

## **2017 Compliance Report for the Wallaceburg Water Pollution Control Plant Public Utilities Commission for the Municipality of Chatham-Kent**

The Wallaceburg Water Pollution Control Plant provides treatment of wastewater for approximately 11,000 residents of the Town of Wallaceburg. Wastewater is collected and pumped to the plant by 10 sanitary pump stations located throughout the community.

The Wallaceburg Water Pollution Control Plant is a Conventional Activated Sludge Plant with the plant final effluent passing through an Ultra Violet Light Disinfection System. The processed final effluent is then discharged to the Sydenham River. The plant was first built in the late 1960s with a major expansion and upgrading of the facility in 1991.

The rated capacity of the plant is 10,800m<sup>3</sup>/day average day flow calculated for the calendar year.

Maximum hydraulic capacity for primary treatment and disinfection facilities is 35,000m<sup>3</sup>/day.

The following processes are included in this treatment system:

- Raw sewage pumping
- Screening collection and removal
- Aerated grit tank
- Primary treatment of raw sewage with sludge collection.
- Chemical phosphorus removal
- Biological treatment using Conventional Activated Sludge for secondary treatment.
- Final Settling
- Disinfection of final effluent using Ultra Violet Light
- Sludge holding tanks

### **ECA # 3022-9JMQZ6:**

#### **Non Compliance issues in 2017:**

A secondary treatment by-pass of 285 m<sup>3</sup> occurred on July 13. Heavy rainfall and the high flows that were received at the plant resulted in a by-pass event.

A secondary treatment by-pass of 440 m<sup>3</sup> occurred on August 29. Heavy rainfall and the high flows that were received at the plant resulted in a by-pass event.

Weekly Raw Sewage and Final Effluent samples were sampled and shipped on October 16, 2017. These samples were not received or processed by the lab. No resample was taken due to the resample time frame having lapsed.

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**Plant Rated Capacity: 10,800 m<sup>3</sup>/day average daily flow**

**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 <sup>3</sup>	Avg Daily Influent Flow /Month m <sup>3</sup> /day	Avg Daily Influent Flow/Year m <sup>3</sup> /day	% of Plant Capacity	CBOD5 mg/L	Total S.S. mg/L	Total Ammonia mg/L	Total P mg/L	pH	E.Coli
Limits: Dec 15 – Apr 15	None	None	10,800	100	25	25	3.0	1.0	6.5 - 8.5	200
Limits: Apr 16 – Dec 14	None	None	10,800	100	25	25	1.5	1.0	6.5 - 8.5	200
Objectives: Dec 15 – Apr 15	None	None	10,800	100	15	15	2.0	0.5	6.5 - 8.5	150
Objectives: Apr 16 – Dec 14	None	None	10,800	100	15	15	1.0	0.5	6.5 - 8.5	150
<b>Jan</b>	163,676	5,280			2.0	4.0	0.05	0.2	7.4	13.5
<b>Feb</b>	150,590	5,378			2.0	5.3	0.05	0.4	7.4	15.7
<b>Mar</b>	177,480	5,725			2.3	6.5	0.05	0.4	7.5	10.0
<b>Apr</b>	224,330	7,478			2.3	4.0	0.05	0.3	7.5	19.9
<b>May</b>	238,430	7,691			2.0	6.0	0.05	0.4	7.6	40.4
<b>Jun</b>	159,980	5,333			2.0	3.3	0.08	0.5	7.4	10.0
<b>Jul</b>	174,600	5,632			3.0	7.3	0.28	0.4	7.4	23.8
<b>Aug</b>	162,759	5,250			3.0	9.0	1.24	0.4	7.3	21.1
<b>Sep</b>	140,000	4,667			2.0	3.3	0.17	0.3	7.3	23.0
<b>Oct</b>	144,178	4,651			2.0	3.0	0.13	0.3	7.2	17.2
<b>Nov</b>	191,980	6,399			2.0	5.3	0.14	0.3	7.4	44.7
<b>Dec</b>	153,790	4,961			2.3	4.0	0.08	0.4	7.4	17.3
<b>Year</b>			5,704	53%						
	Yearly Total Flow m <sup>3</sup>	Yearly Maximums								
	2,081,793	7,691			3.0	9.0	1.24	0.5	7.6	44.7