



2013
WATERWORKS
SUMMARY REPORT
(January 1, 2013 to December 31, 2013)

PREPARED BY:

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CORPORATION OF THE TOWN OF HAWKESBURY

2013 WATERWORKS SUMMARY REPORT

(January 1, 2013 to December 31, 2013)

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 3867 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 OAP 177. We have been assessed by NSF-ISR and found to be in conformity with Ontario's Drinking Water Quality Management Standard. The scope of registration for the DWQMS is Entire Full Scope Accreditation and the expiration date is February 20, 2016.

We also have a 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. We are in the process of an application for a renewal permit

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 as per the 1996 design.

Based on the 2013 Total water production data, the maximum daily water production was in July 16, 2013 at 8,591 m³/day. This is well under the Maximum Daily Volume rate allowed.

See Appendix "A" for Waterworks Data 2013.

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

$$\begin{aligned}\text{Maximum Rate of Taking} &= 25,003 \text{ L/min} = 25 \text{ m}^3/\text{min} \\ \text{Maximum Rate of Taking} &= 20,000,000 \text{ L/day} = 20,000 \text{ m}^3/\text{day}\end{aligned}$$

Based on the 2013 raw water consumption data, the highest rate of taking water (peak) was July 24, 2013 for 20,243 m³/day for about 1 minute. The total water production for that day was 6,569 m³.

See Appendix "A" for Waterworks Data 2013.

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. 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 2013 Summary Report has been prepared on February 10, 2014 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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APPENDIX “A”

WATERWORKS DATA 2013

MONTH	FILTERS			RAW WATER											
	Turb No 1	Turb No 2	Turb No 3	MONTH	Date	Temp	pH	Alk	Color	Turb.	Residual Alum	Choli	E.Coli	Free Chlorine	Total Chlorine
JAN	Avg	0.08	0.09	JAN	Avg	1.1	7.01	38	47	3.81	0.000	54.84	11.61	0.00	0.00
	Max	0.10	0.12		Max	1.4	7.17	48	50	5.74	0.000	700.00	160.00	0.00	0.00
	Min	0.07	0.07		Min	0.9	6.90	28	42	2.80	0.000	0.00	0.00	0.00	0.00
FEV	Avg	0.10	0.09	FEV	Avg	1.3	7.01	38	47	4.36	0.000	16.89	11.00	0.00	0.00
	Max	0.12	0.11		Max	1.8	7.16	46	50	7.99	0.000	200.00	200.00	0.00	0.00
	Min	0.08	0.08		Min	1.0	6.85	31	45	3.48	0.000	0.00	0.00	0.00	0.00
MARS	Avg	0.11	0.11	MARS	Avg	1.6	6.99	39	46	4.24	0.000	13.68	4.26	0.00	0.00
	Max	0.13	0.12		Max	2.0	7.07	53	50	7.00	0.000	172.00	64.00	0.00	0.00
	Min	0.09	0.09		Min	1.3	6.80	31	45	3.46	0.000	0.00	0.00	0.00	0.00
APRIL	Avg	0.10	0.09	APRIL	Avg	4.9	7.10	55	50	21.21	0.000	24.93	7.07	0.00	0.00
	Max	0.15	0.16		Max	8.7	7.28	69	50	107.70	0.000	364.00	112.00	0.00	0.00
	Min	0.07	0.07		Min	1.9	6.96	36	50	9.24	0.000	0.00	0.00	0.00	0.00
MAY	Avg	0.08	0.09	MAY	Avg	12.1	6.85	30	50	8.82	0.000	17.94	2.06	0.00	0.00
	Max	0.12	0.11		Max	14.7	7.10	36	50	20.95	0.000	296.00	24.00	0.00	0.00
	Min	0.07	0.07		Min	8.6	6.50	27	50	5.70	0.000	0.00	0.00	0.00	0.00
JUNE	Avg	0.09	0.10	JUNE	Avg	17.1	6.96	38	50	8.06	0.000	14.67	1.33	0.00	0.00
	Max	0.15	0.15		Max	19.9	7.08	48	50	16.75	0.000	172.00	20.00	0.00	0.00
	Min	0.07	0.08		Min	15.1	6.81	29	50	5.40	0.000	0.00	0.00	0.00	0.00
JULY	Avg	0.11	0.11	JULY	Avg	22.9	7.12	46	48	6.99	0.000	13.20	0.26	0.00	0.00
	Max	0.14	0.15		Max	25.1	7.32	51	50	18.00	0.000	148.00	4.00	0.00	0.00
	Min	0.09	0.09		Min	19.4	6.99	41	43	3.54	0.000	0.00	0.00	0.00	0.00
AUGUST	Avg	0.10	0.11	AUG	Avg	22.9	7.08	41	41	3.51	0.000	6.03	0.00	0.00	0.00
	Max	0.12	0.12		Max	23.9	7.23	47	48	5.69	0.000	176.00	0.00	0.00	0.00
	Min	0.09	0.08		Min	22.2	6.71	35	38	2.39	0.000	0.00	0.00	0.00	0.00
SEPT	Avg	0.09	0.10	SEPT	Avg	20.0	7.07	40	41	3.36	0.000	20.73	0.27	0.00	0.00
	Max	0.16	0.11		Max	24.7	7.22	49	48	4.56	0.000	448.00	4.00	0.00	0.00
	Min	0.06	0.06		Min	17.7	6.80	33	38	2.38	0.000	0.00	0.00	0.00	0.00
OCTO	Avg	0.10	0.10	OCTO	Avg	15.4	7.09	38	43	3.84	0.000	26.00	1.29	0.00	0.00
	Max	0.12	0.11		Max	18.6	7.23	45	48	5.38	0.000	428.00	16.00	0.00	0.00
	Min	0.08	0.08		Min	10.0	6.99	34	38	2.90	0.000	0.00	0.00	0.00	0.00
NOV	Avg	0.10	0.11	NOV	Avg	6.3	7.10	40	50	7.86	0.000	114.57	20.21	0.00	0.00
	Max	0.14	0.14		Max	10.8	7.26	47	50	16.90	0.000	2860.00	560.00	0.00	0.00
	Min	0.08	0.09		Min	2.2	7.04	33	50	3.99	0.000	0.00	0.00	0.00	0.00
DEC	Avg	0.11	0.11	DEC	Avg	1.6	7.09	36	49	3.08	0.000	38.17	7.23	0.00	0.00
	Max	0.14	0.14		Max	2.5	7.14	40	50	7.38	0.000	546.00	64.00	0.00	0.00
	Min	0.09	0.09		Min	1.2	6.92	32	45	2.11	0.000	0.00	0.00	0.00	0.00
Total	Avg	0.10	0.10	Total	Avg	10.61	7.03	39.77	46.76	6.69	0.00	31.39	5.55	0.00	0.00
	Max	0.16	0.16		Max	25.05	7.32	69.00	50.00	107.70	0.00	2860.00	560.00	0.00	0.00
	Min	0.06	0.07		Min	0.85	6.50	28.00	37.50	2.11	0.00	0.00	0.00	0.00	0.00

MONTH	BACKWASH		WATER PRODUCTION				Town Flow (m3/d)
	TSS (mg/l)	City Consumption (M3)	Back Wash (M3)	Plant Use (M3)	Total Production (m3/d)		
JAN	Avg	9.0	241,164	4,418	6,719	7,513	7,428
	Max					8,520	8,483
	Min					5,743	5,582
	Total		228,471	4,418	6,719	232,889	230,282
FEV	Avg	4.0	200,818	4,015	6,045	6,933	6,848
	Max					7,919	7,866
	Min					6,430	6,320
	Total		190,098	4,015	6,045	194,113	191,732
MARS	Avg	13.0	211,940	4,488	6,560	6,828	6,528
	Max					7,304	7,176
	Min					6,235	6,067
	Total		200,914	4,488	6,560	205,402	202,410
APRIL	Avg	10.0	207,955	4,366	6,095	6,691	6,599
	Max					7,630	7,501
	Min					5,857	5,730
	Total		196,356	4,366	6,095	200,722	197,883
MAY	Avg	7.0	223,937	4,544	6,403	6,922	6,827
	Max					8,245	8,150
	Min					5,871	5,816
	Total		210,028	4,544	6,403	214,572	211,852
JUNE	Avg	8.0	212,207	4,430	6,505	6,816	6,716
	Max					7,728	7,558
	Min					5,736	5,704
	Total		200,062	4,430	6,505	204,492	201,469
JULY	Avg	8.0	230,784	4,430	7,872	6,963	6,867
	Max					8,591	8,572
	Min					6,136	6,076
	Total		211,430	4,430	7,872	215,860	212,888
AUGUST	Avg	3.0	232,788	3,963	8,388	7,034	6,965
	Max					7,940	7,877
	Min					5,992	5,913
	Total		214,081	3,963	8,388	218,044	215,923
SEPT	Avg	5.0	223,571	5,054	8,329	7,019	6,867
	Max					8,562	8,498
	Min					6,058	5,952
	Total		205,512	5,054	8,329	210,566	206,006
OCTO	Avg	6.0	224,842	3,971	8,246	6,862	6,802
	Max					8,436	8,435
	Min					5,936	5,821
	Total		209,387	3,971	8,246	213,337	210,876
NOV	Avg	10.0	200,647	3,876	8,370	6,355	6,270
	Max					7,033	6,948
	Min					5,875	5,790
	Total		188,760	3,876	8,370	190,636	188,091
DEC	Avg	8.0	210,364	4,073	8,218	6,453	6,370
	Max					6,952	6,883
	Min					5,875	5,788
	Total		195,974	4,073	8,218	200,047	197,470
AVG.	Max	13.00	2,821,028	51,827	87,760	8,850	8,591
	Min	3.00	2,446,055	3,963	6,045	5,736	5,582
	Total		21,430,000	21,430,000	21,430,000	21,430,000	21,430,000

MONTH	Date	GAS			HYDRO			Peak Demand
		(m ³)	(kw/m)	(kw/m)	(kw/m)	(kw/m)	(kw/m)	
JAN	Avg						505	
	Max						565	
	Min						355	
	Total	11,106	92,000					
FEV	Avg						508	
	Max						590	
	Min						440	
	Total	8,380	81,000					
MARS	Avg						434	
	Max						455	
	Min						280	
	Total	8,735	87,000					
APRIL	Avg						473	
	Max						480	
	Min						450	
	Total	6,685	82,508					
MAY	Avg						487	
	Max						505	
	Min						280	
	Total	2,314	84,505					
JUNE	Avg						472	
	Max						475	
	Min						440	
	Total	6	84,000					
JULY	Avg						480	
	Max						465	
	Min						445	
	Total	0	87,500					
AUGUST	Avg						517	
	Max						578	
	Min						440	
	Total	0	87,500					
SEPT	Avg						500	
	Max						530	
	Min						450	
	Total	1	85,500					
OCTO	Avg						458	
	Max						475	
	Min						175	
	Total	981	88,000					
NOV	Avg						468	
	Max						515	
	Min						280	
	Total	6,757	85,000					
DEC	Avg						466	
	Max						475	
	Min						350	
	Total	10,781	89,000					
	Avg.						478.87	
	Max						590.00	
	Min						175.00	
	Total	56,716	1,034,511					

SOMMAIRE / SUMMARY

	2012	2013	2012	2013
			Water production (m3)	
Total de l'année	652,898,177	550,150,023	2,967,719	2,500,662
Total for year				
Moy par jour	1,786,782	1,507,260	8,131	6,851
Daily ave.				
Moy par min.	1,242	1,047	5,65	4,76
Ave per min.				
Consummation max	2,383,006	1,680,015	10,832	8,591
Max consumption				
Consummation min	1,231,065	1,261,934	5,596	5,738
Min consumption				
			Chemical products (kg)	
Alum/Alum	487,468	452,889	221,576	205,859
Chaux/Lime	87,466	70,058	39,757	31,845
Chlore/Chlorine	18,334	15,178	8,334	8,808
Fluor/Fluoride	3,569	3,284	1,622	1,493
Silicate	18,022	13,647	8,646	6,203
Aluminate	8,605	8,758	4,046	3,072

Surintendant/Superintendent
SERVICE DE L'ENVIRONNEMENT/ENVIRONMENT SERVICE

Raw water taking (Peak)

Jan	1,6158
FEB	1,6852
March	1,6832
April	1,9246
May	1,7048
June	1,4691
July	2,0243
Aug	1,7434
Sept	1,4110
Oct	1,5623
Nov	1,7455
Dec	1,5983