

<b>Operational Directives</b>	<b>WRHA Infection Prevention &amp; Control Program</b>	
	<b>Emergency Water Contingency for WRHA Facilities</b>	<b>Page 1 of 14</b>
	<b>Approval Signature:</b>	<b>Supersedes:</b> New
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**1. PURPOSE:**

This plan is to address all **EMERGENCY/UNPLANNED** events that interrupt the water supply; cause a decrease in water pressure; or cause water contamination noticeable by discoloration, taste, or chemical odor; or when a municipal boil water advisory is issued.

The purpose of this plan is to minimize service interruption and to:

- Prevent use of discolored/contaminated water (whether physical contamination or microbial – e.g., Legionella)
- Maintain water pressure
- Avoid drawing debris into the water system

**2. OPERATIONAL DIRECTIVES:**

2.1 All areas that notice a problem with the water (discoloration, odor, lack of water pressure) shall immediately contact and report the problem as outlined below each and every time a problem is observed.

**3. PROCEDURE:**

**Normal Business Hours (Monday – Friday, days)**

- 3.1 All areas that notice a problem with the water (discoloration, odor, lack of water pressure) shall immediately notify the **Energy Centre/Central Energy Plant or their applicable Facilities Management Manager/Designate**.
- 3.2 The **Facilities Management Manager/Designate** will conduct a preliminary determination of:
- The nature and cause of the problem
  - The impact throughout the facility/campus (including all buildings and areas affected)
  - Expected length of time to repair/resolve



- 3.3 **The Facilities Management Manager/Designate will confirm with the Site Administrator:**
- The nature and cause of the problem
  - The impact throughout the facility/campus (including all buildings and areas affected)
  - Safety of tap water; filtered water; reverse osmosis (RO) water: for drinking/food preparation, hygiene, wound care, diagnostics, medical device reprocessing, hemodialysis, environmental cleaning, and laundry. Send out communication form in Appendix C.
  - Expected length of time to repair/resolve
  - Notification of Infection Prevention & Control (IP&C) and Occupational and Environmental Safety and Health (OESH)
  - Notification of other impacted persons/departments
- 3.4 **The Facilities Management Manager/Designate and Site Administrator will take immediate action to correct/isolate the problem and prevent further contamination.**
- 3.4.1 Consult with IP&C and OESH to determine the safety of tap water, filtered water, RO water if applicable, and the need for water sampling.
- 3.4.2 Notify persons in charge of Patient/Resident Food Services and other food locations immediately if tap water and filtered water are considered unusable.
- 3.4.3 Notify the Patient/Resident Care Manager/designate in all affected areas if RO water is considered unusable.
- Determine, in consultation with IP&C and OESH, whether in-house reprocessing capabilities can support the continuation of normal business. If not, determine the degree of reduced service required.
  - Determine whether to activate the Emergency Water Contingency Plan in collaboration with affected departments/areas, site Facilities Manager, and other relevant stakeholders as required.
- 3.5 **Activate the Emergency Water Contingency Plan and the site's Incident Command Structure (ICS).**
- 3.5.1 Upon activating the Emergency Water Contingency plan, contact Shared Health Emergency Management On Call (204-794-2478) who then notifies the City of Winnipeg Emergency Management and the On-Call Medical Officer of Health.

- 3.5.2 Only the Site Administrator shall activate the site Incident Command System (ICS). This may include, but is not limited to:
- Facilities Management Manager/designate
  - Site Administrator(s)
  - Occupational and Environmental Safety and Health (OESH)
  - Infection Prevention & Control (IP&C)
  - Program Directors of all affected areas
  - Communications
  - Site Disaster/Emergency Management lead (where applicable).
- 3.5.3 The WRHA Regional Incident Command System (ICS) shall be activated in cases where water supply is affected at more than one WRHA site, where a site requires regional support or if Patient/Resident/Client services will be impacted, including:
- Ambulance diversion (Emergency Department)
  - Closure to deliveries (Woman/Child Program)
  - Postponement of a surgical slate
  - Cancellation of clinical services (Primary Care, Ambulatory Care sites).
- 3.5.4 Where overhead paging is available, the **Paging Operator will:**
- Announce the initiation of the Emergency Water Contingency Plan, using the script prepared by the ICS.
  - Make other public address announcements as directed by the Incident Commander.
- 3.5.5 **Communications will:**
- Initiate and coordinate overhead paging announcements, emails, faxes, and bulletins, including specific water restriction(s), area(s) affected, anticipated length of time to repair, and any other relevant information:
    - Distribute all electronic/hard copy internal communications, including necessary measures
    - Send a facility/campus-wide email including the nature of the event; anticipated length of interrupted service; and instructions regarding the use of water for drinking and ice, patient and staff hygiene, environmental cleaning, laundry, and flushing toilets
- 3.5.6 **Incident Command will:**
- Secure a safe alternative supply of bottled water.
- Ensure connected facilities using the same water service are made aware of the restrictions.
  - Continue to monitor the impact of the event on all services, in all programs/departments.
  - Confirm necessary internal & external communication has occurred.

**Note:** If the City of Winnipeg Water & Waste Department is involved AND the time required to complete repairs is prolonged, ensure the City Manager/designate is aware of the impacts the delays have within the facility.

- If water sampling is indicated:
  - Receive initial water sample(s) obtained by Facilities Management.
  - Copy report to IP&C.
  - Determine the need for further sampling, type of analysis, and cost. Coordinate further sampling as required.
  - Obtain authorization for external analysis of water samples from the **Incident Commander**.
  - Involve/consult outside agencies as required.

### 3.5.7 **All affected areas will:**

- Refrain from using the water and follow instructions provided.
- Instruct all patients/residents/clients, visitors, and staff not to use or consume affected facility tap water.
  - Note:** This includes ice/and drinks made with facility water, or raw foods rinsed with facility water from affected areas
- Post enclosed **“DO NOT USE THE WATER”** signs in coffee/lounge facilities, on bathroom doors, cleaning equipment (e.g., bedpan washer, instrument washer), ice machines, and any other source of consumable water in their respective areas **as applicable**.

### 3.5.8 **Security will:**

- Post **“DO NOT USE THE WATER”** signs on all bathroom doors in public areas.
- Notify Security personnel in any connected facilities of the event and direct him/her to:
  - Advise all staff of the water restrictions
  - Place signage on all water fountains, ice machines, and washroom doors as applicable, and
  - Place a sign on in-patient kitchen doors where applicable

### 3.5.9 Follow outlined Infection Control Measures (Appendix A) for instructions on water for:

- Consumption
- Food preparation/sanitation
- Hand hygiene (and review of hand washing sinks as necessary)

- Providing patient hygiene (including water for brushing teeth, showering and restrictions)
- Skin/wound care
- Patient care equipment/Pharmaceutical preparation
- Cleaning of equipment and the environment
- Laboratory
- Hemodialysis
- Laundry, and
- Increased patient monitoring

3.5.10 Refer to the [Supply Order form for supplies](#) that may be required.

3.5.11 **Declaration of All Clear**

3.5.11.1 The **Incident Commander** will authorize the “**Return to Water Normal Use**” by directing Communications/Paging Operator (where available) to initiate the “**ALL CLEAR**” and direct staff to remove all “**DO NOT USE THE WATER**” signage previously posted.

3.5.11.2 **Communications/Paging Operator** will advise the campus water use has returned to normal and all “**DO NOT USE THE WATER**” signage may be removed.

3.5.11.3 **All areas** will

- Remove all posted “**DO NOT USE THE WATER**” signs and return to Incident Commander
- Ensure coffee machines and food preparation equipment is cleaned and disinfected, and free of residual unacceptable water

3.5.11.4 **Reprocessing areas** will transition back to normal business by following their individual cleaning/disinfection processes, ensuring taps/lines and machines are free of residual unacceptable water.

3.5.11.5 **Facilities Management** will flush the water system and inspect/clean/replace filters, as required, in affected areas.

3.5.11.6 **Security** will

- Remove all signs posted in public areas and adjoining buildings
- Notify Security personnel in any connected facilities and direct him/her to advise all staff to return to normal water use



## OUTSIDE NORMAL BUSINESS HOURS

- 3.6 All areas that notice a problem with the water (discoloration, odor, lack of water pressure) shall immediately notify the **Energy Centre/Central Energy Plant** or their applicable **Facilities Management Manager/Designate**. If not available/no response, notify the **Hospital/Site Supervisor**. If not available/no response, notify the **Site Administrator on Call**.
- 3.7 Confirm:
- 3.7.1 Nature and cause of the problem.
- 3.7.2 Impact throughout the facility/campus (including all buildings and areas affected).
- 3.7.3 Safety of tap water; filtered water; reverse osmosis (RO) water: for drinking/food preparation, hygiene, wound care, diagnostics, medical device reprocessing, hemodialysis, environmental cleaning and research.
- 3.7.4 Expected length of time to repair/resolve.
- 3.7.5 All other impacted departments have been notified, including IP&C and OESH.
- 3.8 **The Hospital/Site Supervisor or Site Administrator on Call will take immediate action to correct/isolate the problem and prevent further contamination.**
- 3.8.1 Consult with the Site Medical Director/Designate and IP&C medical director/designate to determine the safety of tap water, filtered water, RO water if applicable, and the need for water sampling. Leave a message for OESH for when they return to the site.
- 3.8.2 If tap water and filtered water are considered unusable, notify persons in charge of Patient/Resident Food Services and other food locations immediately.
- 3.8.3 If RO water is considered unusable, notify the Manager/designate in each affected area.
- Determine, in consultation with the Site medical director/designate and the IP&C medical director/designate whether in-house reprocessing capabilities can support the continuation of normal business. If not, determine the degree of reduced service required.
- 3.8.4 Contact the **WRHA Administrator On Call** (204-926-7048) to determine whether to activate the Emergency Water Contingency Plan and the site Incident Command Structure, in collaboration with affected departments/areas, Facilities Management, and other relevant stakeholders as required.

3.8.5 Contact Shared Health Emergency Management On Call (204-794-2478) who will then notify the City of Winnipeg and the On-Call Medical Officer of Health.

3.9 **Activate the Emergency Water Contingency Plan and site Incident Command System**

3.9.1 Activate the Incident Command System (ICS) with all relevant and available stakeholders. This may include, but is not limited to:

- Facilities Management (FM) Manager/designate
  - Site Administrator On Call and/or WRHA Administrator on Call
  - Occupational and Environmental Safety and Health (OESH)
  - Infection Prevention & Control (IP&C)
  - Program Directors/Charge Personnel of all affected areas
- Site Disaster/Emergency Management lead (where applicable)

**NOTE:** The WRHA Regional Incident Command System (ICS) shall be activated in cases where water supply is affected at more than one WRHA site, where a site requires regional support or if Patient/Resident/Client services will be impacted, including:

- Ambulance diversion (Emergency Department)
- Closure to deliveries (Woman/Child Program)
- Postponement of a surgical slate
- Cancellation of clinical services (Primary Care, Ambulatory Care sites).

3.9.1.1 The **Hospital/Site Supervisor or Site Administrator on Call** assumes the role of **Incident Commander**

3.9.2 **Specific Changes to Procedure After Hours:**

3.9.2.1 When contacting Kitchen Supervisors and any Retail Food Service Supervisors, leave a message if no response.

3.9.2.2 The **Incident Commander** will determine and deliver necessary communications until Communications is next available on site.

3.9.2.3 The **Incident Commander** will authorize the “**Return to Water Normal Use**” by directing the Paging Operator to initiate the “**ALL CLEAR**” and direct staff to remove all “**DO NOT USE THE WATER**” signage previously posted.



## 4.0 References

- 4.1 Guidelines for Environmental Infection Control in Health-Care Facilities. (2003). Centers for Disease Control and Prevention (CDC) and the Healthcare Infection Control Practices Advisory Committee (HICPAC). Available at:  
<https://www.cdc.gov/infectioncontrol/pdf/guidelines/environmental-guidelines.pdf>.
- 4.2 Guidelines for Preventing Health-Care--Associated Pneumonia. (2003). Centers for Disease Control and Prevention (CDC) and the Healthcare Infection Control Practices Advisory Committee (HICPAC). Available at:  
<https://www.cdc.gov/mmwr/preview/mmwrhtml/rr5303a1.htm>.
- 4.3 Heater-Cooler Devices: FDA Safety Communication - Use of Devices Associated With Nontuberculous Mycobacteria Infections. (2016, March 28). U.S. Food and Drug Administration. Available at:  
<https://www.fda.gov/Safety/MedWatch/SafetyInformation/SafetyAlertsforHumanMedicalProducts/ucm467151.htm>.
- 4.4 Water for Pharmaceutical Purposes. USP 39–NF 34 Second Supplement. (2016, December 1). The United States Pharmacopeia Convention. Available at:  
[http://forums.pharmacyonesource.com/phos/attachments/phos/pharmacy\\_ops/3975/1/Water%20for%20Pharmaceutical%20Use\\_1231.pdf](http://forums.pharmacyonesource.com/phos/attachments/phos/pharmacy_ops/3975/1/Water%20for%20Pharmaceutical%20Use_1231.pdf).

### **Operational Directive Contacts:**

Jennifer Forman, Infection Prevention and Control Clinical Team Leader, St. Boniface Hospital

Janice Briggs, RN, BA, MScN, CIC, IP&C Specialist, WRHA Infection Prevention and Control Program



## APPENDIX A: INFECTION CONTROL MEASURES

Events that interrupt the water supply, cause a decrease in water pressure, or cause water contamination noticeable by discoloration, taste, or chemical odor often happen without notice.

Drinking water and ice for patient/resident/client-use should always be obtained from filtered ice machines.

Additionally, staff should always check for discolored or odorous water each time before use.

**Do not drink discolored, odorous, or water that tastes 'off'.**

### How to Check Water

Run the cold water from the ice machine into a Styrofoam cup.

- If water is discolored, run cold water for several minutes to see if it clears.
- If it remains discolored, do not drink it and do not prepare food with it.
- Call and notify **the Energy Center (Central Energy Plant) or Facilities Management Manager/Designate, as applicable.**

### Water for Consumption

#### Patients/Residents/Clients

- Obtain water from an ice machine on an adjacent patient/resident care unit if clean. If unavailable, obtain bottled water from location identified by Incident Command.
- Use sterile water or bottled water for tube feeds.
- Patients/Residents/Clients must not consume water from taps or coffee machines that are unfiltered and directly connected to the water system.
- Patients/Residents/Clients may be given other beverages (e.g., fruit juice, pop) if medically acceptable; check drug compatibility prior to administering oral medications.
- Persons with HIV and/or Absolute Neutrophil Counts of less than 500 cells/  $\mu\text{l}$ , may drink bottled Aquafina™, Dasani™, or other designated cryptosporidium free bottled water that is the site standard/Logistics contract item.

#### Staff

- Obtain water from vending machines or bottled water coolers.
- Do not consume water from filtered water fountains unless it has been determined safe to do so.

#### Visitors

- Obtain water from vending machines.

## Food Preparation/Sanitation

- Use water supplied by the City of Winnipeg or bottled water.
- Disconnect and do not use drinking water fountains and any other machines used to dispense beverages that have water lines directly connected to the affected tap water lines.
- Use bottled water to wash fruit, vegetables, and other food.
- Thaw food in refrigerators or microwaves; do not use tap water to thaw frozen food.
- Discard all uncooked food and beverages prepared with affected tap water (including ice) before the event was discovered.
- Empty and disconnect affected ice machines until the “All Clear” is given.
- Clean and disinfect affected ice machines and storage containers/bins before being used to store fresh ice.
- Clean and disinfect affected used dishes, or wash them in a commercial dishwasher.
- Clean and disinfect all countertops, chopping boards, tables and food preparation areas, adhering to required contact times and allowing air-drying.

**Ice Packs:** Ice made with contaminated water *may* be used in ice packs.

## Hand Hygiene

- Patients/residents/clients, staff, and visitors are to use alcohol-based hand rub (ABHR). If hands are soiled, use a moist towelette before using the hand cleanser.
- If using a surgical hand scrub, clean hands with a moist towelette before using the scrub.

Place towelettes in the room of persons on Additional Precautions/ Isolation.

## Skin and Wound Care/Mouth Care

### Bathing and Showering

- Do not use contaminated water for patient bathing/showering.
- Do not use contaminated water for mouth care.
- Use moist towelettes for localized cleaning.

For more extensive bathing (infant bath, pre-surgical skin preparation, patients with compromised immune systems) consider use of bottled sterile distilled water or disposable bathing products if available.

### Incisions/Wound Care

Use bottles of sterile or distilled water, from Dispatch/Stores, for healed incisions

- Use sterile water for irrigation of wounds or non-healed incisions
- Restrict burn patients and patients with open sores or wounds from whirlpool treatments and hydrotherapy for debridement unless water for use is filtered or treated (boiled, disinfected).

- Use sterile bottled water when performing hand hygiene for surgery e.g., surgical scrub and for emergency surgical procedures.

### **Patient-care Equipment/Pharmaceutical Preparations**

Use bottled sterile water for pharmaceutical preparations (e.g., ventilators, nebulizers, heater-cooler units, etc.)

- Use sterile water as normal for ventilators
- Use bottled sterile water for isolettes (follow manufacturer's instructions for use)
- Use bottled sterile water for heater-cooler units

### **Environmental Cleaning**

- Use ready-to-use disinfectant wipes (e.g., Accel Intervention).

### **Cleaning, Disinfection, and Sterilization of Reusable Equipment/Supplies**

RO water is usually safe to use in contaminated water events due to the filtration system. However, if the RO water is deemed unsafe for use, use sterile bottle water (available from Dispatch) for essential cleaning (pre-cleaning) of contaminated items and post-disinfection rinse, as required.

Turn off the water supply to medical equipment with water lines connected in the affected areas.

Do not use steam sterilizers until tap water use is deemed safe for use.

All reprocessing areas will transition back to normal business by following their individual cleaning/disinfection processes, ensuring taps/lines and machines are free of residual unacceptable water.

### **Laboratory and Hemodialysis**

If the RO water system is unsafe for use, continue as many services as possible using bottled RO water. Co-ordinate services with alternate sites as required.

### **Laundry**

Do not use contaminated water to launder items.

### **Increased patient monitoring**

## **APPENDIX B: SUPPLIES FOR EMERGENCY WATER CONTINGENCY**

The following supplies may need to be ordered for use when the Emergency Water Contingency Plan is in effect. Before ordering, use any existing (and SAFE) supplies located within the department/area. Order supplies as per facility protocol. Necessary supplies may include:

- Towelettes
- Alcohol based hand rub
- Waterless surgical scrub
- Sharps container
- Sterile bottled water for irrigation
- Comfort bath cloths
- Barrier cloths

## APPENDIX C: COMMUNICATION TO SITE MANAGERS/DIRECTORS

### **WATER MAIN BREAK MAY RESULT IN BROWN WATER**

April, 2017

Our facility is currently experiencing intermittent brown water throughout the site resulting from **a water main break** in the city. The impact will depend on the water flow through the system that feeds the hospital. **Please report any unresolved brown water situations to Facilities Management.** It is important we monitor and understand the extent of brown water throughout the site and the effects on filtration systems and infrastructure.

### **HOW TO CHECK FOR BROWN WATER AND RESPOND**

As brown water happens without notice, it is important that staff always check the color of the water before using

**RUN COLD TAP WATER** into a Styrofoam cup every time.

- **IF THE WATER IS BROWN** - Run the cold water for several minutes to see if it clears. If it remains brown, **DO NOT DRINK THE WATER OR USE IT TO PREPARE FOOD.** Contact Facilities Management.
- **IF THE WATER IS CLEAR** - It is safe to use. We recommend using filtered water for drinking, available from the ice machines.

**ICE MACHINES:** Machines are filtered. If the water from the ice machine is running clear, it can be used for ice and drinking. If the water from the dispenser is brown, do not use. Please get ice from another unit. Ice cubes can still be used for ice packs. If tap water and ice machine dispenser water are both brown, use bottled water for drinking water. **For bottled water for patient use, consult with your local supplier or the City of Winnipeg.**

**BATHING:** Use sterile water or the Sage disposable bath system.

**WOUND CARE/TUBE FEEDS:** Use sterile water (or bottled water for tube feeds).

**RO SYSTEMS:** Water is safe to use as these systems have appropriate filters.

**WATER FOUNTAINS:** Bottled water for staff and visitors is available in the vending machines.

Please contact Infection Prevention and Control for any questions or concerns related to the care of newborns, or patients with compromised immune systems.

Please see the attached [Operational Directive](#) for more detailed management.



Winnipeg Regional  
Health Authority  
*Caring for Health*

Office régional de la  
santé de Winnipeg  
*À l'écoute de notre santé*

**DO NOT USE THE WATER**

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**N'UTILISEZ PAS L'EAU**



Winnipeg Regional  
Health Authority

*Caring for Health*

Office régional de la  
santé de Winnipeg

*À l'écoute de notre santé*

**Do not use the water for drinking or  
washing.**

**Flushing is allowed.**

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**Interdiction de boire ou de vous  
laver avec l'eau.**

**Vous pouvez tirer la chasse d'eau.**