

# **Water Pollution Control Plant Monthly Report**



**APRIL 2012**

## **OVERVIEW AND HIGHLIGHTS**

During the month of April, the WPCP focused on meeting a citywide goal of providing training to employees in regards to customer service, safety, management and other areas on concern that create a better workplace environment. The two learning topics that the WPCP reviewed were, "Workplace Violence Prevention and Ethical Behavior". Staff members observed the training events as a group, utilizing the online intranet program.

The WPCP 2012 Building Maintenance report was completed this month. The buildings throughout the plant were inspected and reviewed to determine was areas of need require capital funding to repair. The primary areas appear to be need membrane roofs and leaking sub-floors.

The Operations staff during the month worked focused on increasing the gallons per hour throughput on the belt filter press. We increased the polymer dosage to the digested sludge, this allowed good water drainage from the sludge in the gravity zone area, increasing the volume of sludge through the press process. The average gallons per minute was in the area of 70 gpm and now the operators of the press have increased to 100 gpm. This new procedures has reduced the plants solids inventory.

Plant maintenance projects have included:

1. Removal of the No. 2 Anaerobic Digester Mixer for repairs.
2. New underground television cable service.
3. Repair and installation of new chlorine piping to tertiary treatment.
4. No. 2 Tertiary Screw Pump Repair to the lower bearing.
5. Installation of new air hose reel in Maintenance shop.

The delivery of the new Ventrac Mower this month has permitted the plant staff to safely mow the many hills at the WPCP. The steep grade of plant hills has required in the past that operators would weed trim the hills by hand. This procedure was time consuming and required two operators to complete. The new mower can safely maneuver on the hills and complete the task in a more effective manner.

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

WPCP Staff Meeting  
Thursday, April 26, 2012, 7:30 AM

1. Operations
  - Digester Mixer Repair – The mixer has been removed and the repairs were more extensive than expected. Parts have been ordered and are expected to arrive in 2-3 weeks.
  - No. 1 Tertiary Screw Lower Bearing Repair – The repairs to the lower bearing have been completed and the screw pump is back in operation.
  - Polymer Testing – Polymer testing and performance evaluation has been completed. There were two manufacturers of polymer that competed to determine the best option for use. Polydyne polymer was the successful bidder and will remain the supplier for our belt press operations for the next three years.
  - Plant Solids and Water Plant Solids Processing – Plant operators are working towards increasing the throughput on the belt filter press by adding more polymer. Want to have a 100+gpm average for the shift.

- NPDES Permit Renewal – A new NPDES permit will be renewed in 2013. The City must submit the application to renew to OEPA by July 1, 2012. An important requirement of the renewal is a review of our local industrial pretreatment limits. CT Consultants have been hired to perform the analysis on new local limits. We will be sampling in the City of Painesville in meeting this requirement.
  - New Sampling Station for Final Effluent – We are putting together a new effluent sampling station in the Hypochlorination building. The new sampling station will involve a new pump and sampling sink to collect the required sample for analysis.
  - New Ventrac Mower – Must observe operations video before operating mower.
  - New Air Hose Reel – Maintenance has installed new air hose reel in maintenance shop. New reel automatically rewinds the reel after use.
  - Roof Leak – Generator Exhaust pipe to the administration roof leaked this past Saturday. Repairs will be performed by the roof installers.
2. Safety Training – Randy Bruback and Joe Jackson attended an Emergency Preparedness for Underground Piping in Geneva this past month.
  3. Staff Training Events – NESOWEA section meeting in Geneva, OH. Toured Geneva WWTP and Spire Institute.

#### ***APRIL EVENTS AND MEETINGS***

1. The maintenance staff removed the No. 2 Anaerobic Digester Mixer on April 2, 2012 by utilizing a crane from All Crane Inc.
2. The Sovriegn Burnishing Company demonstrated their burnisher on April 3, 2012 to the WPCP Staff.
3. Chris Carpenter from Limitorque visited Joe Jackson and Randy Bruback on April 3, 2012 to discuss the proposed installation of an automatic valve actuator on the slide gate at the base of the tertiary screw pumps.
4. On April 3, 2012 Randy Bruback represented the City of Painesville at the Downtown Painesville Organization meeting at the Victoria Place. The DPO is planning a 2012 Steelhead Fishing Tournament on the Grand River.
5. Randy Bruback and Joe Jackson attended the Ohio Utilities Protection Safety Program at the Geneva State Lodge on April 4, 2012. The program covered means to safely dig underground and emergency contacts in the event of rupturing an underground pipe that may contain gas or hazardous material.
6. On April 5, 2012 Jeff Tressel and Randy Bruback met with Shawn Aiken, CT Consultants, in Willoughby, OH, to discuss the renewal of the WPCP NPDES Permit in 2013. CT Consultants will perform the revision of the City's local limits for industrial users.
7. The new Ventrac Mower was delivered to the WPCP on April 12, 2012. The new mower features a 72 inch mower deck, dual tires to mow hill slopes, water cooled diesel engine and the option for many attachments to service the plants grounds.
8. Lake Erie College students toured the WPCP on April 12, 2012. Joe Elliott conducted the tour on the plants behalf.
9. On April 17, 2012 Randy Bruback represented the City of Painesville at the Downtown Painesville Organization meeting at the Victoria Place.
10. The new Shamrock Pump Station Bid Opening date, on April 25, 2012 was attended by Randy Bruback.
11. An Administration Building roof leak was repaired on April 26, 2012 by Technique Roofing Systems, Inc.

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

1. The new mower was delivered to the plant in April. This capital item improves the efficiency of attending to plant grounds and maintenance.
2. The staff training utilizing the intranet program of "Local Gov U" was started in April.

## **SAFETY MEETING MINUTES**

### WPCP Safety Committee Notes

April 26, 2012 @ 9:00am

1. Kevin reminded the committee that the plant would have CPR training on May 10<sup>th</sup> at 7:30am.
2. WPCP received the 100% award at the April 20<sup>th</sup> Lake County Safety council meeting. Randy informed the committee that the employees at the WPCP should be proud of our accomplishment because traditionally wastewater plants have a high incident of lost time injuries.
3. Kevin presented an article from OSHA that talked about the "service life" of hard hats. The article stated that it is not required by ANSI or OSHA to replace hard hats after a certain time but they do need to be inspected on a regular basis and replaced if damage is found.
4. Kevin attended the Ohio Safety Congress Expo March 27<sup>th</sup> thru 29<sup>th</sup>. He discussed some of the classes he attended. He also gave the committee some information on some safety equipment different vendors had that may be useful at the plant.
5. Ed talked about the wiring issue we have with truck #75 and how it may possibly be a safety issue. Randy agreed and said we should look into possible solutions and get it repaired soon.
6. Tim reported that there is a cover missing over a drain in the administration building basement and it is possible for someone to step in it and twist their ankle. He said there is a safety cone over it now but asked if it could be repaired.
7. Kevin asked if we could possibly weld steps on the inside of the bed on truck #75. He said while putting straw in the truck an employee sometimes has to climb inside the bed and there is not an easy way to get out.
8. Randy wanted to make sure everyone was aware of the PPE required while mowing Elm Street. The committee also discussed possibly installing a flashing light on the new mower for added safety.
9. Ed reported that the emergency flashers on the Ranger were not working.

#### Old Business

1. Kevin is checking on having all of the fall restraint equipment inspected and recertified.
2. The safety support for the bed on truck #75 is bent.

**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	2.52 MGD	3.9 MGD
Flow Treated	75.64 Mill. Gal.	121.05 Mill. Gal.
Raw PO	3.63 Mg/L	5.05 Mg/L
Final PO	0.51 Mg/L	0.26 Mg/L
% Removed	86.0 %	94.9 %
PO to River	0.161 Tons	0.131 Tons
Raw C-BOD	153 Mg/L	151 Mg/L
Final C-BOD	1 Mg/L	2 Mg/L
% Removed	99.3 %	98.7 %
C-BOD to River	0.32 Tons	1.01 Tons
Raw Suspended Solids	253 Mg/L	320 Mg/L
Final Suspended Solids	1 Mg/L	1 Mg/L
% Removed	99.6 %	99.7 %
Suspended Solids to River	0.32 Tons	0.50 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 75.64 million gallons flow. The Lubrizol meter recorded 4,809,500 gallons flow.

**Detritors**

1.83 tons of grit was removed during the month.

**Comminutors**

1.84 tons of screenings was removed during the month.

**Chemical Treatment**

14,700 pounds of alum was required at a cost of \$2,205.00 for the removal of 1968.2 pounds of phosphorus. Cost of phosphorus removal for the month was \$1.12/pound.

**Primary Clarifiers**

The primary clarifiers operated satisfactorily during the month, removing 557,745 gallons of raw sludge containing 4.2% solids.

**Anaerobic Digesters**

The primary digesters operated satisfactorily during the month, transferring 826,640 gallons of raw sludge for pressing containing 3.4 % 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 851,875 gallons of liquid sludge including 25,235 gallons of water plant sludge producing 473.72 tons of wet cake containing 8.7% solids or 7.69 tons of dry solids. 1630.5 pounds of polymer were used at a cost of \$1,692.46. Cost of disposal at the Lake County Landfill was \$14,321.70.

### **Digester and Greenhouse Heating**

The anaerobic digesters consumed 0 cubic ft. of generated methane and 86,282 cubic ft. of purchased gas. The greenhouse used 0 cubic ft. of purchased gas.

### **Pump Stations**

Erie Street pumps recorded 95 hours and pumped 570,000 gallons of wastewater.

Fern Drive pumps recorded 33.10 hours and pumped 436,920 gallons of wastewater.

Poplar Lane pump recorded 86.30 hours and pumped 2,847,900 gallons of wastewater.

Jackson Street pump recorded 35.90 hours and pumped 656,970 gallons of wastewater.

Recreation Park pump recorded 60 hours and pumped 1,080,000 gallons of wastewater.

Sanford Street pump recorded 45.10 hours and pumped 676,500 gallons of wastewater.

Valley View pumps recorded 17.76 hours and pumped 191,808 gallons of wastewater.

Brookstone flow meter recorded 920,615 gallons of sewer flow.

The Seven (7) pump stations pumped 6,460,098 gallons of wastewater and 32 man-hours were required in maintenance.

Respectfully Submitted,



Randy Bruback  
Superintendent

Water Pollution Control Plant