

Niagara Region 2023 Wastewater Annual Performance Report: Introduction and Systems Overview

Description of Niagara Region Wastewater Treatment and Collection Systems

Wastewater services are delivered using a two-tier model with local area municipalities owning and operating local gravity sewer mains while Niagara Region owns and operates large gravity sewer trunk lines, most pumping station and forcemains as well as all wastewater treatment facilities. Sewage from rural portions of Niagara Region that do not have sewer services are accepted at multiple facilities as imported sewage, or hauled sewage, from commercial sewage haulers.

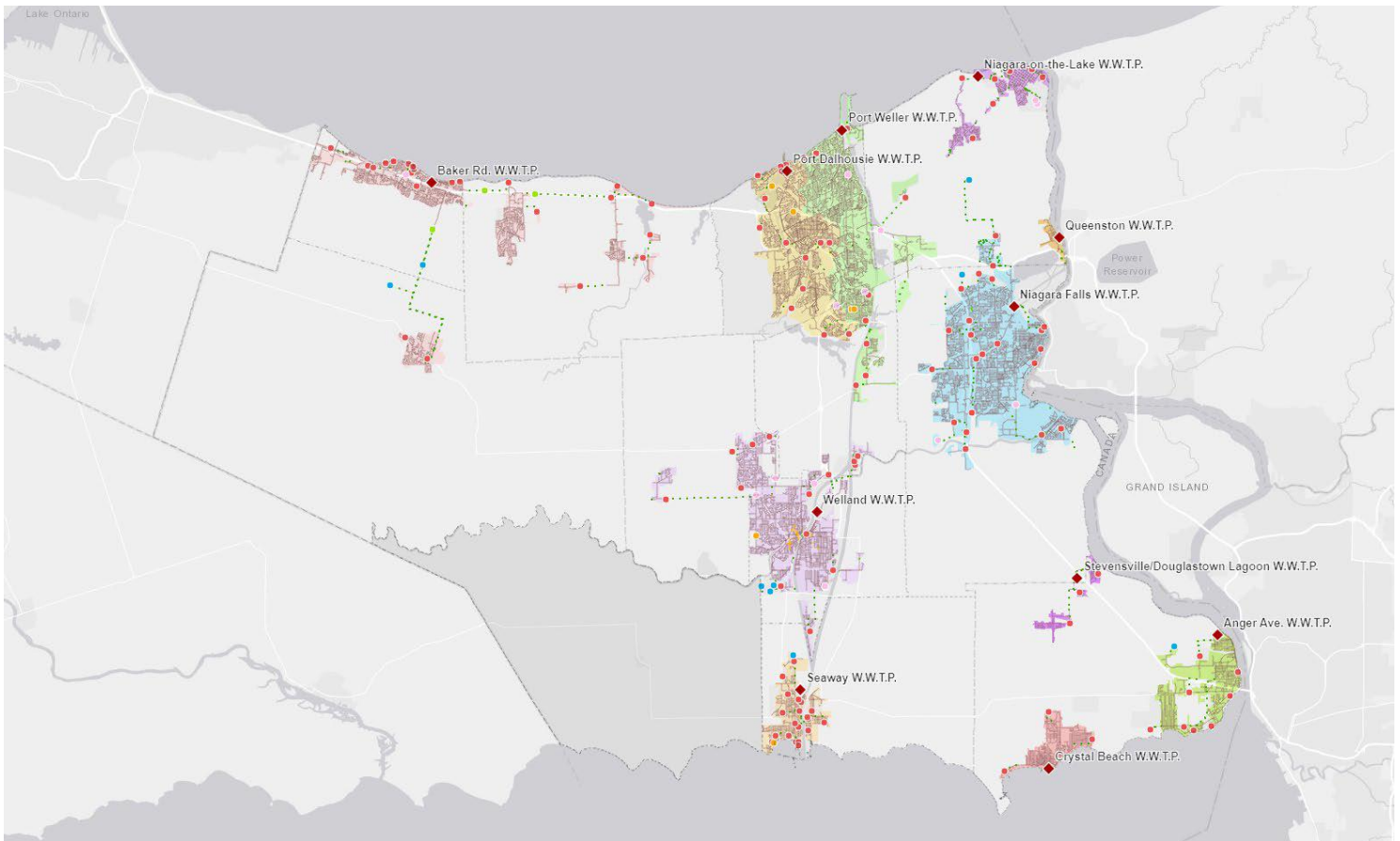


Figure 1 - Map displaying wastewater servicing areas within the Niagara Region

Niagara Region Wastewater Treatment and Collection
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Niagara Region operates 11 active wastewater treatment facilities, 108 sewage pumping stations (SPS), 145 kilometers of forcemain, 143 km of gravity trunk sewers and 3 odour control facilities (OCF).

Table 1 - Active Wastewater Treatment Facilities Owned and Operated by Niagara Region

Facility Name	Municipalities Serviced	Size of Serviced Area (square meters)	Service Population	Number of Sewage Pump Stations
Anger Avenue (Fort Erie) WWTP	Fort Erie	16,398,026	15,621	7
Baker Road WWTP	Grimsby, Lincoln, West Lincoln	29,517,363	51,158	15
Crystal Beach WWTP	Fort Erie	8,763,568	9,053	3
Niagara Falls WWTP	Niagara Falls, Niagara-on-the-Lake	63,407,326	93,366	21
Niagara-on-the-Lake WWTP	Niagara-on-the-Lake	8,786,545	8,763	7
Port Dalhousie WWTP	Thorold, St. Catharines	40,910,802	76,335	14
Port Weller WWTP	Thorold, St. Catharines, Niagara-on-the-Lake	45,742,318	78,332	9
Queenston WWTP	Niagara-on-the-Lake	1,658,960	373	0
Seaway (Port Colborne) WWTP	Port Colborne	12,049,147	15,562	17
Stevensville-Douglastown Lagoon	Fort Erie	2,914,181	2,745	2
Welland WWTP	Pelham, Thorold, Welland	41,477,580	69,019	13
	Total:	271,625,816	420,327	108

An infographic displaying key statistics for wastewater treatment is available in figure 2 below.

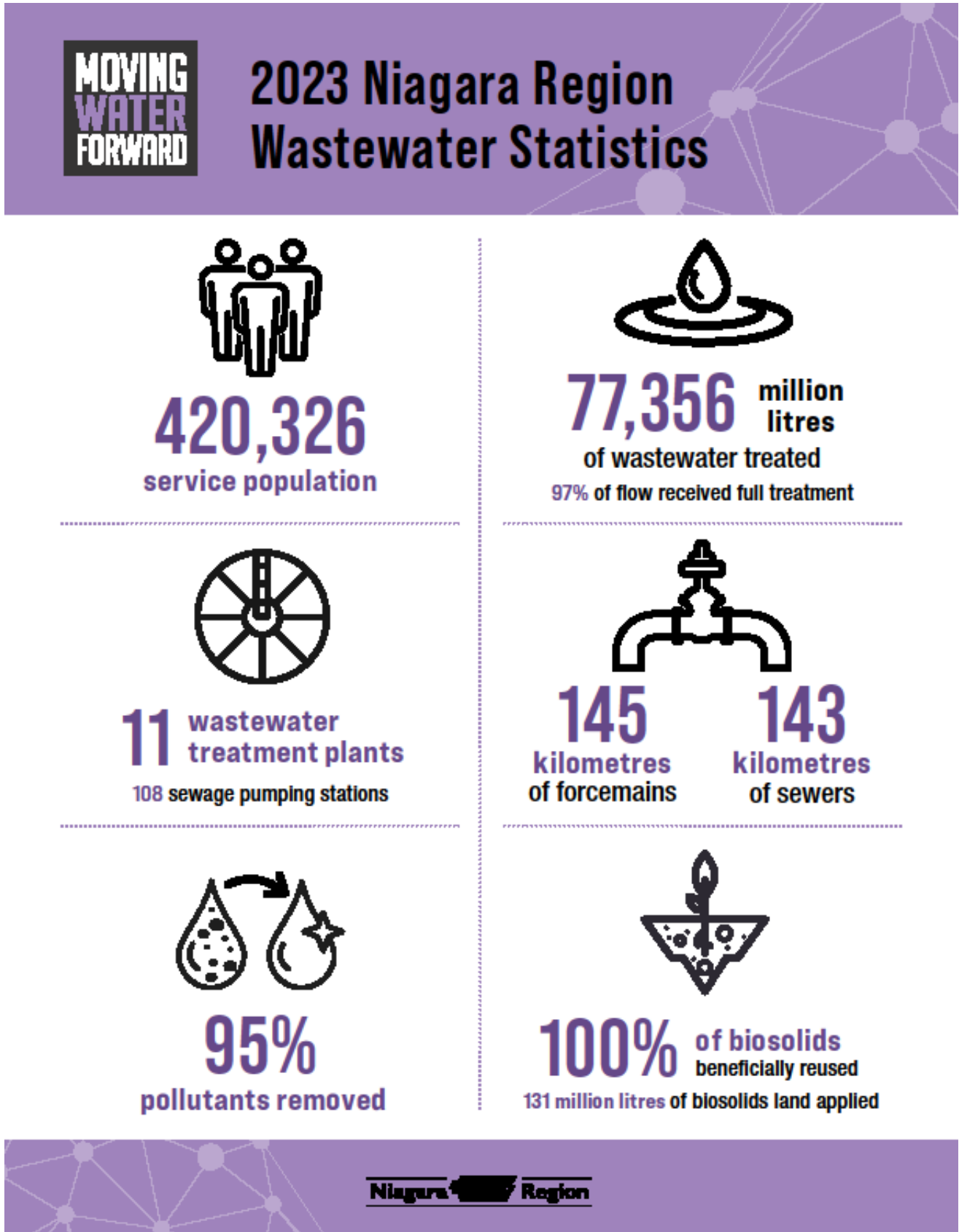


Figure 2 - Image displaying 2023 wastewater treatment statistics.

Purpose and Overview of Annual Performance Reporting

The annual performance reports are intended to provide residents of Niagara Region, Council as the system owner, area municipalities and Niagara Region staff with an overview of the performance of each wastewater system operated by Niagara Region. In addition, all wastewater treatment and collection infrastructure operates under Environmental Compliance Approvals (ECAs) issued by the Ministry of Environment, Conservation and Parks (MECP). As required by the Environmental Compliance Approvals issued by the MECP, Niagara Region must prepare and submit an annual performance summary report by March 31 of the following year.

An annual performance report has been created for each wastewater system to meet MECP annual reporting requirements and includes a section specific to the treatment facility itself, followed by a section dedicated to the performance of the related sewage collection system.

A glossary of terms is available to explain unfamiliar terms used in wastewater treatment as well as any common abbreviations used throughout the reports.

Wastewater Quality Management System

Wastewater treatment is provided as a service to the public living, working, and visiting communities across the Niagara Region. Niagara Region is committed to providing effective wastewater treatment and protection of our environment. This commitment is demonstrated through the implementation of a Wastewater Quality Management System (WWQMS).

Through our policy statement, we are committed to:

- Following legislation and regulations
- Looking to the future health of our environment
- Our commitment to customer satisfaction
- Working continually to maintain and improve our quality management system

Niagara Region has developed and implemented a Wastewater Quality Management System to demonstrate our due diligence and commitment to effective wastewater treatment and environmental stewardship. The QMS provides standardized operating procedures for sampling, testing and monitoring of the wastewater system, protocols for personnel coverage at facilities, control of essential supplies and services and other aspects required for the proper and efficient operation of the wastewater systems.



Niagara Region has implemented a
**Wastewater Quality
Management System (QMS)**
to demonstrate our commitment to the customer to
effectively treat wastewater and protect the environment.

The Region is committed to:

Following legislation and regulations
Looking to the future health of our environment
Working continually to maintain and improve our QMS
Wur commitment to customer satisfaction

QMS-WW-ALL-V-020
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Figure 3 - Image of Niagara Region Wastewater Quality Management Policy

If you have any questions about any of the wastewater performance reports, please contact the Water-Wastewater Services division at 905-980-6000 or by email to WWWServices@niagararegion.ca.