EPA
United States
Environmental Protection
Agency

Community-Based Water Resiliency

Training Workshop – Facilitator Workbook

Facilitator Action:

Provide an introduction and a brief overview of why you brought everyone together for the day. Also, take this time to provide logistical information to the participants (e.g., location of restrooms, lunch options, continuing education information, etc.)

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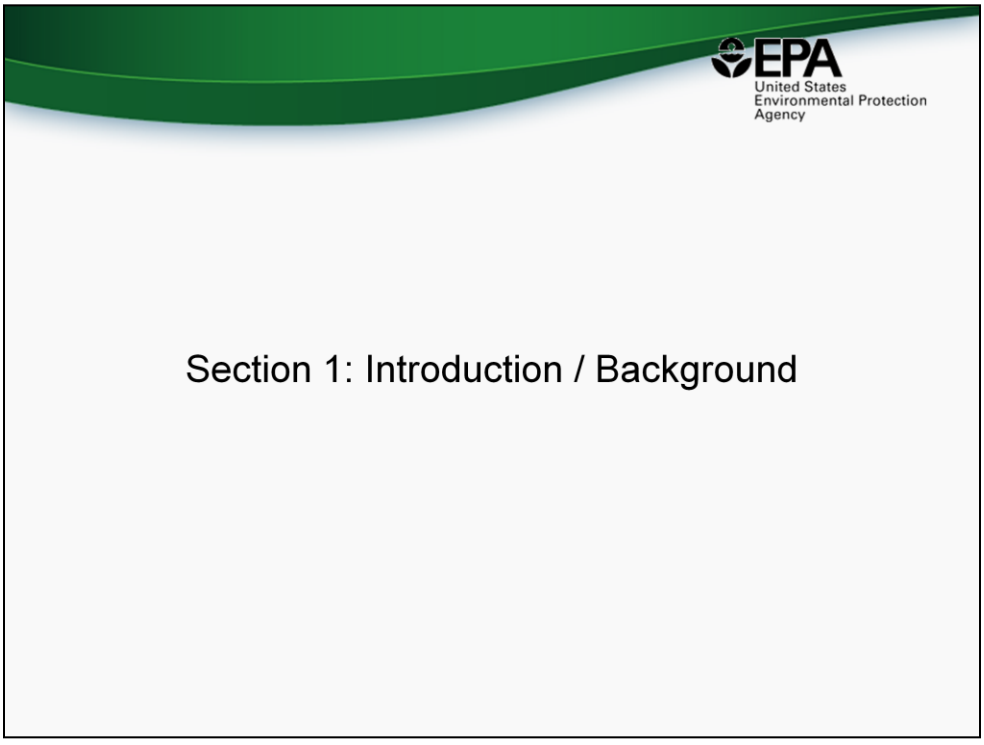
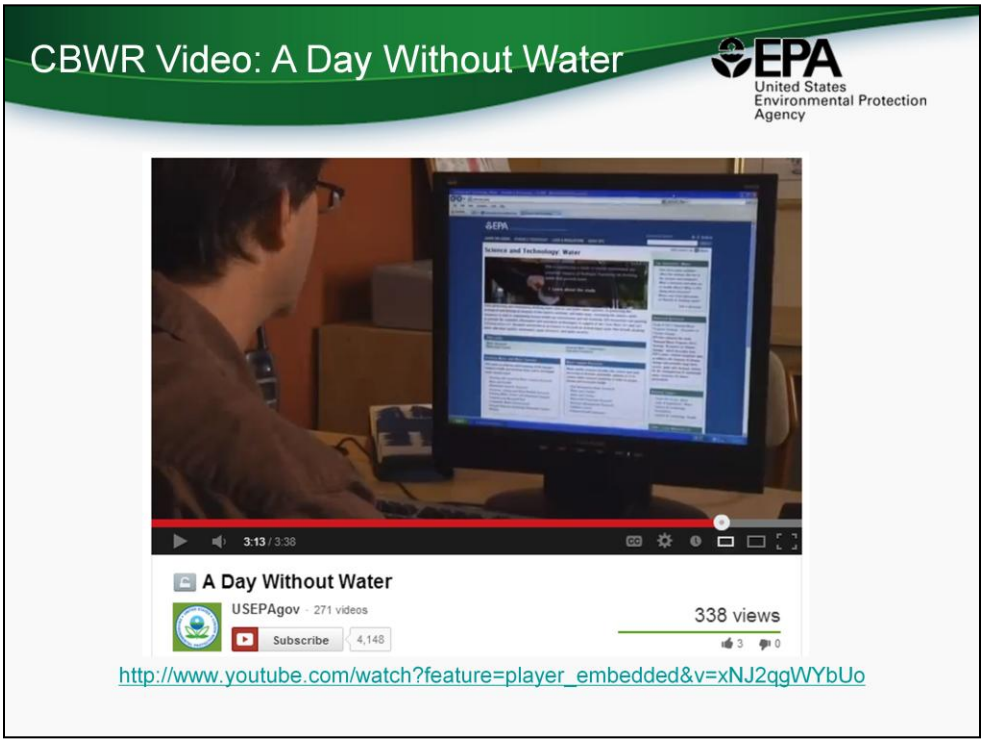


Facilitator Talking Points:

EPA designed the Community-Based Water Resiliency program to assist communities in rebounding from water service interruptions, regardless of the cause of interruption. This training provides you with the purpose of the program and the resources that the program has to offer for communities. The training also provides you with the tools and information for hosting a water resiliency meeting or workshop in your community.

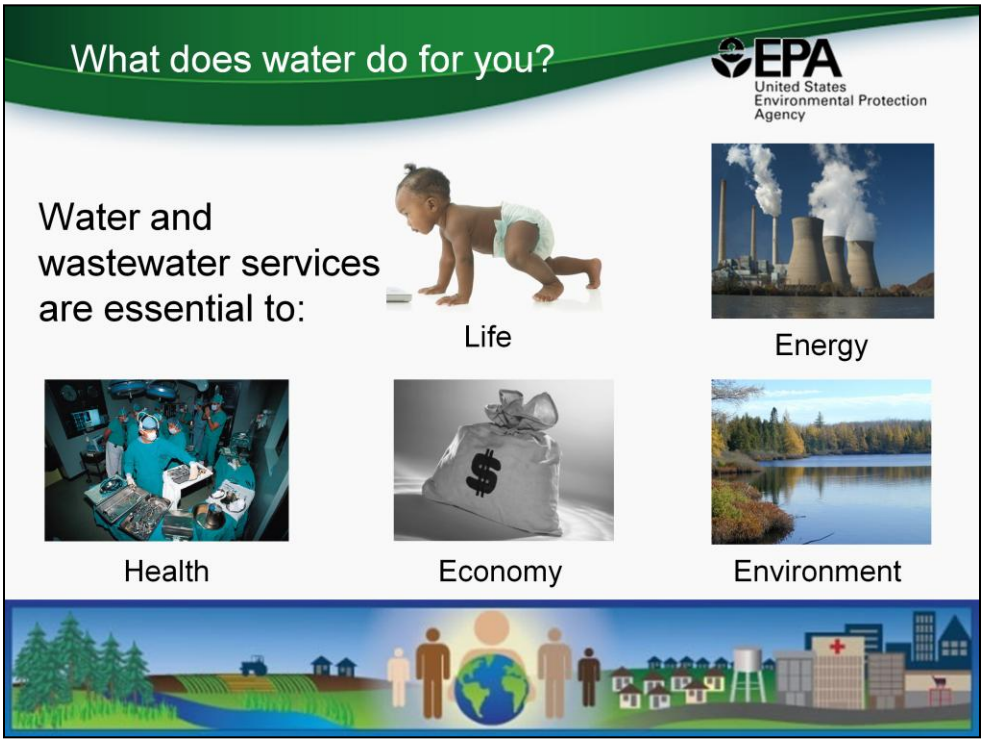


Facilitator Action: Play CBWR Video: A Day Without Water

http://www.youtube.com/watch?feature=player_embedded&v=xNJ2qgWYbUo

Facilitator Talking Points:

Drinking water and wastewater utilities provide a valuable service in our communities. Many communities are not prepared for an interruption in these services and are unaware of the need to prepare for alternate methods. The following video provides an overview of the CBWR program and introduces the CBWR Tool.



Facilitator Talking Points:

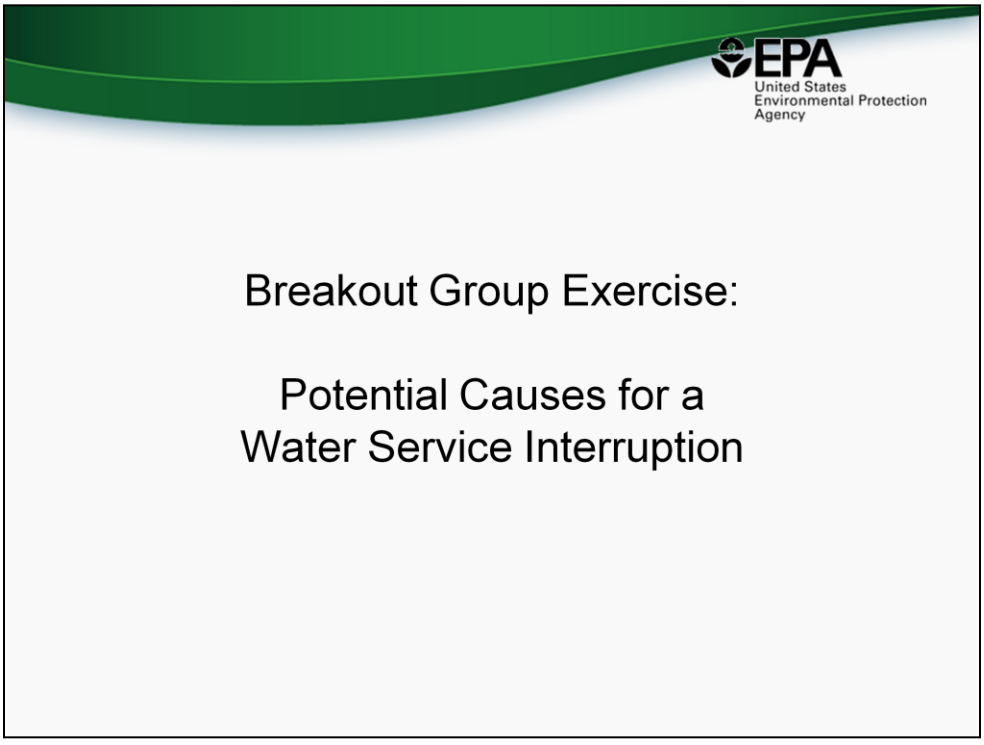
All communities of all sizes depend on drinking water and wastewater services daily to sustain human health, protect the environment and promote economic growth. Think about how you and your community *[tailor to audience]* use drinking water and wastewater services in your homes and businesses.

Facilitator Action:

You may want to poll the audience for other examples of how communities rely on drinking water and wastewater services.

Facilitator Talking Points:

Yet every day, communities face the very real threat of water service interruptions from circumstances such as hurricanes, tornadoes, aging infrastructure and intentional contamination. These threats continue to increase year after year and the impacts from each event seem to increase in overall damage and cost.



Facilitator Action:

Break into initial groups – recommend participants count off 1-5; group like-numbers; each group should nominate a note taker and a spokesperson (make sure to rotate these responsibilities throughout the day).

The groups will discuss potential causes of a water service interruption, record their examples, and each spokesperson will report on his/her respective group's examples.

Ask participants to share their own experiences, as well as reflect on significant examples from recent history. If possible, guide participants towards examples specific to the region [Note: see provided regional examples]. Ask participants to keep in mind the regional example as this will become the scenario later in the training.

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Regional Water Outage Examples

EPA Region 1

Massachusetts Water Main Break – May 2010

In May 2010, a critical water main supplying water to millions of Boston metro-area residents ruptured. Before shutting down the valve and stopping the continued release of water, approximately 64 million gallons of treated water were lost, affecting roughly 2 million customers, or 700,000 households. As a result of the break, the governor issued a state of emergency. Untreated water from backup reservoirs was distributed across the affected area to maintain firefighting capabilities. Boil water notices were issued for the concerned area.

Repairs underway at damaged Hultman aqueduct in Weston, Massachusetts. The pipe in the background is from the damaged aqueduct. (Source: Jim Davis, Boston Globe)

A failure of bolts at a pipe joint is believed to have caused the water MWRA water main break. (Source: MWRA)

EPA Region 2

Hurricane Sandy – New Jersey/New York – October 2012

A rare, late-season storm, Hurricane Sandy, made landfall along the New Jersey and New York coast lines on October 29, 2012. Sandy produced a powerful storm surge along coastal areas that caused historic flooding in New York City and in New Jersey. In all, the storm affected more than 20 states, with the Eastern Seaboard being the hardest hit. The United States experienced 131 fatalities and more than $60 billion in storm-related property damages. More than 80 drinking water and 200 wastewater systems in the hard-hit states of New Jersey and New York were damaged by the storm. The Passaic Valley Sewerage Commission treatment plant, the fifth largest in the country, was flooded and lost electricity service for two days. EPA also assisted the Passaic Valley Sewerage Commission to install a 6,000-pound relief gage to stop the flow of untreated sewage from the Sayreville plant into the Raritan River and Raritan Bay.

EPA, with its state partners, assessed 40 drinking water and 23 wastewater treatment plants in New Jersey, and 40 drinking water and 12 wastewater treatment plants in New York. EPA received requests for further technical assistance from two New Jersey wastewater treatment plants. Boil water advisories were issued for more than 10 communities in New Jersey, and New Jersey Governor Christie issued mandatory water conservation order for the entire state. EPA and the State of New Jersey worked with one large drinking water utility to help it repair damaged equipment.

After Hurricane Sandy, utility workers replaced damaged pumps at the Bay Park sewage-treatment plant in East Rockaway, N.Y., on Long Island. (Source: Uli Seit, The New York Times)

EPA Region 3

Hurricane Isabel: Maryland, Virginia and District of Columbia – September 2003

In early September 2003, Hurricane Isabel slammed into the North Carolina coastline with winds in excess of 100 mph. Moving inland over Virginia, Maryland and Pennsylvania, the storm weakened, but tropical storm-strength winds and heavy rains pounded the region, leading to widespread flooding and infrastructure damage.

Though wind speeds and rainfall totals were not record-breaking, the storm produced an unprecedented amount of tree damage in the mid-Atlantic region. Damage and flooding disrupted drinking water and wastewater systems across the affected areas. In Richmond, the city's water utility lost power for several days, leaving about 500,000 persons without drinking water. In Northern Virginia near Washington, DC, a combination of power loss and flood-induced contamination of the Potomac River led to loss of water services for well over one million customers; in Fairfax County alone, 1.2 million customers faced boil water order requirements as the county's water utility was without power for all four of its water treatment plants. In Loudoun County, Virginia, about 20 miles from Washington, DC, tanker trucks were deployed to deliver drinking water to communities.

Hurricane Isabel's high winds and heavy rain led to unprecedented tree damage, causing widespread power outages.

EPA Region 4

Nashville – Cumberland River Flooding – May 2010

A two-day record rainfall that produce more than one foot of rain in central Tennessee resulted in a 1,000-year flood event for the Cumberland River as it coursed through Nashville in early May 2010. The floods devastated the downtown area, including famed country music sites, the playing field for the NFL Tennessee Titans, and the storied Opryland resort. Drinking water and wastewater facilities for Nashville and Davidson County also were devastated. One of the city's two drinking water plants was entirely forced out of service. The second plant survived floodwaters only due to a furious effort at sandbagging the facility's perimeter. Panicked customers began hoarding drinking water in their homes, using whatever containers were available. One of the city's wastewater treatment plants was also knocked out of service. Mandatory drinking water conservation measures were ordered. Bottled water distribution systems were established, providing more than 13 million bottles.

Flooding at Nashville's Metro Water Service's K. R. Harrington Water Treatment Plant on May 2, 2010 knocked the plant out of service. (Source: Metro Water Services)

Flooding from the Cumberland River overwhelmed Nashville's Metro Water Service's Dry Creek Wastewater Treatment Plant. (Source: Metro Water Services)

EPA Region 5

Evanston, Illinois: Frazil Ice Incident – January 2009

In January 2009, the City of Evanston, Illinois just outside of Chicago, experienced an icing event in its intake infrastructure that draws water from Lake Michigan. Pointed ice shards, termed frazil, which form on lake bottoms in winter, were sucked into the intake system where they formed larger masses of ice and subsequently knocked out the city's raw water intake.

Subsequently, the city hired an engineering firm to install an electric heating system that would keep the 54-inch-diameter pipe ice free and ensure water flow. Due to the success of the heating system, the City announced plans in 2013 to install a heating system on a second raw water intake, using a $150,000 low-interest loan expected from the Illinois Environmental Protection Agency.

City of Evanston, Illinois water treatment plant.

EPA Region 6

Hurricane Katrina – August-September 2005

When monster hurricane Katrina made landfall on August 29, 2005, it created a level of devastation along the Gulf Coast not seen before, and whose effects are still evident. The Water Sector was hit particularly hard, with well over 1,000 drinking water and wastewater systems suffering billions of dollars in damages, according to analyses by EPA and the American Water Works Association. In New Orleans, the city's largest drinking water treatment plant was covered by flood waters, and completely out of operation for two weeks. Even two weeks after the hurricane, EPA reported that only 30 percent of drinking water facilities and 40 percent of wastewater treatment plants in the path of the storm had returned to service. Drinking water and wastewater services were lost for millions of residents of the Gulf Coast (Alabama, Louisiana, Mississippi), with dozens of drinking water systems in Louisiana and Mississippi still under boil water advisories as late as early October 2005. Tanker trucks delivered water to hotels, which were pumped into hotel plumbing systems for use by guests and staff. Sampling plans were developed to test for presence of bacteria in drinking water supplies, and mobile laboratories were deployed to support testing for drinking water systems in Louisiana and Mississippi.

Hurricane Katrina devastated drinking water and wastewater systems along the Gulf Coast. Shown above are the remains of a water storage tower for the town of Buras, Louisiana. (Source: U.S. EPA)

EPA Region 7

River Flooding in Iowa – June 2008

Heavy rains in Iowa in June of 2008 came after an unusually wet spring, resulting in widespread river flooding that impacted both large and small communities, throughout the state. Cedar Rapids experienced the worst flooding in more than 150 years, with more than 400 city blocks under water. Floodwaters cut off electricity to all but one of Cedar Rapids' drinking water wells. The one working well was protected by sandbags, and generators pumped away flood water. Officials advised residents of Cedar Rapids to conserve drinking water. Mason City's drinking water treatment plant was inundated with floodwaters, leaving approximately 27,000 residents without water service for several days. Bottled water was distributed to residents of flood-affected municipalities, including Mason City.

The 2008 floods inundated the City of Cedar Rapids Water Pollution Control Facility located along the Cedar River. The wastewater treatment plant remained out of service for 12 days, during which time billions of gallons of untreated and partially treated sewage spilled into the Cedar River. (Source: Jonathan D. Woods/The [Cedar Rapids] Gazette)

EPA Region 8

Salmonella Outbreak, Alamosa, CO: March – April 2008

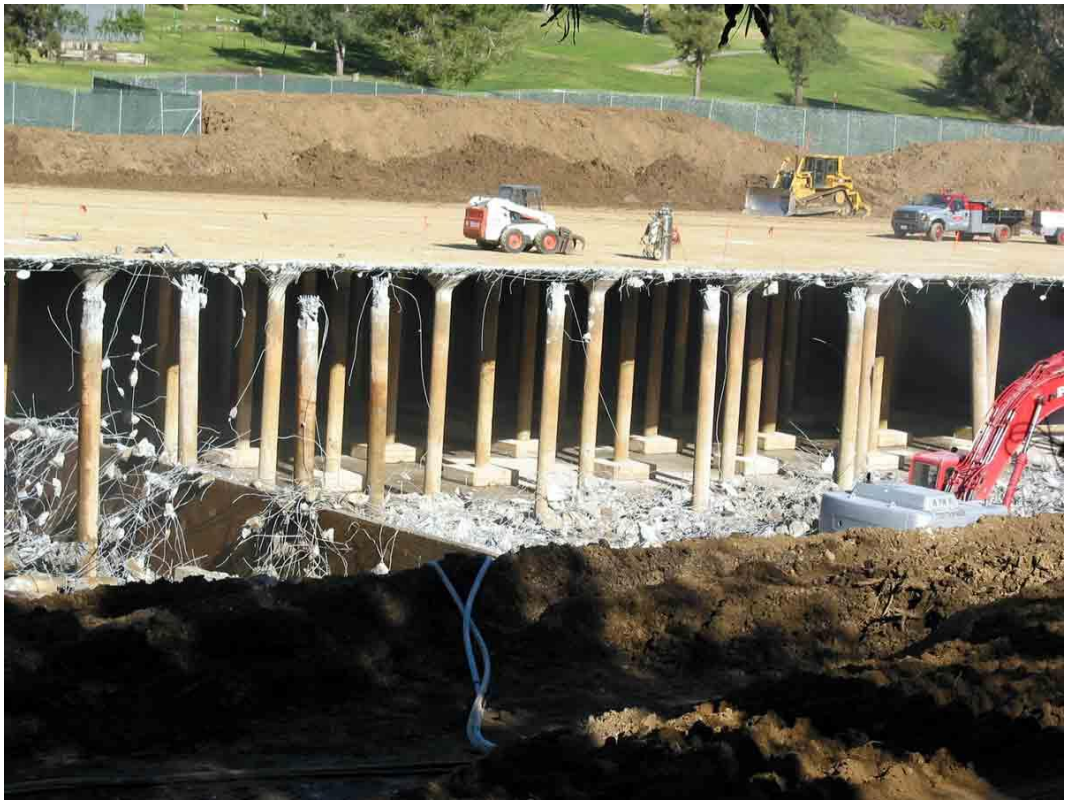
In March of 2008, a serious outbreak of *Salmonella* bacteria occurred in the public drinking water system serving the city of Alamosa, CO. By the time the outbreak was identified and proper response measures put into effect, the bacteria had caused one death and sickened about 450 residents. The source of the bacteria confused investigators, as the city draws its water from deep artesian wells thought to be free of such bacteria. As a result, the city had received a waiver from requirements to chlorinate its water supply. Investigations revealed cracks in a reservoir, which are believed to have allowed animal feces to enter the system and cause the bacterial contamination. Usage restrictions were put in place during the several-weeks-long investigation, during which time residents were advised to drink only bottled water. Colorado Water/Wastewater Agency Response Network was activated as part of the utility's response, and neighboring utilities provided equipment, such as tanker trucks. After the presence of *Salmonella* was confirmed, the entire water system was flushed and treated with chlorine. The city has since installed advanced treatment processes and improved system operations.

The water works for the city of Alamosa, Colorado. (Source: Colorado Department of Public Health and Environment)

EPA Region 9

Northridge California Earthquake – January 1994

A strong earthquake, measuring nearly 7.0 on the Richter scale, struck the Los Angeles, CA area before dawn January 17, 1994. Known as the Northridge Earthquake, it resulted in nearly 60 fatalities and $20 billion in property damages. Serious damage to critical infrastructure also occurred, obliterating elevated sections of freeway and severing gas and water lines. At least four major water transmission lines were damaged, and thousands of breaks occurred in smaller distribution pipelines. Drinking water and wastewater plants also suffered damage. Impacts were felt by tens of thousands of residents served by both major utilities (such as Los Angeles Department of Water & Power) and smaller utilities. Two drinking water treatment plants serving the San Fernando Valley area were knocked out of service. Cracks in reservoir liners caused reservoirs to be drained. A boil water order was issued for the entire City of Los Angeles. Twenty-four-hour water distribution centers were set up in multiple locations across the affected area. Water tanker trucks were deployed to some communities (e.g., trailer parks) to provide piped water services. Dozens of water line repair crews from neighboring communities outside of the impact zone were brought in to get systems back on line.



In 2005, Glendale Water & Power began demolition and replacement of its 14.5MG Chevy Chase 968 concrete reservoir, which was damaged in the 1994 Northridge earthquake. The utility determined that the most cost-effective solution was to replace it with a new modern-design concrete structure. This photo shows the inside of the large underground reservoir. (Source: Joy Gaines, Glendale Water & Power)

EPA Region 10

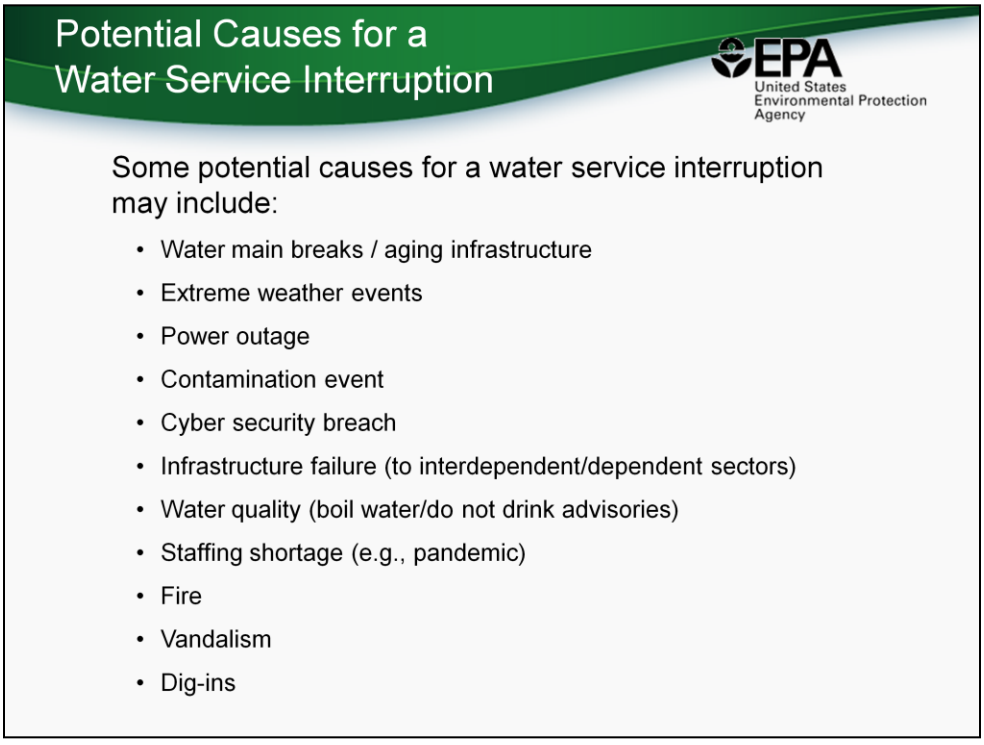
City of Portland, Oregon Contaminated Reservoir – July 2012

In July 2012, the Portland Water Bureau issued its second "boil water notice" in the city's history. The notice, which affected nearly 100,000 people, stemmed from a second positive test for bacterial contamination in a finished water reservoir. Residents were urged to boil all water used for consumption, including that for drinking, cooking, ice making, and teeth brushing. As a result, sale of bottled water spiked and a number of restaurants temporarily closed. The contaminated reservoir was drained and inspected for further contamination. Officials also investigated to determine the source of the contamination; this included review of surveillance tapes for evidence of tampering at the reservoir.

Shown above is Portland Water Bureau Reservoir 3, in Washington Park. Two positive tests for bacterial contamination in this reservoir on July 21, 2012 led the Bureau to issue a boil water notice. (Source: Public domain image)

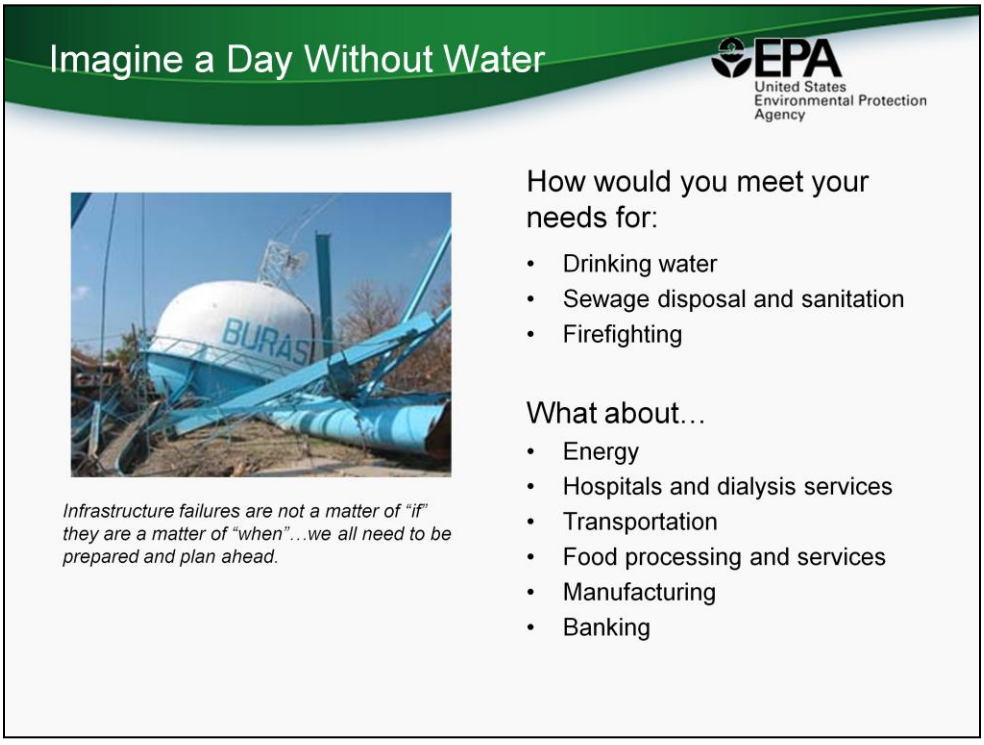
Breakout Question - Potential Causes for a Water Service Interruption:

What are some potential causes of a water service interruption?



Facilitator Action:

After the breakout group exercise, you can use the list above to illustrate other potential causes for a water service interruption.



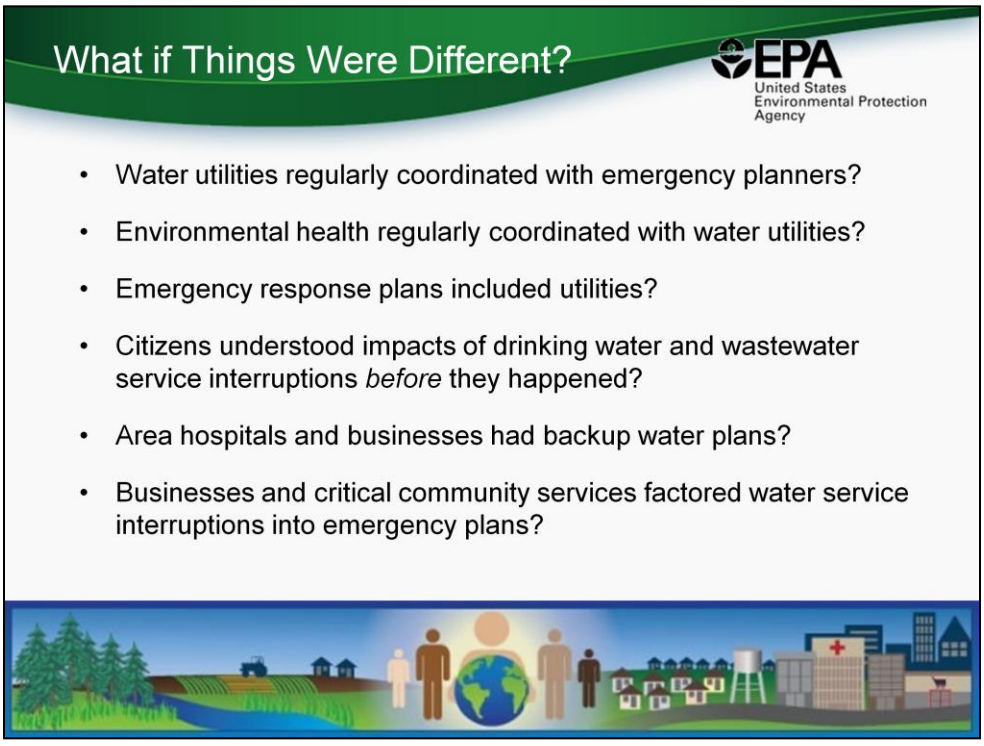
Facilitator Talking Points:

Many critical community services and all critical infrastructures rely on water to function. Similarly, drinking water and wastewater services rely on other services to ensure consistent delivery of safe water, such as transportation for the delivery of treatment chemicals.

These relationships are called interdependencies.

How can these critical functions continue to provide their services when water service has been interrupted?

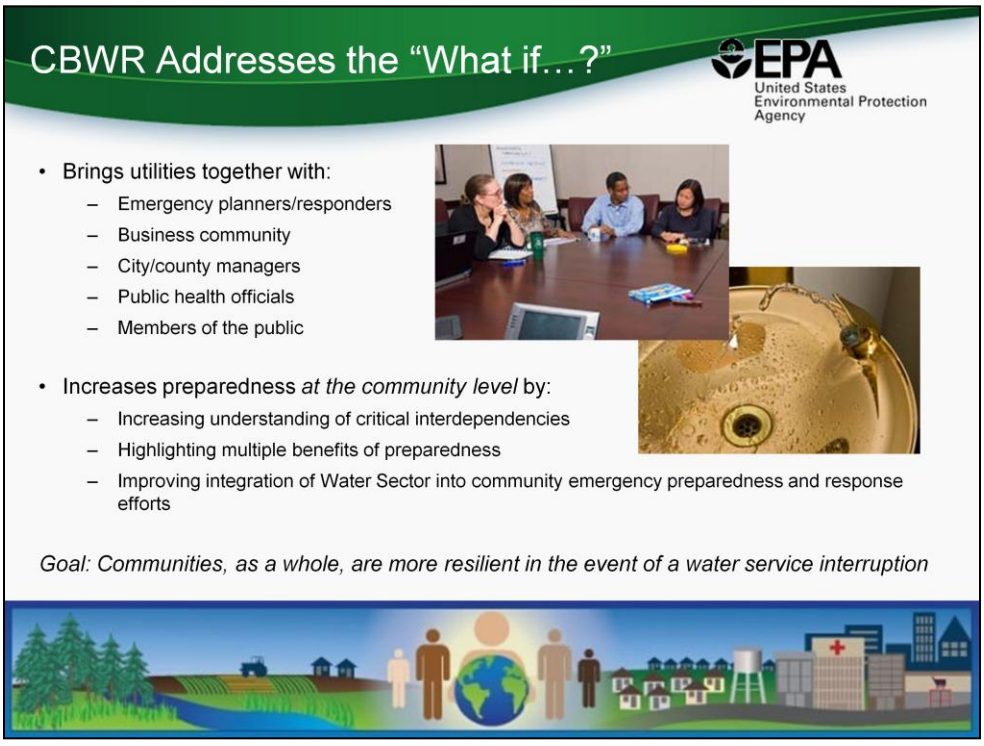
How can the community meet its needs for delivery of healthcare in a major disaster when drinking water and wastewater services have been interrupted?



Facilitator Talking Points:

What if your community was better prepared to handle water service interruptions?

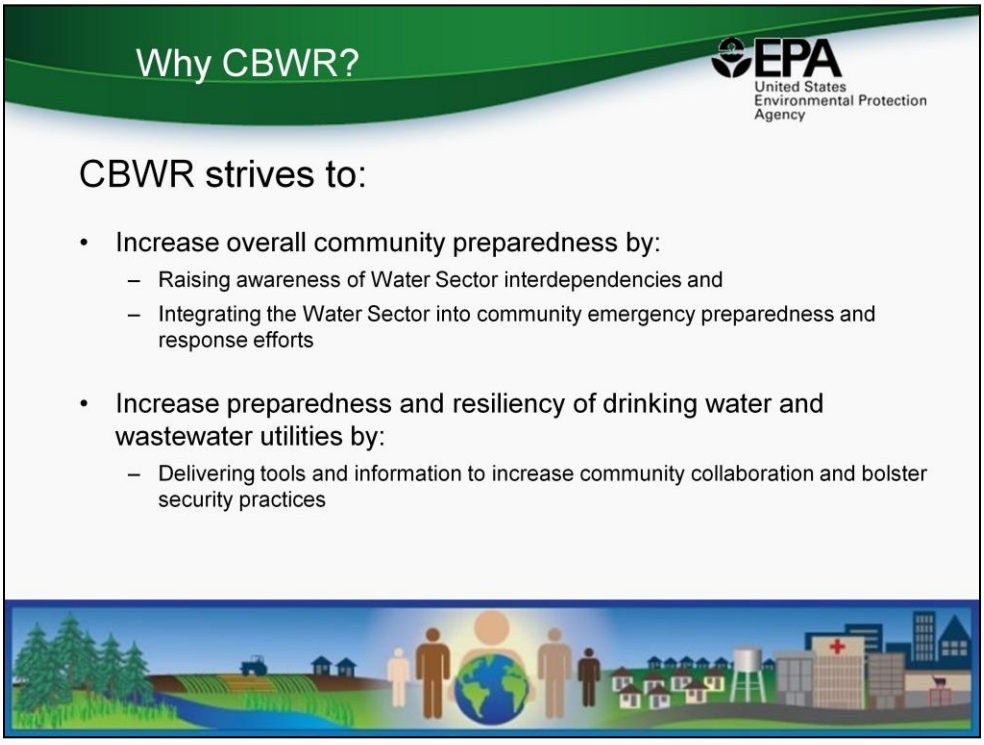
Promoting the understanding of these interdependencies enables water utility owners and operators, and their stakeholders, to better understand how a water service interruption can have detrimental effects on the services they provide to the community at large.



Facilitator Talking Points:

To reach this goal of improving community resiliency, CBWR urges community members to take the first step in preparing for a water emergency by holding a discussion to collaborate on community goals, challenges, roles and responsibilities associated with a water emergency.

Our goal is to ensure communities, as a whole, are more resilient in the event of a water service interruption.



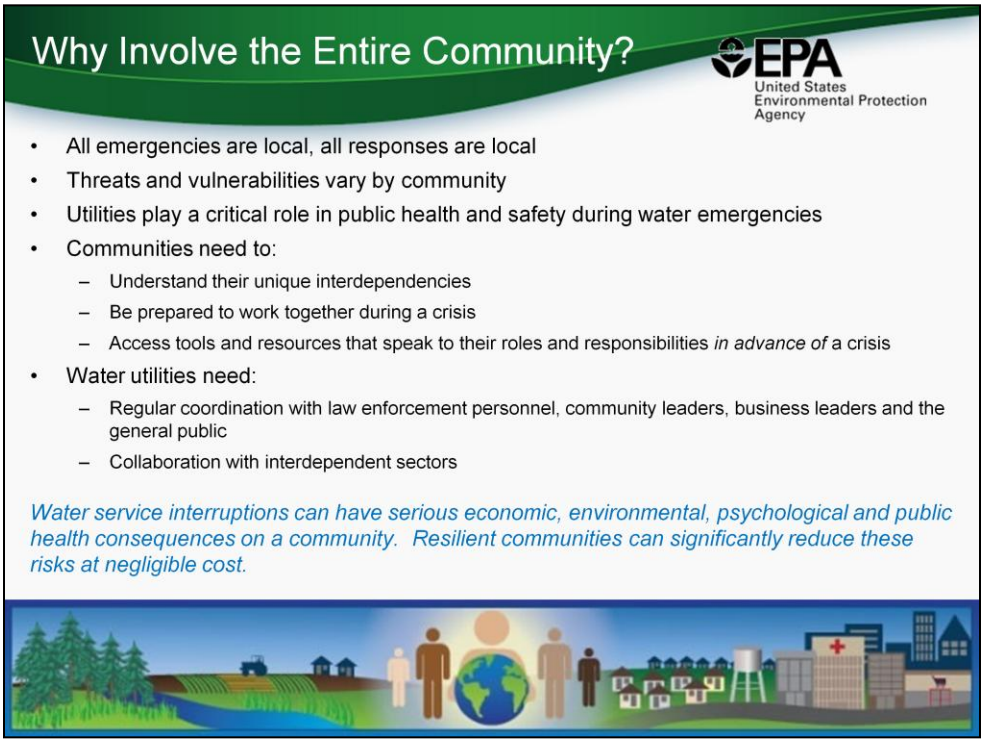
Facilitator Talking Points:

EPA's Community-Based Water Resiliency initiative, or CBWR, provides communities with the tools and resources to do just that. By preparing for water service interruptions, communities as a whole can increase their resiliency.

CBWR strives to:

- Increase overall community preparedness by raising awareness of Water Sector interdependencies and enhance integration of Water Sector into community emergency preparedness and response efforts; and

- Increase preparedness and resiliency of drinking water and wastewater utilities by delivering tools and information to increase community collaboration and bolster security practices.



Facilitator Talking Points:

Many of us take drinking water and wastewater services for granted and have given little thought to what would happen if an emergency caused an interruption of water service.

Help from state or federal agencies could take days or weeks to arrive, which is why emergency planners emphasize local preparedness as a key step to maintain community resiliency.

A discussion provides an opportunity for folks in a community to have a frank conversation about their plans for interruptions to both drinking water and wastewater services. It also provides an opportunity to identify actual emergency water needs to make planning more effective.

Raising awareness of these issues in a community is a good first step to improve preparedness. By working together, BEFORE an emergency, you and your community can be prepared for water service interruptions.

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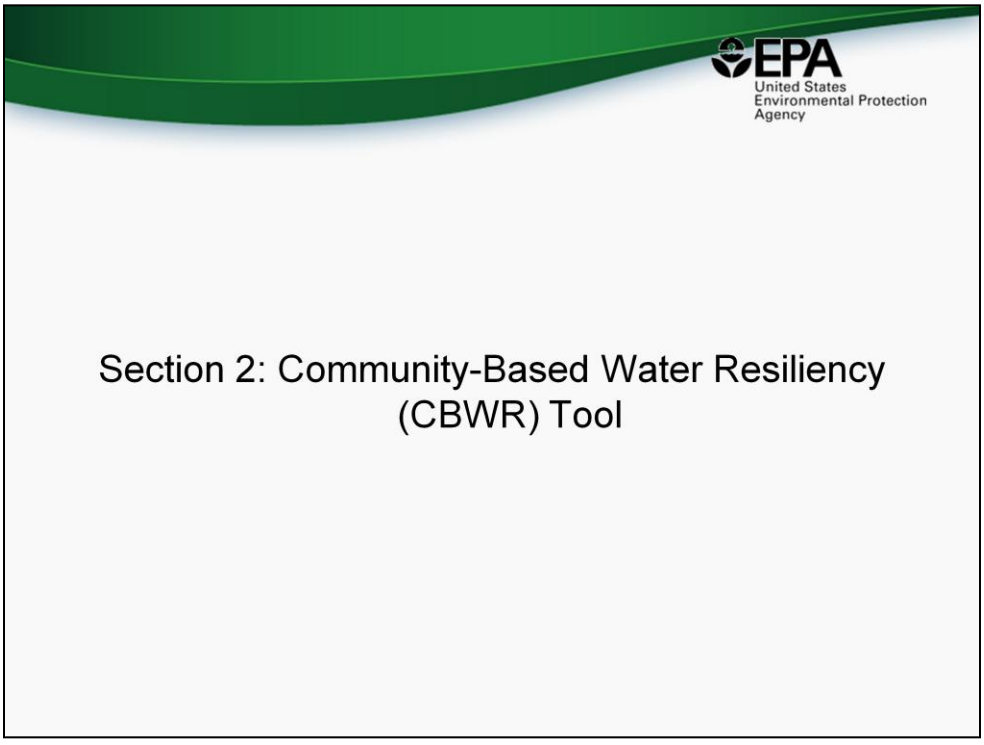
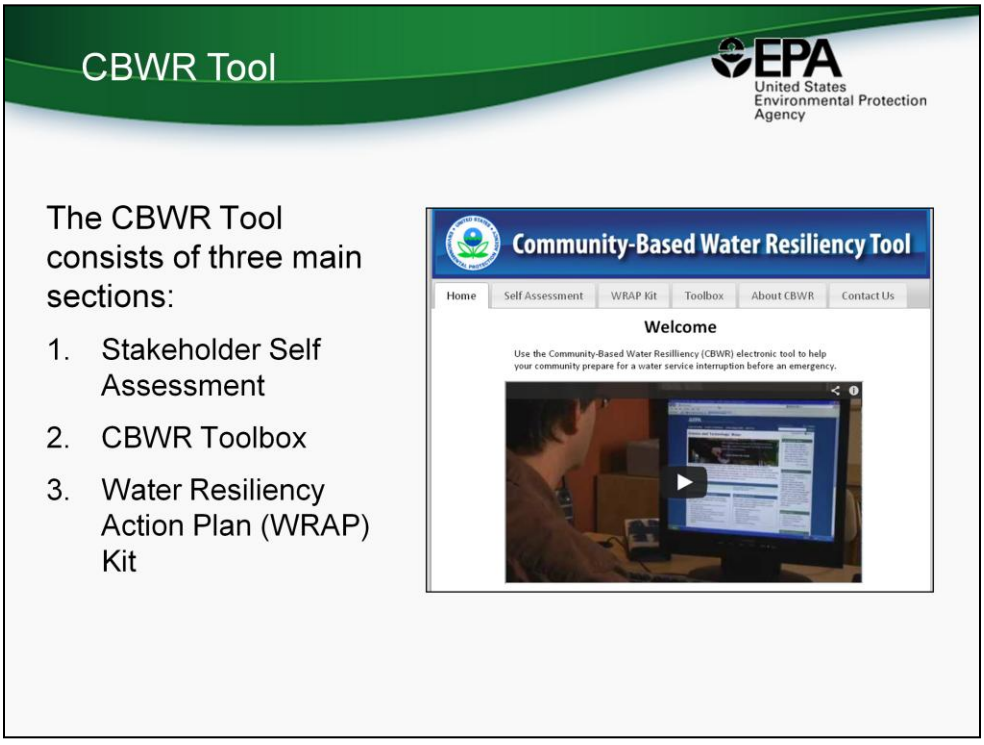


Facilitator Talking Points:

In this section of the training, I will provide an overview of the Community-Based Water Resiliency (CBWR) Tool. In February 2011, EPA released the CBWR Tool to help communities become more resilient to a water service interruption. EPA released an updated version of the tool in April 2013.

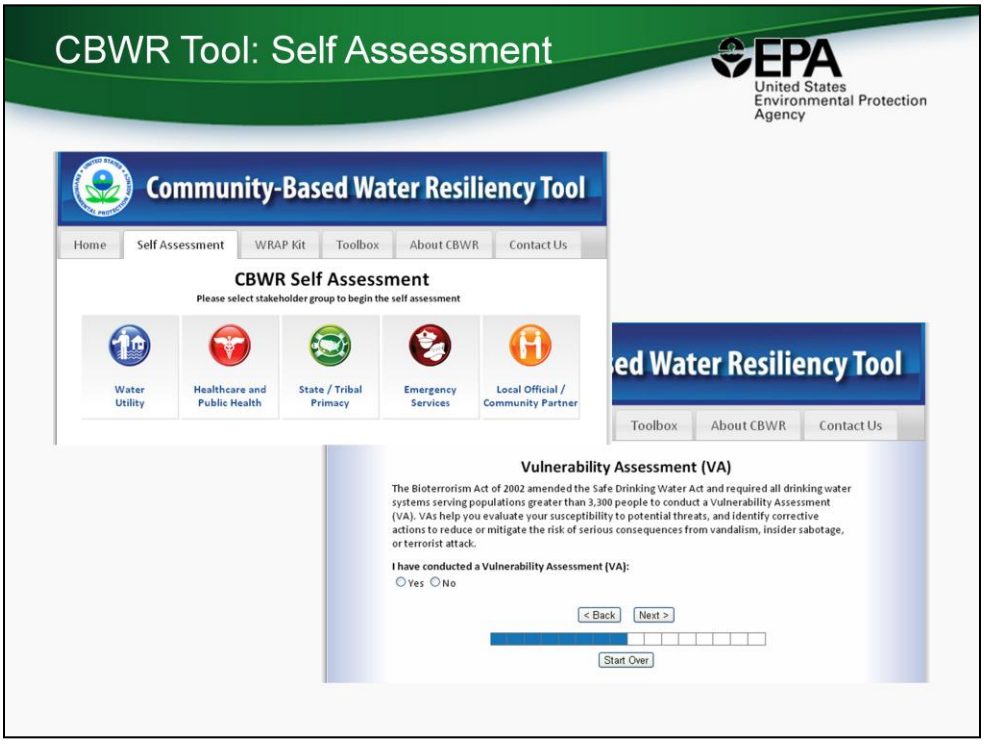


Facilitator Talking Points:

The CBWR Tool contains three main sections:

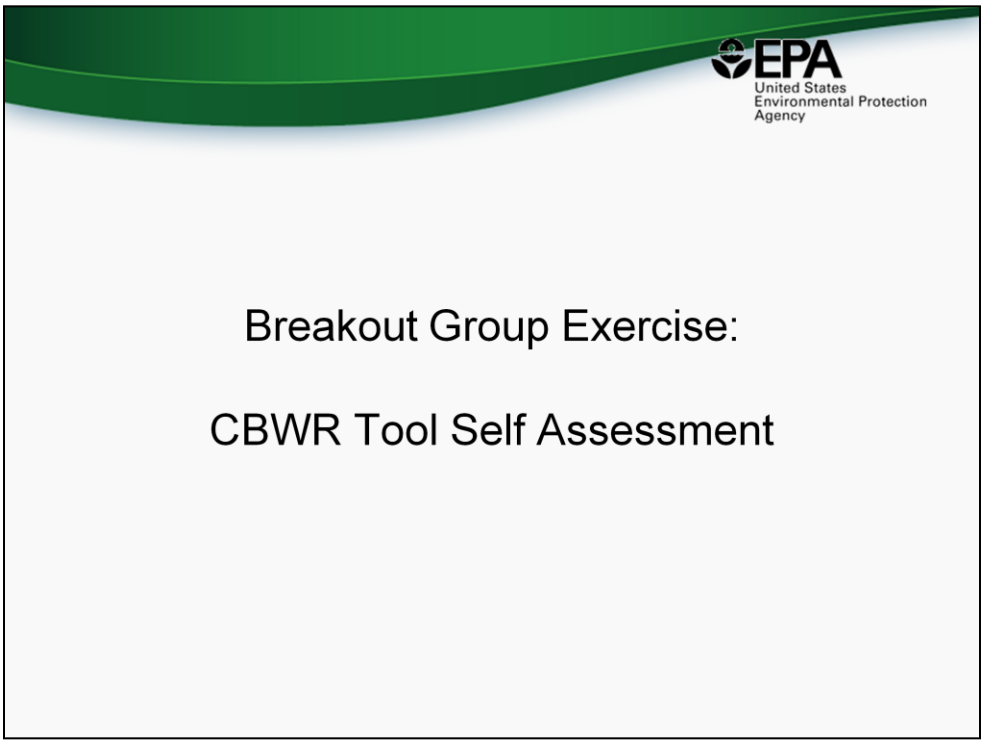
1. Stakeholder Self Assessment
2. CBWR Toolbox
3. Water Resiliency Action Plan (WRAP) Kit

This section of the training will provide an overview of each of these sections, as well as a breakout exercise.



Facilitator Talking Points:

The CBWR Self Assessment allows users to assess their current level of preparedness to a water service interruption. At the conclusion of the self assessment, users receive a tailored Summary Report that provides suggestions and resources to increase their preparedness level.



Facilitator Action: Allow 20 minutes for groups to complete this exercise.

Group participants according to the stakeholder groups in the CBWR Tool. If the entire group is representative of only one or two stakeholder groups, then use the groups formed during the introduction.

Have each group run through a Self Assessment. Assign each group with a different stakeholder group. Allow enough time for all members of the group to read or hear the questions (if read aloud) and collectively agree on the answers. Note takers will record the category of concern, the answer provided, and what resources the Tool indicated as helpful. Once completed, the spokesperson for each respective group will report out on their findings.

Facilitator Talking Points:

Now, each group will run through one of the stakeholder self assessments. The purpose of exercise is to familiarize yourselves with the Self Assessment section of the CBWR Tool and learn how you can use the Summary Report as part of your preparedness planning.

Please take time to read through and answer each question. At the conclusion of the self assessment, you will receive a tailored summary report based on your answers. On the provided worksheet, please document three areas of concern (responses with a red checkmark) and the tools and resources the summary report recommends. A spokesperson from each group will provide a report out at the conclusion of the exercise.

Self Assessment Category of Concern 1:

Self Assessment Stakeholder Group: _____

Identify a question where you received a negative response (indicated by red X):

_____

_____

_____

What suggestions and resources does the tool recommend?

_____

_____

_____

_____

_____

Self Assessment Category of Concern 2:

Self Assessment Stakeholder Group: _____

Identify another question where you received a negative response (indicated by red X):

_____

_____

_____

What suggestions and resources does the tool recommend?

_____

_____

_____

_____

_____

Self Assessment Category of Concern Additional:

Self Assessment Stakeholder Group: _____

Identify another question where you received a negative response (indicated by red X):

_____

_____

_____

What suggestions and resources does the tool recommend?

_____

_____

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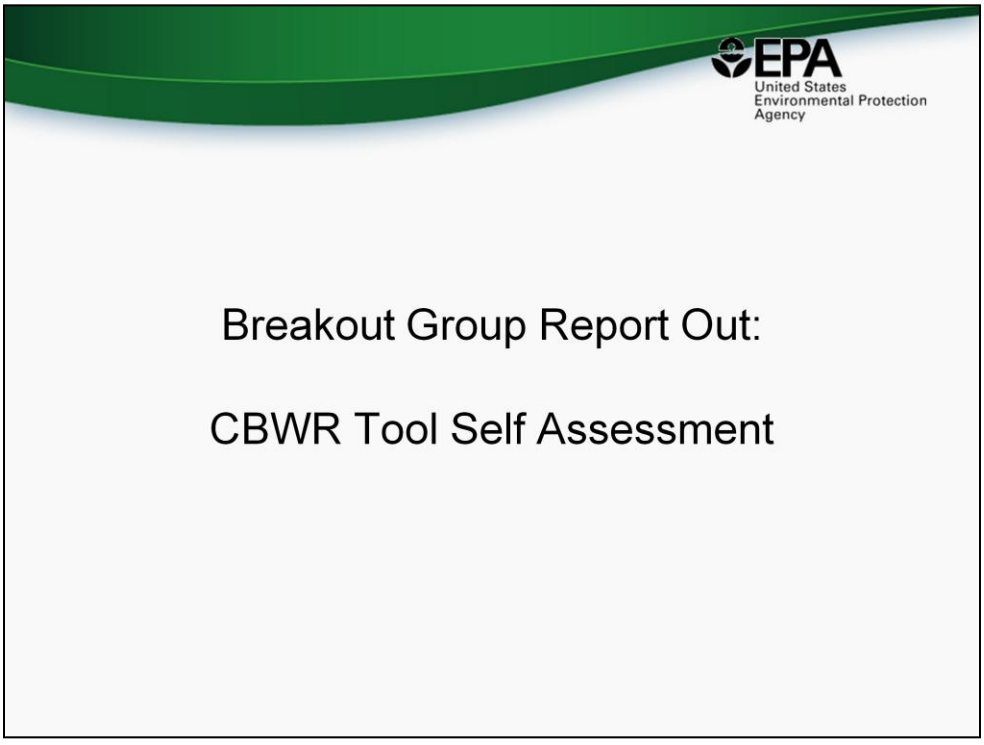


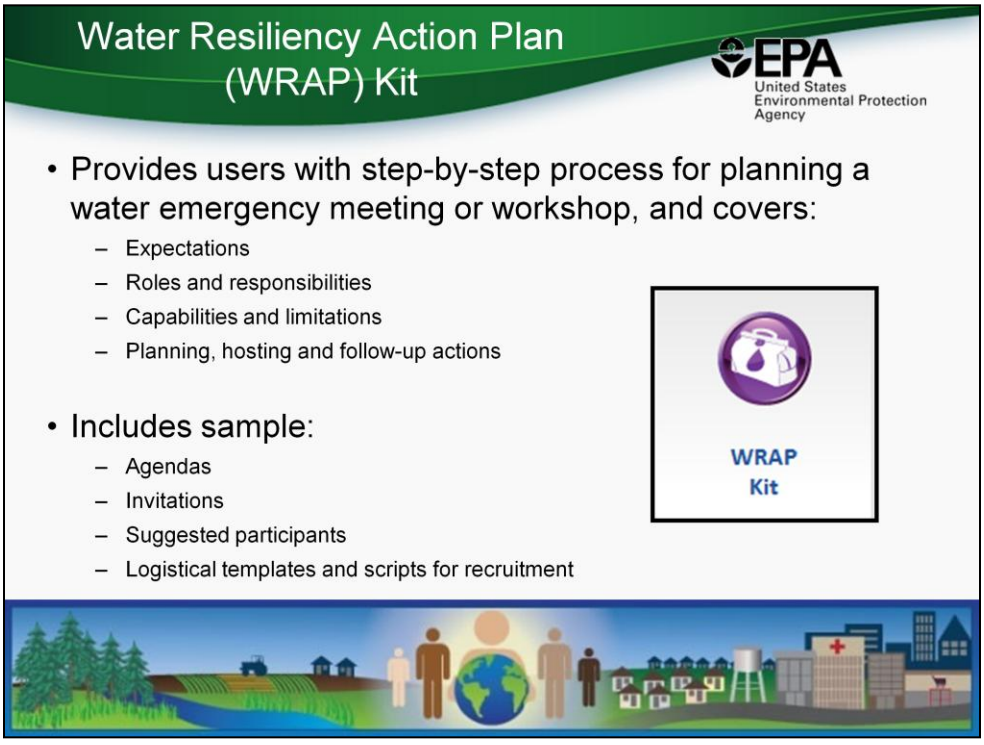
Facilitator Action:

Have the spokesperson from each group report out on the two identified areas of concern from the breakout group Summary Report. Discuss what actions the group could take to address each area of concern.

Facilitator Action: Provide a brief demonstration of the CBWR Toolbox. After the demonstration, the facilitator will show how users can find resources in the toolbox. First, show how they can find a document by locating the appropriate drawer within a particular toolbox. Next, show how users can find a document using the "Search this Toolbox" function. Here are some key words to search: tabletop exercise, mutual aid, ICS, pandemic and wastewater.

Facilitator Talking Points:

The CBWR Toolbox provides users with over 400 tools and resources to become better prepared for a water emergency. Each of the five stakeholder groups has its own toolbox, as well as a separate toolbox for all of the tools and resources. To assist with finding a specific resource, each toolbox is broken down into categories, and there is also a search function that allows you to search for a specific document or keyword. The computer icon to the right of some of the resources indicates that you will be leaving the CBWR Tool to access this document. This also means that you will need to be connected to the internet.



Facilitator Talking Points:

The Water Resiliency Action Plan Kit (or WRAP Kit) guides users through a step-by-step process to discuss respective expectations, roles, capabilities and limitations in the event of a major water emergency.

Covering all aspects of planning, hosting, and following up on community-based water emergency planning discussions, the Wrap Kit includes everything from sample agendas and invitations, to suggested planning committee members and participants, to logistical templates and scripts for recruiting participants.

We will have a more detailed discussion on the WRAP Kit in Section 4 of this training.

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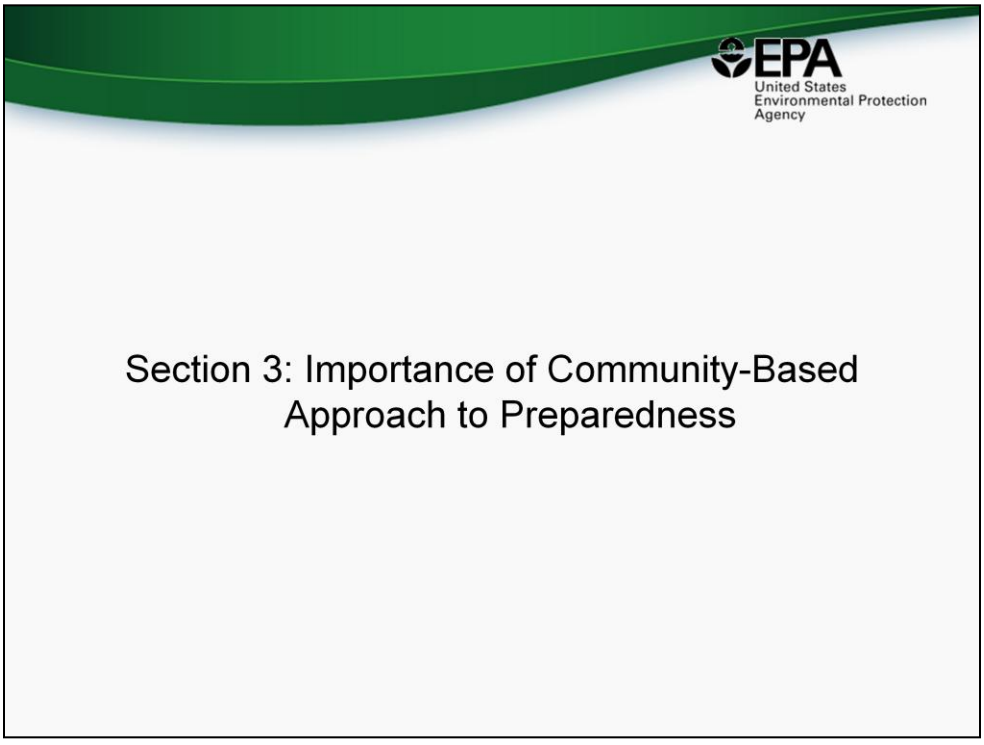
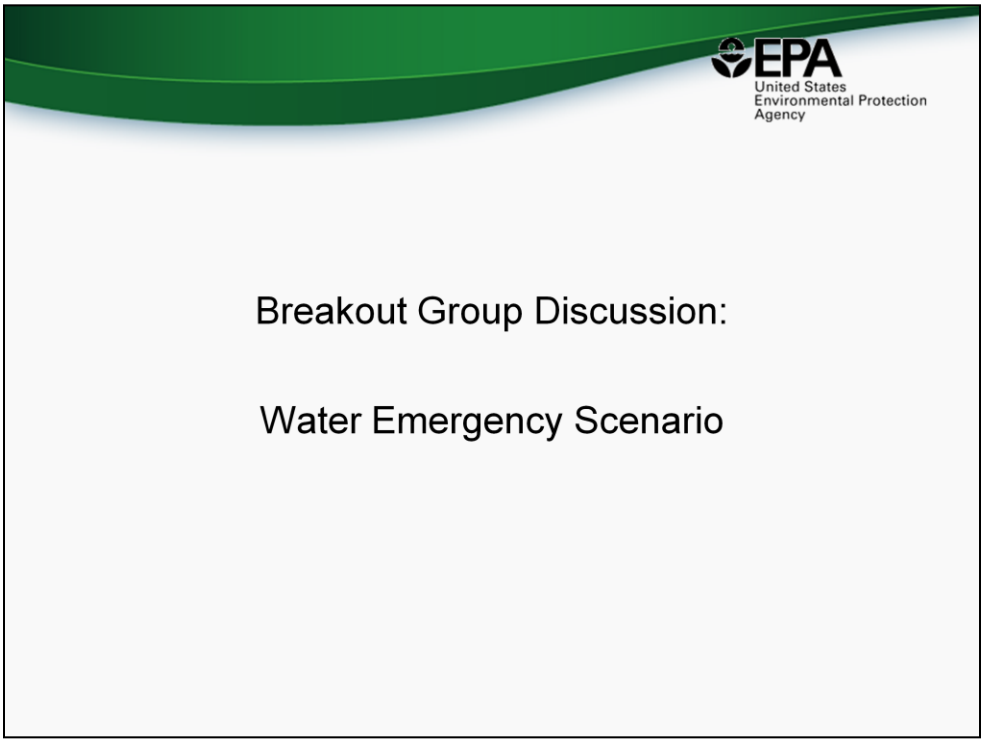


Facilitator Talking Points:

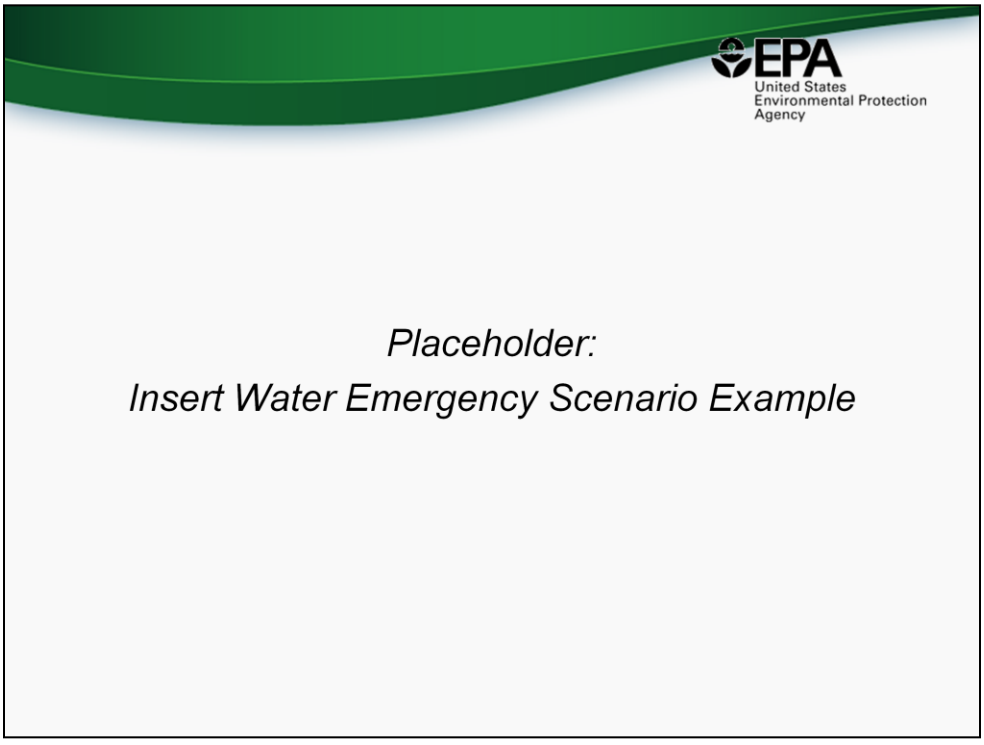
In Section 3 of this training, we will be discussing the importance of a community-based approach to preparedness. We will discuss the possible impacts to the community due to a water service interruption and how the community can become better prepared and more resilient.



Facilitator Action: Provide a refresher of the scenario discussed earlier. The groups will answer the four following breakout questions and report back to the entire group between each question. Allow approximately 20 minutes for the groups to answer the questions and 10-15 minutes to report out.

Facilitator Talking Points:

Based on the scenario I just provided, please, as a group, discuss the scenario and answer the four questions on the provided worksheet. The purpose of this exercise is to walk through an emergency scenario to identify impacts to the community and discuss how to become better prepared. Again, each group will need to assign a note-taker and a spokesperson. Please use a different note-taker and spokesperson for this exercise.



Facilitator Action: Insert slide briefly describing a water emergency scenario. Note: please see list of water emergency scenarios provided in Section 1 of this training.

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Water Emergency Scenario - Question 1:

Given the scenario you just discussed, what impacts would you expect on the community?

Water Emergency Scenario - Question 2:

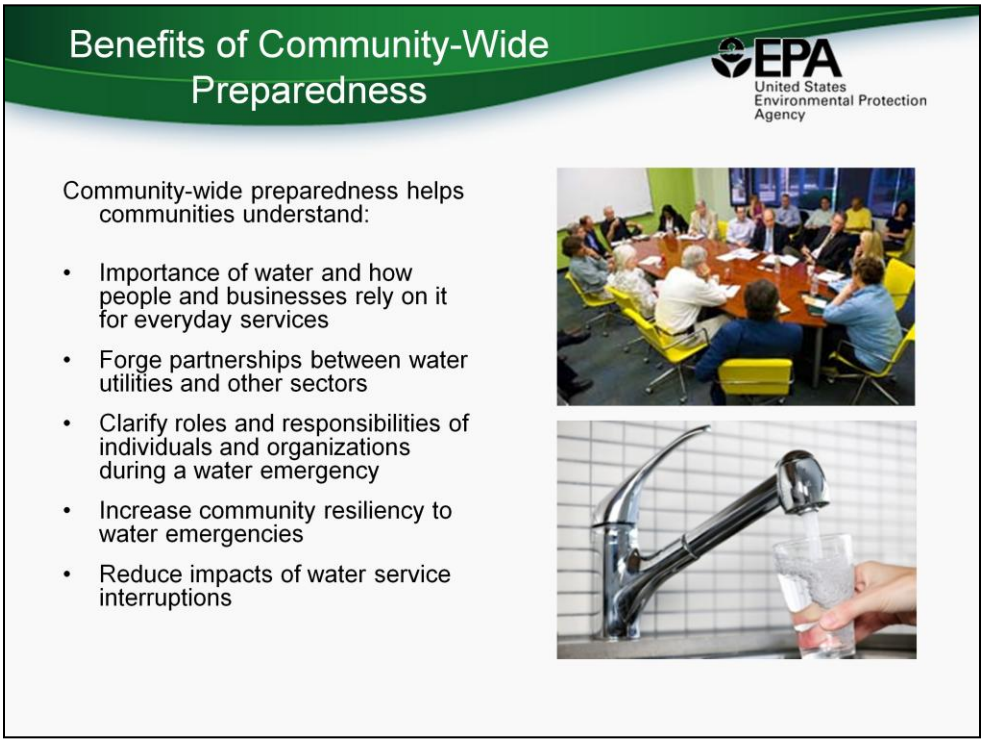
Based again on the scenario you discussed, what types of emergency plans could have been in place to mitigate impacts?

Water Emergency Scenario - Question 3:

What other actions could you take to improve preparedness?

Water Emergency Scenario - Question 4:

Who could you collaborate with in your community to improve preparedness?



Facilitator Talking Points:

Community-wide preparedness allows water utilities to forge partnerships with their customers, interdependent sectors, response partners and other community stakeholders *before* an emergency. This will help define and clarify roles and responsibilities during a response.

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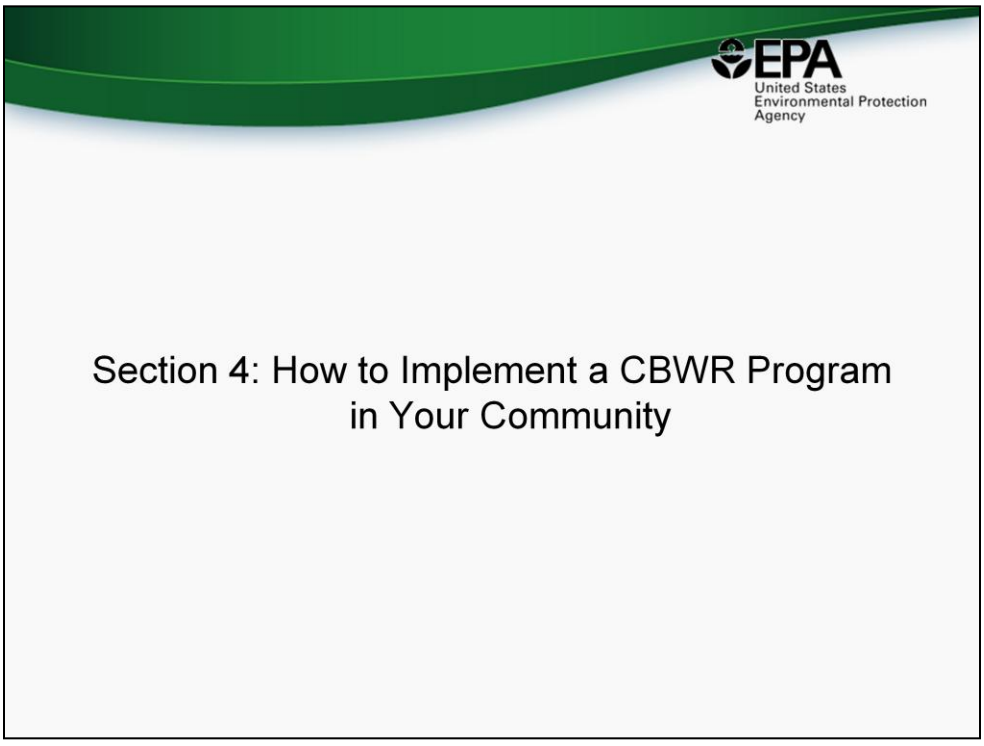
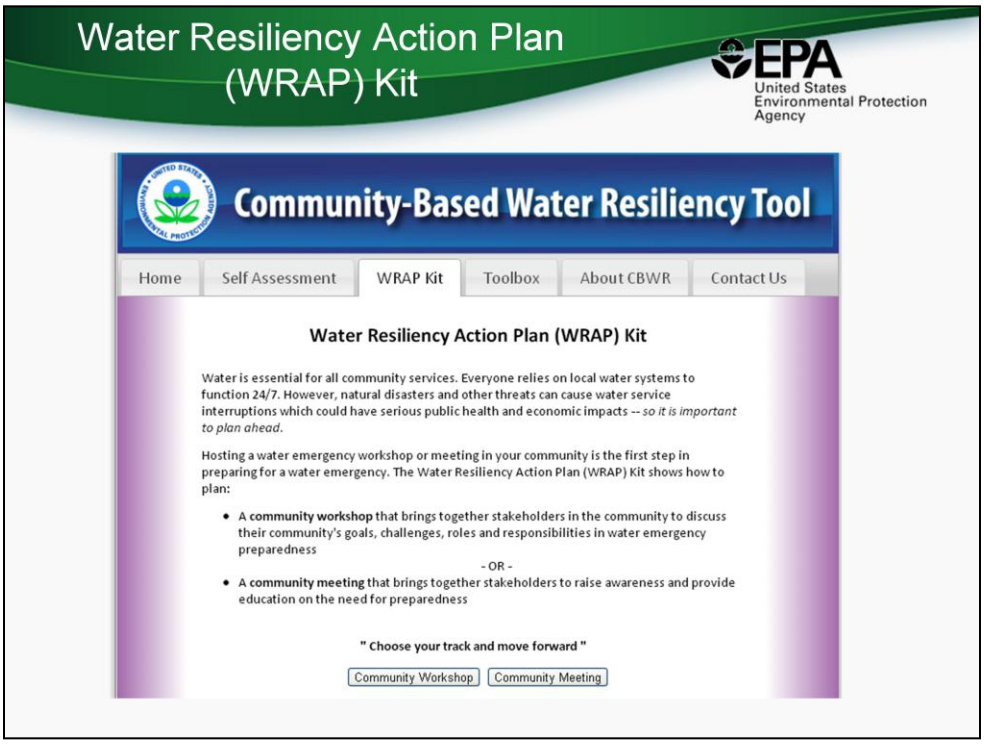


Facilitator Talking Points:

Now that you understand the impacts of an interruption to water service, we will now focus on how your community can become better prepared. In this section, I will demonstrate how you can use the Water Resiliency Action Plan Kit (or WRAP Kit) to implement a CBWR program in your community.



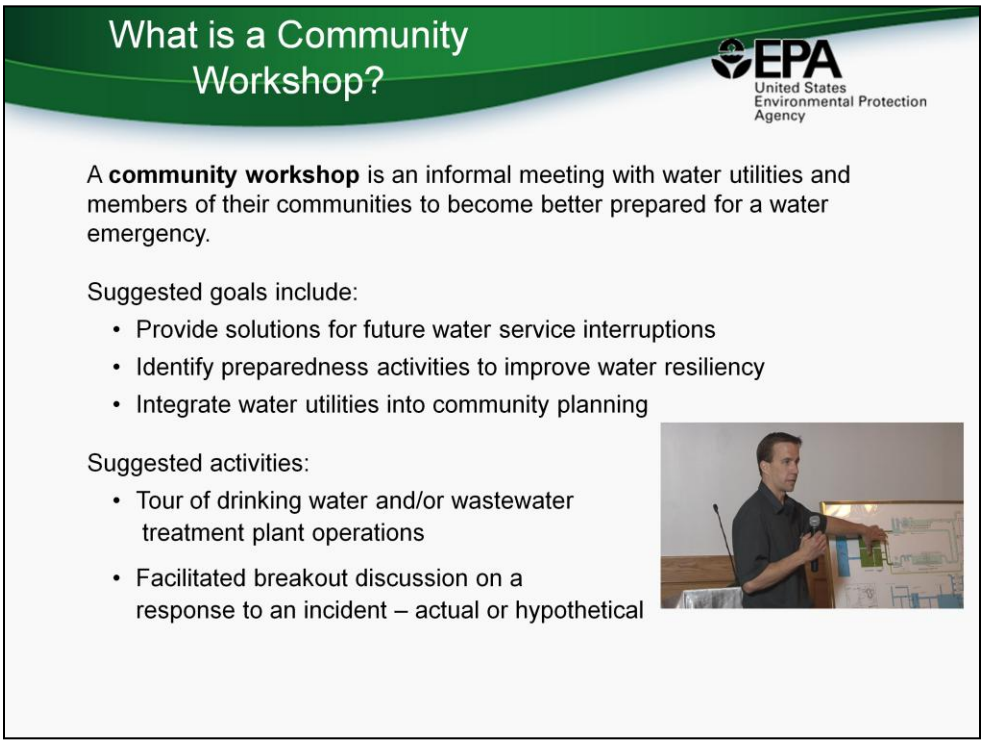
Facilitator Talking Points:

As introduced in Section 2, the WRAP Kit (or Water Resiliency Action Plan Kit) guides users through a step-by-step process to discuss respective expectations, roles, capabilities and limitations in the event of a major water emergency. The WRAP Kit covers all aspects of planning, hosting and following up on community-based water emergency planning discussions.

The WRAP Kit allows users to choose between planning a “Community Workshop” or a “Community Meeting” depending on the preparedness level of the community.

A **community workshop** brings together stakeholders in the community to discuss their community's goals, challenges, roles and responsibilities in water emergency preparedness.

A **community meeting** is an informational session that brings together stakeholders to raise awareness and provide education on the need for preparedness.

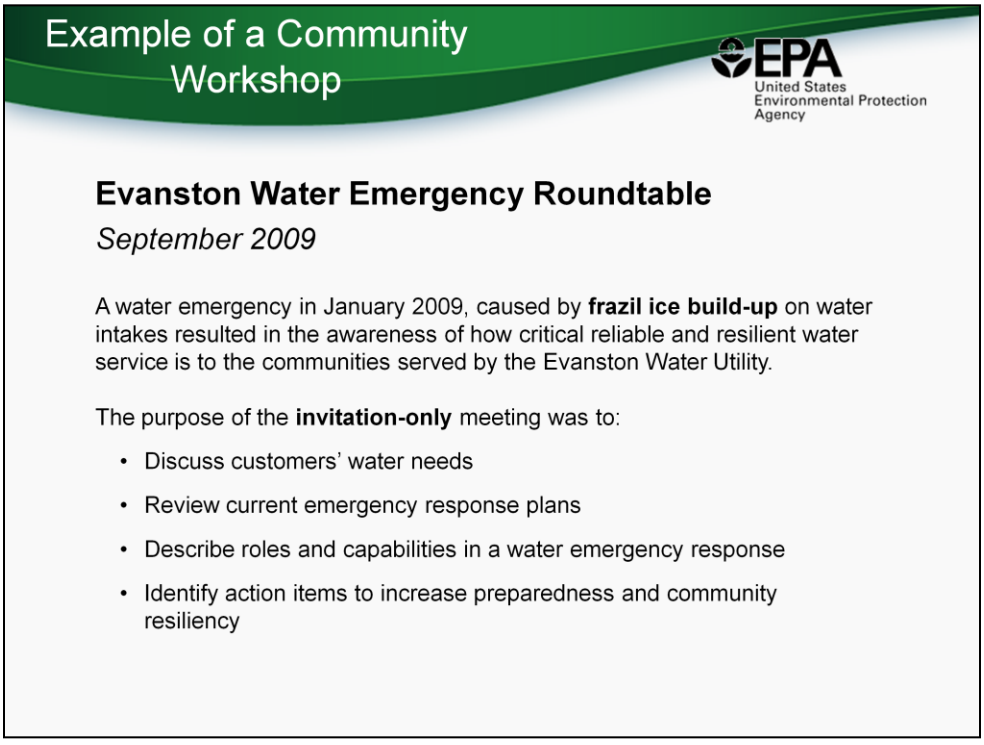


Facilitator Talking Points:

A community workshop is an informal meeting with water utilities and members of their communities to become better prepared for a water emergency. Following an incident, a community workshop is a good way to bring together community partners to discuss their response and how they can improve their resiliency.

A community workshop may also be more appropriate for communities that have already engaged in planning for an interruption to water service.

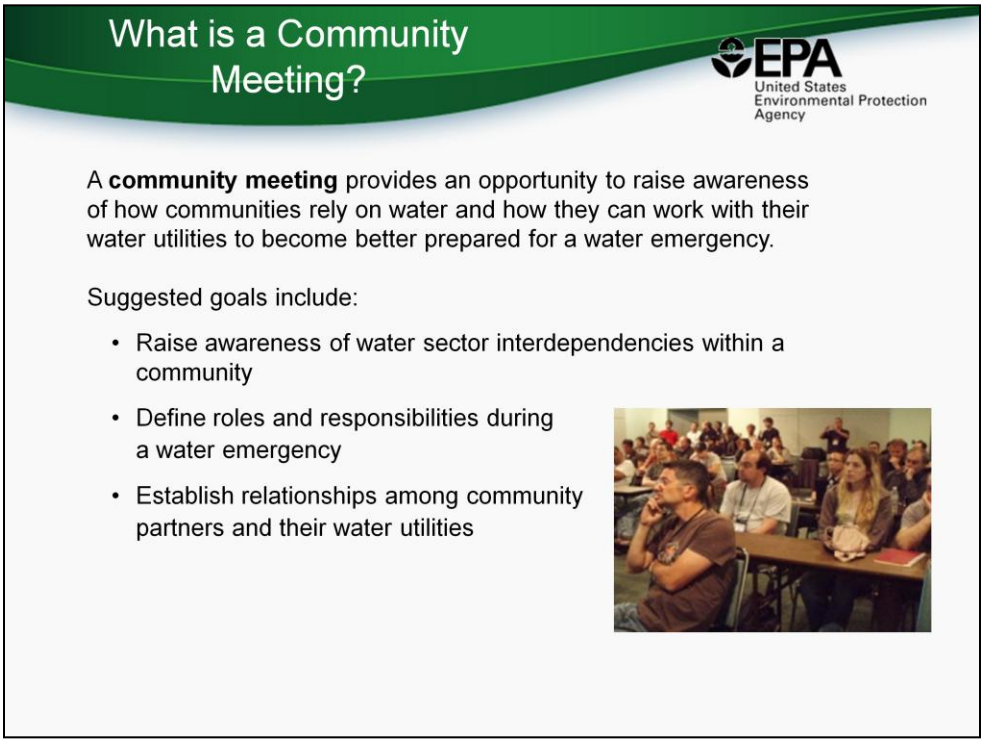
Prior to the workshop, you may also want to include a tour of your drinking water or wastewater treatment plants. This will help familiarize attendees with the equipment and technical skill required to provide or treat water.



Facilitator Talking Points:

The Evanston Water Emergency Roundtable is a good example of a community workshop. In January 2009, a frazil ice build-up on the water intakes significantly reduced water pressure. While the incident was not catastrophic, it forced the community to examine its water needs to become better prepared for a water shortage or outage.

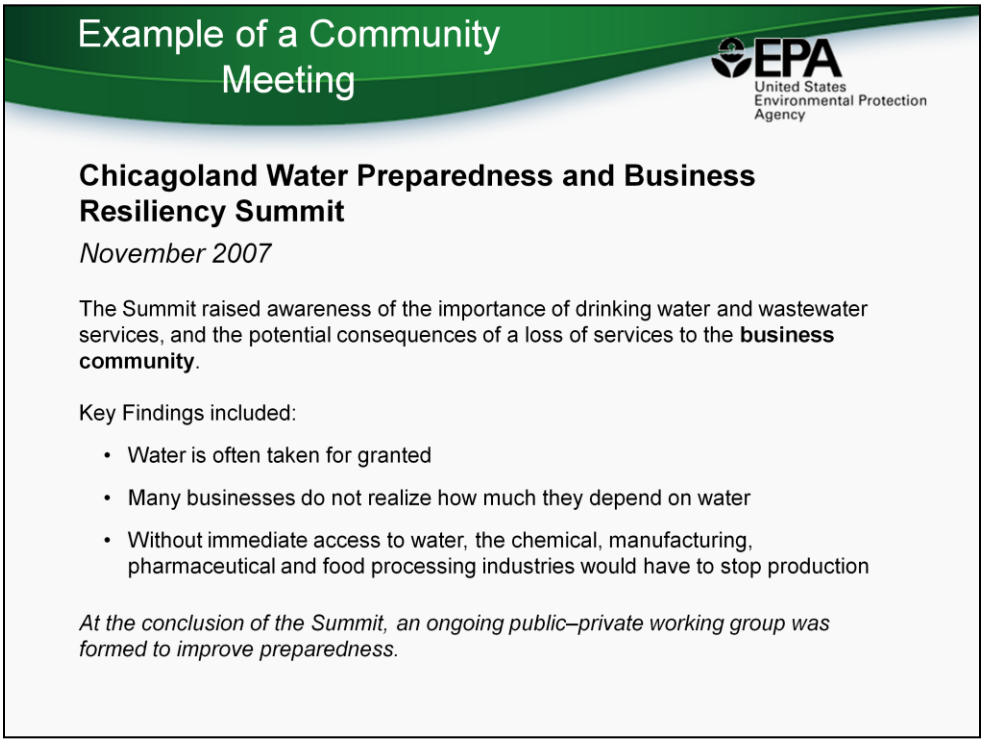
Approximately 60 people attended this invitation-only workshop. Participants included the Evanston water utility, surrounding water utilities, emergency responders (fire, police) and large water users (Northwestern University, condo associations).



Facilitator Talking Points:

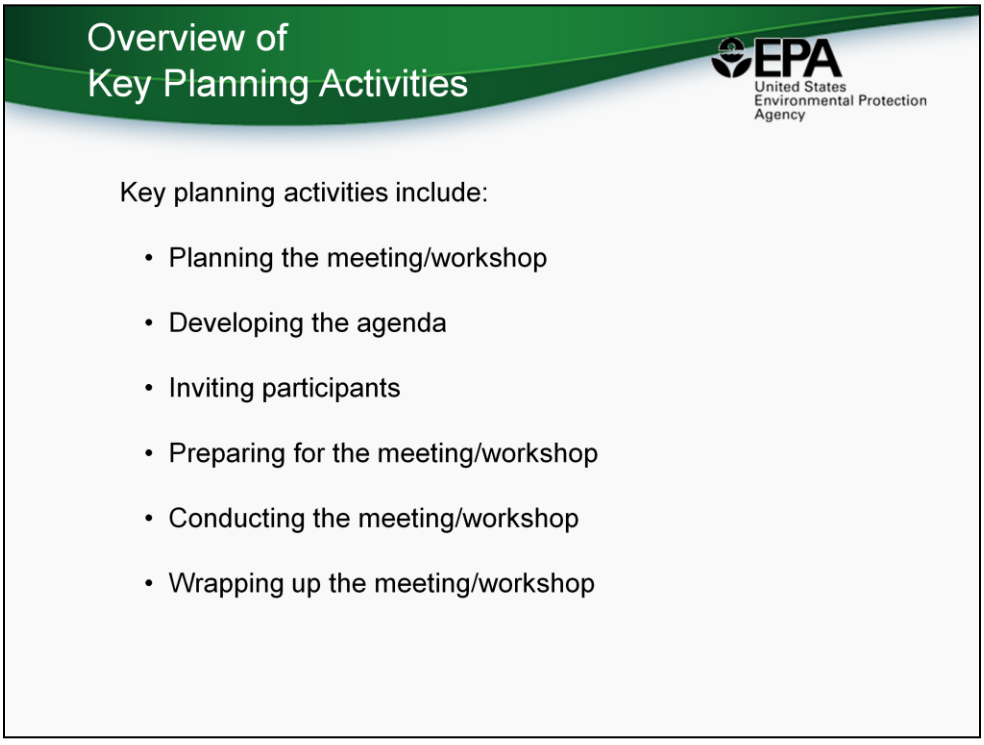
Many of us take drinking water and wastewater services for granted and have given little thought to what would happen if an emergency caused an interruption of water service. Help from state or federal agencies could take days or weeks to arrive, which is why local preparedness is a key step to maintaining community resiliency.

A community meeting can provide stakeholders with a better understanding of the importance of preparing for water service interruptions.



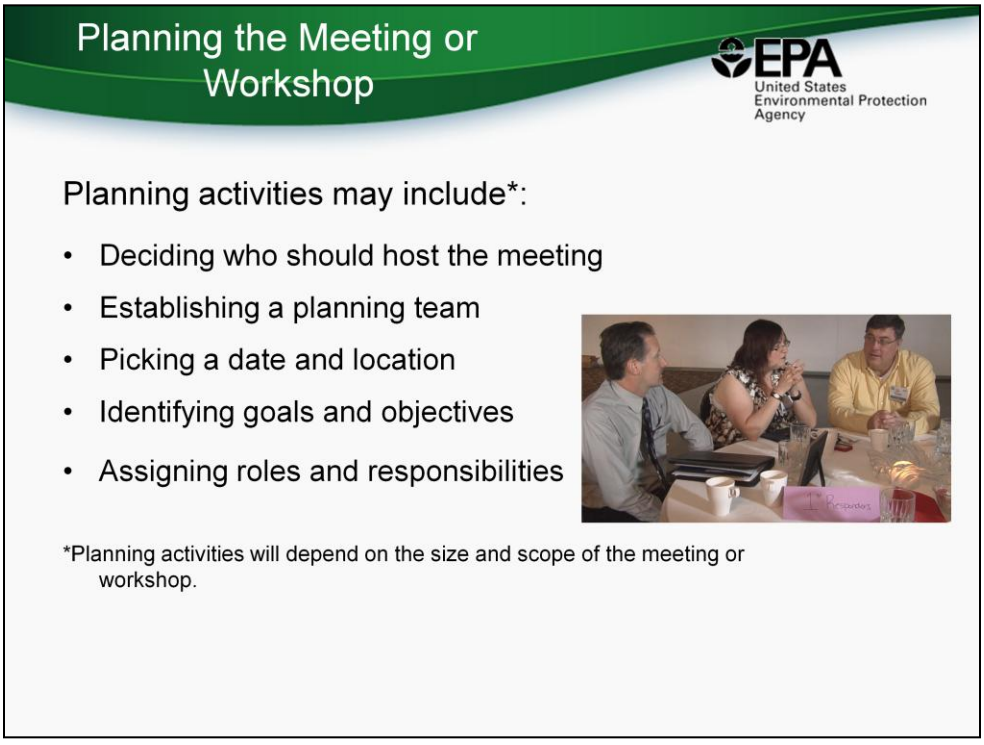
In 2007, EPA Region 5 and the Chicago Manufacturing Center co-hosted the Chicagoland Water Preparedness and Business Resiliency Summit. The purpose of the Summit was to raise the awareness of the importance of drinking water and wastewater services to the business community (primarily manufacturing).

In this case, a community meeting was a better approach because the audience did not necessarily know how they relied on water. The meeting was more educational/informational.



Facilitator Talking Points:

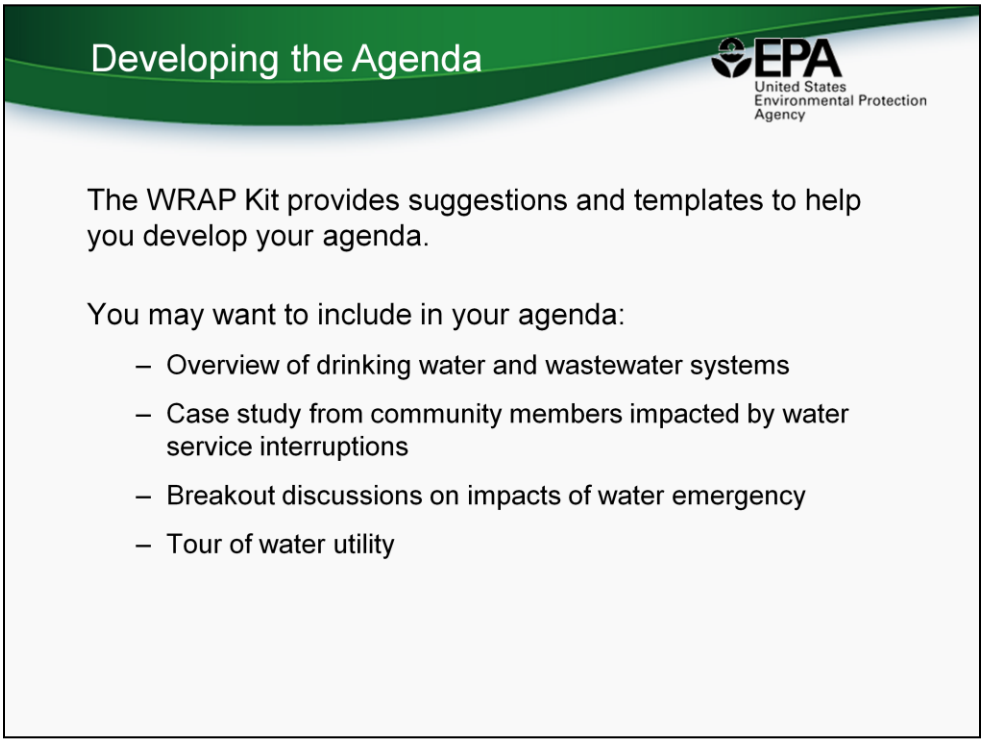
While the scope and content for both of the tracks will vary, the key planning activities are the same. We will discuss each of these planning activities in further detail.



Facilitator Talking Points:

Anyone in a community can initiate and plan a water emergency meeting—whether you are a water utility, emergency responder, a hospital or any other community organization.

A planning team might be useful to help you address the multiple components of your meeting. By leveraging collective resources you can plan a meeting that works for your community.

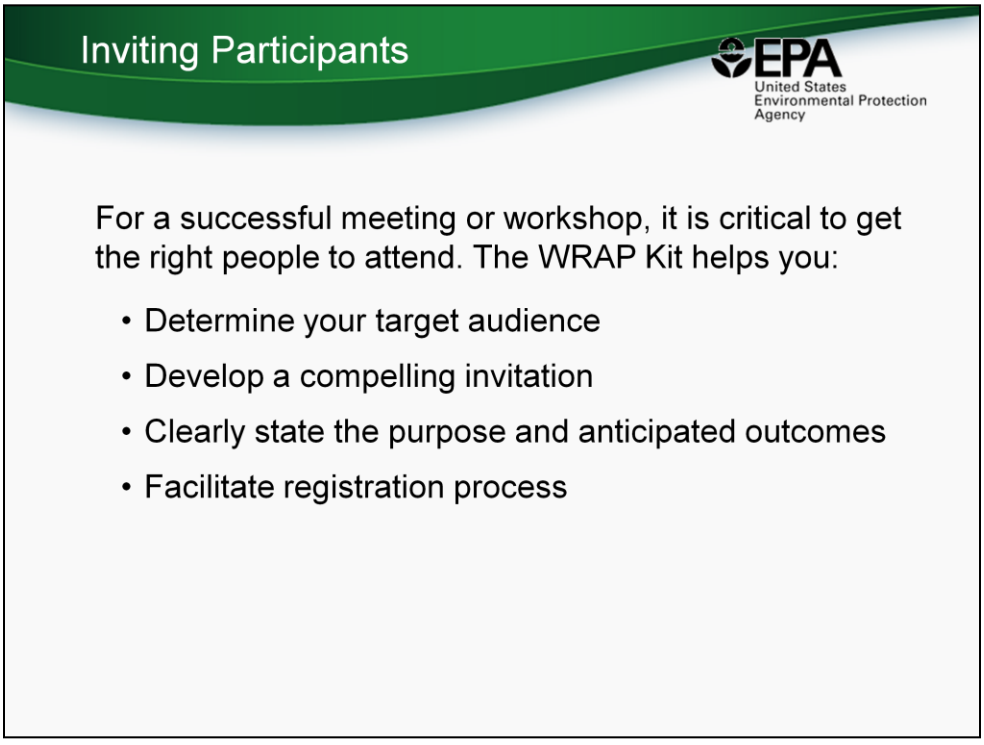


Facilitator Talking Points:

The WRAP Kit provides suggestions and templates to help you develop your agenda. Past meetings generally started with a basic overview of drinking water and wastewater systems. You may also want to include case studies from previous emergencies. A Protective Security Advisor from the United States Department of Homeland Security can provide information on risks and vulnerabilities to your community and the services they can provide.

If the meeting or workshop is hosted at the water utility, you may want to consider having a tour of the facility, prior to the meeting. This will help familiarize participants with your operations.

Developing the agenda to meet the needs of your community can be difficult. Make sure you allow enough time to finalize the agenda and confirm your presenters.

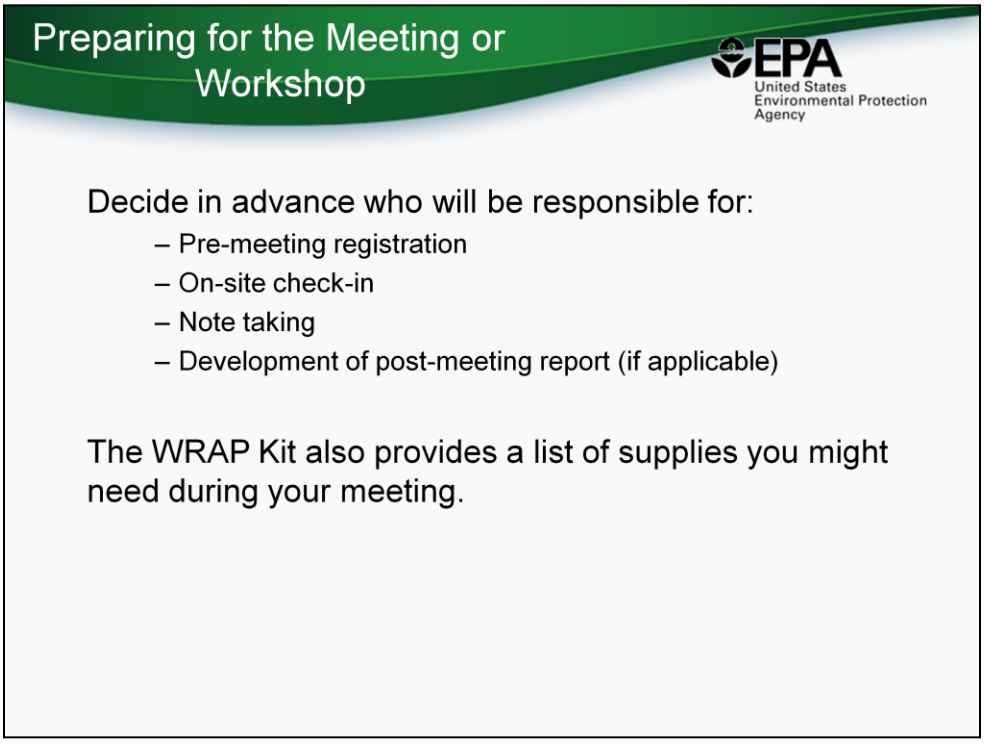


Facilitator Talking Points:

Previous water emergency meetings have included from 25 to more than 100 participants. As a starting point, consider inviting critical water customers and local emergency managers – those with a vested interest and/or need to work closely with the water system or emergency responders during a water crisis.

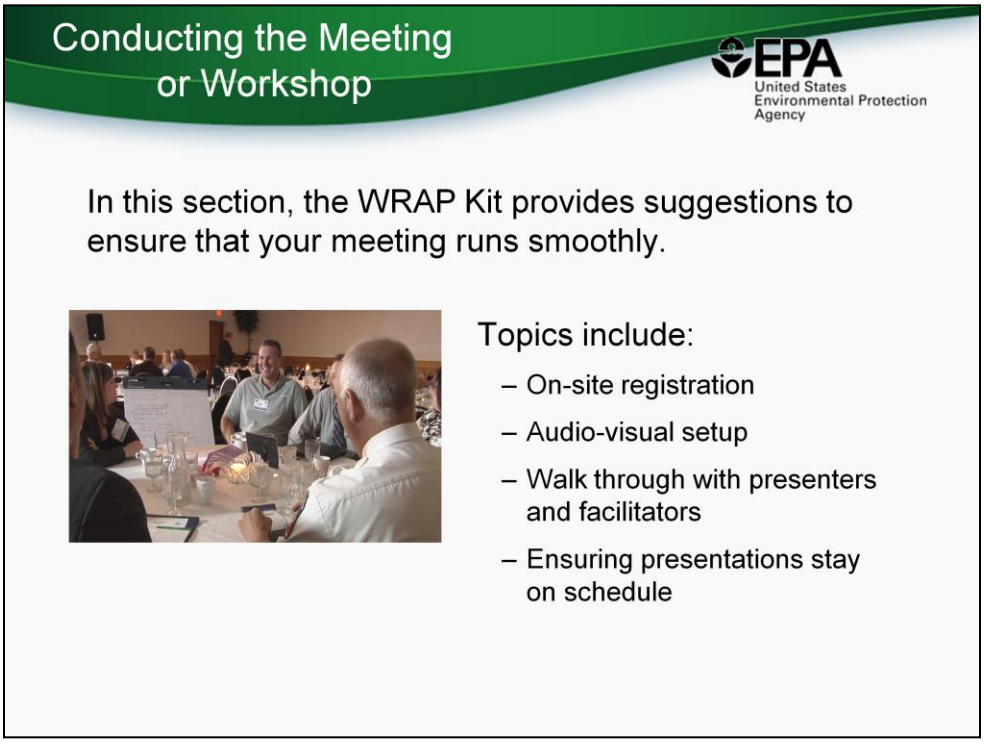
Some questions to consider before extending the invitations:

- Will you limit participants to those within your immediate community?
- How many people can you accommodate?
- Will the meeting be open to the public or by invitation only?
- What percentage of attendees do you want from each stakeholder group?
- What are the community goals and desired outcomes of the meeting?
- How will invitations be extended (email, letter, phone)?



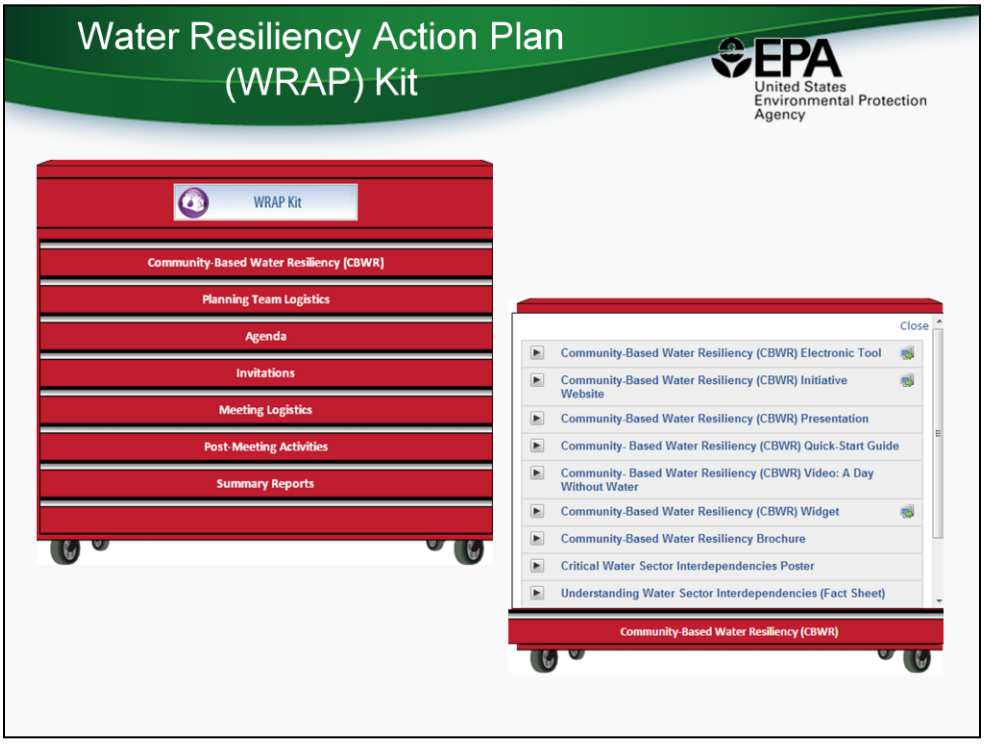
Facilitator Talking Points:

To help your workshop or meeting run smoothly, your planning team should walk through your agenda, from beginning to end. During the planning process, identify who will manage registration, staff onsite check-in, document discussions during the meeting and develop a post-meeting report.



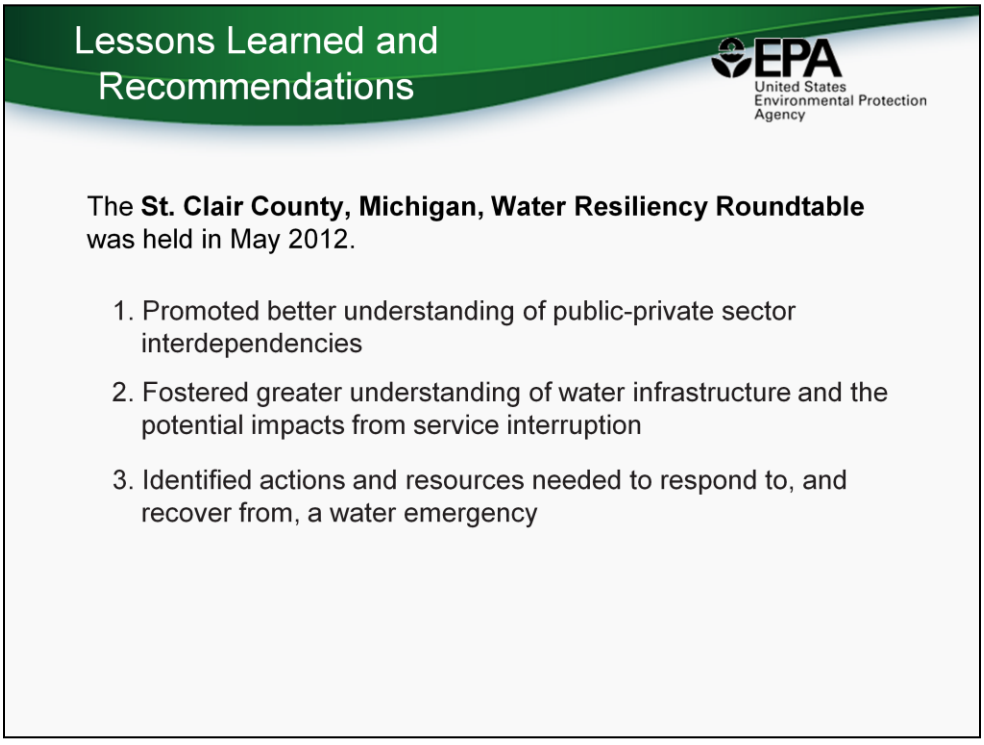
Facilitator Talking Points:

The morning of the Community Meeting or Workshop, you should conduct a quick walk-through with the presenters and moderators to make sure each of them knows exactly what is expected of them. Also, check all of the audio-visual equipment to ensure that everything is working properly.



Facilitator Talking Points:

As you have just heard, the WRAP Kit Toolbox includes everything you need to host a successful meeting or workshop in your community, including invitations, agendas and recruitment lists, as well as scripts, presentations and forms for use during the meeting or workshop.

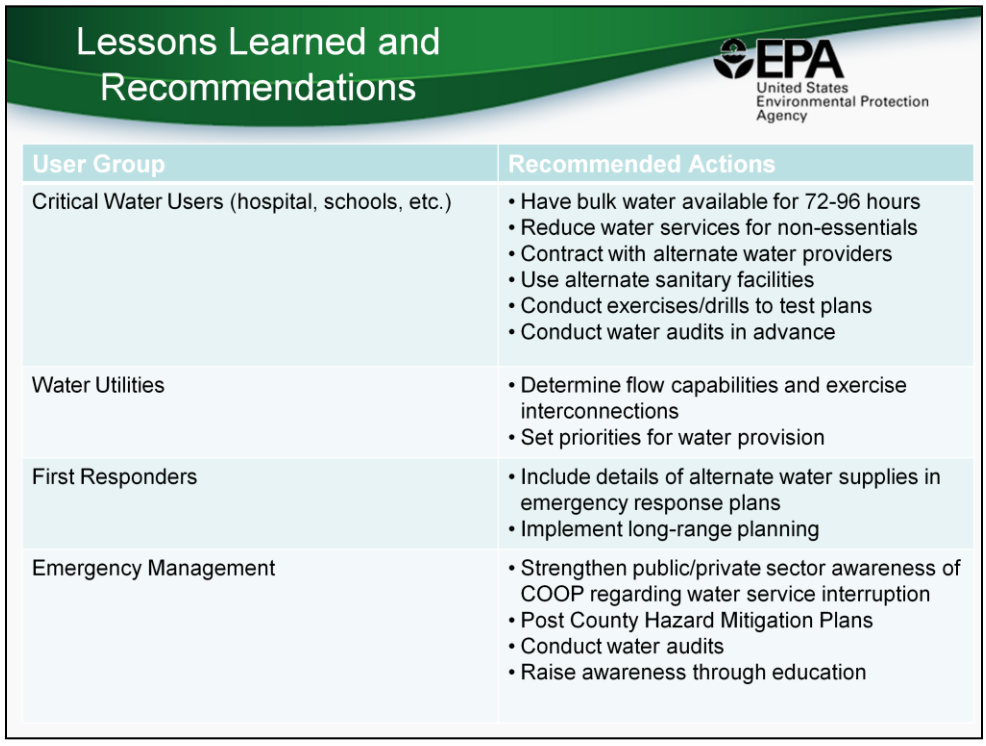


Facilitator Talking Points:

On May 30, 2012, the St. Clair County Homeland Security/Emergency Management Office, in collaboration with the United States Environmental Protection Agency, conducted a workshop to discuss water security, and to help to enhance the preparedness and resiliency of the community in the face of water service interruptions.

Featured topics:

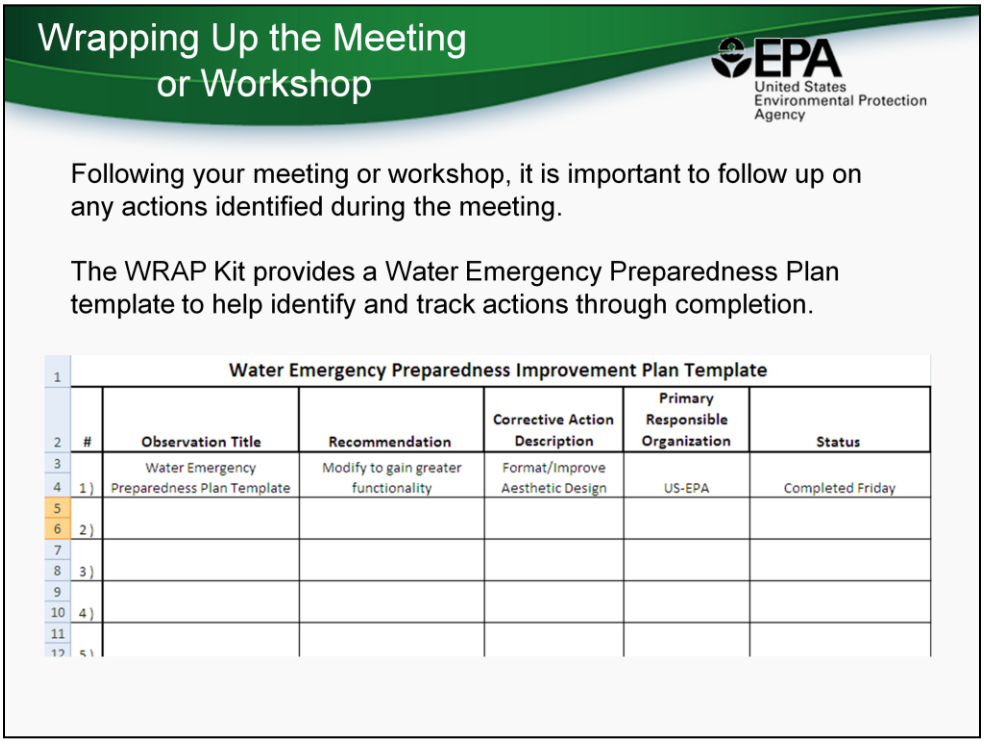
- Overview of community drinking water and wastewater infrastructures
- Roles and responsibilities of the public sector in a water emergency response
- Major customers' water needs and emergency response plans for water emergencies
- Planning for an emergency by identifying resource needs and gaps



Facilitator Talking Points:

Here is a list of the lessons learned and recommendations from the St. Clair County Water Resiliency Roundtable. You can find the final summary report on the Community-Based Water Resiliency website.

Participants continue to meet on a regular basis to address possible actions identified during the roundtable. Participants also used the CBWR Tool Self Assessment to identify areas for improvement.



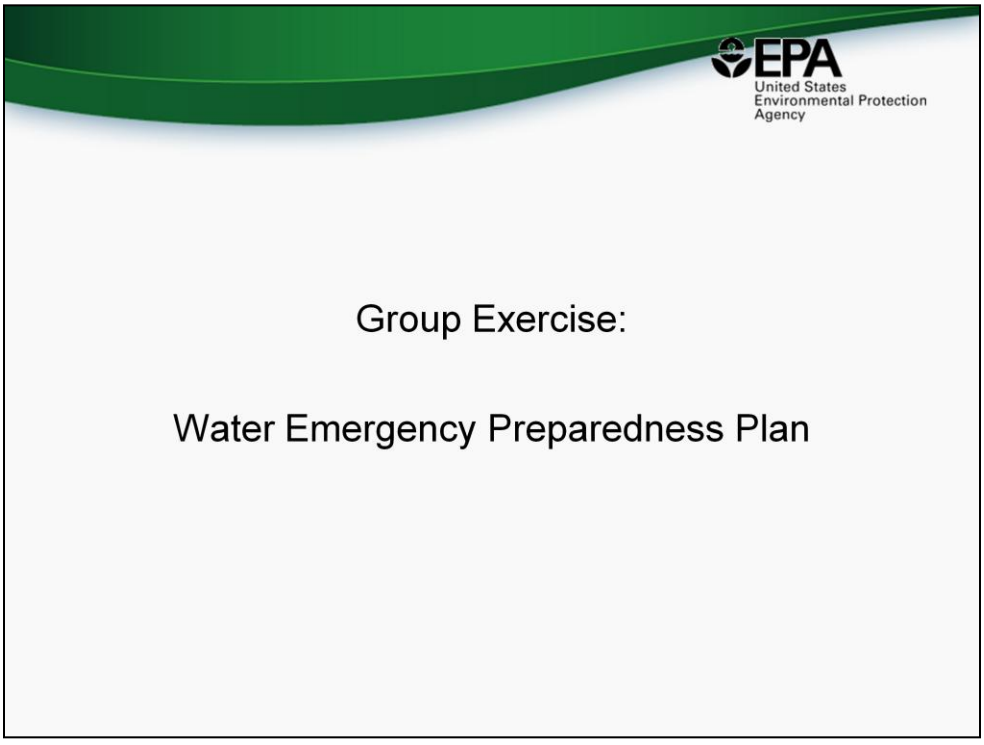
Water Emergency Preparedness Improvement Plan Template

#	Observation Title	Recommendation	Corrective Action Description	Primary Responsible Organization	Status
1)	Water Emergency Preparedness Plan Template	Modify to gain greater functionality	Format/Improve Aesthetic Design	US-EPA	Completed Friday
2)					
3)					
4)					
5)					

Facilitator Talking Points:

A Water Emergency Preparedness Improvement Plan will help you document and track the progress of any next steps and action items identified during your meeting. Establishing a working group or holding follow-up meetings are excellent ways to continue the momentum and ensure progress on identified action items.

This improvement plan template is consistent with the principles of the Department of Homeland Security's Homeland Security Exercise and Evaluation Program (HSEEP).



Facilitator Action: This is a group exercise for the entire audience (no need to split up into groups). Have participants complete a Water Emergency Preparedness Improvement Plan, using the emergency scenario provided in Section 3. For each "area for improvement", poll the audience for other possible corrective actions/recommendations. Continue until you have at least 5 actions identified. You can also pre-populate the template with your own examples based on the scenario.

Facilitator Talking Points:

Now we will conduct a group exercise to fill out a Water Emergency Preparedness Improvement Plan. The purpose of this exercise is to illustrate the importance of assigning actions to improve preparedness and following them through to completion. Using the scenario provided in Section 3, can someone identify an area for improvement and a recommended corrective action?

Water Emergency Preparedness Improvement Plan Template

#	Observation Title	Recommendation	Corrective Action Description	Primary Responsible Organization	Status
1)					
2)					
3)					
4)					
5)					
6)					
7)					
8)					
9)					
10)					
11)					
12)					
13)					

Water Emergency Preparedness Improvement Plan Template

#	First Name	Last Name	Title	Estimated Date Start Completion	POC Contact Phone & Email	Comments
1)						
2)						
3)						
4)						
5)						
6)						
7)						
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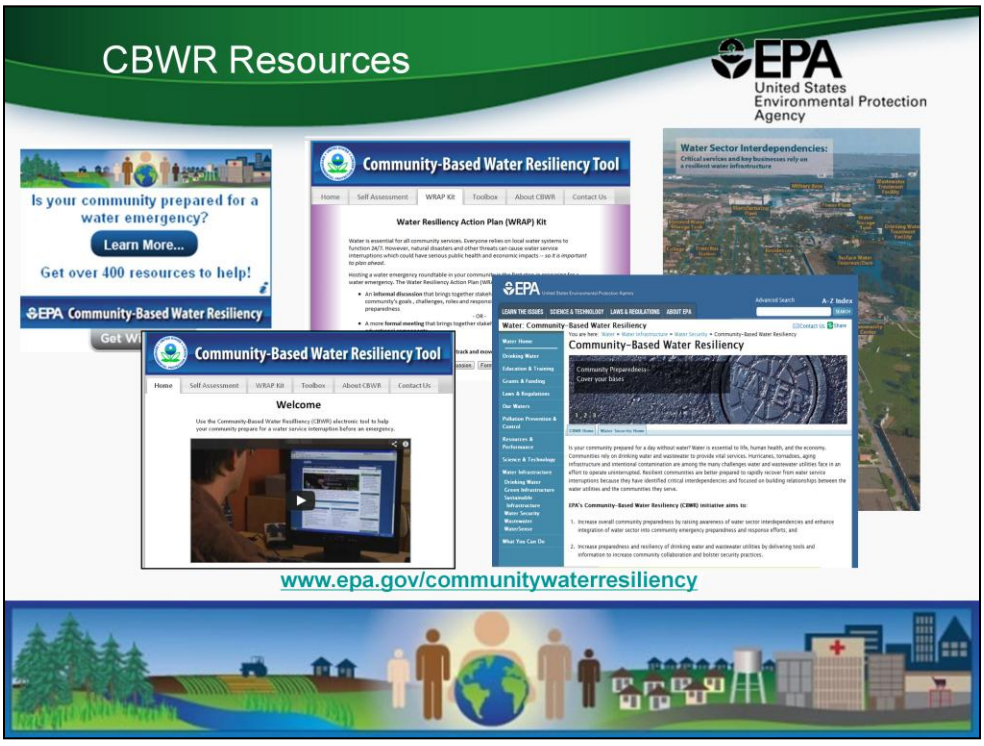


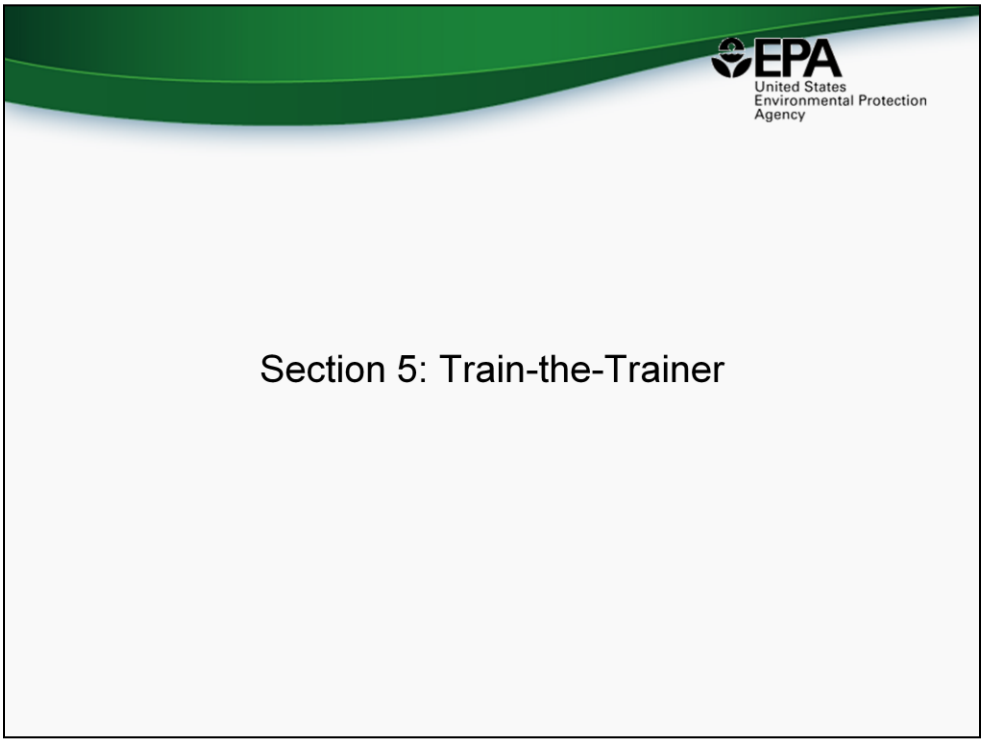
Facilitator Talking Points:

CBWR offers a suite of tools and resources to help water utilities, and the communities they serve, build a more resilient water infrastructure.

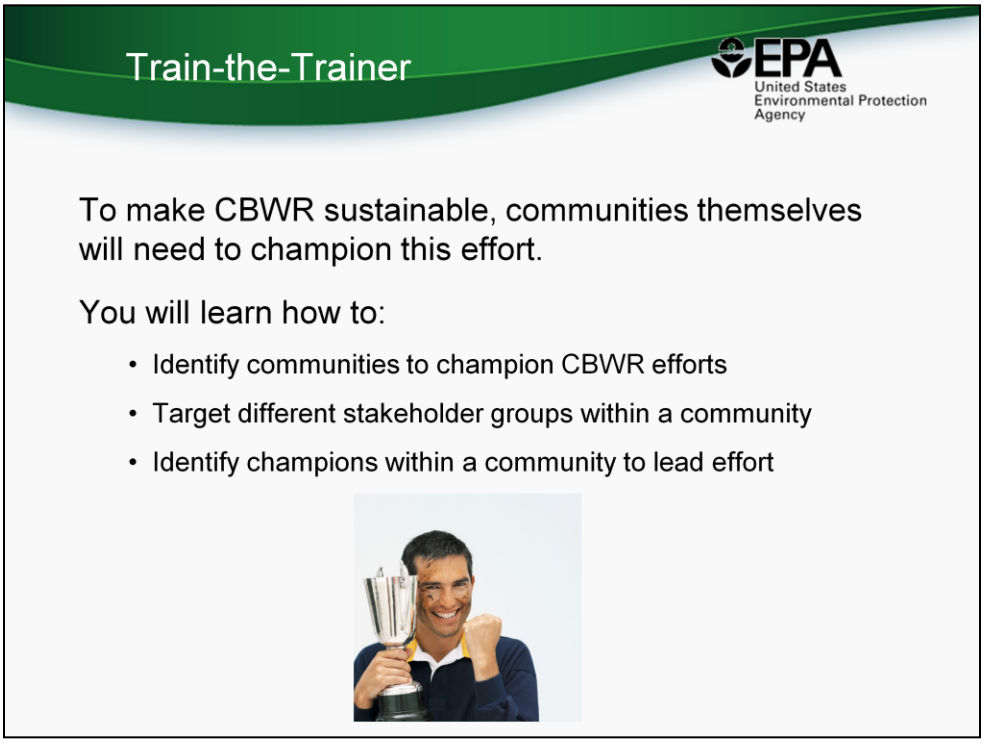
Some of these resources include: **[CLICK]**

- The Water Security Division (WSD) Widget provides a direct link to the WSD projects when the link is added to the script for another website **[CLICK]**
- The CBWR Electronic Tool provides more than 400 tools and resources to help strengthen water resiliency **[CLICK]**
- The Wrap Kit, located within the CBWR Electronic Tool, guides users through the planning process to hold a successful roundtable discussion **[CLICK]**
- And the CBWR website, from which all these tools and resources, among others, can be accessed.
- Water Sector Interdependencies Poster, which highlights the critical water interdependencies within a community **[CLICK]**

All of these resources (and more) can be found on the CBWR website and in the CBWR Tool.



The goal of this section is the assist you in replicating Community-Based Water Resiliency efforts within your communities and help you identify and implement activities that will lead to an increase in resiliency to water service interruptions.



Facilitator Talking Points:

Ultimately, to make CBWR sustainable, communities themselves will need to champion this effort.

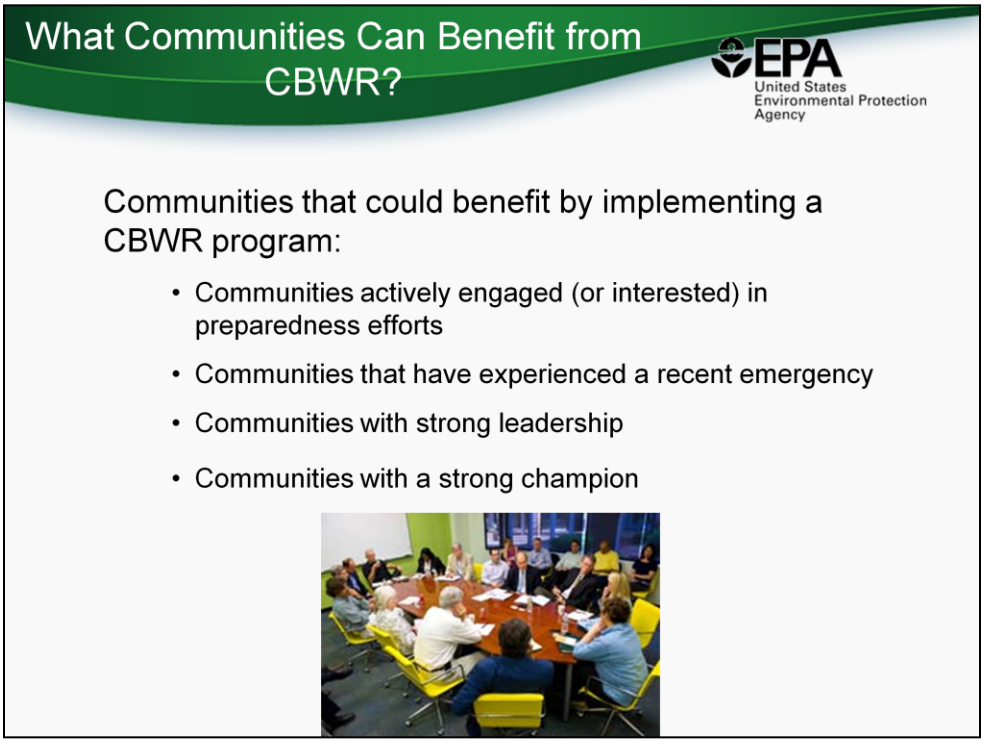
The purpose of this section is to help you:

1. Identify communities to champion CBWR efforts

2. Identify champions and stakeholders within a community to lead these efforts

3. Train champions to replicate CBWR efforts in their community

We intend to provide you with the knowledge of what communities to select, who is most likely to help the program succeed, where efforts would be most successful and how to accomplish your goals.

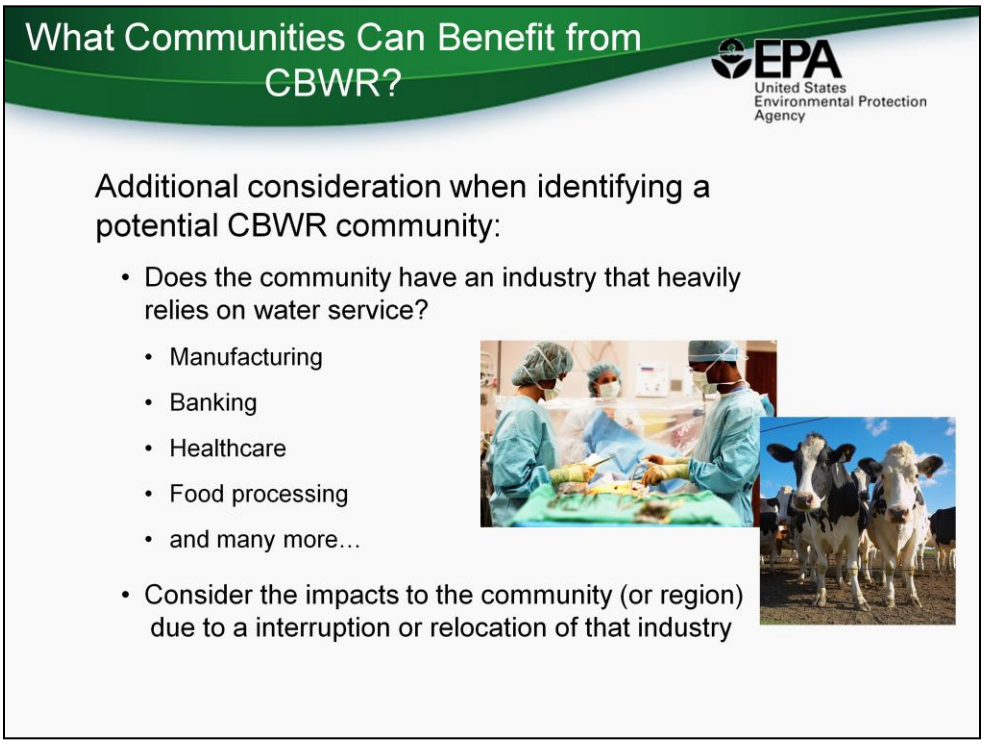


Facilitator Talking Points:

All communities can benefit from implementing a CBWR program and preparing for a water service interruption. However, not all communities have the leadership in place to initiate this discussion.

What are the factors that make a community more likely to implement these programs? What characteristics do they possess?

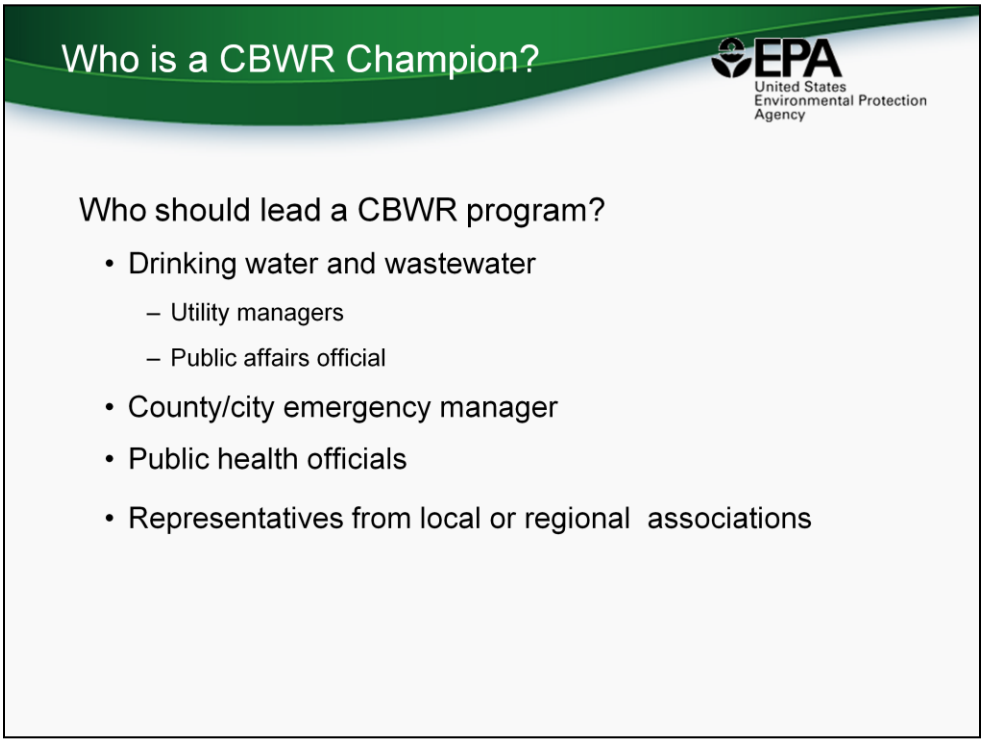
A community with strong leadership and commitment to emergency preparedness is more likely to succeed. A community that has experienced a recent emergency may also be more likely to use the WRAP Kit to host a *community workshop* (examples: hurricanes, tornadoes, water main breaks, etc.).



Facilitator Talking Points:

You may also want to target a community with an industry (or industries) that heavily relies on drinking water and wastewater services. For example, Charlotte, North Carolina, is a hub for the banking industry. Without water, banks will not be able to supply their cooling towers with water. Manufacturing in Chicago is another good example. If these businesses were forced to shut down operations for an extended period, the economic impacts to the region could be significant.

A *community meeting* on water emergencies can help raise the awareness of how these businesses rely on water and how preparing in advance can make their businesses more resilient.

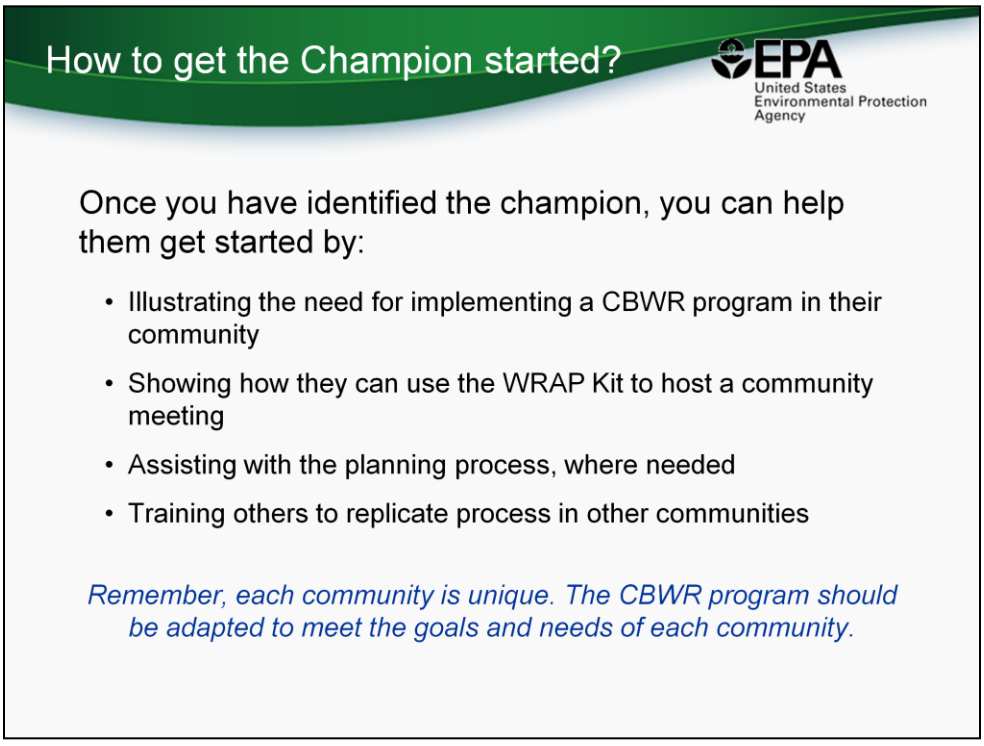


Facilitator Talking Points:

Anyone in a community can initiate a CBWR program—whether you are a water utility, emergency responder, a hospital or any other community organization. In many communities, the water utilities are understaffed and do not have the resources to lead efforts. In past efforts, representatives from local emergency management agencies and associations have taken the lead.

You can also have multiple stakeholders implement a CBWR program in a community. By targeting multiple stakeholders, you can leverage their collective resources and reach a wider audience.

Facilitator Action: Ask the participants who they think should be included. Provide missing examples.



Facilitator Talking Points:

Finding a champion to continue these efforts is an important first step, but do not let it end there. Offer to provide support as the champion implements a CBWR program in their community. Remember, each community is unique. What works for one community may not work for another. The CBWR program should be adapted to meet the goals and needs of each community.

Your community just may be the best place to start. If you aren't the champion, maybe you are working with him or her. Look around you and start planning your communities' CBWR efforts before the next water service interruption affects you.

This completes the training. Please remember to collect any remaining feedback forms before dismissal.

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