



**2010 ANNUAL REPORT**

<b>Drinking-Water System Number:</b>	220001799
<b>Drinking-Water System Name:</b>	Richard H. Neath Water Purification Plant
<b>Drinking-Water System Owner:</b>	City of Owen Sound
<b>Drinking-Water System Category:</b>	Large Municipal Residential
<b>Period being reported:</b>	January 1, 2010 – December 31, 2010

<p><b><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></b></p> <p><b>Does your Drinking-Water System serve more than 10,000 people? Yes [ X ] No [ ]</b></p> <p><b>Is your annual report available to the public at no charge on a web site on the Internet? Yes [ X ] No [ ]</b></p> <p><b>Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.</b></p> <div style="border: 1px solid black; padding: 5px;"> <ul style="list-style-type: none"> <li>• Owen Sound City Website <a href="http://www.owensound.ca">http://www.owensound.ca</a></li> <li>• City Clerk’s Office, City Hall</li> <li>• Public Works Office</li> <li>• Water Treatment Plant</li> <li>• Library</li> </ul> </div>	<p><b><u>Complete for all other Categories.</u></b></p> <p><b>Number of Designated Facilities served:</b></p> <div style="border: 1px solid black; padding: 2px; width: fit-content;">n/a</div> <p><b>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [ ] No [ X ]</b></p> <p><b>Number of Interested Authorities you report to:</b></p> <div style="border: 1px solid black; padding: 2px; width: fit-content;">n/a</div> <p><b>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [ ] No [ X ]</b></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 [ X ] 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 treatment plant with direct filtration, serving a population of 22,000 people. The City distribution network is divided into 6 pressure zones with approximately 150 km of watermain.

The Water Treatment process includes raw water screening, prechlorination, zebra mussel control (chlorination at Intake), flash mixing (initial mixing of coagulant), coagulation/flocculation, UV disinfection, post chlorination, Fluoridation, and a wastewater detention tank to treat backwash water.

The City has a 22,000 m<sup>3</sup> 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, Hydrofluorosilicic Acid (HFS), SternPAC, PAX-XL1900 (formerly named 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**

- Rebuild on Industrial system float valve \$10,000
- Replacement of Fluoride Analyzer \$8,500



**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

**Please see Appendix “A”**

**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 #)
<b>Raw</b>	52	0-29	0-6000	n/a	n/a
<b>Treated</b>	52	0-0	0-0	52	<10 - 140
<b>Distribution</b>	453	0-0	0-0	107	0-20

**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 #)
<b>Filter Turbidity</b>	<b>8760</b>	<b>.02 – 2.69 NTU *</b> High was a momentary spike on Filter 4 Nov 5/10. Lasted less than 1 min.
<b>Post 1 Chlorine</b>	<b>8760</b>	<b>0.01 – 3.78 mg/L</b>
<b>Post 2 Chlorine</b>	<b>8760</b>	<b>0.21 – 3.29 mg/L</b>
<b>Municipal Chlorine</b>	<b>8760</b>	<b>0.74 – 1.82 mg/L</b>
<b>Industrial Chlorine</b>	<b>8760</b>	<b>0.64 – 2.00 mg/L</b>
<b>Municipal Fluoride</b>	<b>8760</b>	<b>0.42 – 0.57 mg/L *</b> taken from Lab results
<b>Industrial Fluoride</b>	<b>8760</b>	<b>0.43 – 0.58 mg/L *</b> taken from Lab results.

***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# 6368-6YVKTY April 2 <sup>nd</sup> , 2007	Chlorine – Wastewater System	January 2,5,12,19,25	0.00	mg/L
CofA# 6368-6YVKTY April 2 <sup>nd</sup> , 2007	Chlorine – Wastewater System	February 1,12,16,22	0.00	mg/L
CofA# 9037-5WBLZX February 20 <sup>th</sup> , 2004	Aluminum	February 8	0.060	mg/L
CofA# 6368-6YVKTY April 2 <sup>nd</sup> , 2007	Total Suspended Solids	March 9	7	mg/L
CofA# 6368-6YVKTY April 2 <sup>nd</sup> , 2007	Chlorine – Wastewater System	March 1,8,14,26,29	0.00	mg/L
CofA# 6368-6YVKTY April 2 <sup>nd</sup> , 2007	Chlorine – Wastewater System	April 8,12,20,28	0.00	mg/L
CofA# 6368-6YVKTY April 2 <sup>nd</sup> , 2007	Chlorine – Wastewater System	May 3,11,17,25	0.00	mg/L
CofA# 6368-6YVKTY April 2 <sup>nd</sup> , 2007	Chlorine – Wastewater System	June 1,8,15,25,28	0.00	mg/L
CofA# 6368-6YVKTY April 2 <sup>nd</sup> , 2007	Total Suspended Solids	June 8	0	mg/L
CofA# 6368-6YVKTY April 2 <sup>nd</sup> , 2007	Chlorine – Wastewater System	July 8,12,19,26	0.00	mg/L
CofA# 6368-6YVKTY April 2 <sup>nd</sup> , 2007	Chlorine – Wastewater System	August 2,9,18,23	0.00	mg/L
CofA# 6368-6YVKTY April 2 <sup>nd</sup> , 2007	Chlorine – Wastewater System	September 3,8,13,20,30	0.00	mg/L
CofA# 6368-6YVKTY April 2 <sup>nd</sup> , 2007	Total Suspended Solids	September 1	0	mg/L

<b>CofA# 6368-6YVKTY April 2<sup>nd</sup>, 2007/ Municipal License # 092-101</b>	<b>Chlorine – Wastewater System</b>	<b>October 4,14,23,25</b>	<b>0.00</b>	mg/L
<b>Municipal License # 092-101</b>	<b>Chlorine – Wastewater System</b>	<b>November 3,8,16,26,30</b>	<b>0.00</b>	mg/L
<b>Municipal License # 092-101</b>	<b>Total Suspended Solids</b>	<b>December 1</b>	<b>7</b>	mg/L
<b>Municipal License # 092-101</b>	<b>Chlorine – Wastewater System</b>	<b>December 6,17,21,30</b>	<b>0.00</b>	mg/L

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

<b>Parameter</b>	<b>Sample Date</b>	<b>Result Value</b>	<b>Unit of Measure</b>	<b>Exceedance</b>
<b>Antimony</b>	February 26	<0.0001	mg/L	NO
<b>Arsenic</b>	February 26	0.0005	mg/L	NO
<b>Barium</b>	February 26	0.013	mg/L	NO
<b>Boron</b>	February 26	<0.005	mg/L	NO
<b>Cadmium</b>	February 26	<0.00002	mg/L	NO
<b>Chromium</b>	February 26	<0.002	mg/L	NO
<b>*Lead</b>	n/a	n/a	n/a	n/a
<b>Mercury</b>	February 26	<0.00002	mg/L	NO
<b>Selenium</b>	February 26	<0.001	mg/L	NO
<b>Sodium</b>	n/a	n/a	n/a	n/a
<b>Uranium</b>	February 26	0.00009	mg/L	NO
<b>Fluoride – Municipal</b>	December 31	0.60	mg/L	NO
<b>Fluoride - Industrial</b>	December 31	0.55	mg/L	NO
<b>Nitrite</b>	November 1	<0.01	mg/L	NO
<b>Nitrate</b>	November 1	0.3	mg/L	NO

\*only for drinking water systems testing under Schedule 15.2; this includes large municipal non-residential systems, small municipal non-residential systems, non-municipal seasonal residential systems, large non-municipal non-residential systems, and small non-municipal non-residential systems



**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	33	0.00013 – 0.0279	3
Distribution	4	0.00017 – 0.00138	0

**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 26	<0.0003	mg/L	NO
Aldicarb	Feb 26	<0.003	mg/L	NO
Aldrin + Dieldrin	Feb 26	<0.00002	mg/L	NO
Atrazine + N-dealkylated metabolites	Feb 26	<0.0005	mg/L	NO
Azinphos-methyl	Feb 26	<0.001	mg/L	NO
Bendiocarb	Feb 26	<0.003	mg/L	NO
Benzene	Feb 26	<0.0005	mg/L	NO
Benzo(a)pyrene	Feb 26	<0.000005	mg/L	NO
Bromoxynil	Feb 26	<0.0003	mg/L	NO
Carbaryl	Feb 26	<0.003	mg/L	NO
Carbofuran	Feb 26	<0.001	mg/L	NO
Carbon Tetrachloride	Feb 26	<0.0002	mg/L	NO
Chlordane (Total)	Feb 26	<0.00004	mg/L	NO
Chlorpyrifos	Feb 26	<0.0005	mg/L	NO
Cyanazine	Feb 26	<0.0005	mg/L	NO
Diazinon	Feb 26	<0.001	mg/L	NO
Dicamba	Feb 26	<0.005	mg/L	NO
1,2-Dichlorobenzene	Feb 26	<0.0001	mg/L	NO
1,4-Dichlorobenzene	Feb 26	<0.0002	mg/L	NO
Dichlorodiphenyltrichloroethane (DDT) + metabolites	Feb 26	<0.0001	mg/L	NO
1,2-Dichloroethane	Feb 26	<0.0001	mg/L	NO
1,1-Dichloroethylene (vinylidene chloride)	Feb 26	<0.0001	mg/L	NO
Dichloromethane	Feb 26	<0.0003	mg/L	NO
2-4 Dichlorophenol	Feb 26	<0.0001	mg/L	NO
2,4-Dichlorophenoxy acetic acid (2,4-D)	Feb 26	<0.005	mg/L	NO
Diclofop-methyl	Feb 26	<0.0005	mg/L	NO
Dimethoate	Feb 26	<0.001	mg/L	NO
Dinoseb	Feb 26	<0.0005	mg/L	NO
Diquat	Feb 26	<0.005	mg/L	NO



Diuron	Feb 26	<0.005	mg/L	NO
Glyphosate	Feb 26	<0.025	mg/L	NO
Heptachlor + Heptachlor Epoxide	Feb 26	<0.0001	mg/L	NO
Lindane (Total)	Feb 26	<0.0001	mg/L	NO
Malathion	Feb 26	<0.005	mg/L	NO
Methoxychlor	Feb 26	<0.0001	mg/L	NO
Metolachlor	Feb 26	<0.003	mg/L	NO
Metribuzin	Feb 26	<0.003	mg/L	NO
Monochlorobenzene	Feb 26	<0.0002	mg/L	NO
Paraquat	Feb 26	<0.001	mg/L	NO
Parathion	Feb 26	<0.003	mg/L	NO
Pentachlorophenol	Feb 26	<0.0001	mg/L	NO
Phorate	Feb 26	<0.0003	mg/L	NO
Picloram	Feb 26	<0.005	mg/L	NO
Polychlorinated Biphenyls(PCB)	Feb 26	<0.00005	mg/L	NO
Prometryne	Feb 26	<0.0001	mg/L	NO
Simazine	Feb 26	<0.0005	mg/L	NO
THM (NOTE: show latest annual average)	2010	0.0326	mg/L	NO
Temphos	Feb 26	<0.010	mg/L	NO
Terbufos	Feb 26	<0.0003	mg/L	NO
Tetrachloroethylene	Feb 26	<0.0002	mg/L	NO
2,3,4,6-Tetrachlorophenol	Feb 26	<0.0001	mg/L	NO
Triallate	Feb 26	<0.010	mg/L	NO
Trichloroethylene	Feb 26	<0.0001	mg/L	NO
2,4,6-Trichlorophenol	Feb 26	<0.0001	mg/L	NO
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	Feb 26	<0.010	mg/L	NO
Trifluralin	Feb 26	<0.0005	mg/L	NO
Vinyl Chloride	Feb 26	<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			

**APPENDIX “A”**

#	Notification Date	AWQI #(s)	Adverse Location	Adverse Parameter	Adverse Result	Units	Remedial Action
1	8-Jan	92996	3100 3rd Ave W (Fire # 318332)	Free Chlorine	0.01	mg/L	dead end house, water complaint of rusty water. Flushed lines. Collected bacti. Flushed hydrant, end Free Chlorine was 0.68 mg/L
2	15-Jan	93094	3100 3rd Ave W (Fire # 318332)	Free Chlorine	0.02	mg/L	Flushed and setup temporary blowoff, Flushed hydrant, end Free Chlorine was 0.76 mg/L
3	9-Jul	95993	Hydrant 4-A-114 @ 3100 3rd Ave W	Free Chlorine	0.04	mg/L	Flushed hydrant and ran hose constantly, hydrant flushed, end Free Chlorine was 0.50 mg/L
4	5-Aug	96888	Dead End 7th St. E behind Leon's	Free Chlorine	0.04	mg/L	Turned on Flushing Unit to 24 hr operation, end Free Chlorine was 0.31 mg/L
5	24-Aug	97491	900 Block of 6th St E	Free Chlorine	0.02	mg/L	Turned on Flushing Unit to 24 hr operation, and flushed hydrant. End Free Chlorine was 0.33 mg/L
6	31-Aug	97660	550 4th St E	Free Chlorine	0.00	mg/L	Flushed dead end hydrant for 9 hr, 8 min. End Free Chlorine was 0.23 mg/L
7	31-Aug	97680	125 5th Ave East Hyd #2-E-107	Free Chlorine	0.01	mg/L	Turned on Flushing Unit to 24 hr operation, and flushed hydrant. End Free Chlorine was 0.21 mg/L
8	20-Sep	98157	Keppel Sarawak School	Free Chlorine	0.04	mg/L	Turned on Flushing Unit to 24 hr operation, and flushed hydrant. End Free Chlorine was 0.21 mg/L
9	22-Nov	99190	Harrison Park Work Shop	Free Chlorine	0.04	mg/L	Flushed for 1hr 10 minutes, end Free Chlorine was 0.27 mg/L