



**Rural Municipality  
of Beaver River No. 622**

**Waterworks Emergency  
Response Planning**

Updated February 2020

# Waterworks Emergency Plan

## Rural Municipality of Beaver River #622

Date Completed: \_\_\_\_\_ Date Approved By Waterworks Owner: \_\_\_\_\_

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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 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	Rural Municipality of Beaver River #622
Waterworks owner	Rural Municipality of Beaver River #622
Source water	Water Wells SW 16-63-22-W3
Water treatment plant location	Water Wells SW 16-63-22-W3

**Personnel contact - Telephone / Fax Numbers**

Contact Name	Telephone	
	Home	Cell
Operator's name	Mike Greschner	(306) 238-7979
Alternate operator 1	Terry Johnson	(306) 238-4475
Alternate operator 2		
Alternate operator 3		

**Emergency Contact Numbers**

Contact Name	Telephone	
	Office	Cell
Public Health Inspector	Kelvin Koo	(306) 820-6236
Medical Health Officer	Dr. Mandiango Nsungu	(306) 446-6426
Water Security Agency – Environmental and Municipal Management Division	Morgan Gutek	(306) 236-0403
		24 hour upset line 1-844-536-9494
Saskatchewan Emergency Planning 24 Hour Line - 7 Days a Week	Regina	306-787-9563
	Saskatoon	306-933-6116
Saskatchewan Environment (SE) EcoRegion Office	Meadow Lake	(306) 236-7551
		1-800-667-7525
SE Spill Emergency Number	Outside Province	306-953-2980
		911
Police		911
Ambulance		911
Fire department	Dave Hill, Chief	(306) 238-2105
Municipal engineer	Rick Collins, Bar Engineering	(780) 875-1683
Pump manufacturer		
Chlorinator manufacturer	Grundfos	
Chemical supplier	Anderson Pump House	(306) 937-7741
Excavation services	R & A Construction	(306) 238-4714
Call Before You Dig #	611	
Electrician	Blair Baer	(306) 238-7655
	Ed Weber	(306) 236-7434
Plumbing services	K2 Plumbing	(306) 839-7871
Septic Hauler	Big Foot Septic	(306) 238-7637
	Dorintosh Septic	(306) 236-3907
	Lakeshore Septic	(306) 821-7047

**Water Quality Crisis Cell Members and Waterworks Emergency Planning Task Force Members**

Contact Name	Name	Telephone	
		Home	Cell
Emergency coordinator	Debra Nault	(306) 839-4509	(780) 826-1542
Spokesperson	Nicole Neufeld	(306) 839-2060	(306) 240-6985
Spokesperson	Kevin Turchyn		(780) 826-0415
Crew foreperson	Mike Greschner	(306) 238-7979	

**Priority Contacts**

Contact Name	Name	Telephone	
		Work	Cell
Hospital	Kelly Lyons	(306) 238-2100	

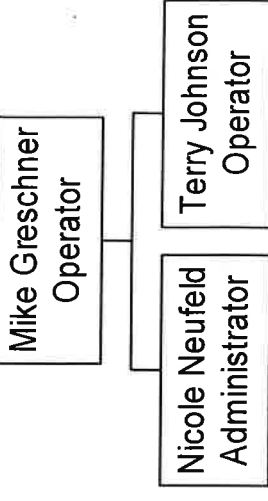
**Utility Contact Numbers**

Contact Name	Telephone	
	Work	Cell
Sask Power	310-2220	
Sask Tel	1-800-727-5835	
Sask Water	1-800-667-5799	
Sask Energy	1-888-700-0427	

### Section 3 - Organizational Responsibilities

In this section, an organizational chart should be inserted. It should be shown who reports to whom during an emergency. In addition, contact information for the Waterworks Emergency Planning Task Force Members and the Water Quality Crisis Cell members should be included.

Organization Chart



#### **Waterworks Emergency Planning Task Force Members**

Reeve – Kevin Turchyn, Box 324, Pierceland, SK S0M 2K0 Cell: 780-826-0415  
Waterworks Manager – Mike Greschner, (306) 238-7979  
RM Administrator – Nicole Neufeld, Box 129, Pierceland, SK, S0M 2K0, (306) 839-2060  
Medical Health Officer – Dr. Mandiangi Nsungu, (306) 446-6426, (306) 441-5572  
Emergency Measures Coordinator – Debra Nault, (306) 839-4509, (780) 826-1542

#### **Water Quality Crisis Management Cell (suggested members)**

Advisors – Saskatchewan Environment (306) 787-2584  
Advisors – Local Health District - Dr. Mandiangi Nsungu, (306) 446-6426, (306) 441-5572  
Advisors – Emergency Measures Coordinator – Dean Cattell, (306) 839-2079, (306) 240-0552  
Advisors- Waterworks Manager – Mike Greschner, (306) 238-7979  
Advisors – RM Administrator – Nicole Neufeld, Box 129, Pierceland, SK, S0M 2K0, (306) 839-2060, (306) 240-6985  
Advisors – Water Security Agency EPO – Morgan Gutek (306) 236-0403, (306) 240-4522

#### **General emergency procedures**

In general, a waterworks incident should follow these steps:

1. the waterworks owner/operator(s) monitor 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 Water Quality Crisis Coordinator;
3. the Water Quality Crisis Coordinator evaluates the event, determines if a trigger has been met and classifies all events, even those without a Technical Action Plan (TAP);
4. the Water Quality Crisis Coordinator activates the Water Quality Crisis Management Center (CMC), if called for;
5. the CMC directs the implementation of the TAP and recommends further actions, if required. This may require the notification of the Emergency Measures Organization for the municipality or corporation;
6. the CMC utilizes the Communication Plan to advise the public;
7. when the emergency is over, CMC is deactivated; and
8. the Water Quality Crisis Coordinator prepares a report on the incident and presents it to the Waterworks Emergency Planning Task Force for evaluation.

### Section 4 - Notification and Communication

**Emergency notification to customer**

The system notifies all system users via the following manner in case of an emergency (Check all that apply):

Telephone calls (phone list location) \_\_\_\_\_  Door to door \_\_\_\_\_  
 Media release \_\_\_\_\_  Other \_\_\_\_\_

**Emergency numbers distribution**

System users are provided the names and phone numbers of the system personnel to contact in case of emergency via the following manner (check all that apply):

Billing \_\_\_\_\_  Newsletter \_\_\_\_\_  Other \_\_\_\_\_

**Media communications**

In any crisis situation, 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 website ([www.rmofbeaverriver.ca](http://www.rmofbeaverriver.ca)) 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 CMC determines that the crisis has ended. The phone at the office (###-####) will be utilized for this purpose.

**Media contacts**

<u>Radio</u> Boom 95.3 Cold Lake, AB Public Service Announcements (780) 594-2459 FAX: (780) 594-3001  CJNS Meadow Lake, SK Public Service Announcements (306) 236-6494 1-888-242-1303  <u>Newspapers</u>  Cold Lake Sun Cold Lake, AB (780) 594-5881   Northern Pride Publications & Print Meadow Lake, SK (306) 236-5353
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**Official statements**

- Emergency Boil Water Order Has Been Issued  
(Insert standard press release here)
- Emergency Boil Water Order Has Been Rescinded

	<b>Actions</b>	<b>Contact</b>
<p><b>1) Flood conditions</b>  <b>Trigger events: widespread flooding occurs. (Disaster)</b></p>	<ul style="list-style-type: none"> <li>• notify Water Security Agency – Environmental Project Officer (EPO);</li> <li>• notify users of the potential for water contamination, loss of pump, power, etc. Users should be advised to store some drinking water in advance and to boil any suspect water for at least one minute;</li> <li>• notify priority customers;</li> <li>• contact local media for public service announcement (where all customers can not be notified by phone); and</li> <li>• contact government agencies (see below) for advice and assistance.</li> </ul>	<p>Owners of water system, SE (Local EPO), Saskatchewan Emergency Planning and others as necessary.</p>
<p><b>2) Outbreak of a waterborne disease</b>  <b>Trigger events: local Health District notifies the water system of a confirmed outbreak. (Major emergency to disaster)</b></p>	<ul style="list-style-type: none"> <li>• notify Water Security Agency – Environmental Project Officer (EPO);</li> <li>• notify users of the potential for water contamination. Users should be advised to boil any suspect water for at least one minute;</li> <li>• notify priority customers;</li> <li>• contact local media for public service announcement (where all customers can not be notified by phone; and</li> <li>• contact government agencies (see below) for advice and assistance.</li> </ul>	<p>Owners of water system, SE (Local EPO), Saskatchewan Emergency Planning and others as necessary</p>
<p><b>3) Contamination of source</b>  <b>Trigger event: gross deterioration of source water due to a spill, vehicle accident or natural causes. (Major emergency)</b></p>	<ul style="list-style-type: none"> <li>• shut down pump;</li> <li>• notify Water Security Agency – Environmental Project Officer (EPO);</li> <li>• notify users;</li> <li>• notify priority customers;</li> <li>• contact government agencies (see below) for advice and assistance; and</li> <li>• contact local media for public service announcement (where all customers can not be notified by phone).</li> </ul>	<p>Owners of water system, SE (Local EPO), Saskatchewan Emergency Planning and others as necessary.</p>
<p><b>4) Loss of source</b>  <b>Trigger event: Access to source water is lost due to intake problems or natural causes (Major emergency)</b></p>	<ul style="list-style-type: none"> <li>• shut down pump;</li> <li>• notify Water Security Agency – Environmental Project Officer (EPO);</li> <li>• notify users;</li> <li>• notify priority customers; and</li> <li>• contact government agencies (see below) for advice and assistance.</li> </ul>	<p>Owners of water system, SE (Local Environmental Project Officer) and others as necessary.</p>

- (Insert standard press release here)  
Precautionary Drinking Water Advisory Has Been Issued  
(Insert standard press release here)
- Precautionary Drinking Water Advisory Has Been Rescinded  
(Insert standard press release here)
- Refute a False Water Contamination Report  
(Insert standard press release here)

### **Signs**

All example signs (Precautionary Drinking Water Advisory & Emergency Boil Water Order) are available from Saskatchewan Environment's document entitled "Bacteriological Follow-up Protocol for Waterworks Regulated by Saskatchewan Environment, November 2002, EPB 205".

### **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.

The technical action plans included in this document are only examples and may not apply to your water system. TAPs are not typically included in your Municipal/Corporate Emergency Plan and therefore must be contained in the Water Quality Contingency Plan. The TAPs included in this document are only examples and may not apply to your water system



<p><b>b) Water breaks - sanitary repair procedures</b>  <b>Trigger event: main line breaks (Major emergency)</b></p> <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 unlikely to cause contamination. Contact your local EPO if you are unsure about whether contamination is expected for a particular break.</p>	<p>If contamination is not expected:</p> <ul style="list-style-type: none"> <li>• call excavation contractor;</li> <li>• treat the replacement pipe and fittings with a chlorine solution; and</li> <li>• notify downstream users of interruption of water service, if required.</li> </ul> <p>If the existing main is partially or wholly dewatered, some of the following steps may be necessary to repair the main: Actions (AWWA C651-14):</p> <ul style="list-style-type: none"> <li>• control water loss by completely or partially shutting down the main.</li> <li>• flushing may be used to minimize flow toward the damaged main, thus reducing the extent of possible contamination;</li> <li>• water should be reduced to a level below the break as quickly as possible.</li> <li>• 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;</li> <li>• 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;</li> <li>• extensive flushing may be used to purge possible contaminants and to bring clear water to the point of damage;</li> <li>• chlorine residuals should be checked hourly to evaluate the effectiveness of pumping and flushing procedures;</li> <li>• mains which have been repaired after a break or leak need to be cleaned, disinfected and monitored before being returned to service; and</li> <li>• monitoring that follows a main disinfection or the addition of a new facility usually entails a check for microbial activity, pH, turbidity, color, disinfectant residual, odor and an analysis for volatile organic compounds that may be associated with the application of coatings.</li> </ul>	<p>Owners of the water system, excavation contractor and others as necessary</p> <p>Owners of water system, SE (Local EPO), excavation contractor and others as necessary.</p>
<p><b>Trigger event: storage facility break</b>  (Major emergency)  Emergency repair of finished water storage facilities is warranted by conditions such as:</p> <ul style="list-style-type: none"> <li>• penetration due to localized corrosion;</li> <li>• penetration or splits due to extensive metal loss;</li> <li>• high turbidity and/or bacteria from excessive sediment; or</li> <li>• animal contamination due to screen failure.</li> </ul> <p>Generally, emergency maintenance on steel or concrete</p>	<ul style="list-style-type: none"> <li>• temporarily plug hole or other penetration in storage facility wall, if required</li> <li>• notify Water Security Agency – Environmental Project Officer (EPO);</li> <li>• flush the water from the storage facility;</li> <li>• notify users if an interruption in service is expected;</li> <li>• contact government agencies (see below) for advice and assistance; and</li> <li>• contact contractor to permanently repair puncture. (ie: welded patch on a steel reservoir).</li> </ul>	<p>Owners of water system, SE (Local EPO), Saskatchewan Emergency Planning and others as necessary</p>

<p><b>5) Treatment process failure</b></p> <p><b>a) Loss of chlorine residual leaving plant</b> Trigger events: chlorine level leaving the plant is less than 0.1 mg/l free chlorine. (Minor emergency)</p> <p><b>b) Loss of chlorine residual in distribution system</b> Trigger events: chlorine levels at any place in the distribution system is less than 0.1mg/l free chlorine or 0.5 mg/l total chlorine. (Major emergency)</p> <p><b>c) Increased turbidity in filter effluent</b> Trigger event: the effluent turbidity of a filter is greater than 0.3 N.T.U. (Minor emergency) Sudden increases generally indicate a system disturbance or treatment failure</p> <p><b>d) Microbial contamination detected</b> Trigger event: a positive microbial test result is received for the treated water. (Routine incident to major emergency)</p> <p><b>e) Pump system failure</b> Trigger events: all pumps fail and unable to supply water or distribution system pressure drops (Minor Emergency)</p> <p><b>f) Other treatment process failure</b> Trigger events: loss of coagulation, or other significant process failures. (Routine incident to major emergency)</p> <p><b>6) Power failure</b> Trigger events: power outage. (Minor emergency)</p>	<ul style="list-style-type: none"> <li>• notify Water Security Agency – Environmental Project Officer (EPO);</li> <li>• notify users of the potential for water contamination. Users should be advised to boil any suspect water for at least one minute;</li> <li>• notify priority customers; and</li> <li>• contact government agencies (see below) for advice and assistance.</li> <li>• notify Water Security Agency – Environmental Project Officer (EPO);</li> <li>• notify users of the potential for water contamination. Users should be advised to boil any suspect water for at least one minute;</li> <li>• notify priority customers; and</li> <li>• contact government agencies (see below) for advice and assistance.</li> <li>• notify Water Security Agency – Environmental Project Officer (EPO);</li> <li>• notify users of the potential for water contamination. Users should be advised to boil any suspect water for at least one minute;</li> <li>• notify priority customers; and</li> <li>• contact government agencies (see below) for advice and assistance.</li> </ul>	<p>Owners of water system, SE (Local EPO), Chlorinator and chlorine suppliers</p> <p>Owners of water system, SE (Local Environmental Project Officer), Chlorinator and chlorine suppliers</p> <p>Owners of water system, SE (Local EPO)</p>
<p><b>7) Distribution system problems</b></p> <p><b>a) Backflow or back siphonage/ significant loss of pressure in the system</b> Trigger events: backflow or contamination is widespread throughout the distribution system (Major emergency)</p>	<p>Follow Saskatchewan's Bacteriological Protocol for Waterworks Regulated by Saskatchewan Environment EPB 205 procedures document</p> <ul style="list-style-type: none"> <li>• notify Water Security Agency – Environmental Project Officer (EPO);</li> <li>• notify users of interruption of service; and</li> <li>• notify priority customers.</li> <li>• notify Water Security Agency – Environmental Project Officer (EPO);</li> <li>• notify users of the potential for water contamination. Users should be advised to boil any suspect water for at least one minute;</li> <li>• notify priority customers; and</li> <li>• contact government agencies (see below) for advice and assistance.</li> <li>• notify Water Security Agency – Environmental Project Officer (EPO);</li> <li>• start backup generator, if possible;</li> <li>• notify users of interruption of service if backup pump not capable of maintaining supply;</li> <li>• notify priority customers; and</li> <li>• call SaskPower.</li> <li>• notify Water Security Agency – Environmental Project Officer (EPO);</li> <li>• notify users of to boil their water for at least one minute or take other disinfection procedures or as instructed by SE ;</li> <li>• notify priority customers; and</li> <li>• purge and disinfect lines as directed.</li> </ul>	<p>As per Saskatchewan's Bacteriological Follow-up procedures document.</p> <p>Owners of water system, SE (Local EPO), Pump supplier</p> <p>Owners of water system, SE (Local EPO)</p> <p>Owners of water system, SE (Local EPO)</p> <p>Owners of water system, SE (Local EPO)</p>

<p>storage facilities involves temporarily plugging a hole or other penetration in the facility wall. Ultimately, however, the temporary repair should be replaced with a welded patch.</p>		
<p><b>8) Customer complaints</b>  <b>Trigger event: consumer complaint (Routine incident)</b></p> <p>Water quality complaints should be logged in a retrievable format 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>	<ul style="list-style-type: none"> <li>• log the water quality complaint;</li> <li>• investigate the water quality complaint;</li> </ul>	None

