2017 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:

- 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 (January 1, 2017 - September 10, 2017)

Non-compliance issues in 2017*:*

There were no non-compliance issues during the reporting period.

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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 m3	Avg Daily Flow /Month m3/day	Avg Daily Flow /Year m3/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: Receiver ≤ 5ºC	None	None	4,045	100	15	15	5.0	1.0	4.0	
Limits: Receiver > 5ºC	None	None	4,045	100	10	10	3.0	0.5	4.0	200
Objectives Receiver ≤ 5ºC	None	None	4,045	100	10	10	4.0	0.8	5.0	150
Objectives Receiver > 5ºC	None	None	4,045	100	5	5	2.0	0.3	5.0	150
Jan	50,640	1,634								
Feb	45,666	1,473								
Mar	59,410	1,916								
Apr	54,278	1,751								
May	65,637	2,117			2.0	1	0.08	0.15	4.7	11
Jun	47,010	1,516			2.5	1	1.02	0.21	5.8	15
Jul	42,952	1,386			2.0	1	0.17	0.31	5.7	36
Aug	38,940	1,256			2.0	1	0.05	0.31	4.7	90
Sept	35,052	1,168			2.0	2	0.06	0.26	8.6	25
Oct	36,871	1,189								
Nov	49,646	1,655								
Dec	41,079	1,325								
Year			1,554	38						
	Yearly Total Flow m3	Yearly Maximums							Yearly Minimum	Yearly Maximum
	567,182	2,117			2.5	2	1.02	0.31	4.7	90

ECA # 6023-APPN4Q (September 11, 2017 – December 31, 2017)

Non-compliance issues for this portion of 2017*:*

There were no non-compliance issues during the reporting period.

Month	Total Monthly Flow m3	Avg Daily Flow /Month m3/day	Avg Daily Flow /Year m3/day	% of Plant Capacity	CBOD5 mg/L	Total S.S. mg/L	Total Ammonia mg/L	Total P mg/L	Dissolved Oxygen mg/L	E.Coli /100mL CFU GeoMean	pH
Limits: (Nov. 1– Apr.30)	**None**	**None**	**None**	**100**	**10**	**10**	**5.0**	**0.5**	**4.0**	**200 (May 15 – Sep.15)**	**6.0 – 9.5**
Limits: (May 1 – Oct.31)	**None**	**None**	**None**	**100**	**10**	**10**	**3.0**	**0.5**	**4.0**	**200 (May 15 – Sep.15)**	**6.0 – 9.5**
Objectives: (Nov. 1– Apr.30)	**None**	**None**	**None**	**100**	**5.0**	**5.0**	**4.0**	**0.3**	**5.0**	**150 (May 15 – Sep.15)**	**6.5 – 8.5**
Objectives: (Nov. 1– Apr.30)	**None**	**None**	**None**	**100**	**5.0**	**5.0**	**2.0**	**0.3**	**5.0**	**150 (May 15 – Sep.15)**	**6.5 – 8.5**
Jan	50,640	1,634									
Feb	45,666	1,473									
Mar	59,410	1,916									
Apr	54,278	1,751									
May	65,637	2,117									
Jun	47,010	1,516									
Jul	42,952	1,386									
Aug	38,940	1,256									
Sept	35,052	1,168									
Oct	36,871	1,189			0.4	0.2	0.01	0.08	8.6	10	8.05
Nov	49,646	1,655			0.5	0.4	0.04	0.10	9.4	10	8.09
Dec	41,079	1,325			2.0	1.0	0.44	0.35	10.8	10	7.97
Year			1,554	38							
	Yearly Total Flow m3	**Yearly Maximums**							**Yearly Minimum**	**Yearly Maximums**	
	567,182	2,117			2.0	1	0.44	0.35	8.6	10	8.09