

**Town of Speedway
Wastewater Treatment Plant**

**Annual Summary
2008**

Plant Influent	2008	2007
Precipitation, inches	47.43	36.88
Total gallons treated, MG	2,180.17	2,115.68
Total raw sewage captured & treated, %	95.5	98.2
Average daily flow, MGD	5.96	5.80
Highest average daily flow, MGD	7.87	8.08
Gallons per capita per day	271	264
Carbonaceous Biochemical Oxygen Demand, mg/l	137	151
CBOD, highest monthly average, mg/l	215	236
CBOD, total pounds	2,174,001	2,373,162
Total Suspended Solids, mg/l	150	132
TSS, highest monthly average, mg/l	232	202
TSS, total pounds	2,421,569	2,094,052
Ammonia, mg/l	9.83	10.93
Ammonia, highest monthly average, mg/l	16.85	14.88
Ammonia, total pounds	153,373	171,998
Combined Sewer Overflows	49	39
CSO, total gallons discharged, MG	102.62	37.97
Percentage of total raw sewage untreated	4.5	1.8
Final Effluent		
CBOD, mg/l	5.5	6.4
CBOD, highest monthly average, mg/l	11.8	18.8
CBOD, pounds removed	2,089,834	2,283,371
CBOD, percent removal	95.5	95.5
TSS, mg/l	10.1	11.3
TSS, highest monthly average, mg/l	22.7	31.0
TSS, pounds removed	2,266,783	1,939,136
TSS, percent removal	91.6	91.4
Ammonia, mg/l	1.38	1.99
Ammonia, highest monthly average, mg/l	4.36	5.64
Ammonia, pounds removed	133,293	145,091
Ammonia, percent removal	85.1	82.0

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<u>Sludge Data</u>				<u>2008</u>		<u>2007</u>
Gallons produced				7,060,000		9,310,000
Gallons processed				7,115,000		6,823,000
Dry tons produced				740		789
Dry tons removed (disposal)				574		726
Disposal costs				\$ 72,886.09		\$ 109,842.64
Disposal cost per dry ton				\$ 126.98		\$ 151.30
Methane produced, 1000 cf				10,097		10,683
Methane used (boiler), 1000 cf				7,375		5,765
<u>Cost Data</u>						
Total Revenue *				\$ 4,600,505.53		\$ 5,094,043.09
Total Expenditures				\$ 3,391,267.53		\$ 4,534,801.26
Operation & Maintenance Costs				\$ 1,418,378.76		\$ 1,446,444.48
Cost per Capita				\$ 154.15		\$ 206.13
Cost per Million Gallons Treated				\$ 1,555.51		\$ 2,143.42
Cost per pound of CBOD Removed				\$ 0.32		\$ 0.33
Cost per pound of TSS Removed				\$ 0.32		\$ 0.33
Cost per pound of Ammonia Removed				\$ 0.32		\$ 0.33
* industrial revenue down 16.6%, commercial revenue down 9.2%, surcharges down 27.6% and interest earned down 38.4%.						
<u>Goals for 2009</u>						
Bid and begin construction on the Speedway Storm Relief project. (Gerrard & Allison)						
Complete plant evaluation which will include a short term and long term capital improvement plan.						
Complete CSO Long Term Control Plan and Preliminary Engineering Report.						
Begin Stormwater/Wastewater Utility Master Plan.						
Finish development of electronic plant daily log system and implement.						
Purchase and implement a laboratory information management system (LIMS)						
Develop a spring stormwater public education and involvement program to repeat annually.						
Start a wastewater treatment educational program for the Speedway elementary schools.						

<u>Definitions</u>							
CBOD -	The rate at which organisms use the oxygen in water or wastewater while stabilizing decomposable organic matter under aerobic conditions. In decomposition, organic matter serves as food for the bacteria and energy results from its oxidation. CBOD measurements are used as a measure of the strength of organic wastes in water.						
cf -	cubic feet						
CSO -	combined sewer overflow. A point where a mixture of stormwater and wastewater in a combined sewer discharges untreated to a water body.						
mg/l -	milligrams per liter. A measure of the concentration by weight of a substance per unit volume. For practical purposes, one mg/l of a substance in water is equal to one part per million parts. (ppm)						
MG -	million gallons						
MGD -	million gallons per day						
Operation & maintenance costs -	that portion of the total expenditures attributed solely to the operation and maintenance of the treatment plant and collection system.						
TSS -	Total Suspended Solids. Solids that either float on the surface or are suspended in wastewater, and which are largely removable by laboratory filtering. The quantity of material removed from wastewater in a laboratory test is referred to as total suspended solids.						

