly for consumption of contaminated drinking water
- **HazMat Response** – Handle and dispose of contaminated surface, ground, or drinking water
- **Emergency Management** – Coordinate water emergency response and recovery efforts

Tips for Strengthening Emergency Services Sector Resiliency

- Collaborate with local water utility personnel to incorporate alternative water supply strategies into emergency plans
- Identify critical water and wastewater infrastructure for local emergency services personnel
- Develop interoperable communications between the sectors
- Standardize equipment to facilitate mutual aid (e.g., fire hydrants)
- Include the Water Sector in responder badging and credentialing programs
- Conduct emergency exercises in which potable water is limited or not available
- Invite the state primacy agency and water utilities to participate in exercises and/or ask to participate in exercises conducted by the state primacy agency or water utilities in your region
- Designate representatives from the local water utility to work in the Emergency Operations Center (EOC) or ask for a representative to join the Local Emergency Planning Committee (LEPC)
- Train and educate first responders and other emergency service personnel on water emergency planning using available tools and resources, including:
  - Water-specific Water Sector Incident Command System (ICS) and National Incident Management System (NIMS) training[1]
  - Tabletop Exercise Tool for Water Systems: Emergency Preparedness, Response, and Climate Resiliency
  - *A Water Security and Emergency Preparedness Training Workbook for Law Enforcement*
  - *Water Security Handbook: Planning for and Responding to Drinking Water Contamination Threats and Incidents*

The U.S. Environmental Protection Agency (EPA) Community-Based Water Resiliency (CBWR) initiative provides communities with the tools necessary for launching a water resiliency program. This initiative was implemented to increase the awareness of interdependencies with the Water Sector and provide a comprehensive approach to water preparedness and community resiliency.

CONTACT US For more information on Emergency Services and Water Sector interdependencies and the CBWR initiative, please contact **WSD-Outreach@epa.gov** or visit us at **http://water.epa.gov/infrastructure/watersecurity**.

[1]For information on ICS and NIMS training for the Water Sector, please visit: http://water.epa.gov/infrastructure/watersecurity/emerplan/index.cfm#nims