



Established 1868

1045 West Shore Road, Pelee Island, Ontario, Canada N0R 1M0
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February 27, 2015

The Corporation of the Township of Pelee is required to provide an annual report for its Ministry of the Environment regulated drinking water system (DWS) under Drinking Water Systems Regulation *O. Reg. 170/03*. The purpose of this letter, with attachments, is to satisfy this requirement and report the dates from January 1, 2014 until December 31, 2014.

The Township of Pelee owns and operates the *Pelee West Shore Water System*. It is a Non - Class *Water Treatment and Distribution System* serving a *Designated Facility* having a DWS registration number of 220008177. The *Pelee West Shore Water System* operates under Ontario Regulation 170/03. The *Pelee West Shore Water System* supplies one additional drinking water system within the Township; *Pelee East Shore Distribution* receives its water via tanker truck from the *Pelee West Shore Water System*. The "Boil Water Advisory" issued by the Windsor Essex County Health Unit in 2010 was rescinded August 27, 2014. This report outlines the sampling and direct connections to the *Pelee West Shore Water System*.

The *Pelee West Shore Water System* is designated as a *Small-Municipal, Non-Residential* DWS and serves a population of 7. It has 4 residential connections and 1 designated facility. There are 18 total service connections. The *Pelee West Shore Well Supply* system utilizes ultra-membrane filtration, Ultraviolet Light and Sodium Hypochlorite (12% solution) injection as its methods of treatment. The treatment system utilizes continuous monitors for turbidity, chlorine, temperature, pH and Ultraviolet dose to monitor the water entering, being treated and sent to the distribution systems. The *Pelee West Shore Water System* does not include fluoridation in its process.

Under *Schedule 12* of *O. Reg. 170/03* the Township is required to complete microbiological testing of its raw intake, treatment and distribution systems. Table 1 outlines these analytical results.

Table 1
Schedule 12 Sampling Completed
January 1, 2014 – December 31, 2014

Sample Type	# of Samples	Range of E. Coli Results min # – max #	Range of Total Coliform Results min # – max #
Raw	24	0 – 320	0 – 220
Treated	24	0 – 0	0 – 0
Distribution	28	0 – 61	0 – 25

Note – All analysis results in CFU's (Colony Forming Units)

The Township is also required to take treatment and distribution samples for various inorganic parameters under *O. Reg. 170/03, Schedule 6-1.1 (4), Schedule 23 and Schedule 24*. The inorganic parameters for Nitrate and Nitrite samples are required to be taken quarterly or not longer than 120 days between sampling. *Schedule 23, Schedule 24, Sodium and Fluoride* is required every 60 months. *Lead* sampling frequency is based from previous analytical results. *Trihalomethanes (THM's)* analysis is not a legal requirement for this system however is an effective indicator for water quality and treatment effectiveness.

A total of Four Nitrate and Nitrite, One Lead, One THM, One Schedule 23, One Schedule 24, One Fluoride and One Sodium sample were taken for the purpose of this report complying with the sampling program. Table 2 through 4 outline these analytical results.

Table 2
Inorganic Sampling Completed
January 1, 2014 – December 31, 2014

Parameter	Sample Date	Result	Unit of Measure	Exceedance
Lead	November 25	0.00072	Mg/L	No
Nitrate	January 27	0.5	Mg/L	No
	April 15	0.7	Mg/L	No
	July 17	0.4	Mg/L	No
	October 7	0.4	Mg/L	No
	January 27	<0.1	Mg/L	No
Nitrite	April 15	<0.1	Mg/L	No
	July 17	<0.1	Mg/L	No
	October 7	<0.1	Mg/L	No
	July 15	15.5	Ug/L	No
Bromoform	July 15	<0.1	Ug/L	No
Bromodichloromethane	July 15	8.7	Ug/L	No
Dibromochloromethane	July 15	4.3	Ug/L	No
Total Trihalomethanes	July 15	28.5	Ug/L	No

Mg/L – milligrams per litre
Ug/L – micrograms per litre

Table 3
Schedule 23 Sampling Completed
February 11, 2014

Parameter	Result (mg/L)
<i>Inorganic Parameters</i>	
Fluoride	0.2
Antimony	0.0001
Arsenic	0.0006
Barium	0.019
Boron	0.020
Cadmium	<0.00002
Chromium	<0.002
Sodium	10.4
Mercury	<0.00002
Selenium	<0.001
Uranium	0.00079

Mg/L – milligrams per litre

Table 4
Schedule 24 Sampling Completed
February 11, 2014

Parameter	Result (ug/L)
<i>Volotile and Semi-Volotile Organic Compounds</i>	
Benzene	< 0.5
Carbon Tetrachloride	< 0.2
Dichlorobenzene,1,2-	< 0.1
Dichlorobenzene,1,4-	< 0.2
Dichloroethane,1,2-	< 0.1
Dichloroethene, 1,1-	< 0.1
Dichloromethane (Methylene Chloride)	< 0.3
Monochlorobenzene (Chlorobenzene)	< 0.2
Tetrachloroethylene	< 0.2
Trichloroethylene	< 0.1
Vinyl Chloride	< 0.2
<i>Pesticides & Herbicides Inc. PCB's and Others</i>	
Alachlor	< 0.3
Aldicarb	< 3
Aldrin + Dieldrin	< 0.02
Atrazine + Metabolites	< 0.5
Azinphos-methyl	< 1
Bendiocarb	< 3
Benzo(a)pyrene	< 0.005
Bromoxynil	< 0.3
Carbaryl	< 3
Carbofuran	< 1
Chlordane (Total)	< 0.04

Table 4
Schedule 24 Sampling Completed
February 11, 2014
Continued

<i>Pesticides & Herbicides Inc. PCB's and Others</i>	
<i>Continued</i>	
Chlorpyrifos	< 0.5
Cyanazine	< 0.5
Diazinon	< 1
Dicamba	< 5
DDT + Metabolites	< 0.01
Dichlorophenol, 2,4-	< 0.1
Dichlorophenoxy acetic acid, 2,4- (2,4-D)	< 5
Diclofop-methyl	< 0.5
Dimethoate	< 1
Dinoseb	< 0.5
Diquat	< 5
Diuron	< 5
Glyphosate	< 25
Heptachlor + Heptachlor Epoxide	< 0.1
Lindane (Hexachlorocyclohexan Gamma)	< 0.1
Malathion	< 5
Methoxychlor	< 0.1
Metolachlor	< 3
Metribuzin	< 3
Paraquat	< 1
Parathion	< 3
Pentachlorophenol	< 0.1
Phorate	< 0.3
Picloram	< 5
Poly-Chlorinated Biphenyls (PCB's)	< 0.05
Prometryne	< 0.1
Simazine	< 0.5
Temephos	< 10
Terbufos	< 0.3
Tetrachlorophenol, 2,3,4,6-	< 0.1
Triallate	< 10
Trichlorophenol 2,4,6-	< 0.1
Trichlorophenoxy acetic acid, 2,4,5-	< 10
Trifluralin	< 0.5

ug/L – micrograms per litre

Under *Schedule 9 of O. Reg. 170/03* the Township is required to report the distribution grab samples and treatment operation continuous samples in this annual report. These results are listed below in Table 5.

Table 5
Schedule 23 Sampling Results
January 1, 2014 – December 31, 2014

Analysis	Distribution (grab sample)		Treated (Continuous Sample)	
	# taken	Min – Max	# taken	Min – Max
Free Chlorine (mg/L)	103	0.48 – 1.95	353	0.86 – 2.64
Turbidity (NTU)	NP	NP	353	0.020 – 0.102

Mg/L – milligrams per litre

NTU – Nephelometric Turbidity Units

NP – Not Performed

Note – Continuous Samples taken from Daily observation at Treatment Plant

The Township of Pelee is required to include in the annual report for the year 2014 any notices submitted under *subsection 18(1) of the Safe Drinking Water Act* or *section 16-4 of Schedule 16 of O. Reg. 170/03* and reported to the Ministry of the Environments Spills Action Center. Table 6 below includes details on all notices submitted.

Table 6
Submissions to Spills Action Center for Incidents Possible to Cause an Adverse Drinking Water Quality Incident
January 1, 2014 – December 31, 2014

Incident Date	Indicator	Corrective Action	Corrective Action Notice Submitted
Jan. 12	Distribution System Pressure <25 psi Variable Jan. 12 - 14	Re-establish pressure, Flush Distribution System, Ensure Free Chlorine Residual at ends of Distribution System	Jan. 21
April 1	Distribution Sample Indicated Adverse Bacterial Condition	Flush North and South Distribution System, Ensure Free Chlorine Residual, Re-Sample for Bacteriological Indicators	April 7
July 30	Distribution System Pressure <25 psi 0759-0805 hrs	Re-Establish pressure, Flush Distribution System, Ensure Free Chlorine Residual	July 30

Psi- pounds per square inch

Attached:

- Notice provided to the West Shore Distribution System customers:
- *Boil Water Advisory* issued by the Windsor Essex County Health Unit in 2010;
- *Boil Water Advisory* rescinded August 14, 2014.

The Corporation of the Township of Pelee
Environmental Services Department



* mailing address /
adresse de livraison

* **WINDSOR OFFICE**
1005 Ouellette Avenue
Windsor ON N9A 4J8

Telephone: 519-258-2146
Toll Free: 800-265-5822
Administration
Fax: 519-258-6003
Health Promotion
Fax: 519-258-7288
Health Protection
Fax: 519-258-8672

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télécopieur: 519-258-6003
Promotion de la santé -
télécopieur: 519-258-7288
Protection de la santé
télécopieur: 519-258-8672

ESSEX OFFICE
360 Fairview Avenue West,
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Télécopieur: 519-776-6102

LEAMINGTON OFFICE
215 Talbot Street East
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Telephone: 519-326-5716
Fax: 519-326-4642

BUREAU DE LEAMINGTON
215, rue Talbot est
Leamington (Ontario) N8H 3X5
Telephone: 519-326-5716
Télécopieur: 519-326-4642

WEBSITE
www.wechealthunit.org

August 10, 2010

Ms. Anne Mitchell, Clerk
Township of Pelee
Pelee Island, Ontario
N0R 1M0

Dear Ms. Mitchell,

RE: Boil Water Advisory – West Shore distribution system

On Tuesday, August 10, 2010 this office received notification that a loss of pressure occurred in the West Shore distribution system on the Island of Pelee. It is our understanding that this event has occurred on several occasions and is reportedly due to the intake well having insufficient capacity. I am therefore issuing a boil water advisory for all customers of the West Shore distribution system on the Island of Pelee.

The Township of Pelee must ensure that all customers are informed of the advisory and that only bottled water, or water brought to a hard boil for one minute should be used for consumption, or food and ice preparation. Written notification must be maintained at municipal offices and the ferry. Announcements must continue to be made on the ferry serving the island.

If you require further information or clarification, please do not hesitate to contact this office.

Yours truly,

G. Allen Heimann, M.D., M.H.Sc.
Medical Officer of Health

GAH/la

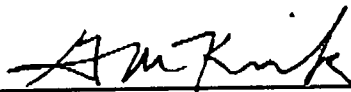
Date: August 27th, 2014

Name: Wayne Miller
CAO, Township of Pelee Island

RE: Rescinding of Boil Water Advisory

I am rescinding the Boil Water Advisory dated August 10, 2010 that was issued due to a loss of pressure in the West Shore distribution system on the Island of Pelee.

Please acknowledge receipt of this faxed notice date August 27th, 2014.



Gary M. Kirk, MD, MPH
Associate Medical Officer of Health and CEO

Please sign and date below and fax to our office at (519) 258-8672 immediately upon receipt.

Wayne Miller
Name

August 27, 2014
Date



519-258-2146
1-800-265-5822
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THE CORPORATION OF THE
Township Of Pelee

Ontario Regulation 170/03

PUBLIC NOTICE

Adverse Conditions have arisen in the Township of Pelee West Shore Water System and the Windsor Essex County Health Unit have issued a “Boil Water Advisory” for its customers.

It is required that you seek alternative sources for drinking water or bring the water to a rolling boil for at least one (1) minute prior to use for food preparation and personal consumption

This notification is required under Section 19 of Ontario Regulation 170/03 – “Ontario Drinking Water Systems” from the Ontario Safe Drinking Water Act

Township of Pelee