

# **Water Pollution Control Plant Monthly Report**



**December, 2011**

## **OVERVIEW AND HIGHLIGHTS**

In the month of December, 2011 the operations staff worked on preparing the plants biological system for the upcoming winter months. The solids inventory is checked to see that we have an adequate supply of nitrifiers in the activated sludge to meet winter ammonia discharge requirements. Colder weather slows down the nitrifiers and we keep a higher solids inventory to meet this challenge. The tertiary filters were taken in and out of service during the month to meet the demands of the maintenance staff in replacing the effluent valves. The new effluent valves are nearing completion and will provide effective service to the filters for many years to come.

The maintenance staff focused primarily on the effluent valve replacements on the tertiary filters. The old valves were in poor condition and new valves were purchased as a change order to the WPCLF project. Building heaters were checked during the month and placed into service for the winter months. The maintenance truck had to have new door hinges placed on the driver's side door, as the old door panel has rusted so badly that the door was not able to be closed.

In an effort to reduce electrical cost at the WPCP we have identified a means of monitoring the plants electrical usage through a program from AMP Ohio. The program will record and graph the plants electrical usage, so that we can pinpoint specific peaks in our daily equipment operations that can reduce electric consumption.

Plant personnel performed the inventory of plant stored equipment or supplies during the month of December.

At the end of December Utility Department heads met with a representative of the "Job Ready Grant" and City administration to discuss the capacity and availability of utilities at the new proposed industrial properties in the Heisley Development. The utility reports were well received by the representative and the reporting was favorable to the City's plans.

Held the annual Christmas party at the WPCP on December 21, 2011. Retirees who attended the luncheon were Gary Paine and Smith Carson.

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

1. Operations
  - Tertiary Treatment Filter Valves – The final influent valve is being installed on No. 3 filter. All the other valves have been replaced and are in service.
  - Blower Filters - All of the blowers have new metal filters installed on the roof of the blower building. The new filters can be cleaned by washing and drying and placing them back into service
  - No. 1 Raw Sludge Pump Status – New bearing replacement next week.
2. Anaerobic Digester Heater – The selection of the new digester heater is ongoing. We will be deciding on the method of designing and purchasing of the new digester in January, 2012.
3. 2011 Flow Totals – High flow totals for the year.
4. Safety – Snow and Ice
5. Phone Log – Please log any phone problems you may experience. Record the time and phone line and a description of the problem and give report to your supervisor.

6. CDL License – New federal regulations on the use of cell phones when driving a commercial truck can result in the loss of your CDL license.
7. Jobs Ready Grant Meeting – Industrial site in Heisley Development meeting last week.

### ***DECEMBER EVENTS AND MEETINGS***

1. On December 5, 2011 Randy Bruback attended a preconstruction meeting on the Elm Street water line replacement project with the contractor and city personnel.
2. Joe Elliott, Joe Jackson and Randy Bruback met with North Bay Construction on December 6, 2011 in Westlake, OH to discuss the “Digester Heater Replacement”, capital project.
3. The Community Engagement Committee met on December 8, 2011 to review accomplishments of 2011 and new goals for 2012.
4. The “Improving Painesville Image and Environment” committee met on December 19, 2011 to review accomplishments of 2011 and new goals for 2012.
5. Randy Bruback and Joe Jackson met with Tom Green, Electric Superintendent and Cathy Bieterman, Community Development on December 20, 2011 to discuss and plan the Itron Electric Monitoring System proposed for the Water Pollution Control Plant.
6. On December 21, 2011 Randy Bruback met with new council person Katie Jenkins at the Water Pollution Control Plant. Katie was given a tour of the plant and Randy discussed with her the plants goals and accomplishments.
7. Randy Bruback met with Rita McMahon, City Manager and Utility Department heads on December 29, 2011 in the Engineering Department conference room.
8. On December 29, 2011 Randy Bruback met with Cathy Bieterman, Rita McMahon and Utility Department heads at the engineering office. The Jobs Ready Grant designee questioned the Utility department heads on the availability of the City’s utilities at the proposed industrial site at the new Heisley Development.

### ***GOALS AND ACCOMPLISHMENTS***

1. Completed the 2011 WPCP Inventory.
2. 2011 WPCP Christmas Party.

### **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	5.37 MGD	3.99 MGD
Flow Treated	166.32 Mill. Gal.	107.9 Mill. Gal.
Raw PO	2.73 Mg/L	3.61 Mg/L
Final PO	0.49 Mg/L	0.58 Mg/L
% Removed	82.1 %	83.9 %
PO to River	0.340 Tons	0.261 Tons
Raw C-BOD	71 Mg/L	158 Mg/L
Final C-BOD	1 Mg/L	1 Mg/L
% Removed	98.6 %	99.4 %
C-BOD to River	0.69 Tons	0.45 Tons
Raw Suspended Solids	131 Mg/L	287 Mg/L
Final Suspended Solids	2 Mg/L	2 Mg/L
% Removed	98.5 %	99.3 %
Suspended Solids to River	1.39 Tons	0.90 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 166.32 million gallons flow. The Lubrizol meter recorded 8,496,900 gallons flow.

### **Detritors**

2.24 tons of grit was removed during the month.

### **Comminutors**

0.71 tons of screenings was removed during the month.

### **Chemical Treatment**

21,700 pounds of alum was required at a cost of \$3,255.00 for the removal of 3107.1 pounds of phosphorus. Cost of phosphorus removal for the month was \$1.05/pound.

### **Primary Clarifiers**

The primary clarifiers operated satisfactorily during the month, removing 33,838 gallons of raw sludge containing 5.3% solids.

### **Anaerobic Digesters**

The primary digesters operated satisfactorily during the month, transferring 396,305 gallons of raw sludge for pressing containing 3.2 % solids.

### **Liquid Sludge**

The filter press processed 433,197 gallons of liquid sludge producing 169.55 tons of wet cake including 36,892 gallons of water plant sludge, containing 24.0% solids or 42.22 tons of dry solids. 790.5 pounds of polymer were used at a cost of \$915.40. Cost of disposal at the Lake County Landfill was \$5,175.00.

### **Digester and Greenhouse Heating**

The anaerobic digesters consumed 7,832 cubic ft. of generated methane and 157,968 cubic ft. of purchased gas. The greenhouse used 19 cubic ft. of purchased gas.

### **Pump Stations**

Erie Street pumps recorded 151.46 hours and pumped 908,760 gallons of wastewater.

Fern Drive pumps recorded 137.04 hours and pumped 1,808,928 gallons of wastewater.

Poplar Lane pump recorded 128.01 hours and pumped 4,224,330 gallons of wastewater.

Jackson Street pump recorded 54.68 hours and pumped 1,000,644 gallons of wastewater.

Recreation Park pump recorded 167.55 hours and pumped 3,015,900 gallons of wastewater.

Sanford Street pump recorded 145.45 hours and pumped 2,181,750 gallons of wastewater.

Valley View pumps recorded 29.92 hours and pumped 323,136 gallons of wastewater.

Brookstone flow meter recorded 963,470 gallons of sewer flow.

The Seven (7) pump stations pumped 13,463,448 gallons of wastewater and 36 man-hours were required in maintenance.

Respectfully Submitted,



Randy Bruback  
Superintendent  
Water Pollution Control Plant