

**Billerica Wastewater Treatment Division**

**MONTHLY OPERATING REPORT**

**November 2011**

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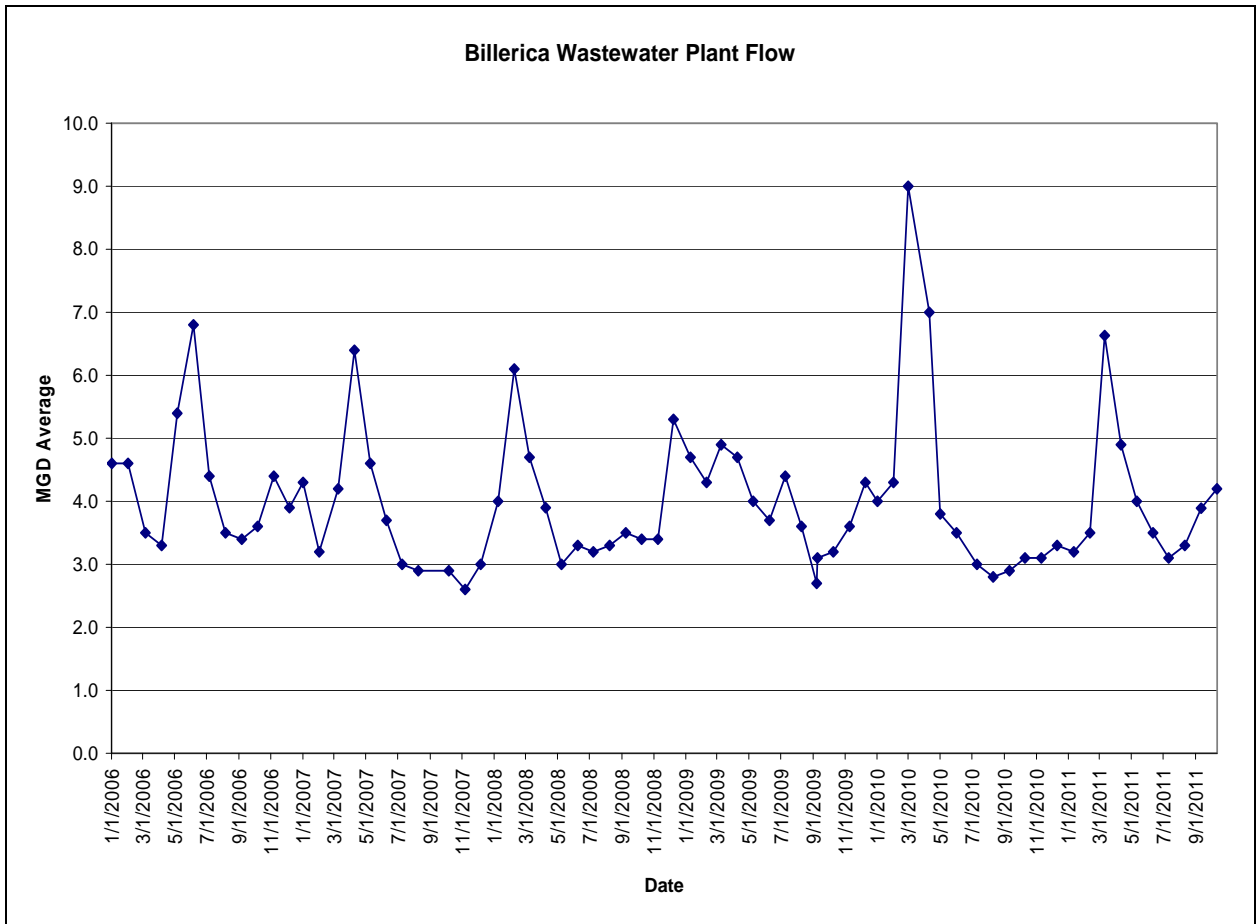
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## I. Summary

- All permit parameters in compliance
- Camera truck in storage for the winter
- Tertiary Upgrade completed

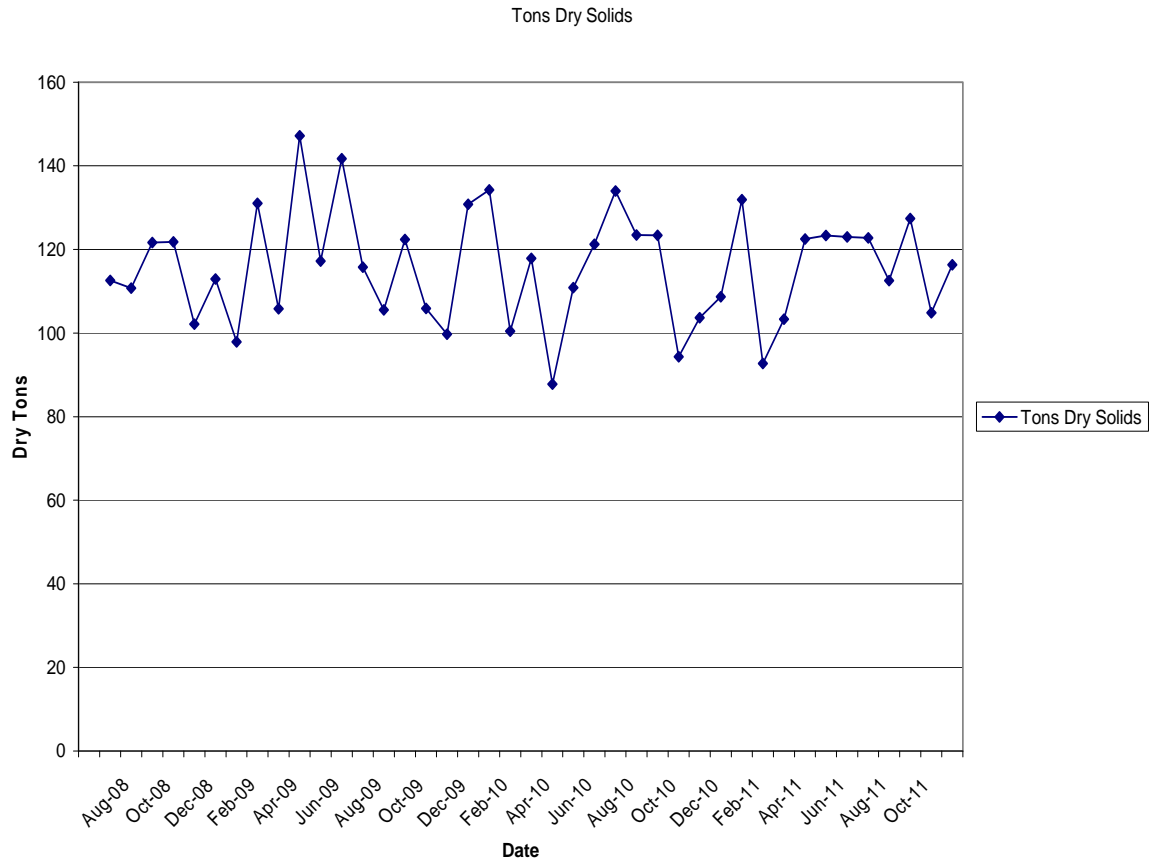
## II. Operations

- Flow



Flows are higher this month than in past years, probably due to high groundwater and rivers as well as 2.6 inches of rain. This is the highest November flow to the plant in the past 8 years.

## Solids Removed



Solids removed from the plant remained in expected range.

- Testing

No special testing this month.

- Construction

- Plant-Last items were completed on Tertiary project. Now in design stage of Phase 1 of the plant Capital Improvement Plan which will include a new clarifier and UV disinfection. The blower project is proceeding and we expect the new blowers to be installed in January.
- Pump Stations-Grinders for Brown Street and Rogers Street are expected to be installed in January. Legal issue on the Middlesex Station and SCADA project are in the final stages of resolution.

### III. Permit Compliance

Parameter	Limit	Results	Compliance
BOD	30 mg/l	3	Y
TSS	30 mg/l	4	Y
pH	6.5-8.3 Standard Units	6.6	Y
Dissolved Oxygen	6 mg/l minimum	9	Y
Fecal Coliform	200 colonies/100 ml	5	Y
Chlorine Residual	45 µg/l	7	Y
Ammonia Nitrogen	Report mg/l Nov 1-Apr 30	.4	-
Total Nitrogen	6 mg/l May 1-Oct-31	-	-
Total Phosphorus	0.2 mg/l Apr 1-Oct 31	-	-
Total Phosphorus	1.0 mg/l Nov 1-Mar 31	.4	Y
Orthophosphorus	Report mg/l	.32	-
Total Aluminum	357 µg/l	320	Y

All parameters in compliance. Ammonia nitrogen and total phosphorus have less stringent winter limits.

### IV. Maintenance

Work Orders	Completed
Plant	15
Pump Stations	24
Clogged Pumps	51
Wet wells cleaned	0
Other	cleaned all areas in plant including process areas

## V. Collection System

Camera Truck	Inspected Boston Road-follow-up to last month's blockage Report for Boston Road blockage; prepare camera truck for winter storage
Overflows	42 Little John Drive, blockage
Jet Truck	420' on Stony Drive and Stelios easement
Permits and licenses	14 residential additions
Other	Mark-outs, pump station fall cleanup, investigate odor and backup complaints, fire extinguisher inspections,

## VI. Industrial Pretreatment

Inspections, sampling and monthly reports	Monthly reports for Water Plant, BNZ, Millipore, Lantheus, Aotco, Entegris; work on Nexx pretreatment system
Semi-Annual Reports	None
New Permits	None
Permit Renewals	Welch's
Violations	None
Other	Sample data into Linko; worked with BOH on getting on to Linko system; renewed Linko contract; updated new computer

## VII. Customer Service

Prepared bill stuffer for water bills to educate customers on what can be safely "flushed away."

## VIII. Administration

### Safety

No lost time accidents.

Professional Development

<b>Date</b>	<b>Training</b>	<b>Participant</b>
11-15-11	Basic Science Concepts	Martin Diaz
11-19-11	Plumbing License Renewal	Dave Fawcett

Budget

<b>Wastewater Division Fiscal 09 Budget</b>	<b>Appropriation</b>	<b>FY09 spent to date</b>	<b>Percent Remaining</b>
<b>Full Time</b>	\$1,119,278	\$441,635	61%
<b>Overtime</b>	\$130,000	\$62,969	51%
<b>Contract Obligations</b>	\$50,506	\$37,408	26%
<b>Supplies</b>	\$440,000	\$209,902	53%
<b>Contract Services</b>	\$848,600	\$360,168	58%
<b>Utilities</b>	\$615,000	\$172,323	72%

**IX. Planned November 2011**

Certificate of Completion for Tertiary Upgrade  
Mail out bill stuffers with December water bill