



DUFFIN CREEK'S PERFORMANCE

2017

Wastewater Flow

AVERAGE DAILY FLOW

Average volume of wastewater treated at the Plant each day:

333,498,000 litres

(equivalent to filling
133 Olympic-sized swimming pools)

MAXIMUM DAILY FLOW

The most amount of wastewater that has come into the Plant on a single day¹:

732,973,000 litres

(equivalent to filling
293 Olympic-sized swimming pools)

TOTAL FLOW

The total amount of wastewater that flowed into the Plant over the year:

121,734,338 litres of water

(equivalent to filling 48,700 Olympic-sized swimming pools)

Number of by-passes, spills or abnormal discharge events²: **0**

Solids Processed

Total amount of inflowing solids processed:

37,249 dry tonnes

Amount of solids received and treated from other wastewater treatment plants in York and Durham Regions:

4,237 dry tonnes

¹ The maximum flow is affected by large rain events or melting snow that enters the sewer system through holes and openings in pipes and maintenance hole covers.

² This includes the number of times untreated or partially treated wastewater would miss all or part of the treatment process before release into Lake Ontario. It would also include the number of times untreated or partially treated sewage or sludge spilled out of the treatment processes due to an accident, failure or break.

Energy

Amount of solids reused as heat energy:

28,105 dry tonnes

The amount of greenhouse gases avoided by using biosolids as fuel at the Plant and not trucking waste to landfills:

more than 4,800 tonnes

(this is equivalent to taking over 1,000 cars off the road)

Water Quality

	Amount in wastewater entering the Duffin Creek Plant	Limits set by province for amount in water leaving the Duffin Creek Plant	Actual level in water leaving Duffin Creek Plant	Average % removal
Total Phosphorus ⁴	6.4 mg/L	0.8 mg/L	0.43 mg/L	93.3% ⁵
Total Suspended Solids ⁶	320 mg/L	25.0 mg/L	7.4 mg/L	97.7%
Biological Oxygen Demand (BOD5) ⁷	202 mg/L	25.0 mg/L	2.2 mg/L	98.9%

Air Quality

Number of odour complaints received:

1

Number of odour complaints found to be caused by Plant operations:

0

⁴ **Total Phosphorus** is a measure of the total amount of phosphorus in the wastewater in its different forms – both particulate (small pieces like small grains in the water) and soluble (phosphorus dissolved in the water). It is used as a measure of Plant performance.

⁵ This value changes from year to year, but phosphorus levels in the clear treated wastewater leaving the plant remain well within compliance of provincial regulations.

⁶ **Total Suspended Solids (TSS)** is the amount of material suspended in a wastewater sample. It is used as a measure of Plant performance.

⁷ **BOD5** is a measure of the amount of oxygen needed by living organisms in the wastewater to break down organic material over a period of five days. The plant removes this organic material from the water before it is discharged to the lake.



The Regional Municipality of Durham
Works Department
605 Rossland Road East
Whitby, Ontario, L1N 6A3
905-668-7711 or 1-800-372-1102
durham.ca



The Regional Municipality of York
Environmental Services
17250 Yonge Street
Newmarket, Ontario, L3Y 6Z1
1-877-464-9675
york.ca

