



**Town of Wadena**

**Waterworks Emergency  
Response Plan**

**August 2021**

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## **Section 1 – Introduction and Policy Statement**

The intent of this emergency plan is to ensure the safety of consumers and the protection of life, property, and the environment in the most efficient way possible in the event of an unexpected incident. In particular, this plan deals with events that may affect water quality.

The performance goals and acceptable levels of service are outlined below:

### **Goal 1: Life safety**

The primary goal of the water system operation is to ensure the safety of its users. At all times, safe, clean water should be provided to the public. Examples of conditions that should never occur are the failure of the distribution system; the distribution of contaminated water; the release of hazardous materials and the collapse of structures.

### **Goal 2: Fire suppression**

Water for fire suppression should be made available as soon as possible after a disaster or emergency.

### **Goal 3: Public health needs**

Water is essential to life and health however some needs are more immediate than others. For instance, hospitals, care homes and emergency shelters require a continuous supply of potable water.

## Section 2 – Emergency Response Contact List

Community/Waterworks Name	<u>Wadena</u>
Waterworks Owner	<u>Town of Wadena</u>
Source Water	<u>Ground Water</u>
Water Treatment Plant Location	<u>117 Main St S – Highway #35</u>

<b>Contact Name</b>	<b>Telephone</b>	
Manager of Works and Operations	<u>Alyshia Neuman</u>	<u>306-338-7572 (W)</u> <u>306-338-3804 (F)</u>
System Operator	<u>Alyshia Neuman</u>	<u>306-338-7572 (C)</u> <u>306-338-3804 (F)</u>
On Call Operator		<u>639-947-7331 (C)</u>
Works and Operations Foreman	<u>Melvin Strand</u>	<u>639-947-7377 (W)</u>
Alternate System Operator	<u>Derek Melsted</u>	<u>306-560-7226 (C)</u> Class 2 Operator
Public Health Inspector	<u>Kari Engele-Carter</u>	<u>306-682-4155 (W)</u> <u>306-682-1495 (F)</u>
PHI Deputy Office 24-Hour		<u>306- 655-4605 (W)</u>
Medical Health Officer	<u>24 Hours</u>	<u>306-655-4338 (W)</u> <u>306-655-4474 (F)</u>
Environmental Project Officer	<u>Ries Mansuy</u>	<u>306-921-7395 (C)</u>
Water Security Agency	<u>Regina</u>	<u>306-933-7442(W)</u> <u>306-694-3105 (F)</u>
	<u>Saskatoon</u>	<u>306-933-7442 (W)</u> <u>306-933-6820 (F)</u>
Water 24 hour upset conditions		<u>1-844-536-9494 (W)</u>
Sask. Emergency Planning 24-Hour Line	<u>Regina</u>	<u>306-787-9563</u>
	<u>Saskatoon</u>	<u>306-933-6116</u> <u>infosafety@cps.gov.sk.ca</u>

<b>Contact Name</b>	<b>Telephone</b>	
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Saskatchewan Environment (SE)	<u>Parkland Eco Region</u>	<u>306-786-1463 (W)</u>
SE Spill Emergency Number		<u>1-800-667-7525</u>
Police		<u>911</u>
Ambulance		<u>911</u>
Fire Department		<u>911</u>
Fire Chief	<u>Harold Narfason</u>	<u>306-338-7622 (C)</u>
Secondary Fire Chief	<u>Bryan Weber</u>	<u>306-338-7745 (C)</u>
Municipal Engineer	<u>Darrell Rinas, AE</u>	<u>306-653-4969 (W)</u> <u>306-222-8396 (C)</u>
Pump Manufacturer	<u>Goulds</u>	
Chlorinator Manufacturer	<u>Cleartech</u>	<u>1-800-680-2522</u>
Chemical Supplier	<u>Cleartech</u>	<u>1-800-680-2522</u>
	<u>Mike Bigler(Enviroway)</u>	<u>306-229-6448(C)</u>
Excavation Services	<u>Neilson Trucking Ltd.</u>	<u>306-338-3330 (W)</u> <u>306-338-3395 (H)</u>
	<u>Byman Trenching</u>	<u>306-338-2823 (W)</u>
Electrician	<u>TG Electric</u>	<u>306-338-8667 (W)</u>
	<u>Paulson Electric</u>	<u>306-338-7761 (W)</u>
Plumbing Services	<u>Water World Industries</u>	<u>306-338-2104 (W)</u> <u>306-338-3404 (C)</u> <u>306-338-3111 (F)</u>
Bottled Water Suppliers	<u>B &amp; D</u>	<u>306-338-3607 (W)</u>
	<u>Wadena Co-o</u>	<u>306-338-2356 (W)</u> <u>306-338-2248 (W)</u> <u>306-338-2721 (F)</u>
Potable Water Tank Dealers	<u>Flaman Southey</u>	<u>306-500-6443(W)</u> <u>sean.kinequon@flaman.com</u>

**Contact Name**

**Telephone**

Potable Water Tank Dealers	<u>Nutrien Wadena</u>	<u>306-338-2591 (W)</u>
Potable Water Haulers	<u>3 Boyz Plumbing</u>	<u>306-272-3777 (W)</u>
	Foam Lake	
	<u>Brad's Oilfield Service</u>	<u>306-621-1026 (W)</u>
	Saltcoats	
	<u>TSL Mechanical</u>	<u>306-365-3127 (W)</u>
	Lanigan	
	<u>RMW Industrial Services</u>	<u>306-949-8234 (W)</u>
	Regina	
Emergency Measures Coordinator	<u>Pat Casement</u>	<u>306-338-2564 (H)</u> <u>306-338-7873 (C)</u>
Sask 1 <sup>st</sup> Call		<u>1-888-700-0427</u>
Sask Power		<u>306-310-2220</u> <u>1-888-757-6937</u>
Sask Tel		<u>306-310-7253</u> <u>1-800-727-5835</u>
Sask Energy		<u>1-888-700-0427</u> <u>1-800-567-8899</u>
Railway (CP)		<u>1-800-716-9132</u>
Railway (CN)		<u>1-800-465-9239</u>

## ***Priority Contacts for PDWA***

**Telephone**

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Hospital		<u>306-338-2515 (W)</u>
Home Care		<u>306-338-9936 (W)</u>
Hospital Maintenance	<u>Eldon</u>	<u>306-338-7305 (W)</u> <u>306-338-7489 (C)</u> <u>306-338-7989 (H)</u>
Medical Clinic		<u>306-338-2597 (W)</u>
Fire Department	<u>Harold Narfason</u>	<u>306-338-7622 (C)</u>
Wadena Housing Authority	<u>Anne Sanderson</u>	<u>306-338-8775 (W)</u>
Mallard		<u>306-338-3322</u>
Senior Citizens' Homes	<u>Weneeda Park Lodge</u>	<u>306-338-2755</u>
	<u>Pleasant View Home</u>	<u>306-338-2412</u>
Schools	<u>High School</u>	<u>306-338-2235</u>
	<u>Elementary School</u>	<u>306-338-2455</u>
	<u>Horizon School Div.</u>	<u>866-966-2558 (Dial 0)</u>
Dentists	<u>Takra Dental Studio</u>	<u>306-338-2225</u>
Restaurants	<u>T &amp; T Café</u>	<u>306-338-2243</u>
	<u>Nick's Place</u>	<u>306-338-3188</u>
	<u>Wadena Café</u>	<u>306-338-2153</u>
	<u>Scoop's</u>	<u>306-338-2336</u>
	<u>Wen's Café</u>	<u>306-338-2335</u>
	<u>B &amp; D</u>	<u>306-338-3607</u>
	<u>Subway</u>	<u>306-338-3141</u>
	<u>Wadena Hotel</u>	<u>306-338-3532</u>
Bakeries	<u>Wadena Bakery</u>	<u>306-338-2212</u>
	<u>Wadena Co-op</u>	<u>306-338-2248</u>

**Contact Name****Telephone**

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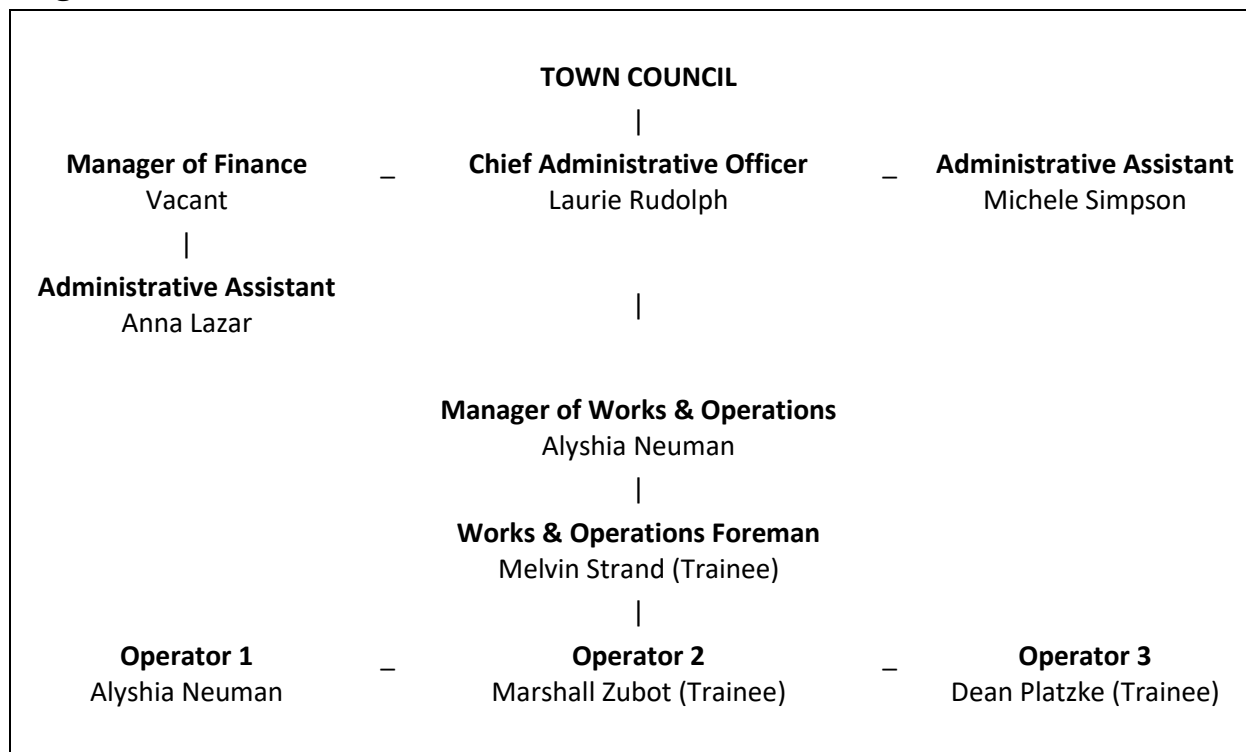
Hair Salons

Shakers' Styles 306-554-8445Salon D 'Lux 306-327-7170Debra's Barbering 306-338-3779



## Section 3 – Organizational Responsibilities

### Organizational Chart



### Waterworks Emergency Planning Task Force Members

Mayor	<u>Sara Sobchyshyn</u>	306-338-3609 (H) 306-338-7868 (C) <a href="mailto:wadena.mayor@gmail.com">wadena.mayor@gmail.com</a>
Manager of Works and Operation	<u>Alyshia Neuman</u>	306-338-7572 (C)
	Class 2 Operator	<u>306-338-2145 (W)</u> <u>306-338-3804 (F)</u>
Chief Administrative Officer	<u>Laurie Rudolph</u>	306-338-7477 (C) <u>306-338-2145 (W)</u> <u>306-338-3804 (F)</u>
Environmental Project Officer	<u>Reis Mansuy</u>	306-921-7395 (W) <a href="mailto:reis.mansuy@wsa.sk.ca">reis.mansuy@wsa.sk.ca</a>

Medical Health Officer	<u>306-655-4338 (W)</u> <u>306-655-4474 (F)</u>
Operators	<u>Alyshia Neuman</u> 306-338-7572 (C) Class 2 Operator <u>306-338-2145(W)</u> <u>306-338-3804 (F)</u>
	<u>Marshall Zubot</u> <u>Melvin Strand</u> <u>Dean Platzke</u>
Advisors	Saskatchewan Environment (SE) <u>Ries Mansuy</u> 306-921-7395 (C) <a href="mailto:reis.mansuy@wsa.sk.ca">reis.mansuy@wsa.sk.ca</a>
	Relief Class 2 Operator <u>Derek Melsted</u> 306-560-7226 (C)

## ***General Emergency Procedures***

In general, a waterworks incident should follow these steps:

1. The Manager of Works and Operations monitors the distribution system and treatment plant for trigger events. The local Health District monitors the public for a public health trigger.
2. All incidents are reported to the Chief Administrative Officer.
3. The Chief Administrative Officer evaluates the event, determines if a trigger has been met, and classifies all events, even those without a Technical Action Plan.
4. The Chief Administrative Officer notifies the Mayor and Council of the incident.
5. The Chief Administrative Officer directs the implementation of the Technical Action Plan and recommends further action, if required. This may require the notification of the Emergency Measures Coordinator for the municipality. If required, the Emergency Measures Coordinator will be called upon by the Chief Administrative Officer for additional help for widespread actions such as aid for extreme weather events or those listed in the technical action plans.
6. The Chief Administrative Officer utilizes the Communication Plan to advise the public.
7. When the emergency is over, the Chief Administrative Officer will update the public and Council.
8. The Chief Administrative Officer prepares a report on the incident and presents it to Council.

## Section 4 - Notification and Communication

### ***Emergency notification to customers***

The system notifies all system users via the following manner in case of an emergency:

- a) Telephone calls - (businesses and customers as listed in Section 2)
- b) Town of Wadena website Alert notification to subscribers
  - a. Share alert to Facebook
- c) Email to licenced businesses
- d) Media release
- e) Mail drop poster to post office for Town-wide events
- f) Other – as determined by the Water Quality Crisis Management Centre

### ***Emergency numbers distribution***

System users are provided the names and phone numbers of the system personnel to contact in case of emergency via the water and sewer billing notices, and on the Town Office's answering machine message.

### ***Media communications***

In some crisis situations, such as natural disasters, the media will receive information only from the designated spokesperson(s). The spokesperson(s) will call a media conference, give information over the phone or release a written statement. The spokesperson for any water-related incident shall be the Mayor or, in his absence, the Deputy Mayor.

The Town website will be updated as information becomes available. In the case of a major emergency or disaster, the emergency hotline will be manned 24 hours a day until the Water Quality Crisis Management Centre determines that the crisis has ended. The phone at the Town Office (306-338-2145) will be utilized for this purpose.

### ***Media contacts***

#### ***Radio***

CJGX Yorkton	306-782-2256	ykt-reception@harvardbroadcasting.com
CJVR Melfort	306-752-2587 (news)	dave.baker@cjvr.com
CBHO Humboldt	306-682-2255	boltfm@discoverhumboldt.com
CFGW Yorkton	306-783-4319 (news)	ykt-reception@harvardbroadcasting.com
	306-782-9410	

#### ***Television***

CTV Yorkton	306-786-8444 (news)	news@ctv.ca
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## Newspaper

Wadena News	306-338-2231	wadena.news@gmail.com
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## **Official Notices / Statements**

- Emergency Boil Water Order Has Been Issued
  - Issued by the Environmental Project Officer (EPO)- Water Security Agency
- Emergency Boil Water Order Has Been Rescinded
  - Issued by the Environmental Project Officer (EPO)- Water Security Agency
- Precautionary Drinking Water Advisory Has Been Issued
  - Issued by the Environmental Project Officer (EPO)- Water Security Agency
- Precautionary Drinking Water Advisory Has Been Rescinded
  - Issued by the Environmental Project Officer (EPO)- Water Security Agency

## **Signs**

Precautionary Drinking Water Advisory and Emergency Boil Water orders, emailed by the Environmental Project Officer, are to be posted at locations the public can access water in town, such as Town-owned buildings, campgrounds and water stations. During a Town-wide drinking water advisory, residents are to be mailed water orders via mail drop at the post office. Priority Contacts for PDWA are to be hand delivered.

When calling the post office for mail drop numbers, ask for the **“total point of call”**. This will provide the number of handouts needed to print for mail drop minus farm rented mailboxes.

PDWA Hand-Out Locations:

- All Priority Contacts as listed in Section 2.
- Community Legion Hall
- Fitness Centre
- Curling Rink
- Golf Course
- Wadena Museum
- Aquatic Centre
- Recreation Centre
- Sportsground
- Campground
- Town Office
- Water fill stations

## Section 5 – Technical Action Plans

Many emergency situations can lead to water quality degradation (for example, a main break, a power outage, pumping equipment failure, or a natural disaster). Other emergency situations are a direct result of a water quality problem such as a waterborne disease outbreak, bacterial contamination of the distribution system, or contamination of the source of supply. Water service can be disrupted by these events and water quality can be threatened if not degraded.

CONTINGENCY	ACTIONS
<p><b>1. FLOOD CONDITIONS</b></p> <p>Trigger event: Widespread flooding  (Disaster)</p>	<p><b>Take remedial steps, including:</b></p> <ul style="list-style-type: none"> <li>• <b>Shut down raw-water intake,</b></li> <li>• <b>Barricade flooded roadways,</b></li> <li>• <b>Assist in public safety,</b></li> <li>• <b>Implement the necessary procedures to protect equipment, buildings, and property integrity to prevent water-quality breakdown.</b></li> <li>• <b>Ensure lifts are working and lagoon operational and intact</b></li> <li>• <b>Assess Water treatment plant infiltration points and take steps to prevent contamination</b></li> </ul> <p>Notify:</p> <ul style="list-style-type: none"> <li>• WSA-Environmental Project Officer (EPO)</li> <li>• Water distribution system users, including priority customers, to explain the potential for water contamination, loss of pump, power, etc.</li> <li>• Notify Priority Customers</li> <li>• Local media for public service announcement (where all customers cannot be notified by phone)</li> <li>• General public by posting notices in frequented public places and businesses (if necessary)</li> <li>• Subject to Saskatchewan Environment or the Regional Health Authority issuing a Precautionary Drinking Water Advisory or an Emergency Boil Water Order, notify all water distribution system users, including priority customers. Advise users to boil any suspect water for at least one minute.</li> <li>• Government agencies for advice and assistance</li> </ul>
<p><b>2. OUTBREAK OF A WATERBORNE DISEASE</b></p> <p>Trigger event: Local Health District notifies the water system operator of a confirmed outbreak.</p>	<p><b>Take remedial steps, including:</b></p> <ul style="list-style-type: none"> <li>• <b>Shut off water distribution system,</b></li> <li>• <b>Assist in distributing Emergency Boil Water Orders / Precautionary Drinking Water Advisories, if any, that may be issued by Saskatchewan Environment or the local Health District,</b></li> <li>• <b>Assist in public safety,</b></li> <li>• <b>Implement the necessary procedures to protect equipment, buildings, and property integrity to prevent water-quality breakdown.</b></li> </ul> <p>Notify:</p> <ul style="list-style-type: none"> <li>• Saskatchewan Environment (SE) Environmental Project Officer (EPO)</li> </ul>

<p>(Major emergency disaster)</p>	<ul style="list-style-type: none"> <li>• Subject to Saskatchewan Environment or the Regional Health Authority issuing a Precautionary Drinking Water Advisory or an Emergency Boil Water Order, notify all water distribution system users, including priority customers. Advise users to boil any suspect water for at least one minute.</li> <li>• Local media for public service announcement (where all customers cannot be notified by phone)</li> <li>• General public by posting notices in frequented public places and businesses (if necessary)</li> <li>• Government agencies for advice and assistance</li> </ul>
<p><b>3. CONTAMINATION OF SOURCE</b></p> <p>Trigger event:</p> <p>Gross deterioration of source water due to a spill, vehicle accident, or natural causes.</p> <p>(Major emergency)</p>	<p><b>Take remedial steps, including:</b></p> <ul style="list-style-type: none"> <li>• <b>Shut off the intake and/or contamination source,</b></li> <li>• <b>Isolate the contamination source from the water distribution system.</b></li> </ul> <p>Notify:</p> <ul style="list-style-type: none"> <li>• Saskatchewan Environment (SE) Environmental Project Officer (EPO)</li> <li>• Subject to Saskatchewan Environment or the Regional Health Authority issuing a Precautionary Drinking Water Advisory or an Emergency Boil Water Order, notify all water distribution system users, including priority customers. Advise users to boil any suspect water for at least one minute.</li> <li>• Local media for public service announcements (where all customers cannot be notified by phone)</li> <li>• General public by posting notices in frequented public places and businesses (if necessary)</li> <li>• Government agencies for advice and assistance</li> </ul>
<p><b>4. LOSS OF SOURCE</b></p> <p>Trigger event:</p> <p>Access to source water is lost due to intake problems or natural causes.</p> <p>(Major emergency)</p>	<p><b>Take remedial steps, including:</b></p> <ul style="list-style-type: none"> <li>• <b>Shut down pump</b></li> <li>• <b>Fix intake problem</b></li> </ul> <p>Notify:</p> <ul style="list-style-type: none"> <li>• Saskatchewan Environment (SE) Environmental Project Officer (EPO)</li> <li>• Subject to Saskatchewan Environment or the Regional Health Authority issuing a Precautionary Drinking Water Advisory or an Emergency Boil Water Order, notify all water distribution system users, including priority customers. Advise users to boil any suspect water for at least one minute.</li> <li>• General public by posting notices in frequented public places and businesses (if necessary)</li> <li>• Government agencies for advice and assistance</li> </ul>
<p><b>5. TREATMENT PROCESS FAILURE</b></p>	<p><b>Take remedial steps, including:</b></p> <ul style="list-style-type: none"> <li>• <b>Add chlorine manually according to water treatment procedures,</b></li> <li>• <b>Fix pumps</b></li> <li>• <b>Sample periodically</b></li> </ul>

<p><b>5a. Loss of chlorine residual leaving plant</b></p> <p>Trigger event: Chlorine level leaving the plant is less than 0.1 mg/l free chlorine.</p> <p>(Minor emergency)</p>	<ul style="list-style-type: none"> <li>• <b>Flush where necessary</b></li> </ul> <p>Notify:</p> <ul style="list-style-type: none"> <li>• Saskatchewan Environment (SE) Environmental Project Officer (EPO)</li> <li>• Subject to Saskatchewan Environment or the Regional Health Authority issuing a Precautionary Drinking Water Advisory or an Emergency Boil Water Order, notify all water distribution system users, including priority customers. Advise users to boil any suspect water for at least one minute.</li> <li>• Government agencies for advice and assistance</li> </ul>
<p><b>5. TREATMENT PROCESS FAILURE</b></p> <p><b>5b. Loss of chlorine residual in distribution system</b></p> <p>Trigger event: Chlorine level at any place in the distribution system is less than 0.1 mg/l free chlorine or 0.5 mg mg/l total chlorine.</p> <p>(Major emergency)</p>	<p><b>Take remedial steps, including:</b></p> <ul style="list-style-type: none"> <li>• <b>Increase chlorine levels leaving plant,</b></li> <li>• <b>Sample periodically.</b></li> <li>• <b>Flush where necessary</b></li> </ul> <p>Notify:</p> <ul style="list-style-type: none"> <li>• Saskatchewan Environment (SE) Environmental Project Officer (EPO)</li> <li>• Subject to Saskatchewan Environment or the Regional Health Authority issuing a Precautionary Drinking Water Advisory or an Emergency Boil Water Order, notify all water distribution system users, including priority customers. Advise users to boil any suspect water for at least one minute.</li> <li>• General public by posting notices in frequented public places and businesses (if necessary)</li> <li>• Government agencies for advice and assistance</li> </ul>
<p><b>5. TREATMENT PROCESS FAILURE</b></p> <p><b>5c. Increased turbidity in Filter Effluent</b></p> <p>Trigger event: The effluent turbidity of a filter is greater than 1.0 N.T.U.</p> <p>(Minor emergency)</p> <p>Sudden increases are generally indicative of system disturbance or treatment failure.</p>	<p><b>Take remedial steps, including:</b></p> <ul style="list-style-type: none"> <li>• <b>Find out why turbidity is high (possibly a backwash problem or Chemical dosage issue)</b></li> <li>• <b>Restore water turbidity levels to within normal range,</b></li> <li>• <b>Check solenoid valves and other parts that may have failed,</b></li> <li>• <b>Check working condition of chemical pumps and feed rates,</b></li> <li>• <b>Sample filter effluent periodically.</b></li> </ul> <p>Notify:</p> <ul style="list-style-type: none"> <li>• Saskatchewan Environment (SE) Environmental Project Officer (EPO)</li> <li>• Subject to Saskatchewan Environment or the Regional Health Authority issuing a Precautionary Drinking Water Advisory or an Emergency Boil Water Order, notify all water distribution system users, including priority customers. Advise users to boil any suspect water for at least one minute.</li> <li>• Government agencies for advice and assistance</li> </ul>

<p><b>5. TREATMENT PROCESS FAILURE</b></p> <p><b>5d. Microbiological contamination detected</b></p> <p>Trigger event: A positive microbiological test result is received for the treated water.</p> <p>(Routine incident to major emergency)</p>	<p><b>Take remedial steps as directed by Saskatchewan Environment / Health District or as prescribed by our current water treatment procedures</b></p> <p>Notify:</p> <ul style="list-style-type: none"> <li>• Saskatchewan Environment (SE) Environmental Project Officer (EPO)</li> <li>• Subject to Saskatchewan Environment or the Regional Health Authority issuing a Precautionary Drinking Water Advisory or an Emergency Boil Water Order, notify all water distribution system users, including priority customers. Advise users to boil any suspect water for at least one minute.</li> <li>• Government agencies for advice and assistance</li> </ul>
<p><b>5. TREATMENT PROCESS FAILURE</b></p> <p><b>5e. Pump system failure</b></p> <p>Trigger event: All pumps fail and are unable to supply water or distribution system pressure drops.</p> <p>(Minor emergency)</p>	<p><b>Take remedial steps, including:</b></p> <ul style="list-style-type: none"> <li>• <b>Start the stand-by pump at the water treatment plant. Change appropriate valve work.</b></li> </ul> <p><b>**NOTE** Starting the stand-by pump while the entire water distribution system area is without power may cause overflow at the lift station.</b></p> <ul style="list-style-type: none"> <li>• <b>Call Vac Truck for assistance at Lift Stations</b></li> <li>• <b>Main Lift station has a backup pump that needs to be started and monitored for cavitation on pumps</b></li> </ul> <p>Notify:</p> <ul style="list-style-type: none"> <li>• Saskatchewan Environment (SE) Environmental Project Officer (EPO)</li> <li>• Subject to Saskatchewan Environment or the Regional Health Authority issuing a Precautionary Drinking Water Advisory or an Emergency Boil Water Order, notify all water distribution system users, including priority customers. Advise users to boil any suspect water for at least one minute.</li> </ul>
<p><b>5. TREATMENT PROCESS FAILURE</b></p> <p><b>5f. Other treatment process failure</b></p> <p>Trigger event: Loss of coagulation, or other significant process failure.</p> <p>(Routine incident to major emergency)</p>	<p><b>Take remedial steps, including:</b></p> <ul style="list-style-type: none"> <li>• <b>Fix pump(s)</b></li> <li>• <b>Check the chemical feed rates</b></li> <li>• <b>Check the raw water</b></li> </ul> <p>Notify:</p> <ul style="list-style-type: none"> <li>• Saskatchewan Environment (SE) Environmental Project Officer (EP)</li> <li>• Subject to Saskatchewan Environment or the Regional Health Authority issuing a Precautionary Drinking Water Advisory or an Emergency Boil Water Order, notify all water distribution system users, including priority customers. Advise users to boil any suspect water for at least one minute.</li> <li>• Government agencies for advice and assistance</li> </ul>



<p><b>6. POWER FAILURE</b></p> <p>Trigger event: Power outage  (Minor emergency)</p>	<p>Take remedial steps, including:</p> <ul style="list-style-type: none"> <li>• <b>Start the stand-by pump at the water treatment plant.</b></li> </ul> <p><b>**NOTE** Starting the stand-by pump while the entire water distribution system area is without power may cause overflow at the lift station.</b></p> <ul style="list-style-type: none"> <li>• <b>If the WTP has no power it is more than likely that the Main lift station is without power also, there is a generator at the Main Lift Station that will need to be checked for Start-up.</b></li> </ul> <p>Notify:</p> <ul style="list-style-type: none"> <li>• Sask Power</li> <li>• Saskatchewan Environment (SE) Environmental Project Officer (EPO)</li> <li>• Subject to Saskatchewan Environment or the Regional Health Authority issuing a Precautionary Drinking Water Advisory or an Emergency Boil Water Order, notify all water distribution system users, including priority customers. Advise users to boil any suspect water for at least one minute.</li> </ul>
<p><b>7. DISTRIBUTION SYSTEM PROBLEMS</b></p> <p><b>7a. Backflow or back siphonage/ significant loss of pressure in the system</b></p> <p>Trigger event:  Backflow or contamination is widespread throughout the distribution system.  (Major emergency)</p>	<p>Take remedial steps, including:</p> <ul style="list-style-type: none"> <li>• <b>Isolate the problem area,</b></li> <li>• <b>Begin fixing procedure,</b></li> <li>• <b>Purge and disinfect lines as per procedure directions.</b></li> </ul> <p>Notify:</p> <ul style="list-style-type: none"> <li>• Saskatchewan Environment (SE) Environmental Project Officer (EPO)</li> <li>• Subject to Saskatchewan Environment or the Regional Health Authority issuing a Precautionary Drinking Water Advisory or an Emergency Boil Water Order, notify all water distribution system users, including priority customers. Advise users to boil any suspect water for at least one minute.</li> <li>• General public by posting notices in frequented public places and businesses (if necessary)</li> </ul>
<p><b>7. DISTRIBUTION SYSTEM PROBLEMS</b></p> <p><b>7b. Water breaks – sanitary repair procedures</b></p> <p>Trigger event:  Main line breaks  (Major emergency)</p>	<p><b>If contamination is not expected, take remedial steps, including:</b></p> <ul style="list-style-type: none"> <li>• <b>Isolate the problem line,</b></li> <li>• <b>Shut down the pumps,</b></li> <li>• <b>Notify downstream users of interruption of water service, if required,</b></li> <li>• <b>Call one-call for emergency line locate; call excavation contractor and other contractors as necessary,</b></li> <li>• <b>Have the problem repaired,</b></li> <li>• <b>Treat the replacement pipe and fittings with a chlorine solution,</b></li> <li>• <b>Flush the problem portion of line at the nearest hydrant, test for NTU and chlorine residual</b></li> </ul>

<p>Repairing a main break is the most common type of emergency maintenance in a distribution system. Depending on site-specific conditions, a main break may be a source of contamination. For example, if the damaged pipe is below the water table or in contact with a sewage or storm-water main, contamination may occur. As noted, maintenance procedures differ for main breaks between those breaks likely and those unlikely to cause contamination.</p> <p>Contact your local EPO about whether contamination is expected for a particular break.</p>	<ul style="list-style-type: none"> <li>• <b>Chlorinate before putting back in use.</b></li> </ul> <p>Notify:</p> <ul style="list-style-type: none"> <li>• Saskatchewan Environment (SE) Environmental Project Officer (EPO)</li> <li>• Subject to Saskatchewan Environment or the Regional Health Authority issuing a Precautionary Drinking Water Advisory or an Emergency Boil Water Order, notify all water distribution system users, including priority customers. Advise users to boil any suspect water for at least one minute.</li> <li>• Notify customers effected</li> <li>• General public by posting notices in frequented public places and businesses (if necessary)</li> </ul> <p><b>If the existing main is partially or wholly dewatered, the following steps may be necessary to repair the main:</b></p> <ul style="list-style-type: none"> <li>• <b>control water loss by completely or partially shutting down of the main.</b></li> <li>• <b>flushing may be used to minimize flow toward the damaged main, thus reducing the extent of possible contamination.</b></li> <li>• <b>water should be reduced to a level below the break as quickly as possible. Groundwater may be treated with hypochlorite while repairs are underway. If the water appears to be clear, a 25 to 50 ppm dose may be sufficient. If sewage is present, a dose greater than 100 ppm is suggested.</b></li> <li>• <b>customers at higher elevations than the break should be notified to shut off the inlet valve at their meter to prevent siphoning of hot-water tanks or water softeners.</b></li> <li>• <b>extensive flushing may be used to purge possible contaminants and to bring clear water to the point of damage.</b></li> <li>• <b>chlorine residuals should be checked hourly to evaluate the effectiveness of pumping and flushing procedures.</b></li> <li>• <b>mains which have been repaired after a break or leak need to be cleaned, disinfected, and monitored before being returned to service.</b></li> <li>• <b>monitoring that follows a main disinfection or the addition of a new facility usually entails a check for microbial activity, pH, turbidity, colour, disinfectant residual, odour and an analysis for volatile organic compounds that may be associated with the application of coatings.</b></li> <li>• <b>take bacteriological samples whenever possible.</b></li> </ul> <p>Notify:</p> <ul style="list-style-type: none"> <li>• Saskatchewan Environment (SE) Environmental Project Officer (EPO)</li> <li>• Subject to Saskatchewan Environment or the Regional Health Authority issuing a Precautionary Drinking Water Advisory or an Emergency Boil Water Order, notify all water distribution system users, including priority customers. Advise users to boil any suspect water for at least one minute</li> <li>• Affected customers</li> </ul>
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**7. DISTRIBUTION SYSTEM PROBLEMS**

**7b. Water breaks – sanitary repair procedures**

Trigger event:

Storage facility break

(Major emergency)

Emergency repair of finished water storage facilities is warranted by conditions such as:

- penetration due to localized corrosion;
- penetration or splits due to extensive metal loss;
- high turbidity and/or bacteria from excessive sediment; or
- animal contamination due to screen failure

Generally, emergency maintenance on steel or concrete storage facilities involves temporarily plugging a hole or other penetration in the facility wall. Any temporary repair(s) should be replaced with a welded or concrete patch.

**Temporarily plug hole or other penetration in storage facility wall, as required.**

**Take remedial steps, including:**

- **Repair the problem, if possible,**
- **Temporarily plug hole or other penetration in storage facility wall, as required,**
- **Flush the water from the storage facility,**
- **Get the contractor to permanently repair puncture/problem.**

**Notify:**

- Contractor to permanently repair puncture
- Saskatchewan Environment (SE) Environmental Project Officer (EPO)
- Subject to Saskatchewan Environment or the Regional Health Authority issuing a Precautionary Drinking Water Advisory or an Emergency Boil Water Order, notify all water distribution system users, including priority customers. Advise users to boil any suspect water for at least one minute
- General public by posting notices in frequented public places and businesses (if necessary)
- Government agencies for advice and assistance

<p><b>8. CUSTOMER COMPLAINTS</b></p> <p>Trigger event: Consumer complaint (Routine incident)</p> <p>Water quality complaints should be logged in a retrievable form for tracking and reporting purposes. Tracking the complaints can help identify problem areas of the system. Temporary fixes such as flushing should not be used to address chronic water quality problems such as excessive chlorine demand, turbidity, sediment, corrosive water, etc.)</p>	<p><b>Take remedial steps, including:</b></p> <ul style="list-style-type: none"> <li>• <b>Log the water quality complaint</b></li> <li>• <b>Investigate the water quality complaint</b></li> </ul> <p>Notify:</p> <ul style="list-style-type: none"> <li>• Agencies and individuals as warranted by the situation</li> </ul>
<p><b>9. FIRE AT WATER PLANT</b></p> <p>Trigger event: Outbreak of fire (Major emergency)</p> <p>Fire has broken out at the water plant.</p>	<p><b>Take remedial steps, including:</b></p> <ul style="list-style-type: none"> <li>• <b>Phone fire department</b></li> <li>• <b>Phone Sask Power (310-2220) and have power disconnected</b></li> <li>• <b>Isolate distribution system by shutting all valves closest to water plant</b></li> <li>• <b>Contact members of Council</b></li> </ul> <p>Notify:</p> <ul style="list-style-type: none"> <li>• Saskatchewan Environment (SE) Environmental Project Officer (EPO)</li> <li>• Water distribution system users, including priority customers, if an interruption of service is expected</li> <li>• General public by posting notices in frequented public places and businesses (if necessary)</li> <li>• Government agencies for advice and assistance</li> </ul>