



The Great Lakes Sewage Report Card

[2013]

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Kitchener-Waterloo [B+]

Population serviced by the wastewater treatment plant(s):

Region-wide: 509,774.

Kitchener, 226,106; Galt, 82,321;

Waterloo, 126,029 (2010 numbers).

Percentage sewer system combined (storm and sanitary): 0%.

Combined sewer outfalls: 0.

Receiving water body:

Grand River, Nith River, and Speed River.

Sewage sludge disposal:

Currently, anaerobic sludge is dewatered and hauled to landfill. Starting January 2013, the region is moving to a dewatered solid land application program. Aerobic sludge is a liquid land application program.

Total sewage volume treated in 2011:

Total Region: 60,882 ML

(Kitchener: 25,711,650 m³, Waterloo: 16,622,140 m³, Galt: 12,895,262 m³).

Sewage treatment description:

Kitchener: Conventional – Secondary,

Waterloo: Conventional – Secondary,

Galt: Conventional – Tertiary.

All plants within the Region are a minimum of Secondary Plants with most having tertiary treatment.

Number of wet-weather related bypasses (2011):

Kitchener: 1, secondary bypass

Waterloo: 1, partial secondary treatment

Galt: 3, all tertiary.

Wet-weather related bypass volume

(2011): Kitchener: 15,700 m³,

Waterloo: 32,317 m³, Galt: 4,391 m³.

Number of maintenance / malfunction-related bypasses (2011):

Not clearly tracked.

Maintenance / malfunction-related bypass volume (2011):

Total: 326,813 m³. (*Kitchener:* 4,730 m³

received partial secondary treatment due to power failure during a storm event. 10,350 m³ did not receive full secondary treatment due to partial loss of air supply within plant

1. *Waterloo:* 9,000 m³ did not receive full secondary treatment due to power loss.

Galt: 302,733 m³ did not receive tertiary treatment due to filter maintenance).

CSO event(s) (2011):

N/A. no combined sewers in the region.

CSO volume (2011):

N/A. no combined sewers in the region.

Type and frequency of tests conducted on final effluent quality:

Kitchener: CBOD, BOD, Suspended Solids, Nitrite-Nitrate, Alkalinity, pH, Chloride,

Total Phosphorous, Total Kjeldahl Nitrogen (TKN), Ammonia and E-Coli. *Galt:* CBOD, BOD,

Suspended Solids, Nitrite-Nitrate, Alkalinity, pH, Chloride, Total Phosphorous, Filter

Phosphorous, TKN, Ammonia and E-Coli.

Waterloo: CBOD, BOD, Suspended solids,

Nitrate-Nitrite, Alkalinity, pH, Total phosphorous, Ammonia, TKN, E-Coli.

All tests are performed on a weekly basis.

Municipal sewer-use bylaw:

Bylaw number 1-90, enacted in 1990. This was amended by bylaw 92-050 in 1992.

Current sewage management projects:

Elmira WWTP: Biosolids dewatering and minor process upgrades. Kitchener WWTP: Plant 2 Aeration and UV disinfection Upgrades. Currently starting into a \$300M capital program to upgrade the facility that extends out to 2020. Waterloo WWTP: Headworks, Biosolids dewatering, Aeration Upgrades. Currently halfway through a \$100 million capital upgrade at the facility. Preston WWTP: Digester upgrades.

Future Plans for sewage management:

New Hamburg: Plant capacity expansion. Waterloo WWTP: Plant capacity expansion by 2024. Hespeler WWTP: Process upgrades. Small rural WWTPs: Full SCADA upgrades. Centralized Biosolids Heat Drying Facility to be constructed (2018).

Use of green infrastructure:

Did not answer.

Sewage energy recovery, heat collection, or the use and management of methane gas as a fuel:

Digester methane is used to fuel the boilers at Kitchener, Galt and Waterloo. As part of our capital program, co-generation facilities to be incorporated at these treatment plants.

Public reporting of CSOs and bypasses:

Did not answer.

Environmental Compliance Approvals Numbers / Certificates of Approval:

Did not answer.

Expectations for compliance with federal Wastewater Systems Effluent Regulations under the Fisheries Act:

Did not answer.

For more information, contact:

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