

**Part III Form 2
Section 11. ANNUAL REPORT.**

Drinking-Water System Number:	260001013
Drinking-Water System Name:	Baxter Well Supply System
Drinking-Water System Owner:	Corporation of the Township of Essa
Drinking-Water System Category:	Small Municipal Residential
Period being reported:	January 1, 2004 – December 31, 2004

<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 No <input checked="" type="checkbox"/> [X]</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"/> [X] No</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;"> Essa Municipal Office 5786 Simcoe Rd. 21 Utopia, Essa Twp, On. L0M 1T0 Website: www.essatownship.on.ca </div>	<p><u>Complete for all other Categories.</u></p> <p>Number of Designated Facilities served: <input style="width: 100px; height: 20px;" type="text"/></p> <p>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [] No []</p> <p>Number of Interested Authorities you report to: <input style="width: 100px; height: 20px;" type="text"/></p> <p>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [] No []</p>
--	--

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

Not applicable

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 [NA]

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

- [X] Public access/notice via the web
- [X] 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 Public Notice made on water bills

Describe your Drinking-Water System
Raw Water Supply

The Baxter well supply system pumphouse is located on Marshall Crescent in the Hamlet of Baxter, Essa Township. Raw water is supplied from two 150mm diameter steel cased drilled wells. Well # 1 is situated 40 m east of the pump house extending to a depth of 64.0m with a rated capacity of 4L/sec at a Total Dynamic Head (TDH) of 86.56m.

Well #2 is located 55m east of the pumphouse extending to a depth of 61.0m with a rated capacity of 3.9 L/sec at a TDH of 89m. Both well casings extend 0.7m above the ground surface. Both well heads are enclosed in a concrete crock.

Disinfection

Raw water is pumped to the pumphouse via two (2) 75mm lines, where it is injected with NSF 60 certified 12% Sodium Hypochlorite Solution at the main discharge header. The Sodium Hypochlorite solution is stored in a 100 L day tank and delivered to the system by one (1) of two (2) chemical feed pumps, each having the capability of pumping 3.78 L/hr. Contact time is achieved in a 400mm diameter by 50m long chlorine contact chamber prior to entering the distribution system. The Baxter Well Supply System has a rated capacity of 3.9 l/sec or 255 cubic meters per day.

Distribution and Storage

The pumphouse is equipped with Five (5) 454L hydro-pneumatic pressure tanks, which provide storage and help to maintain pressure in the distribution system.

Monitoring

The Baxter Well Supply System is equipped with on-line Turbidity, Free and Total Chlorine analyzers. Flow and process data is recorded on an SM1000 data logger. The recorded data is down loaded periodically and stored on the main server at the Wasaga beach office. The system is alarmed for a number of parameters and monitored by Huronia Alarms, Midland On.

Auxiliary Power

The Baxter Well Supply System is equipped with a 35 kw generator and auto switch over to provide stand by power in the event of a power failure.

List all water treatment chemicals used over this reporting period

Sodium Hypochlorite 12% Solution NSF, Disinfection

Were any significant expenses incurred to?

- Install required equipment
 Repair required equipment
 Replace required equipment

Describe

No significant expenses were incurred to the Baxter Well Supply System for the 2004 reporting period.

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.

No reportable incidences occurred during the 2004 Reporting period.

Incident Date	Parameter	AWQI#	Result	Unit of Measure	Corrective Action	Corrective Action Date
January 15, 2004	HPC	22406	676	Cnts./1ml	Re-sample	Jan 15, 2004
February 26, 2004	HPC	23376	1880	Cnts./1ml	Re-sample	Feb. 26, 2004
March 11, 2004	HPC	23828	1040	Cnts/1ml	Re-sample	March 11, 2004
June 30, 2004	Total Coliform	28560	3	Col/100ml	Re-sample	June 30, 2004
August 18, 2004	Total Coliform	31413	5	Col/100ml	Resample	August 18, 2004
August 21, 2004	Total Coliform	34116	14	Col/100ml	Resample	August 21, 2005

Microbiological testing done under section 8-2 during this reporting period

Location	Number of Samples	Range of E.Coli or Fecal Results (# - #)	Range of Total Coliform Results (# - #)	Number of HPC Samples or Background Colony Counts	Range of HPC Results(#-#) or Background Colony Counts
Raw - 1	52	0 - 0	0 - 0	12	10 - 2400
Raw - 2	52	0 - 0	0 - 0	12	0 - 9
Treated -	55	0 - 0	0 - 0	57	0 - 1880
Distribution -	116	0 - 0	0 - 14	126	0 - 245

Operational testing done under Schedule 7, 8 or 9 during the period covered by this Annual Report.

NOTE: For continuous monitors use 8760 as the number of samples.

	Number of Grab Samples	Range of Results (#-#)
Turbidity	8760	0.25 to 1.67 NTU
Chlorine	8760	0 / 5.0 mg/L
Chlorine Residual Distribution System	479	0.13 to 2.13
Fluoride (If the DWS provides fluoridation)	NA	NA

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 or order.

Date of order or C of A	Parameter	Date Sampled	Result	Unit of Measure
March 11, 2004 C of A	Ammonia	Weekly	Min 0.58 Max 1.31	Mg/L

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

Parameter	Sample Date	Result Value	Exceedance
Antimony: Sb (ug/L)	2003/08/26	0.60	No
Arsenic: As (ug/L)	2003/08/26	2.00	No
Barium: Ba (ug/L)	2003/08/26	68.00	No
Boron: B (ug/L)	2003/08/26	39.00	No
Cadmium: Cd (ug/L)	2003/08/26	0.10	No
Chromium: Cr (ug/L)	2003/08/26	3.00	No
Lead: Pb (ug/L)	2003/08/26	0.6	No
Mercury: Hg (ug/L)	2003/08/26	0.10	No
Selenium: Se (ug/L)	2003/08/26	3.00	No
Sodium: Na (mg/L)	2003/08/26	17.90	No
Uranium: U (ug/L)	2003/08/26	0.05	No
Fluoride Residual: Mean (mg/L)	2003/08/26	0.12	No
Nitrite (mg/L)	2004/01/12	0.011	No
Nitrate (mg/L)	2004/01/12	0.021	No
Nitrite (mg/L)	2004/04/05	0.007	No
Nitrate (mg/L)	2004/04/05	4.28	No
Nitrite (mg/L)	2004/07/07	0.005	No
Nitrate (mg/L)	2004/07/07	4.72	No
Nitrite (mg/L)	2004/10/07	0.005	No
Nitrate (mg/L)	2004/10/07	4.48	N

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

Parameter	Sample Date	Result Value	Exceedance
Alachlor (ug/L)	2003/04/28	0.09	No
Aldicarb (ug/L)	2003/04/28	0.76	No
Aldrin + Dieldrin (ug/L)	2003/04/28	0.05	No
Atrazine + N-dealkylated metabolites (ug/L)	2003/04/28	0.43	No
Azinphos-methyl (ug/L)	2003/04/28	0.59	No
Bendiocarb (ug/L)	2003/04/28	0.27	No
Benzene (ug/L)	2003/04/28	0.36	No
Benzo(a)pyrene (ug/L)	2003/08/26	0.004	No
Bromoxynil (ug/L)	2003/04/28	0.06	No
Carbaryl (ug/L)	2003/04/28	0.14	No
Carbofuran (ug/L)	2003/04/28	0.14	No

Carbon Tetrachloride (ug/L)	2003/04/28	0.34	No
Chlordane:Total (ug/L)	2003/04/28	0.20	No
Chlorpyrifos (ug/L)	2003/04/28	1.20	No
Cyanazine (ug/L)	2003/04/28	0.08	No
Diazinon (ug/L)	2003/04/28	0.41	No
Dicamba (ug/L)	2003/04/28	0.90	No
1,2-Dichlorobenzene (ug/L)	2003/04/28	0.56	No
1,4-Dichlorobenzene (ug/L)	2003/04/28	0.25	No
Dichlorodiphenyltrichloroethane(DDT) + metabolites (ug/L)	2003/04/28	0.46	No
1,2-Dichloroethane (ug/L)	2003/04/28	0.32	No
1,1-Dichloroethylene (ug/L)	2003/04/28	0.52	No
Dichloromethane (ug/L)	2003/04/28	1.17	No
2,4-Dichlorophenol (ug/L)	2003/04/28	0.15	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L)	2003/04/28	0.33	No
Diclofop-methyl (ug/L)	2003/04/28	0.84	No
Dimethoate (ug/L)	2003/04/28	0.10	No
Dinoseb (ug/L)	2003/04/28	0.42	No
Diquat (ug/L)	2003/04/28	1.00	No
Diuron (ug/L)	2003/04/28	0.66	No
Glyphosate (ug/L)	2003/04/28	6.00	No
Heptachlor+Hepachlor Epoxide (ug/L)	2003/04/28	0.20	No
Lindane: (ug/L)	2003/04/28	0.13	No
Malathion (ug/L)	2003/04/28	0.37	No
Methoxychlor (ug/L)	2003/04/28	0.64	No
Metolachlor (ug/L)	2003/04/28	0.58	No
Metribuzin (ug/L)	2003/04/28	0.50	No
Monochlorobenzene (ug/L)	2003/04/28	0.46	No
Paraquat (ug/L)	2003/04/28	1.00	No
Parathion (ug/L)	2003/04/28	1.20	No
Pentachlorophenol (ug/L)	2003/04/28	0.15	No
Phorate (ug/L)	2003/04/28	0.73	No
Picloram (ug/L)	2003/04/28	0.19	No
Polychlorinated Bichenysl(PCB) (ug/L)	2003/04/28	0.04	No
Prometryne (ug/L)	2003/04/28	0.16	No
Simazine (ug/L)	2003/04/28	0.18	No
THM (ug/L)	2004/01/12	28.0	No
THM (ug/L)	2004/04/23	10.0	No
THM (ug/L)	2004/07/07	34.0	No
THM (ug/L)	2004/10/07	12.0	No
Temephos (ug/L)	2003/04/28	0.25	No
Terbufos (ug/L)	2003/09/30	< 0.70	No
Tetrachloroethylene (ug/L)	2003/04/28	0.48	No
2,3,4,6-Tetrachlorophenol (ug/L)	2003/04/28	0.14	No
Triallate (ug/L)	2003/04/28	0.14	No
Trichloroethylene (ug/L)	2003/04/28	0.54	No
2,4,6-Trichlorophenol (ug/L)	2003/04/28	0.25	No
2,4,5-Trichlorophenoxy acetic acid (ug/L)	2003/04/28	0.47	No
Trifluralin (ug/L)	2003/04/28	0.35	No
Vinyl Chloride (ug/L)	2003/04/28	0.08	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

(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)

