



CORPORATION OF THE TOWN OF HAWKESBURY

2007
WATERWORKS
SUMMARY REPORT
(January 1, 2007 to December 31, 2007)

PREPARED BY:

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March 31, 2008

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CORPORATION OF THE TOWN OF HAWKESBURY

2007 WATERWORKS SUMMARY REPORT

(January 1, 2007 to December 31, 2007)

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 2007, 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 2007.

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 ³ /day)	=	27,275

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Based on the water production data, the maximum daily water production was in June 2007 at 14,730 m³/day or 170 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 April 2007 at 26,911 m³/day and the maximum was in June 2007 at 14,990 m³/day, well within the maximum rate of taking allowed.

See Appendix "A" for Waterworks Data 2007.

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, 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

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

This 2007 Summary Report has been prepared on March 31, 2008 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 31, 2008

APPENDIX “A”

WATERWORKS DATA 2007

MONTH		FILTERS			
		Turb. No.1	Turb. No.2	Turb. No.3	
JAN	Avg.	0.10	0.10	0.11	
	Max	0.14	0.14	0.16	
	Min	0.08	0.08	0.08	
FEV	Avg.	0.10	0.10	0.12	
	Max	0.15	0.13	0.42	
	Min	0.08	0.07	0.08	
MARS	Avg.	0.13	0.12	0.13	
	Max	0.67	0.48	0.40	
	Min	0.09	0.09	0.09	
APRIL	Avg.	0.11	0.11	0.11	
	Max	0.13	0.15	0.13	
	Min	0.09	0.09	0.09	
MAY	Avg.	0.12	0.12	0.12	
	Max	0.30	0.16	0.15	
	Min	0.10	0.11	0.10	
JUNE	Avg.	0.12	0.12	0.12	
	Max	0.14	0.15	0.16	
	Min	0.09	0.09	0.10	
JULY	Avg.	0.13	0.14	0.14	
	Max	0.18	0.17	0.17	
	Min	0.11	0.12	0.10	
AUGUST	Avg.	0.13	0.13	0.13	
	Max	0.17	0.18	0.16	
	Min	0.10	0.11	0.10	
SEPT.	Avg.	0.13	0.13	0.13	
	Max	0.23	0.24	0.27	
	Min	0.10	0.10	0.10	
OCTO.	Avg.	0.13	0.14	0.13	
	Max	0.16	0.18	0.17	
	Min	0.10	0.11	0.10	
NOV.	Avg.	0.11	0.12	0.12	
	Max	0.16	0.18	0.16	
	Min	0.08	0.08	0.08	
DEC.	Avg.	0.10	0.10	0.10	
	Max	0.13	0.14	0.12	
	Min	0.07	0.07	0.08	
Total		Avg.	0.12	0.12	0.12
		Max	0.67	0.48	0.42
		Min	0.07	0.07	0.08

RAPPORT ANNUEL
2007

MONTH	BACKWASH		WATER PRODUCTION					Town Flow (m3/d)
		TSS (mg/l)	Raw Water Consumption (M3)	City Consumption (M3)	Back Wash (M3)	Plant Use (M3)	Total Production (m3/d)	
JAN	Avg.	0.0	9,620	9,047			9,226	9,119
	Max	0.0	11,254	10,512			10,660	10,641
	Min	0.0	7,082	6,540			6,806	6,582
	Total		298,234	280,451	5,554	6,500	286,004	282,701
FEV	Avg.	0.0	10,701	9,824			9,979	9,874
	Max	0.0	12,764	11,462			11,637	11,602
	Min	0.0	7,251	6,616			6,773	6,669
	Total		299,628	275,072	4,354	6,500	279,426	276,459
MARS	Avg.	0.0	11,014	10,394			10,544	10,098
	Max	0.0	13,483	11,988			12,133	11,785
	Min	0.0	7,012	7,281			7,430	0
	Total		341,432	322,213	4,638	6,688	326,851	313,052
APRIL	Avg.	0.0	10,673	10,259			10,406	10,344
	Max	0.0	13,603	11,625			11,773	11,755
	Min	0.0	8,920	8,260			8,393	8,307
	Total		320,194	307,760	4,435	7,090	312,195	310,322
MAY	Avg.	0.0	11,261	10,832			10,978	10,909
	Max	0.0	13,719	13,149			13,291	13,194
	Min	0.0	9,010	8,257			8,406	8,206
	Total		349,101	335,797	4,518	6,460	340,315	338,170
JUNE	Avg.	0.0	12,174	11,694			11,845	11,739
	Max	0.0	14,990	14,730			14,893	14,809
	Min	0.0	9,259	9,003			9,147	9,003
	Total		365,218	350,821	4,542	8,755	355,363	352,158
JULY	Avg.	0.0	10,667	10,227			10,390	10,246
	Max	0.0	13,065	12,951			13,120	12,884
	Min	0.0	8,178	7,950			8,164	8,012
	Total		330,663	317,032	5,049	9,838	322,081	317,627
AUGUST	Avg.	0.0	11,595	11,132			11,280	11,111
	Max	0.0	13,476	12,875			13,024	12,880
	Min	0.0	9,138	8,871			9,021	8,829
	Total		359,444	345,099	4,580	10,607	349,679	344,434
SEPT.	Avg.	0.0	11,146	10,745			10,906	10,720
	Max	0.0	13,223	13,015			13,158	12,888
	Min	0.0	8,483	8,244			8,402	8,275
	Total		334,372	322,354	4,818	8,660	327,172	321,609
OCTO.	Avg.	0.0	10,474	10,228			10,379	10,129
	Max	0.0	11,864	11,533			11,657	11,471
	Min	0.0	8,406	8,069			8,197	7,998
	Total		324,709	317,062	4,685	6,952	321,747	314,011
NOV.	Avg.	0.0	10,050	9,880			10,037	9,729
	Max	0.0	12,114	10,990			11,117	10,925
	Min	0.0	8,126	7,898			8,019	7,742
	Total		301,506	296,402	4,719	6,503	301,121	291,857
DEC.	Avg.	0.0	9,858	8,958			9,108	7,824
	Max	0.0	11,757	10,800			10,953	10,671
	Min	0.0	8,291	7,414			7,562	0
	Total		305,611	277,710	4,642	6,641	282,352	242,531
Avg.		0.00	10,767	10,267			10,422	
Max		0.00	14,990	14,730			14,893	
Min		0.00	7,012	6,540			6,773	
Total			3,930,112	3,747,772	56,533	91,194	3,804,305	

MONTH		CHLORINE			SILICA			LIME		ALUM	
		Monthly (kg)	Dosage (mg/l)	Chateau (kg)	Chateau (mg/l)	Silica (c) (litre)	Alum. (c) (litre)	Dosage SiO ₂ (mg/l)	Lime (c.) (kg)	Dosage (mg/l)	Alum (litre)
JAN	Avg.		2.17				1.01		12.08		50.69
	Max		3.99				1.20		13.13		67.71
	Min		1.03				0.80		11.07		38.62
	Total	640.0		6.4		752	375		3,393.6		29,221.0
FEV	Avg.		1.98				0.95		12.29		49.60
	Max		3.17				1.37		14.23		67.03
	Min		0.48				0.78		11.02		31.31
	Total	585.0		7.2		713	353		3,371.5		27,993.0
MARS	Avg.		2.33				1.00		12.28		39.19
	Max		5.70				1.77		14.58		45.70
	Min		1.73				0.82		11.34		34.07
	Total	780.0		7.5		850	428		3,946.2		26,287.0
APRIL	Avg.		2.27				1.00		13.95		49.13
	Max		3.27				1.18		14.48		55.21
	Min		1.65				0.77		12.96		41.44
	Total	725.0		7.0		807	398		4,293.0		30,439.0
MAY	Avg.		2.35				0.81		11.39		44.43
	Max		3.05				1.03		12.96		51.78
	Min		1.61				0.69		10.50		37.36
	Total	820.0		16.1		709	352		3,828.0		29,922.0
JUNE	Avg.		2.73				0.76		11.56		39.45
	Max		3.94				1.19		12.38		44.71
	Min		1.67				0.41		10.89		34.11
	Total	990.0		22.7		690	342		4,062.0		27,789.0
JULY	Avg.		2.94				0.67		11.93		38.36
	Max		4.95				0.85		13.20		50.21
	Min		1.18				0.51		11.41		31.17
	Total	965.0		20.3		552	273		3,773.0		24,355.0
AUGUST	Avg.		2.99				0.67		11.89		38.66
	Max		4.61				0.79		13.26		46.87
	Min		1.48				0.53		10.36		29.11
	Total	1,065.0		22.6		601	299		4,098.4		26,804.0
SEPT.	Avg.		2.76				0.67		12.16		38.73
	Max		4.67				0.74		12.87		47.94
	Min		1.61				0.59		11.48		34.35
	Total	910.0		20.8		562	276		3,918.8		24,948.0
OCTO.	Avg.		2.59				0.67		12.64		39.07
	Max		3.56				0.78		13.42		45.07
	Min		1.69				0.59		11.65		33.64
	Total	840.0		19.1		543	273		4,000.8		24,443.0
NOV.	Avg.		2.73				0.76		13.24		42.25
	Max		3.75				1.03		13.84		53.72
	Min		1.47				0.57		12.09		34.64
	Total	825.0		14.8		574	0		3,921.2		24,521.0
DEC.	Avg.		2.46				0.74		13.58		42.01
	Max		3.42				0.86		15.63		48.53
	Min		1.70				0.64		12.34		36.18
	Total	750.0		3323.5		566	283		3,775.6		24,727.0
	Avg.						0.81		12.41		42.63
	Max						1.77		15.63		67.71
	Min						0.41		10.36		29.11
	Total	9,895.0		3487.9		7,919	3,652		46,382		321,449

FLUOR		
Fluor(b) (lbs)	Fluor© (kg)	Dosage (mg/l)
		0.51
		0.78
		0.10
683.8	683.8	
		0.50
		0.83
		0.09
690.4	690.4	
		0.55
		0.99
		0.11
851.3	851.3	
		0.49
		0.62
		0.06
710.6	710.6	
		0.45
		0.84
		0.13
711.4	711.4	
		0.51
		0.77
		0.35
840.9	840.9	
		0.51
		0.72
		0.33
749.5	749.5	
		0.34
		0.60
		0.00
557.0	557.0	
		0.45
		0.76
		0.07
684.3	684.3	
		0.48
		0.72
		0.02
695.5	695.5	
		0.11
		0.30
		0.00
152.6	152.6	
		0.38
		0.76
		0.00
527.6	527.6	
		0.44
		0.99
		0.00
7,855	7,855	

SOMMAIRE / SUMMARY

	2006	2007	2006	2007
	Production d'eau (Gallons)		Water production (m3)	
Total de l'année Total for year	814,542,520	836,947,154	3,702,466	3,804,305
Moy. par jour Daily ave.	2,231,680	2,293,006	10,144	10,423
Moy. par min. Ave. per min.	1,550	1,592	7.04	7.24
Consommation max. Max. consumption	3,001,240	3,276,364	13,642	14,893
Consommation min. Min. consumption	1,459,040	1,490,155	6,632	6,773
	Produits chimiques (lbs)		Chemical products (kg)	
Alun/Alum	689,352	707,188	313,342	321,449
Chaux/Lime	98,531	102,040	44,787	46,382
Chlore/Chlorine	21,985	29,442	9,993	13,383
Fluor/Fluoride	18,786	17,281	8,539	7,855
Silicate	20,284	17,422	9,220	7,919
Aluminate	9,585	8,034	4,357	3,652

Surintendant/Superintendent
SERVICE DE L'ENVIRONNEMENT/ENVIRONMENT SERVICE