

## 1. Our First Report

This provides the City of Owen Sound's first Quarterly Drinking Water Quality Report. The Ontario Ministry of the Environment's recently tabled legislation, The Drinking Water Protection Regulation (Reg. 459/00), mandates this reporting requirement. Further information concerning this Regulation can be found either through the Ministry of Environment's Web Site at [www.ene.gov.on.ca/envision/WaterReg/WaterReg.htm](http://www.ene.gov.on.ca/envision/WaterReg/WaterReg.htm) or by calling the local Ministry of the Environment Office at 371-2901.

This, and future reports, are available at:

Clerk's Office		City of Owen Sound's
Owen Sound City Hall	or	Public Works Division
808 2 <sup>nd</sup> Avenue East		1900 20th Street East
Owen Sound, Ontario		Owen Sound, Ontario
N4K 2N4		N4K 5N3

Or on the City's Web Site at [www.city.owen-sound.on.ca](http://www.city.owen-sound.on.ca)

This report covers the period from July 1, 2000 to September 30, 2000.

## 2. Introduction

The City's Drinking Water is supplied by the Richard H. Neath Water Treatment Plant (R.H. Neath WTP), is located at 2600 3<sup>rd</sup> Avenue East in Owen Sound, Ontario. The facility was built in two phases. Plant 1 was constructed in 1967. In 1980 the facility was twinned with the addition on Plant 2. This expansion doubled the facility's capacity to provide a total treatment capacity of 60.48 ML/d. The facility provides potable water to approximately 22,000 residents, an expanding commercial base, and several large industrial facilities.

## 3. Facility Background

The R.H. Neath WTP is a direct filtration plant with the following unit process components:

- raw water pumping
- pre-chlorination (including seasonal zebra mussel control)
- coagulant addition
- flash mixing
- flocculation
- filtration
- backwash capabilities
- post-chlorination
- fluoridation
- treated water storage
- municipal treated water pumping
- industrial treated water pumping

### **Facility Background Continued;**

The R.H. Neath WTP contains two water treatment trains. Each treatment train is equipped with similar unit process components, but convey separate flow streams according to equipment on line, demand and their individual rated capacities. A process flow diagram of the R.H. Neath WTP is presented in Figure 1.

The raw water for the R.H. Neath WTP is supplied by a 0.9-meter diameter intake extending approximately 670 meters into Georgian Bay into the facility's low lift pump station. The low lift pump station contains 3 pumps, one of which. Raw water is screened, pre-chlorinated at the low lift pump station or at the mouth of the intake pipe during warmer weather for zebra mussel control., and pumped via the low lift pump station to the rapid mix tanks through twinned 35 centimetre diameter pipes, one for each of the two Plants.

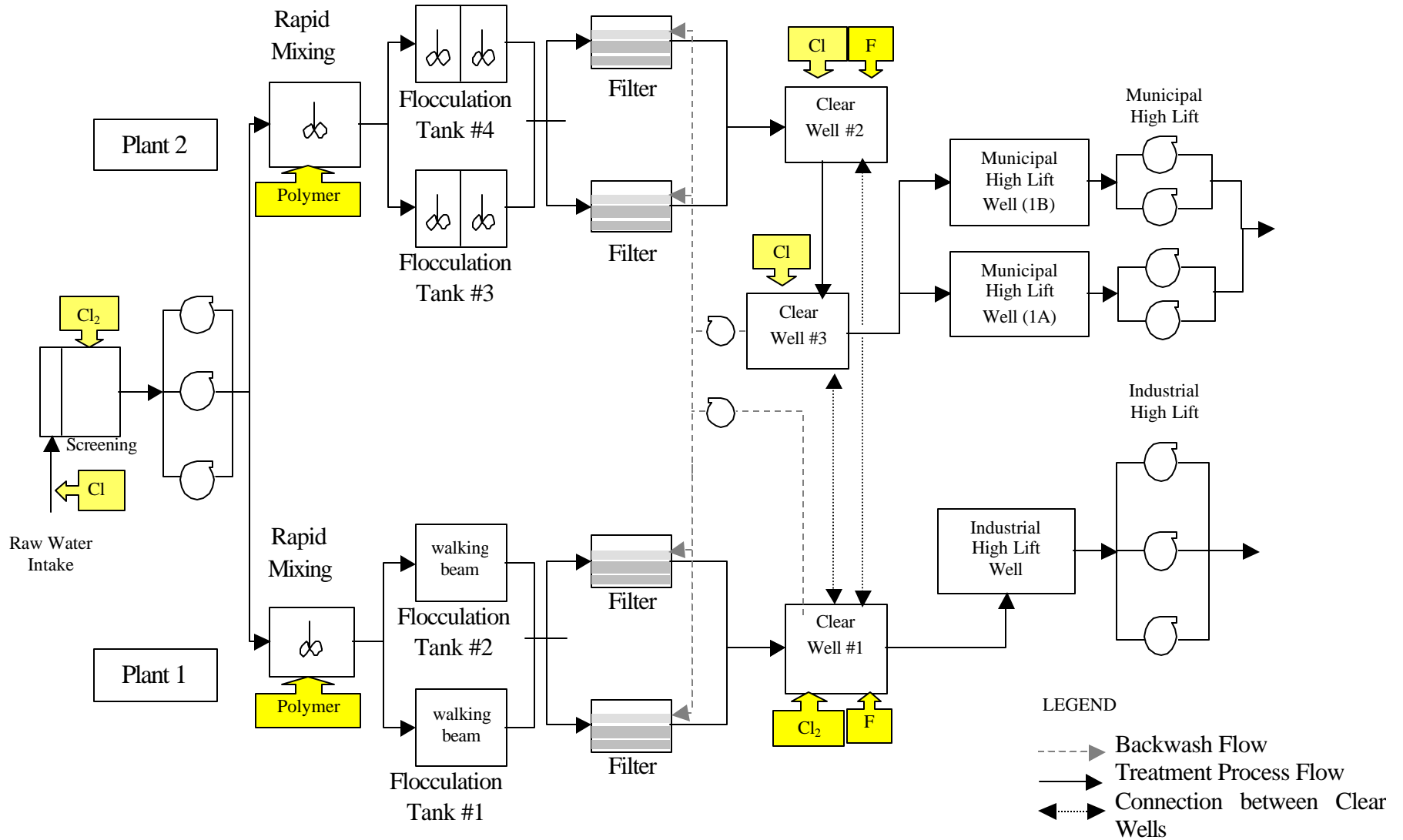
A coagulant, poly-aluminum chloride, is added to the raw water in the rapid mix tanks. Coagulated water from the rapid mix tanks is divided between the two parallel flocculation tanks in each Plant. Plant 1 uses walking beam flocculators and Plant 2 uses two stage tapered turbine mixing. Flocculation tank effluents are combined within each plant before being split between two parallel dual media filters for filtering. Filtered water from both Plants 1 and 2 is stored in Clear Wells 1 and 2, respectively, which are located below the process building. The treated water is post-chlorinated and fluoridated as it enters the Clear Wells.

Clear Wells 1, 2, and 3 are interconnected order to provide equal water level in all wells. Treated water from Clear Well 1 is directed to the Industrial High Lift Pump Well for distribution to the pressurized Industrial Supply System through three Industrial high lift pumps, one of which is equipped with an auxiliary diesel engine.. Treated water from Clear Well 1 flows into Clear Well 3 before it is directed into the Municipal High Lift Pump Wells for distribution to the municipal supply system. through four municipal high lift pumps that pump treated water to the relevant distribution systems.

Filters are backwashed on a regular basis using treated water from Clear Well 1 and 3 on an alternating duty. Wastewater from the backwash process is returned untreated to Georgian Bay.

The facility boasts a state of the art Supervised Control and Data Acquisition (SCADA) System. The SCADA System continuously monitors all unit processes within the plant. It offers remote plant operations capabilities and full monitoring and alarm capabilities to facilitate operator intervention, either manually or through the Control system.

Figure 1: Process Schematic



#### **4. Raw Water Quality**

The turbidity and pH of raw water are measured on-line in the Low Lift Pump Well and are monitored by the SCADA system. Raw water samples, taken from the intake pipe prior to entering the Low Lift Pumping Station, are analyzed at the in-plant laboratory for turbidity once per day and aluminum concentration once per week. Tests for colour are performed as needed, especially during the seasonal spring/fall high runoff period. In addition the facility participates in the Ministry of the Environment's Drinking Water Surveillance Program (DWSP) for analysis of raw water every six months, for approximately 200 water quality parameters including inorganics, organics, and pesticides.

#### **5. Treated Water Quality**

The treated water characteristics are monitored daily. The pH and chlorine residual of treated water are monitored by SCADA system at various points of the treatment process. Daily treated water samples are taken for in-plant laboratory analysis for fluoride and chlorine residual, as well as turbidity. Treated water is also tested for aluminum residual on a weekly basis. Treated water samples, from both the plant and distribution system, are taken twice per year for the Ministry of the Environment's DWSP as noted above. The DWSP samples are analyzed for approximately 200 parameters, including microbial, chemical, physical and radioactive water quality parameters.

#### **6. Terms You Need To Know**

Here are some terms you should know about before reading the information below.

##### **MAC**

Maximum Acceptable Concentration. This is a health-related Ontario drinking water standard established for contaminants that have known or suspected adverse health effects when above a certain concentration. The length of time the MAC can be exceeded without injury to health will depend on the nature and concentration of the parameter.

##### **IMAC**

Interim Maximum Acceptable Concentration. This is a health-related Ontario drinking water standard established for contaminants when there are insufficient toxicological data to establish a MAC with reasonable certainty, or when it is not practical to establish a MAC at the desired level.

##### **Parameter**

This is a substance that we sample and analyze in water.

**mg/l**

milligrams per litre. This is a measure of the concentration of a parameter in water, sometimes called parts per million (ppm).

**ug/l**

microgram per litre. This is a measure similar to mg/l but 1000 times smaller, sometimes called parts per billion (ppb).

**NTU**

Nephelometric Turbidity Unit. This is a unit measurement for turbidity in a water sample.

**n/a**

Not applicable. Some columns may contain an n/a which means there is not a required value.

**ns**

No sample. This means that if for some reason a sample was not taken, or the sample was damaged during transportation or not analyzed in a certain time period, there will not be a result.

**7. What is in your water?**

Water contains various microbes, metal salts, and organic and inorganic substances generally referred to as parameters. These parameters may be present in source water before the treatment process. Here is a description of the various groups of parameters.

*Microbiological parameters* such as bacteria may come from sewage plants, livestock operations, septic systems and wildlife. Microbiological quality is the most important aspect of drinking water quality because of its association with dangerous water-borne diseases which can strike quickly.

*Inorganic parameters* such as salts and metals can be naturally occurring or a result of urban storm run-off, industrial or domestic wastewater discharge, mining or agriculture. Some may be a result of treatment and distribution of water (for example, lead from old solder in pipes).

*Organic parameters* can be naturally occurring, but most organics of concern are synthetic. They originate from industrial discharges, urban storm run-off and other sources. Included in this group are pesticides that originate from both rural and urban areas. Some may originate from treatment of drinking water (for example, chlorination by-products such as trihalomethanes).

Our certificate of approval from the Ministry of the Environment sets monitoring requirements. The enclosed table summarizes all sample results from our monitoring program for the period from July 1 through to September 30, 2000. The presence of these substances does not necessarily mean that the water poses a health risk.

We are required to monitor only once a year for some parameters, so some of the data in the table are several months old. They are still representative of the water quality.

## 8. Compliance with the Ontario Drinking Water Standards

The following is a log of samples that have exceeded Ontario Drinking Water Standard this quarter.

### **Total Coliforms:**

One sample out of 121 taken in the distribution system was identified as an adverse sample. This occurred on August 14, 2000.

### **Action Taken:**

The location was resampled immediately following the adverse result as per the Ontario Drinking Water Standards. This subsequent sample met the Ontario Drinking Water Standards. Sampling procedures were reviewed and amended in response to this adverse sample and a new sampling procedure established.

## Laboratory Services

All laboratories performing Drinking Water Analysis within the Province of Ontario are to be accredited for such testing by February 16, 2001.

In addition to the DWSP previously referred to. The City of Owen Sound utilizes two laboratories for its Water Sampling Program.

MDS Laboratories provides microbiological testing and analysis.

MDS is fully accredited for this testing.

Philip Analytical Services provides analysis for inorganics, organics, pesticides & PCB's.

Philips Analytical Services is currently accredited for inorganics only. They have advised the City they will be have accreditation for all parameters by February 26, 2001, in compliance with the Ontario Drinking Water Standards.

## 9. Contacts

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The following information contains the analytical results for this quarter.

**NOTE: The majority of results for this quarter are taken from the Ministry of the Environment's DWSP. We have recently been informed by the Ministry that the DWSP sample results cannot be used for the Drinking Water Quality Quarterly Reports. This will be corrected for the next Quarterly Report.**

Microbiological Parameters	MAC or IMAC	# of Samples		# of Detectable Results		Sampling Date	Range		Exceeded ?	Typical Source of Contaminant
		Raw	Treated	Raw	Treated		Raw	Treated		
E. Coli (counts/100 ml)	*	13	121	1	0	07/01-09/30		n/a	NO	Indicates presence of faecal matter
Total Coliform (counts/100 ml)	*	13	121	2	1	07/01-09/30		n/a	YES	Indicates possible presence of faecal matter
* indicator of adverse water quality if detected in treated water										

Parameter Related to Microbiological Quality	MAC or IMAC	# of Samples		# of Detectable Results		Sampling Date	Range		Exceeded ?	Typical Source of Contaminant
		Raw	Treated	Raw	Treated		Raw	Treated		
Turbidity - Filter # 1 (NTU)	1.0	Continuous monitoring		Continuous monitoring		07/01-09/30	n/a	.02 - .11	NO	Indicates a small presence of particulates in water
Turbidity - Filter # 2 (NTU)	1.0	Continuous monitoring		Continuous monitoring		07/01-09/30	n/a	.02-.20	NO	Indicates a small presence of particulates in water
Turbidity - Filter # 3 (NTU)	1.0	Continuous monitoring		Continuous monitoring		07/01-09/30	n/a	.01-.18	NO	Indicates a small presence of particulates in water
Turbidity - Filter # 4 (NTU)	1.0	Continuous monitoring		Continuous monitoring		07/01-09/30	n/a	.02-.19	NO	Indicates a small presence of particulates in water
Turbidity - Finished (NTU)	1.0	Continuous monitoring		Continuous monitoring		07/01-09/30	n/a	.04-.21	NO	Indicates a small presence of particulates in water
Turbidity - Raw (NTU)	n/a	Continuous monitoring		Continuous monitoring		07/01-09/30	.40 - 2.82	n/a	n/a	Indicates a small presence of particulates in water
Free Chlorine-Plant-Pre	n/a	Continuous monitoring		Continuous monitoring		07/01-09/30	n/a	.06-.33	n/a	First defence of contaminants

(mg/l)										
Free Chlorine-Plant-Post 1 (mg/l)	n/a	Continuous monitoring	Continuous monitoring	07/01-09/30	n/a	.65-.77	n/a	n/a	Additional protection against contaminants	
Free Chlorine-Plant-Post 2 (mg/l)	n/a	Continuous monitoring	Continuous monitoring	07/01-09/30	n/a	.70-.76	n/a	n/a	Additional protection against contaminants	

Parameter Related to Microbiological Quality	MAC or IMAC	# of Samples		# of Detectable Results		Sampling Date	Range		Exceeded ?	Typical Source of Contaminant
		Raw	Treated	Raw	Treated		Raw	Treated		
Free Chlorine-System (mg/l)	n/a	n/a	108	n/a	108	07/01-09/30	n/a	.22-.34	n/a	Recommended level of at least .20 mg/l in system to maintain microbiological quality in system

Inorganic Parameters	MAC or IMAC	# of Samples		# of Detectable Results		Sampling Date	Range		Exceeded ?	Typical Source of Contaminant
		Raw	Treated	Raw	Treated		Raw	Treated		
Fluoride-Treated (mg/l)	1.5	n/a	92	n/a	92	07/01-09/30	n/a	.69-1.23	NO	Added to prevent tooth decay
Fluoride-Raw (mg/l)	n/a	12	n/a	12	n/a	07/01-09/30	.06-.19	n/a	n/a	naturally occurring in water
Arsenic (mg/l)	0.025	1	1	1	1	07/01-09/30	0.0004	0.0003	NO	Present at low concentrations in most surface water
Barium (mg/l)	1.0	1	1	1	1	07/01-09/30	0.012	0.012	NO	Commonly found in sedimentary rock such as limestone

Boron (mg/l)	5.0	1	1	1	1	07/01-09/30	0.008	0.01	NO	Most commonly found as borate which is in antiseptic agents
Cadmium (mg/l)	0.005	1	1	1	1	07/01-09/30	0.00001	0.00002	NO	Cadmium compounds found in electroplating waste are the common source of drinking water contamination
Chromium (mg/l)	0.05	1	1	1	1	07/01-09/30	0.008	0.0006	NO	Chromium is not consider toxic unless it is oxidized to its hexavalent form during chlorination
Copper (mg/l)	1.0	1	1	1	1	07/01-09/30	0.019	0.0024	NO	Occurs naturally in the environment but is rarely found in raw water
Iron (mg/l)	0.3	1	1	1	1	07/01-09/30	0.024	0.002	NO	Present in surface water as a result from anaerobic decay in sediments
Lead (mg/l)	0.01	1	1	1	1	07/01-09/30	0.00058	0.0002	NO	Present as a result of corrosion from lead pipes and domestic plumbing

Inorganic Parameters	MAC or IMAC	# of Samples		# of Detectable Results		Sampling Date	Range		Exceeded ?	Typical Source of Contaminant
		Raw	Treated	Raw	Treated		Raw	Treated		
Manganese (mg/l)	0.05	1	1	1	1	07/01-09/30	0.00258	0.00032	NO	Present in surface waters seasonally when anaerobic decay in sediments occur
Mercury (mg/l)	0.001	ns	ns	ns	ns	07/01-09/30	ns	ns	n/a	Sources of mercury in drinking water include air pollution, metal refining operation and from natural mineral deposits
Nitrate (mg/l)	10.0	1	1	1	1	07/01-09/30	0.272	0.276	NO	Present in water as a result of plant and animal matter, agricultural fertilizers and treated wastewater contamination
Nitrite (mg/l)	1.0	1	1	1	1	07/01-09/30	0.004	0.001	NO	Seldom present in surface water because it oxidizes fairly rapidly
Selenium	0.01	1	1	1	1	07/01-09/30	0.001	0	NO	Occurs naturally in surface waters as a result of geochemical

(mg/l)										processes such as weathering of rocks
Uranium (mg/l)	0.1	1	1	1	1	07/01-09/30	0.00017	0.00011	NO	Normally present in aqueous media as the uranyl ion

Volatile Organic Parameters	MAC or IMAC	# of Samples		# of Detectable Results		Sampling Date	Range		Exceeded ?	Typical Source of Contaminant
		Raw	Treated	Raw	Treated		Raw	Treated		
Benzene (mg/l)	0.005	1	1	1	1	07/01-09/30	0.0005	0.00005	NO	Present in gasoline and other refined petroleum products
Carbon Tetrachloride (mg/l)	0.005	1	1	1	1	07/01-09/30	0.0002	0.0002	NO	Found in ground water from old industrial sites where where chlorinated solvents were made or used
1,2-Dichlorobenzene (mg/l)	0.2	1	1	1	1	07/01-09/30	0.00005	0.00005	NO	Used in a variety of chemical blends such as degreasing agent
1,4-Dichlorobenzene (mg/l)	0.005	1	1	1	1	07/01-09/30	0.00005	0.00005	NO	Persistent synthetic material found in toilet pucks and mothballs
1,2-Dichloroethane (mg/l)	0.005	1	1	1	1	07/01-09/30	0.0001	0.0001	NO	Released into the environment via atmospheric emissions and discharge from industrial waste

Volatile Organic Parameters	MAC or IMAC	# of Samples		# of Detectable Results		Sampling Date	Range		Exceeded ?	Typical Source of Contaminant
		Raw	Treated	Raw	Treated		Raw	Treated		
1,1-Dichloroethylene (mg/l)	0.014	1	1	1	1	07/01-09/30	0.00005	0.00005	NO	Imported and used in the food packaging and the textile industry

Dichloromethane (mg/l)	0.05	1	1	1	1	07/01-09/30	0.0005	0.0005	NO	Used extensively as an industrial solvent and degreasing agent
Ethylbenzene (mg/l)	0.0024	1	1	1	1	07/01-09/30	0.00005	0.00005	NO	Used as a gasoline and paint additive
Monochlorobenzene	0.03	ns	ns	ns	ns	07/01-09/30	ns	ns	n/a	May be present in industrial discharges
Tetrachloroethylene (mg/l)	0.03	ns	ns	ns	ns	07/01-09/30	ns	ns	n/a	Found in ground water , primarily after improper disposal or dumping of cleaning solvents
Toluene (mg/l)	0.024	1	1	1	1	07/01-09/30	0.00005	0.00005	NO	May be found in industrial effluents
Trichloroethylene (mg/l)	0.05	ns	ns	ns	ns	07/01-09/30	ns	ns	n/a	Introduced into ground an surface water via industrial spills or illegal disposal of effluents
Trihalomethanes (mg/l)	0.1	1	1	1	1	07/01-09/30	0.0005	0.011	NO	The principle source of trihalomethanes in drinking water is the action of chlorine with organics left in the water after filtration
Vinyl Chloride (mg/l)	0.002	ns	ns	ns	ns	07/01-09/30	ns	ns	n/a	Used in making PVC plastic items such as water main pipes and other common plastic items
Xylene (mg/l)	0.3	1	1	1	1	07/01-09/30	0.00005	0.00005	NO	Used as a industrial solvent and in organic synthesis

Pesticides & PCBs Parameters	MAC or IMAC	# of Samples		# of Detectable Results		Sampling Date	Range		Exceeded ?	Typical Source of Contaminant
		Raw	Treated	Raw	Treated		Raw	Treated		
Alachlor (mg/l)	0.005	ns	1	ns	1	07/01-09/30	n/a	0.0005	NO	Introduced into ground and surface water during herbicide applications. Banned in Canada in 1985.
Aldicarb (mg/l)	9.0	ns	1	ns	1	07/01-09/30	ns	0.0025	NO	Carbamate insecticide which is highly soluble and has a high potential to enter ground water.
Aldrin + Dieldrin (mg/l)	0.0007	ns	ns	ns	ns	07/01-09/30	ns	ns	n/a	Aldrin & dieldrin are organochlorine pesticides used to control soil insects. Banned in Canada in 1994.
Atrazine (mg/l)	0.005	ns	1	ns	1	07/01-09/30	ns	0.00005	NO	Highly persistent herbicide that's moderately mobile in soil.
Azinphos-methyl (mg/l)	0.02	ns	ns	ns	ns	07/01-09/30	ns	ns	n/a	An organophosphorus insecticide used against foliage-feeding insects.
Bendiocarb (mg/l)	0.04	1	1	1	1	07/01-09/30	0.0015	0.0015	NO	Carbamate insecticide used to control specific insects in buildings and greenhouses.
Bromoxynil (mg/l)	0.005	ns	ns	ns	ns	07/01-09/30	ns	ns	n/a	Used in Ontario to control specific weed seedlings in grain crops.
Carbaryl (mg/l)	0.09	1	1	1	1	07/01-09/30	0.0002	0.0002	NO	Broad spectrum carbamate insecticide used in agriculture and forestry.
Carbofuran (mg/l)	0.09	1	1	1	1	07/01-09/30	0.002	0.002	NO	Carbamate insecticide used in agriculture for control of foliar pests.
Chlordane(Total)	0.007	ns	ns	ns	ns	07/01-09/30	ns	ns	n/a	Carbamate insecticide used in agriculture to control foliar pest.

(mg/l)										
Chlorpyrifos (mg/l)	.09	ns	ns	ns	ns	07/01-09/30	ns	ns	n/a	Organophosphorus insecticide used for the control of insects on agricultural crops for domestic use, and flea and tick control.
Cyanazine (mg/l)	0.01	ns	1	ns	1	07/01-09/30	ns	0.0001	NO	Triazine herbicide registered for control of weeds in crop and non-crop areas
Diazinon (mg/l)	0.02	ns	ns	ns	ns	07/01-09/30	ns	ns	n/a	Organophosphorous insecticide that is used to control foliar and soil dwelling pests.

Pesticides & PCBs Parameters	MAC or IMAC	# of Samples		# of Detectable Results		Sampling Date	Range		Exceeded ?	Typical Source of Contaminant
		Raw	Treated	Raw	Treated		Raw	Treated		
Dicamba (mg/l)	0.12	ns	ns	ns	ns	07/01-09/30	ns	ns	n/a	Benzoic acid herbicide used in lawn care.
2,4-Dichlorophenol (mg/l)	0.9	ns	ns	ns	ns	07/01-09/30	ns	ns	n/a	Highly odorous synthetic materials which are most often present in water due to the action of chlorine on phenolic precursors.
DDT (mg/l)	.03	ns	ns	ns	ns	07/01-09/30	ns	ns	n/a	Persistent in the environment and concerns with potential biomagnification resulting in environmental damage. Banned in 1988.
2,4-D (mg/l)	0.1	ns	ns	ns	ns	07/01-09/30	ns	ns	n/a	Herbicide used for control of broadleaf weeds in cereal crops and lawns.
Diclofop-methyl (mg/l)	0.009	ns	ns	ns	ns	07/01-09/30	ns	ns	n/a	Used in the control of annual grasses in vegetable crops. Relatively soluble in water.
Dimethoate (mg/l)	0.02	ns	ns	ns	ns	07/01-09/30	ns	ns	n/a	organophosphorous miticide and insecticide used for fly control in organophosphorous miticide and insecticide used for fly control in
Dinoseb	0.01	ns	ns	ns	ns	07/01-09/30	ns	ns	n/a	Contact herbicide and desiccant. Its no longer used in Ontario.

(mg/l)										
Diquat (mg/l)	0.07	ns	ns	ns	ns	07/01-09/30	ns	ns	n/a	Used primarily as an aquatic herbicide.
Diuron (mg/l)	0.15	ns	ns	ns	ns	07/01-09/30	ns	ns	n/a	Herbicide used to control vegetation in crop areas. Its moderately soluble in water.
Glyphosate (mg/l)	0.28	1	1	1	1	07/01-09/30	0.002	0.002	NO	Non-selective herbicide used for weed control. Its very soluble in water.
Heptachlor + heptachlor epoxide (mg/l)	0.003	ns	ns	ns	ns	07/01-09/30	ns	ns	n/a	Organochlorine insecticide once used in agriculture. Banned in 1969.
Lindane(Total) (mg/l)	0.004	ns	ns	ns	ns	07/01-09/30	ns	ns	n/a	Used in pharmaceutical preparations for human lice and mite shampoos.
Malathion (mg/l)	0.19	ns	ns	ns	ns	07/01-09/30	ns	ns	n/a	Insecticide use on fruits and vegetables. It has low mammalian toxicity.
Methoxychlor (mg/l)	0.9	ns	ns	ns	ns	07/01-09/30	ns	ns	n/a	Organochlorine insecticide that's non-persistent and non-accumulative in biological tissue.

Pesticides & PCBs Parameters	MAC or IMAC	# of Samples		# of Detectable Results		Sampling Date	Range		Exceeded ?	Typical Source of Contaminant
		Raw	Treated	Raw	Treated		Raw	Treated		
Metolachlor (mg/l)	0.05	ns	1	ns	1	07/01-09/30	ns	0.0005	NO	Selective herbicide used for pre-emergence and pre-plant weed control.
Metribuzin (mg/l)	0.08	ns	1	ns	1	07/01-09/30	ns	0.0001	NO	Triazine herbicide used to control grass infestations in agricultural crops.
Paraquat (mg/l)	0.01	ns	ns	ns	ns	07/01-09/30	ns	ns	n/a	Highly toxic herbicide used to control non-crop and industrial weeds.

Parathion (mg/l)	0.05	ns	ns	ns	ns	07/01-09/30	ns	ns	n/a	Organophosphorous insecticide used in agriculture to control foliar pests.
Pentachlorophenol (mg/l)	0.06	ns	ns	ns	ns	07/01-09/30	ns	ns	n/a	Used extensively as a pesticide and wood preservative.
Phorate (mg/l)	0.002	ns	ns	ns	ns	07/01-09/30	ns	ns	n/a	Insecticide use to control corn rootworm.
Picloram (mg/l)	0.19	ns	ns	ns	ns	07/01-09/30	ns	ns	n/a	Herbicide used for broadleaf weed and brush control. Can be persistent in soil for up to a year after application
PCB (mg/l)	0.003	ns	ns	ns	ns	07/01-09/30	ns	ns	n/a	Among the most persistent pollutants in the global ecosystem. They are no longer manufactured.
Prometryne (mg/l)	0.001	ns	1	ns	1	07/01-09/30	ns	0.00005	NO	Herbicide used selectively to control annual grasses and broadleaf weeds in crops and non-crops.
Simazine (mg/l)	0.01	ns	1	1	1	07/01-09/30	ns	0.00005	NO	Herbicide which is used for pre-emergency weed control in annual row crops.
Temephos (mg/l)	0.28	ns	ns	ns	ns	07/01-09/30	ns	ns	n/a	Insecticide used to control mosquito and blackfly larvae.
Terbufos (mg/l)	0.001	ns	ns	ns	ns	07/01-09/30	ns	ns	n/a	Insecticide used for insect control in corn.
2,3,4,6-Tetrachlorophenol (mg/l)	0.1	ns	ns	ns	ns	07/01-09/30	ns	ns	n/a	It is an aesthetic parameter. It has an unpleasant taste to the water.
Trichlorophenol (mg/l)	0.005	ns	ns	ns	ns	07/01-09/30	ns	ns	n/a	Used in the manufacturing of pesticides. It is an animal carcinogen but inadequate for human carcinogenicity.

Pesticides & PCBs Parameters	MAC or IMAC	# of Samples	# of Detectable Results	Sampling Date	Range	Exceeded ?	Typical Source of Contaminant
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		Raw	Treated	Raw	Treated		Raw	Treated		
Trifluralin (mg/l)	0.045	ns	ns	ns	ns	07/01-09/30	ns	ns	n/a	Herbicide used for weed control in summer fallow and for controlling annual grasses in wheat, barley and canola.
2,4,5-T (mg/l)	0.28	ns	ns	ns	ns	07/01-09/30	ns	ns	n/a	Herbicide that was once an important stem/foilage treatment for deciduous brush on road sides and power lines. No longer used in Can.