
MEMORANDUM

PWC-C 6-2019

Subject: Niagara Water Treatment Plant 2018 Summary Reports

Date: March 19, 2019

To: Public Works Committee

From: Jen Croswell, C.Tech., Water Compliance Specialist

A Drinking Water Summary Report (Summary Report), required under the Safe Drinking Water Act, 2002, has been prepared for each of Niagara Region's six (6) drinking water treatment plants for January 1, 2018 through December 31, 2018, inclusive. The Summary Reports have been provided as Appendix I and include:

- A description of any failure to meet the requirements of any governing Act, Regulation, Order or Approval that the Drinking Water System operates under, along with the actions the Operating Authority undertook to mitigate any such non-compliance;
- A summary of water flow rates including maximum daily flow rates and instantaneous peak flow rates in comparison with the capacity of the water works identified in the drinking water license and permit. This information is included for the purpose of allowing the owner (Niagara Region) of the system to assess the capability of the system to meet existing and planned uses of the system.

The intent of the Summary Report is to provide full disclosure and acts as an instrument to ensure Council, senior management, regulatory agencies and the public are made aware of any non-compliance issues.

In addition to the Summary Reports, staff have produced Annual Water Quality Reports (Annual Reports) for each of Niagara Region's six (6) drinking water treatment plants, as required by the Safe Drinking Water Act, 2002. The Annual Reports have been made available to the public via the Niagara Region website

(<https://www.niagararegion.ca/living/water/Water-Quality-Reports/default.aspx>).

The publication of these reports will be advertised in the Region's Public Works Green Scene newsletter in spring 2019.

Inspections were completed for all of Niagara's six (6) water treatment plants. Five (5) water treatment plants (Decew Falls, Grimsby, Niagara Falls, Port Colborne, and Rosehill) obtained a 100% compliance score on the Ministry of Environment, Conservation and Parks (MECP) Inspection Rating Report. One (1) water treatment plant, Welland, was found to be in non-compliance with Ministry Regulations and/or System Licences and obtained an inspection rating of 99.17%. The non-compliance

was administrative in nature and did not result in environmental or public health risk. Details of the non-compliance are as follows:

- Watermain installation which crosses a waterbody using an open-cut construction method requires an application for a Schedule C amendment and approval from the Ministry of Environment, Conservation and Parks prior to construction. The initial assessment for a watermain construction project concluded that the impacted ditch was not a waterway. Upon further review it was determined that the ditch was deemed a waterway, therefore, an inappropriate approval method for construction was used. Niagara Region was found to be in non-compliance with item (b) of Subsection 31 (1) of the Safe Drinking Water Act, 2002. Internal operating procedures were updated and staff training was conducted to ensure appropriate approvals are obtained for future construction projects.

May this memorandum serve as acknowledgment of receipt of the Summary Reports by the system owner, Council.

Appendices

Appendix I – 2018 Summary Reports – Decew Falls, Grimsby, Niagara Falls, Port Colborne, Rosehill and Welland Water Treatment Plants

Respectfully submitted and signed by

Jen Croswell, C.Tech.
Water Compliance Specialist

DECEW FALLS WATER TREATMENT PLANT

ANNUAL SUMMARY REPORT

(Prepared under Ontario Regulation 170/03)

January 1 to December 31, 2018

Ministry of the Environment, Conservation and Parks

**Municipal Drinking Water License # 007-102
Drinking Water Works Permit # 007-202**

1. Failure to meet with the requirements of the Act, the regulation, the system's approval:

The Decew Falls Water Treatment Plant was operated in such a way that at no time did it fail to meet or exceed the requirements of the Act, the Regulations, the system's approval or any order that may have been issued for this reporting period.

2. A summary of flows for the reporting period January 1, 2018 – December 31, 2018:

2018	TOTAL FLOW		AVERAGE DAY		MAX. DAY	MIN. DAY	MAX. FLOW RATE	MIN. FLOW RATE	WASTE SLUDGE
Date	Raw (ML)	Treated (ML)	Raw (ML)	Treated (ML)	Treated (ML)	Treated (ML)	Treated (ML/d)	Treated (ML/d)	(ML)
Jan	1747.219	1554.102	56.362	50.132	52.878	47.948	79.436	23.199	0.780
Feb	1564.273	1374.048	55.867	49.073	52.782	46.148	102.588	17.566	0.824
Mar	1729.191	1529.487	55.780	49.338	51.362	47.224	74.101	22.622	0.824
Apr	1677.964	1489.972	55.932	49.666	53.904	47.001	72.347	20.722	0.824
May	1900.540	1728.820	61.308	55.924	78.354	28.757	94.029	10.472	9.062
Jun	2190.617	2039.161	73.021	67.972	94.908	54.981	101.540	23.311	6.417
Jul	2383.023	2314.860	76.872	74.673	93.786	63.726	112.529	35.124	0.727
Aug	2210.630	2055.174	71.311	66.296	74.668	57.917	130.316	36.187	0.564
Sep	1971.414	1814.582	65.714	60.486	68.567	55.336	90.257	34.811	0.520
Oct	1752.368	1616.921	56.528	52.159	54.237	49.514	77.662	25.595	9.279
Nov	1613.699	1478.511	53.790	49.284	51.976	47.055	78.401	22.996	3.165
Dec	1630.932	1490.453	52.611	48.079	50.940	42.939	101.623	16.124	1.084
TOTAL	22371.870	20486.091							34.071
MIN						28.757		10.472	0.520
MAX					94.908		130.316		9.279
AVG			61.258	56.090					2.839

* The flow rates are moments in time, and can be affected by various circumstances, such as pump changes or valve position and therefore not unusual to have higher or lower than normal flows.

3. A comparison of actual flows to that of the flow rates set out in the system's approval:

Flow rates as set in:

- Municipal Drinking Water License # 007-102
- Drinking Water Works Permit # 007-202

Maximum daily flow: 227.300 ML

Maximum flow rate: 227.300 ML/day

2018	AVERAGE DAY	% OF RATED CAPACITY	MAX. DAY	% OF RATED CAPACITY	MAX. FLOW RATE	% OF RATED CAPACITY
Date	Treated (ML)		Treated (ML)		Treated (ML/d)	
Jan	50.132	22.1%	52.878	23.3%	79.436	34.9%
Feb	49.073	21.6%	52.782	23.2%	102.588	45.1%
Mar	49.338	21.7%	51.362	22.6%	74.101	32.6%
Apr	49.666	21.9%	53.904	23.7%	72.347	31.8%
May	55.924	24.6%	78.354	34.5%	94.029	41.4%
Jun	67.972	29.9%	94.908	41.8%	101.540	44.7%
Jul	74.673	32.9%	93.786	41.3%	112.529	49.5%
Aug	66.296	29.2%	74.668	32.8%	130.316	57.3%
Sep	60.486	26.6%	68.567	30.2%	90.257	39.7%
Oct	52.159	22.9%	54.237	23.9%	77.662	34.2%
Nov	49.284	21.7%	51.976	22.9%	78.401	34.5%
Dec	48.079	21.2%	50.940	22.4%	101.623	44.7%

GRIMSBY WATER TREATMENT PLANT

ANNUAL SUMMARY REPORT

(Prepared under Ontario Regulation 170/03)

January 1 to December 31, 2018

Ministry of the Environment, Conservation and Parks

Municipal Drinking Water License # 007-105
Drinking Water Works Permit # 007-205

1. Failure to meet with the requirements of the Act, the regulation, the system's approval:

The Grimsby Water Treatment Plant was operated in such a way that at no time did it fail to meet or exceed the requirements of the Act, the regulation, the system's approval or any order that may have been issued for this reporting period.

2. A summary of flows for the reporting period January 1, 2018 – December 31, 2018:

2018	TOTAL FLOW		AVERAGE DAY		MAX. DAY	MIN. DAY	MAX. FLOW RATE	MIN. FLOW RATE	WASTE SLUDGE
Date	Raw (ML)	Treated (ML)	Raw (ML)	Treated (ML)	Treated (ML)	Treated (ML)	Treated (ML/D)	Treated (ML/D)	(ML)
Jan	414.622	416.369	13.375	13.093	15.042	12.022	12.926	13.507	1.106
Feb	354.535	356.979	12.662	12.749	13.878	11.649	17.154	8.002	1.392
Mar	403.471	404.538	13.015	13.050	14.086	12.100	11.695	14.345	0.809
Apr	404.677	396.065	13.489	13.202	14.498	11.857	17.456	8.676	2.307
May	483.141	481.737	15.585	15.540	20.968	13.064	23.167	9.206	0.789
Jun	562.669	558.598	18.756	18.620	23.809	13.312	29.904	8.735	0.707
Jul	636.146	625.639	20.521	20.182	25.717	13.037	33.139	3.704	1.052
Aug	530.532	526.613	17.114	16.988	20.126	13.782	16.651	16.242	1.128
Sep	475.568	468.128	15.852	15.604	18.369	13.308	14.142	15.047	0.974
Oct	423.797	419.155	13.671	13.521	15.265	11.541	12.637	14.356	1.093
Nov	386.797	384.374	12.893	12.812	13.821	11.677	11.686	13.321	2.608
Dec	405.950	404.121	13.095	13.036	14.507	11.071	12.377	12.257	0.481
TOTAL	5481.905	5442.316							14.446
MIN						11.071		3.704	0.481
MAX					25.717		33.139		2.608
AVG			15.002	14.866					1.204

* The flow rates are moments in time, and can be affected by various circumstances, such as pump changes or valve position and therefore not unusual to have higher or lower than normal flows.

3. A comparison of actual flows to that of the flow rates set out in the system's approval:

Flow rates as set in:

- Municipal Drinking Water License # 007-105
- Drinking Water Works Permit # 007-205

Maximum daily flow: 44.000 ML

Maximum flow rate: 44.000 ML/day

2018	AVERAGE DAY	% OF RATED CAPACITY	MAX. DAY	% OF RATED CAPACITY	MAX. FLOW RATE	% OF RATED CAPACITY
Date	Treated (ML)		Treated (ML)		Treated (ML/d)	
Jan	13.093	29.8%	15.042	34.2%	12.926	29.4%
Feb	12.749	29.0%	13.878	31.5%	17.154	39.0%
Mar	13.050	29.7%	14.086	32.0%	11.695	26.6%
Apr	13.202	30.0%	14.498	33.0%	17.456	39.7%
May	15.540	35.3%	20.968	47.7%	23.167	52.7%
Jun	18.620	42.3%	23.809	54.1%	29.904	68.0%
Jul	20.182	45.9%	25.717	58.4%	33.139	75.3%
Aug	16.988	38.6%	20.126	45.7%	16.651	37.8%
Sep	15.604	35.5%	18.369	41.7%	14.142	32.1%
Oct	13.521	30.7%	15.265	34.7%	12.637	28.7%
Nov	12.812	29.1%	13.821	31.4%	11.686	26.6%
Dec	13.036	29.6%	14.507	33.0%	12.377	28.1%

NIAGARA FALLS WATER TREATMENT PLANT

ANNUAL SUMMARY REPORT

(prepared under Ontario Regulation 170/03)

January 1 to December 31, 2018

Ministry of the Environment, Conservation and Parks

**Drinking Water Works Permit # 007-202
Municipal Drinking Water License # 007-102**

1. Failure to meet with the requirements of the Act, the regulation, the system's approval:

The Niagara Falls Water Treatment Plant was operated in such a way that at no time did it fail to meet or exceed the requirements of the Act, the Regulations, the system's approval or any order that may have been issued for this reporting period.

2. A summary of flows for the reporting period January 1, 2018 – December 31, 2018

2018	TOTAL FLOW		AVERAGE DAY		MAX. DAY	MIN. DAY	MAX. FLOW RATE	MIN. FLOW RATE	WASTE SLUDGE
Date	Raw (ML)	Treated (ML)	Raw (ML)	Treated (ML)	Treated (ML)	Treated (ML)	Treated (ML/d)	Treated (ML/d)	(ML)
Jan	1374.275	1257.808	44.331	40.574	50.967	36.870	57.200	17.000	0.876
Feb	1206.517	1090.977	43.090	38.963	42.430	34.928	63.509	17.580	0.113
Mar	1360.299	1202.922	43.881	40.097	48.097	34.670	75.790	16.080	2.169
Apr	1265.187	1156.643	42.173	38.555	46.171	29.370	60.751	14.530	2.189
May	1489.074	1385.821	48.035	44.704	57.808	36.843	76.225	21.030	0.229
Jun	1744.255	1638.605	58.142	54.620	74.508	42.024	119.450	25.470	0.421
Jul	2077.807	1971.490	67.026	63.596	74.286	49.241	108.978	17.990	1.662
Aug	1729.568	1670.229	55.793	53.878	66.362	46.104	84.297	25.490	0.432
Sep	1432.248	1375.239	47.742	45.841	54.533	36.727	77.110	25.120	0.288
Oct	1318.990	1255.997	42.548	40.516	45.471	34.508	61.161	24.870	1.753
Nov	1195.792	1125.617	39.860	37.521	42.513	33.112	65.780	18.290	4.743
Dec	1254.508	1192.650	40.468	38.473	44.726	29.246	68.601	17.930	0.688
TOTAL	17,448.520	16,323.998							15.563
MIN						29.246		14.530	0.113
MAX					74.508		119.450		4.743
AVG		1,360.33	47.76	44.78					1.297

*The flow rates are moments in time, and can be affected by various circumstances, such as pump changes or valve position and therefore not unusual to have higher or lower than normal flow.

3. A comparison of actual flows to the flow rates set out in the system's approval:

Flow rates as set in:

- Drinking Water Works Permit # 007-202
- Municipal Drinking Water License # 007-102

Maximum daily flow: 145.500 ML

Maximum flow rate: 145.500 ML/day

2018	AVERAGE DAY	% OF RATED CAPACITY	MAX. DAY	% OF RATED CAPACITY	MAX. FLOW RATE	% OF RATED CAPACITY
Date	Treated (ML)		Treated (ML)		Treated (ML/d)	
Jan	40.574	28%	50.967	35%	57.200	39%
Feb	38.963	27%	42.430	29%	63.509	44%
Mar	40.097	28%	48.097	33%	75.790	52%
Apr	38.555	27%	46.171	32%	60.751	42%
May	44.704	31%	57.808	40%	76.225	52%
Jun	54.620	38%	74.508	51%	119.450	82%
Jul	63.596	44%	74.286	51%	108.978	75%
Aug	53.878	37%	66.362	46%	84.297	58%
Sep	45.841	32%	54.533	37%	77.110	53%
Oct	40.516	28%	45.471	31%	61.161	42%
Nov	37.521	26%	42.513	29%	65.780	45%
Dec	38.473	26%	44.726	31%	68.601	47%

PORT COLBORNE WATER TREATMENT PLANT

ANNUAL SUMMARY REPORT

(Prepared under Ontario Regulation 170/03)

January 1 to December 31, 2018

Ministry of the Environment, Conservation and Parks

Drinking Water Works Permit # 007-201
Municipal Drinking Water License # 007-101

1. Failure to meet with the requirements of the Act, the regulation, the system's approval:

The Port Colborne Water Treatment Plant was operated in such a way that at no time did it fail to meet or exceed the requirements of the Act, the regulation, the system's approval or any order that may have been issued for this reporting period.

2. A summary of flows for the reporting period January 1, 2018 – December 31, 2018:

2018	TOTAL FLOW		AVERAGE DAY		MAX. DAY	MIN. DAY	MAX. FLOW RATE	MIN. FLOW RATE	WASTE SLUDGE
Date	Raw (ML)	Treated (ML)	Raw (ML)	Treated (ML)	Treated (ML)	Treated (ML)	Treated (ML/d)	Treated (ML/d)	(ML)
Jan	332.370	313.200	10.722	10.103	14.160	8.660	18.759	3.815	2.297
Feb	301.360	284.260	10.763	10.152	12.510	7.860	20.892	3.692	2.187
Mar	320.380	303.640	10.335	9.795	11.500	8.150	18.872	3.395	2.747
Apr	311.730	290.285	10.391	9.676	10.930	8.150	17.979	3.015	2.473
May	321.830	304.945	10.382	9.837	11.650	7.560	18.492	2.526	2.113
Jun	306.590	285.670	10.220	9.522	11.160	7.520	21.364	3.169	1.861
Jul	316.950	298.470	10.224	9.628	11.510	7.830	18.441	5.128	1.766
Aug	276.600	260.500	8.923	8.403	10.640	5.880	17.272	3.128	1.629
Sep	237.750	222.560	7.925	7.419	9.090	4.210	21.333	3.282	1.590
Oct	232.580	221.480	7.503	7.145	9.520	5.820	17.600	3.262	1.663
Nov	227.729	216.300	7.591	7.210	8.273	5.670	16.400	3.210	1.521
Dec	241.340	231.870	7.785	7.480	10.310	6.020	16.554	2.887	1.612
TOTAL	3427.209	3233.180							23.459
MIN						4.210		2.526	1.521
MAX					14.160		21.364		23.459
AVG			9.397	8.864					1.955

*The flow rates are moments in time, and can be affected by various circumstances, such as pump changes or valve position and therefore not unusual to have higher or lower than normal flow.

3. A comparison of actual flows to that of the flow rates set out in the system's approval:

Flow rates as set in:

- Drinking Water Works Permit # 007-201
- Municipal Drinking Water License # 007-101

Maximum daily flow 36.000 ML
Maximum flow rate 36.000 ML/day

2018	AVERAGE DAY	% OF RATED CAPACITY	MAX. DAY	% OF RATED CAPACITY	MAX. FLOW RATE	% OF RATED CAPACITY
Date	Treated (ML)		Treated (ML)		Treated (ML/d)	
Jan	10.103	28.1%	14.160	39.3%	18.759	52.1%
Feb	10.152	28.2%	12.510	34.8%	20.892	58.0%
Mar	9.795	27.2%	11.500	31.9%	18.872	52.4%
Apr	9.676	26.9%	10.930	30.4%	17.979	49.9%
May	9.837	27.3%	11.650	32.4%	18.492	51.4%
Jun	9.522	26.5%	11.160	31.0%	21.364	59.3%
Jul	9.628	26.7%	11.510	32.0%	18.441	51.2%
Aug	8.403	23.3%	10.640	29.6%	17.272	48.0%
Sep	7.419	20.6%	9.090	25.3%	21.333	59.3%
Oct	7.145	19.8%	9.520	26.4%	17.600	48.9%
Nov	7.210	20.0%	8.273	23.0%	16.400	45.6%
Dec	7.480	20.8%	10.310	28.6%	16.554	46.0%

ROSEHILL WATER TREATMENT PLANT

ANNUAL SUMMARY REPORT

(prepared under Ontario Regulation 170/03)

January 1 to December 31, 2018

Ministry of the Environment, Conservation and Parks

Drinking Water Works Permit # 007-203
Municipal Drinking Water License # 007-103

1. Failure to meet with the requirements of the Act, the regulation, the system's approval:

The Rosehill Water Treatment Plant was operated in such a way that at no time did it fail to meet or exceed the requirements of the Act, the regulation, the system's approval or any order that may have been issued for this reporting period.

2. A summary of flows for the reporting period January 1, 2018 – December 31, 2018:

2018	TOTAL FLOW		AVERAGE DAY		MAX. DAY	MIN. DAY	MAX. FLOW RATE	MIN. FLOW RATE	WASTE SLUDGE
Date	Raw (ML)	Treated (ML)	Raw (ML)	Treated (ML)	Treated (ML)	Treated (ML)	Treated (ML/d)	Treated (ML/d)	(ML)
Jan	395.899	368.676	12.771	11.893	13.479	10.874	19.932	4.100	10.098
Feb	345.991	322.718	12.357	11.526	12.058	10.416	20.359	4.250	8.060
Mar	378.718	353.500	12.217	11.403	11.887	10.817	15.812	3.830	9.676
Apr	374.992	349.987	12.500	11.666	12.529	10.803	18.701	4.080	6.263
May	436.606	408.701	14.084	13.184	16.190	11.413	26.171	4.140	6.751
Jun	476.494	447.357	15.883	14.912	18.756	12.890	26.667	4.250	13.131
Jul	551.854	519.173	17.802	16.748	19.878	13.137	29.521	4.640	10.021
Aug	477.970	443.090	15.418	14.293	17.699	12.547	25.214	5.810	6.936
Sep	423.099	390.400	14.103	13.013	15.016	11.671	22.855	4.830	9.892
Oct	405.164	376.458	13.070	12.144	16.511	11.186	25.692	5.600	11.773
Nov	381.242	358.273	12.702	11.942	13.440	11.167	28.051	5.420	9.527
Dec	392.357	360.077	15.213	11.615	12.556	10.790	19.658	3.740	15.213
TOTAL	5,040.386	4,698.410							117.341
MIN						10.416		3.740	6.263
MAX					19.878		29.521		15.213
AVG			14.010	12.862					9.778

*The flow rates are moments in time, and can be affected by various circumstances, such as pump changes or valve position and therefore not unusual to have higher or lower than normal flows.

3. A comparison of actual flows to that of the flow rates set out in the system's approval:

Flow rates as set in:

- Drinking Water Works Permit # 007-203
- Municipal Drinking Water License # 007-103

Maximum daily flow: 50.000 ML

Maximum flow rate: 50.000 ML/day

2018	AVERAGE DAY	% OF RATED CAPACITY	MAX. DAY	% OF RATED CAPACITY	MAX. FLOW RATE	% OF RATED CAPACITY
Date	Treated (ML)		Treated (ML)		Treated (ML/d)	
Jan	11.893	24%	13.479	27%	19.932	40%
Feb	11.526	23%	12.058	24%	20.359	41%
Mar	11.403	23%	11.887	24%	15.812	32%
Apr	11.666	23%	12.529	25%	18.701	37%
May	13.184	26%	16.190	32%	26.171	52%
Jun	14.912	30%	18.756	38%	26.667	53%
Jul	16.748	33%	19.878	40%	29.521	59%
Aug	14.293	29%	17.699	35%	25.214	50%
Sep	13.013	26%	15.016	30%	22.855	46%
Oct	12.144	24%	16.511	33%	25.692	51%
Nov	11.942	24%	13.440	27%	28.051	56%
Dec	11.615	23%	12.556	25%	19.658	39%

WELLAND WATER TREATMENT PLANT

ANNUAL SUMMARY REPORT

(Prepared under Ontario Regulation 170/03)

January 1 to December 31, 2018

Ministry of the Environment, Conservation and Parks

Drinking Water Works Permit # 007-204
Municipal Drinking Water License # 007-104

1. Failure to meet with the requirements of the Act, the regulation, the system's approval:

The Welland Water Treatment Plant was found to be in non-compliance with regulations and/or system Licenses, as follows:

- Watermain installation which crosses a waterbody using an open-cut construction method requires an application for a Schedule C amendment and approval from the Ministry of Environment, Conservation and Parks prior to construction. The initial assessment for a watermain construction project concluded that the impacted ditch was not a waterway. Upon further review it was determined that the ditch was deemed a waterway, therefore, an inappropriate approval method for construction was used. Niagara Region was found to be in non-compliance with item (b) of Subsection 31 (1) of the Safe Drinking Water Act, 2002. Internal operating procedures were updated and staff training was conducted to ensure appropriate approvals are obtained for future construction projects.

2. A summary of flows for the reporting period January 1, 2018 – December 31, 2018:

2018	TOTAL FLOW		AVERAGE DAY		MAX. DAY	MIN. DAY	MAX. FLOW RATE	MIN. FLOW RATE	WASTE SLUDGE
Date	Raw (ML)	Treated (ML)	Raw (ML)	Treated (ML)	Treated (ML)	Treated (ML)	Treated (ML/d)	Treated (ML/d)	(ML)
Jan	680.560	672.057	21.954	21.679	27.748	13.615	39.888	22.351	21.345
Feb	602.360	592.912	21.513	21.175	27.500	13.820	40.231	21.922	18.804
Mar	658.630	633.278	21.246	20.428	27.525	11.700	39.138	24.423	36.653
Apr	629.840	615.674	20.995	20.522	23.059	17.271	40.856	23.979	27.165
May	710.340	699.436	22.914	22.562	30.190	19.706	48.668	18.194	24.268
Jun	769.740	750.298	25.658	25.010	30.629	20.419	40.494	25.038	37.607
Jul	908.740	891.671	29.314	28.764	35.789	22.909	51.112	10.296	37.011
Aug	791.350	777.488	25.527	25.080	35.394	20.290	40.594	24.675	31.908
Sep	701.540	687.628	23.385	22.921	28.598	20.415	39.931	16.104	29.936
Oct	661.080	654.130	21.325	21.101	24.296	18.869	39.350	19.710	27.409
Nov	624.320	615.690	20.811	20.523	22.614	18.634	42.487	14.799	24.586
Dec	659.360	641.388	21.270	20.690	22.788	18.364	41.237	11.331	31.229
TOTAL	8397.860	8231.650							347.921
MIN						11.700		10.296	18.804
MAX					35.789		51.112		347.921
AVG			22.993	22.538					28.993

*The flow rates are moments in time, and can be affected by various circumstances, such as pump changes or valve position and therefore not unusual to have higher or lower than normal flow.

3. A comparison of actual flows to that of the flow rates set out in the system's approval:

Flow rates as set in:

- Drinking Water Works Permit # 007-204
- Municipal Drinking Water License # 007-104

Maximum daily flow

65.000 ML

Maximum flow rate

65.000 ML/day

2017	AVERAGE DAY	% OF RATED CAPACITY	MAX. DAY	% OF RATED CAPACITY	MAX. FLOW RATE	% OF RATED CAPACITY
Date	Treated (ML)		Treated (ML)		Treated (ML/d)	
Jan	21.679	33.4%	27.748	42.7%	39.888	61.4%
Feb	21.175	32.6%	27.500	42.3%	40.231	61.9%
Mar	20.428	31.4%	27.525	42.3%	39.138	60.2%
Apr	20.522	31.6%	23.059	35.5%	40.856	62.9%
May	22.562	34.7%	30.190	46.4%	48.668	74.9%
Jun	25.010	38.5%	30.629	47.1%	40.494	62.3%
Jul	28.764	44.3%	35.789	55.1%	51.112	78.6%
Aug	25.080	38.6%	35.394	54.5%	40.594	62.5%
Sep	22.921	35.3%	28.598	44.0%	39.931	61.4%
Oct	21.101	32.5%	24.296	37.4%	39.350	60.5%
Nov	20.523	31.6%	22.614	34.8%	42.487	65.4%
Dec	20.690	31.8%	22.788	35.1%	41.237	63.4%