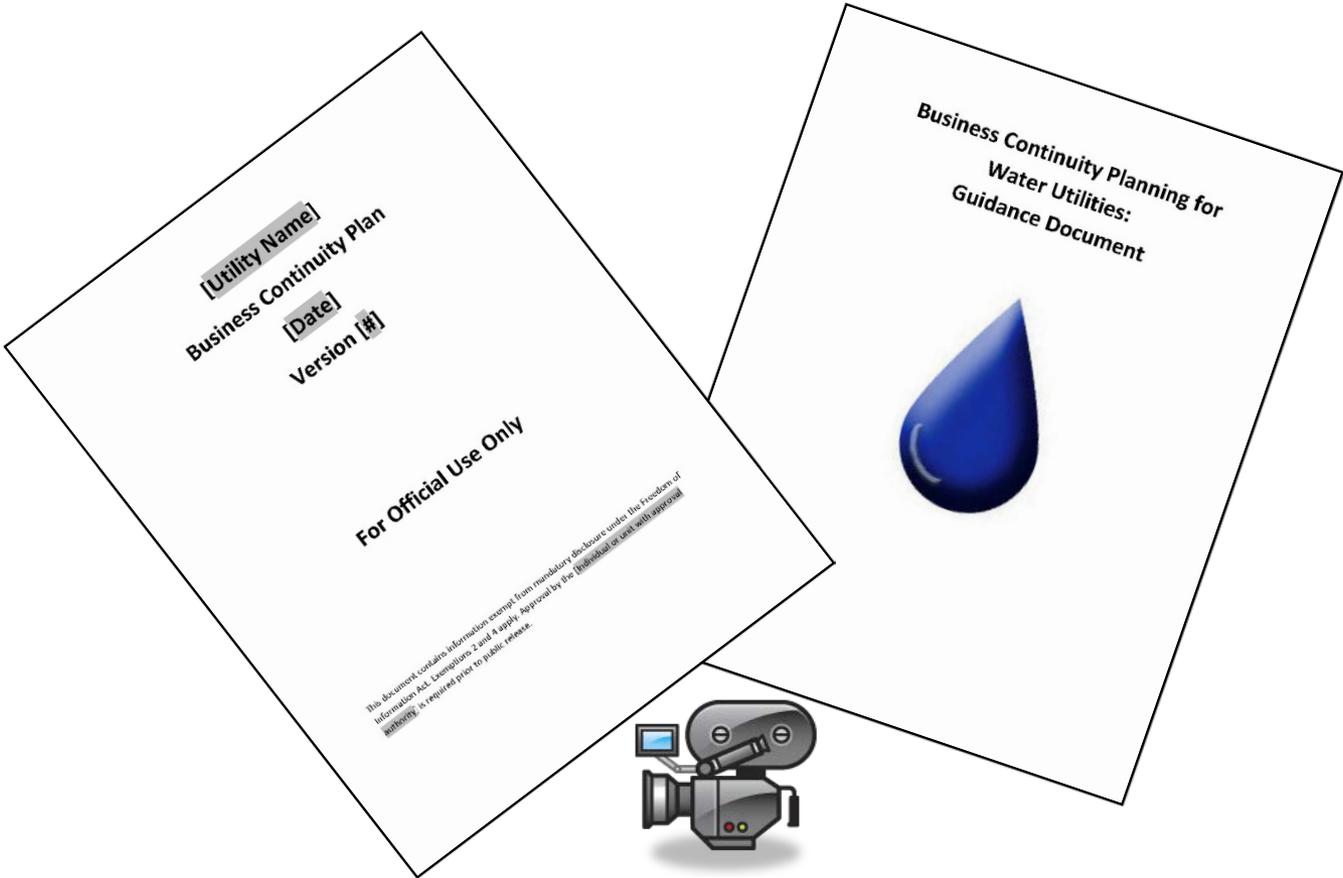


Business Continuity Plans for Water Utilities

Mary Messec Smith
Water Research Foundation
2017 Sustainable Water Management Conference

advancing the science of water

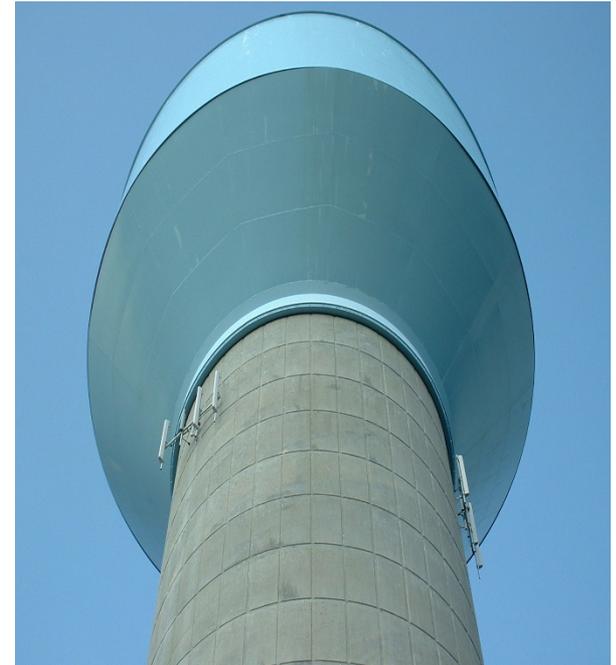
Business Continuity Plans for Water Utilities



WaterRF Project 4319

Overview of Training Modules

1. Business case for BCPs
2. Startup
3. Mission-essential functions (MEFs)
4. Critical resources
5. Vital records and data
6. Alternate facilities
7. Delegations of authority
8. Succession plans
9. Alert notification procedures
10. Devolution
11. Reconstitution
12. Training and exercises
13. Additional resources



Why Conduct Business Continuity Planning?

- Address gaps in existing emergency management system (e.g., business functions, administrative facilities, etc.)
- Provide guidance for business interruption (e.g., power outage)
- Strengthen utility's ability to continue serving customers
- Improve resource management and reputation
- Keep employees engaged and employed during event
- Reduce downtime and associated costs
- Improve ability to survive through catastrophic incidents

The Business Case for BCP

To see the return on investment, a utility must first recognize there are disruption/interruption risks to the system.



Often, the financial return on BCP is proven only after a disaster.

Some utilities will see the value of BCP immediately . . . Others will need the business case.

How do you justify BCP without having experienced the probable worst-case incident?

Module 2: Starting a BCP

1. Identify purpose of BCP
 1. To support the overall mission of the water utility
 2. To provide tools and procedures to maintain continuity of services during incident that pose a threat of disruption
2. Identify scope and assumptions of BCP
3. Understand how the BCP relates to other plans
4. Establish leadership and management of the BCP



Integrating With Other Plans



Ensure the BCP is consistent with other plans

Ensure incident management and communications plans are established prior to beginning a BCP

When making revisions to the BCP or related plans, check the other plans to coordinate revisions

Plan Activation and Deactivation



Module 3: Mission-Essential Functions (MEFs)

Key and challenging step in BCP development!

MEFs are critical to sustaining the utility's mission

Possible Operational MEFs

- Raw water pumping
- Filtration and disinfection
- Finished water pumping

Possible Administrative & Executive MEFs

- Employee safety functions
- Payroll
- Emergency purchasing and contracting
- EOC operations



Each utility is unique – one size does not fit all.

Business Impact Analysis

Measures impact of a disruption on

- Customers
- Revenues
- Regulatory requirements
- Contractual requirements
- And more...



Saves time and money in BCP by using a “risk-based approach”

Focuses planning on those business functions that are most critical to the water utility

Interdependencies that are Possibly Mission-Essential

- Emergency repair capabilities
- Vehicle fueling
- Ordering of chemicals
- Security
- Reclaimed water production in a system providing reclaimed water to a power plant
- Hydro power production in a system that relies on its own power or has power customers



Establishing RTO

- How long can a MEF be down before the utility's mission is compromised?
- Return to Operations (RTO) must be determined for each MEF
- RTO helps prioritize MEF



Module 4: Critical Resources

- Facilities/systems - Pump stations
- Equipment - Mechanics' trucks
- Materials - Repair parts
- Personnel
- Other resources - Chemicals and electricity



Mission-Essential Personnel

- Differentiating personnel is often a hot point
- Terminology used includes
 - Key personnel
 - Essential personnel
 - Mission-essential personnel
 - Continuity personnel
- A key is to stress that the designation is for BCP purposes only

Module 5: Identify and Address Vital Records and Data

Emergency Operations

- Resources
- Manuals
- Diagrams
- Contact Data
- Vendors and Suppliers



Legal and Financial

- Compliance/Reporting
- Training
- Photographs
- Contracts
- Payroll, Bank, and Accounting records
- Insurance records
- Customer Data
- Deeds & Authorities



Module 6: Establish Alternate Facilities



Utility or City Owned

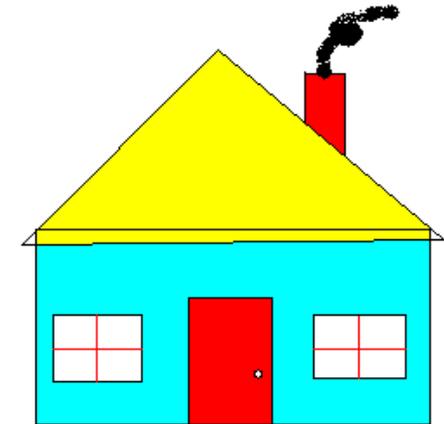


Vacant or Mobile Units

Electricity?
Internet Access?
Telephone?
Restrooms?
Security?
Accessibility?



Pre-contracted



Telecommuting

Modules 7 & 8: Backup Personnel

Delegation of Authority - *Give temporary authority to selected employees*

- *Minimize delays in recovery*
- *Allow specific tasks to be performed by backup personnel*

Succession Planning - *Establish 3-deep line of succession for the event, especially for Incident Command System positions*



Module 9: Alert Notification Procedures

Rapid notification of utility BCP staff

Notification of utility personnel
and outside agencies

Redundant
communications



Module 12: Tests, Training, and Exercises - Best Practices

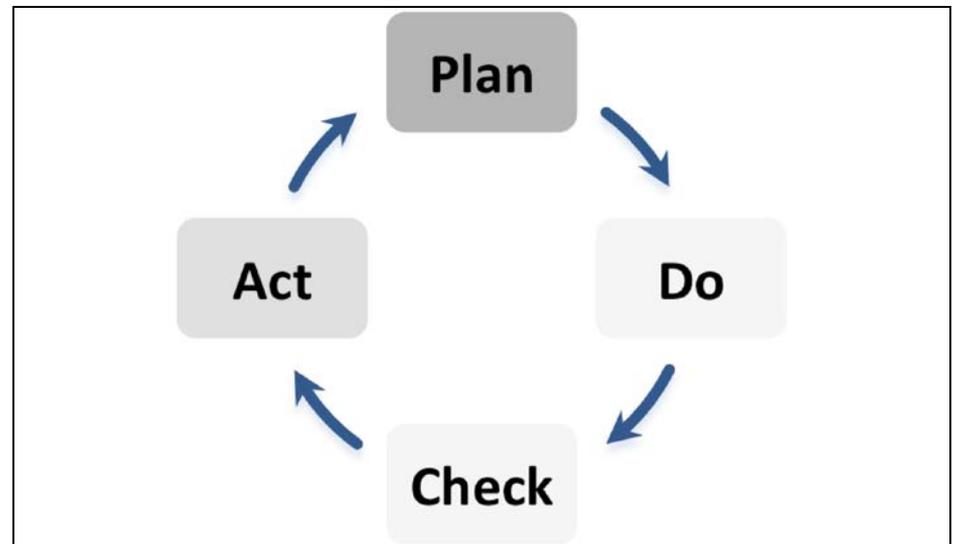
Just do it - simple or complex, all training will be useful later



Complete the After-Action Plan and Update the Corrective Action Plan!

BCP Program Management

- Plan-Do-Check-Act cycle
- Corrective Action Program (CAP)
- Challenges to successful plan distribution
- Accountability
- Plan Maintenance
- Plan Security



Project 4319 - BCP Kit



The Foundation | Knowledge Portals | Resources

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Business Continuity Plans for Water Utilities - 4319

Completion Year	Research Value	Research Manager	Principal Investigator	Contractor
2013	\$326,590.00	Mary Smith	Jack Moyer	URS

This project informs utilities of the benefits of business continuity planning. It provides a guidance manual, template, and video training modules for utilities to prepare the business case for business continuity plans, as well as to develop plans themselves. Research partners: AWWA and EPA. Published in 2013. The template can be accessed on this page under Project Resources/Project Papers and the video training modules can be accessed under Project Resources/Web Tools. Both deliverables are also linked to in the Guidance Manual.

Report Name	Report #	Available	Order Report	Download PDF	Executive Summary
 Business Continuity Planning for Water Utilities: Guidance Document	4319	6/17/2013			

Project Resources

-  Project Papers
 - Business Continuity Plan Template
-  Web Tools
 - Business Continuity Plan Training: Video Modules

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- Kit Components:
1. Guidance Document with Business Case, App. A
 2. BCP Template
 3. BCP Video (Youtube)

Questions?

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