

# **Town of Stonewall**

## **Public Water System Annual Report 2008**

**Prepared by:**  
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Town of Stonewall

To report an emergency, call the Emergency 24hr number 204-467-7990

## **Town of Stonewall Annual Water System Operation Report – 2008**

The Provincial Drinking Water Safety Regulation requires that public water systems serving 1000 or more people produce an annual report about the operation of the system. The purpose of the Public Water System Report is to provide information to the public with regard to the drinking water they consume. The following report has been prepared for the Town of Stonewall water supply system.

The Town of Stonewall Manitoba is committed to providing safe, dependable, high quality potable drinking water in sufficient quantity to meet the needs of our 4376 (2006 census) residents. We will strive to provide drinking water in a cost effective manner while remaining in compliance with regulatory requirements which govern the provision of drinking water.

### **Where do we get our water from?**

The Town of Stonewall Pumphouse, located at 147 Fifth St West, obtains its water from three wells located on this property. The three wells draw water from an underground aquifer and are all drilled to a depth of approximately 260 feet to 280 feet.

The carbonate (limestone) aquifer has excellent reliability and produces an abundant supply. The water is very hard (high in calcium and magnesium), but due to the location and depth of the wells the supply has excellent protection from contamination by pathogenic (disease causing) organisms.

### **Why and how do we treat and disinfect our water?**

Due to the high quality of the water supply we do not treat but only disinfect our water to ensure that safe drinking water is supplied to all residents and businesses in the Town of Stonewall. New provincial regulations have set new health based drinking water standards for all public water supply systems. The Town of Stonewall is committed to meeting or exceeding the new provincial regulations for drinking water supply.

The exceptional water quality supplied by the underground aquifer allows us to provide safe water with only an addition of the disinfectant, sodium hypochlorite (chlorine). Disinfection is the selective destruction or inactivation of disease causing organisms. The Drinking Water Safety Act and supporting regulations require that water is disinfected before it leaves the pumphouse and that an adequate amount of residual disinfectant remains in the distribution system to ensure safety from source to tap.

In the future water softening treatment may be incorporated into the Town of Stonewall water supply system, but at this time no additional treatment or chemicals are used to provide safe drinking water.

### **How much water storage do we have?**

An underground reservoir is located below the Town of Stonewall pumphouse to make certain that sufficient chlorine contact time is provided to properly disinfect the raw water prior to use by our residents. The reservoir has a capacity of 390 m<sup>3</sup> (85,800 gals); this is sufficient to provide the required chlorine contact time.

### **What is the ‘distribution system’?**

The distribution system consists of approximately 30 km of PVC and Asbestos Cement underground pipes that deliver disinfected water from the pumphouse to the residents and businesses of Stonewall. The distribution system has been relatively trouble free and this can be attributed to the fairly new age of the system (35 years old or less). To ensure that the distribution system remains trouble free several maintenance programs such as watermain flushing, regular hydrant maintenance and main line valve exercising programs will be implemented within the next year.

### **Is our water tested? What for? When?**

As per provincial regulatory requirements under the Safe Drinking Water Act specific tests must be performed at regular intervals to ensure the supply of drinking water delivered to our residents is safe. The tests we perform are listed below and all results must be submitted to the provincial Office of Drinking Water for review.

Bacterial testing: We sample the untreated raw well water entering the pumphouse, the disinfected water leaving the pumphouse, and the water in the distribution system every two weeks. The samples are sent to an accredited lab in Winnipeg for testing to determine if Total Coliform and E.coli bacteria are present. The presence of these bacteria would indicate that disease causing organisms could also be present.

Disinfectant testing: The level of chlorine in the treated water is monitored daily to make certain the water entering the distribution system has sufficient chlorine to ensure proper disinfection. In addition chlorine levels are checked within the distribution system when samples are collected for bacteria testing.

Water Chemistry Analyses: Due to the limited change in water quality associated with ground water sources we are only required to complete a water chemistry audit once every five years.

### **What are the results of the tests? Can we get copies?**

2008 testing results for the Town of Stonewall Water Supply System are summarized in the following table

Testing Parameter	Regulatory Requirement	Stonewall Performance
Total Coliform	0 Total Coliform per 100mL	100% No total coliform detected
E. Coli	0 Total Coliform per 100mL	100% No E.Coli detected
Free chlorine residual entering the distribution system	= or > 0.5 mg/L	98.6% Requires corrective forms to be submitted
Free chlorine residual in the distribution system	= or > 0.1 mg/L	100%

The results from the last chemistry audit (including water hardness) completed in 2008 are available on the Town of Stonewall website at <http://www.stonewall.ca/> Further bacterial and disinfectant test results can be viewed by contacting the Town of Stonewall, Engineering Manager, at 467-7986.

**What system is in place to alert Works and Operations Staff of emergencies in the water supply system?**

We have a trained member of our Works and Operations staff on call 24 hrs a day 365 days of the year who will respond to emergencies as they arise.

**Were there any emergencies, regulatory compliance issues or other operational issues to report for 2008?**

Several water breaks were repaired during the year but no major emergencies (boil water advisories, etc) occurred in the water supply system during the 2008 operating year.

We had one non-compliance warning when we failed to complete and submit corrective action forms to the Provincial Drinking Water Officer when the free chlorine residual leaving the pumphouse appeared to be less than the minimum compliance limit of 0.5 mg/L free chlorine. Investigation revealed that an out of calibration inline chlorine analyzer was the cause of the low chlorine residual reading. Testing with a recently calibrated hand held chlorine analyzer confirmed that the residual was within compliance limits. When we experience a variation from normal operation routines, such as low disinfection residual entering the distribution system, we are required to complete corrective actions, and submit a corrective action form to the Drinking Water Officer explaining the low chlorine residual. The proper form was not submitted and this was noted by the Drinking Water Officer during the 2008 Town of Stonewall Public Water System Audit.

Operators have been made aware of the requirement and when required the proper forms will be submitted.

No further operational issues were reported in 2008

### **Were there any major expenses incurred in 2008?**

A higher than normal amount of water breaks resulted in unbudgeted repair costs, but no further major expenses were incurred in 2008

### **Future system expansion or expenses expected?**

Over the next three years the Town of Stonewall has plans to upgrade watermains from the 5<sup>th</sup> St West Pumphouse to 3<sup>rd</sup> Ave South. The possible acquisition of the abandoned CPR right of way through Town provides a unique opportunity to upgrade watermain infrastructure through undeveloped land.

The watermain upgrade is necessary to improve fire fighting flows to the larger buildings along 5<sup>th</sup> St West and to improve flow to future residential developments in the south end of Town and to Main Street.

To comply with regulations under the new Drinking Water Safety Act an Engineering Assessment must be completed on the Stonewall Public Water Supply System by September 1, 2009. The estimated cost of this assessment is \$15,000 and has been included in the 2009 budget.

### **Who can we call with questions or concerns regarding our drinking water?**

For general questions during regular business hours, call the Town of Stonewall Office (467-7979) 293 Main St, 8:30 to 5:00 winter, 8:30 to 4:30 summer.

To report an issue with your water supply during regular business hours, call Engineering Manager, Ron Maylen at 467-7968

To report an emergency, call the 24 hour number 204-467-7990