

Drinking-Water Systems Regulation O. Reg. 170/03

Part III Form 2

Section 11. ANNUAL REPORT.

Drinking-Water System Number:	220001799
Drinking-Water System Name:	Richard H. Neath Water Purification Plant
Drinking-Water System Owner:	City of Owen Sound
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1, 2007 – December 31, 2007

<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 <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>Is your annual report available to the public at no charge on a web site on the Internet? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.</p> <div style="border: 1px solid black; padding: 5px;"> <ul style="list-style-type: none"> Owen Sound City Website City Clerk's Office, City Hall Public Works Office Water Treatment Plant Library </div>	<p><u>Complete for all other Categories.</u></p> <p>Number of Designated Facilities served: n/a</p> <p>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p> <p>Number of Interested Authorities you report to: n/a</p> <p>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>
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Note: For the following tables below, additional rows or columns may be added or an appendix may be attached to the report

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

Drinking Water System Name	Drinking Water System Number
Leith Water Distribution System	260065312

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

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

- 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 Richard H. Neath Water Purification plant is a surface water plant with direct filtration, serving a population of 22,000 people. The City distribution network is divided into 6 pressure zones.

The Water Treatment process includes raw water screening, prechlorination, zebra mussel control (chlorination at Intake), flash mixing, coagulation/flocculation, UV disinfection, post chlorination, and Fluoridation.

The City has a 22,000 m³ reservoir, with two booster stations that provides addition pressure in the Southeast and southwest portions of the City and outskirts.

List all water treatment chemicals used over this reporting period

Gaseous Chlorine, Hydrofluosilicic Acid, SternPAC, SternPAC 2300, Sodium Bisulphite (dechlorination), and MagnaFloc 110L (polymer addition to waste detention tank)

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

[Installed components]

- One New Remote Processing Unit at Water Plant,
- One New Remote Processing Unit at East Hill Pumping Station
- One New SCADA computer at the East Hill Pump Station
- New SCADA system implementation at the Water Plant. This will run into 2008 for commissioning.

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

Please see Appendix "A"

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

	Number of Samples	Range of E.Coli Or Fecal Results (min #)-(max #)	Range of Total Coliform Results (min #)-(max #)	Number of HPC Samples	Range of HPC Results (min #)-(max #)
Raw	52	0-1600	0-6800	n/a	n/a
Treated	52	0	0	11	<10
Distribution	495	0	0	111	<10-190

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 (min #)-(max #)
Turbidity	8760	0.01 – .58 NTU
Chlorine	8760	1.24 – 1.46 mg/L
Fluoride (If the DWS provides fluoridation)	8760	0.18 - 0.70 mg/L

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.

Date of legal instrument issued	Parameter	Date Sampled	Result	Unit of Measure
CofA# 9037-5WBLZX February 20 th , 2004	Aluminum	May 8	0.070	mg/L
Provincial Order # 4337-5KLW4T dated March 20, 2003	Total Suspended Solids	January	106	mg/L
Provincial Order # 4337-5KLW4T dated March 20, 2003	Total Suspended Solids	February	n/a	mg/L
Provincial Order # 4337-5KLW4T dated March 20, 2003	Total Suspended Solids	March 2, & March 20	87, 101	mg/L
Provincial Order # 4337-5KLW4T dated March 20, 2003	Total Suspended Solids	April	76	mg/L
Provincial Order # 4337-5KLW4T dated March 20, 2003	Total Suspended Solids	May	17	mg/L
Provincial Order # 4337-5KLW4T dated March 20, 2003	Total Suspended Solids	June	74	mg/L
Provincial Order # 4337-5KLW4T dated March 20, 2003	Total Suspended Solids	July	80	mg/L
CofA# 6368-6YVKTY April 2 nd , 2007	Total Suspended Solids	August 16	4	mg/L

CofA# 6368-6YVKTY April 2 nd , 2007	Chlorine – Wastewater System	August 16	0.00	mg/L
CofA# 6368-6YVKTY April 2 nd , 2007	Chlorine – Wastewater System	August 29	0.00	mg/L
CofA# 6368-6YVKTY April 2 nd , 2007	Chlorine – Wastewater System	Sep 5	0.00	mg/L
CofA# 6368-6YVKTY April 2 nd , 2007	Chlorine – Wastewater System	Sep 15	0.00	mg/L
CofA# 6368-6YVKTY April 2 nd , 2007	Chlorine – Wastewater System	Sep 18	0.00	mg/L
CofA# 6368-6YVKTY April 2 nd , 2007	Chlorine – Wastewater System	Sep 25	0.00	mg/L
CofA# 6368-6YVKTY April 2 nd , 2007	Chlorine – Wastewater System	Oct 4	0.00	mg/L
CofA# 6368-6YVKTY April 2 nd , 2007	Chlorine – Wastewater System	Oct 9	0.00	mg/L
CofA# 6368-6YVKTY April 2 nd , 2007	Chlorine – Wastewater System	Oct 15	0.00	mg/L
CofA# 6368-6YVKTY April 2 nd , 2007	Chlorine – Wastewater System	Oct 25	0.00	mg/L
CofA# 6368-6YVKTY April 2 nd , 2007	Chlorine – Wastewater System	Nov 1	0.00	mg/L
CofA# 6368-6YVKTY April 2 nd , 2007	Total Suspended Solids	Nov 1	4	mg/L
CofA# 6368-6YVKTY April 2 nd , 2007	Chlorine – Wastewater System	Nov 10	0.00	mg/L
CofA# 6368-6YVKTY April 2 nd , 2007	Chlorine – Wastewater System	Nov 15	0.01	mg/L
CofA# 6368-6YVKTY April 2 nd , 2007	Chlorine – Wastewater System	Nov 23	0.00	mg/L
CofA# 6368-6YVKTY April 2 nd , 2007	Chlorine – Wastewater System	Nov 27	0.00	mg/L
CofA# 6368-6YVKTY April 2 nd , 2007	Chlorine – Wastewater System	Dec 7	0.00	mg/L
CofA# 6368-6YVKTY April 2 nd , 2007	Chlorine – Wastewater System	Dec 13	0.00	mg/L

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CofA# 6368-6YVKTY April 2 nd , 2007	Chlorine – Wastewater System	Dec 21	0.00	mg/L
CofA# 6368-6YVKTY April 2 nd , 2007	Chlorine – Wastewater System	Dec 28	0.00	mg/L

Summary of Inorganic parameters tested during this reporting period or the most recent sample results

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	Feb 20	<0.0001	mg/L	No
Arsenic	Feb 20	0.0003	mg/L	No
Barium	Feb 20	0.01	mg/L	No
Boron	Feb 20	0.013	mg/L	No
Cadmium	Feb 20	<0.0001	mg/L	No
Chromium	Feb 20	<0.002	mg/L	No
Lead	Aug 8	0.00022	mg/L	No
Mercury	Feb 20	<.00002	mg/L	No
Selenium	Feb 20	0.0017	mg/L	No
Sodium	n/a	n/a	n/a	n/a
Uranium	Feb 20	0.00011	mg/L	No
Fluoride	Dec 31	0.46	mg/L	No
Nitrite	Nov 2	<0.1	mg/L	No
Nitrate	Nov 2	0.3	mg/L	No

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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	Feb 20	<0.0003	mg/L	No
Aldicarb	Feb 20	<0.003	mg/L	No
Aldrin + Dieldrin	Feb 20	<0.00003	mg/L	No
Atrazine + N-dealkylated metabolites	Feb 20	<0.0005	mg/L	No
Azinphos-methyl	Feb 20	<0.001	mg/L	No
Bendiocarb	Feb 20	<0.003	mg/L	No
Benzene	Feb 20	<0.0005	mg/L	No
Benzo(a)pyrene	Feb 20	<0.000005	mg/L	No
Bromoxynil	Feb 20	<0.0003	mg/L	No
Carbaryl	Feb 20	<0.003	mg/L	No
Carbofuran	Feb 20	<0.001	mg/L	No
Carbon Tetrachloride	Feb 20	<0.0002	mg/L	No
Chlordane (Total)	Feb 20	<0.00006	mg/L	No
Chlorpyrifos	Feb 20	<0.0005	mg/L	No
Cyanazine	Feb 20	<0.0005	mg/L	No
Diazinon	Feb 20	<0.001	mg/L	No
Dicamba	Feb 20	<0.005	mg/L	No
1,2-Dichlorobenzene	Feb 20	<0.0001	mg/L	No
1,4-Dichlorobenzene	Feb 20	<0.0002	mg/L	No
Dichlorodiphenyltrichloroethane (DDT) + metabolites	Feb 20	<0.0002	mg/L	No
1,2-Dichloroethane	Feb 20	<0.0001	mg/L	No

1,1-Dichloroethylene (vinylidene chloride)	Feb 20	<0.0001	mg/L	No
Dichloromethane	Feb 20	<0.0003	mg/L	No
2-4 Dichlorophenol	Feb 20	<0.0001	mg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	Feb 20	<0.005	mg/L	No
Diclofop-methyl	Feb 20	<0.0004	mg/L	No
Dimethoate	Feb 20	<0.001	mg/L	No
Dinoseb	Feb 20	<0.0005	mg/L	No
Diquat	Feb 20	<0.005	mg/L	No
Diuron	Feb 20	<0.005	mg/L	No
Glyphosate	Feb 20	<0.025	mg/L	No
Heptachlor + Heptachlor Epoxide	Feb 20	<0.0002	mg/L	No
Lindane (Total)	Feb 20	<0.0002	mg/L	No
Malathion	Feb 20	<0.005	mg/L	No
Methoxychlor	Feb 20	<0.0002	mg/L	No
Metolachlor	Feb 20	<0.003	mg/L	No
Metribuzin	Feb 20	<0.003	mg/L	No
Monochlorobenzene	Feb 20	<0.0002	mg/L	No
Paraquat	Feb 20	<0.001	mg/L	No
Parathion	Feb 20	<0.003	mg/L	No
Pentachlorophenol	Feb 20	<0.0001	mg/L	No
Phorate	Feb 20	<0.0003	mg/L	No
Picloram	Feb 20	<0.005	mg/L	No
Polychlorinated Biphenyls(PCB)	Feb 20	<0.00008	mg/L	No
Prometryne	Feb 20	<0.0001	mg/L	No
Simazine	Feb 20	<0.0005	mg/L	No
THM (NOTE: show latest annual average)	Nov 2	0.0271	mg/L	No
Temephos	Feb 20	<0.010	mg/L	No
Terbufos	Feb 20	<0.0003	mg/L	No
Tetrachloroethylene	Feb 20	<0.0002	mg/L	No
2,3,4,6-Tetrachlorophenol	Feb 20	<0.0001	mg/L	No
Triallate	Feb 20	<0.010	mg/L	No
Trichloroethylene	Feb 20	<0.0001	mg/L	No
2,4,6-Trichlorophenol	Feb 20	<0.0001	mg/L	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	Feb 20	<0.010	mg/L	No
Trifluralin	Feb 20	<0.0005	mg/L	No
Vinyl Chloride	Feb 20	<0.0002	mg/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
NONE			

The regulations have changed on lead reporting and sampling. This will not be retested under old requirements.

(Only if DWS category is large municipal residential, small municipal residential, large municipal non residential, non municipal year round residential, large non municipal non residential)

APPENDIX "A"

#	Date	AWQI #s)	Adverse Location	Adverse Parameter	Adverse Result	Units	Remedial Action
1	4-Jan	69669	995 6th St E	Free Cl ₂	0.01	mg/L	Flushed hydrant for 40 minutes, End Free Cl ₂ was .51 mg/L
2	8-Jan	69724	999 7th St E	Free Cl ₂	0.00	mg/L	Flushed hydrant for 20 minutes, End Free Cl ₂ was .57 mg/L
3	13-Mar	70473	801 16th Ave East	Free Cl ₂	0.00	mg/L	Flushed hydrant for 45 minutes, End Free Cl ₂ was 1.12 mg/L
4	10-May	71229	1617 5th Ave W	Lead	0.0195	mg/L	Location resampled May 10th, results were .0004 mg/L
5	14-May	71299	5th Ave W (H# 4-A-60)	Lead	0.138	mg/L	Resampled, collected two samples, both came back extremely low.
6	1-Jun	71628	O'Connors - Inglis Falls	Free Cl ₂	0.04	mg/L	Location flushed for 5hrs 42 min, end Free Cl ₂ was .28 mg/L
7	11-Jun	71857	476 2nd Ave W	Lead	0.0374	mg/L	Resampled, results were .00601 mg/L
			1267 2nd Ave E	Lead	0.0175	mg/L	Resampled, results were .00370 mg/L
			499 16th St W	Lead	0.0308	mg/L	Resampled, results were .00260 mg/L
			287 5th St E	Lead	0.0253	mg/L	Resampled, results were above MAC at .0104 mg/L
8	18-Jun	72002	287 5th St E	Lead	0.0104	mg/L	Second adverse above MAC, Reported to MOH and MOE , waiting for guidance.
9	16-Jul	72684	801 16th Ave East	Free Cl ₂	0.02	mg/L	Location flushed for 25 min, end Free Cl ₂ was .71 mg/L
10	23-Jul	EM002	GSCA	Free Cl ₂	0.02	mg/L	Main flushed for 19 hrs 35 minutes, end free Cl ₂ was .29 mg/L, total .40 mg/L. NOTE: Auto Unit at O'Connors failed causing this adverse.
11	22-Aug	73572	Hyd # 2-C-135 8th St & 16th Ave E	Free Cl ₂	0.00	mg/L	Main flushed for 4 hrs 35 minutes, end free Cl ₂ was .78 mg/L.
12	19-Sep	75535	476 2nd Ave W	Lead	0.0112	mg/L	Quarterly sampling requirement
			287 5th St E	Lead			0.0170

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			553 14th St W	Lead	0.0102	mg/L	Quarterly sampling requirement
13	12- Oct	76033	801 16th Ave East	Free Cl ₂	0.01	mg/L	Location flushed for 2hr 7min, end Free Cl ₂ was .82 mg/L
14	2-Nov	n/a	Industrial Well - 2600 3rd Ave E	Treated Water Bypass	287.00	m ³	Problem arose from high Industrial Flow to low flow. High Water level sunk float.
15	13- Nov	76675	801 16th Ave East	Free Cl ₂	0.01	mg/L	Location flushed for 1hr, end Free Cl ₂ was .89 mg/L