

Section 11. ANNUAL REPORT for 2010

Drinking-Water System Number:	210000176
Drinking-Water System Name:	Meaford Water Treatment Plant
Drinking-Water System Owner:	Municipality of Meaford
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	Jan 1-Dec 31 2010

<p><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></p> <p>Does your Drinking-Water System serve more than 10,000 people? Yes [] No [x]</p> <p>Is your annual report available to the public at no charge on a web site on the Internet? Yes [X] No []</p> <p>Location where Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.</p> <table border="1" style="width: 100%;"> <tr> <td style="width: 15%;">Location #1</td> <td>21 Trowbridge St. W. Meaford Ont. N4L 1A1</td> </tr> <tr> <td>Location #2</td> <td>574 Grandview Dr. Meaford Ont. N4L 1K2</td> </tr> </table>	Location #1	21 Trowbridge St. W. Meaford Ont. N4L 1A1	Location #2	574 Grandview Dr. Meaford Ont. N4L 1K2	<p><u>Complete for all other Categories.</u></p> <p>Number of Designated Facilities served: <input style="width: 100px; height: 20px;" type="text"/></p> <p>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [] No []</p> <p>Number of Interested Authorities you report to: <input style="width: 100px; height: 20px;" type="text"/></p> <p>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [] No []</p>
Location #1	21 Trowbridge St. W. Meaford Ont. N4L 1A1				
Location #2	574 Grandview Dr. Meaford Ont. N4L 1K2				

List Drinking-Water Systems, which receive all of their drinking water from your system:

Drinking Water System Name	Drinking Water System Number

Did you provide a copy of your annual report to all Drinking-Water System owners that are connected to you and to whom you provide all of its drinking water? Yes [] No [X]

Indicate how you notified system users that your annual report is available, and is free of charge.

- [X] Public access/notice via the web
 [] Public access/notice via Government Office

- Public access/notice via a newspaper**
- Public access/notice via Public Request**
- Public access/notice via a Public Library**
- Public access/notice via other method** _____

Describe your Drinking-Water System

The Meaford Water System is situated on Georgian Bay in Meaford, Ontario. The treatment plant was originally constructed in 1959/60. In 1975 gas chlorination was added to the treatment plant. The Meaford Water Plant was further upgraded in 1999/2000 by completing the following: increasing the clear water storage, expanding the control building, installing a SCADA system and new low lift and high lift pumping system, backwash waste water treatment.

Another upgrade in 2002 added one more gas chlorinator, ultraviolet disinfection on both filter effluent's, in line booster pump to feed plant and new truck fill station. Two new chlorine sample pumps and one new filter effluent sample pump along with turbidimeter

The plant SCADA system and computer was upgraded during 2008.

The system presently consists of the following:

- a 30" raw water intake in Georgian Bay with chlorination for zebra mussel control
- two 150 h.p. low lift pumps
- injection of poly aluminum chloride prior to inline flash mixer
- two filter beds with multi media and backwash troughs
- ultraviolet disinfection on filter effluent's -gas chlorine disinfection (3 chlorinators)
- one clear well comprising of two cells in series
- three 200 h.p. high lift pumps
- a filter backwash waste treatment system

The filter backwash wastewater treatment system consists of surge tank, a treatment clarifier, and injection of sodium metabisulphate for de-chlorination. The treated backwash wastewater is discharged into the storm sewer. The water plant has standby power, provided by a Diesel Generator (including fuel storage tanks).

The UTM co-ordinates of the plant are:

Zone 17 531440E, 494400N

The Operating Authority has modified their use of PACL (PAX XL 1900) using this year round which drastically reduces aluminum levels in the treated water.

List all water treatment chemicals used over this reporting period

Polyaluminum Chloride {PAX XL 1900}
Sodium Metabisulphite
Chlorine Gas (Cl2)

Were any significant expenses incurred to?

- Install required equipment
- Repair required equipment
- Replace required equipment

Please provide a brief description and a breakdown of monetary expenses incurred

Standby Generator Maintenance	\$949.25
DWQMS Operational Plan	\$18,358.52
SCADA power surge (repairs)	\$1,956.84
Install Backwash Air Relief Valve	\$618.67
Investigation #2 Filter Media	\$1,112.37
Replace Handheld Chlorine Analyzer/Turbidity Meter	\$ 1,676.08
Unit Heater Replacement	\$3,714.78
Repair Power Supply Chlorine Gas Alarm/Sensor	\$1,56.18
Sludge Mixer Repaired	\$2,770.31
PM Kits for gas chlorinators	\$1,453.24
Low Lift Pump #1 Starter repairs	\$1,467.00
SCBA replacement	\$3,937.09

Provide details on the notices submitted in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O.Reg.170/03 and reported to Spills Action Centre

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date

Microbiological testing done under Schedule 10,11 or 12 of Regulation 170/03, during this reporting period.

	Number of Samples	Range of E.Coli Results (min#)-(max#)	Range of Total Coliform Results (min#)-(max#)	Number of HPC Samples	Range of HPC Results (min#)-(max#)
Raw	52	0 -22	0 -980	N/A	N/A
Treated	52	0 - 0	0 - 0	52	0 – 140
Distribution	221	0 - 0	0 -0	65	<10 – 90

Operational testing done under Schedule 7, 8 or 9 of Regulation 170/03 during the period covered by this Annual Report.

	Number of Grab Samples	Range of Results (#-#)
Turbidity	8760	0.0 - < 1.0
Chlorine	8760	>0.7 - < 4.0
Fluoride (If the DWS provides fluoridation)	n/a	n/a

NOTE: For continuous monitors use 8760 as the number of samples.

*NOTE: Record the unit of measure if it is **not** milligrams per litre.*

Summary of additional testing and sampling carried out in accordance with the requirement of an approval, order or other legal instrument. Sampling requirements are specified under Section 2.1 (g) of C of A # 2494-5KKLBH

Date of legal instrument issued	Parameter	Date Sampled	Result	Unit of Measure
March 18, 2003	T.S.S.	Jan 18	39	mg/L
	T.S.S.	Feb 16	26	mg/L
	T.S.S.	Mar 29	<2	mg/L
	T.S.S.	April 26	22	mg/L
	T.S.S.	May 25	59	mg/L
	T.S.S.	June 21	29	mg/L
	T.S.S.	July 26	2	mg/L
	T.S.S.	Aug 24	56	mg/L
	T.S.S.	Sept 27	<2	mg/L
	T.S.S.	Oct 28	2	mg/L
	T.S.S.	Nov 29	34	mg/L
	T.S.S.	Dec 15	28	mg/L

Summary of Inorganic parameters tested during this reporting period or most recent testing

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	Sept 20 /10	0.11	ug/L	No
Arsenic	Sept 20 /10	0.6	ug/L	No
Barium	Sept 20 /10	14.7	ug/L	No
Boron	Sept 20 /10	12.8	ug/L	No
Cadmium	Sept 20 /10	<MDL	ug/L	No
Chromium	Sept 20 /10	0.6	ug/L	No
Lead (annual)				
Mercury	Sept 20 /10	<MDL	ug/L	No
Selenium	Sept 20 /10	<MDL	ug/L	No
Sodium	Sept 18 /07	4.01	mg/L	No
Uranium	Sept 20 /10	0.102	ug/L	No
Fluoride	Sept 18 /07	0.08	mg/L	No
Nitrite	Feb 08/10 May 17/10 Sept 13/10 Nov 18/10	<MDL <MDL <MDL <MDL	mg/L	No
Nitrate	Feb 08/10 May 17/10 Sept 13/10 Nov 18/10	0.319 0.306 0.258 0.281	mg/L	No

Summary of lead testing under Schedule 15.1 during this reporting period
 (applicable to the following drinking water systems; large municipal residential systems, small municipal residential systems, and non-municipal year-round residential systems)

Location Type	Number of Samples	Range of Lead Results (min#) – (max #)	Number of Exceedances
Plumbing		N/A	
Distribution		N/A	

Summary of Organic parameters sampled during this reporting period or most recent

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	Sept 20 /10	<MDL	ug/L	No
Aldicarb	Sept 20 /10	<MDL	ug/L	No
Aldrin + Dieldrin	Sept 20 /10	<MDL	ug/L	No
Atrazine + N-dealkylated metabolites	Sept 20 /10	0.02	ug/L	No
Azinphos-methyl	Sept 20 /10	<MDL	ug/L	No
Bendiocarb	Sept 20 /10	<MDL	ug/L	No
Benzene	Sept 20 /10	<MDL	ug/L	No
Benzo(a)pyrene	Sept 20 /10	<MDL	ug/L	No
Bromoxynil	Sept 20 /10	<MDL	ug/L	No
Carbaryl	Sept 20 /10	<MDL	ug/L	No
Carbofuran	Sept 20 /10	<MDL	ug/L	No
Carbon Tetrachloride	Sept 20 /10	<MDL	ug/L	No
Chlordane (Total)	Sept 20 /10	<MDL	ug/L	No
Chlorpyrifos	Sept 20 /10	<MDL	ug/L	No
Cyanazine	Sept 20 /10	<MDL	ug/L	No
Diazinon	Sept 20 /10	<MDL	ug/L	No
Dicamba	Sept 20 /10	<MDL	ug/L	No
1,2-Dichlorobenzene	Sept 20 /10	<MDL	ug/L	No
1,4-Dichlorobenzene	Sept 20 /10	<MDL	ug/L	No
Dichlorodiphenyltrichloroethane (DDT) + metabolites	Sept 20 /10	<MDL	ug/L	No
1,2-Dichloroethane	Sept 20 /10	<MDL	ug/L	No
1,1-Dichloroethylene (vinylidene chloride)	Sept 20 /10	<MDL	ug/L	No
Dichloromethane	Sept 20 /10	<MDL	ug/L	No
2-4 Dichlorophenol	Sept 20 /10	<MDL	ug/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	Sept 20 /10	<MDL	ug/L	No
Diclofop-methyl	Sept 20 /10	<MDL	ug/L	No
Dimethoate	Sept 20 /10	<MDL	ug/L	No
Dinoseb	Sept 20 /10	<MDL	ug/L	No
Diquat	Sept 20 /10	<MDL	ug/L	No
Diuron	Sept 20 /10	<MDL	ug/L	No
Glyphosate	Sept 20 /10	<MDL	ug/L	No
Heptachlor + Heptachlor Epoxide	Sept 20 /10	<MDL	ug/L	No
Lindane (Total)	Sept 20 /10	<MDL	ug/L	No
Malathion	Sept 20 /10	<MDL	ug/L	No
Methoxychlor	Sept 20 /10	<MDL	ug/L	No
Metolachlor	Sept 20 /10	<MDL	ug/L	No
Metribuzin	Sept 20 /10	<MDL	ug/L	No
Monochlorobenzene	Sept 20 /10	<MDL	ug/L	No

Paraquat	Sept 20 /10	<MDL	ug/L	No
Parathion	Sept 20 /10	<MDL	ug/L	No
Pentachlorophenol	Sept 20 /10	<MDL	ug/L	No
Phorate	Sept 20 /10	<MDL	ug/L	No
Picloram	Sept 20 /10	<MDL	ug/L	No
Polychlorinated Biphenyls(PCB)	Sept 20 /10	<MDL	ug/L	No
Prometryne	Sept 20 /10	<MDL	ug/L	No
Simazine	Sept 20 /10	<MDL	ug/L	No
THM (NOTE: show latest annual average)	Nov 18 /10	28	ug/L	No
Temephos	Sept 20 /10	<MDL	ug/L	No
Terbufos	Sept 20 /10	<MDL	ug/L	No
Tetrachloroethylene	Sept 20 /10	<MDL	ug/L	No
2,3,4,6-Tetrachlorophenol	Sept 20 /10	<MDL	ug/L	No
Triallate	Sept 20 /10	<MDL	ug/L	No
Trichloroethylene	Sept 20 /10	<MDL	ug/L	No
2,4,6-Trichlorophenol	Sept 20 /10	<MDL	ug/L	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	Sept 20 /10	<MDL	ug/L	No
Trifluralin	Sept 20 /10	<MDL	ug/L	No
Vinyl Chloride	Sept 20 /10	<MDL	ug/L	No

List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards.

Parameter	Result Value	Unit of Measure	Date of Sample