

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

**BLenheim SEWAGE TREATMENT PLANT
COMMISSION REPORT 2006**

The Blenheim Water Pollution Control Plant provides treatment of wastewater for the former Town of Blenheim, and for Charing Cross, as well as leachate from the Ridge Landfill. Wastewater is collected by a separate sanitary sewer system and conveyed by one raw pump station to the Treatment Lagoons. The treated wastewater 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 should not exceed 4,045m³/day, and peak flow shall not exceed 12,046m³/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.

Non compliance issues in 2006:

None

**MUNICIPALITY OF CHATHAM-KENT
 BLENHEIM SEWAGE TREATMENT PLANT**

**Certificate of Approval # 3-0427-94-957
 Terms and Conditions-Performance**

| NON-COMPLIANCE | |
|-----------------------------|--|
| Effluent Parameter | Monthly Average Concentration mg/L |
| BOD5 | |
| Non freezing period | 10.0 |
| Freezing period | 15.0 |
| Suspended Solids | |
| Non freezing period | 10.0 |
| Freezing period | 15.0 |
| Total Phosphorous as P | |
| Non freezing period | 0.5 |
| Freezing period | 1.0 |
| Total Ammonia Nitrogen as N | |
| Non freezing period | 3.0 single non compl 5.0 |
| Freezing period | 5.0 8.0 |
| Total Residual Chlorine* | 0.01 |
| Effluent Parameter | Monthly Geometric Mean Density Organisms per 100 mL |
| E. coli | 200 |

*Disinfection facilities are not required by the Certificate of Approval for the Blenheim Sewage Treatment Plant, nor do they exist. For this reason, no data is available for Chlorine Residuals.

2006 REPORTING PERIOD

Plant Rated Capacity: Average Daily Flow 4.045 1000 m3/day
 For 2006: Average Daily Flow 2.584 1000 m3/day
 % of Plant Capacity: 64%
 Total Leachate Received: 74.5 Megalitres

| 2006 | BOD5 mg/L | Total S/S mg/L | Total P mg/L | Ammonia mg/L | E coli CFU /100mL |
|----------------|--------------|-------------------|-----------------|-----------------|-------------------------|
| January | | | | | |
| February | | | | | |
| March | 2 | 1.00 | 0.13 | 1.78 | 10 |
| April | 5 | 1.50 | 0.12 | 1.53 | 14 |
| May | 2 | 1.00 | 0.19 | 0.87 | 37 |
| June | 2 | 0.78 | 0.09 | 0.07 | 13 |
| July | 2 | 1.00 | 0.11 | 0.08 | 10 |
| August | | | | | |
| September | 2 | 1.00 | 0.14 | 0.11 | 10 |
| October | 2 | 1.20 | 0.13 | 0.13 | 9 |
| November | 2 | 1.25 | 0.08 | 0.29 | 15 |
| December | | | | | |
| AVERAGE | 2 | 1.09 | 0.124 | 0.61 | 14.8 |

**AVERAGE DAILY FLOWS
BLENHEIM SEWAGE TREATMENT PLANT**

REPORTING YEAR 2006

| MONTH | Avg Daily Flows 1000 m3/day | Percent | Annual % |
|----------------------------|--|----------------|-----------------|
| January | 2.931 | 73 | |
| February | 2.747 | 68 | |
| March | 2.795 | 69 | |
| April | 2.545 | 63 | |
| May | 2.788 | 69 | |
| June | 2.400 | 59 | |
| July | 2.338 | 58 | |
| August | 2.317 | 57 | |
| September | 2.253 | 56 | |
| October | 2.600 | 64 | |
| November | 2.554 | 63 | |
| December | 2.740 | 68 | |
| Monthly Avg | 2.584 | | 64% |
| Total Flow 2006 | 950.602 | | |