ANNUAL REPORT

Drinking-Water System Number:	220002949
Drinking-Water System Name:	West Elgin Water Treatment Plant
Drinking-Water System Owner:	Corporation of the Municipality of West Elgin
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1, 2009 to May 6, 2009

Complete if your Category is Large Municipal Residential or Small Municipal Residential

Does your Drinking-Water System serve more than 10,000 people? Yes [ ] No [X]

Is your annual report available to the public at no charge on a web site on the Internet? Yes [ ] No [X]

Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.

West Elgin Water Treatment Plant
9210 Graham Road RR#2
West Lorne, ON N0L 2P0

Complete for all other Categories.

Number of Designated Facilities served:

Did you provide a copy of your annual report to all Designated Facilities you serve?
Yes [ ] No [ ]

Number of Interested Authorities you report to:

Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility?
Yes [ ] No [ ]

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
Southwest Middlesex Distribution System	260005502

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**
- **[X] Public access/notice via Government Office**
- **[ ] Public access/notice via a newspaper**
- **[X] Public access/notice via Public Request**
- **[ ] Public access/notice via a Public Library**
- **[ ] Public access/notice via other method _____**

Describe your Drinking-Water System

West Elgin Water Treatment Plant

The West Elgin Water Treatment plant receives raw water from Lake Erie via a 700mm diameter primary intake pipe. The intake pipe is equipped with a chlorine solution line for zebra muscle control. There is a 600mm stand-by intake pipe along the shoreline, but does not have zebra muscle control capabilities. The raw water is conveyed to the low lift pumping station via an inlet valve chamber by four fixed speed vertical turbine pumps. Large debris is filtered by two 10mm wire mesh stainless steel screens. A flow meter is installed on the discharge header of a 350mm diameter raw water transmission main to the water treatment plant.

The water is injected with the coagulant prior to being discharged into the two parallel in-ground flocculation tanks in series, with a total volume of 300m^3. The water is then directed into two parallel sloped sedimentation basins, with a total volume of 1,460m^3. The clarified water is then discharged into two of three multi-media gravity filters. The third filter is on stand-by. The filters are backwashed by a centrifugal backwash pump. The filtered water is directed into the clearwell (capacity 250m^3) where it is injected with chlorine gas for disinfection. The water is then directed through the UV disinfection system, consisting of two reactors with a control panel.

Process wastewater is directed to a reinforced concrete basin with effective storage capacity of approximately 300m^3 for temporary storage of waste until the supernatant is discharged to Lake Erie.

The maximum capacity of the water treatment plant is 6,829m^3 due to limited filtration capabilities. The plant services the communities of Eagle, New Glasgow, Rodney, West Lorne, Dutton-Dunwich, Southwest Middlesex, Bothwell and Newbury.

Water storage consists of the West Lorne Standpipe, with a volume of 2889m^3.

Iona Re-chlorination Station

The Iona Re-chlorination Facility is composed of two chlorine analyzers measuring the incoming supply and the other measuring the outgoing supply. The system re-chlorinates via chemical meter pump using sodium hypochlorite solution.

List all water treatment chemicals used over this reporting period

Chlorine Gas
Sodium Hypochlorite
Polyaluminum Chloride

Were any significant expenses incurred to?

[ ] Install required equipment
[X] Repair required equipment
[X] Replace required equipment

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

Heater Unit at Lowlift $1900
Chlorinator Repair $1700
Singer Valve Repair $900
Sodium Hypochlorite Metering Pump $2000

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
n/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	18	0-0	0-0	n/a	n/a
Treated	18	0-0	0-0	18	0-<10
Distribution	72	0-0	0-0	18	0-20

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

	Number of Grab Samples	Range of Results (min #)-(max #)
Turbidity (Raw) NTU	8760	2.8 - 355.3
Turbidity (Filter 1) NTU	8760	0.014 - 0.166
Turbidity (Filter 2) NTU	8760	0.016 - 0.653
Turbidity (Filter 3) NTU	8760	0.016 - 0.351
Free Chlorine (Primary Disinfection)	8760	1.26 - 2.34
Free Chlorine (Distribution)	126	0.84 - 1.97

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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	17-Feb-09	0.13	µg/L	No
Arsenic	17-Feb-09	0.6	µg/L	No
Barium	17-Feb-09	21.7	µg/L	No
Boron	17-Feb-09	40.2	µg/L	No
Cadmium	17-Feb-09	0.029	µg/L	No
Chromium	17-Feb-09	0.5	µg/L	No
Mercury	17-Feb-09	<0.02	µg/L	No
Selenium	17-Feb-09	<1	µg/L	No
Uranium	17-Feb-09	0.08	µg/L	No
Nitrite	26-Jan-09 14-Apr-09	<0.005 <0.005	mg/L	No
Nitrate	26-Jan-09 14-Apr-09	0.175 0.146	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	17-Feb-09	<0.11	µg/L	No
Aldicarb	17-Feb-09	<0.3	µg/L	No
Aldrin + Dieldrin	17-Feb-09	<0.067	µg/L	No
Atrazine + N-dealkylated metobolites	17-Feb-09	<0.12	µg/L	No
Azinphos-methyl	17-Feb-09	<0.21	µg/L	No
Bendiocarb	17-Feb-09	<0.13	µg/L	No
Benzene	19-Feb-09	<0.37	µg/L	No
Benzo(a)pyrene	17-Feb-09	<0.004	µg/L	No
Bromoxynil	17-Feb-09	<0.33	µg/L	No
Carbaryl	17-Feb-09	<0.16	µg/L	No
Carbofuran	17-Feb-09	<0.37	µg/L	No
Carbon Tetrachloride	19-Feb-09	<0.41	µg/L	No
Chlordane (Total)	17-Feb-09	<0.11	µg/L	No
Chlorpyrifos	17-Feb-09	<0.18	µg/L	No
Cyanazine	17-Feb-09	<0.18	µg/L	No
Diazinon	17-Feb-09	<0.081	µg/L	No
Dicamba	17-Feb-09	<0.20	µg/L	No
1,2-Dichlorobenzene	19-Feb-09	<0.50	µg/L	No
1,4-Dichlorobenzene	19-Feb-09	<0.21	µg/L	No
Dichlorodiphenyltrichloroethane (DDT) + metabolites	17-Feb-09	<0.14	µg/L	No

1,2-Dichloroethane	19-Feb-09	<0.43	µg/L	No
1,1-Dichloroethylene (vinylidene chloride)	19-Feb-09	<0.41	µg/L	No
Dichloromethane	19-Feb-09	<0.34	µg/L	No
2-4 Dichlorophenol	17-Feb-09	<0.15	µg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	17-Feb-09	<0.19	µg/L	No
Diclofop-methyl	17-Feb-09	<0.40	µg/L	No
Dimethoate	17-Feb-09	<0.12	µg/L	No
Dinoseb	17-Feb-09	<0.36	µg/L	No
Diquat	17-Feb-09	<1	µg/L	No
Diuron	17-Feb-09	<0.087	µg/L	No
Glyphosate	17-Feb-09	<6	µg/L	No
Heptachlor + Heptachlor Epoxide	17-Feb-09	<0.11	µg/L	No
Lindane (Total)	17-Feb-09	<0.056	µg/L	No
Malathion	17-Feb-09	<0.091	µg/L	No
Methoxychlor	17-Feb-09	<0.14	µg/L	No
Metolachlor	17-Feb-09	<0.092	µg/L	No
Metribuzin	17-Feb-09	<0.12	µg/L	No
Monochlorobenzene	19-Feb-09	<0.58	µg/L	No
Paraquat	17-Feb-09	<1	µg/L	No
Parathion	17-Feb-09	<0.18	µg/L	No
Pentachlorophenol	17-Feb-09	<0.15	µg/L	No
Phorate	17-Feb-09	<0.11	µg/L	No
Picloram	17-Feb-09	<0.25	µg/L	No
Polychlorinated Biphenyls(PCB)	17-Feb-09	<0.04	µg/L	No
Prometryne	17-Feb-09	<0.23	µg/L	No
Simazine	17-Feb-09	<0.15	µg/L	No
THM (NOTE: show latest annual average)	26-Jan-09 14-Apr-09	16 30 Avg=23	µg/L	No
Temephos	17-Feb-09	<0.31	µg/L	No
Terbufos	17-Feb-09	<0.12	µg/L	No
Tetrachloroethylene	19-Feb-09	<0.45	µg/L	No
2,3,4,6-Tetrachlorophenol	17-Feb-09	<0.14	µg/L	No
Triallate	17-Feb-09	<0.10	µg/L	No
Trichloroethylene	19-Feb-09	<0.38	µg/L	No
2,4,6-Trichlorophenol	17-Feb-09	<0.25	µg/L	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	17-Feb-09	<0.22	µg/L	No
Trifluralin	17-Feb-09	<0.12	µg/L	No
Vinyl Chloride	19-Feb-09	<0.17	µg/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
n/a			