



OPTIONAL ANNUAL REPORT TEMPLATE

<b>Drinking-Water System Number:</b>	220002299
<b>Drinking-Water System Name:</b>	King City Water Supply System
<b>Drinking-Water System Owner:</b>	Regional Municipality of York
<b>Drinking-Water System Category:</b>	Large Municipal Residential
<b>Period being reported:</b>	January 1, 2008 to December 31, 2008

<p><b><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></b></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 [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;"> <p>Regional Municipality of York          Administrative Building          Transportation and Works Department          17250 Yonge Street          Newmarket, Ontario</p> </div>	<p><b><u>Complete for all other Categories.</u></b></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>
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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
King City Distribution System	260005138

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

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**

York Region operates two production wells servicing King City in the Township of King. Water withdrawal from each of the wells is regulated by a Permit to Take Water issued by the Ministry of the Environment.

Water treatment for King City wells includes the addition of chlorine for disinfection. Sodium silicate is also added to keep the iron in suspension so it does not precipitate out and stain plumbing fixtures and laundry. Fluoride is not added to the King City water supply.

There are two sampling locations for treated water: well #3 and well #4. Following treatment, the water enters the distribution system from a combined location downstream of the contact tank. There is currently one storage tank servicing the community of King City.

York Region is the wholesale supplier of water to the community of King City in the Township of King and is responsible for the supply, production, treatment and storage of water. The Township of King owns and operates the distribution system that delivers the water from the regional watermains to homes in King City.

**List all water treatment chemicals used over this reporting period**

Chlorine Gas  
Sodium Silicate

**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**

Some of the following expenditures represent only part of the total project cost.



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
Apr 28, 2008	Antimony as Sb	0.0089	Mg/L	Lab's error. Resampled but lab retested the original sample	May 2, 2008

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	101	0	0-1		
Treated	99	0	0	99	1-7
Distribution					

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 #)
Turbidity (Treated)	8760	0.064 – 3.960
Turbidity (Raw)	24	0.12 – 5.7
Chlorine	8760	0.065 – 2.897
Fluoride (If the DWS provides fluoridation)		

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

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



**Note: See attached results for Inorganic parameters.**

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony				
Arsenic				
Barium				
Boron				
Cadmium				
Chromium				
Lead				
Mercury				
Selenium				
Sodium				
Uranium				
Fluoride				
Nitrite				
Nitrate				

**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			
Distribution			

**Summary of Organic parameters sampled during this reporting period or the most recent sample results**

**Note: See attached results for Organic parameters (THM values in table below)**

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor				
Aldicarb				
Aldrin + Dieldrin				
Atrazine + N-dealkylated metabolites				
Azinphos-methyl				
Bendiocarb				
Benzene				
Benzo(a)pyrene				



Bromoxynil				
Carbaryl				
Carbofuran				
Carbon Tetrachloride				
Chlordane (Total)				
Chlorpyrifos				
Cyanazine				
Diazinon				
Dicamba				
1,2-Dichlorobenzene				
1,4-Dichlorobenzene				
Dichlorodiphenyltrichloroethane (DDT) + metabolites				
1,2-Dichloroethane				
1,1-Dichloroethylene (vinylidene chloride)				
Dichloromethane				
2,4 Dichlorophenol				
2,4-Dichlorophenoxy acetic acid (2,4-D)				
Diclofop-methyl				
Dimethoate				
Dinoseb				
Diquat				
Diuron				
Glyphosate				
Heptachlor + Heptachlor Epoxide				
Lindane (Total)				
Malathion				
Methoxychlor				
Metolachlor				
Metribuzin				
Monochlorobenzene				
Paraquat				
Parathion				
Pentachlorophenol				
Phorate				
Picloram				
Polychlorinated Biphenyls(PCB)				
Prometryne				
Simazine				
THM (NOTE: show latest annual average)				
Well #3		0.007	Mg/L	
Well #4		0.006	Mg/L	
Temephos				



Terbufos				
Tetrachloroethylene				
2,3,4,6-Tetrachlorophenol				
Triallate				
Trichloroethylene				
2,4,6-Trichlorophenol				
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)				
Trifluralin				
Vinyl Chloride				

York Region monitors another group of disinfection by-products called haloacetic acids (HAAs). There are no limits set for HAAs in Ontario Drinking Water Standards.

Haloacetic acid	Tower Mg/L June 30	Well #3 Mg/L June 30	Well #4 Mg/L June 30
Bromochloroacetic acid	<0.004	Out of Service	<0.004
Dibromoacetic acid	<0.004	Out of Service	<0.004
Dichloroacetic acid	<0.004	Out of Service	<0.004
Monobromoacetic acid	<0.004	Out of Service	<0.004
Monochloroacetic acid	<0.02	Out of Service	<0.02
Trichloroacetic acid	<0.004	Out of Service	<0.004

"<" indicates the result is below the Method Detection Limit

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)



Inorganics Test Results

Reading	Units	ODWS		23/01/2008	16/07/2008	15/10/2008
Antimony as Sb	mg/L	0.006	IMAC	< 0.0004	0.0004	0.0005
Arsenic as As	mg/L	0.025	IMAC	< 0.0004	0.0014	0.0008
Cadmium as Cd	mg/L	0.005	MAC	0.0001	< 0.0001	< 0.0001
Chromium as Cr	mg/L	0.05	MAC	0.0017	< 0.0001	< 0.0001
Fluoride as F	mg/L	0.8	MAC	0.12	0.15	0.09
Lead as Pb	mg/L	0.01	MAC	< 0.0007	0.002	0.0001
Nitrate as N	mg/L	10	MAC	< 0.01	< 0.03	< 0.03
Nitrite	mg/L	1	MAC	< 0.01	< 0.03	< 0.03
Selenium as Se	mg/L	0.01	MAC	< 0.002	< 0.0001	< 0.0001
Sodium as Na	mg/L	200	AO	8.81	6.5	8.8

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ODWS: Ontario Drinking Water Standard

MAC: Ontario Drinking Water Standard - Health Related (Maximum Acceptable Concentration)

AO: Ontario Drinking Water Standard - Non Health Related (Aesthetic Objective)

mg/L: milligrams per litre, parts permillion (ppm)



Organics Test Results

Reading	Units	ODWS		23/01/2008	16/07/2008	15/10/2008
1,1-dichloroethylene (vinylidene chloride)	mg/L	0.014	MAC	< 0.0003	< 0.0003	< 0.0003
1,2-(o-dcb) Dichlorobenzene	mg/L	0.2	MAC	< 0.0001	< 0.0001	< 0.0001
1,2-Dichloroethane	mg/L	0.005	IMAC	< 0.0001	< 0.0001	< 0.0001
1,4-(p-dcb) Dichlorobenzene	mg/L	0.005	MAC	< 0.0001	< 0.0001	< 0.0001
Benzene	mg/L	0.005	MAC	< 0.0001	< 0.0001	< 0.0001
Carbon Tetrachloride	mg/L	0.005	MAC	< 0.0002	< 0.0002	< 0.0002
Dichloromethane	mg/L	0.05	MAC	< 0.0005	< 0.0005	< 0.0005
Monochlorobenzene	mg/L	0.08	MAC	< 0.0001	< 0.0001	< 0.0001
Tetrachloroethylene (perchloroethylene)	mg/L	0.03	MAC	< 0.0003	< 0.0003	< 0.0003
Trichloroethene	mg/L	0.005	MAC	< 0.0001	< 0.0001	< 0.0001
Vinyl Chloride	mg/L	0.002	MAC	< 0.0002	< 0.0002	< 0.0002

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mg/L: milligrams per litre, parts permillion (ppm)



Inorganics Test Results

Reading	Units	ODWS		23/01/2008	16/04/2008	29/04/2008	16/07/2008	15/10/2008
Antimony as Sb	mg/L	0.006	IMAC	< 0.0004	0.0003	0.0004	0.0004	0.0003
Arsenic as As	mg/L	0.025	IMAC	< 0.0004	0.0007	0.0001	0.0005	0.0013
Barium as Ba	mg/L	1	MAC		0.196			
Boron as B	mg/L	5	IMAC		0.018			
Cadmium as Cd	mg/L	0.005	MAC	0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Chromium as Cr	mg/L	0.05	MAC	0.0012	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Fluoride as F	mg/L	0.8	MAC	0.12	0.12	0.11	0.13	0.15
Lead as Pb	mg/L	0.01	MAC	< 0.0007	0.0001	< 0.0001	0.0001	0.0007
Mercury as Hg	mg/L	0.001	MAC		< 0.00002			
Nitrate as N	mg/L	10	MAC	< 0.01	< 0.03	< 0.03	< 0.03	< 0.03
Nitrite	mg/L	1	MAC	< 0.01	< 0.03	< 0.03	< 0.03	< 0.03
Selenium as Se	mg/L	0.01	MAC	< 0.002	< 0.0001	0.0001	0.0001	< 0.0001
Sodium as Na	mg/L	200	AO	8.87	8.6	6.7	6.6	8.8
Uranium as U	mg/L	0.02	MAC		< 0.0001			

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Organics Test Results

Reading	Units	ODWS	23/01/2008	16/04/2008	24/04/2008	16/07/2008	15/10/2008
(DDT) + Metabolites	mg/L	0.03	MAC	< 0.000008			
1,1-dichloroethylene (vinylidene chloride)	mg/L	0.014	MAC	< 0.0003	< 0.0003	< 0.0003	< 0.0003
1,2-(o-dcb) Dichlorobenzene	mg/L	0.2	MAC	< 0.0001	< 0.0001	< 0.0001	< 0.0001
1,2-Dichloroethane	mg/L	0.005	IMAC	< 0.0001	< 0.0001	< 0.0001	< 0.0001
1,4-(p-dcb) Dichlorobenzene	mg/L	0.005	MAC	< 0.0001	< 0.0001	< 0.0001	< 0.0001
2,3,4,6-Tetrachlorophenol	mg/L	0.1	MAC	< 0.0005			
2,4,5-trichlorophenoxyacetic acid (2,4,5-T)	mg/L	0.28	MAC	< 0.0005			
2,4,6-Trichlorophenol	mg/L	0.005	MAC	< 0.0005			
2,4-Dichlorophenol	mg/L	0.9	MAC	< 0.0004			
2,4-dichlorophenoxyacetic acid (2,4-D)	mg/L	0.1	IMAC	< 0.0008			
Alachlor	mg/L	0.005	IMAC	< 0.0004			
Aldicarb	mg/L	0.009	MAC	< 0.0035			
Aldrin + Dieldrin	mg/L	0.0007	MAC	< 0.000006			
Atrazine + N-dealkylated metabolites	mg/L	0.005	IMAC	< 0.0002			
Azinphos-methyl	mg/L	0.02	MAC		< 0.0003		
Bendiocarb	mg/L	0.04	MAC	< 0.003			
Benzene	mg/L	0.005	MAC	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Benzo(a)pyrene	mg/L	0.00001	MAC	< 0.00001			
Bromoxynil	mg/L	0.005	IMAC	< 0.0004			
Carbaryl	mg/L	0.09	MAC	< 0.0002			
Carbofuran	mg/L	0.09	MAC	< 0.004			
Carbon Tetrachloride	mg/L	0.005	MAC	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Chlordane (Total)	mg/L	0.007	MAC	< 0.000006			
Chlorpyrifos	mg/L	0.09	MAC		< 0.0002		
Cyanazine	mg/L	0.01	IMAC	< 0.0003			
Diazinon	mg/L	0.02	MAC		< 0.0002		
Dicamba	mg/L	0.12	MAC	< 0.0004			
Dichloromethane	mg/L	0.05	MAC	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Diclofop-methyl	mg/L	0.009	MAC	< 0.0004			
Dimethoate	mg/L	0.02	IMAC		< 0.0003		
Dinoseb	mg/L	0.01	MAC	< 0.0005			
Diquat	mg/L	0.07	MAC		< 0.0001		
Diuron	mg/L	0.15	MAC	< 0.0002			
Glyphosate	mg/L	0.28	IMAC	< 0.002			
Heptachlor + Heptachlor Epoxide	mg/L	0.003	MAC	< 0.000008			
Lindane	mg/L	0.004	MAC	< 0.000005			
Malathion	mg/L	0.19	MAC		< 0.0002		
Methoxychlor	mg/L	0.9	MAC	< 0.000009			
Metolachlor	mg/L	0.05	IMAC	< 0.0002			
Metribuzin	mg/L	0.08	MAC	< 0.0003			
Monochlorobenzene	mg/L	0.08	MAC	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Paraquat	mg/L	0.01	IMAC		< 0.0001		
Parathion	mg/L	0.05	MAC		< 0.0002		



Organics Test Results

Reading	Units	ODWS		23/01/2008	16/04/2008	24/04/2008	16/07/2008	15/10/2008
Pentachlorophenol	mg/L	0.06	MAC		< 0.0004			
Phorate	mg/L	0.002	IMAC			< 0.0002		
Picloram	mg/L	0.19	IMAC		< 0.0007			
Polychlorinated Biphenyls (PCBs)	mg/L	0.003	IMAC		< 0.00002			
Prometryne	mg/L	0.001	IMAC		< 0.0002			
Simazine	mg/L	0.01	IMAC		< 0.0002			
Temephos	mg/L	0.28	IMAC			< 0.003		
Terbufos	mg/L	0.001	IMAC			< 0.0002		
Tetrachloroethylene (perchloroethylene)	mg/L	0.03	MAC	< 0.0003	< 0.0003		< 0.0003	< 0.0003
Triallate	mg/L	0.23	MAC		< 0.002			
Trichloroethene	mg/L	0.005	MAC	< 0.0001	< 0.0001		< 0.0001	< 0.0001
Trifluralin	mg/L	0.045	IMAC		< 0.000006			
Vinyl Chloride	mg/L	0.002	MAC	< 0.0002	< 0.0002		< 0.0002	< 0.0002

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