Business Continuity Plans for Water Utilities

Mary Messec Smith
Water Research Foundation
2017 Sustainable Water Management Conference
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
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

Waterrf.org
Search 4139

Kit Components:
2. BCP Template
3. BCP Video (Youtube)
Questions?

Mary Messec Smith
Research Manager
Water Research Foundation
msmith@waterrf.org
303-347-6134