

Appendix 1 Overview of Wastewater Regulatory Compliance

Wastewater Regulatory Compliance

Municipal wastewater treatment and sewage collection is a regulated activity. Provincially, the MECP (Ministry of the Environment, Conservation and Parks) regulates the discharges from the wastewater treatment plants (WWTPs) to the environment. WWTPs operate under Environmental Compliance Approvals granted under the Ontario Water Resources Act and Environmental Protection Act. These approvals have requirements for the quality of the environmental discharges in regards to Biochemical Oxygen demand (BOD), Total Suspended Solids (TSS), Total Phosphorus (TP), and Coliforms (E.Coli). The plants generally have both requirements for the monthly average concentrations for these parameters and also their loadings to the environment. There are requirements for the reporting of compliance and operational activities on a quarterly and annual basis as well.

The wastewater collection system is now subject to new requirements under individual Consolidated Linear Infrastructure-Environmental Compliance Approvals (CLI-ECAs). These new CLI-ECAs have requirements for regular maintenance, cleaning and operational checks as well as requirements for the monitoring, measurement and reporting of Combined Sewer Overflows (CSOs).

Federally, discharges from the WWTPs are regulated by the Wastewater Systems Effluent Regulation issued under the Fisheries Act. The WSER contains requirements for BOD, TSS and Total Residual Chlorine (TRC). There is an overarching requirement for the effluent to be “non-toxic” as well.

Table 1 and 2 below depicts the number of non-compliances by year for each of the WWTPs with provincial and federal legislation respectively.

Table 1 - Non-compliances by year for each WWTP with Provincial MECP ECAs

System Name	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025 (Jan – July)	Total by System
Fort Erie	0	0	0	0	0	0	0	0	0	1	1	2
SD Lagoon	0	0	0	0	0	0	0	2	2	2	0	6
Niagara Falls	2	3	2	8	1	0	7	10	7	12	7	59
Queenston	0	0	2	0	0	0	0	1	0	2	2	7
Crystal Beach	0	0	0	0	0	1	1	0	0	0	0	2
Seaway (Port Colborne)	0	0	0	0	0	0	1	0	0	1	0	2
Welland	0	0	0	1	0	0	1	3	2	1	3	11
NOTL	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	0	0
Port Weller	0	0	0	0	0	0	1	0	0	1	0	2
Port Dalhousie	0	0	0	0	0	0	2	0	2	0	1	5
Grimsby	0	0	0	0	1	0	0	2	3	3	1	10
Total by Year	2	3	4	9	2	1	13	18	16	23	15	106

Table 2 - Non-compliances by year for each WWTP with the Federal Wastewater Systems Effluent Regulation (WSER)

System Name	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025 (Jan – July)	Total by System
Fort Erie	0	0	0	0	0	0	0	0	0	1	0	1
SD Lagoon	0	0	0	0	0	0	0	0	0	0	0	0
Niagara Falls	4	3	3	8	2	0	7	10	7	15	8	67
Queenston	0	0	0	0	0	0	0	0	0	0	1	1
Crystal Beach	0	0	0	0	0	0	0	0	0	0	0	0
Seaway (Port Colborne)	0	0	0	0	0	0	1	0	0	0	0	1
Welland	0	0	0	0	0	0	1	0	1	1	0	3
NOTL WWTP	N/A	N/A	N/A	N/A	N/A	0	0	0	0	0	1	1
Port Weller	0	0	0	0	0	0	1	0	1	1	0	3
Port Dalhousie	0	0	0	0	0	0	2	0	2	0	1	5
Grimsby	0	0	0	0	0	0	0	0	0	0	0	0
Total by Year	4	3	3	8	2	0	12	10	11	18	11	82

Provincial Officers Orders

The MECP has issued two Provincial Officer Orders to Niagara in the past ten years:

1. July 2018 – Niagara Falls WWTP – Order to Improve Effluent Quality

Staff have been working hard to remain in compliance with all applicable regulations and work co-operatively with regulatory authorities. Degradation of existing treatment equipment has hindered staff's ability to meet regulatory requirement at the Niagara Falls WWTP. Many efforts have been and will continue to be taken to achieve compliance.

2. March 2019 – Niagara Falls WWTP - Order to allow a Polymer Trial

Staff worked with MECP to receive this supportive order to the Niagara Region to allow for the use of polymer to improve the treatment process and effluent quality.

Written Warnings issued by Environment and Climate Change Canada

Environment and Climate Change Canada (ECCC) issued three (3) written warnings to Niagara:

1. June 2017 – Fort Erie WWTP – Spill of Chemical to the Niagara River

A spill of dechlorinating agent, sodium bisulphite (SBS), occurred at the Fort Erie WWTP in March of 2017. Upon investigation, it was determined that the SBS siphoned through the chemical pump through a vent in the chemical system. The vent line discharged the chemical to the containment area. The containment area was equipped with a valve that was found to be not completely closed due to debris in the valve seal, allowing the SBS to enter the final effluent and ultimately be discharged to the Niagara River. The spill was investigated by an Environment Canada Fishery Officer. SBS is considered a deleterious substance to aquatic ecology and discharge of a deleterious substance is a violation of the Fisheries Act. A written warning was issued for this violation.

Staff corrected the system deficiencies that allowed the discharge of the SBS. All chemical systems across wastewater operations were inspected and deficiencies were corrected as needed.

2. April 2019 – Niagara Falls WWTP –Effluent Quality

A written warning was received as an outcome to an Environment and Climate Change inspection of the Niagara Falls WWTP. The warning included multiple Wastewater Systems Effluent Regulations exceedances related to the final effluent quality at the Niagara Falls WWTP during the period of 2016 to 2019.

A capital project to replace the underperforming secondary treatment process is well underway with commissioning activities starting in June 2025.

3. March 2024 – Niagara Falls WWTP - Effluent Quality

A written warning was received as an outcome to a failed toxicity test which is in violation of the WSER. The warning also included all exceedances that occurred at the Niagara Falls WWTP during the period between 2021 and April 2024 related to the final effluent quality.

A capital project to replace the underperforming secondary treatment process is well underway with commissioning activities starting in June 2025 with completion by the end of the year.