

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

**MERLIN SEWAGE LAGOONS
COMMISSION REPORT 2006**

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 Cameron 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 stabilisation 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 464m³/day.

The present treatment system consists of:

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

The effluent chambers discharge to the Foxton Drain.

Non compliance issues in 2006:

None.

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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, Susp Solids
- Guideline F-8: effluent limits Phosphorus
- Guideline F-10-1 minimum monitoring program
- Table C-1 monitoring, recording and reporting bypasses

NON-COMPLIANCE	
Effluent Parameter	Monthly Average Concentration mg/L
BOD5	30
Suspended Solids	40
Effluent Parameter	Mean Concentration for Discharge Period in mg/L
Total Phosphorous	1.0

2006 REPORTING PERIOD

Plant Rated Capacity: Average Daily Flow 0.464 1000 m3/day
 For 2006: Average Daily Flow 0.253 1000 m3/day
 % of Plant Capacity: 55%

Seasonal discharge occurred in May and October.

	BOD5 mg/L	Total S/S mg/L	Total P mg/L
May	2.0	4.3	0.123
October	2.0	8.3	0.100

**AVERAGE DAILY FLOW
MERLIN LAGOONS**

REPORTING YEAR 2006

MONTH	Avg Daily Flow 1000 m3/day	Percent	Annual %
January	0.321	69	
February	0.313	68	
March	0.299	64	
April	0.257	55	
May	0.245	53	
June	0.198	43	
July	0.198	43	
August	0.193	42	
September	0.214	46	
October	0.262	57	
November	0.246	53	
December	0.287	62	
Avg Daily Flow 2006	0.253		55%
Total Raw Flow 2006	92.181		