



# HOSPITAL EMERGENCY WATER SUPPLY PLANNING CHECKLIST



Water is one of the most critical resources to a hospital's operations and its ability to function at optimal capacity to continue to provide safe care to patients daily. During the 2020 Hurricane Season and again during Winter Storm Uri in February 2021, many hospitals in Louisiana experienced significant infrastructure failures, including interruption to routine water services. It is imperative that hospitals assess, plan, mitigate, and understand the varying levels of impact that water loss will have on their operations. Hospital leadership, emergency planners, and facilities managers/engineers may use this checklist<sup>1</sup> to assist in preparing for longer term or larger scale water interruptions.

## Establish an Emergency Water Supply Planning Team

### Conduct a Water Audit

- Determine water usage under normal operating conditions.
- Identify essential functions and minimum water needs.
  - Establish gallonage (hour/day) requirement for the facility, including gallon per patient and per employee.

### Identify Emergency Water Conservation Measures

- Canceling elective procedures
- Limiting radiology developers
- Using waterless hand hygiene products
- Sponge-bathing patients
- Using disposable linens
- Using disposable sterile supplies
- Using portable toilets
- Transferring non-critical patients to unaffected facilities
- Using the ED to triage patients for transfer to other appropriate facilities
- Using single-use dialyzers
- Postponing physiotherapy services that require hydrotherapy
- Shutting off the water supply to buildings or areas that do not support critical functions

### Develop Emergency Water Restriction Plan

- Limiting water use to critical services and suspending nonessential services:
  - Accelerate patient discharge based on sound clinical judgment.
  - Determine clinics and/or outpatient services that can be suspended.
- Employing supplies, materials, and other measures that limit or do not require water use:
  - Use alcohol-based hand rubs.
  - Sponge bathe patients.
  - Limit food preparation to sandwiches or meals-ready-to-eat.
  - Use disposable plates, utensils, silverware, and similar items whenever possible.
  - Only heat/cool essential areas and buildings when possible.
  - Close nonessential areas within essential buildings.
  - Consolidate floors and wings with low patient populations.
  - Check for leaks and correct plumbing deficiencies, preferably well before a water emergency occurs.

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<sup>1</sup>CDC, EPA, Healthcare Facility Emergency Water Planning, 2019

- Other:
  - Consider limiting visitors and encouraging nonessential staff to work from home.
  - Limit the use of restrooms to those with toilets that use a low water volume.
  
- **Identify Emergency Water Supply Options: Plan for using bottled water for drinking; non-potable water and water wells (if available) for HVAC, if appropriate.**
  - Option: Tanker-transported water:
    - Large temporary storage tanks (greater than 55 gallons)
      - Poly tanks, pillow, bladder, onion, and pickup truck tanks
      - Recommend 1,500-gallon poly tanks
      - Potential stand-alone tanks for larger facilities
    - Water storage containers (55 gallons and smaller)
      - Storage drums, handled jugs, and other small containers
    - Convey water
      - Pumps
        - To move water from tanker to storage tank and/or hospital
      - Fittings
        - Have fire department connections/adapters for storage tanks for refilling.
        - Installing fire department connections to chiller and boilers to aid in refilling operations.
        - Have multiple adapters for fire department hoses, as well as “camlock” adapters for other water service equipment.
      - Hoses
        - Appropriate hoses to move water from tanker and storage tanks to hospital.
      - Other
        - Consider “Bob-Cat” or similar purpose mechanized devices to assist water movement needs.
  - Option: Storage tanks nearby:
    - Locate nearby storage tanks (city, parish, industry).
    - Determine ownership and control.
    - Determine the safety of stored water.
    - Determine what is required to use stored water.
    - Determine the available usable volume of stored water.
  - Option: Other nearby water sources (plan for non-potable use):
    - Other public water (city/parish) supply
    - Well water: hospital, city, industry, hospital, private home
    - Surface water (lake, pond, creek, etc.)
  
- **Establish standing contracts with vendors to ensure the availability of portable toilets, instrument sterilization, medical supplies, meal preparation, and potable water delivery via tanker truck or other means during an emergency water outage.**
  
- **Conduct drills with local fire department(s) to ensure smooth water shuttle operations.**

*\* This resource was developed by Region 7 Healthcare Coalition.*