Presentation for the
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Briefing Outline

A Day Without Water

Multi-Sector/Community-Based Water Resiliency (CBWR)

Other Tools and Resources
Have you ever known someone was heading into a train wreck they just didn’t see coming?
Imagine a Day Without Water…

How would you meet your needs for:

- Drinking water
- Sewage disposal and sanitation
- Firefighting

What about…

- Energy
- Hospitals and dialysis services
- Transportation
- Food processing and services
- Manufacturing
- Banking

*Infrastructure failures are not a matter of “if” they are a matter of “when”…we all need to be prepared and plan ahead.*
Do You Suffer from “Not Me” Syndrome…

…or Why Me?

I live way above the river…

…I won’t flood

I live on a lake…

…there’s PLENTY of water

My utility has a generator and a back-up chemical provider!
Natural Disasters

Domestic Examples:
• Colorado Floods
• Hurricane Sandy
• Western States Droughts & Wildfires
• Yellowstone Supervolcano??

International Examples:
• Christchurch, NZ and Haiti Earthquakes
• Japan Tsunami & Nuclear Crisis
What if Things Were Different?

What if:

- Citizens understood the impacts of service interruptions before they happened?
- Area hospitals and businesses had backup water supplies?
- Emergency managers coordinated emergency response plans with utilities?
- Businesses and critical community services factored interruptions into emergency plans?
- Law Enforcement coordinated with utilities?
Video #1

A Day Without Water

https://www.youtube.com/watch?v=xNJ2qgWYbUo
CBWR Addresses “What if...?”

- Brings utilities together with:
  - City/county managers
  - Public health officials
  - Law Enforcement
  - Other Emergency Responders
  - Business Community
  - Members of the public

- Increases preparedness at the community level by:
  - Increasing understanding of critical interdependencies
  - Highlighting multiple benefits of preparedness
  - 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
Do I Need ALL These People?

- All emergencies are local, all responses are local
- Threats and vulnerabilities vary by community

*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.*
You Can Lead a Horse to Water…

- Product Development ≠ Success
- Sophisticated Search Engine ≠ Useful Tool
- Success = Widely used, beneficial tools that work
…Getting Them to Drink
Water Resiliency Action Plan (WRAP) Kit

Planning and Logistics
• Suggested goals and objectives
• List of potential partners
• Suggested planning team members
• List of major planning process steps and planning team roles
• Sample emails to gauge interest
• Sample telephone scripts for recruiting participants
• Suggested meeting locations tip sheet

Meeting Materials
• Invitation letters
• Registration tracking tools
• Sample agendas
• Sample presentations
• Required resources checklist
• Sign-in table tips and tools
• Facilitators guide
• Tabletop exercises
• Discussion questions
• Evaluation Form

Post-Roundtable Products
• Thank you letters
• Attendee list template
• Action item tracking list
• Tips for keeping momentum going
• Sample final reports and templates
Other Tools and Resources
Tools of Water Security Planning

**PREVENTION**
- Best Security Practices
- Sector Metrics
- Physical Protection
- Backflow Prevention
- Cyber Security
- Vulnerability Assessment Tools
- Baseline Threat Document

**DETECTION**
- Information Tools: WCIT, Lab Compendium
- Water Lab Alliance
- Water Security Initiative
- Modeling
- EDS/Sensor Testing
- Method Validation

**RECOVERY**
- Mutual Aid Agreements
- Decontamination Strategy
- Mobile Treatment Units
- Consequence Analysis

**OVERARCHING**
- Community-Based Water Resiliency
- Climate-Ready Water Utilities

**RESPONSE**
- Contaminant Response Training
- Response Plan Guidance
- Response Protocol Toolbox
- Pandemic Flu Guidance
- ICS/First Responder Training
- ESF-3 work under the NRF
Multiple components can detect a broader range of contaminants faster and with increased confidence.

**WSi Detection Strategies**

- **Customer Complaint Surveillance**
- **Water Quality Monitoring:**
  - Online monitoring
  - Sampling and analysis
- **Contamination Warning System**
- **Enhanced Security Monitoring:**
  - Video
  - Alarms
  - Intelligence
- **Public Health Surveillance:**
  - 911 calls / EMS data
  - ED visits
  - OTC medication sales

EMS = emergency medical service
ED = emergency department
OTC = over-the-counter
Concept of Operations

Phase I: Routine Surveillance
- Online Water Quality
- Physical Security
- Public Health
- Customer Complaints

Event Detection
Initial Alert Investigation

Cause Known? Yes
Take Corrective Action if Necessary; Continue Surveillance

No

Possible Contamination

Phase II: Consequence Management

Credibility Determination Actions confirm or rule out contamination
- Sampling and Analysis
  - Site Characterization
  - Field and Laboratory Analyses
- Other Investigative Actions
  - Check alerts from SRS components
  - Assess outside data sources

Response Actions protect public health during the investigation process and may include:
- Isolation
- Flushing
- Public alerts/notifications

Remediation and Recovery restores a system to normal operations and may include:
- System characterization
- Remedial action
- Post-remediation activities
Recognize & Reduce Risk

Risk Assessment Methodologies

Consequence Analysis
Maintain a Resilient Infrastructure

Water Contaminant Info Tool

Water/Wastewater Agency Response Networks

TTX Tools

FedFUNDS
Increase Communication, Outreach & Public Confidence

Blogs & Other Multimedia Communications

Water Information Sharing and Analysis Center

Public Information Officer Webinars
Video #2

Don’t Get Soaked

– http://water.epa.gov/infrastructure/watersecurity/basicinformation.cfm#dontgetsoaked
Questions?

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