

## **LOSS OF WATER**

### SCENARIO

Without warning, the main water supply line to the hospital breaks, disrupting water service to the entire facility. The hospital's water systems, including potable water supply are non-functional. Local water sources and vendors are not impacted. Services, including food and radiology, are disrupted. Toilets and hand washing areas are not functioning and alternate methods must be provided

Utility workers expect to repair the damage and restore water service to the hospital within 10-12 hours.



# LOSS OF WATER

## INCIDENT PLANNING GUIDE

### Does your Emergency Management Plan Address the following issues?

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#### Mitigation & Preparedness

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1. Does your hospital Emergency Management Plan include triggers or criteria for activation of the Emergency Operations plan and the Hospital Command Center?

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2. Does your hospital have a plan for loss of water to the facility and sustaining operations?

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3. Does your hospital have MOUs and/or contracts for provision of potable water?

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4. Does your hospital have a process for determining the impacts of the loss of water on clinical operations (i.e., surgery schedule, outpatient services, etc.) and infrastructure systems?

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5. Does your hospital have a plan and systems to connect to alternate water sources to support fire suppression, waste water and cooling systems?

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6. Does your hospital have procedures to communicate situation and safety information to staff, patients and families?

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7. Does your hospital have procedures to evaluate need for and obtain additional staff?

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8. Does your hospital have procedures to establish portable toilets and hand washing stations throughout the facility?

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9. Does your hospital have procedures to evaluate need for and obtain additional staff?

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10. Does your hospital have a process to determine the need for partial or complete evacuation of the facility?

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11. Does your hospital have a procedure for rationing potable water, if necessary?

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12. Does your hospital have a plan for communicating water conservation measures to employees and patients?

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13. Does your hospital have a plan to provide regular media briefings and updates?

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14. Does your hospital have a plan to communicate with local emergency management and water company about the situation and request assistance?

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#### Response and Recovery

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1. Does your hospital have procedures for providing regular situation status updates to the local emergency management agency and water company?

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2. Does your hospital have a process to evaluate the short and long-term impact of the loss of water on the patients, staff and facility?

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3. Does your hospital have a process to determine the need for canceling elective procedures and surgeries and other non-essential hospital services (i.e., gift shop) and activities (i.e., conferences, meetings)?

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### INCIDENT PLANNING GUIDE

4. Does your hospital have criteria and a process to determine the need for complete or partial evacuation of the facility?

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  5. Does your hospital have a process to assess patients for early discharge to decrease patient census?

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  6. Does your hospital have a plan to provide staff information on the situation and emergency and water conservation measures to implement?
  7. Does your hospital have procedures to notify patient's family members of the situation?
  8. Does your hospital have a process to cancel non-essential functions (e.g., meetings, conferences, gift shop, etc.)?
  9. Does your hospital have a process to determine the need to limit patient visitation?
  10. Does your hospital have a plan to document actions, decisions and activities and track response expenses and lost revenues?
  11. Does your hospital have procedures to provide accurate and timely briefings to staff, patients, families, and area hospitals during extended operations?
  12. Does your hospital plan for demobilization and system recovery during response?
  13. Does your hospital have a facility and departmental business continuity plans? Do these plans address the need for alternate service providers for critical hospital functions (e.g. radiology, laboratory, etc.)?
  14. Does your hospital have a plan to conduct regular media briefings, in collaboration with the local emergency management agency?
  15. Does your hospital have procedures for restoring normal facility visitation, and non-essential service operations (e.g., gift shop, conferences, etc.)?
  16. Does your hospital have procedures for repatriation of patients that were transferred or evacuated?
  17. Does your hospital have procedures for after action reporting and developing an improvement plan?
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## INCIDENT RESPONSE GUIDE

**Mission:** To effectively and efficiently manage the effects of a loss of water in the facility.

### Directions

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- Read this entire response guide and review incident management team chart.
  - Use this response guide as a checklist to ensure all tasks are addressed and completed.
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### Objectives

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- Conserve water and restore water supply
  - Identify and obtain alternate sources of potable water
  - Maintain patient care management
  - Monitor heating and cooling systems
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### Immediate (Operational Period 0-2 Hours)

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#### COMMAND

(Incident Commander):

- Activate the facility Emergency Operations Plan
- Activate Command Staff and Section Chiefs, as appropriate
- Establish incident objectives and operational period

(Liaison Officer):

- Notify local emergency management of hospital situation status, critical issues and timeline for water service repairs and restoration
- Notify the water utility and outside agencies of water loss and estimated time for water main repair and restoration of service
- Notify local EMS and ambulance providers about the situation and possible need to evacuate
- Communicate with other healthcare facilities to determine:
  - Situation status
  - Surge capacity
  - Patient transfer/bed availability
  - Ability to loan needed equipment, supplies, medications, personnel, etc.
  - Contact the Regional Hospital Coordination Center, if exists, to notify about the situation and request assistance with patient evacuation destinations

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## INCIDENT RESPONSE GUIDE

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### COMMAND

(Public Information Officer):

- Inform staff, patients and families of situation and measures to conserve water and protect life
- Prepare media staging area
- Conduct regular media briefings, in collaboration local emergency management, as appropriate

(Safety Officer):

- Evaluate safety of patients, family, staff and facility and recommend protective and corrective actions to minimize hazards and risks

### OPERATIONS

- Determine loss of water impact on systems and patients
- Estimate potable and non-potable water usage and needs and collaborate with Logistics Section and Liaison Officer to obtain back up supplies
- Access alternate sources of water to provide for fire suppression, HVAC system and other critical systems, as able
- Institute rationing of water, as appropriate
- Initiate water conservation measures
- Assess patients for risk and prioritize care and resources, as appropriate
- Monitor infection control practices
- Provide alternate toilet and hand washing facilities
- Secure the facility and implement limited visitation policy
- Ensure continuation of patient care and essential services
- Consider partial or complete evacuation of the facility, or relocation of patients and services within the facility
- Activate facility and impacted departmental business continuity plans

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### PLANNING

- Establish operational periods, incident objective and develop the Incident Action Plan, in collaboration with the Incident Commander
  - Prepare for patient and personnel tracking in the event of evacuations
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## INCIDENT RESPONSE GUIDE

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### LOGISTICS

- Maintain other utilities and activate alternate systems as needed
  - Investigate and provide recommendations for alternate water supplies, including potable water
  - Assist with rationing water, as appropriate
  - Obtain supplemental staffing, as needed
  - Prepare for transportation of evacuated patients, if activated
  - Oversee and conduct water main repairs and restoration of services
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### Intermediate and Extended (Operational Period 2 hours to Greater than 12 Hours)

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#### COMMAND

(Incident Commander):

- Update and revise the Incident Action Plan and prepare for demobilization
- Continue to update internal officials on the situation status
- Monitor evacuation

(PIO):

- Continue with briefings and situation updates with staff, patients and families
- Continue patient information center operations, in collaboration with Liaison Officer
- Assist with notification of patient's families about situation and evacuation, if activated

(Liaison Officer):

- Continue to notify local EOC of situation status, critical issues and request assistance, as needed
- Continue to communicate with local utilities incident details and duration estimates
- Continue patient information center operations, in collaboration with PIO
- Continue communications with area hospitals and facilitate patient transfers

(Safety Officer):

- Continue to evaluate facility operations for safety and hazards and take immediate corrective actions
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## INCIDENT RESPONSE GUIDE

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### OPERATIONS

- Continue evaluation of patients and patient care
  - Cancel elective surgeries and procedures
  - Prepare the staging area for patient transfer/evacuation
  - Initiate ambulance diversion procedures
  - Continue or implement patient evacuation
  - Ensure the transfer of patient's belongings, medications and records upon evacuation
  - Continue to ration water, especially potable water, as appropriate
  - Maintain facility security and restricted visitation
  - Continue to maintain other utilities
  - Monitor patients for adverse affects of heath and psychological stress
  - Prepare demobilization and system recovery plan
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### PLANNING

- Continue patient, bed and personnel tracking
  - Update and revise the Incident Action Plan
  - Prepare the demobilization and system recovery plans
  - Plan for repatriation of patients
  - Ensure documentation of actions, decisions and activities
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### LOGISTICS

- Continue with nutritional, sanitation, and HVAC support and operations
  - Contact vendors to provide emergency potable and non-potable water supplies and portable toilets
  - Monitor the impact of the loss of water on critical areas
  - Continue to provide staff for patient care and evacuation
  - Monitor staff for adverse affects of heath and psychological stress
  - Monitor, report, follow up on and document staff or patient injuries
  - Continue to provide transportation services for internal operations and patient evacuation
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# LOSS OF WATER

## INCIDENT RESPONSE GUIDE

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### FINANCE/ADMINISTRATION

- Continue to track costs and expenditures and lost revenue
  - Continue to facilitate contracting for emergency repairs and other services
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### Demobilization/System Recovery

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#### COMMAND

(Incident Commander):

- Determine hospital status and declare restoration of normal water services and termination of the incident
- Notify state licensing, accreditation or regulatory agency of sentinel event
- Provide appreciation and recognition to solicited and non-solicited volunteers and to state and federal personnel sent to help

(Liaison Officer):

- Communicate final hospital status and termination of the incident to local EOC, area hospital and officials
- Assist with the repatriation of patients transferred

(PIO):

- Conduct final media briefing and assist with updating staff, patients, families and others of the termination of the event

(Safety Officer):

- Ensure facility safety and restoration of normal operations
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#### OPERATIONS

- Confirm water restoration plan with local water authority and complete bacteriological testing and final potable water safety verification
  - Restore normal patient care operations
  - Ensure restoration of water and other infrastructure (i.e., HVAC)
  - Repatriate evacuated patients
  - Discontinue ambulance diversion and visitor limitations
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## INCIDENT RESPONSE GUIDE

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### PLANNING

- Finalize the Incident Action Plan and demobilization plan
  - Compile a final report of the incident and hospital response and recovery operations
  - Ensure appropriate archiving of incident documentation
  - Conduct after-action reviews and debriefing
  - Write after-action report and corrective action plan for approval by the Incident Commander to include the following:
    - Summary of actions taken
    - Summary of the incident
    - Actions that went well
    - Area for improvement
    - Recommendations for future response actions
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### LOGISTICS

- Perform evaluation and preventative maintenance on emergency generators and ensure their readiness
  - Restock supplies, equipment, medications, food and water
  - Ensure communications and IT/IS operations return to normal
  - Conduct stress management and after-action debriefings and meetings, as necessary
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### FINANCE/ADMINISTRATION

- Compile a final report of response costs and expenditures and lost revenue for approval by the Incident Commander
  - Contact insurance carriers to assist in documentation of structural and infrastructure damage and initiate reimbursement and claims procedures
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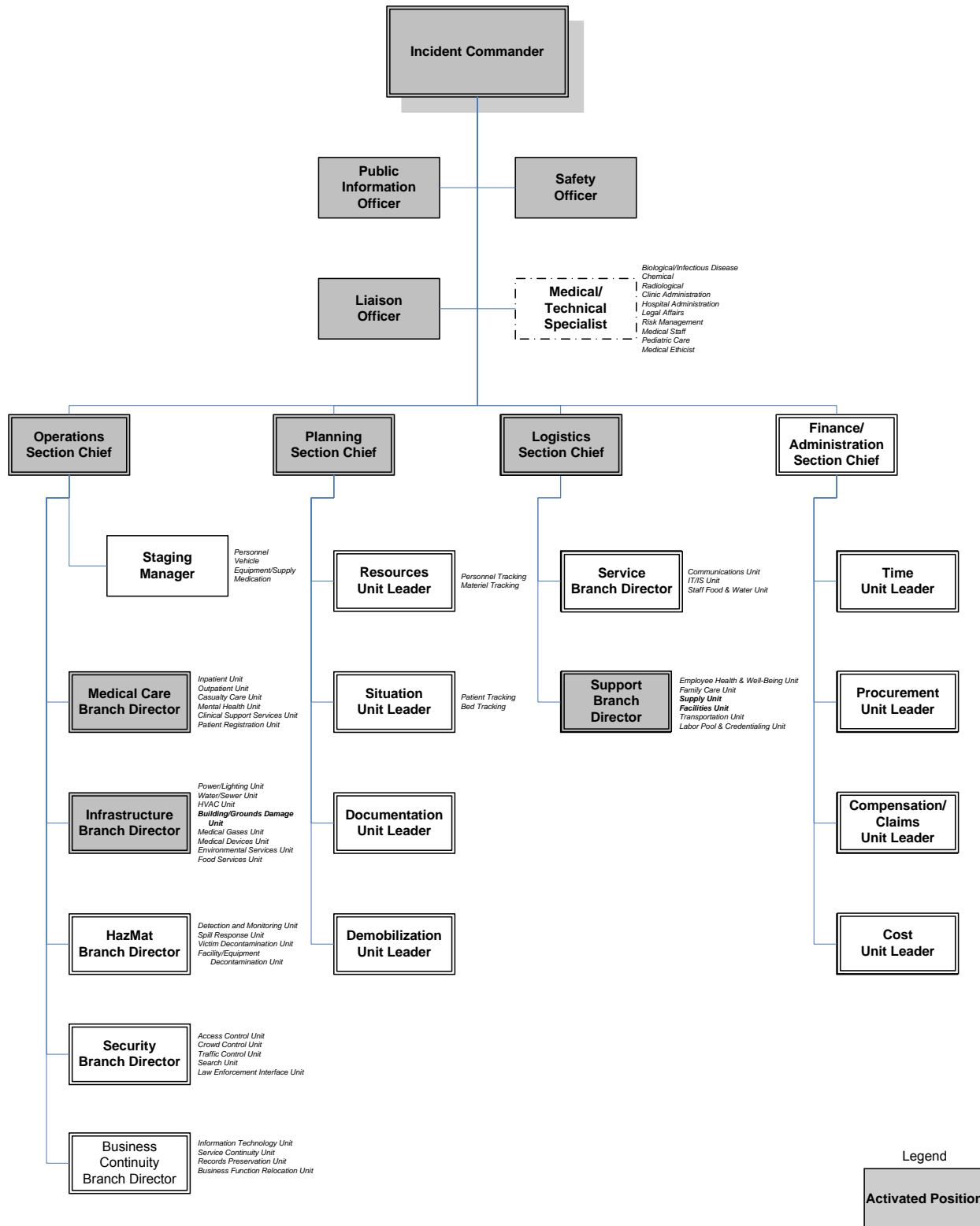
### Documents and Tools

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- Hospital Emergency Operations Plan
  - Hospital Loss of Water Plan
  - Hospital Loss of Sewer Plan
  - Hospital Loss of HVAC Plan
  - Facility and Departmental Business Continuity Plans
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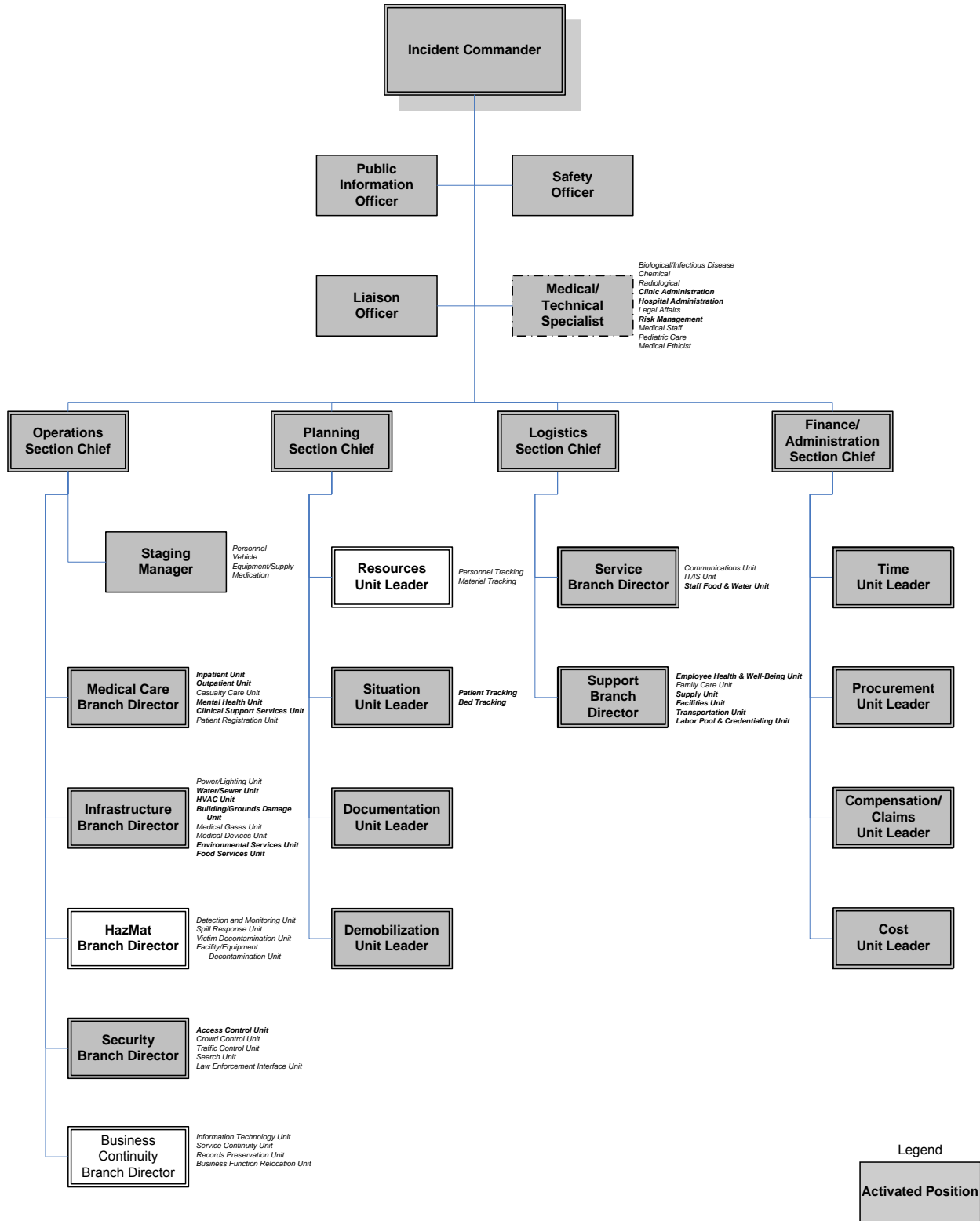
# LOSS OF WATER

## INCIDENT MANAGEMENT TEAM CHART -- IMMEDIATE



# LOSS OF WATER

## INCIDENT MANAGEMENT TEAM CHART – INTERMEDIATE AND EXTENDED



# LOSS OF WATER

## INCIDENT MANAGEMENT TEAM CHART – DEMOBILIZATION

