

Emergency Response Plan for Atikokan Drinking Water Systems

December 2013
Reviewed and updated for 2013



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Protecting public health

Safe and reliable drinking water is vital to every community. Emergency response planning is an essential part of managing a drinking water system.

Most public water systems have had routine operating emergencies such as pipe breaks, pump malfunctions, coliform contamination, and power outages. These are manageable if the water system has an emergency response plan that can be put into action quickly.

More serious non-routine emergencies may result from intentional acts of sabotage, chemical spills, floods, earthquakes, windstorms, or droughts. These can drastically affect the system and the community that depends on it.

Each emergency has unique effects on different parts of a water system. Floods can cause widespread bacterial contamination, earthquakes can damage sources and distribution systems, and storms can disrupt power supplies. The common element is that each emergency may threaten the system's ability to deliver safe and reliable drinking water.

Emergency response planning is a process by which water system managers and staff explore vulnerabilities, make continuous improvements, and establish procedures to follow in an emergency. It is also a process that encourages people to form partnerships and get to know one another. Preparing a response plan and practicing it can save lives, prevent illness, enhance system security, minimize property damage, and lessen liability.

The requirement for an emergency response plan

The Ministry of Environment has instructed the Township of Atikokan to prepare an emergency response plan to address a situation when the raw water supply has been contaminated.

Emergency response mission and goals

Mission statement for emergency response	In an emergency, the mission of the Atikokan Drinking Water System is to protect the health of our customers by being prepared to respond immediately to a variety of events that may result in contamination of the water or disruption of supplying water.
Goal 1	Be able to quickly identify an emergency and initiate timely and effective response action.
Goal 2	Be able to quickly notify local, regional agencies to assist in the response.
Goal 3	Protect public health by being able to quickly determine if the water is not safe to drink or use and being able to immediately notify customers effectively of the situation and advise them of appropriate protective action.
Goal 4	To be able to quickly respond and repair damages to minimize system down time.

In any event, there are a series of general steps that a water system should take:

1. Confirm and analyze the type and severity of the emergency. **If the size or seriousness of the emergency appears beyond the capability of responsibilities of the Public Works Department and the operating authority the Atikokan Emergency Plan shall be put into effect.**
 2. Take immediate actions to save lives.
 3. Take action to reduce injuries and system damage.
 4. Make repairs based on priority demand.
 5. Return the system to normal operation.
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System Information

System identification number	220000950	
System name and address	Atikokan Drinking Water System PO Box 1330 Atikokan, ON, P0T 1C0	
Directions to the system	The Water Treatment Plant is located east of town at 101 Little Falls Rd	
Basic description and location of system facilities	The raw water is drawn from the Atikokan River, the pump house being located at the end of Little Falls Rd, and the intake just upstream of the falls. An 18" line connects the LLPS and the plant. After entering the plant the raw water is being injected with PAC and then polymer and then clarified through one of the two Actiflo units. From there it goes through a set of four finishing filters and then soda ash is added correct pH, fluoride and chlorine gas are added to improve tooth protection and ensure disinfection. The treated water is being stored in two clear wells located underneath the plant, with a storage capacity of 4485 m ³ that allows enough contact time for disinfection.	
Location/Town	Atikokan	
Population served and service connections from Division of Drinking Water records.	2814 people	
System owner (the owner should be listed as a person's name)	The Corporation of the Town of Atikokan	
Name, title, and phone number of person responsible for maintaining and implementing the emergency plan.	Peter Burbeck Public Works Director Jim Hogan ORO (Distribution)	(807) 597-1234 ext. 230 Phone (807) 597-2135 Phone

Chain of Command – Lines of Authority

The first person to be notified about the incident is the Public Works Foreman which is also the ORO for the distribution system. He will assess the situation and initiate a series of response actions based on the type and severity of emergency. Regardless of the situation he will notify the operator in charge at the WTP.

In addition to an individual having the lead responsibility, other key responsibilities that should be assigned to system personnel include the following tasks:

- Handle incoming phone calls and administrative support.
- Provide information to the public and media.
- Contact the customers.
- Assess the system's facilities and operations in the field.
- Organize and carry out repairs.

Name and title	Responsibilities during an emergency	Contact numbers
Jim Hogan (Hugh White) (Larry Gashinski)	Responsible for overall management and decision making for the drinking water distribution system. The ORO is the lead for managing the emergency, providing information to regulatory agencies, the public and news media. All communications to external parties are to be approved by the water system manager.	Phone: (807) 597-2135 Cell: (807) 597-8136
Henry Caouette Phil DeCorte Shane Manford Water Treatment Plant Operator	In charge of operating the water system, performing inspections, maintenance and sampling and relaying critical information, assessing facilities, and providing recommendations to the water system manager.	Phone: (807) 597-4542 Cell: (807) 598-1234
Jason LeBlanc Gilles Vachon Northern Waterworks Managers	In charge of running water treatment plant, performing inspections, maintenance and sampling and relaying critical information, assessing facilities, and providing recommendations to the water system operator or manager.	Phone: (807) 688-2036 Or (807) 728-1118
Pat Halwachs Office Administrator	Responsible for administrative functions in the office including receiving phone calls and keeping a log of events. This person will provide a standard carefully pre-scripted message to those who call with general questions.	Phone: (807) 597-1234 ext. 234
Peter Burbeck	Liaison for town, different agencies and public	(807) 597-1234 ext. 230

Events that Cause Emergencies

The main purpose of this plan is to address a situation when the raw water for the town is being contaminated due to an accident on the railway upstream of the intake, knowing that tracks run parallel with the Atikokan River. In the mean time other possible emergencies have been considered:

- Natural disasters.
- Accidents.
- Deliberate acts of vandalism or terrorism.
- System neglect or deferred maintenance.

An emergency may affect the entire water system or only isolated sections. We have evaluated a variety of events regarding their potential effects on the water system and its infrastructure. Each type of event can cause different types of damage to system components or contamination resulting in a disruption in service. These evaluations are reflected in the water system's vulnerability assessment and procedures for responding to specific events that are discussed later in this document.

A summary of the Town of Atikokan Risk Assessment and Critical Points can be found in a table on page 20 of the Operational Plan. The table lists a description, results and available control measures for each identified hazard. Each potential hazard is scored using a scale for detectability, severity and likelihood. There were four hazards identified as Critical: low distribution pressure, low free chlorine residual, major distribution leak and a cross-connection.

Low pressure in distribution system:

- Results are possible contamination of drinking water through backflow (back siphonage or back pressure) and loss of fire protection.
- Available control measures are alarms and resident's complaints

Low free chlorine residual:

- Results are inadequate secondary disinfection: possible contamination of the drinking water.
- Available control measures are periodic testing (chlorine residual), bacteriological samples, upstream (WTP) processes. Distribution Monitoring Plan (2013).

Major distribution leak:

- Results are possible low distribution pressure or depletion of storage reservoirs, possible contamination of drinking water through backflow and loss of fire protection.
- Available control measures are monitoring of treated water flows, monitoring of treated water discharge pressure and alarms for both.

Cross-connection:

- Results are contamination of water supply.
 - Available control measures are municipal by-laws and building codes.
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Severity of Emergencies

Emergencies have a wide range of severity. Defining categories of severity can significantly aid in determining appropriate response actions. Knowing the severity of the emergency and being able to communicate it to others will help system personnel keep their response balanced and effective.

Making a decision on severity should be collaborative among system personnel, but is ultimately made by the person in charge of the emergency. The person in charge may also choose to coordinate with external parties, especially if partnerships have been formed in advance of the event. The information for making the decision will accumulate over time, and may result in the level of severity being changed.

An assessment of severity, once decided, must be communicated immediately to all those dealing with the emergency. Make sure staff has cell phones, pagers, and/or radios when they are in the field. Remember to have an alternative method of communicating if cell phones and pagers won't work.

Level I – Normal (Routine) Emergency: The system experiences a normal emergency, such as a line break or power outage. System personnel are able to handle the problem with minimal outside assistance. In this situation is not likely that public health will be immediately jeopardized. Although it is important to begin responding, system personnel should have no difficulty remaining calm and thoroughly working through the situation. Normal events can usually be resolved within 24 hours.

Level I emergency

Description: The Atikokan water system considers the following as level I emergencies:

- Distribution line breaks.
- Short power outages.
- Minor mechanical problems in pump-houses.
- Other minor situations where it is not likely that public health will be jeopardized.

The system has specific response activities identified for these types of emergencies, including proper sampling, disinfection, and pressure testing activities. There are specific provisions in the standard operation procedures manual. System personnel are advised and are directed to work on the problem and are usually capable of resolving the problem within 24 hours. If it is determined that the problem will take longer than 24 hours to resolve and storage is likely to be drawn down below a safe operating level, the situation will be elevated to level II.

Level II – Minor Emergency (Alert Status): The system experiences minor disruption in supply or has indications of possible contamination where it may need to coordinate with MOH and consider issuing a health advisory to customers. In these types of emergencies, public health may be jeopardized, so it is important for system personnel to be on alert and initiate a quick response. Minor emergencies can usually be resolved within 72 hours.

Level II emergency

Description: The Atikokan water system considers the following to be level II emergencies:

- Disruption in supply such as a transmission main line break, pump failure with a potential for backflow, and loss of pressure.
- Storage is not adequate to handle disruption in supply.
- An initial positive coliform or E. coli sample.
- An initial primary chemical contaminant sample.
- A disruption in chlorine/chemical feed from the groundwater sources.
- A minor act of vandalism.
- Drought, with a noticeable and continuing decline of water level in the well.

Level III – Significant Emergency: The system experiences significant mechanical or contamination problems where disruption in supply is inevitable and issuance of a health advisory is needed to protect public health. Major emergencies should be reported to MOH and MOE as soon as possible to determine the best available means to protect customers' health. System personnel are directed to the situation, and outside entities are notified to aid in the response. Major emergencies may require more than 72 hours to be resolved.

Level III emergency

Description: The Atikokan water system considers the following as level III or actual emergencies:

- A verified acute confirmed coliform MCL or E. coli/fecal positive sample requiring immediate consideration of a boil water advisory notice to customers.
 - A confirmed sample of another primary contaminant requiring immediate consideration of a boil water advisory notice to customers.
 - A loss or complete malfunction of the water treatment facilities for the surface water source, including chlorination.
 - A major line break or other system failure resulting in a water shortage or requiring system shutdown.
 - An act of vandalism or terrorist threat such as intrusion or damage to a primary facility.
 - Severe drought significantly affecting well yield.
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Level IV – Catastrophic Disaster/Major Emergency: The system experiences major damage or contamination from a natural disaster, an accident, or an act of terrorism. These incidents usually require immediate notification of local law enforcement and local emergency management services. Immediate issuance of health advisories and declaration of water supply emergencies are critical to protect public health. These events often take several days or weeks to resolve before the system returns to normal operation.

Example: Level IV emergency

Description: The Atikokan water system considers the following events to be level IV or major emergencies:

- Chemical spill within 2000 feet of the system's sources.
 - Flood that infiltrates system facilities and sources.
 - Act of terrorism possibly contaminating the water system with biological or chemical agents.
 - Storm that significantly damages power grid and system facilities.
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Emergency Notification

During most emergencies, it will be necessary to quickly notify a variety of parties.

Preparation for such notification has three essential components:

- Assigning responsibility to oversee and carry out the notifications.
- Assembling comprehensive call-up lists with names and contact numbers.
- Writing out procedures for quickly disseminating information to appropriate parties.

Notification call-up list

Priority Contacts

Public Works Emergency	Title	Work Number	Home Number
Angela Sharbot	C.A.O.	597-1234 ext. 233	597-6789
Jim Hogan	O.R.O.	597-8136	597-5874
Peter Burbeck	Class 1	597-1234 ext. 230	597-1207
Jim Anness	Class 1	597-2135	597-6342
Dean Brigham	Class 1	597-2135	597-6258
Kelly Campbell	Class 1	597-2135	597-3319
Jim Galbraith	Class 1	597-2135	597-2181
Larry Gashinski	Class 1	597-2135	597-4213
Hugh White	Class 1	597-2135	597-1439
Tim Farmer	Class 1	597-2135	597-4463
Duane Lind	Class 1	597-2135	597-6447
Bill Blanchard	O.I.T.	597-2135	597-4310
Joe Lecuyer	O.I.T.	597-1234 ext. 239	598-0328

Emergency Numbers

Fire	911
Police	911
Ambulance	911
Hospital	597-4215 Emerg. Ext. 308
Atikokan Police Department	597-2120

Contractors

Paul Gronski	597-5896	Equipment
Bates Construction	597-4574	Construction
Blaine Davidson	597-3949	Mining
Kevin Cain	597-4259	Plumbing and Heating
Bruce Placken	597-6629	Heating
Jeff Palmai	597-1117	Electrical
Glen Ivall	597-6052	Electrical

Other Emergency Contacts	Phone	Home Phone
Public Works Emergency	597-2135	
Ontario-1-Call (locates)	1-800-400-2255	
Ministry of Labour	1-800-461-6325	
Union Gas	597-6661	
Bell Locate	1-800-268-3550	
Atikokan Hydro	597-6600	
Garth Dyck (Fire Chief)	597-1234 ext. 228	597-6751

Northern Water Works Inc.	Title	Phone
Jason Leblanc	CAO/ORO Municipal Pro-	1-647-688-2036
Dennis Leblanc	President/CEO	1-647-210-5104
Chris Leblanc	COO	1-647-210-1286
Robert Lariviere	Director of Operations	1-647-210-0662
Gilles Vachon	Northwest Regional Man-	1-807-728-1118
Nick Kyle	Senior Compliance Coord-	redlakegms@hotmail.com
Henry Caouette	Atikokan Operator	Cell: 598-1234
Atikokan On-Call Cell		598-0482
Atikokan Water Treatment		597-4542
Atikokan Sewage Treatment Plant		597-2100

Mayor & Council	Home Phone	Cell
Dennis Brown (Mayor)	597-4249	597-8050
Marlene Davidson	597-2954	

Bud Dickson	597-2635	597-7958
Jerry Duhamel	597-2942	
Bob Gosselin	597-2139	597-7592
Marj Lambkin	597-6542	
Mary Makarenko	597-6152	

Pipes, Valves and Disinfection Suppliers	Phone
Western Supplies	807-345-6523
Canada Valve (Yves Landry)	807-560-2111
Emco (Richard)	800-268-9060 or 807-673-9584
Emco (North Bay)	807-476-0701
Grinelis	807-671-9600
Ground Control	807-673-3020
Sudbury Valves	807-692-5863
Westburne (Division of Canada Valve)	800-465-7734 or 905-712-4004
Wamco (Gaston Beaulieu)	807-525-5000 or 800-567-0100
Wamco (Mark Beaudry)	807-525-5000
Honda (Pumps)	807-682-4463
Impel (Pumps)	807-694-0222

Ontario Ministry Numbers	Phone	
Pamela Cowie (MOE)	1-807-475-1514	
Dave Coats (MOH) NWDHU	1-807-257-9481	Cell: 1-807-274-9827
MOH/NWDHU	1-807-274-9827	After Hours: 807-468-7109
MOE Spills Action Centre	1-800-268-6060	
MOL	1-800-531-5551	

Media

Atikokan Progress	597-2731
CBC Radio	807-625-5015
Shaw Cable	597-4430
Canada Post	597-6979

Other procedures to define include:

- Notifying system personnel who may be on-call or off-duty.
- Notifying customers, priority customers, and industrial customers.
- Alerting local law enforcement, drinking water officials, local health officials, and water testing laboratories when appropriate.
- Contacting service and repair contractors.
- Contacting neighboring water systems for assistance, if necessary.
- Arranging for alternative water supplies such as bottled water.

Adverse Water Quality Incident Reporting

There are two levels of reporting adverse water quality:

Verbal – The Overall responsible Operator will contact MOE Spills Action Centre and Northwestern District health Unit (MOH) by phone immediately after an issue arises causing an Adverse Water Quality Incident. The ORO must continue to call until a person is notified (CAN NOT LEAVE A MESSAGE!).

Written – A completed Section 2 (A) ” Notice of Adverse Test Results and Other Problems” and a Boil Water Advisory notice must be submitted by fax to MOH, SAC and MOE within 24 hours.

Contact	Phone	Fax
Pam Cowie, Ministry of Environment	1-807-475-1514	1-807-475-1161
Dave Coats, Ministry of Health (NWDHU)	Cell: 1-807-275-9481 Phone: 1-807-274-9827 After Hours: 807-468-7109	1-800-274-0779
Spills Action Centre (MOE)	1-800-268-6060 DWS# 220000950	1-800-268-6061

Notice of Resolution:

A completed Section 2 (B) “Notice of Issue Resolution” must also be submitted to MOE, SAC, and MOH within seven days after issue is resolved. Resolution is based on sample analysis from an accredited lab (Town of Atikokan uses ALS lab in Thunder Bay).

Water Quality Sampling

Many types of emergencies can jeopardize the quality of water and potentially sicken those using the water. Because the most important goal for any water system is to protect human health, the system must know how to act quickly and make decisions on whether to issue a health advisory. Sampling and obtaining results from a lab takes time.

If there is reason to believe that the water has been contaminated, the water system manager should consult with MOH and consider issuing a health advisory as soon as possible – often before conducting water quality sampling.

Contamination of drinking water, whether intentional or unintentional, comes in many forms, which are classified in four general categories:

- Inorganics such as metals or cyanide.
- Organics such as pesticides or volatile compounds.
- Radionuclides.
- Pathogenic microorganisms or microbial organisms.

If the water system is experiencing an emergency caused by a natural event or intentional act and contamination is suspected, system personnel may be faced with making a decision about what contaminants to test for and how to get the tests performed quickly.

All systems must have a coliform monitoring plan, as required by drinking water regulations, that designates sampling sites, procedures, laboratory requirements, and contact numbers. This plan should be an integral part of your emergency response plan. If you already have emergency sampling sites and procedures established in this plan, simply reference it in the emergency response plan.

The following tests should be considered:

Coliform Bacteria: In the event of an emergency, testing for coliform is a standard first test, and if coliform is detected it is a signal that the system may be contaminated. Coliform bacteria are organisms that are present in the environment and in the feces of all warm-blooded animals, including humans. Coliform bacteria generally do not cause illness, but their presence indicates that other disease-causing organisms (pathogens) may be in the water system. Most pathogens that contaminate water supplies come from the feces of humans or animals. Testing drinking water for all possible pathogens is complex, time-consuming, and expensive. It is, however, relatively quick, easy, and inexpensive to test water for coliform bacteria. Public water systems must test for coliform bacteria regularly.

Heterotrophic Plate Count (HPC): This test provides information regarding the numbers of bacteria that may have been introduced into the water. HPC counts greater than 500 signal the need to be wary. Very high levels (1000 – 10,000 and greater) would suggest a problem that needs immediate evaluation.

Chlorine Residual: In chlorinated systems, this test indicates if materials introduced into the water have created a demand for the chlorine, leaving lower-than-normal or no residual

and signalling the need for further evaluations. Samples need to be taken at the distal end of the distribution system (the point farthest from the start of the distribution system).

Chlorine Demand: In systems that do not routinely chlorinate, this test reveals unusual demands on the oxidizing capability of the added chlorine, indicating the presence of a contaminant that warrants further investigation.

Nitrate/Nitrite: This test is relatively easy to perform. It is important to know whether these acute contaminants are present at levels that could harm infants.

Total Organic Carbon (TOC): Relatively simple to perform, this test measures normal expected levels range from 0.2 to 4.0 mg/L for surface water and 0.01 to 2.0 mg/L for groundwater. Higher levels may indicate the presence of organic materials that could pose a health concern.

Total Halogenated Organic Carbon (TOX): Relatively simple to perform, this test measures the halogenated organic substances, including disinfection by-products such as trihalomethanes and haloacetic acids. High levels suggest that contamination has occurred or that organic materials have been added to enable formation of disinfection by-products.

Cyanide: This test is not easily performed, but should be done immediately if cyanide contamination is suspected. Cyanide is very toxic, causing death upon ingestion.

If contamination is suspected, MOH regional office will help you identify what testing should be done. Testing will be done by ALS Laboratory in Thunder Bay.

If we suspect someone intentionally sabotaged the system or contaminated the water, this may be a crime scene. In addition to MOH regional office, the OPP shall be notified.

Effective Communication

Effective communications is a key element of emergency response.

Developing partnerships with others in your local emergency response network, establishing relationships with our customers and the media, and creating communication tools such as fact sheets and media releases ahead of time will help us communicate efficiently and successfully during a crisis.

All questions and concerns should be directed to the designated spokesperson.

Communication Tips

Do:

- Be prepared.
- Designate a spokesperson.
- Provide complete, accurate, and timely information.
- Tell the truth.
- Express empathy.
- Acknowledge uncertainty and offer to get back with more information later.
- Document your communications.

Do not:

- Speculate on the cause or outcome of an incident.
- Blame or debate.
- Minimize or brush off concerns of customers.
- Treat inquiries from interested parties as an annoying distraction from the real business of emergency response.

Designate a spokesperson and alternates

Spokesperson	Alternate 1	Alternate 2
Pat Halwachs, Office Adm. 597-1234 ext. 234	Angela Sharbot, Clerk. 597-1234 ext. 233	Peter Burbeck, Public Works 597-1234 ext. 230

Key messages

Develop possible messages in advance, and update them as the emergency develops:

- We are taking this incident seriously and doing everything we can to resolve it.
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- Our primary concern is protecting our customers' health.
- Another important concern is keeping the system operational and preventing damage.
- What we know right now is _____
- The information we have is incomplete. We will keep you informed as soon as we know more.
- We have contacted regional and local officials to help us respond effectively.
- If you think you may be ill or need medical advice, contact a physician.
- We are sampling the water and doing tests to determine whether there is contamination.
- Etc.

Health Advisories

The MOH will determine the need for a health advisory and issue accordingly.

The Vulnerability Assessment

This is an evaluation of each water system component to identify weaknesses or deficiencies that may make them susceptible to damage or failure during an emergency. It also assesses facilities for security enhancements that may guard against unauthorized entry, vandalism, or terrorism.

Facility vulnerability assessment and improvements identification

System component	Description and condition	Vulnerability	Improvements or mitigating actions	Security improvements
Source	Atikokan River. The intake is located 1 km from the WTP, just above the Little Falls.	The CN railroad runs alongside the river which makes it susceptible to spills and contamination.	Regulations prohibit activities in the proximity of river	
Storage	There are two clear wells within the WTP that can store 4485 m ³	Emergency backup power is located above the clear well and could potentially contaminate the water.	All cracks in the floor have been sealed, a double walled fuel tank has been installed and the containment lined.	There is a plan to move the backup power outside.
Treatment	Treatment consists of PAC, polymer, filtration, soda ash, fluoride and chlorine. All the pumps and systems are inspected and in good order.	The buildings are alarmed and locked and the processes are monitored by meters and staff.	The plant is undergoing upgrades.	Alarms on all the chemicals.
Pump-house and pumping facilities	The pump-house and pumping facilities are in good condition.	Pump-house does not have security fencing or lighting and is prone to vandalism.		Install fencing, lighting, and signage to protect against unauthorized entry.

Response Actions for Specific Events

Raw Water Contamination

Assessment	The raw water is vulnerable to contamination especially because there is the possibility of a derailment. There is a protocol in place in which CNR notifies the municipality in the event of an occurrence.
Immediate actions	<ol style="list-style-type: none">1. Isolate the intake valves, preventing contaminated water entering the WTP.2. Implement water shortage response actions to inform customers to cut back on water usage until supply is restored.
Notifications	<ol style="list-style-type: none">1. Notify regulatory agencies.2. OPP as case may be.3. Northern Waterworks Inc. management.4. ALS Laboratory about increased sampling.
Follow-up actions	<ol style="list-style-type: none">1. Collect water samples.2. Follow MOH recommendations3. Return all systems to normal.4. Regulatory reporting.

Alternative Water Sources

Water contamination or disruption of supply may require that the water system get water from an alternative source to meet basic community needs. In the event of a prolonged shortage of drinking water there is a commitment from SASI Spring Water to supply bottled water.

Alternate source of water

Alternative sources	Names	Phone	Availability	Is the water safe for drinking?
Bottled water suppliers	SASI Spring Water Andrew Dubinsky Plant Manager	(807) 622-8880	Up to 1000 gallons in 1 gallon jugs within 24 hours	Yes

Curtailing Water Use

The municipality has a by-law in place that regulates water usage during shortages.

Informing costumers of the necessity of curtailing water usage could be part of the initial notification process. This will help to diminish the shortage from the beginning.

Returning to Normal Operation

Action	Description and actions
Inspect, flush, and disinfect the system,	Water system operator and support staff inspect all system facilities, ensure all water quality tests have been done and the system has been flushed and disinfected if necessary. Water system operator makes a report to the water system manager. Water system manager makes decision on current condition of system.
Verification of water quality	Northern Waterworks Inc. operator verifies water quality sampling results.
Coordinate with MOH	Owner/operating authority coordinates with MOH on system condition and water quality results.
Notify customers	Owner notifies customers of return to normal operations.

Training

Emergency response training is essential. Training educates system personnel about emergency situations and resulting effects on water systems and also provides an opportunity to practice responses. Any training should have a purpose, appropriately selected personnel, and qualified instruction and supporting materials.

Training can be conducted in a variety of ways, including attending training classes or bringing in experienced trainers for on-site training and exercises. On-site exercises with experienced trainers are very useful, as they involve activities that are specific to the water system. Personnel can practice emergency communications, isolating parts of the system, inspecting system components, and learning what to look for in case of a security breach. It is also important to train staff on risk communications or how to communicate with the media and customers during an emergency.

When planning training, consider the system's size, the type and complexity of its components, staff needs, and operational needs. Periodic training reinforces previous efforts, as people often forget things that they don't use very often. It also provides an opportunity to train new staff and learn about new problems, new techniques, and changes in equipment. Be aware of current and upcoming training topics, especially hot topics that tend to come around as a result of a specific event.

Identify staff position training needs and expectations.

Position	Training needs and expectations
Distribution ORO	Emergency response communications, emergency response planning, issuing health advisories
Water System Operator	Emergency response communications, emergency response planning, suspicious activity training
Field support	Emergency response communications, suspicious activity training
Administrative Support	Emergency response communications, emergency response planning,
