

## **2016 Compliance Report for the Blenheim Sewage Treatment Plant Public Utilities Commission for the Municipality of Chatham-Kent**

The Blenheim Sewage Treatment Plant provides treatment of wastewater for the former Town of Blenheim, and for Charing Cross, as well as for leachate from the Ridge Landfill. Wastewater is collected by a separate sanitary sewer system and conveyed by two raw pumping stations to the Treatment Lagoons. The final effluent is subsequently discharged to the Cameron Drain.

Following several modifications to the original works, approval was received in 1995 for modification of the existing waste stabilisation ponds to the New Hamburg Process, and for expansion of hydraulic capacity.

According to the Certificate of Approval, average daily flow of sewage into the treatment plant shall not exceed 4,045 m<sup>3</sup>/day, and peak flow shall not exceed 12,046 m<sup>3</sup>/day.

The present treatment system consists of:

- Two raw pumping stations
- One aeration cell
- Chemical phosphorous removal
- Five waste stabilisation cells
- One filter effluent pump station
- Four effluent sand filters

The underdrain pipes discharge to the outfall structure, and to the Cameron Drain.

### **C of A # 3-0427-94-957**

#### **Non-compliance issues in 2016:**

An exceedance of the geometric mean density effluent limit for E. Coli occurred during the month of August.

An exceedance of the average monthly concentration effluent limit for Total Phosphorus as P (Non-freezing period) occurred for the month of September.

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**Plant Rated Capacity: 4,045m<sup>3</sup>/day**

**Total sewage flow to the works during a calendar year divided by the number of days during which sewage was flowing to the works that year**

Month	Total Monthly Flow m <sup>3</sup>	Avg Daily Flow /Month m <sup>3</sup> /day	Avg Daily Flow /Year m <sup>3</sup> /day	% of Plant Capacity	BOD5 mg/L	Total S.S. mg/L	Total Ammonia mg/L	Total P mg/L	Dissolved Oxygen mg/L	E.Coli /100mL CFU GeoMean
Limits: Freezing	None	None	4,045	100	15	15	5.0	1.0	>4.0	200
Limits: Non Freezing	None	None	4,045	100	10	10	3.0	0.5	>4.0	200
Jan	44,925	1,449								
Feb	46,205	1,490								
Mar	61,916	1,997								
Apr	63,713	2,055			2.0	5	0.44	0.32	7.9	10
May	53,997	1,742			2.0	1	0.42	0.17	8.2	10
Jun	42,216	1,362			2.3	4	0.53	0.17	6.9	50
Jul	40,090	1,293			2.0	1	0.19	0.23	7.1	70
Aug	34,885	1,125			3.6	2	0.67	0.30	5.4	NDOGT
Sept	35,631	1,149			2.5	3	0.72	0.56	6.2	26
Oct	44,112	1,423			2.0	2	0.20	0.40	6.4	18
Nov	37,817	1,261			2.3	1	0.53	0.25	6.9	11
Dec	41,647	1,343			4.7	2	1.11	0.24	8.3	10
Year			1,499	37						
	Yearly Total Flow m <sup>3</sup>	Yearly Maximums							Yearly Minimum	Yearly Maximum
	547,154	2,055			4.7	5	1.11	0.56	8.3	NDOGT*

\*NDOGT = No Data: Overgrown with target organisms. Selective for both total coliform and E. coli