

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%