

2017 Compliance Report for the Mitchell's Bay Sewage Lagoon System Public Utilities Commission for the Municipality of Chatham-Kent

The Mitchell's Bay Sewage Lagoon System provides treatment of wastewater for approximately 500 residents of the Mitchell's Bay community. Wastewater is collected and pumped to the sewage lagoon system from one sanitary pump station.

The Mitchell's Bay Sewage Lagoon System was built in 1977 with a maximum design flow of 509 m³/day. This sewage treatment facility consists of 3 treatment cells each 5 acres in size.

Final effluent is discharged to Rankin Creek in the spring and fall if required.

C of A # 1-502-77-006

The following Ministry Procedures / Guidelines apply:

- Procedure F-5-1: Minimum effluent limits BOD₅, Suspended Solids
- Guideline F-8: Effluent limits Phosphorus
- Procedure F-10-1: Minimum monitoring program
- Table C-1: Monitoring, recording and reporting bypasses

Non-compliance issues for 2017:

An exceedance of the average concentration effluent limit for Total Suspended Solids occurred during the discharge period from May 18th to May 24th. Effluent Concentration Limit for Suspended Solids is 25 mg/L. The discharge average was 32.75 mg/L.

Discharging to a low level during windy conditions has been identified as the cause of the Exceedance. Corrective Actions included Staff education and review of the existing Procedure,

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Plant Rated Capacity: 509m³/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 Influent Flow m ³	Avg Daily Influent Flow /Month m ³ /day	Avg Daily Influent Flow/Year m ³ /day	% of Rated Capacity	BOD5 mg/L	Total S.S mg/L	Total P mg/L
Limits	None	None	509	100	25	25	1.0
Objectives	None	None	509	100	15	20	0.5 - 1.0
Jan	3,383	109					
Feb	3,236	116					
Mar	3,897	126					
Apr	5,067	169					
May	6,723	217			9.25	32.75	0.40
Jun	4,463	149					
Jul	4,761	154					
Aug	4,090	132					
Sep	3,520	117					
Oct	3,286	106					
Nov	4,765	159					
Dec	3,294	106					
Year			138	27			
	Yearly Total Flow m³	Yearly Maximums					
	50,485	217			9.25	32.75	0.40