

2015 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 m³/day, and peak flow shall not exceed 12,046 m³/day.

The present treatment system consists of:

- One raw pumping station
- 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 2015:

An exceedance of the average monthly concentration effluent limit for Total Ammonia Nitrogen as N (Non-freezing period) occurred for the month of April 2015.

An exceedance of the single sample concentration effluent limit (Non-freezing period) for Total Ammonia Nitrogen as N occurred on May 11, May 14, May 19, May 21 and May 25, 2015.

An exceedance of the average monthly concentration effluent limit for Total Ammonia Nitrogen as N (Non-freezing period) occurred for the month of May 2015.

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Plant Rated Capacity: 4,045m³/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 ³	Avg Daily Flow /Month m ³ /day	Avg Daily Flow /Year m ³ /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	39,596	1,277								
Feb	32,464	1,159								
Mar	55,285	1,783								
Apr	55,302	1,843			6.0	9	3.09	0.245	8.1	25
May	46,113	1,488			5.3	3	5.89	0.250	7.8	15
Jun	51,365	1,712			3.9	2	0.91	0.144	7.7	19
Jul	45,406	1,465			2.0	4	0.123	0.168	7.7	23
Aug	36,124	1,165			2.0	1	0.250	0.20	7.7	18
Sept	34,135	1,098			2.3	4	0.63	0.26	8.4	10
Oct	35,797	1,155			2.0	1	0.473	0.28	7.7	20
Nov	35,448	1,182			2.8	1	0.464	0.28	9.5	18
Dec	38,873	1,254			3.5	2	0.460	0.20	8.2	14
Year			1,386	35						
	Yearly Total Flow m³	Yearly Maximums							Yearly Minimum	Yearly Maximum
	505,907	1,843			6.0	9	5.89	0.280	9.5	25