



2021 Summary Report

(Prepared under Ontario Regulation 170/03)

Welland Water Treatment Plant

The Regional Municipality of Niagara

January 1 to December 31, 2021

Ministry of the Environment, Conservation and Parks

Municipal Drinking Water License # 007-104

Drinking Water Works Permit # 007-204

Welland Water Treatment Plant - 2021 Summary Report

This report summarizes the water flows for the Welland Water Treatment Plant, drinking water system number 220002048, from January 1 to December 31, 2021.

This report satisfies the requirements of Ontario Regulation 170/03 – Drinking Water Systems.

Summary of Non-Compliance

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

Summary of Water Treatment Plant Flows

The flow rates captured below are moments in time, and can be affected by various circumstances, such as pump changes or valve position. It is not unusual to have higher or lower than normal flows for this reason.

Date	Total Flow Raw (ML)	Total Flow Treated (ML)	Average Day Raw (ML)	Average Day Treated (ML)	Minimum Day Treated (ML)	Maximum Day Treated (ML)	Minimum Flow Rate Treated (ML/d)	Maximum Flow Rate Treated (ML/d)	Total Waste Sludge (ML)
Jan	729.260	714.430	23.525	23.073	20.475	26.045	10.788	43.375	21.823
Feb	785.280	765.220	28.046	27.355	21.514	37.071	21.075	44.013	28.518
Mar	734.030	715.161	23.678	23.101	19.376	28.720	13.690	48.318	26.884
Apr	679.600	660.647	22.653	22.050	20.395	24.658	23.925	42.669	25.467
May	793.240	770.614	25.588	24.888	19.051	31.397	16.881	43.919	27.463
Jun	844.840	828.925	28.161	27.665	23.787	33.745	19.219	62.519	24.766
Jul	791.870	776.779	25.544	25.095	21.445	32.584	17.206	47.739	24.784
Aug	888.320	867.991	28.655	28.042	22.934	33.583	11.256	45.950	32.769
Sep	762.000	743.038	25.400	24.804	21.461	29.749	20.325	47.475	29.216
Oct	794.400	730.206	25.626	23.598	20.554	26.658	22.337	42.831	81.935
Nov	739.250	695.460	24.642	23.217	20.754	27.442	10.507	49.106	54.605
Dec	770.130	718.545	24.843	23.214	20.856	24.897	23.445	47.435	64.522

Stat	Total Flow Raw (ML)	Total Flow Treated (ML)	Average Day Raw (ML)	Average Day Treated (ML)	Minimum Day Treated (ML)	Maximum Day Treated (ML)	Minimum Flow Rate Treated (ML/d)	Maximum Flow Rate Treated (ML/d)	Total Waste Sludge (ML)
Total	9312.220	8987.016							442.752
Min					19.051		10.507		21.823
Max						37.071		62.519	81.935

Stat	Total Flow Raw (ML)	Total Flow Treated (ML)	Average Day Raw (ML)	Average Day Treated (ML)	Minimum Day Treated (ML)	Maximum Day Treated (ML)	Minimum Flow Rate Treated (ML/d)	Maximum Flow Rate Treated (ML/d)	Total Waste Sludge (ML)
Avg		748.918	25.530	24.675					36.896

Comparison of Actual to System Approved Flow

Flow rates are required by Municipal Drinking Water Licence number 007-104.

- Maximum daily flow: 65.000 ML
- Maximum flow rate: 65.000 ML/day

Date	Average Day Treated (ML)	% of Rated Capacity	Maximum Day Treated (ML)	% of Rated Capacity	Maximum Flow Rate Treated (ML/d)	% of Rated Capacity
Jan	23.073	35.5%	26.045	40.1%	43.375	66.7%
Feb	27.355	42.1%	37.071	57.0%	44.013	67.7%
Mar	23.101	35.5%	28.720	44.2%	48.318	74.3%
Apr	22.050	33.9%	24.658	37.9%	42.669	65.6%
May	24.888	38.3%	31.397	48.3%	43.919	67.6%
Jun	27.665	42.6%	33.745	51.9%	62.519	96.2%
Jul	25.095	38.6%	32.584	50.1%	47.739	73.4%
Aug	28.042	43.1%	33.583	51.7%	45.950	70.7%
Sep	24.804	38.2%	29.749	45.8%	47.475	73.0%
Oct	23.598	36.3%	26.658	41.0%	42.831	65.6%
Nov	23.217	35.7%	27.442	42.2%	49.106	75.5%
Dec	23.214	35.7%	24.897	38.3%	47.435	73.0%