

In 2007 Windsor Utilities Commission produced 61,398,060 million litres of potable water for the use of the citizens of the City of Windsor, the Town of LaSalle as well as the Town of Tecumseh. The attached summary provides a detailed breakdown of the monthly production rates, the average day, peak day and peak hour for each of the months. The volume of water transferred to the Town of LaSalle and the Town of Tecumseh is also provided.

Under Ontario Reg. 170/03 a number of Schedules are presented that outline the requirements necessary to comply with the Safe Drinking Water Act (SDWA). We have highlighted the requirements of the applicable section of the regulation along with a statement of compliance or, if applicable, specific areas of non-compliance with the schedule requirements.

### **Schedule 1. Treatment Equipment**

Schedule 1 dictates that the owner of a drinking water system shall ensure that approved water treatment equipment, as specified in the facility certificate of approval, is provided and is in operation whenever water is being supplied for potable use. Further, the regulation requires that the equipment is being operated in a manner that achieves its design capabilities and that only certified operators are carrying out operation of the system.

In the calendar year 2007, this section of the regulations was fully complied with.

### **Schedule 6. Operational Checks, Sampling and Testing – General**

This schedule outlines the frequency of sampling and equipment checks, the requirement for chlorine residual testing to be carried out at the time microbiological samples are collected, the location at which samples are to be collected, the form of sampling to be undertaken as well as outlining the requirements for continuous monitoring equipment. The schedule also provides clarification on how samples are to be handled and recorded, as well as dictating the need for an appropriately accredited laboratory to carry out the sample analysis.

In the calendar year 2007, this section of the regulations was fully complied with.

### **Schedule 7. Operational Checks**

This schedule specifies the requirements for continuous monitoring equipment for free chlorine residual, turbidity and fluoride and the required location for this equipment. The regulation dictates the requirement for regular collection and analysis of samples by an appropriately certified individual.

In the calendar year 2007, this section of the regulation was fully complied with.

### **Schedule 10. Microbiological Sampling and Testing**

This schedule provides the requirements for sampling and testing of microbiological parameters.

The schedule states that for Large Municipal Systems serving a population over 100,000 people, the required monthly frequency of sampling is 100 distribution samples plus one

additional sample for every 10,000 people served, with at least three samples being taken in each week. Each of these samples are to be tested for *Escherichia coli* and total coliform, with at least 25% of the samples required to be tested for general bacteria population expressed as colony counts on a heterotrophic plate count. In Windsor's case, the required sampling frequency is 123 samples monthly. In 2007, 2,000 samples were collected and analysed, an average of 161 samples per month. Approximately 55% of the distribution samples were also analysed for heterotrophic plate count. In addition, each of these samples was tested for free chlorine residual at the time the sample was taken.

Schedule 10 states that a treated water sample must be taken at least once per week and tested for *Escherichia coli*, total coliform, and general bacteria population expressed as colony counts on a heterotrophic plate count. In Windsor's case, treated water samples are collected more or less on a daily basis and were tested by our own certified laboratory.

The schedule further states that a raw water sample must be taken at least once per week before any treatment is applied to the water and that the sample be tested for *Escherichia Coli* and total coliform. In Windsor's case, daily samples were collected and tested.

### **Schedule 13. Chemical Sampling and Testing**

This schedule provides the requirements for sample collection and testing for a variety of chemical components in drinking water. The requirements are outlined below along with the status of Windsor's sampling program.

#### Inorganics

One sample must be collected and tested every 12 months if the source is surface water and tested for every parameter set out in Schedule 23 (see attached).

In 2007 Windsor collected samples and tested for every parameter set out in Schedule 23 on a quarterly basis.

#### Lead

One sample must be collected and tested every 12 months for Lead.

Windsor collected samples and tested for lead in a treated water sample and a distribution sample on a quarterly basis.

#### Organics

One sample must be collected and tested every 12 months if the source is surface water and tested for every parameter set out in Schedule 24 (see attached).

During 2007 Windsor Utilities Commission collected samples and tested for every parameter set out in Schedule 24 on a quarterly basis.

### Trihalomethane (THM's)

For any system that provides chlorination, one distribution sample will be collected and tested for trihalomethanes every 3 months.

Windsor Utilities Commission collected samples and tested for trihalomethanes on a quarterly basis.

### Nitrates and Nitrites

The owner of a drinking-water system and the operating authority for the system shall ensure that at least one water sample is taken every three months and tested for nitrate and nitrite.

In 2007 Windsor Utilities Commission collected samples and tested for nitrates and nitrites on a quarterly basis.

### Sodium

The schedule stipulates that at least one water sample is taken every 60 months and tested for sodium.

Windsor Utilities Commission last collected and sampled for sodium in February of 2006.

## **Schedule 16. Reporting Adverse Test Results and Other Problems**

If a sample collected and tested indicates an adverse result as outlined in the regulations, the owner of a drinking water system must report the result to the Medical Officer of Health and the Spills Action Centre of the MOE. If an observation, other than an adverse test results indicates that a drinking water system is directing water that may not be adequately disinfected to users of the water system, the observation must be reported to the Medical Officer of Health and the Spills Action Centre of the MOE.

If a report is required under this section, an immediate report must be provided to a medical officer of health by speaking directly to a person at the MOH office or a person designated to be on call. In addition, an immediate report must be provided to the Ministry of the Environment by contacting the Ministry's Spills Action Centre.

These verbal reports of adverse water conditions must be verified by written notice within 24 hours to the Medical Officer of Health and the Ministry of the Environment specifying the nature of the adverse result, actions being taken or observation and what corrective action is being taken.

Within seven days of resolution of a problem, a follow up written notice is to be provided outlining the resolution that gave rise to the adverse result report.

In 2007, there were 46 adverse incidents requiring notification of the Medical Officer of Health and the Ministry of Environment. Of these, 23 resulted from Category 3 service line breaks (contamination of service line due to break with known or suspected contamination), 5 resulted from Category 3 water main breaks (contamination of water main due to break with known or suspected contamination), 2 resulted from the presence of bacteria in treated water samples, 15

resulted from free chlorine being less than 0.05 mg/L within the distribution system, and 1 incident arose as a result of the initial lead sampling testing.

In all situations where it was determined that there was an adverse result, notification was made to the local Medical Officer of Health and the MOE.

### **Schedule 17. Corrective Action**

This schedule outlines required corrective action to be followed with the determination of an adverse result requiring notification.

In all cases, the required corrective action was followed as directed by the Medical Officer of Health.

### **Schedule 22. Summary Reports for Municipalities**

Not later than March 31 of each year, a summary report must be prepared for the preceding calendar year and submitted to members of municipal council and members of a municipal services board if one exists.

The submission of this report fulfils the requirement for this section of the regulations.

Tables summarizing 2007 treated water volume, 2007 volume as a percentage of approved plant capacity, 2007 microbiological sample counts, 2007 distribution chlorine residuals and 2007 operational parameters are attached hereto for review.

A copy of the schedule 23 (inorganic test parameters) and schedule 24 (organic test parameters) are attached for information, along with the 2007 Annual Report as previously submitted and as required by the regulation.

**Table 1  
2007 Treated Water Volume**

<b>MONTH</b>	<b>Total Pumped Volume ML</b>	<b>Daily Average Volume ML</b>	<b>Maximum Daily Volume ML</b>	<b>Minimum Daily Volume ML</b>	<b>Instantaneous Peak Volume ML</b>	<b>Town of Lasalle Volume ML</b>	<b>Town of Tecumseh Volume ML</b>	<b>City of Windsor Volume ML</b>			
<b>JANUARY</b>	4,705	151.8	31	165.0	1	141.2	28	231.5	207.1	288.7	4209.4
<b>FEBRUARY</b>	4,578	163.5	28	169.0	1	154.7	18	242.0	186.9	233.5	4157.8
<b>MARCH</b>	4,933	159.1	16	168.0	31	146.4	5	233.8	184.9	248.6	4499.2
<b>APRIL</b>	4,579	152.6	24	163.1	7	137.5	22	242.5	193.0	263.4	4122.9
<b>MAY</b>	5,092	164.3	31	202.5	21	148.0	31	267.0	232.0	329.9	4530.1
<b>JUNE</b>	6,185	206.2	26	255.8	5	154.3	25	367.1	313.2	316.4	5555.4
<b>JULY</b>	6,496	209.5	28	244.0	28	178.1	9	359.3	353.5	327.9	5814.6
<b>AUGUST</b>	5,979	192.9	2	234.5	26	161.7	2	324.4	302.6	363.1	5313.5
<b>SEPTEMBER</b>	5,249	175.0	5	192.3	15	158.0	5	256.8	314.9	386.0	4548.0
<b>OCTOBER</b>	4,772	153.9	8	167.9	27	140.0	5	240.0	324.6	551.1	3896.0
<b>NOVEMBER</b>	4,437	147.9	22	157.3	16	139.1	7	222.0	250.9	298.9	3886.9
<b>DECEMBER</b>	4,393	141.7	10	152.8	9	123.7	14	220.1	256.4	309.9	3826.7
<b>TOTAL</b>	<b>61,398</b>								<b>3,120.0</b>	<b>3,917.3</b>	<b>54,360.7</b>
<b>AVERAGE</b>	<b>168.2</b>								<b>8.5</b>	<b>10.7</b>	<b>148.9</b>

W07 Pumpage Reports 2007

**Note: Volumes reported in megalitres (ML)**

**Table 2**  
**2007 Volume as a Percentage of Approved Plant Capacity**

Date	January		February		March		April		May		June		July		August		September		October		November		December	
	Average Daily Flow (MLD)	Plant Capacity %	Average Daily Flow (MLD)	Plant Capacity %	Average Daily Flow (MLD)	Plant Capacity %	Average Daily Flow (MLD)	Plant Capacity %	Average Daily Flow (MLD)	Plant Capacity %	Average Daily Flow (MLD)	Plant Capacity %	Average Daily Flow (MLD)	Plant Capacity %	Average Daily Flow (MLD)	Plant Capacity %	Average Daily Flow (MLD)	Plant Capacity %	Average Daily Flow (MLD)	Plant Capacity %	Average Daily Flow (MLD)	Plant Capacity %	Average Daily Flow (MLD)	Plant Capacity %
1	141.2	40%	154.7	44%	165.4	47%	149.4	43%	154.2	44%	187.9	54%	190.2	54%	237.6	68%	166.9	48%	163.4	47%	147.9	42%	139.8	40%
2	145.1	42%	167.2	48%	159.7	46%	150.4	43%	155.8	45%	186.9	54%	204.9	59%	234.5	67%	169.8	49%	162.8	47%	141.7	41%	134.9	39%
3	151.7	43%	156.7	45%	164.4	47%	158.1	45%	155.2	44%	162.0	46%	210.1	60%	243.4	70%	182.1	52%	163.1	47%	140.1	40%	150.6	43%
4	149.0	43%	159.4	46%	157.1	45%	146.4	42%	164.0	47%	162.2	46%	187.4	54%	229.6	66%	183.2	53%	160.6	46%	142.4	41%	144.3	41%
5	146.8	42%	166.0	48%	163.5	47%	147.3	42%	155.2	44%	154.3	44%	203.0	58%	174.3	50%	192.3	55%	166.5	48%	145.8	42%	142.2	41%
6	143.6	41%	165.8	48%	167.3	48%	144.3	41%	152.1	44%	162.6	47%	206.3	59%	188.9	54%	197.0	56%	162.3	47%	145.3	42%	135.8	39%
7	141.8	41%	163.2	47%	163.4	47%	137.4	39%	162.5	47%	185.3	53%	218.3	63%	189.1	54%	180.2	52%	157.7	45%	155.2	44%	148.4	43%
8	149.8	43%	167.3	48%	164.8	47%	139.3	40%	168.3	48%	182.1	52%	235.2	67%	198.5	57%	179.3	51%	167.9	48%	144.9	42%	147.5	42%
9	153.5	44%	162.9	47%	165.3	47%	152.5	44%	159.3	46%	180.8	52%	242.9	70%	181.2	52%	169.1	48%	155.0	44%	148.5	43%	123.7	35%
10	160.3	46%	164.8	47%	154.7	44%	152.2	44%	159.1	46%	191.4	55%	242.6	70%	188.8	54%	197.2	57%	160.3	46%	146.1	42%	158.5	45%
11	147.0	42%	160.8	46%	149.3	43%	152.7	44%	167.5	48%	202.2	58%	244.0	70%	188.0	54%	170.6	49%	154.3	44%	141.3	40%	150.4	43%
12	146.7	42%	167.0	48%	163.2	47%	150.1	43%	153.8	44%	210.0	60%	235.7	68%	189.3	54%	164.7	47%	150.3	43%	148.6	43%	146.0	42%
13	145.7	42%	163.9	47%	159.5	46%	159.3	46%	148.7	43%	218.1	62%	235.7	68%	205.9	59%	163.4	47%	146.6	42%	151.4	43%	152.2	44%
14	143.9	41%	158.8	45%	164.8	47%	151.0	43%	161.2	46%	226.9	65%	200.3	57%	206.6	59%	167.8	48%	146.3	42%	153.5	44%	143.3	41%
15	153.0	44%	159.1	46%	160.6	46%	147.0	42%	174.2	50%	232.5	67%	232.6	67%	200.4	57%	158.0	45%	158.5	45%	154.1	44%	148.0	42%
16	148.2	42%	167.0	48%	168.0	48%	156.9	45%	155.6	45%	227.5	65%	222.8	64%	210.7	60%	159.4	46%	154.7	44%	151.8	43%	150.4	43%
17	152.2	44%	160.9	46%	161.2	46%	153.7	44%	151.6	43%	220.4	63%	184.8	53%	214.6	61%	172.4	49%	153.8	44%	139.1	40%	152.5	44%
18	155.5	45%	161.1	46%	153.2	44%	156.8	45%	155.0	44%	247.2	71%	203.5	58%	198.1	57%	178.1	51%	160.0	46%	156.3	45%	148.6	43%
19	152.5	44%	165.1	47%	159.8	46%	161.3	46%	150.5	43%	204.5	59%	189.1	54%	164.9	47%	183.8	53%	149.4	43%	153.3	44%	149.8	43%
20	151.6	43%	166.2	48%	162.7	47%	159.9	46%	151.7	43%	213.8	61%	184.1	53%	172.7	49%	189.1	54%	147.5	42%	149.2	43%	143.1	41%
21	152.6	44%	167.8	48%	152.7	44%	162.9	47%	148.0	42%	217.9	62%	200.0	57%	172.9	50%	177.9	51%	155.7	45%	155.2	44%	150.6	43%
22	155.9	45%	159.8	46%	161.4	46%	158.0	45%	172.5	49%	229.4	66%	206.6	59%	175.2	50%	183.9	53%	153.2	44%	157.3	45%	136.3	39%
23	154.2	44%	168.1	48%	155.3	45%	162.8	47%	189.2	54%	234.3	67%	225.3	65%	178.0	51%	176.2	50%	149.3	43%	152.8	44%	138.9	40%
24	156.3	45%	166.0	48%	155.1	44%	163.1	47%	191.0	55%	231.7	66%	204.6	59%	177.9	51%	188.4	54%	148.6	43%	144.2	41%	138.3	40%
25	152.6	44%	166.7	48%	159.6	46%	152.6	44%	184.0	53%	245.2	70%	196.2	56%	205.6	59%	182.6	52%	147.8	42%	148.1	42%	127.3	36%
26	159.4	46%	169.0	48%	161.3	46%	148.7	43%	154.4	44%	255.8	73%	183.6	53%	161.7	46%	166.9	48%	147.0	42%	151.9	44%	128.0	37%
27	151.1	43%	162.7	47%	158.1	45%	149.9	43%	149.9	43%	219.3	63%	181.7	52%	178.8	51%	161.6	46%	140.0	40%	146.6	42%	138.9	40%
28	164.0	47%	160.3	46%	148.2	42%	146.8	42%	171.5	49%	191.5	55%	178.1	51%	174.4	50%	165.5	47%	141.4	41%	150.3	43%	136.1	39%
29	161.3	46%			155.2	44%	151.7	43%	180.7	52%	202.0	58%	196.5	56%	187.2	54%	161.7	46%	155.4	45%	146.7	42%	132.4	38%
30	157.5	45%			150.7	43%	157.0	45%	191.9	55%	197.3	57%	223.2	64%	174.3	50%	160.1	46%	147.6	42%	144.1	41%	125.9	36%
31	164.6	47%			146.4	42%			202.5	58%			226.8	65%	175.9	50%			144.7	41%			130.5	37%

**Note:** All flows in megaliters per day (MLD)

**Table 3**  
**2007 Microbiological Sample Count**

Month	January	February	March	April	May	June	July	August	September	October	November	December
DISTRIBUTION	166	152	184	167	186	162	165	166	156	176	166	154
TREATED	296	333	324	263	305	222	301	312	260	222	227	175
RAW	66	60	42	18	24	20	21	22	19	21	22	17
TOTAL	528	545	550	448	515	404	487	500	435	419	415	346

**Table 4  
2007 Distribution Chlorine Residuals**

**JANUARY TO MARCH 2007**

		W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12	W13	W14	W15	W16	W17	W18
<b>Jan</b>	<b>HIGH</b>	1.14	1.22	1.23	1.01	0.51	1.12	0.83	1.27	1.43	1.23	1.06	1.13	1.17	1.04	0.66	0.90	0.64	0.86
	<b>LOW</b>	0.90	0.98	0.90	0.65	0.33	0.89	0.60	0.98	1.14	0.96	0.87	0.87	0.90	0.61	0.33	0.66	0.43	0.70
	<b>Avg</b>	1.02	1.11	1.11	0.86	0.43	0.98	0.72	1.10	1.29	1.07	0.95	1.02	1.06	0.74	0.53	0.81	0.57	0.77
<b>Feb</b>	<b>HIGH</b>	1.15	1.26	1.23	0.97	0.61	1.15	0.91	1.31	1.46	1.27	1.18	1.10	1.16	1.14	0.99	0.97	0.85	0.98
	<b>LOW</b>	1.03	0.60	0.57	0.81	0.38	0.95	0.37	1.01	1.17	0.84	0.81	1.02	0.98	0.82	0.46	0.75	0.55	0.78
	<b>AVG</b>	1.08	1.04	1.03	0.91	0.52	1.03	0.72	1.12	1.33	1.07	0.98	1.07	1.07	0.98	0.62	0.86	0.69	0.89
<b>Mar</b>	<b>HIGH</b>	1.23	1.22	1.21	1.04	0.80	1.14	0.95	1.31	1.52	1.15	1.09	1.14	1.25	1.16	0.69	0.95	0.81	1.03
	<b>LOW</b>	0.95	1.01	1.01	0.85	0.55	0.99	0.73	1.01	1.22	0.77	0.93	1.01	0.99	0.24	0.44	0.72	0.66	0.83
	<b>AVG</b>	1.12	1.09	1.08	0.95	0.65	1.07	0.84	1.12	1.33	0.99	1.02	1.09	1.12	0.98	0.59	0.89	0.74	0.92
<b>Quarterly Avg</b>		<b>1.07</b>	<b>1.08</b>	<b>1.07</b>	<b>0.91</b>	<b>0.54</b>	<b>1.03</b>	<b>0.77</b>	<b>1.10</b>	<b>1.31</b>	<b>1.04</b>	<b>0.99</b>	<b>1.06</b>	<b>1.08</b>	<b>0.90</b>	<b>0.58</b>	<b>0.85</b>	<b>0.67</b>	<b>0.86</b>

**APRIL TO JUNE 2007**

		W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12	W13	W14	W15	W16	W17	W18
<b>Apr</b>	<b>HIGH</b>	1.23	1.25	1.23	0.99	0.86	1.16	0.91	1.27	1.52	1.27	1.11	1.18	1.22	1.06	0.72	1.01	1.15	0.97
	<b>LOW</b>	0.66	1.05	1.08	0.73	0.56	0.75	0.40	0.91	1.14	0.32	0.67	0.78	0.85	0.24	0.39	0.64	0.53	0.74
	<b>AVG</b>	1.08	1.14	1.16	0.88	0.65	1.02	0.78	1.14	1.31	1.04	0.98	1.02	1.03	0.81	0.57	0.87	0.72	0.88
<b>May</b>	<b>HIGH</b>	1.19	1.33	1.37	0.94	0.71	1.14	0.92	1.31	1.35	1.23	1.09	1.14	1.15	1.14	0.83	0.99	0.71	0.95
	<b>LOW</b>	0.74	1.01	0.96	0.68	0.48	0.88	0.68	0.92	1.25	0.90	0.81	0.46	0.75	0.66	0.41	0.72	0.38	0.63
	<b>AVG</b>	0.94	1.17	1.13	0.86	0.60	1.03	0.81	1.15	1.27	1.06	0.93	0.97	1.04	0.89	0.59	0.81	0.55	0.77
<b>Jun</b>	<b>HIGH</b>	1.00	1.20	1.12	1.04	0.66	1.11	0.84	1.30	1.38	1.12	0.94	1.86	1.06	1.03	0.82	0.84	1.09	0.80
	<b>LOW</b>	0.74	0.97	0.92	0.74	0.46	0.81	0.63	1.10	1.18	0.97	0.75	0.87	0.92	0.71	0.31	0.65	0.49	0.67
	<b>AVG</b>	0.84	1.06	1.02	0.87	0.59	0.98	0.77	1.19	1.28	1.03	0.85	1.12	1.01	0.86	0.61	0.76	0.77	0.73
<b>Quarterly Avg</b>		<b>0.95</b>	<b>1.13</b>	<b>1.11</b>	<b>0.87</b>	<b>0.61</b>	<b>1.01</b>	<b>0.79</b>	<b>1.16</b>	<b>1.29</b>	<b>1.04</b>	<b>0.92</b>	<b>1.04</b>	<b>1.02</b>	<b>0.87</b>	<b>0.60</b>	<b>0.81</b>	<b>0.68</b>	<b>0.79</b>

**Table 4  
2007 Distribution Chlorine Residuals**

**JULY TO SEPTEMBER 2007**

		W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12	W13	W14	W15	W16	W17	W18
<b>Jul</b>	<b>HIGH</b>	0.87	1.22	1.20	0.95	0.63	1.03	0.85	1.28	1.39	1.10	0.96	1.33	1.22	0.75	0.74	0.83	1.00	0.87
	<b>LOW</b>	0.62	1.01	0.97	0.52	0.45	0.80	0.55	1.10	1.16	0.84	0.75	0.97	0.87	0.54	0.40	0.63	0.37	0.55
	<b>AVG</b>	0.74	1.11	1.07	0.77	0.55	0.92	0.72	1.19	1.29	0.99	0.88	1.10	1.03	0.67	0.62	0.77	0.72	0.71
<b>Aug</b>	<b>HIGH</b>	0.96	1.28	1.30	1.11	0.80	1.25	0.86	1.31	1.39	1.12	0.99	1.33	1.25	1.03	0.68	0.95	1.22	1.06
	<b>LOW</b>	0.74	1.12	1.04	0.49	0.37	1.01	0.52	1.13	1.15	0.48	0.86	0.96	0.99	0.67	0.30	0.75	0.41	0.69
	<b>AVG</b>	0.85	1.22	1.18	0.91	0.56	1.09	0.70	1.22	1.28	1.00	0.91	1.16	1.08	0.86	0.54	0.80	0.83	0.83
<b>Sep</b>	<b>HIGH</b>	0.91	1.30	1.25	1.19	0.68	1.22	0.85	1.33	1.40	1.22	1.06	1.33	1.14	1.08	0.72	0.85	0.56	0.84
	<b>LOW</b>	0.75	1.09	1.03	0.91	0.44	0.88	0.67	1.02	1.23	1.08	0.91	1.10	0.83	0.67	0.13	0.65	0.35	0.55
	<b>AVG</b>	0.84	1.18	1.16	1.06	0.56	1.06	0.76	1.22	1.33	1.13	0.99	1.22	1.06	0.90	0.53	0.76	0.45	0.74
<b>Quarterly Avg</b>		<b>0.81</b>	<b>1.17</b>	<b>1.14</b>	<b>0.91</b>	<b>0.56</b>	<b>1.01</b>	<b>0.73</b>	<b>1.21</b>	<b>1.29</b>	<b>1.04</b>	<b>0.92</b>	<b>1.15</b>	<b>1.06</b>	<b>0.80</b>	<b>0.56</b>	<b>0.78</b>	<b>0.67</b>	<b>0.76</b>

**OCTOBER TO DECEMBER 2007**

		W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12	W13	W14	W15	W16	W17	W18
<b>Oct</b>	<b>HIGH</b>	0.94	1.30	1.36	1.16	0.67	1.20	0.84	1.32	1.43	1.27	1.11	1.32	1.22	1.46	0.91	0.94	0.55	0.88
	<b>LOW</b>	0.85	1.19	1.16	1.00	0.40	0.97	0.64	1.02	1.25	1.06	0.92	1.21	1.01	0.63	0.40	0.68	0.45	0.69
	<b>AVG</b>	0.91	1.20	1.25	1.08	0.53	1.10	0.75	1.25	1.32	1.17	0.99	1.25	1.14	0.90	0.58	0.79	0.50	0.79
<b>Nov</b>	<b>HIGH</b>	1.19	1.27	1.32	1.14	0.66	1.11	0.91	1.32	1.41	1.25	1.11	1.37	1.23	1.28	1.09	0.91	0.71	0.92
	<b>LOW</b>	0.83	1.14	1.05	0.92	0.53	0.97	0.64	1.11	1.20	1.10	0.87	1.12	1.01	0.68	0.69	0.67	0.56	0.80
	<b>AVG</b>	0.93	1.20	1.19	1.02	0.59	1.05	0.79	1.22	1.31	1.16	0.99	1.22	1.11	0.99	0.87	0.82	0.63	0.86
<b>Dec</b>	<b>HIGH</b>	0.94	1.23	1.19	1.05	1.05	1.11	0.90	1.25	1.72	1.28	1.02	1.37	1.14	0.91	1.10	0.84	1.02	0.87
	<b>LOW</b>	0.84	1.11	1.08	0.94	0.49	0.90	0.72	1.06	1.20	1.03	0.91	1.01	1.02	0.63	0.93	0.71	0.62	0.71
	<b>AVG</b>	0.91	1.16	1.12	0.99	0.72	1.01	0.81	1.13	1.32	1.10	0.97	1.13	1.10	0.75	1.00	0.78	0.77	0.79
<b>Quarterly Avg</b>		<b>0.92</b>	<b>1.19</b>	<b>1.20</b>	<b>1.03</b>	<b>0.60</b>	<b>1.06</b>	<b>0.78</b>	<b>1.21</b>	<b>1.32</b>	<b>1.15</b>	<b>0.99</b>	<b>1.20</b>	<b>1.12</b>	<b>0.90</b>	<b>0.80</b>	<b>0.80</b>	<b>0.61</b>	<b>0.81</b>

(.05 mg/L - minimum standard per Ministry of Environment)

(.20 mg/L - minimum WUC standard)

**Table 5  
2007 Operational Parameters**

		JANUARY			FEBRUARY			MARCH			PLANT PARAMETERS HIGH LOW VALUES		M.O.E. MAC		OPERATIONAL GUIDELINE	
		HIGH	LOW	AVG.	HIGH	LOW	AVG.	HIGH	LOW	AVG.			HIGH <sup>(1)</sup>	LOW	HIGH <sup>(2)</sup>	LOW
FLUORIDE <sup>(1)</sup>	mg/L	0.71	0.59	0.64	0.73	0.61	0.65	0.72	0.58	0.63	0.75	0.55	1.50	0.00	n/a	
COLOUR <sup>(2)</sup>	TCU	<1	<1	<1	<1	<1	<1	<1	<1	<1	5.00	0.00	n/a		<15	
ALUMINUM <sup>(1)</sup>	ppb	66	18	35	35	16	24	39	13	19	100.00	0.00	100.00	0.00	n/a	
pH <sup>(2)</sup>		7.10	6.67	6.88	7.10	6.86	6.94	7.13	6.82	6.94	7.30	6.50			8.50	6.50
TURBIDITY <sup>(1)</sup>	NTU	0.220	0.060	0.097	0.080	0.050	0.060	0.080	0.050	0.064	1.00	0.00	1.00	0.00	n/a	
HARDNESS <sup>(2)</sup>	mg/L	157	102	127	138	106	118	132	102	110	100.00	80.00	n/a		100.00	80.00
TEMPERATURE	°C	7.1	0.2	2.1	1.2	0.1	0.5	7.0	0.2	1.9			n/a		<15 °C	
ODOUR/TASTE		(---)	(---)	(---)	(---)	(---)	(---)	(---)	(---)	(---)	in-offensive		n/a		in-offensive	
ALKALINITY <sup>(2 and 3)</sup>	mg/L	122	83	99	104	84	95	102	80	87	500	30	n/a		500	30
CHLORINE RESIDUAL <sup>(1)</sup>	mg/L	1.41	1.18	1.29	1.37	1.26	1.32	1.42	1.22	1.31	1.50	0.80	4.00	0.05	n/a	

		APRIL			MAY			JUNE			PLANT PARAMETERS HIGH LOW VALUES		M.O.E. MAC		OPERATIONAL GUIDELINE	
		HIGH	LOW	AVG.	HIGH	LOW	AVG.	HIGH	LOW	AVG.			HIGH <sup>(1)</sup>	LOW	HIGH <sup>(2)</sup>	LOW
FLUORIDE <sup>(1)</sup>	mg/L	0.73	0.58	0.66	0.78	0.55	0.64	0.73	0.58	0.64	0.75	0.55	1.50	0.00	n/a	
COLOUR <sup>(2)</sup>	TCU	<1	<1	<1	<1	<1	<1	<1	<1	<1	5.00	0.00	n/a		<15	
ALUMINUM <sup>(1)</sup>	ppb	38	5	19	61	10	32	153	22	62	100.00	0.00	100.00	0.00	n/a	
pH <sup>(2)</sup>		7.14	6.72	6.93	7.16	6.75	6.98	7.27	6.82	7.05	7.30	6.50			8.50	6.50
TURBIDITY <sup>(1)</sup>	NTU	0.115	0.050	0.068	0.110	0.030	0.069	0.085	0.030	0.059	1.00	0.00	1.00	0.00	n/a	
HARDNESS <sup>(2)</sup>	mg/L	150	104	121	174	102	111	110	102	105	100.00	80.00	n/a		100.00	80.00
TEMPERATURE	°C	10.7	3.4	6.7	17.7	11.2	13.9	22.5	15.8	19.9			n/a		<15 °C	
ODOUR/TASTE		(---)	(---)	(---)	(---)	(---)	(---)	(---)	(---)	(---)	in-offensive		n/a		in-offensive	
ALKALINITY <sup>(2 and 3)</sup>	mg/L	124	83	98	130	82	89	88	76	83	500	30	n/a		500	30
CHLORINE RESIDUAL <sup>(1)</sup>	mg/L	1.40	1.19	1.31	1.43	1.18	1.31	1.47	1.20	1.32	1.50	0.80	4.00	0.05	n/a	

**Table 5  
2007 Operational Parameters**

	JULY			AUGUST			SEPTEMBER			PLANT PARAMETERS HIGH LOW VALUES	M.O.E. MAC		OPERATIONAL GUIDELINE	
	HIGH	LOW	AVG.	HIGH	LOW	AVG.	HIGH	LOW	AVG.		HIGH <sup>(1)</sup>	LOW	HIGH <sup>(2)</sup>	LOW
<b>FLUORIDE</b> <sup>(1)</sup> <b>mg/L</b>	0.68	0.54	0.63	0.70	0.59	0.64	0.71	0.59	0.65	<b>0.75</b>	<b>0.55</b>	1.50	0.00	n/a
<b>COLOUR</b> <sup>(2)</sup> <b>TCU</b>	<1	<1	<1	<1	<1	<1	<1	<1	<1	<b>5.00</b>	<b>0.00</b>	n/a		<15
<b>ALUMINUM</b> <sup>(1)</sup> <b>ppb</b>	250	38	94	278	7	109	116	33	75	<b>100.00</b>	<b>0.00</b>	100.00	0.00	n/a
<b>pH</b> <sup>(2)</sup>	7.30	6.96	7.11	7.19	6.96	7.08	7.48	6.99	7.10	<b>7.30</b>	<b>6.50</b>			8.50   6.50
<b>TURBIDITY</b> <sup>(1)</sup> <b>NTU</b>	0.100	0.055	0.072	0.105	0.055	0.075	0.100	0.055	0.078	<b>1.00</b>	<b>0.00</b>	1.00	0.00	n/a
<b>HARDNESS</b> <sup>(2)</sup> <b>mg/L</b>	106	96	100	108	96	99	104	98	101	<b>100.00</b>	<b>80.00</b>	n/a		100.00   80.00
<b>TEMPERATURE</b> <b>°C</b>	24.2	21.1	22.4	25.2	20.2	23.6	23.3	18.0	20.8			n/a		<15 °C
<b>ODOUR/TASTE</b>	(---)	(---)	(---)	(---)	(---)	(---)	(---)	(---)	(---)	<b>in-offensive</b>		n/a		in-offensive
<b>ALKALINITY</b> <sup>(2 and *3)</sup> <b>mg/L</b>	87	78	80	82	78	80	84	80	82	<b>500</b>	<b>30</b>	n/a		500   30
<b>CHLORINE RESIDUAL</b> <sup>(1)</sup> <b>mg/L</b>	1.42	1.18	1.31	1.38	1.24	1.30	1.41	1.23	1.31	<b>1.50</b>	<b>0.80</b>	4.00	0.05	n/a

	OCTOBER			NOVEMBER			DECEMBER			PLANT PARAMETERS HIGH LOW VALUES	M.O.E. MAC		OPERATIONAL GUIDELINE	
	HIGH	LOW	AVG.	HIGH	LOW	AVG.	HIGH	LOW	AVG.		HIGH <sup>(1)</sup>	LOW	HIGH <sup>(2)</sup>	LOW
<b>FLUORIDE</b> <sup>(1)</sup> <b>mg/L</b>	0.71	0.62	0.65	0.69	0.59	0.65	0.71	0.60	0.66	<b>0.75</b>	<b>0.55</b>	1.50	0.00	n/a
<b>COLOUR</b> <sup>(2)</sup> <b>TCU</b>	<1	<1	<1	<1	<1	<1	<1	<1	<1	<b>5.00</b>	<b>0.00</b>	n/a		<15
<b>ALUMINUM</b> <sup>(1)</sup> <b>ppb</b>	93	31	62	67	6	26	42	10	21	<b>100.00</b>	<b>0.00</b>	100.00	0.00	n/a
<b>pH</b> <sup>(2)</sup>	7.28	6.95	7.09	7.18	6.90	7.07	7.29	6.94	7.12	<b>7.30</b>	<b>6.50</b>			8.50   6.50
<b>TURBIDITY</b> <sup>(1)</sup> <b>NTU</b>	0.090	0.060	0.080	0.090	0.070	0.076	0.100	0.070	0.081	<b>1.00</b>	<b>0.00</b>	1.00	0.00	n/a
<b>HARDNESS</b> <sup>(2)</sup> <b>mg/L</b>	108	99	104	114	102	106	112	101	106	<b>100.00</b>	<b>80.00</b>	n/a		100.00   80.00
<b>TEMPERATURE</b> <b>°C</b>	20.5	11.3	16.1	11.3	2.7	6.9	2.4	0.1	0.5			n/a		<15 °C
<b>ODOUR/TASTE</b>	(---)	(---)	(---)	(---)	(---)	(---)	(---)	(---)	(---)	<b>in-offensive</b>		n/a		in-offensive
<b>ALKALINITY</b> <sup>(2 and *3)</sup> <b>mg/L</b>	88	80	84	90	79	86	92	82	85	<b>500</b>	<b>30</b>	n/a		500   30
<b>CHLORINE RESIDUAL</b> <sup>(1)</sup> <b>mg/L</b>	1.38	1.20	1.28	1.35	1.19	1.27	1.36	1.14	1.28	<b>1.50</b>	<b>0.80</b>	4.00	0.05	n/a

(\*1) MAC - Maximum Allowable Concentration

(\*2) Health Canada Operational Guideline (O.G.)

(\*3) Recommended in coagulant treated drinking water

**Table 6**

**Schedule 23  
Inorganic Parameters**

<b>Item</b>	<b>Parameter</b>
1	Antimony
2	Arsenic
3	Barium
4	Boron
5	Cadmium
6	Chromium
7	Mercury
8	Selenium
9	Uranium

**Schedule 24  
Organic Parameters**

<b>Item</b>	<b>Parameter</b>
1	Alachlor
2	Aldicarb
3	Aldrin + Dieldrin
4	Atrazine + N-dealkylated metabolites
5	Azinphos-methyl
6	Bendiocarb
7	Benzene
8	Benzo(a)pyrene
9	Bromoxynil
10	Carbaryl
11	Carbofuran
12	Carbon Tetrachloride
13	Chlordane (Total)
14	Chlorpyrifos
15	Cyanazine
16	Diazinon
17	Dicamba
18	1,2-Dichlorobenzene
19	1,4-Dichlorobenzene
20	Dichlorodiphenyltrichloroethane (DDT) + metabolites
21	1,2-dichloroethane
22	1,1-Dichloroethylene (vinylidene chloride)
23	Dichloromethane
24	2,4-Dichlorophenol
25	2,4-Dichlorophenoxy acetic acid (2,4-D)
26	Diclofop-methyl
27	Dimethoate
28	Dinoseb
29	Diquat
30	Diuron
31	Glyphosate
32	Heptachlor + Heptachlor Epoxide
33	Lindane (Total)
34	Malathion
35	Methoxychlor
36	Metolachlor
37	Metribuzin
38	Monochlorobenzene

**Table 6**

39	Paraquat
40	Parathion
41	Pentachlorophenol
42	Phorate
43	Picloram
44	Polychlorinated Biphenyls (PCB)
45	Prometryne
46	Simazine
47	Temephos
48	Terbufos
49	Tetrachloroethylene (perchloroethylene)
50	2,3,4,6-Tetrachlorophenol
51	Triallate
52	Trichloroethylene
53	2,4,6-Trichlorophenol
54	2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)
55	Trifluralin
56	Vinyl Chloride