

# **Water Pollution Control Plant Monthly Report**



**April, 2011**

## **OVERVIEW AND HIGHLIGHTS**

The month of April was a busy month for the WPCP. High flows through the plant due to heavy rain events kept operations very busy. Even with the high flows operators were able to maintain our plant effectively and meet effluent limits. This was also a very important month for our plants future as we switched aeration process control from manual operation to automated control. The new HSI aeration control system will allow an improved control of our centrifugal blowers primarily by reducing the energy required to maintain a constant dissolved oxygen level in our aeration system. Training events during the month included flagger training and training in the use of the new aeration control system. I wanted to thank our plant staff on organizing and cooking the breakfast for the Community Engagement Committee, primarily Carol Kappel, Leslie Balata, James Boykin (chef) and Kevin Aiken. Maintenance focused a lot of attention on preparing the pump stations for radio and fiber communications, by running conduits for the new wiring. They also worked on the start-up of hypochlorination and running new wiring and conduits to the grit pumps in the headworks of the plant.

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

1. WPCP Construction – HSI was at the plant during the month and they have reset the blowers with the new air valves. The operation is going well and we have seen a substantial decrease in the amperage of the blower on line. We still have some bugs to work out and we are in contact with the company.
2. EQ Basin Diffuser Cleaning – Plant operations have been cleaning the EQ aeration basin this past week. The diffusers appear to be in good condition and we are cleaning the rubber membranes with cleaning solution. The basin is also being hosed out to remove solids that have collected on the basin floor. Thanks to everyone who has had a hand in this cleaning operation.
3. Hypo-chlorination and De-Chlorination – Beginning May 1 we will be disinfecting the effluent. This operation continues to November 1.
4. May Mowing Schedule – Beginning May 1 we will be sending an operator to Parks for mowing and weed trimming. On Monday's and Friday we will be sending Gordon and the other three days we will be rotating an employee from our staff. You will report directly to parks on your assigned day and remain there all day, take your time card with you the day before so you have it to punch in.
5. 2010 Lake County Safety Council Award – 100% in preventing accidents and injuries at the Water Pollution Control Plant.
6. 2010 Certificate of Congressional Recognition and Achievement – Representative Steven LaTourette
7. Russ Thompson Retirement Event – Thanks to all who donated to Russ's retirement gift, a gift certificate from Atwell's.

## **APRIL EVENTS AND MEETINGS**

1. On April 1, 2011 Joe Elliott, Jeff Tressel, Joe Jackson and Randy Bruback attended "Diversity Training" at Morse Avenue Training Facility.
2. Matt Rinowski, Wausau Windows met with Randy Bruback on April 1, 2011 to discuss the replacement of the aluminum windows on the third floor of the Administration Building.
3. Jeff Tressel and Randy Bruback met with Eckart America on April 5, 2011 to discuss copper violations from their facility and how to prevent them.

4. The Beta Group met with Joe Jackson, Tom Green (Electric Supt.) and Randy Bruback on April 5, 2011 to discuss the communication project for the City's sewage pump stations. The plan is to install new radios and fiber to communicate with the WPCP and eliminate copper phone lines.
5. Randy Bruback met with Steve Kinniston, Capitol Aluminum and Glass Corp. on April 6, 2011 to discuss the replacement of the aluminum windows on the third floor of the Administration Building.
6. On April 7, 2011 the Community Engagement committee held a breakfast meeting for the clergy of the City of Painesville. The guest speaker, from Lake County Narcotics, spoke on the rise of use of heroin in Lake County.
7. On April 7, 2011 flagger training at Morse Avenue was attended by plant employees, Kevin Aiken, Jeff Hannan, Bud Skaggs and Joe Jackson.
8. During the week of April 11, 2011 HSI aeration blower service representative, David Morgan, was at the WPCP to start up the new automated aeration control system with the new butterfly valves.
9. Joe Jackson and Randy Bruback met with a Painesville City Schools representative at Recreation Park to observe and discuss the installation of a radio antenna on the light pole. The new radio will communicate with the pump station located at the football field and the WPCP.
10. David Tyrrell, YKK Windows met with Randy Bruback on May 15, 2011 to discuss the replacement of the aluminum windows on the third floor of the Administration Building.
11. On April 26 Public Works vacuumed clean the Erie Street Pump Station.
12. The "Community Engagement Committee" held a meeting on April 27, 2011 to discuss a citywide bake sale. We decided to tentatively hold the event at the Fall Fest in October.
13. Russ Thompson, Operator II retired on April 29, 2011 after 30 years of service to the City of Painesville. We all wish Russ the best in his retirement.



### **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.***



### **Results**

	<b><u>This Month</u></b>	<b><u>Last Month</u></b>
Avg. Daily Flow	5.48 MGD	6.05 MGD
Flow Treated	164.36 Mill. Gal.	187.6 Mill. Gal.
Raw PO	1.83 Mg/L	1.55 Mg/L
Final PO	0.11 Mg/L	0.12 Mg/L
% Removed	94.0 %	94.5 %
PO to River	0.075 Tons	0.095 Tons
Raw C-BOD	81 Mg/L	66 Mg/L
Final C-BOD	1 Mg/L	1 Mg/L
% Removed	98.8 %	98.8 %
C-BOD to River	0.69 Tons	0.79 Tons
Raw Suspended Solids	146 Mg/L	123 Mg/L
Final Suspended Solids	2 Mg/L	2 Mg/L
% Removed	98.6 %	99.3 %
Suspended Solids to River	1.37 Tons	0.79 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 164.36 million gallons flow. The Lubrizol meter recorded 9,738,700 gallons flow.

### **Detritors**

3.47 tons of grit was removed during the month.

### **Comminutors**

1.35 tons of screenings was removed during the month.

### **Chemical Treatment**

20,300 pounds of alum was required at a cost of \$3,045.00 for the removal of 2357.7 pounds of phosphorus. Cost of phosphorus removal for the month was \$1.29/pound.

### **Primary Clarifiers**

The primary clarifiers operated satisfactorily during the month, removing 421,447 gallons of raw sludge containing 4.5% solids.

### **Anaerobic Digesters**

The primary digesters operated satisfactorily during the month, transferring 471,010 gallons of raw sludge for pressing containing 3.4 % solids.

**Liquid Sludge**

The filter press processed 541,007 gallons of liquid sludge producing 293.97 tons of wet cake including 69,997 gallons of water plant sludge, containing 28.2% solids or 68.56 tons of dry solids. 1,057 pounds of polymer were used at a cost of \$1,097.17. Cost of disposal at the Lake County Landfill was \$8985.90.

**Digester and Greenhouse Heating**

The anaerobic digesters consumed 57,707 cubic ft. of generated methane and 130,783 cubic ft. of purchased gas.

**Pump Stations**

Erie Street pumps recorded 239.77 hours and pumped 1,438,620 gallons of wastewater.

Fern Drive pumps recorded 79.41 hours and pumped 1,048,212 gallons of wastewater.

Poplar Lane pump recorded 135.14 hours and pumped 4,459,620 gallons of wastewater.

Jackson Street pump recorded 140.62 hours and pumped 2,573,346 gallons of wastewater.

Recreation Park pump recorded 269.70 hours and pumped 4,854,600 gallons of wastewater.

Sanford Street pump recorded 125.77 hours and pumped 1,886,550 gallons of wastewater.

Valley View pumps recorded 33.75 hours and pumped 364,500 gallons of wastewater.

Brookstone flow meter recorded 1,036,010 gallons of sewer flow.

The Seven (7) pump stations pumped 16,625,448 gallons of wastewater and 32 man-hours were required in maintenance.

Respectfully Submitted,



Randy Bruback  
Superintendent  
Water Pollution Control Plant