

**MUNICIPALITY OF CHATHAM-KENT  
PUBLIC UTILITIES COMMISSION**

**MERLIN SEWAGE LAGOONS**

The Merlin Sewage Lagoons provide treatment of wastewater for the former Police Village of Merlin. Wastewater is collected by a separate sanitary sewer system and conveyed by one raw pump station to the Sewage Lagoons. The treated wastewater is subsequently discharged to the Foxton Drain.

Approval was received from the Ministry of the Environment in 1975 for construction of sanitary sewers, a force main, a sewage pumping station, and two waste stabilization ponds.

According to a capacity assessment prepared by R. V. Anderson Associates Limited for the Municipality of Chatham-Kent, average daily flow of sewage into the treatment plant should not exceed 464m<sup>3</sup>/day.

The present treatment system consists of:

- One raw pumping station
- Two waste stabilisation cells
- Two effluent chambers

**Non compliance issues in 2007:**

There were no non compliance issues in 2007.

**Municipality of Chatham-Kent  
Public Utilities Commission**

**Merlin Sewage Lagoons**

**Certificate of Approval # 1-0192-69-753576**

**Although no reference is made in the Merlin Certificate of Approval to specific compliance requirements, the following Ministry Guidelines apply:**

**Guideline F-5-1: minimum effluent limits BOD5, Suspended Solids**

**Guideline F-8: effluent limits Phosphorus**

**Guideline F-10-1 minimum monitoring program**

**Table C-1 monitoring, recording and reporting bypasses**

**Merlin Sewage Lagoons  
2007 Reporting period**

<b>Effluent Limits</b>	
<b>Effluent Parameter</b>	<b>Maximum Concentration mg/L</b>
BOD5	30
Suspended Solids	40
Total Phosphorous	Mean Concentration for Discharge 1.0 mg/L

**Plant Rated Capacity (1000 m3/day): 0.464**

**Average Daily Flow (1000 m3/day): 0.228**

**% of Plant Capacity: 49.1%**

**Seasonal discharge occurred in April.**

<b>Parameter</b>	<b>Total Monthly Flow 1000 m3</b>	<b>Average Daily Flow 1000 m3</b>	<b>BOD5 Mg./L</b>	<b>Total S.S. Mg./L</b>	<b>Total P Mg./L</b>
JANUARY	9.7	.31			
FEBRUARY	7.3	.26			
MARCH	9.2	.30			
APRIL	7.6	.25	3.0	17.0	0.71
MAY	7.1	.23			
JUNE	5.4	.18			
JULY	5.1	.17			
AUGUST	6.1	.20			
SEPTEMBER	5.8	.20			
OCTOBER	6.1	.19			
NOVEMBER	6.0	.20			
DECEMBER	7.8	.25			
TOTAL	83.1				
AVERAGE	6.9	.23	3.0	17.0	0.71

