



2011
WATERWORKS
SUMMARY REPORT
(January 1, 2011 to December 31, 2011)

PREPARED BY:

TOWN OF HAWKESBURY
Waterworks Department
600 Higginson Street
Hawkesbury, Ontario
K6A 1H1
Tel. (613) 632-3112
Fax (613) 632-5861

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CORPORATION OF THE TOWN OF HAWKESBURY

2011 WATERWORKS SUMMARY REPORT

(January 1, 2011 to December 31, 2011)

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.

There are 4,996 water services in the Town of Hawkesbury. Furthermore, the Town of Hawkesbury's water system serves three wards in the Township of Champlain, being the Town of Vankleek Hill with 765 water services, the Village of l'Original with 560 water services and Laurentian Park with 40 water services for a total of 1,365 water services.

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 the new program for Municipal Drinking Water Licensing (License # 177-101) and Drinking Water Works Permit (DWWP # 177-201).

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.

4. RATED CAPACITY AND FLOW RATES

- a) Under Schedule C section 1 of the Municipal Drinking Water License #177-101, the rated capacity at the Hawkesbury Water Filtration Plant is as follows:

Maximum Daily Volume of Treated water = 27,275 m³/day

Based on the 2011 water production data, the maximum daily water production was in October 12, 2011 at 13,681 m³/day, well under the Maximum Daily Volume rate allowed.

See Appendix “A” for Waterworks Data 2011.

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

Based on the 2011 raw water consumption data, the highest rate of taking water (peak) was October 12, 2011 (8h17 PM) for 20 859 m³/day for about 12 hours, for a total of 14 479 m³ on that day. We had a major leak on a 400 mm pipe in the distribution system.

See Appendix “A” for Waterworks Data 2011.

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. ***Waterworks Department***
Town of Hawkesbury
600 Higginson Street
Hawkesbury, Ontario
K6A 1H1
Tel. (613) 632-0106, ext. 2020

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 2011 Summary Report has been prepared on February 2, 2012 and will be submitted to the Municipal Council of the Corporation of the Town of Hawkesbury within the next three months.

Richard Guertin
Waterworks Superintendent
600 Higginson Street
Hawkesbury, Ontario K6A 1H1
Tel. (613) 632-0106 x 2020

APPENDIX “A”

WATERWORKS DATA 2011

MONTH		FILTERS		
		Turb. No.1	Turb. No.2	Turb. No.3
JAN	Avg.	0.10	0.11	0.11
	Max	0.15	0.15	0.17
	Min	0.07	0.08	0.07
FEV	Avg.	0.09	0.10	0.10
	Max	0.14	0.15	0.13
	Min	0.07	0.08	0.08
MARS	Avg.	0.11	0.10	0.10
	Max	0.21	0.14	0.16
	Min	0.08	0.08	0.08
APRIL	Avg.	0.12	0.12	0.12
	Max	0.16	0.15	0.17
	Min	0.09	0.09	0.09
MAY	Avg.	0.13	0.13	0.13
	Max	0.15	0.17	0.15
	Min	0.10	0.10	0.10
JUNE	Avg.	0.14	0.15	0.15
	Max	0.22	0.28	0.29
	Min	0.11	0.12	0.12
JULY	Avg.	0.15	0.15	0.15
	Max	0.22	0.19	0.20
	Min	0.10	0.11	0.10
AUGUST	Avg.	0.13	0.13	0.13
	Max	0.15	0.16	0.16
	Min	0.11	0.11	0.10
SEPT.	Avg.	0.13	0.13	0.14
	Max	0.16	0.15	0.18
	Min	0.11	0.11	0.11
OCTO.	Avg.	0.16	0.15	0.17
	Max	0.21	0.20	0.21
	Min	0.12	0.11	0.12
NOV.	Avg.	0.11	0.11	0.11
	Max	0.21	0.27	0.18
	Min	0.07	0.07	0.07
DEC.	Avg.	0.09	0.09	0.10
	Max	0.12	0.12	0.27
	Min	0.07	0.08	0.08
Avg.		0.12	0.12	0.13
Max		0.22	0.28	0.29
Min		0.07	0.07	0.07
Total				

MONTH	BACKWASH		WATER PRODUCTION					Town Flow (m3/d)
		TSS (mg/l)	Raw Water (M3)	City Consumption (M3)	Back Wash (M3)	Plant Use (M3)	Total Production (m3/d)	
JAN	Avg.	0.0					8,484	8,390
	Max	0.0					10,004	9,917
	Min	0.0					7,118	6,995
	Total		274,914	258,408	4,605	6,803	263,013	260,094
FEV	Avg.	0.0					9,093	8,982
	Max	0.0					10,210	10,266
	Min	0.0					8,101	7,980
	Total		268,538	250,159	4,454	6,142	254,612	251,490
MARS	Avg.	0.0					8,683	8,577
	Max	0.0					10,237	9,998
	Min	0.0					7,845	7,750
	Total		283,331	264,774	4,407	6,621	269,181	265,874
APRIL	Avg.	0.0					8,550	8,446
	Max	0.0					9,841	9,745
	Min	0.0					7,576	7,426
	Total		267,273	251,943	4,543	6,459	256,486	253,383
MAY	Avg.	0.0					8,743	8,648
	Max	0.0					10,458	10,394
	Min	0.0					7,587	7,566
	Total		285,795	266,672	4,367	6,753	271,039	268,073
JUNE	Avg.	0.0					9,132	9,017
	Max	0.0					11,009	10,867
	Min	0.0					7,406	7,433
	Total		286,796	269,212	4,748	7,230	273,960	270,520
JULY	Avg.	0.0					8,872	8,764
	Max	0.0					10,617	10,674
	Min	0.0					8,100	7,995
	Total		286,746	270,217	4,802	8,375	275,019	271,675
AUGUST	Avg.	0.0					8,895	8,800
	Max	0.0					10,126	10,029
	Min	0.0					7,407	7,305
	Total		287,573	271,044	4,709	8,372	275,753	272,799
SEPT.	Avg.	0.0					7,948	7,846
	Max	0.0					9,204	9,183
	Min	0.0					6,670	6,515
	Total		249,226	233,877	4,554	8,086	238,431	235,374
OCTO.	Avg.	0.0					7,960	7,851
	Max	0.0					13,681	13,948
	Min	0.0					6,845	6,810
	Total		258,018	241,695	5,073	7,534	246,768	243,371
NOV.	Avg.	0.0					7,815	7,723
	Max	0.0					8,997	8,925
	Min	0.0					7,003	6,882
	Total		245,958	230,088	4,354	6,671	234,442	231,675
DEC.	Avg.	0.0					8,322	8,224
	Max	0.0					11,047	10,959
	Min	0.0					7,250	7,105
	Total		269,598	253,281	4,700	6,899	257,981	254,946
	Avg.	0.00					8,541	
	Max	0.00					13,681	
	Min	0.00					6,670	
	Total		3,263,765	3,061,370	55,314	85,945	3,116,684	

MONTH		CHLORINE				SILICA			LIME		ALUM		FLUOR		
		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)	Dosage (mg/l)	Fluor(b) (lbs)	Fluor® (kg)	Dosage (mg/l)
JAN	Avg. Max Min Total		2.24 5.01 0.58		0.24 0.74 0.01			0.98 1.45 0.32		11.92 13.07 10.61		46.35 63.34 36.92			0.43 0.52 0.15
		615.0		5.5		674	336		3,077.1		20,615.1		586.3	115.9	
FEV	Avg. Max Min Total		2.19 2.93 1.46		0.48 0.95 0.26			1.02 1.21 0.90		11.03 12.01 10.61		40.66 44.90 37.32			0.49 0.52 0.46
		590.0		10.4		688	341		2,760.0		17,704.0		670.5	132.6	
MARS	Avg. Max Min Total		2.32 4.58 1.06		0.26 0.62 0.00			1.09 1.20 1.03		13.02 14.43 12.01		47.27 67.59 40.42			0.49 0.54 0.41
		655.0		6.1		772	383		3,445.2		21,642.8		705.5	139.5	
APRIL	Avg. Max Min Total		2.46 3.68 1.17		0.29 0.68 0.01			1.04 1.12 0.97		13.76 14.00 13.47		51.71 59.17 41.54			0.47 0.53 0.14
		660.0		4.0		699	348		3,466.8		22,402.2		637.9	126.2	
MAY	Avg. Max Min Total		2.33 3.49 1.15		0.45 1.01 0.05			1.05 1.25 0.87		13.11 13.51 12.78		52.18 57.81 40.23			0.49 0.52 0.27
		665.0		7.0		750	370		3,495.7		24,175.1		709.1	140.2	
JUNE	Avg. Max Min Total		2.80 4.48 1.10		0.46 0.81 0.11			1.05 1.33 0.95		12.60 13.59 11.84		44.90 56.10 37.44			0.51 0.62 0.42
		800.0		9.3		760	381		3,394.2		20,922.4		733.4	145.0	
JULY	Avg. Max Min Total		3.14 5.13 1.61		0.42 1.05 0.00			1.05 1.39 0.55		14.23 14.96 11.56		45.60 57.80 40.29			0.50 0.54 0.47
		900.0		11.8		754	379		3,849.0		21,185.6		724.9	143.3	
AUGUST	Avg. Max Min Total		3.15 5.46 1.56		0.64 1.16 0.30			0.96 1.21 0.82		13.03 13.68 11.56		40.70 45.82 36.05			0.45 0.55 0.15
		900.0		17.5		695	347		3,527.3		18,988.8		650.0	128.5	
SEPT.	Avg. Max Min Total		3.07 5.44 1.88		0.65 1.03 0.45			0.99 1.09 0.82		13.92 14.84 12.93		41.98 54.73 37.01			0.50 0.55 0.46
		765.0		14.6		619	311		3,258.0		16,953.1		627.8	124.2	
OCTO.	Avg. Max Min Total		3.09 4.60 1.56		1.00 7.24 0.16			0.99 1.46 0.72		14.31 15.53 12.82		42.25 54.86 19.77			0.49 0.54 0.43
		782.0		17.4		639	326		3,445.5		17,532.0		643.7	127.3	
NOV.	Avg. Max Min Total		2.66 4.51 0.00		0.47 1.13 0.08			0.96 1.17 0.00		13.33 14.41 0.00		44.19 50.27 41.30			0.38 0.51 0.02
		650.0		6.9		612	316		3,072.2		17,612.2		480.8	95.1	
DEC.	Avg. Max Min Total		2.48 5.10 0.65		0.46 0.86 0.22			1.08 1.20 0.97		14.90 15.32 14.20		47.59 51.44 37.07			0.50 0.56 0.47
		665.0		9519.1		734	374		3,763.6		20,865.3		684.6	135.4	
	Avg. Max Min Total				0.48 7.24 0.00			1.02 1.46 0.00		13.26 15.53 0.00		45.45 67.59 19.77			0.48 0.62 0.02
		8,647.0		9629.6		8,397	4,209		40,555		240,599		7,855	1,553	

MONTH	Date	GAS		HYDRO	
		(m3)	(kw/m)	Peak Demand	
JAN	Avg. Max Min Total	10,749	105,500	544 605 520	
FEV	Avg. Max Min Total	9,999	99,500	582 595 480	
MARS	Avg. Max Min Total	9,571	106,500	604 605 595	
APRIL	Avg. Max Min Total	8,110	93,500	513 590 450	
MAY	Avg. Max Min Total	2,478	96,000	488 500 465	
JUNE	Avg. Max Min Total	64	95,500	500 550 470	
JULY	Avg. Max Min Total	66	104,000	508 590 450	
AUGUST	Avg. Max Min Total	67	103,000	548 580 475	
SEPT.	Avg. Max Min Total	353	92,500	551 595 450	
OCTO.	Avg. Max Min Total	671	93,500	552 580 450	
NOV.	Avg. Max Min Total	4,888	89,000	476 490 445	
DEC.	Avg. Max Min Total	8,031	101,000	545 605 390	
	Avg. Max Min Total	55,047	1,179,500	534.24 605.00 390.00	

SOMMAIRE / SUMMARY

	2010	2011	2010	2011
	Production d'eau (Gallons)		Water production (m3)	
Total de l'année Total for year	705,347,181	685,670,501	3,206,124	3,116,684
Moy. par jour Daily ave.	1,932,458	1,878,549	8,784	8,539
Moy. par min. Ave. per min.	1,342	1,305	6.10	5.93
Consommation max. Max. consumption	2,684,032	3,009,844	12,200	13,681
Consommation min. Min. consumption	1,527,316	1,467,376	6,942	6,670
	Produits chimiques (lbs)		Chemical products (kg)	
Alun/Alum	541,012	529,317	245,914	240,599
Chaux/Lime	85,980	89,220	39,082	40,555
Chlore/Chlorine	35,232	40,209	16,014	18,277
Fluor/Fluoride	3,460	3,417	1,573	1,553
Silicate	17,077	18,474	7,762	8,397
Aluminate	7,857	9,261	3,572	4,209

Surintendant/Superintendent
SERVICE DE L'ENVIRONNEMENT/ENVIRONMENT SERVICE