

# Resort Village of Aquadeo

<u>Policy Title</u>	<u>Policy #</u>	<u>Resolution</u>	<u>Resolution Date</u>	<u># of pages</u>	<u>Forms</u>
Waterworks Emergency Response Plan Policy	WS-005	346/23	October 21/23	1	

**Policy Objective:**

To establish an emergency response plan to ensure the safety of the consumers of the community of Aquadeo.

**Background:**

The Resort Village of Aquadeo has a responsibility to provide safe drinking water to the residents that it serves. In this process, there is a need to have an emergency response plan for any issues that may arise.

**The Waterworks Emergency response plan is attached to and forming part of this Policy.**

**Updating**

This Policy is to be reviewed yearly, and updates to be presented to Sask. Water.

Give copy  
to Kris D

WS-005

RESORT VILLAGE OF AQUADEO

Policy Title: Waterworks Emergency Response Plan  
Date Issued: Res #346/23 – October 21, 2023  
Replaced – August 19, 2020

*Peter Delaney*  
Mayor



**Waterworks Emergency Response Plan  
For the Community of  
The Resort Village of Aquadeo**

**Date Completed: October 21, 2023**

**Date Approved by Council: October 21, 2023**

## Table of Contents

Section 1 Introduction and Policy Statement.....	2
Section 2 - Emergency Response Contact List.....	3
Section 3 - Organizational Responsibilities.....	5
Waterworks Emergency Planning Task Force Members .....	5
Water Quality Crisis Management Cell (suggested members).....	5
General emergency procedures .....	6
Section 4 - Notification and Communication.....	7
Emergency notification to customer .....	7
Emergency numbers distribution .....	7
Media communications.....	7
Official statements.....	7
Section 5 - Technical Action Plans.....	8
1) Flood conditions .....	8
2) Outbreak of a waterborne disease .....	8
3) Contamination of source .....	8
4) Loss of source.....	8
5) Treatment process failure .....	9
6) Power failure .....	9
7) Distribution system problems .....	9
8) Customer complaints.....	10

### 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	R/V of Aquadeo
Waterworks owner	Waterworks
Source water	R/V of Aquadeo
Water treatment plant location	Ground Water

**Personnel contact - Telephone / Fax Numbers**

Contact Name	Telephone		
	Home	Cell	Fax
Certified Operator's name			
Certified Operator 1	Dale Woytiuk	306-386-2038	306-441-7875
Certified Operator 2	Lidya Murphy	306-386-2560	306-480-9776
Certified Operator 3			
Non-Certified Operator			
Alternate operator 1	Marjorie Carver		
Alternate operator 2	John Schmidt		
Alternate operator 3	Adam Avery		306-441-7207

**Emergency Contact Numbers**

Contact Name	Telephone			Email
	Home	Cell		
Public Health Inspector	306-446-6400	306-441-1810		
Medical Health Officer				
Environmental Protection Officer	Kris Dushire	306-446-7683	306-441-5774	kris.dushire@wsa
Saskatchewan Public Safety Agency		800-787-3774		
Saskatchewan Security Agency		306-446-7450	306-446-7461	
SE Spill Emergency Number		1-800-667-7525		
Police		306-446-1720		
Ambulance	WPD Ambulance	306-446-7309		
Fire department	Ed Neufeld-- Fire Chief	306-386-1444		
Municipal engineer				
Pump manufacturer				
Chlorinator manufacturer				
Chemical supplier	Anderson Pump House	306-937-7741		
Aviation services				
Call Before You Dig #	Sask 1st	1-306-988-5352		
		1-866-828-4888		

Electrician	Luk Plumbing	306-446-6707	
Plumbing services	Luk Plumbing	306-446-6707	
Bulk water hauler	E.Z. Enterprises Ltd	306-937-7427	
Bottled water supplier	Culligan's	306-445-3773	306-446-0886

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

Contact Name	Name	Telephone		
		Home	Cell	Fax
Emergency coordinator	Dale Woytuik	306-306-2038	306-441-7875	
Crew Lead Hand	Adam Avery	306-441-7207	306-220-8898	
Advisors	Howard Kirby Anderson Pump House	W-306-937-7741		
Advisors - Mayor	Peter Delainey		306-441-3003	
Advisors-Councilor				
Advisors-Councilor				
Advisors-Councilor				

**Priority Contacts**

Contact Name	Name	Telephone		
		Home	Cell	Fax
Hospital	Battlefords Union	306-446-6570		

**Utility Contact Numbers**

Contact Name	Telephone		
	Work	Cell	Fax
Sask Power	306-310-2220		
Sask Tel	1-866-828-4888		
Sask Energy	306-446-5000		

### **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 Security Agency.
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 R/V of Aquadeo notifies all system users in case of an emergency by door to door contact, media release and/or email.

**Emergency numbers distribution**

System users are provided the names and phone numbers of the system personnel to contact in case of emergency by Newsletter.

**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.

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 – 386-2942 – will be utilized for this purpose.

**Media contacts**

<p><u>Radio</u> Radio Station CJNB Address 1711 – 100<sup>th</sup> St      Switchboard Phone: 306-445-2777 Address North Battleford      Fax Phone: 306 445-4599 News Director      News Department: 306 446-6397 Public Service Announcements      306-445-2477</p>	
<p><u>Newspapers</u> Paper- News Optimist Address 892 – 104<sup>th</sup> St      Switchboard Phone: 306-445-7261 Address North Battleford      Fax Phone: 306445-3223</p>	

**Official statements**

- As supplied by Sask. Water for all boil water advisories, orders and precaution pamphlets.

**Section 5 - Technical Action Plans**

	<b>Actions</b>
<p><b>1) Flood conditions</b>  <b>Trigger events: widespread flooding occurs. (Disaster)</b></p>	<ul style="list-style-type: none"> <li>• notify SE – 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><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 SE – 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><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 SE – Environmental Project Officer;</li> <li>• notify users;</li> <li>• notify priority customers;</li> <li>• contact government agencies (see below) for advice and assistance</li> <li>• contact local media for public service announcement (where all customers can not be notified by phone).</li> </ul>
<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 SE – 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>5) Treatment process failure</p> <p>a) Loss of chlorine residual leaving plant Trigger events: chlorine level leaving the plant is less than 0.1 mg/l free chlorine. (Minor emergency)</p>	<ul style="list-style-type: none"> <li>• notify SE – 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>b) Loss of chlorine residual in distribution system Trigger events: chlorine levels at any place in the distribution system are less than 0.1mg/l free chlorine or 0.5 mg/l total chlorine. (Major emergency)</p>	<ul style="list-style-type: none"> <li>• notify SE – 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>c) Increased turbidity in filter effluent 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>	<ul style="list-style-type: none"> <li>• notify SE – 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>d) Microbial contamination detected Trigger event: a positive microbial test result is received for the treated water. (Routine incident to major emergency)</p>	<p>Follow Saskatchewan's Bacteriological Protocol for Waterworks Regulated by Saskatchewan Environment EPB 205 procedures document</p>
<p>e) Pump system failure Trigger events: all pumps fail and unable to supply water or distribution system pressure drops (Minor Emergency)</p>	<ul style="list-style-type: none"> <li>• notify SE – EPO;</li> <li>• notify users of interruption of service; and</li> <li>• notify priority customers.</li> </ul>
<p>f) Other treatment process failure Trigger events: loss of coagulation, or other significant process failures. (Routine incident to major emergency)</p>	<ul style="list-style-type: none"> <li>• notify SE – 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>6) Power failure Trigger events: power outage. (Minor emergency)</p>	<ul style="list-style-type: none"> <li>• notify SE – 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> </ul>
<p>7) Distribution system problems</p> <p>a) Backflow or back siphonage/ significant loss of pressure in the system Trigger events: backflow or contamination is widespread throughout the distribution system (Major emergency)</p>	<ul style="list-style-type: none"> <li>• notify SE – 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>b) Water breaks - sanitary repair procedures Trigger event: main line breaks (Major emergency)</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 C651-99):</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. 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-</li> </ul>

<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 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>	<ul style="list-style-type: none"> <li>• 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</li> <li>• monitoring that follows a main disinfection or the addition of a new facility usually entails a check for microbial activity, pH, turbidity, col disinfectant residual, odor and an analysis for volatile organic compounds that may be associated with the application of coatings.</li> </ul> <ul style="list-style-type: none"> <li>• temporarily plug hole or other penetration in storage facility wall, if required</li> <li>• notify SE – 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</li> <li>• contact contractor to permanently repair puncture. (ie. welded patch on a steel reservoir).</li> </ul>
<p><b>8) Customer complaints</b> <b>Trigger event: consumer complaint</b> (Routine incident)</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>