



2010 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, 2010 – December 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 [<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 http://www.owensound.ca • 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: <input type="text" value="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: <input type="text" value="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 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 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, 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 #)
Raw	52	0-29	0-6000	n/a	n/a
Treated	52	0-0	0-0	52	<10 - 140
Distribution	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 #)
Filter Turbidity	8760	.02 – 2.69 NTU * High was a momentary spike on Filter 4 Nov 5/10. Lasted less than 1 min.
Post 1 Chlorine	8760	0.01 – 3.78 mg/L
Post 2 Chlorine	8760	0.21 – 3.29 mg/L
Municipal Chlorine	8760	0.74 – 1.82 mg/L
Industrial Chlorine	8760	0.64 – 2.00 mg/L
Municipal Fluoride	8760	0.42 – 0.57 mg/L * taken from Lab results
Industrial Fluoride	8760	0.43 – 0.58 mg/L * 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 nd , 2007	Chlorine – Wastewater System	January 2,5,12,19,25	0.00	mg/L
CofA# 6368-6YVKTY April 2 nd , 2007	Chlorine – Wastewater System	February 1,12,16,22	0.00	mg/L
CofA# 9037-5WBLZX February 20 th , 2004	Aluminum	February 8	0.060	mg/L
CofA# 6368-6YVKTY April 2 nd , 2007	Total Suspended Solids	March 9	7	mg/L
CofA# 6368-6YVKTY April 2 nd , 2007	Chlorine – Wastewater System	March 1,8,14,26,29	0.00	mg/L
CofA# 6368-6YVKTY April 2 nd , 2007	Chlorine – Wastewater System	April 8,12,20,28	0.00	mg/L
CofA# 6368-6YVKTY April 2 nd , 2007	Chlorine – Wastewater System	May 3,11,17,25	0.00	mg/L
CofA# 6368-6YVKTY April 2 nd , 2007	Chlorine – Wastewater System	June 1,8,15,25,28	0.00	mg/L
CofA# 6368-6YVKTY April 2 nd , 2007	Total Suspended Solids	June 8	0	mg/L
CofA# 6368-6YVKTY April 2 nd , 2007	Chlorine – Wastewater System	July 8,12,19,26	0.00	mg/L
CofA# 6368-6YVKTY April 2 nd , 2007	Chlorine – Wastewater System	August 2,9,18,23	0.00	mg/L
CofA# 6368-6YVKTY April 2 nd , 2007	Chlorine – Wastewater System	September 3,8,13,20,30	0.00	mg/L
CofA# 6368-6YVKTY April 2 nd , 2007	Total Suspended Solids	September 1	0	mg/L



CofA# 6368-6YVKTY April 2nd, 2007/ Municipal License # 092-101	Chlorine – Wastewater System	October 4,14,23,25	0.00	mg/L
Municipal License # 092-101	Chlorine – Wastewater System	November 3,8,16,26,30	0.00	mg/L
Municipal License # 092-101	Total Suspended Solids	December 1	7	mg/L
Municipal License # 092-101	Chlorine – Wastewater System	December 6,17,21,30	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	February 26	<0.0001	mg/L	NO
Arsenic	February 26	0.0005	mg/L	NO
Barium	February 26	0.013	mg/L	NO
Boron	February 26	<0.005	mg/L	NO
Cadmium	February 26	<0.00002	mg/L	NO
Chromium	February 26	<0.002	mg/L	NO
*Lead	n/a	n/a	n/a	n/a
Mercury	February 26	<0.00002	mg/L	NO
Selenium	February 26	<0.001	mg/L	NO
Sodium	n/a	n/a	n/a	n/a
Uranium	February 26	0.00009	mg/L	NO
Fluoride – Municipal	December 31	0.60	mg/L	NO
Fluoride - Industrial	December 31	0.55	mg/L	NO
Nitrite	November 1	<0.01	mg/L	NO
Nitrate	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
Temephos	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