



**CORPORATION OF THE TOWN OF HAWKESBURY**

**2006**  
**WATERWORKS**  
**SUMMARY REPORT**  
(January 1, 2006 to December 31, 2006)

**PREPARED BY:**

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**SUBMITTED ON:**

**March 28, 2007**

**2006  
WATERWORKS  
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(period from January 1, 2006 to December 31, 2006)

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# CORPORATION OF THE TOWN OF HAWKESBURY

## 2006 WATERWORKS SUMMARY REPORT

(January 1, 2006 to December 31, 2006)

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### 1. REQUIREMENTS OF THE SAFE DRINKING WATER ACT, 2002

Under the new Drinking Water Systems Regulation 170/03, the Town of Hawkesbury's water system has been classified as a *Municipal Large Residential System*. This category is based on the fact that the Hawkesbury's water system serves a major residential development and serves more than 100 private residences.

Based on the 2006 Municipal Directory, there are 4,852 household units in the Town of Hawkesbury. Furthermore, the Town of Hawkesbury's water system serves two wards in the Township of Champlain, being the Town of Vankleek Hill with 895 household units and the Village of L'Orignal with 806 household units, for a total of 1,701 household units.

### 2. REQUIREMENTS OF THE DRINKING WATER SYSTEMS REGULATION (ONTARIO REGULATION 170/03)

The new Drinking Water Systems Regulation 170/03, made under the Safe Drinking Water Act, 2002, provides more detailed regulatory requirements in conjunction with the Safe Drinking Water Act, 2002.

### 3. REQUIREMENTS OF THE SYSTEM'S APPROVAL

The Town of Hawkesbury's drinking water system operates under an amended Certificate of Approval no. 1145-5UCLCJ, issued by the Ministry of the Environment on January 6, 2004, and under Permit to Take Water no. 94-P-4011, Reference Number 7856-5TARNS, issued on February 15, 2004 in accordance with Section 34 of the Ontario Water Resources Act. This permit is valid until February 15, 2014.

In 2006, the Town of Hawkesbury was not issued any order by the Ministry of the Environment and no failure was ever reported on the system in 2006.

### 4. RATED CAPACITY AND FLOW RATES

Under Part 4 of the amended Certificate of Approval no. 1145-5UCLCJ, the rated capacity at the Hawkesbury Water Filtration Plant is as follows:

- Maximum Flow Rate (L/sec)	=	316
- Maximum Daily Volume (m <sup>3</sup> /day)	=	27,275

.../2

Based on the water production data, the maximum daily water production was in May 2006 at 13,642 m<sup>3</sup>/day or 158 L/sec, well under the maximum flow rate allowed.

Under the Permit to Take Water no. 94-P-4011, the rate of taking for the Town of Hawkesbury is as follows:

- Maximum Rate of Taking (L/min) = 25,003
- Maximum Rate of Taking (L/day) = 20,000,000

Based on the raw water consumption data, the rate of taking (peak) was in September 2006 at 18,452 L/min and the maximum was in August 2006 at 14,156,000 L/day, well within the maximum rate of taking allowed.

See Appendix "A" for Waterworks Data 2006.

## 5. **AVAILABILITY OF REPORT**

The Town of Hawkesbury will be advising the users of water from the system, through local newspapers, that the Summary Report will be available for review and inspection, free of charge, from March 31, 2007, at the following locations:

1. ***Technical Services Department***  
Town of Hawkesbury  
600 Higginson Street  
Hawkesbury, Ontario  
K6A 1H1  
Tel. (613) 632-0106, ext. 2237
  
2. ***Hawkesbury Public Library***  
550 Higginson Street  
Hawkesbury, Ontario  
K6A 1H1
  
3. ***Town's website*** [www.hawkesbury.ca](http://www.hawkesbury.ca)

Furthermore, a copy of the Summary Report will also be forwarded to the Township of Champlain.

This 2006 Summary Report has been prepared on March 28, 2007 and will be submitted to the Municipal Council of the Corporation of the Town of Hawkesbury within the next three months.

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March 28, 2007

**APPENDIX “A”**

**WATERWORKS DATA 2006**

# RAPPORT ANNUEL

2006

		DAILY RAW WATER TAKING VALUES		
MONTH		Raw Water (m3/d)	raw water (peak) (m3/d)	
JAN	Avg.	10,341		
	Max	12,317	18,230	
	Min	7,911		
	Total	320,578		
FEV	Avg.	10,273		
	Max	11,858	18,986	
	Min	7,824		
	Total	287,636		
MARS	Avg.	9,417		
	Max	12,216	21,376	
	Min	7,250		
	Total	291,920		
APRIL	Avg.	8,885		
	Max	10,679	18,331	
	Min	6,104		
	Total	266,550		
MAY	Avg.	9,962		
	Max	13,608	25,569	
	Min	6,776		
	Total	308,813		
JUNE	Avg.	11,160		
	Max	13,173	21,847	
	Min	8,176		
	Total	334,788		
JULY	Avg.	10,825		
	Max	13,873	20,651	
	Min	7,596		
	Total	335,566		
AUGUST	Avg.	11,756		
	Max	14,156	22,403	
	Min	7,730		
	Total	364,442		
SEPT.	Avg.	10,722		
	Max	13,521	26,572	
	Min	8,136		
	Total	321,673		
OCTO.	Avg.	10,348		
	Max	11,884	19,104	
	Min	7,528		
	Total	320,782		
NOV.	Avg.	10,213		
	Max	13,311	18,391	
	Min	7,796		
	Total	306,379		
DEC.	Avg.	8,834		
	Max	11,411	17,654	
	Min	6,773		
	Total	273,847		
		Avg.	10,228	
		Max	14,156	26,572
		Min	6,104	
		Total	4,066,744	





MONTH		FILTERS		
		Turb. No.1	Turb. No.2	Turb. No.3
JAN	Avg.	0.14	0.13	0.02
	Max	0.28	0.28	0.02
	Min	0.09	0.07	0.02
FEV	Avg.	0.11	0.11	0.02
	Max	0.22	0.33	0.02
	Min	0.08	0.08	0.02
MARS	Avg.	0.14	0.14	0.02
	Max	0.29	0.53	0.02
	Min	0.08	0.10	0.02
APRIL	Avg.	0.12	0.12	0.02
	Max	0.16	0.15	0.02
	Min	0.10	0.09	0.02
MAY	Avg.	0.13	0.13	0.11
	Max	0.33	0.22	0.37
	Min	0.09	0.09	0.00
JUNE	Avg.	0.12	0.13	0.15
	Max	0.20	0.19	0.28
	Min	0.09	0.09	0.10
JULY	Avg.	0.14	0.16	0.16
	Max	0.20	0.27	0.20
	Min	0.11	0.11	0.11
AUGUST	Avg.	0.14	0.15	0.15
	Max	0.26	0.22	0.23
	Min	0.10	0.10	0.10
SEPT.	Avg.	0.11	0.12	0.12
	Max	0.16	0.17	0.16
	Min	0.09	0.10	0.09
OCTO.	Avg.	0.12	0.13	0.12
	Max	0.18	0.32	0.15
	Min	0.09	0.09	0.09
NOV.	Avg.	0.12	0.12	0.12
	Max	0.16	0.16	0.15
	Min	0.09	0.09	0.09
DEC.	Avg.	0.11	0.11	0.11
	Max	0.18	0.14	0.14
	Min	0.09	0.09	0.09
Avg.		0.13	0.13	0.09
Max		0.33	0.53	0.37
Min		0.08	0.07	0.00
Total				



MONTH	BACKWASH		WATER PRODUCTION					
		TSS (mg/l)	Raw Water Consumption (M3)	City Consumption (M3)	Back Wash (M3)	Plant Use (M3)	Total Production (m3/d)	Town Flow (m3/d)
JAN	Avg.	0.0					10,623	10,508
	Max	0.0					12,028	11,948
	Min	0.0					8,493	8,260
	Total		320,578	325,239	4,067	8,113	329,306	325,754
FEV	Avg.	0.0					10,551	0
	Max	0.0					11,763	0
	Min	0.0					8,902	0
	Total		287,636	291,886	3,549	7,333	295,435	0
MARS	Avg.	0.0					9,647	7,823
	Max	0.0					11,707	9,421
	Min	0.0					7,235	5,111
	Total		291,920	294,879	4,194	8,283	299,072	242,525
APRIL	Avg.	0.0					9,171	8,359
	Max	0.0					10,414	10,251
	Min	0.0					7,249	4,807
	Total		266,550	271,344	3,792	7,646	275,136	250,775
MAY	Avg.	0.0					10,042	0
	Max	0.6					13,642	0
	Min	0.0					7,562	0
	Total		308,813	306,485	4,809	8,782	311,294	0
JUNE	Avg.	0.0					11,059	10,998
	Max	0.0					12,525	12,503
	Min	0.0					8,191	8,143
	Total		334,788	327,550	4,211	9,383	331,761	329,939
JULY	Avg.	0.0					10,862	10,692
	Max	0.0					13,279	13,106
	Min	0.0					8,325	8,206
	Total		335,566	332,372	4,355	10,000	336,727	331,442
AUGUST	Avg.	0.0					11,423	11,331
	Max	0.0					13,329	13,286
	Min	0.0					8,488	8,554
	Total		364,442	349,743	4,376	7,658	354,119	351,272
SEPT.	Avg.	0.0					10,475	10,314
	Max	0.0					12,549	12,276
	Min	0.0					8,044	8,125
	Total		321,673	309,870	4,370	5,851	314,239	309,421
OCTO.	Avg.	0.0					9,695	9,790
	Max	0.0					11,108	11,753
	Min	0.0					6,905	8,028
	Total		320,782	295,884	4,664	5,409	300,548	303,503
NOV.	Avg.	0.0					9,751	9,420
	Max	0.0					12,665	10,543
	Min	0.0					7,796	7,664
	Total		306,379	287,878	4,646	5,288	292,524	282,598
DEC.	Avg.	0.0					8,461	4,402
	Max	0.0					10,497	10,249
	Min	0.0					6,632	0
	Total		273,847	256,373	5,933	4,508	262,305	136,465
	Avg.	0.00					10,147	
	Max	0.61					13,642	
	Min	0.00					6,632	
	Total		3,732,972	3,649,502	52,964	88,254	3,702,466	

MONTH		CHLORINE				SILICA			LIME		ALUM		FLUOR		
		Monthly (kg)	Dosage (mg/l)	Chateau (kg)	Chateau (mg/l)	Silica (c) (litre)	Alum. (c) (litre)	Dosage SiO <sub>2</sub> (mg/l)	Lime (c.) (kg)	Dosage (mg/l)	Alum (litre)	Dosage (mg/l)	Fluor(b) (lbs)	Fluor <sup>Ⓞ</sup> (kg)	Dosage (mg/l)
JAN	Avg.		2.44		0.00			0.91		12.89		41.43			0.57
	Max		4.22		0.00			1.07		13.98		63.45			0.99
	Min		0.47		0.00			0.67		11.64		19.39			0.23
	Total	790.0		0.0		739	367		4,187.4		26,158.0		800.9	800.9	
FEV	Avg.		2.42		0.00			1.15		13.25		44.23			0.52
	Max		3.26		0.00			1.67		15.09		88.93			0.72
	Min		1.87		0.00			0.82		11.92		35.75			0.11
	Total	705.0		0.0		843	422		3,870.9		24,957.0		683.4	683.4	
MARS	Avg.		2.67		0.00			1.24		12.03		42.21			0.52
	Max		4.44		0.00			1.70		12.89		53.06			1.22
	Min		1.82		0.00			0.82		11.06		33.65			0.00
	Total	785.0		0.0		922	459		3,545.8		23,922.1		693.8	693.8	
APRIL	Avg.		2.24		0.84			1.03		13.34		44.78			0.52
	Max		3.09		2.57			1.39		14.60		56.78			0.73
	Min		1.50		0.33			0.83		11.40		30.61			0.28
	Total	605.0		23.5		701	349		3,620.3		23,490.0		643.6	643.6	
MAY	Avg.		2.65		0.00			1.04		11.19		44.69			0.53
	Max		3.85		0.00			1.31		12.61		56.50			1.17
	Min		1.62		0.00			0.57		10.01		23.50			0.00
	Total	810.0		0.0		799	524		3,433.9		26,536.0		748.2	748.2	
JUNE	Avg.		2.93		0.82			1.02		10.98		42.72			0.49
	Max		4.00		2.69			1.32		12.23		71.37			0.85
	Min		2.10		0.09			0.76		8.89		27.53			0.05
	Total	955.0		32.3		838	416		3,605.6		26,959.0		735.7	735.7	
JULY	Avg.		3.08		0.82			0.91		12.18		43.15			0.46
	Max		4.27		2.13			1.34		12.94		72.53			0.74
	Min		2.05		0.29			0.56		11.26		13.07			0.01
	Total	1,015.0		32.0		760	376		4,047.4		27,706.0		695.7	695.7	
AUGUST	Avg.		3.04		0.74			0.94		12.03		45.66			0.55
	Max		5.39		1.61			1.41		13.64		126.48			1.15
	Min		0.00		0.16			0.61		11.26		23.26			0.08
	Total	1,050.0		29.6		818	402		4,205.6		30,550.0		868.0	868.0	
SEPT.	Avg.		2.94		0.43			0.90		12.66		39.26			0.47
	Max		3.53		0.92			1.18		14.03		72.46			0.89
	Min		2.21		0.08			0.68		11.01		20.59			0.19
	Total	905.0		16.2		701	349		3,925.2		23,378.0		659.7	659.7	
OCTO.	Avg.		2.83		0.09			0.94		12.66		47.58			0.53
	Max		4.72		0.88			1.40		14.03		80.98			0.96
	Min		1.17		0.00			0.73		11.74		39.50			0.15
	Total	835.0		9.2		696	346		3,736.0		27,055.0		704.9	704.9	
NOV.	Avg.		2.65		0.00			0.98		12.28		48.35			0.53
	Max		4.25		0.00			1.18		12.58		61.78			0.77
	Min		1.60		0.00			0.77		11.63		13.66			0.29
	Total	760.0		0.6		710	0		3,534.7		27,048.0		692.5	692.5	
DEC.	Avg.		2.45		0.00			1.08		11.97		51.70			0.53
	Max		3.75		0.00			1.39		12.85		79.62			0.86
	Min		1.41		0.00			0.85		11.34		39.06			0.14
	Total	635.0		0.0		693	347		3,074.2		25,583.0		612.7	612.7	
	Avg.				0.31			1.01		12.29		44.65			0.52
	Max				2.69			1.70		15.09		126.48			1.22
	Min				0.00			0.56		8.89		13.07			0.00
	Total	9,850.0		143.4		9,220	4,357		44,787		313,342		8,539	8,539	

MONTH	Date	GAS		HYDRO	
		(m3)	(kw/m)	Peak Demand	
JAN	Avg.				610
	Max				480
	Min				
	Total	8,422	112,500		
FEV	Avg.				595
	Max				470
	Min				
	Total	7,856	94,500		
MARS	Avg.				590
	Max				385
	Min				
	Total	7,071	108,000		
APRIL	Avg.				550
	Max				465
	Min				
	Total	4,503	99,500		
MAY	Avg.				620
	Max				500
	Min				
	Total	794	140,000		
JUNE	Avg.				620
	Max				475
	Min				
	Total	148	116,500		
JULY	Avg.				610
	Max				410
	Min				
	Total	62	113,007		
AUGUST	Avg.				610
	Max				495
	Min				
	Total	64	121,500		
SEPT.	Avg.				610
	Max				490
	Min				
	Total	62	108,500		
OCTO.	Avg.				620
	Max				485
	Min				
	Total	2,292	163,500		
NOV.	Avg.				620
	Max				615
	Min				
	Total	4,698	167,000		
DEC.	Avg.				615
	Max				610
	Min				
	Total	6,973	107,000		
		Avg.			620.00
		Max			385.00
		Min			
		Total	42,945	#####	

1,451,507

**SOMMAIRE / SUMMARY**

	2005	2006	2005	2006
	<b>Production d'eau (Gallons)</b>		<b>Water production (m3)</b>	
Total de l'année Total for year	861,359,840	814,542,565	3,915,272	3,702,466
Moy. par jour Daily ave.	2,359,940	2,231,623	10,727	10,144
Moy. par min. Ave. per min.	1,639	1,550	7.45	7.04
Consommation max. Max. consumption	3,325,300	3,001,324	15,115	13,642
Consommation min. Min. consumption	1,624,260	1,459,003	7,383	6,632
	<b>Produits chimiques (lbs)</b>		<b>Chemical products (kg)</b>	
Alun/Alum	731,493	689,353	332,497	313,342
Chaux/Lime	105,849	98,531	48,113	44,787
Chlore/Chlorine	60,238	21,985	27,381	9,993
Fluor/Fluoride	21,177	18,786	9,626	8,539
Silicate	19,272	20,283	8,760	9,220
Aluminate	8,818	9,586	4,008	4,357

Surintendant/Superintendent  
SERVICE DE L'ENVIRONNEMENT/ENVIRONMENT SERVICE