

# **Water Pollution Control Plant Monthly Report**



**February, 2011**

## **OVERVIEW AND HIGHLIGHTS**

Plant staff focused on installing communication to the Blower Building laboratory during the month. Having the ability to monitor and operate plant systems from the blower lab will enable operators the opportunity to quickly make changes during high flow events. Currently the only site for operational control is in the meter room of the administration building. With the new butterfly valves installed on the aeration system we have worked hard to get the manufacturers technician back to the plant to program the system with the new valves. The anticipated arrival of the technician from Texas is the first month of April, 2011. High flows at the end of February were handled very well by plant staff. The new upgrades to plant systems allow plant operators to open and close valves and gates from the SCADA system very well, preventing overflows and bypassing.

## **WPCP MONTHLY STAFF MEETING AND DISCUSSION**

1. WPCPF Construction
  - a) New valves have been installed and we are working with HSI on having David Morgan return to the plant for programming
2. New Copier – we have leased a new copier in Carol's office. If you need to use the copier see Carol or myself before using.
3. New Alum Sludge Discharge Pipe – We will be installed underground the new alum sludge discharge pipe. The new pipe will be located on the drive and allow for easy disposal of alum sludge.
4. New Digester Heater's – As a part of 2011 capital budget we will be receiving engineering proposals for the replacement of the digester sludge heaters. We are looking to perform a design-build project, which would involve minimal use of a contractor. We hope to be able to install a new heater(s) will plant staff.
5. United Way – Thanks to everyone who attended the United Way luncheon and bought tickets that supported the United Way. We had two winners, Carol Kappel and Kevin Aiken.

## **FEBRUARY EVENTS AND MEETINGS**

1. Plant maintenance and operations staff cleaned the gas lines and system in the anaerobic digesters.
2. Randy Bruback met with Kris Ruggles, Stanco Engineers, on February 10, 2011 to discuss the 2011 Capital Projects, primarily the new anaerobic digester heaters.
3. Scott Ankrom, Hazen and Sawyer Engineers met with Randy Bruback on February 16, 2011 to discuss the 2011 Capital Projects, primarily the new anaerobic digester heaters.
4. The WPCP monthly safety meeting was held on February 17, 2011. The meeting was chaired by Kevin Aiken, Safety Coordinator.
5. Plant staff attended the City Safety Luncheon on February 18, 2011 at the Fire Department.
6. Plant maintenance dismantled No. 3 RAS pump and begun preventative maintenance on the pump.
7. On February 24, 2011 Jeff Tressel and John Caldwell attended the NESOWEA Industrial Pretreatment seminar in Richfield, OH.
8. On Monday, February 28, 2011 the plant flow peaked near 30 MGD due to heavy rain and snow melting.

## **GOALS AND ACCOMPLISHMENTS**

1. Plant maintenance staff installed new conduit and communication cable to the Blower Building Laboratory. The new communication cable provides plant operators the ability to view installed monitors that display the WPCP SCADA information.
2. New Fixed Assets were reported to the finance department. Most of the fixed assets involved replacement of plant equipment during the upgrade last year. In addition old equipment was removed from the Fixed Asset list.
3. Met with various engineering firms to discuss the replacement of the anaerobic digester heaters for 2011.

### **Mission Statement**

***The mission of the Water Pollution Control Plant is to provide the most effective customer oriented wastewater collection and treatment to the citizens of Painesville.***



***Grand River  
Painesville, OH***

### **Results**

	<b><u>This Month</u></b>	<b><u>Last Month</u></b>
Avg. Daily Flow	3.39 MGD	2.39 MGD
Flow Treated	94.99 Mill. Gal.	74.1 Mill. Gal.
Raw PO	4.38 Mg/L	3.36 Mg/L
Final PO	0.24 Mg/L	0.15 Mg/L
% Removed	94.5 %	95.5 %
PO to River	.095 Tons	.046 Tons
Raw C-BOD	161 Mg/L	169 Mg/L
Final C-BOD	2 Mg/L	1 Mg/L
% Removed	98.8 %	99.4 %
C-BOD to River	0.79 Tons	0.31 Tons
Raw Suspended Solids	281 Mg/L	229 Mg/L
Final Suspended Solids	2 Mg/L	1 Mg/L
% Removed	99.3 %	99.6 %
Suspended Solids to River	0.79 Tons	0.31 Tons

### **Meters**

The Total Plant Flow meter was calibrated weekly, and found to be correct. The Lubrizol meter is checked weekly. The Total Plant Flow meter recorded 94.99 million gallons flow. The Lubrizol meter recorded 5,717,100 million gallons flow.

### **Detritors**

1.37 tons of grit was removed during the month.

### **Comminutors**

2.11 tons of screenings was removed during the month.

### **Chemical Treatment**

18,900 pounds of alum was required at a cost of \$2,835.00 for the removal of 3279.8 pounds of phosphorus. Cost of phosphorus removal for the month was \$0.86/pound.

### **Primary Clarifiers**

The primary clarifiers operated satisfactorily during the month, removing 315,241 gallons of raw sludge containing 4.4% solids.

### **Anaerobic Digesters**

The primary digesters operated satisfactorily during the month, transferring 412,691 gallons of raw sludge for pressing containing 4.0 % solids.

### **Secondary Treatment**

The secondary clarifiers operated satisfactorily during the month.

### **Tertiary Treatment**

The tertiary filters operated satisfactorily during the month.

### **Liquid Sludge**

The filter press processed 445,181 gallons of liquid sludge producing 260.72 tons of wet cake, including 32,490 gallons of Water Plant sludge containing 25.4% solids or 66.14 tons of dry solids. 866.5 pounds of polymer were used at a cost of \$899.43. Cost of disposal at the Lake County Landfill was \$7,950.30.

### **Digester and Greenhouse Heating**

The anaerobic digesters consumed 77,234 cubic ft. of generated methane and 134,830 cubic ft. of purchased gas. The greenhouse used 13,907 cubic ft. of purchased gas.

### **Pump Stations**

Erie Street pumps recorded 100.57 hours and pumped 603,420 gallons of wastewater.

Fern Drive pumps recorded 39.57 hours and pumped 522,324 gallons of wastewater.

Poplar Lane pump recorded 116.28 hours and pumped 3,837,240 gallons of wastewater.

Jackson Street pump recorded 49.86 hours and pumped 912,438 gallons of wastewater.

Recreation Park pump recorded 90.23 hours and pumped 1,624,140 gallons of wastewater.

Sanford Street pump recorded 85.44 hours and pumped 1,281,600 gallons of wastewater.

Valley View pumps recorded 25.13 hours and pumped 271,404 gallons of wastewater.

Brookstone flow meter recorded 918,602 gallons of sewer flow.

The Seven (7) pump stations pumped 9,052,566 gallons of wastewater and 32 man-hours were required in maintenance.

Respectfully Submitted,



Randy Bruback

Superintendent

Water Pollution Control Plant