



**The Corporation of the
Municipality of Wawa**

**Wawa Townsite
Water Supply System**

ANNUAL REPORT

2009



**Prepared by:
Water & Sewer Department
Infrastructure Services**

January 2010

Wawa Townsite Water Supply System



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**Prepared for:
The Corporation of the
Municipality of Wawa**

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**Wawa Townsite
Water Supply System Annual Report 2009**

**Prepared by: Municipality of Wawa
Infrastructure Services
Water & Sewer Department**

Mark McRae, Lead Hand

Date

Marc Liard, Water & Sewer Assistant

Date

Gary Mercier, Water & Sewer Assistant

Date

**Received and Reviewed on behalf of
The Corporation of the Municipality of Wawa**

**Dennis Berard, Director
Infrastructure Services**

Date

Presented to Council:

February 2, 2010
Date

Presentation Confirmed by Resolution

RC10065



WAWA WATER SYSTEM 2009 ANNUAL REPORT

Drinking-Water System Number:	210000050
Drinking-Water System Name:	Wawa Water Supply System
Drinking-Water System Owner:	The Corporation of the Municipality of Wawa
Drinking-Water System Category:	Municipal Residential – Large
Period being reported:	01-01-09 to 31-12-09

<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 [X]</p> <p>Is your annual report available to the public at no charge on a web site on the Internet? Yes [] No [X]</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;"> <p>Municipal Office 40 Broadway Avenue Wawa, Ontario POS 1K0</p> </div>	<p><u>Complete for all other Categories.</u></p> <p>Number of Designated Facilities served: <div style="border: 1px solid black; width: 100px; height: 20px; margin: 5px 0;"></div> </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: <div style="border: 1px solid black; width: 100px; height: 20px; margin: 5px 0;"></div></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>
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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
--- NONE ---	

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 [X]



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

Water treatment plant consisting of a membrane filtration process with the intake from Wawa Lake. Raw water is pumped through the filters to an under floor reservoir where it is chlorinated. Sodium hypochlorite is used for pre-chlorination, primary and secondary disinfection, and membrane cleaning. Hydrofluorosilicic acid is added to filtered water before distribution. Residue from the filter backwash and acid cleaning can be discharged to the municipal sanitary sewer system or to the storm sewer system. Continuous analyzers are in place for turbidity, chlorine residual and fluoride monitoring. Flow meters are used to monitor raw water flow into each filter train and treated and chlorinated water entering the under floor reservoir.

A transmission main connects the Wawa water distribution system to the elevated water storage tank at the Michipicoten River Village, where “touch-up” chlorination facilities, using sodium hypochlorite, are installed.

List all water treatment chemicals used over this reporting period

- Sodium hypochlorite
- Hydrofluorosilicic acid

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

N/A



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
None					

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 to 4	0 to 1200	0	0 to 0
Treated	52	0 to 0	0 to 0	52	0 to 7
Distribution	260	0 to 0	0 to 0	78	0 to > 2000

Operational testing done under Schedule 7, 8 or 9 of Regulation 170/03 during the period covered by this Annual Report.

Water Treatment Plant

	Number of Grab Samples	Minimum	Average	Maximum
Turbidity (NTU)	8760	0.00	0.04	10.01*
Chlorine (mg/l)	8760	0.13*	0.99	5.02*
Fluoride (mg/l)	8760	0.00*	0.53	1.07

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

***NOTE:** Minimum and Maximum levels are caused by instrument spikes because of maintenance to the instruments



Distribution System

	Number of Samples	Minimum	Average	Maximum
Chlorine Residual (mg/l)	365	0.75	0.93	1.19

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
Certificate of Approval 7805-76ZKUC	Waste Water Suspended Solids	N/A	None	No Discharge
Certificate of Approval 7805-76ZKUC	Waste Water Chlorine Residual	N/A	None	No Discharge

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. 23, 2009	<0.6	Ug/l	No
Arsenic	Feb. 23, 2009	<1	Ug/l	No
Barium	Feb. 23, 2009	<10	Ug/l	No
Boron	Feb. 23, 2009	<50	Ug/l	No
Cadmium	Feb. 23, 2009	<0.1	Ug/l	No
Chromium	Feb. 23, 2009	<1	Ug/l	No
*Lead	See below		Ug/l	No
Mercury	Feb. 23, 2009	<0.1	Ug/l	No
Selenium	Feb. 23, 2009	<5	Ug/l	No
Sodium	Tested every 5 years		Ug/l	No
Uranium	Feb. 23, 2009	<5	Ug/l	No
Fluoride	2009 Average	0.53	Mg/l	No
Nitrite	Nov. 17, 2009	<0.020	Mg/l	No
Nitrate	Nov. 17, 2009	0.040	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	44	<1.0 ug/l – 105 ug/l	2
Distribution	8	<1.0 ug/l – 3.7 ug/l	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.23, 2009	<1.0	Ug/l	No
Aldicarb	Feb.23, 2009	<0.1	Ug/l	No
Aldrin + Dieldrin	Feb.23, 2009	<0.02	Ug/l	No
Atrazine + N-dealkylated metabolites	Feb.23, 2009	<0.2	Ug/l	No
Azinphos-methyl	Feb.23, 2009	<0.1	Ug/l	No
Bendiocarb	Feb.23, 2009	<0.2	Ug/l	No
Benzene	Feb.23, 2009	<0.5	Ug/l	No
Benzo(a)pyrene	Feb. 23, 2009	<0.01	Ug/l	No
Bromoxynil	Feb.23, 2009	<0.2	Ug/l	No
Carbaryl	Feb.23, 2009	<0.2	Ug/l	No
Carbofuran	Feb.23, 2009	<0.2	Ug/l	No
Carbon Tetrachloride	Feb.23, 2009	<0.5	Ug/l	No
Chlordane (Total)	Feb.23, 2009	<0.3	Ug/l	No
Chlorpyrifos	Feb.23, 2009	<0.1	Ug/l	No
Cyanazine	Feb.23, 2009	<0.1	Ug/l	No
Diazinon	Feb.23, 2009	<0.1	Ug/l	No
Dicamba	Feb.23, 2009	<0.2	Ug/l	No
1,2-Dichlorobenzene	Feb.23, 2009	<0.5	Ug/l	No
1,4-Dichlorobenzene	Feb.23, 2009	<0.5	Ug/l	No
Dichlorodiphenyltrichloroethane (DDT) + metabolites	Feb.23, 2009	<0.4	Ug/l	No
1,2-Dichloroethane	Feb.23, 2009	<0.5	Ug/l	No
1,1-Dichloroethylene (vinylidene chloride)	Feb.23, 2009	<0.5	Ug/l	No
Dichloromethane	Feb.23, 2009	<0.5	Ug/l	No
2-4 Dichlorophenol	Feb.23, 2009	<0.5	Ug/l	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	Feb.23, 2009	<0.2	Ug/l	No
Diclofop-methyl	Feb.23, 2009	<0.2	Ug/l	No
Dimethoate	Feb.23, 2009	<0.1	Ug/l	No
Dinoseb	Feb.23, 2009	<0.2	Ug/l	No
Diquat	Feb.23, 2009	<1.0	Ug/l	No

Diuron	Feb.23, 2009	<1	Ug/l	No
Glyphosate	Feb.23, 2009	<5	Ug/l	No
Heptachlor + Heptachlor Epoxide	Feb.23, 2009	<0.2	Ug/l	No
Lindane (Total)	Feb.23, 2009	<0.1	Ug/l	No
Malathion	Feb.23, 2009	<0.1	Ug/l	No
Methoxychlor	Feb.23, 2009	<0.1	Ug/l	No
Metolachlor	Feb.23, 2009	<0.1	Ug/l	No
Metribuzin	Feb.23, 2009	<0.1	Ug/l	No
Monochlorobenzene	Feb.23, 2009	<0.5	Ug/l	No
Paraquat	Feb.23, 2009	<1.0	Ug/l	No
Parathion	Feb.23, 2009	<0.1	Ug/l	No
Pentachlorophenol	Feb.23, 2009	<0.5	Ug/l	No
Phorate	Feb.23, 2009	<0.1	Ug/l	No
Picloram	Feb.23, 2009	<0.2	Ug/l	No
Polychlorinated Biphenyls(PCB)	Feb.23, 2009	<0.02	Ug/l	No
Prometryne	Feb.23, 2009	<0.1	Ug/l	No
Simazine	Feb.23, 2009	<0.1	Ug/l	No
THM (NOTE: show latest annual average)	2009 Average	57.52	Ug/l	No
Temephos	Feb.23, 2009	<0.1	Ug/l	No
Terbufos	Feb.23, 2009	<0.2	Ug/l	No
Tetrachloroethylene	Feb.23, 2009	<0.5	Ug/l	No
2,3,4,6-Tetrachlorophenol	Feb.23, 2009	<0.5	Ug/l	No
Triallate	Feb.23, 2009	<0.1	Ug/l	No
Trichloroethylene	Feb.23, 2009	<0.5	Ug/l	No
2,4,6-Trichlorophenol	Feb.23, 2009	<0.5	Ug/l	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	Feb.23, 2009	<0.2	Ug/l	No
Trifluralin	Feb.23, 2009	<0.1	Ug/l	No
Vinyl Chloride	Feb.23, 2009	<0.5	Ug/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
Total THM	57.52	Ug/l	Yearly Average