

Ministry of
the Environment

Safe Drinking Water
Branch

101 17th St. E, 3rd Floor
Owen Sound ON N4K 0A5

Ministère de
l'Environnement

Direction du contrôle de la qualité de
l'eau potable

101, 17^e rue Est, 3^e étage
Owen Sound ON N4K 0A5



November 29, 2010

Town of Saugeen Shores
P.O. Box 820
600 Tomlinson Drive
Port Elgin ON N0H 2C0

Attention: Lawrence Allison, Chief Administrative Officer

Re: Saugeen Shores Drinking Water System Inspection Report

Please find attached the 2010-11 municipal water treatment plant inspection report for the above mentioned facility. The physical inspection was conducted on November 15, 2010 and reviews operations since the previous inspection completed on January 26, 2010.

The inspection process remains predominantly the same as last year. Consequently, the report looks similar to the report you received last year for this facility except for a few minor changes. The report continues to address the drinking water system source, capacity assessment, treatment processes, operations manuals, operator logbooks, contingency and emergency planning, security, operator certification and training, water quality monitoring, reporting, notification & corrective action, and compliance with regulatory requirements.

Should you or your staff have any questions or concerns regarding this inspection report, please feel free to contact me at (519) 376-3683.

Yours truly,

Matthew Shannon
Drinking Water Inspector
Safe Drinking Water Branch
Owen Sound Office

cc: John Ritchie, Drinking Water Inspections Program Supervisor, Ministry of the Environment
Stuart Doyle, Director of Public Works, Town of Saugeen Shores
Cory McNeil, Cluster Manager, Ontario Clean Water Agency
Lisa Benoit, Process Compliance Technician, Ontario Clean Water Agency
Dr. Hazel Lynn, Medical Officer of Health, Grey-Bruce Health Unit



Ministry of the Environment

SAUGEEN SHORES DRINKING WATER SYSTEM

Drinking Water System Inspection Report

DWS Number:	210000078
Inspection Number:	1-8E2U8
Date of Inspection:	Nov 15, 2010
Inspected By:	Matthew Shannon

OWNER INFORMATION:

Company Name: SAUGEEN SHORES, THE CORPORATION OF THE TOWN OF
Street Number: 140 **Unit Identifier:**
Street Name: ISLAND ST
City: SOUTHAMPTON
Province: ON **Postal Code:** N0H 2L0

CONTACT INFORMATION

Type: Operating Authority **Name:** Cory McNeil
Phone: (519) 797-2561 **Fax:** (519) 797-3080
Email: cmcneil@ocwa.com
Title: Cluster Manager

Type: Operator **Name:** Steve Walmsley
Phone: (519) 797-2561 **Fax:** (519) 797-3080
Email: swalmsley@ocwa.com
Title: Operator In Overall Responsibility

Type: Operating Authority **Name:** Lisa Benoit
Phone: (519) 941-1938 **Fax:** (519) 941-1794
Email: lbenoit@ocwa.com
Title: Process Compliance Technician

INSPECTION DETAILS:

DWS Name: SAUGEEN SHORES DRINKING WATER SYSTEM
DWS Address: 140 ISLAND ST
County/District: Saugeen Shores
District/Area Office: Owen Sound Area Office
DWS Category: Large Municipal Residential
DWS Number: 210000078
Inspection Type: Announced
Inspection Number: 1-8E2U8
Date of Inspection: Nov 15, 2010
Date of Previous Inspection: Jan 26, 2010

DRINKING WATER SYSTEM COMPONENTS DESCRIPTION

Site (Name): RAW WATER
Type: Source **Sub Type:** Surface

Comments:

The Southampton water treatment plant is a surface water treatment plant. The plant draws raw water from Lake Huron through a newly commissioned (December 10, 2008) 750 mm diameter continuously welded high density polyethylene intake. The intake structure is approximately 1600m long and has a chlorine solution feed line for zebra mussel control and a raw sample line. The intake is 9.5 to 10m above the bottom of the lake and about 5.5m below the lake's low water level. The decommissioned 600 mm intake will be maintained as a standby.

Three vertical turbine pumps (two duty, one standby), with variable frequency drives, each rated at 104 litres per second at a TDH of 37 metres are located in the low lift pumping station.

Site (Name): TREATED WATER**Type:** Treated Water POE**Sub Type:** Pumphouse**Comments:**

Water is pumped from the low lift station to the main treatment building where it is directed through the following:

Four individual submerged membrane trains (Zeeweed 1000) each with a capacity of 5,950 cubic metres per day. In order to remove sharp particles that could damage the membranes, self cleaning 0.5 mm strainers have been installed at the low lift pumping station. Each membrane train has a dedicated permeate (effluent) pump. The system uses a combination of on-line particle counting, turbidimeter measurements, and automated pressure decay testing to monitor the membrane integrity.

There are two clear wells in parallel with a total storage volume of 3,720 cubic metres with intra basin baffling. The sodium hypochlorite disinfection system consists of two storage tanks and two metering pumps (one duty, one standby) each rated at 20 litres per hour.

Site (Name): DISTRIBUTION (WATER INSPECTIONS)**Type:** Other**Sub Type:****Comments:**

The Southampton water treatment plant is supplying both Southampton distribution system (Zone 1) and Port Elgin distribution system (Zone 2). A 450 mm water main has been constructed along Highway 21 for transmission of water from Southampton to the Port Elgin distribution system and interconnection of the existing water storage facilities.

The Southampton distribution system (Zone 1) services approximately 5270 residents in Saugeen Township as well as supplying up to 1000 cubic meters per day to Saugeen First Nations Reserve.

Treated water is fed from the Southampton water treatment plant to the Southampton distribution system via three vertical turbine pumps (two duty, one standby), two of which have a rated capacity of 60 litres per second at total dynamic head (TDH) of 50 metres, and one at 50 litres per second at a TDH of 49.7 metres.

There is one standpipe for water storage with a capacity of 3409 cubic metres in the Southampton distribution system. There is also a booster pump station located on Rankin Street South, on the north side of the Saugeen River, which increases line pressure in the service area and on the Saugeen First Nations.

The Port Elgin distribution system (Zone 2) services approximately 6800 year-round residents. During the summer months the population is reported to double.

Treated water is fed directly from the Southampton water treatment plant to the Port Elgin distribution system via three vertical turbine pumps (two duty, one standby) each rated at 54 litres per second at a total TDH of 80 metres.

Water storage in the Port Elgin distribution system includes a reservoir with a capacity of 4,546 cubic metres and a standpipe with a capacity of 2,000 cubic metres.

Within the Port Elgin distribution system, a re-chlorination facility is located adjacent to MacGregor Point Provincial Park.

INSPECTION SUMMARY

INTRODUCTION

- * The primary focus of this inspection is to confirm compliance with Ministry of the Environment legislation and authorizing documents such as Orders and Certificates of Approval, as well as evaluating conformance with Ministry drinking water related policies and guidelines during the inspection period.

The Ministry is implementing a rigorous and comprehensive approach in the inspection of drinking water systems that keys on the source, treatment and distribution components of the system as well as management practices.

This report is based on a "focused" inspection of your system. Although the inspection involved fewer activities than those normally undertaken by a detailed inspection, it contained most of the elements required to assess key compliance issues.

Your system was chosen for a focused inspection during this inspection cycle because inspection findings over the past three years were such that the number of violations were minimal or non-existent, there were few or no orders issued to you that were of significance in the maintenance of water potability and there were no deficiencies as defined in O. Reg. 172/03. The undertaking of a focused inspection at your drinking water system during this year's inspection cycle does not ensure that a similar type of inspection will be conducted at any point in the future.

SOURCE

- * Measures were in place to protect the water source in accordance with a Permit, Licence or Approval issued under Part V of the SDWA.

As noted in the original Engineering Evaluation report the original raw water intake was located in such an area that when the wind was out of the north or the north-west the discharge from the Saugeen River would be blown into the intake.

The Saugeen River is a drainage basin for a significant amount of agricultural land, as well as the discharge for treated sewage for numerous small towns and villages. This water source has been known to have increased turbidities, along with cysts, viruses and bacteria pollutants carried by the river.

The new intake is located in a deeper pocket of water, and should assist in reducing the impact of the potential sources of pollution.

The Certificate of Approval, as well as the Engineer's Report has a specific requirement to achieve a total removal/inactivation of 5 Log for Giardia and 6 Log for viruses.

CAPACITY ASSESSMENT

- * There was sufficient monitoring of flow as required by the Permit, Licence or Approval issued under Part V of the SDWA
- * The owner was in compliance with the conditions associated with maximum flow rate or the rated capacity conditions in the Permit, Licence or Approval issued under Part V of the SDWA.

TREATMENT PROCESSES

- * The owner had ensured that all equipment was installed in accordance with the Permit, Licence or Approval issued under Part V of the SDWA.
- * Records indicated that the treatment equipment was operated in a manner that achieved the design capabilities required under Ontario Regulation 170/03 or a Permit, Licence or Approval issued under Part V of the SDWA at all times that water was being supplied to consumers.

The Procedure for Disinfection of Drinking Water in Ontario requires membrane filtration to meet the performance criterion for filtered water turbidity of less than or equal to 0.1 NTU in 99% of the measurements each month. Daily and monthly reports calculate the filter performance which the operators review to ensure filter are operating as required.

The filter turbidity target is 0.1 NTU or less for the Saugeen Shores drinking water system and is rated as a percentage on the SCADA reports. In May 2010, the integrator had programmed the reporting to omit the erroneous readings when the filters are not producing water. The programming change was done to limit the number of spikes during filter down time. A warning alarm is triggered when the filter effluent turbidity reaches 0.1 NTU and a filter will automatically shut down when filter effluent turbidity reaches 0.2 NTU.

- * Records confirmed that the water treatment equipment which provides chlorination or chloramination for secondary disinfection purposes was operated so that at all times and all locations in the distribution system the chlorine residual was never less than 0.05 mg/l free or 0.25 mg/l combined.
- * The Operator-in-Charge had ensured that all equipment used in the processes was monitored, inspected, and evaluated.

A filter integrity test is performed on each membrane filter on a regular basis. Adjustments or repairs are made as a result of any filter integrity test failure.

DISTRIBUTION SYSTEM

- * Backflow preventers were installed at each service connection to Industrial/Commercial/Institutional and agricultural process that were considered high hazard facilities.

A by-law (89-2001) is in place that requires mandatory backflow prevention devices on all large quantity flow users. The by-law has been in effect since 2001. The Owner and Operating Authority are not aware of any industry pre-dating the by-law that would pose a risk to the distribution system.

OPERATIONS MANUALS

- * The operations and maintenance manuals contained plans, drawings and process descriptions sufficient for the safe and efficient operation of the system.
- * The operations and maintenance manuals did meet the requirements of the Permit, Licence or Approval issued under Part V of the SDWA.

LOGBOOKS

- * Records or other record keeping mechanisms confirmed that operational testing not performed by continuous monitoring equipment was being done by a certified operator, water quality analyst, or person who suffices the requirements of O. Reg. 170/03 7-5.

CONTINGENCY/EMERGENCY PLANNING

- * The contingency/emergency plan was available for reference by all staff as required by the Permit, Licence or Approval issued under Part V of the SDWA.

SECURITY

- * All storage facilities were completely covered and secure.
- * Air vents and overflows associated with reservoirs and elevated storage structures were equipped with screens.
- * The owner had provided security measures to protect components of the drinking-water system.

CERTIFICATION AND TRAINING

- * The overall responsible operator had been designated for each subsystem.

The overall responsible operator is Steve Waimsley.

- * Operators in charge had been designated for all subsystems which comprised the drinking-water system.
- * Only certified operators made adjustments to the treatment equipment.

WATER QUALITY MONITORING

- * All microbiological water quality monitoring requirements for distribution samples were being met.
- * All microbiological water quality monitoring requirements for treated samples were being met.
- * All inorganic water quality monitoring requirements prescribed by legislation were conducted within the required frequency.
Inorganic parameters listed in Schedule 23 of O. Reg. 170/03 were sampled January 18, 2010.
- * All organic water quality monitoring requirements prescribed by legislation were conducted within the required frequency.
Organic parameters listed in Schedule 24 of O. Reg. 170/03 were sampled January 18, 2010.
- * All trihalomethanes water quality monitoring requirements prescribed by legislation were conducted within the required frequency.

WATER QUALITY MONITORING

- * All nitrate/nitrite water quality monitoring requirements prescribed by legislation were conducted within the required frequency for the DWS.
- * All sodium water quality monitoring requirements prescribed by legislation were conducted within the required frequency.
- * All fluoride water quality monitoring requirements prescribed by legislation were conducted within the required frequency.
- * All water quality monitoring requirements imposed by the Permit, Licence or Approval issued under Part V of the SDWA were being met.
- * All sampling requirements for lead prescribed by schedule 15.1 of O. Reg. 170/03 were being met.
- * All sampling requirements for alkalinity and pH prescribed by schedule 15.1 of O. Reg. 170/03 were being met.
- * All continuous monitoring equipment utilized for sampling and testing required by O.Reg.170/03, or approval or order, were equipped with alarms or shut-off mechanisms that satisfied the standards described in Schedule 6.

Each of the four membrane filters are equipped with an alarm. When filter effluent turbidity reaches 0.1 NTU, a warning alarm is signalled. When the filter effluent turbidity reaches 0.2 NTU, the filter is automatically shutdown and an alarm is signalled.
- * All continuous analysers were calibrated, maintained, and operated, in accordance with the manufacturer's instructions or the regulation.
- * Operators were examining continuous monitoring test results and they were examining the results within 72 hours of the test.
- * Primary disinfection chlorine monitoring was being conducted at a location approved by Permit, Licence or Approval issued under Part V of the SDWA, or at/near a location where the intended CT had just been achieved.
- * The secondary disinfectant residual was measured as required for the distribution system.
- * Records confirmed that chlorine residual tests were being conducted at the same time and at the same location that microbiological samples were obtained.
- * Continuous monitoring equipment that was being utilized to fulfill O. Reg. 170/03 requirements was performing tests for the parameters with at least the minimum frequency specified in the Table in Schedule 6 of O. Reg. 170/03.

WATER QUALITY MONITORING

- * All continuous monitoring equipment that was being utilized to fulfill O. Reg. 170/03 requirements was recording data with the prescribed format.

- * Continuous monitoring of each filter effluent line was being performed for turbidity.

Each membrane filtration unit is equipped with a particle counter and a turbidity meter.

- * Testing for parameters required by legislation, Order, or a Permit, Licence or Approval issued under Part V of the SDWA was conducted by laboratories in Ontario licenced to test for that parameter, or by eligible laboratories outside Ontario.

WATER QUALITY ASSESSMENT

- * The inspector collected audit samples during the inspection.

The inspector collected three distribution samples. The results can be found in Appendix A of this report.

- * Records show that all water sample results taken during the review period met the Ontario Drinking Water Quality Standards (O.Reg. 169/03).

There were no adverse water quality incidents since the last inspection.

In June 2010, a precautionary boil water notice was issued to residents of a small section of the distribution system due to a watermain break. Two sets of microbiological samples were collected and both were negative for total coliform and E. coli. In consultation with the public health unit, the precautionary boil water notice was lifted.

REPORTING & CORRECTIVE ACTIONS

- * Where required continuous monitoring equipment used for the monitoring of chlorine residual and/or turbidity triggered an alarm or an automatic shut-off, a qualified person responded in a timely manner and took appropriate actions.

NON-COMPLIANCE WITH REGULATORY REQUIREMENTS AND ACTIONS REQUIRED

This section provides a summary of all non-compliance with regulatory requirements identified during the inspection period, as well as actions required to address these issues. Further details pertaining to these items can be found in the body of the inspection report.

Not Applicable

SUMMARY OF BEST PRACTICE ISSUES AND RECOMMENDATIONS

This section provides a summary of all best practice issues identified during the inspection period. Details pertaining to these items can be found in the body of the inspection report. Best Management Practices are recommendations and not mandatory requirements, but may lead to safe drinking water for the consumer.

In the interest of continuous improvement in the interim, it is recommended that owners and operators develop an awareness of the following practices and consider measures to implement them so that all drinking water systems continuously improve their processes.

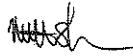
Not Applicable

SIGNATURES

Inspected By:

Matthew Shannon

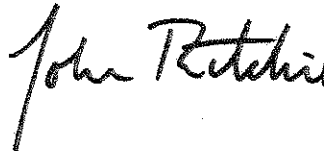
Signature: (Provincial Officer):

Matthew Shannon
2010.11.29
13:14:24 -05'00'

Reviewed & Approved By:

John Ritchie

Signature: (Supervisor):

Digitally signed by John Ritchie
DN: cn=John Ritchie, o=Ontario
Ministry of the Environment,
ou=Safe Drinking Water Branch,
Owen Sound District,
email=john.s.ritchie@ontario.ca,
c=CA
Date: 2010.11.30 17:55:40 -05'00'

Review & Approval Date:

Note: This inspection does not in any way suggest that there is or has been compliance with applicable legislation and regulations as they apply or may apply to this facility. It is, and remains, the responsibility of the owner and/or operating authority to ensure compliance with all applicable legislative and regulatory requirements.



Ministry of the Environment
Drinking Water Inspection Report

APPENDIX A

DRINKING WATER INSPECTION LABORATORY RESULTS

APPENDIX A
TABLE 3
SAUGEEN SHORES DRINKING WATER SYSTEM
AUDIT SAMPLE RESULTS - 15-NOV-2010
SUMMARY OF MICROBIOLOGICAL PARAMETERS - HEALTH RELATED

Sample Legend:

Sample # 1 - 343 CONCESSION 4 DISTRIBUTION

Sample # 2 - 841 MILL ST. DISTRIBUTION

Sample # 3 - SOUTHAMPTON LOWLIFT DISTRIBUTION

Parameter	Units	MC	SAMPLE	SAMPLE	SAMPLE
			# 1	# 2	# 3
NT: ESCHERICHIA COLI	C/100ML	0	ABSENT	ABSENT	ABSENT
NT: TOTAL COLIFORMS	C/100ML	0	ABSENT	ABSENT	ABSENT

Notes:

- Escherichia coli is a more definitive indicator of fecal contamination than fecal coliforms or total coliforms.
- At elevated levels, the general bacterial population may interfere with the detection of coliforms. This general population can be estimated from either background colony counts on the total coliform membrane filters or heterotrophic plate counts (HPC).

Shortforms:

C/100mL - Count per 100 millilitre

C/mL - Count per millilitre

Footnotes:

- 1 Maximum Concentration as per O.Reg 169/03.
- 2 Aesthetic Objective.

APPENDIX A
TABLE 4
SAUGEEN SHORES DRINKING WATER SYSTEM
AUDIT SAMPLE RESULTS - 15-NOV-2010
SUMMARY OF CHEMICAL / PHYSICAL PARAMETERS - HEALTH RELATED

Sample Legend:

Sample # 1 - 343 CONCESSION 4 DISTRIBUTION

Parameter	Units	MC ¹	SAMPLE	
			# 1	
I,1-DICHLOROETHENE	UG/L	14	.05	<=W
1,2-DICHLOROBENZENE	UG/L	200	.05	<=W
1,2-DICHLOROETHANE	UG/L	5	.05	<=W
1,4-DICHLOROBENZENE	UG/L	5	.05	<=W
BENZENE	UG/L	5	.05	<=W
CARBON TETRACHLORIDE	UG/L	5	.2	<=W
CHLOROBENZENE	UG/L	80	.05	<=W
CHLOROETHENE	UG/L	2	.05	<=W
DICHLOROMETHANE	UG/L	50	.2	<=W
LEAD	UG/L	10 ^c	.2	+/-0.16
TETRACHLOROETHENE	UG/L	30	.05	<=W
TRICHLOROETHENE	UG/L	5	.05	<=W
TRIHALOMETHANES; TOTAL	UG/L	100 ^e	53.5	

Shortforms:

<T	-	A measurable trace amount; interpret with caution	NA	-	Result not available
<W	-	No measurable response (zero) : < Reported value	NS	-	Not sampled
<=W	-	No measurable response (zero) : < Reported value	NG/L	-	Nanograms per litre
<	-	Actual result is less than reported value	UG/L	-	Micrograms per litre
ND	-	Not detected	MG/L	-	Milligrams per litre
!NP	-	No appropriate procedure available			

Footnotes:

- 1 Maximum Concentration as per O.Reg 169/03.
- 2 Aesthetic Objective.
- 3 Operational Guideline.
- 4 Includes *alpha*-chlordane, *gamma*-Chlordane and Oxychlordane.
- 5 Includes *p,p'*-DDE, *o,p'*-DDT, *p,p'*-DDD and *p,p'*-DDT.
 - a Total toxic equivalents when compared with 2,3,7,8,-TCDD (tetrachlorodibenzo-p-dioxin).
 - b Where fluoride is added to drinking water, it is recommended that the concentration be adjusted to 0.5 - 0.8 mg/L, the optimum level for control of tooth decay. Where supplies contain naturally occurring fluoride at levels higher than 1.5 mg/L but less than 2.4 mg/L the Ministry of Health and Long Term Care recommends an approach through local boards of health to raise public and professional awareness to control excessive exposure to fluoride from other sources.
 - c This standard applies to water at the point of consumption. Since lead is a component in some plumbing systems, first flush water may contain higher concentrations of lead than water that has been flushed for five minutes.
 - d Where both nitrate and nitrite are present, the total of the two should not exceed 10 mg/L (as nitrogen).
 - e The standard is expressed as a running annual average of quarterly samples measured at a point reflecting the maximum residence time in the distribution system.
 - f An aesthetic objective of 5 NTU for Turbidity has been set for all waters at the point of consumption.

ADVERSE RESULTS OF A DRINKING-WATER TEST UNDER O.REG. 170/03

According to section 16-3 of O.Reg. 170/03, the following are prescribed as adverse results of a drinking-water test for the purpose of section 18 of the Safe Drinking Water Act 2002:

1. A result that exceeds any of the standards prescribed by Schedule 1, 2 or 3 to the Ontario Drinking-Water Quality Standards, other than the standard for fluoride, if the result is from a sample of drinking water.
2. A result indicating the presence of *Aeromonas* spp., *Pseudomonas aeruginosa*, *Staphylococcus aureus*, *Clostridium* spp. or fecal streptococci (Group D streptococci) in a sample of drinking water.
3. A result indicating the presence of a pesticide not listed in Schedule 2 to the Ontario Drinking-Water Quality Standards in a sample of drinking water, at any concentration.
4. If the drinking-water system is required to provide secondary disinfection in accordance with section 1-5 of Schedule 1 or section 2-5 of Schedule 2, the system provides chlorination, the system does not provide chloramination and a report under subsection 18(1) of the Act has not been made in respect of free chlorine residual in the preceding 24 hours, a result indicating that the concentration of free chlorine residual in the preceding 24 hours, a result indicating that the concentration of free chlorine residual is less than 0.05 milligrams per litre in,
 - i. a distribution sample that is a grab sample, or
 - ii. two distribution samples that are tested by continuous monitoring equipment, if the two samples were taken 15 minutes or more apart and the later of the two samples was the first sample that was taken 15 minutes or more after the earlier sample.
5. If the drinking -water system is required to provide secondary disinfection in accordance with section 1-5 of Schedule 1 or section 2-5 of Schedule 2, the system provides chloramination and a report under subsection 18(1) of the Act has not been made in respect of combined chlorine residual in the preceding 24 hours, a result indicating that the concentration of combined chlorine residual is less than 0.25 milligrams per litre and the concentration of free chlorine residual is less than 0.05 milligrams per litre in,
 - i. a distribution sample that is a grab sample, or
 - ii. two distribution samples that are tested by continuous monitoring equipment, if the two samples were taken 15 minutes or more apart and the later of the two samples was the first sample that was taken 15 minutes or more after the earlier sample.
6. If the drinking-water system is required to provide filtration and a report under subsection 18 (1) of the Act has not been made in respect of turbidity in the preceding 24 hours, a result indicating that turbidity exceeds 1.0 Nephelometric Turbidity Units (NTU) in,
 - i. a grab sample of water taken from a filter effluent line, or
 - ii. two samples of water from a filter effluent line that are tested by continuous monitoring equipment, if,
 - A. two samples were taken 15 minutes or more apart and the later of the two samples was the first sample that was taken 15 minutes or more after the earlier sample, and
 - B. the filter effluent line is directing water to the next stage of the treatment process.
7. If an approval or order, including an OWRA order, identifies a parameter as a health-related parameter and establishes a maximum concentration for the parameter, a result indicating that the parameter exceeds the maximum concentration in a sample of drinking water.
8. A result indicating that the concentration of sodium exceeds 20 milligrams per litre in a sample of drinking water, if a report under subsection 18 (1) of the Act has not been made in respect of sodium in the preceding 60 months.
9. A result indicating that the concentration of fluoride exceeds 1.5 milligrams per litre in a sample of drinking water, if,
 - i. the drinking-water system provides fluoridation and a report under subsection 18 (1) of the Act has not been made in respect of fluoride in the preceding 24 hours, or
 - ii. the drinking-water system does not provide fluoridation and a report under subsection 18 (1) of the Act has not been made in respect of fluoride in the preceding 60 months.

APPENDIX A
TABLE 5
SAUGEEN SHORES DRINKING WATER SYSTEM
AUDIT SAMPLE RESULTS - 15-NOV-2010
SUMMARY OF MICRO, CHEMICAL / PHYSICAL PARAMETERS - NOT HEALTH RELATED

Sample Legend:

Sample # 1 - 343 CONCESSION 4 DISTRIBUTION

Sample # 2 - 841 MILL ST. DISTRIBUTION

Sample # 3 - SOUTHAMPTON LOWLIFT DISTRIBUTION

Parameter	Units	OBJECTIVE	TYPE OF OBJECTIVE	SAMPLE	SAMPLE	SAMPLE
				# 1	# 2	# 3
1,2-DICHLOROBENZENE	UG/L	3	AO	.05 <=W		
ETHYLBENZENE	UG/L	2.4	AO	.05 <=W		
M- AND P-XYLENE	UG/L	300	AO	.1 <T		
NT: DETERIORATION INDICATORS	C/100ML	0	AO	NOT DETECTED	NOT DETECTED	NOT DETECTED
O-XYLENE	UG/L	300	AO	.1 <T		
TOLUENE	UG/L	24	AO	.05 <=W		

Shortforms:

<T	- A measurable trace amount; interpret with caution	AO	- Aesthetic Objective
<W	- No measurable response (zero). <Reported value	OG	- Operational Guideline
<=W	- No measurable response (zero). <Reported value	FTU = NTU	- Nephelometric Turbidity Unit
<	- Actual result is less than reported value	TCU	- True Colour Units
ND	- Not detected	NG/L	- Nanograms per litre
NA	- Result not available	UG/L	- Micrograms per litre
NS	- Not sampled	MG/L	- Milligrams per litre
DEG	- Degree celsius		

Footnotes:

- a Organic Nitrogen = (Total Kjeldahl Nitrogen - (Ammonia + Ammonium))
- b The aesthetic objective for sodium in drinking water is 200 mg/L. The local Medical Officer of Health should be notified when the sodium concentration exceeds 20 mg/L so that this information may be communicated to local physicians for their use with patients on sodium restricted diets.
- c When sulphate levels exceed 500 mg/L, water may have a laxative effect on some people.
- d Applicable for all water at the point of consumption.

APPENDIX A
TABLE 6
SAUGEEEN SHORES DRINKING WATER SYSTEM
AUDIT SAMPLE RESULTS - 15-NOV-2010
SUMMARY OF PARAMETERS WITH NO ODWQS

Sample Legend:

Sample # 1 - 343 CONCESSION 4 DISTRIBUTION

Parameter	Units	SAMPLE	
		#	1
1,1,1-TRICHLOROETHANE	UG/L	.05	<=W
1,1,2,2-TETRACHLOROETHANE	UG/L	.2	<=W
1,1,2-TRICHLOROETHANE	UG/L	.1	<=W
1,1-DICHLOROETHANE	UG/L	.05	<=W
1,2-DIBROMOETHANE	UG/L	.1	<=W
1,2-DICHLOROPROPANE	UG/L	.05	<=W
1,3-DICHLOROBENZENE	UG/L	.05	<=W
BROMODICHLOROMETHANE	UG/L	10	
BROMOFORM	UG/L	.5	<=W
CHLOROFORM	UG/L	40	
CIS-1,2-DICHLOROETHENE	UG/L	.05	<=W
DIBROMOCHLOROMETHANE	UG/L	3.6	
DICHLOROACETONITRILE	UG/L	.5	<=W
DIISOPROPYLETHER	UG/L	.05	<=W
STYRENE	UG/L	.05	<=W
TERT-BUTYL METHYL ETHER	UG/L	.05	<=W
TRANS-1,2-DICHLOROETHENE	UG/L	.05	<=W

Shortforms:

<T	-	A measurable trace amount; interpret with caution	NA	-	Result not available
<W	-	No measurable response (zero) : < Reported value	NS	-	Not sampled
<=W	-	No measurable response (zero) : < Reported value	NG/L	-	Nanograms per litre
<	-	Actual result is less than reported value	UG/L	-	Micrograms per litre
ND	-	Not detected	MG/L	-	Milligrams per litre
!NP	-	No appropriate procedure available			

NO DATUM FOUND FOR THE FOLLOWING TABLE(S):

-TABLE 1 - SUMMARY OF PARAMETERS EXCEEDING ODWQS

-TABLE 2 - SUMMARY OF PARAMETERS EXCEEDING HALF OF THEIR HEALTH-RELATED ODWQS



Ministry of the Environment
Drinking Water Inspection Report

APPENDIX B

INSPECTION SUMMARY RATING RECORD



Ministry of the Environment - Inspection Summary Rating Record (Reporting Year - 2010-2011)

DWS Name:	SAUGEEN SHORES DRINKING WATER SYSTEM
DWS Number:	210000078
DWS Owner:	Saugeen Shores, The Corporation Of The Town Of
Municipal Location:	Saugeen Shores

Regulation: O.REG 170/03
Category: Large Municipal Residential System
Type Of Inspection: Focused
Inspection Date: November 15, 2010
Ministry Office: Owen Sound Area Office

Maximum Question Rating: 508

Inspection Module	Non-Compliance Rating
Source	0 / 14
Capacity Assessment	0 / 30
Treatment Processes	0 / 77
Operations Manuals	0 / 28
Logbooks	0 / 14
Contingency/Emergency Planning	0 / 7
Certification and Training	0 / 28
Water Quality Monitoring	0 / 289
Reporting & Corrective Actions	0 / 21
TOTAL	0 / 508

Inspection Risk Rating	0.00%
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FINAL INSPECTION RATING:	100.00%
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Ministry of the Environment - Detailed Inspection Rating Record (Reporting Year - 2010-2011)

DWS Name: SAUGEEN SHORES DRINKING WATER SYSTEM
DWS Number: 210000078
DWS Owner: Saugeen Shores, The Corporation Of The Town Of
Municipal Location: Saugeen Shores

Regulation: O.REG 170/03
Category: Large Municipal Residential System
Type Of Inspection: Focused
Inspection Date: November 15, 2010
Ministry Office: Owen Sound Area Office

Maximum Question Rating: 508

Inspection Risk Rating | 0.00%

FINAL INSPECTION RATING: | 100.00%