Improving Community Resiliency Through Water Preparedness

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John Whitler (on behalf of Laura Flynn)
U.S. Environmental Protection Agency (EPA)
Imagine a day without water....
Communities Need Water To…

- Drinking water
- Sewage disposal and sanitation
- Firefighting
- Hospitals and dialysis services

- Energy
- Banking
- Manufacturing
- Food processing and services
- Transportation
Water Sector Interdependencies

Critical services and key businesses rely on a resilient water infrastructure.

Community-Based Water Resiliency
The U.S. Environmental Protection Agency (EPA) has launched the Community-Based Water Resiliency (CBWR) initiative to increase the understanding of how communities can better prepare for disruptions to their water systems. EPA provides tools and resources to increase the overall preparedness of communities in the event of a water service disruption.
Water Infrastructure Threats

Natural Disasters

Criminal and Terrorist Acts

Aging Water Infrastructure

Failures in Interdependent Sectors
Your Day is Going From Bad to Worse…

What are YOU going to do?

- People are panicking
- Department of Public Health issues a “Boil Water” notice
- Mayor tells residents “Do Not Drink” the water
- Calls to 911 centers are skyrocketing
- Bottled water is gone from the shelves
- Bulk water supplier’s line is busy
- It’s not even 10:00 am
What if Things Were Different?

• What if citizens were prepared for a water service interruption?

• What if area hospitals and businesses had back-up water supplies…or even a plan for functioning in the face of a service interruption?

• What if communities were ready for a water service interruption?

• What if you could start your day over again and…this time…things were different?
Community-Based Water Resiliency -- Addresses The “What if…?”

• Brings utilities together with:
  – City/county managers
  – Public works officials
  – Emergency responders
  – Members of the public

• Increases preparedness at the community level by:
  – Increasing understanding of critical interdependencies
  – Highlighting multiple benefits of preparedness and security practices
  – Improving integration of Water Sector into community emergency preparedness and response efforts

Communities, as a whole, are more resilient in the event of a water service interruption
Why Bring These Groups Together?

• Starting with the obvious…
  – All emergencies are local
  – All responses are local
  – Locals are the first line of defense
  – Local are the first to respond

• Threats and vulnerabilities vary from utility to utility, as do critical users and critical interdependencies

• For utilities to remain online during, and recover quickly after, water-related incidents, they:
  – Need useable/customizable tools and resources
  – Must be prepared to access the tools they need, when they need them

• For communities to remain resilient during water emergencies, *in advance*:
  – Utilities must know their critical users so they can prioritize restoration of services
  – Communities must understand their unique interdependencies
  – Everyone needs to be prepared to work together during the crisis
U.S. EPA Has Developed Free, Easy to Use Tools for You and Your Communities!

- Electronic tool for local communities to develop and implement community-based water resiliency efforts
  - “Shelf-ready” tools and resources to support community-specific efforts
  - Material highlighting water sector interdependencies and promoting community-based activities e.g. sample:
    - Presentations
    - Workshops
    - Webcasts

- Informational factsheets and brochure

- Interdependencies poster

- Web-Based Products
CBWR Electronic Tool

Community-Based Water Resiliency Tool

CBWR Self Assessment
Please select stakeholder group to begin the self assessment

- Water Utility
- State / Tribal Primacy
- Healthcare
- Emergency Services
- Concerned Citizen
I Represent a Drinking Water and/or Wastewater Utility

As a Water Utility representative, you will often be the first line of defense for the Water Sector. It’s critical that you identify and understand the sectors interdependent on water, and communicate those interdependencies to your community to build resiliency.

How many people live in your community? Select a Community Size

How many customers does your utility serve? Select the Population Served

My utility is:
- Drinking Water Utility
- Wastewater Utility
- Combined Utility

My utility is:
- Public (e.g., municipal)
- Private (e.g., profit or non-profit)

Please select the source of your drinking water:
- Ground Water
- Surface Water
- Bottled

My utility has interconnections with other utilities:
- Yes
- No
## CBWR Tool Self Assessment Summary Report

I am a Drinking Water and/or Wastewater Utility

You indicated that your role at your utility is manager/operator/security
You indicated that 3,301 - 49,999 people live in your community
You indicated that your utility serves 3,301 - 49,999
You indicated that your utility is a wastewater utility
You indicated that your utility is public (e.g., municipal)
You indicated that the source of your drinking water is ground water
You indicated that your utility does not have interconnections with other utilities
Your on-site storage capacity for wastewater is 24 hours
You indicated the following critical and/or large water users are served:
- Hospital
- Prison

### MY GOALS

You indicated that your goals are as follows:

**You indicated that it is very important** that you gain a better understanding of Water Sector Interdependencies

**You indicated that it is somewhat important** that you enhance collaboration with the Water Sector and other critical infrastructure sectors

**You indicated that it is somewhat important** that you build a business case for designing and implementing a Community-Based Water Resiliency Program in your community

**You indicated that it is somewhat important** that you identify recommended actions to reduce risks and enhance resiliency in the face of a water service disruption

**You indicated that it is somewhat important** that you obtain funding for infrastructure enhancement
CBWR Toolbox

- Home
- Self Assessment
- Toolbox
- About CBWR
- Contact Us

- Water Utility
- State / Tribal Primacy
- Healthcare
- Emergency Services
- Concerned Citizen
- All CBWR Tools

- Communication and Outreach
- Contaminant Detection
- ICS/NIMS
- Laboratory Support
- Local Emergency Planning Committees
- Mutual Aid and Assistance
- Protective Practices and Funding Resources
- Training and Exercises
- Vulnerability Assessments/Emergency Response Plans
- Water Sector Interdependencies
- Water Security
### Benefits of Supporting Community-Based Water Resiliency

- Empowers local utilities and community leaders to enhance overall resiliency of *their* communities
- Fosters reliable up-front collaborative partnerships between utilities and other entities responsible for maintaining critical infrastructures
- Raises overall awareness of critical interdependencies and strengthens preparedness and response to all-hazards emergencies

*Water service interruptions can have serious economic, environmental, psychological, and public health consequences on a community. Resilient communities can significantly reduce these risks at negligible cost.*
Where Are We Now?

Drafts in Development:

- Webpage
- Interdependencies factsheets
  - General
  - Public Health and Healthcare
  - Emergency Services
- Interdependencies poster
- Beta-version of the CBWR Electronic Tool
- Outreach brochure

- How-to guide for community implementation – conceptual framework for regional implementation of community-based tools
Where Are We Going?

• Finalizing tool modules with focus groups:
  – Utility owners and operators – recruited by AWWA
  – State program managers and security staff – recruited by ASDWA
  – Public Health and Healthcare Sector – multifaceted group

• Recruiting tool beta-testers
  *** Needed This Fall ***

• Continuing compilation of materials for CBWR Toolbox
And Then What?

- Continue expanding connections with complementary programs
- Develop and implement a marketing strategy
- Identify and prioritize potential additional modules and relationships, e.g.,:
  - Integrated Water Resources Management
  - Sustainable infrastructure
  - Check-up Program for Small Systems (CUPSS)
  - Urban Waters
  - Manufacturing Sector
  - Energy Sector
  - Other critical infrastructure sectors
- Establish focus groups to frame additional modules
How Can You Help?

- Volunteer to beta-test tool
- Review outreach materials
- Provide additional input for *CBWR Toolbox*
- Participate in future focus groups
- Promote interest in community-based water resource efforts within your organizations and among your members
Free WaterISAC Pro Subscription
An online community of water security professionals

**Benefits of WaterISAC**

- Latest, sensitive information about critical infrastructure protection
- Network of colleagues with shared challenges
- Intelligence analysts who help interpret and evaluate threats
- Alerts about emerging risks
- Direct access to contaminant databases
- Monthly webcasts on current water security topics

**WaterISAC**

Water Information Sharing Analysis Center (WaterISAC) is a secure, web-based clearinghouse that helps drinking water and wastewater utilities prepare for emergencies.

**How to Subscribe:** To receive a free 12-month WaterISAC Pro Subscription, visit the WaterISAC website [www.waterisac.org](http://www.waterisac.org).

*No payment information or future commitment is required*
Questions?

Nushat Thomas, CBWR
Project Lead
Thomas.Nushat@epa.gov
202-564-4674
www.epa.gov/watersecurity