

Water Pollution Control Plant Monthly Report



FEBRUARY 2012

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OVERVIEW AND HIGHLIGHTS

Operational staff has concentrated on plant solids during the month. The removal of WPCP and Water plant solids utilizing the belt filter press has become a 16 hour per day operation and possibly more time will need to be planned to meet the solids removal process. Plant staff moved our Safety Coordinator office located in the Tertiary Building to the Administration Building during the month and has been completed.

Maintenance staff worked on returning to service two of the raw sludge pumps. The pumps had mechanical problems related to bearing failure and plugging of the cutter mechanism prior to pumping. Both pumps were returned to service during the month. Poplar Lane and Jackson Street sewage pump stations received attention during the month in replacing a damaged antenna and programming of the pump controller system.

We have continued to review plant files and determine whether or not the files are to be kept or destroyed. We have closely followed all state and local requirements in performing this task.

WPCP MONTHLY STAFF MEETING AND DISCUSSION

Code Red Presentation by Fire Chief, Mark Mlachek

Chief Mlachek gave a presentation on the new "Code Red" emergency system to plant staff. He discussed how to sign up to be included in the Code Red system, how it works for the departments, how it works for the citizens of Painesville and training opportunities for plant staff.

1. Operations

- Work on the primary sludge pumps have been completed and thanks to everyone getting the pumps and piping back on line.
- Plant solids – in the process of reducing the solids inventory in the plant. Increased wasting to the primaries and as a result all solids processing is increased.
- No. 2 Digester Mixer – The digester mixer on No. 2 is not operating due to bearing failure. The necessary parts are on order and will hopefully arrive in two weeks. At that time we will rent a crane to remove the mixer assembly and replace the bearing hardware and return to service.
- Repaired the lighting in the digester tunnel and is in operation.
- Operational Reports – Joe Elliott has been working on the elimination of operation paperwork. He is having operators and lab personnel enter all plant data on a spreadsheet vs. having the written forms. Everyone's cooperation is needed during this transition.
- 2012 Capital Program – new mower specifications. Safety concerns with slope mowing.

2. Safety Training – Beginning on March 6th and running for the next four weeks, there will be a safety training event on Electrical Safety and Slips and Trips hosted by the electric department. The training times will be 10 am till 2 pm on each Tuesday. The schedule will be posted soon for all are participants.

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- 3. NESOWEA Geneva Meeting – On March 29, 2012.**
- 4. Gordon McCullough – Status on operation.**

FEBRUARY EVENTS AND MEETINGS

1. Completed and mailed annual "Sanitary Sewer Report" for 2011 to Ohio EPA in the month of February.
2. Joe Elliott, Jeff Tressel and Randy Bruback met with CT Consultants on February 8, 2012 to discuss the development of the City's local limits for industrial users.
3. On February 9, 2012 the staff at the WPCP held its monthly safety meeting.
4. Dan Miklos and Jamie Gellner, Hazen and Sawyer Engineers met with WPCP staff on February 9, 2012 to discuss plant operations and optimization of plant processes.
5. Maintenance staff returned to service all three primary sludge pumps on February 15, 2012 after extensive repairs to two pumps.
6. Lynn White, IT expert, was at the WPCP on February 16, 2012 to assist Joe Elliott on implementing the "Access Microsoft" program with our operation and laboratory data reporting.
7. Randy Bruback attended the Utilities Department meeting on February 22, 2012.
8. On February 24, 2012 Rita McMahon, City Manager met with Randy Bruback, Brian Belfiore and Kevin Lynch to discuss reporting requirements for the sanitary sewer system. The new OEPA rules and regulations require daily reporting of all activities related to municipal sewerage systems.

GOALS AND ACCOMPLISHMENTS

1. Installed new antenna at the Poplar Lane sewer pump station, to facilitate radio communications from the station to the WPCP. The new radio eliminates the land line fees for existing communications.
2. Plant staff installed new lighting in the digester tunnel to allow emergency lighting during power outages. This was a concern of our plant safety committee.

SAFETY MEETING MINUTES

February 9, 2012 @ 9:00am

1. Kevin informed the committee that he would be attending the Lake County Safety council meeting on February 17th. The topic for that meeting is "Oxy-Fuel and Compressed Gas Safety".
2. The committee discussed the new maintenance truck and Joe Jackson wanted to make sure whenever a person drives it they need to adjust the mirrors before moving due to it being wider than the vehicles we are used to driving. He also suggested that whenever the crane is in use there should be a "spotter" in addition to the person operating the crane. The committee also decided that we should purchase new safety cones to be carried on the truck at all times.
3. Ed informed the committee that the lock out / tag out box in the maintenance shop is broke and needs to be replaced. Joe and Kevin said they would look into the cost of a new box
4. There was discussion about possibly getting some safety videos from the BWC or other departments for the entire plant to watch. Kevin is looking into topics that may be specific to our type of plant.

Old Business

1. It was determined that the hardhats at the plant need to be replaced and Kevin was to get pricing and provide that information to Randy.
2. The CPR certification for the plant employees will expire in June. Randy asked Kevin to contact the American Heart Association to schedule training and recertification for all WPCP employees.
3. Joe Jackson is having the maintenance department install a new conduit and electrical box for the safety light at the end of the tunnel in the administration basement.
4. Kevin is checking on having all of the fall restraint equipment inspected and recertified.

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**

<u>Results</u>	<u>This Month</u>	<u>Last Month</u>		
Avg. Daily Flow		3.6 MGD	4.89	MGD
Flow Treated		104.44 Mill. Gal.	151.58	Mill. Gal.
Raw PO		4.09 Mg/L	3.38	Mg/L
Final PO		0.25 Mg/L	0.29	Mg/L
% Removed		93.9 %	91.4	%
PO to River		0.109 Tons	0.183	Tons
Raw C-BOD		187 Mg/L	90	Mg/L
Final C-BOD		1 Mg/L	1	Mg/L
% Removed		99.5 %	98.9	%
C-BOD to River		0.44 Tons	0.63	Tons
Raw Suspended Solids		432 Mg/L	143	Mg/L
Final Suspended Solids		1 Mg/L	3	Mg/L
% Removed		99.8 %	97.9	%
Suspended Solids to River		0.44 Tons	1.90	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 104.44 million gallons flow. The Lubrizol meter recorded 6,254,800 gallons flow.

Detritors

2.54 tons of grit was removed during the month.

Comminutors

1.44 tons of screenings was removed during the month.

Chemical Treatment

15,400 pounds of alum was required at a cost of \$2,310.00 for the removal of 3344.8 pounds of phosphorus. Cost of phosphorus removal for the month was \$0.69/pound.

Primary Clarifiers

The primary clarifiers operated satisfactorily during the month, removing 796,675 gallons of raw sludge containing 4.1% solids.

Anaerobic Digesters

The primary digesters operated satisfactorily during the month, transferring 489,967 gallons of raw sludge for pressing containing 3.3 % 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 547,867 gallons of liquid sludge producing 275.67 tons of wet cake containing including 57,900 gallons of water plant sludge containing 21.7% solids or 63.8 tons of dry solids. 1423 pounds of polymer were used at a cost of \$1,477.07. Cost of disposal at the Lake County Landfill was \$8,389.50.

Digester and Greenhouse Heating

The anaerobic digesters consumed 49,344 cubic ft. of generated methane and 124,035 cubic ft. of purchased gas. The greenhouse used 5,631 cubic ft. of purchased gas.

Pump Stations

Erie Street pumps recorded 116.70 hours and pumped 700,200 gallons of wastewater.

Fern Drive pumps recorded 45.10 hours and pumped 595,320 gallons of wastewater.

Poplar Lane pump recorded 107.47 hours and pumped 3,546,510 gallons of wastewater.

Jackson Street pump recorded 45.26 hours and pumped 828,258 gallons of wastewater.

Recreation Park pump recorded 77.27 hours and pumped 1,390,860 gallons of wastewater.

Sanford Street pump recorded 101.91 hours and pumped 1,528,650 gallons of wastewater.

Valley View pumps recorded 15.83 hours and pumped 170,964 gallons of wastewater.

Brookstone flow meter recorded 922,901 gallons of sewer flow.

The Seven (7) pump stations pumped 8,760,762 gallons of wastewater and 32 man-hours were required in maintenance.

Respectfully Submitted,



Randy Bruback
Superintendent
Water Pollution Control Plant