

PrepTalks Discussion Guides help to translate the research and expertise showcased by the speakers into action steps that emergency managers can take with community leaders and citizens to improve disaster preparedness and resilience in their jurisdictions. The PrepTalks emergency management partners develop the Guides for use at meetings, conferences, or other outreach events in combination with PrepTalk Videos.

Philip R. Mann – Public Works & Emergency Management: Restoring Lifeline Services

Mann has spent his career in public works, and his PrepTalk highlights the range of services provided by a community's public works department before, during, and after a disaster. In his PrepTalk, Mann shares his most important piece of advice for response and recovery:

"[getting] our citizens back to their normal life ... and to do that the most efficient way is if police, fire, and public works work together."

Mann is the Public Works Director for Gainesville, Florida. He is the past Chair of the [American Public Works Association's \(APWA\) Emergency Management Committee](#) and is APWA's representative to the Public Safety Advisory Committee, which is working on the FirstNet project (developing the first high-speed, nationwide wireless broadband network dedicated to public safety).

Lifeline services are critical to the operation and functioning of the community. [Lifelines] provide the basic amenities not only to our citizens, but also to our first responders.

— Philip R. Mann

Partners for the Discussion

Mann's PrepTalk helps illustrate the role of public works in communities and how public works is an asset during any disaster. We encourage emergency managers to bring together elected officials and leaders and staff from emergency management; public works; and police, fire, and emergency medical services to view the video and discuss the the topic. Use this discussion guide to identify ways to improve relationships with public works and emergency personnel, implement best practices, and focus on developing resilient community infrastructure.

Discussion Prompts

Topic 1: The Role of Public Works in Communities

Public works services are considered "must haves" in every community, but they may not be readily identified on a city organizational chart, delivered in the same way, or the same level from one community to the next. In fact, some municipalities may not even have a department named public works. Although some functions are not common to every community, each of them will certainly have water, utilities, and trash collection, but who delivers these services will vary.



The traditional concept of public works is that governmental units provide the services, own the facilities, and are usually funded through taxation. While this is still true for some communities, for many, the situation is not that straightforward, and other models exist which include publicly owned corporations and partial outsourcing. Your public works provider could be a local government department or departments, a publicly held corporation, or a private corporation. For example, it's common for a community to have a variety of providers – such as a publicly owned utility responsible for the potable water system, a private utility that delivers electricity service, and a government public works department that maintains roads and traffic systems.

Mann emphasizes that public works manages or supports essential “lifeline” services that allow the community to survive. These systems include transportation; supporting utilities to maintain power and communications; water for homes, businesses, and fire suppression; waste and stormwater management; and solid waste management, including debris removal.

Following a disaster, public works restores or enables the restoration of these critical lifelines so citizens can get back to their normal lives. Public works provides a wide range of equipment and expertise that is critical to response and recovery from disasters. Equipment includes backhoes, front loaders, road sweepers, snowplows, dump trucks, pickup trucks, lawn mowers, and wood chippers. Expertise includes road repairs like paving roads, fixing pot holes, and repairing curbs and guardrails. Operations include waste water treatment plants, pumping stations, sewer mains, and maintaining potable water systems and fire hydrants.

To better understand who provides community lifeline services in your community, review the following common daily responsibilities of public works, categorized by the [Federal Emergency Management Agency's \(FEMA\) Community Lifeline Sectors](#):

- **Safety & Security:** Perform fleet maintenance of law enforcement, fire, and other government owned vehicles. Maintain and ensure security of traffic management systems and community infrastructure supervisory control and data acquisition systems (SCADA).
- **Transportation:** Build and maintain roads, bridges, tunnels, and highways within their jurisdiction. Manage traffic control systems. Plan and execute clearance routes for snow and ice.
- **Energy (Power & Fuel):** Ensure that adequate fuel supply is maintained to cover the needs of vehicles and generators in the community. While electric power, natural gas, and other power delivery is typically managed by agencies outside public works, it is public works who permits utilities within the public right-of-way and maintains transportation access to the systems.
- **Communications:** While communications systems (towers and buried or overhead cables) are typically handled by agencies outside of public works, it is the responsibility of public works departments to

What is Public Works?

Public works includes the combination of physical assets, management practices, policies, and personnel necessary for government to provide and sustain structures and services essential to the welfare and acceptable quality of life for its citizens.

— APWA

maintain the transportation access to the systems and permitting in the public right-of way. Public works relies on land mobile radio (LMR), cell phones, and data transfer systems for operation.

- **Food, Water, Sheltering:** Operate and maintain water treatment, supply, and distribution systems. Public works maintains many public buildings. Public works has many responsibilities that maintain access to food, water, and shelter for community residents and businesses.
- **Hazardous Waste:** Dispose of trash and maintain solid waste facilities, to include household hazardous waste. Public works also maintains waste water systems and stormwater systems.
- **Health and Medical:** Maintain the transportation, potable water, and other infrastructure systems critical to the supply of health and medical services.

Take Action

-  Identify who in your community provides each of the lifeline services. Do you know the supervisor and staff of these agencies? How can you establish and maintain strong working relationships?
-  Discuss the equipment owned or used by public works and how they maintain a roster of certified equipment operators.
-  Have emergency managers share a threat and hazard risk assessment forecast for the community with public works staff. Discuss ways to repair or build infrastructure that mitigates the impacts of future hazards to make the community more resilient.
-  The [Local Mitigation Planning Handbook](#) is a tool local governments use in developing or updating a local hazard mitigation plan. Include public works as a key partner in mitigation planning.
-  Discuss ways to educate the community about public works services and their role in the community. Many communities have “touch-a-truck” events where the public can interact with public works vehicles and staff, additionally [APWA has outreach resources](#) available that create awareness for any age.

Topic 2: Restoring Community Lifelines After a Disaster – Public Works First Responder

Public works is a key partner in a community’s response and recovery from disasters, and as Mann highlights in his PrepTalk, “We need to improve our relationships within [public works] and with the other first responders.”

The Public Works Department in Gainesville, Florida is part of unified command during disasters, but the relationships between the unified command agencies are often developed well before a disaster occurs. Mann encourages public works directors to meet with the police and fire chiefs monthly and have their staff routinely work together at community planned events to build relationships throughout their organizations.

[It is] critical that public works, fire and rescue, law enforcement, and emergency management work together to restore lifeline services. [It has] to be a unified response.

— Philip R. Mann

A best practice that grew out of this close coordination is Gainesville’s route-clearing task forces. The task forces’ objective, as Mann describes, “is to work out from wherever they are pre-deployed, create routes to fire stations, police stations, hospitals, and then to the grocery stores.” This allows fire, law enforcement, and emergency medical service personnel to save lives, and grocery stores to supply residents with food and other supplies. Clearing transportation routes jumpstarts recovery by enabling partners to begin restoring other critical community lifelines, including energy and communications.

Mann describes how the Gainesville Public Works Department uses their expertise and resources to assist in other complex incidents as well. For example, they provided traffic management and buses during a major traffic accident on Interstate 75, they built a hardened perimeter for crowd control during demonstrations, they provided equipment and expert operators to support complex structure fire responses, and they pumped water to clear roads after floods.

To recognize the role public works plays in stabilizing lifelines in the community during disasters, the American Public Works Association created a national “Public Works First Responder” symbol. [The symbol is available in multiple formats](#) for agencies to include on fleet vehicles, license plates, hard hats, uniforms, public buildings, and offices.

To better understand how public works maintains and restores community lifeline services during and after disasters, review the following common responsibilities categorized by [FEMA's Community Lifeline Sectors](#):

- **Safety & Security:** Continue fleet maintenance of critical community vehicles. Restore Traffic Management and SCADA systems and provide information to unified command and recovery leaders.
- **Transportation:** Keep transportation systems open and operational. Set up traffic flow procedures for impacted areas. Restore damaged transportation systems and stormwater systems. Determine what mitigation projects should be implemented in advance of the next event.
- **Energy (Power & Fuel):** Clear debris from rights-of-way to give utility companies access to perform restoration work. Manage the fuel supply and take measures to maintain adequate reserves.
- **Communications:** Restore public works–managed communications systems. Restore access to critical communications assets, including towers and buried and overhead lines.
- **Food, Water, Sheltering:** Restore transportation routes to grocery stores or other food sources. Protect and restore the water distribution system and ensure that it is safe to drink (e.g., issue a boil-water

*Route-Clearing Task Force
Gainesville, Florida*

- One public works crew with a vehicle
- One tree surgeon/arborist
- One electric utility representative
- Two police officers and a patrol car
- One fire engine company

Source: Philip R. Mann



Source: APWA

notice). Coordinate use of public buildings as mass care shelters. If necessary, provide transportation to at-risk populations (with access and functional needs) to shelters.

- **Hazardous Waste:** Support clean-up of hazardous waste in stormwater systems and restore waste water systems. Coordinate debris management following a disaster by identifying additional certified disposal sites, managing disaster-specific debris management contracts, and working with citizens to clear debris from private property. Support hazardous waste clean-up in stormwater systems and on other public lands.
- **Health and Medical:** Maintain or restore transportation, water, and other infrastructure systems critical to health and medical services.

Take Action

-  Assess the current relationship between public works, emergency management, fire, law enforcement, and emergency medical services. Do you meet at least monthly? Do staff from the public works department meet or assist other emergency management departments and interact regularly?
-  Mann shares how managing attendance at University of Florida Gators football games gives public works and emergency managers real-time experience working together in a non-disaster event. What kinds of events in your community would provide a similar opportunity, such as parades, public festivals, or sporting or music events?
-  Include leaders and staff from the public works department in your next exercise, including exercise assessments.
-  Review your Emergency Operations Plans with your public works department to ensure everyone is informed of ESF-3 responsibilities and assumptions and expectations are sound. Consider alternative actions if critical public works equipment is damaged or if sufficient licensed operators are not available.
-  Include public works in your jurisdiction's unified command and involve them in decisions concerning lifeline restoration. Incorporate mitigation measures in repairs and rebuilding critical lifelines in the recovery phase.
-  Include public works in all after action reviews of incidents in your community.

Additional Resources

American Public Works Association

- [Resource Center](#)
These resources cover topics related to the management of public works and infrastructure, including emergency management. It includes articles, links to outside resources, information about APWA committees, and online forums.
- [Emergency Management Fact Sheet](#)
When the infrastructure is threatened, public works is prepared to take a comprehensive and collaborative role with other First Responders in emergency management—prepared and equipped to safeguard lives and reduce or repair damaged critical infrastructure.
- [APWA Reporter Magazine](#)
The *APWA Reporter* serves as the prime communication link uniting the community of public works professionals who make up APWA. It is edited primarily for public works officials at local, state and federal levels, as well as others involved in the public works field.
- [Public Works First Responder Symbol](#)
APWA adopted the public works first responder symbol for use throughout North America to identify public works personnel and acknowledge their federally mandated role as first responders. APWA encourages all public works agencies to display it.

Federal Emergency Management Agency

- [Community Lifelines Fact Sheet](#)
This fact sheet identifies seven critical community lifelines and helps create outcome-based response and recovery by prioritizing and rapidly stabilizing these community lifelines for survivors.

Articles on Public Works and Emergency Management

- [Expanding Role of Public Works in Emergency Management](#) by Bergner and Vasconez, June 15, 2012.
This article, published by the American Society of Civil Engineers, describes how the local public works agencies and state departments of transportation play a major role in disasters and other emergencies.
- [The Role of Public Works in Emergencies](#) by Jim Biery, Feb. 1, 2011.
This article describes the role of public works during emergencies, by the former Director of Public Works of the City of Buena Park, California.