**⊕EPA**

# COMMUNITY-BASED WATER RESILIENCY GUIDE

Select a menu option below. New users should start with Overview.

# OVERVIEW

Overview

## INTRODUCTION

Water interruptions can have devastating effects on a community, from the loss of economic revenue to the loss of lives. There are numerous causes for water service interruptions including: aging infrastructure, power outages, extreme weather events, cyberattacks, contamination incidents, vandalism and fires. Understanding the potential impacts can help water utilities and communities be more prepared for an emergency.

The **Community-Based Water Resiliency (CBWR) Guide** is designed to help water utilities and communities prepare for water service interruptions before an emergency occurs by:

- Promoting a better understanding of public-private sector interdependencies.
- Fostering a greater understanding of water infrastructure and the potential impacts from a loss of service.
- Identifying the actions and resources needed to increase resilience by starting a conversation between water utilities and the community.
- Assisting stakeholders in building strong response plans for water service interruptions.

The guide is designed to be utilized by drinking water and wastewater utilities, state primacy agencies, hospitals, emergency responders, emergency managers, elected officials and concerned citizens.

# OVERVIEW

**Overview**

## COMMUNITY RESILIENCE

Communities rely on drinking water and wastewater utilities to provide vital services. Hurricanes, tornadoes, floods, aging infrastructure and intentional or accidental contamination are among the many challenges water and wastewater utilities face. During an emergency, a community may experience service interruptions in the water sector and other lifeline sectors, such as power and emergency services. Identifying the critical interdependencies between water utilities and other sectors and building relationships with those sectors are essential to community resiliency.

Learn more about the importance of building community-based resilience by exploring the water interdependencies, case studies and resources highlighted in this guide.

# OVERVIEW

**Overview**

The Water Interdependencies and Community-Based Water Resiliency Training is a great place to learn about how to increase overall community preparedness by raising awareness of water sector interdependencies. The training highlights the benefits of enhancing integration of the water sector into community emergency preparedness and response efforts.

## Route to Resilience

CBWR is part of the broader U.S. Environmental Protection Agency (EPA) effort to increase water sector resilience. EPA recommends that utilities build resilience by following the five components of a Resiliency Framework — assess, plan, train, respond and recover. These five components are described on the next page.

**Overview**

# OVERVIEW

| ASSESS | Conducting an all-hazards risk assessment and developing a risk management plan are key steps for water sector utilities to reduce risk and increase resilience. Community water systems serving more than 3,300 people are required to conduct or update a risk and resilience assessment every five years under Section 2013 of America's Water Infrastructure Act of 2018. |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PLAN | Develop plans for your utility that will help to mitigate the risks and vulnerabilities that you identified during the risk assessment. This component includes developing emergency response and risk communication plans, establishing response partners and joining laboratory, mutual aid and assistance networks. Developing or updating an emergency response plan every five years is also required under Section 2013 of America's Water Infrastructure Act of 2018 for community water system serving more than 3,300 people. |
| TRAIN | Training and exercises provide an opportunity for utilities to practice response actions and learn where improvements are needed to increase overall preparedness. This helps personnel to better understand roles and responsibilities before emergencies occur and ensures that they are familiar with the response procedures contained in ERPs. |
| RESPOND | Responding successfully to an actual emergency that is impacting a utility's operations and the community is where preparedness planning and training activities will really pay off. |
| RECOVER | Recovery of the water sector entails the efficient restoration of the systems and services that support a viable, sustainable community. Hazard mitigation for the water sector refers to actions taken to reduce or eliminate the long-term risk to human life and property from natural hazards. The water sector can participate in recovery and mitigation planning both before and after an emergency occurs. |

EPA's Route to Resilience (RtoR) tool presents the five components as stops along a "route." As utility personnel proceed through the tool, they learn what it means to be resilient and what tools and resources are available to help their utility on its journey to becoming resilient. The CBWR Guide is included as a resource in the tool under the Plan component.

# EXPLORE WATER INTERDEPENDENCIES

**Explore Water Interdependencies**

## WHAT ARE INTERDEPENDENCIES?

Many critical community services and all critical infrastructure rely on water to function (e.g., firefighting). Similarly, drinking water and wastewater services rely on other services to ensure consistent distribution of safe water and collection of wastewater, such as transportation for the delivery of treatment chemicals. These bi-directional relationships are called interdependencies.

Understanding interdependencies enables water utility owners and operators, and their stakeholders, to determine how a water service interruption may impact and be impacted by other essential services resulting in detrimental effects on the community at large.

### What Critical Sectors are Interdependent with the Water Sector?

Most critical infrastructure sectors have interdependencies with drinking water and wastewater services, collectively known as the water and wastewater systems sector or the water sector. This guide will focus six sectors that are interdependent with water. These include:

1. Energy Sector
2. Food and Agriculture Sector
3. Chemical Sector
4. Healthcare and Public Health Sector
5. Emergency Services Sector
6. Transportation System Sector

# EXPLORING WATER INTERDEPENDENCIES

Critical services and key businesses depend on reliable water systems and drinking water and wastewater utilities likewise rely on them for supplies such as treatment chemicals or services such as staff healthcare. See the map below of critical services and key businesses that may be in your community.
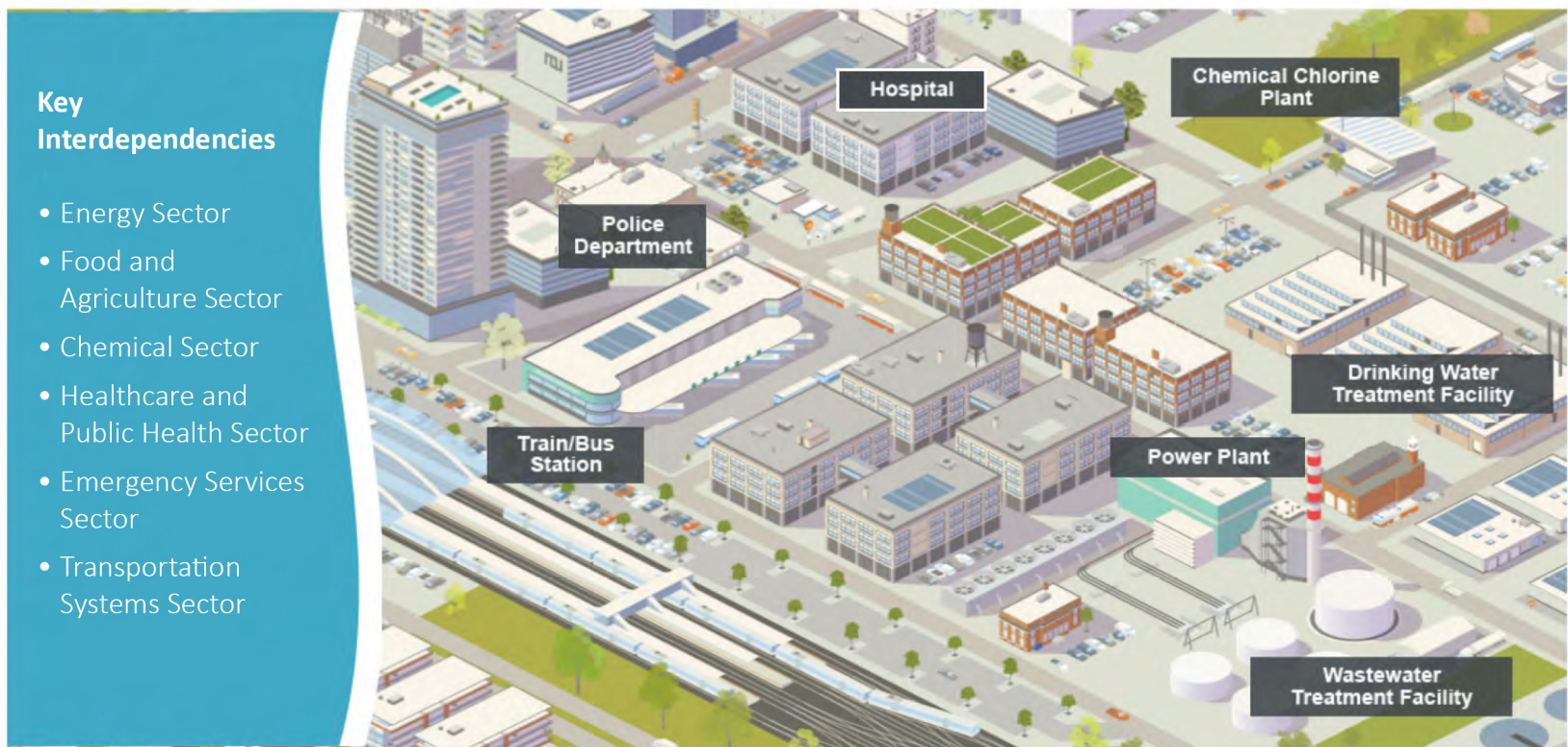
**Explore Water Interdependencies**



Water Sector Interdependencies

**Key Interdependencies**

- Energy Sector
- Food and Agriculture Sector
- Chemical Sector
- Healthcare and Public Health Sector
- Emergency Services Sector
- Transportation Systems Sector

Hospital · Chemical Chlorine Plant · Police Department · Drinking Water Treatment Facility · Train/Bus Station · Power Plant · Wastewater Treatment Facility

Click on "Next" to learn more about these water interdependencies

# EXPLORING WATER INTERDEPENDENCIES

Click on the buttons below to explore the various interdependencies in greater detail.

**Explore Water Interdependencies**

# ENERGY SECTOR

The energy sector includes electricity, oil and natural gas. A stable energy supply is essential to the health and welfare of our country. Drinking water and wastewater utilities can increase power resilience through better engagement and coordination in seven areas: improving communication with electricity providers, local agencies and the public; conducting power assessments; learning how to select and maintain generators; developing fuel plans to run generators; increasing energy efficiency; considering on-site power options; and learning about funding sources to increase power resilience.

**Explore Water Interdependencies**

The **energy sector** relies on the water sector for:

- Mining
- Fuel production
- Hydropower
- Power plant cooling
- Operating heating, ventilation and air conditioning (HVAC) equipment
- Fire protection

The **water sector** relies on the energy sector for:

- Pumping
- Distribution
- Collection, treatment and discharge of wastewater

**WATER-ENERGY NEXUS**

- ▶ Energy consumption by drinking water and wastewater utilities can account for 30 – 40 percent of a municipality's energy bill
- ▶ Optimizing energy use conserves water
- ▶ Without backup power for an extended period, many water and wastewater services cannot be provided
- ▶ Glendale, California, is the first U.S. city to combine both smart electricity and smart water meters into a "smart grid" which helps to better manage water and energy use

**ADDITIONAL RESOURCES:**
U.S. EPA, Power Resilience Guide for Water and Wastewater Utilities
Congressional Research Service, Energy-Water Nexus: The Water Sector's Energy Use

# FOOD AND AGRICULTURE SECTOR

The food and agriculture sector includes restaurants and food manufacturing, processing and storage facilities. This sector uses a tremendous amount of water for various operations and processes.

**Explore Water Interdependencies**

The **food and agriculture sector** relies on the water sector for:

- Irrigation
- Food processing
- Hydrating personnel
- Managing waste
- Sterilizing facilities and equipment
- Operating heating, ventilation and air conditioning (HVAC) equipment
- Basic sanitation (e.g., toilets, cleaning)

The **water sector** relies on the food and agriculture sector for:

- Food for water utility personnel
- Treating agricultural byproducts according to applicable regulations prior to releasing wastewater to mitigate downstream environmental impacts (note that a large percentage of drinking water treatment facilities rely on surface water sources)

**FOOD RELATED EMERGENCY EXERCISE BUNDLE (FREE-B)**

The Food and Drug Administration has developed the Food Related Emergency Exercise Bundle (FREE-B) to assist regulatory and public health agencies in assessing existing food emergency response plans, protocols and procedures. The tool's design allows for multiple jurisdictions and organizations to coordinate with a host agency to test their own plans, protocols and procedures independently. The tool contains a scenario (Wat'er You Thinking) involving possible contamination of the water supply that allows participants to identify interdependencies between the food and agriculture and water sectors. Click here to learn more about the FREE-B tool.

# CHEMICAL SECTOR

The chemical sector includes the manufacture, storage, use and distribution of chemicals that a wide range of critical infrastructure sectors rely on, including the water sector. Extreme weather events or natural disasters can lead to service interruptions for both entities, resulting in disruptions in the supply chain and shortages among end users of these products.

**Explore Water Interdependencies**

The **chemical sector** relies on the water sector for:

- Heating or cooling products and equipment
- Vacuum creation
- Steam production
- Preparing solvents and reaction media
- Extractive and adsorptive reagents
- Product rinsing
- Distillation
- Basic sanitation (e.g., toilets, showers, cleaning)
- Operating heating, ventilation and air conditioning (HVAC) equipment

The **water sector** relies on the chemical sector for:

- Basic chemicals
- Specialty chemicals
- Agricultural chemicals
- Pharmaceuticals
- Consumer products
- Fuel

**WOOD RIVER REFINERY COOLING TOWER COLLAPSE (2015)**

- A cooling tower at the Wood River oil refinery located outside of St. Louis collapsed in 2015
- To prevent damage by the extreme heat generated by gasoline-making units, the plant had to shut down one unit, and run another at reduced capacity
- A response crew was able to resupply cooling water to the impacted units from a redundant cooling water supply
- The quick response enabled the refinery to restart the disabled gasoline-making unit within several days
- This prevented an extended outage, which could have driven up regional gasoline prices

# HEALTHCARE AND PUBLIC HEALTH SECTOR

**Explore Water Interdependencies**

The healthcare and public health sector is imperative for providing essential services to the public, especially during natural disasters, terrorist attacks and disease outbreaks. During emergencies, water utilities, healthcare facilities, nursing homes, public health agencies, primacy agencies and local emergency managers should work together to minimize detrimental impacts to public health caused by disruptions in drinking water and wastewater services.

The **healthcare and public health sector** relies on the water sector for:

- Heating and cooling products and equipment
- Patient services (e.g., dialysis)
- Sterilizing facilities and medical equipment
- Laboratory services
- Laundry services
- Operating heating, ventilation and air conditioning (HVAC) equipment
- Food service operations
- Basic sanitation (e.g., toilets, showers, cleaning)
- Hydrating personnel and patients
- Alerting healthcare facilities of possible contamination

The **water sector** relies on the healthcare and public health sector for:

- Treating patients who have been exposed to contaminated water (e.g., contact, ingestion)
- Treating utility personnel to maintain an adequate workforce
- Alerting water utilities of possible contamination

**ADDITIONAL RESOURCE:**
A Critical Connection: The Water and Healthcare/Public Health Sectors

### WINTER STORM URI (2021)

▸ Storm Uri dumped record amounts of snow on Texas, with the frigid temperatures and severe weather impacting all 254 counties in the state.

▸ Sufficient medical and health services were not immediately available at shelters – some lacked heating, ventilation, spaces to accommodate groups, backup power, and water.

▸ Water outages caused hospitals to relocate patients.

# ⚠ EMERGENCY SERVICES SECTOR

The mission of the emergency services sector is to save lives, protect property and the environment, assist communities impacted by disasters and aid recovery during emergencies. This sector includes law enforcement, fire and rescue services, emergency medical services, emergency management agencies and public works. The operations of the emergency services sector are managed at the state, local, tribal and territorial level.

**Explore Water Interdependencies**

The **emergency services sector** relies on the water sector for:

- Fire protection
- Hazardous materials response
- Shelter operations
- Hydrating personnel and rescue victims
- Training exercises
- Sanitizing facilities and rescue equipment
- Basic Sanitation (e.g., toilets, showers, cleaning)

The **water sector** relies on the emergency services sector for:

- Infrastructure protection
- Emergency response support
- Notifying the public of possible contamination

Click here to learn more about how water utilities and Emergency Management Agencies (EMAs) can work together to better respond to emergencies.

**SULPHUR FIRE (2017)**

- On October 8, 2017, a 2,200-acre fire caused by sparking power lines during a high wind event threatened Clearlake Oaks in California.

- During the resulting power outage, the local fire chief assisted Golden State Water Company (GSWC) in securing both a portable 500 gpm pump and a 320KW portable generator.

- The Clearlake Emergency Operations Center located and provided GSWC with a 70KW generator. This assistance helped GSWC to maintain water service for firefighting and customer use.

# TRANSPORTATION SYSTEM SECTOR

**Explore Water Interdependencies**

The transportation systems sector includes aviation, highway and motor carrier, maritime transportation systems, mass transit and passenger rail, pipeline systems, freight rail, postal and shipping. The nation's transportation system contributes to national security, economic stability and public health and safety by quickly, safely and securely moving people and goods throughout the country.

The **transportation systems sector** relies on the water sector for:

- Heating and cooling products and equipment
- Steam production
- Cleaning vehicles and equipment
- Operating heating, ventilation and air conditioning (HVAC) equipment
- Food service operations
- Basic sanitation (e.g., toilets, showers, cleaning)
- Hydrating personnel

The **water sector** relies on the transportation systems sector for:

- Shipping equipment, supplies and treatment chemicals
- System infrastructure (i.e., pipeline systems)
- Transporting personnel

## HURRICANE FLORENCE (2018)

▸ Many residents lacked access to clean drinking water in the days following Hurricane Florence.

▸ More than 1,000 roads were closed throughout North Carolina and there was no safe or reliable access to Wilmington.

▸ The combination of impassable roads and inoperable water systems created a shortage of drinking water, with no way to get supplies to residents stranded in flooded areas.

▸ Despite being isolated by the storm, trucks were able to transport supplies to Wilmington residents and rescue workers. The North Carolina National Guard helped to distribute these supplies while delivery trucks continued to make their way to other affected areas along the coast.

# WATER RESILIENCY ACTION PLAN KIT

## HOW DO YOU BUILD RESILIENCY?

Water is essential for all community services. However, if an emergency causes an interruption of water service, help from state or federal agencies could take days or weeks to arrive. Hence, local preparedness is a key step to maintaining community resiliency. Natural disasters and other threats can cause serious public health and economic impacts — so it is important to plan ahead.

Hosting a water emergency workshop in your community is the first step in preparing for a water emergency. The **Water Resiliency Action Plan (WRAP) Kit** guides individuals through hosting a community workshop; the kit includes templates and resources that can be used to prepare for and conduct a workshop. A **community workshop** brings together stakeholders to discuss goals, challenges and roles and responsibilities in water emergency preparedness. By working together before an emergency, you and your community can be prepared for water service interruptions.

Water Resilience
Action Plan Kit

During my 40 year career in the Utility sector, I have found that there is great value form collaborating with others. When we work with others, knowledge and past experiences are exchanged and that is where the added value comes from. Additionally, we can establish new contacts so you have somebody you can connect with later, during an emergency or not. All who participate in emergency response and service restoration play a vital role in our societal community needs. The end goal is to provide the best service at all times. Any time we can leverage our learning and knowledge gain, we should take advantage of the opportunity. Please take the opportunity to participate in the Community Base Water Resiliency workshops and you will be better prepared and be able to provide a higher level of service to the community that you serve.

Perry Dahlstrom — *General Manager*
Golden State Water Company

# COMMUNITY WORKSHOP

**Water Resilience Action Plan Kit**
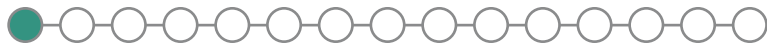
## WHAT IS A COMMUNITY WORKSHOP?

A community workshop provides an opportunity for water utilities and members of the communities they serve to discuss water preparedness. The purpose of this event is to provide a highly interactive forum to discuss how to improve overall community resiliency to a water service interruption.

Community workshops are an optimal setting to exchange ideas and information. A workshop is typically guided by a facilitator and includes a variety of active participants. Information and lessons learned are shared, resources are identified and goals and action plans are established. The facilitator's role is to help organize, structure and guide discussion in a manner that encourages knowledge sharing, networking and collaboration. Community workshops can take place either in person or virtually.

**EXAMPLE FORUM**

The St. Clair County Office of Homeland Security/Emergency Management conducted a day-long roundtable workshop to discuss water security and preparedness. The workshop focused on three primary concepts:

▸ Promoting awareness of public-private sector interdependencies

▸ Fostering understanding of water infrastructure and its operation and capabilities

▸ Identifying actions and resources needed to respond to and recover from a water emergency

Discussions included:

▸ Roles and responsibilities of the public sector in a water emergency response

▸ Major customers' water needs and emergency response plans for water emergencies

▸ Planning for an emergency and identifying resource needs during an emergency

## COMMUNITY WORKSHOP

**Water Resilience Action Plan Kit**
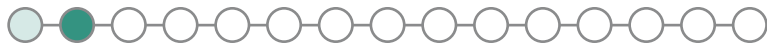
### PLANNING THE WORKSHOP

### Who should host the workshop?

Anyone in a community can initiate and plan a water emergency workshop, such as a water utility, an emergency responder, a hospital or any other community organization.

By inviting other stakeholders and leveraging collective resources, you can plan a half- or full-day workshop that addresses your community's unique needs.

- **Half-day workshops** enable attendees to spend less time away from their work; this option may increase attendance. Suggested activities for a half-day event include**:**
  - Utility presentations
  - Real-world examples of a water service outage
  - Discussion of future planning efforts

- **Full-day workshops** provide more time to accomplish established goals and provide background information to build awareness. Suggested activities for a full-day event include**:**
  - Water utility tour
  - Presentations and case studies
  - Moderated discussions on identified water interdependencies

**SELECTING A LOCATION**

If hosting an in-person workshop, choose a convenient location such as a conference room at a local water utility; your city's emergency operations center, town hall, safety center or police station; or your local public library. Ensure the space includes:

▸ Comfortable accommodations where all participants are arranged to best facilitate discussion

▸ Audio-visual capabilities

▸ Access for people with disabilities

▸ Free or low-cost parking

▸ Nearby restaurants for lunch, if you are not planning to provide lunch

Consider hosting a virtual workshop to allow both a convenient remote learning option and to attract more participants.

# COMMUNITY WORKSHOP

**Water Resilience Action Plan Kit**
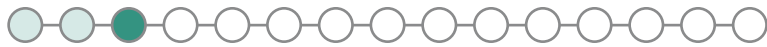
## IDENTIFYING A PLANNING TEAM

When preparing for a community workshop, a **planning team** can be useful for:

- Identifying goals and objectives that those involved would like to achieve
- Leveraging collective resources to identify a moderator or facilitator, presenters and topics to cover
- Preparing workshop content
- Identifying a venue or virtual platform

The following **community stakeholders** should be considered for the planning team:

- Local drinking water and wastewater utilities*
- Emergency responders
- Public health officials
- Business owners
- Hospital managers

\* *Your state's American Water Works Association (AWWA) section, Rural Water affiliate, regional Rural Community Assistance Partnership (RCAP), Association of State Drinking Water Administrators (ASDWA), state and regional drinking water program managers and emergency response agencies can help you identify an interested water or wastewater utility.*

**PLANNING TEAM CHECKLIST**

Planning team responsibilities may include:

- ▶ Deciding how often the planning team should meet
- ▶ Determining planning team roles and responsibilities
- ▶ Recruiting a moderator, facilitator or presenters
- ▶ Making logistical arrangements
- ▶ Developing the workshop agenda
- ▶ Identifying potential participants and sending invitations
- ▶ Developing presentations and other materials
- ▶ Documenting action items and next steps

📝 SUGGESTED PLANNING CHECKLIST          📝 VIRTUAL PLANNING CHECKLIST

**Water Resilience Action Plan Kit**
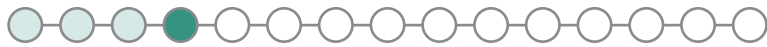
# COMMUNITY WORKSHOP

## MODERATOR OR FACILITATOR

Decide in advance who will serve as the moderator or facilitator. The selected representative should understand the objectives of the workshop and be involved in the planning team discussions to understand the flow of the workshop sessions, and if held online, be familiar with the virtual platform being used.

Moderators or facilitators should consider the following factors when preparing for the workshop:

- Participants may fear being "put on the spot"
- All participants should be encouraged to maintain an open mind although opinions may differ
- Some participants may be uncomfortable sharing sensitive preparedness related information in an open forum
- It is important to keep the discussions focused

# COMMUNITY WORKSHOP

**Water Resilience Action Plan Kit**

## SUGGESTED WORKSHOP GOALS AND ACTIVITIES

### Establishing Goals

Workshop goals are best developed after the planning team is formed to identify the needs of a broader group of stakeholders.

Questions to consider in developing your goals:

- What is your community's current level of water preparedness?
- Has your community experienced a water service interruption?
- Is your community particularly vulnerable to a specific type of natural disaster?
- Will you include facilitated breakout discussions focused on site-specific vulnerabilities?

Suggested **goals** include:

- Discuss and provide solutions for future water service interruptions
- Identify emergency preparedness activities to improve water resiliency
- Identify methods for integrating water utilities in community planning

Suggested **activities** to build knowledge:

- Plan a facilitated breakout discussion to walk participants through a response to an incident – actual or hypothetical

# COMMUNITY WORKSHOP

**Water Resilience Action Plan Kit**

## DEVELOPING AN AGENDA

The next step is to plan an agenda that educates and fosters relationships among participants. Suggested topics and elements you may consider incorporating into your workshop include:

• A presentation on how drinking water treatment plants operate

• A utility tour if workshop is in person

• Stakeholder presentations on emergency management roles

• A breakout session on a water emergency scenario

• A roundtable or panel discussion among key stakeholder agencies

*Incorporating the elements listed above will encourage participants to be more engaged in discussions throughout the workshop.*

📝 [HALF-DAY AGENDA TEMPLATE](#)

📝 [FULL-DAY AGENDA TEMPLATE](#)

### ROUNDTABLE OR PANEL DISCUSSION

Potential discussion questions for a roundtable or panel discussion on local response to water service interruption include:

▶ Has your community experienced a water service interruption? If so, how was your organization impacted?

▶ What natural disasters has your community faced or may have the potential to face? What is the impact?

▶ Do you understand the drinking water and wastewater needs of your organization?

▶ Does your emergency plan consider your water needs? What would trigger a closure in the event of a water service interruption?

▶ What actions would your organization take in the event of a water emergency?

▶ What specific actions would you recommend to increase water sector preparedness and business resilience?

# COMMUNITY WORKSHOP

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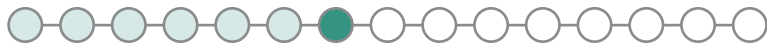
## WATER UTILITY TOUR

If the workshop is hosted at (or near) a drinking water or wastewater utility, consider scheduling a facility tour before the workshop begins to familiarize attendees with the equipment and technical skill required to operate the utility. Some questions to consider before deciding to host a tour include:

- How long will the tour take?
- How many people can tour the facility at one time?
- Are there special identification or security requirements?
- Who will lead the tour?
- Are there areas that are "off limits"?
- Is the tour route accessible by all participants?

# COMMUNITY WORKSHOP

**Water Resilience Action Plan Kit**

## INVITING PARTICIPANTS

As a starting point, consider inviting critical water customers and local emergency managers – those with a vested interest or those who need to work closely with the water utility or emergency responders during a water crisis.

Questions to consider before extending invitations:

- Will you limit participants to those within your immediate community?
- If in person, how many people can the location accommodate?
- If virtual, how many people can the virtual platform host? Do you want to limit the number of participants who can register?
- How many attendees do you want to include from each stakeholder group?

- What are the community goals and desired outcomes of the workshop?
- How will invitations be extended (e.g., email, online registration site, letter or phone)?

**CONTACTING INVITEES**

When inviting participants, consider addressing the following in the initial contact:

- ▶ The purpose of the workshop
- ▶ Why the invitee is important to a successful event
- ▶ How the invitee could benefit from participating
- ▶ What is expected of the participants
- ▶ General timeframe under consideration for holding the workshop

LIST OF POTENTIAL STAKEHOLDER GROUPS

SUGGESTED SCRIPT – FIRST CONTACT

REGISTRATION FORM TEMPLATE

INVITATION TEMPLATE
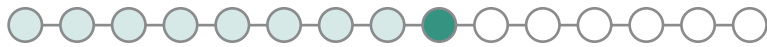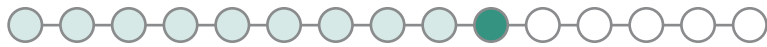
# COMMUNITY WORKSHOP

## DOCUMENT LIBRARY

Ask attendees if they have preparedness documents, either hard copies (e.g., shared in person) or digital copies (e.g., shared in chat via virtual platform) they are willing to share with participants that can serve as models, such as

• Sample emergency standard operating procedures

• Call-down rosters or automated emergency notification lists

• Lists of critical users and emergency responders

If any of the stakeholders have experienced an actual water emergency or participated in an exercise with a water component, participants may be willing to share after action reports or newspaper articles.

**Water Resilience Action Plan Kit**

# COMMUNITY WORKSHOP

## ACTIVITIES & SUPPLIES

To ensure your workshop runs smoothly, the planning team should discuss and finalize all necessary "day of" activities and materials several days in advance.

Event **activities** include:

- Pre-workshop registration
- Document/form preparation
- On-site or online check in
- Supply coordination as needed
- Polls as needed (e.g., virtual workshops)
- Audio-visual support/virtual platform technical assistance
- Note taking
- On-site lunch coordination, if workshop is in person
- If virtual, a platform test run with the facilitator and presenters prior to the workshop

Recommended in-person workshop **supplies** include:

- Audio visual equipment (e.g., projector, laptop, microphones)
- Flip charts and markers
- Pens and notepads
- Sign-in sheet
- Name tags and/or tents

**TIPS:**

▸ Designate a representative to create and manage the registration/attendee list – including names, titles, organizations, mailing addresses, email addresses and phone numbers.

▸ In advance, recruit volunteers to prepare sign-in sheets (virtual workshops may also require this assistance if several people login via one computer connection in a conference room), evaluation forms, and if in-person, name tags, a list of nearby restaurants (if you are not providing lunch), and any other needed materials.

**Water Resilience Action Plan Kit**

📝 **SIGN-IN SHEET TEMPLATE**

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# COMMUNITY WORKSHOP

**Water Resilience Action Plan Kit**

## LUNCH OPTIONS

If in person, lunch options should be considered for a full-day event or if the schedule includes morning and afternoon agenda topics.

### How will your group handle lunch?

• Does a 1-hour lunch, 30-minute lunch or working lunch work best based on the workshop schedule?

• Will attendees eat in the room or will there be a second room with additional tables and chairs?

• Lunch options

  – Boxed lunch — most local establishments deliver boxed lunches for $10-12 per person (Suggestion: designate an individual to coordinate the group order and collect money)

  – Local restaurants — provide attendees with a list of nearby eateries

**TIPS:**

▸ Consider asking a partner organization to sponsor lunch for the group.

▸ Be sure to provide lunch options to address a variety of dietary needs/restrictions.

# COMMUNITY WORKSHOP

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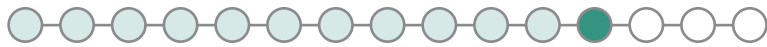
## WORKSHOP MATERIALS

Workshop materials should be distributed to all participants approximately four weeks, but no later than one week, before the event. Materials should include:

If in person:

- Agenda
- Location and parking information
- Lunch options (if applicable)
- Facility tour information (if applicable)

If virtual:

- Agenda (can be emailed in advance)
- Virtual platform log-in information (typically automatically provided to the participant upon registration)

# COMMUNITY WORKSHOP

**Water Resilience Action Plan Kit**

## FINAL WORKSHOP PREPARATIONS

You may want to conduct a site survey to discuss setup, inventory supplies and test equipment.

On the day of the workshop, all partners and organizers should:

**If in person:**

• Plan to arrive at least one hour before the event begins

• Set up and stage all equipment

• Check in with presenters

• Provide a "registration" or "check-in" table where participants can sign in and pick up their meeting materials

• Check seating arrangements (group participants to encourage networking)

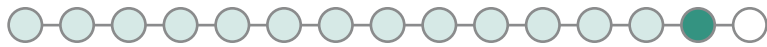• Provide a display table for any handouts that participants wish to share

**If virtual:**

• Plan to login at least a half hour before the workshop begins

• Have a soundcheck with presenters and facilitators

• Organize virtual breakout groups as needed

📝 FEEDBACK FORM TEMPLATE

# COMMUNITY WORKSHOP

**Water Resilience Action Plan Kit**

## CONDUCTING THE WORKSHOP

The moderator or facilitator plays a significant role in making the event a success. Below are a few of the important tasks to maintain the momentum:

- Keep speakers on schedule
- If there is a lag or hesitation to get started during discussions, the Suggested Script for Moderators or Facilitators provides conversation starter questions to engage participants
- Recap key decisions and action items

**If in person:**

- Check the "pulse" of the room. You may need to insert an unplanned break if participants are growing restless.
- Check for personal comfort (e.g., is the room too warm or too cool?)

**If virtual:**

- Launch poll questions and share results to keep the participants engaged
- Ask questions for participants to answer in the chat

# COMMUNITY WORKSHOP

## WRAPPING UP THE WORKSHOP

After the workshop has concluded:

- Conduct a debrief with your planning team and facilitator to identify lessons learned
- Send thank you notes or emails to all participants
- Develop and distribute a workshop summary with action items to all speakers and participants
- Act on next steps and follow-up actions
- The Water Emergency Preparedness Improvement Plan will help you document and track the progress of any next steps and action items identified during your workshop. Establishing a working group or holding follow-up meetings are excellent ways to continue the momentum and ensure progress on identified action items.

Water Resilience Action Plan Kit

WORKSHOP SUMMARY TEMPLATE

# TOOLS, RESOURCES AND TEMPLATES

This page contains the tools, resources and templates embedded in the CBWR Guide. Use the templates as a starting point and add to them as necessary. Save them to your computer before making any changes.

**Tools, Resources and Templates**

## TOOLS AND RESOURCES

- Water Sector Interdependencies and Community-Based Water Resiliency Training
- Route to Resilience
- America's Water Infrastructure Act of 2018 (AWIA)
- Water Sector Interdependencies Map
- Power Resilience Guide for Water and Wastewater Utilities
- Congressional Research Service, Energy-Water Nexus: The Water Sector's Energy Use
- Food Related Emergency Exercise Bundle (FREE-B)
- A Critical Connection: The Water and Healthcare/ Public Health Sectors
- Connecting Water Utilities and Emergency Management Agencies
- FEMA Toolkit on Implementation of Community Lifelines

## TEMPLATES

- Suggested Planning Checklist
- Virtual Planning Checklist
- Half-Day Agenda Template
- Full-Day Agenda Template
- List of Potential Stakeholder Groups
- Suggested Script – First Contact
- Registration Form Template
- Invitation Template
- Sign-in Sheet Template
- Feedback Form Template
- Suggested Script for Moderators or Facilitators
- Water Emergency Preparedness Improvement Plan
- Workshop Summary Template