

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

TILBURY WASTEWATER TREATMENT PLANT

The Tilbury Wastewater Treatment Plant is located north of Highway 401 in the Town of Lakeshore. The purpose of the treatment plant is to treat domestic and industrial wastewater generated by the Town of Tilbury. Wastewater is collected by 2 storm water pump stations and 3 sewage pump stations with the Lyon Street Pump Station supplying the facility. This mechanical treatment plant replaces the existing lagoon system. The treated wastewater is discharged into Trembley Creek.

The Tilbury Wastewater Treatment Plant finished its plant upgrade in late December of 2004. The new design capacity of the plant is 5,434 m³/day. A portion of the lagoon system was turned into a wetland for the wildlife.

The existing treatment system uses the following processes:

- Headworks building
- Orbal oxidation ditch
- Two secondary clarifiers
- Tertiary Treatment building
- Ultra Violet for disinfection

This new treatment plant was designed to meet future wastewater treatment needs of the growing community over the next 20 years.

The Tilbury WWTP had seven non-compliance issues in 2007. The C of A limit is 0.50 mg/L for Total Phosphorus with the yearly average being 0.77mg/L. The Chatham-Kent P.U.C. along with Dillion Consulting and the Ministry of the Environment, have worked together to resolve the issue which included an Overflow Gate upgrade and some chemical optimization of the Alum Feed system.

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

Tilbury Wastewater Treatment Plant

**Certificate of Approval # 8817-5P5MZD
CONDITION 7**

TABLE 1 – Effluent Limits	
Effluent Parameter	Monthly Average Concentration in mg/L
CBOD5	10.0
Total Suspended Solids	10.0
Total Ammonia Nitrogen	2.0 (May 1 to Oct 31)
Total Ammonia Nitrogen	4.0 (Nov 1 to Apr 30)
Total Phosphorus	0.5
E-Coli	150 organisms per 100ml

**Tilbury Wastewater Treatment Plant
2007 Reporting Period**

**Plant Rated Capacity (m3/day): 5,434
Average Daily Flow (m3/day): 2,940
% of Plant Capacity: 54.1%**

Parameter	Total Monthly Flow 1000 m3	Average Daily Flow 1000 m3	CBOD5 Mg./L	Total S.S. Mg./L	Total Ammonia Mg./L	Total P Mg./L	E-Coli
JANUARY	102.36	3.86	2.2	3.0	0.27	0.51	25
FEBRUARY	59.07	2.35	3.7	5.0	0.23	1.10	10
MARCH	86.83	3.29	4.3	6.0	0.49	0.88	18
APRIL	91.90	3.52	5.5	5.0	0.50	1.06	43
MAY	88.20	2.04	2.5	5.0	0.59	1.33	10
JUNE	68.05	2.59	2.0	4.0	0.20	1.25	18
JULY	79.32	2.86	2.0	2.5	0.15	0.83	11
AUGUST	95.23	3.38	2.0	2.6	0.16	0.55	10
SEPTEMBER	78.00	3.15	2.0	2.9	0.16	0.49	10
OCTOBER	86.60	3.04	2.0	2.7	0.16	0.48	10
NOVEMBER	62.02	2.29	2.0	3.3	0.25	0.44	10
DECEMBER	68.26	2.86	2.5	2.3	0.31	0.27	10
TOTAL	965.8						
AVERAGE	80.5	2.94	2.7	3.7	0.29	0.77	15