

Water Pollution Control Plant Monthly Report



November, 2011

OVERVIEW AND HIGHLIGHTS

During the month of November the WPCP started preparing for the winter months that lie ahead. We begin this task by draining fluids in equipment and replacing with lower viscosity oils and lubricants, ice melt is purchased and stored in sealed containers, lawn equipment is serviced and stored, plowing equipment is attached to trucks and road and parking lots are identified with stakes for plowing.

Existing power to drive lights was lost during the month of October and upon inspection the conduits running from the panels to the lights was rusted so severely that it prevented repair. Maintenance staff trenched in new conduit at a new location and ran power to the yard lights, illuminating the east end of the plant. Staff continues to work on the pump station communications, via the new radios installed this summer. Fern Drive Pump Station will soon be transmitting pumping information to the WPCP with the new radio. The raw grit pump piping ruptured during the month and we had Ron Foresi, Water Distribution dig up the piping. Upon inspection we found a hole that was leaking sewage to the asphalt surface. Plant maintenance replaced the affected area with new piping and the unit was placed back into service.

On November 22, 2011 plant personnel attended a "Slips, Trips and Falls" safety seminar at the Morse Avenue site. The safety event was approximately 2 hours in length and was well attended by City employees. AMP Ohio provided the training and the message was well presented and received.

Meeting this past month with prospective engineers and contractors on the Sludge Digester Heater Replacement Capital Project. Plant staff is determining replacement equipment along with weighing the options for designing and bidding the project. Taking a very close look at how we can perform the equipment replacement with the lowest cost but getting equipment that provides outstanding service and lowest life cycle costs.

WPCP MONTHLY STAFF MEETING AND DISCUSSION

1. Operations
 - Blower Automation – We are continuing efforts to maximize the automatic operation of the aeration blowers. This week we started No. 1 Blower to attempt to reduce the power consumption vs. No. 2 Blower.
 - Polymer Bidding – We have bids out for polymer.
 - Tertiary Valves – Will be working on replacing No. 1, No. 2 and No. 3 influent valves in the next month.
 - Grit Pipe Failure – Thanks to everyone who had a hand in repairing the No. 1 Grit Pipe. Thanks also to Ron Foresi, Water Distribution on operating the back hoe in replacing the line failure.
2. New Medical Insurance Forms – Thank you to all for getting in your information in regards to the new medical insurance provider for the City.
3. XMAS Luncheon – December 21, 2011 at 11:30 AM.

NOVEMBER EVENTS AND MEETINGS

1. Randy Bruback met with William Carlson, Burgess & Niple Engineers to discuss the completion of the WPCLF construction project on November 1, 2011
2. Dan Miller, Jones & Henry Engineers met with Joe Elliott, Joe Jackson and Randy Bruback on November 2, 2011 to discuss the design and equipment for the proposed digester heater project.
3. Joe Jackson and Randy Bruback held a conference call, on November 7, 2011 with Bob DeWitt, AMP Ohio to discuss demand usage metering at the water pollution control plant. The new meter would permit real time monitoring of electrical usage at the plant.
4. On November 10, 2011 Leslie Balata, Mike Darosy, Kevin Aiken and John Caldwell attended the Northeast Ohio Water Environment section meeting in Alliance, OH.
5. The Utilities Department monthly meeting was attended by Randy Bruback on November 22, 2011.
6. Tim Leonard, Randy Bruback, Kevin Aiken, Leslie Balata, Jeff Hannan and Ed Prib attended the "Slips, trips and Falls Seminar, at Morse Avenue on November 22, 2011. The event was hosted by AMP Ohio.

GOALS AND ACCOMPLISHMENTS

1. "Slips, Trips and Falls" safety seminar by AMP Ohio on November 22, 2011
2. Operator training at the NEOWEA section meeting in Alliance, OH.
3. New Sludge Digester Heater Replacement project design.

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

	<u>This Month</u>	<u>Last Month</u>
Avg. Daily Flow	3.99 MGD	4.74 MGD
Flow Treated	107.9 Mill. Gal.	146.93 Mill. Gal.
Raw PO	3.61 Mg/L	2.50 Mg/L
Final PO	0.58 Mg/L	0.46 Mg/L
% Removed	83.9 %	81.6 %
PO to River	0.261 Tons	0.282 Tons
Raw C-BOD	158 Mg/L	105 Mg/L
Final C-BOD	1 Mg/L	1 Mg/L
% Removed	99.4 %	99.0 %
C-BOD to River	0.45 Tons	0.61 Tons
Raw Suspended Solids	287 Mg/L	176 Mg/L
Final Suspended Solids	2 Mg/L	2 Mg/L
% Removed	99.3 %	98.9 %
Suspended Solids to River	0.90 Tons	1.23 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 107.9 million gallons flow. The Lubrizol meter recorded 5,868,400 gallons flow.

Detritors

4.06 tons of grit was removed during the month.

Comminutors

1.97 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 2726.7 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 592,699 gallons of raw sludge containing 3.4% solids.

Anaerobic Digesters

The primary digesters operated satisfactorily during the month, transferring 606,286 gallons of raw sludge for pressing containing 2.8 % 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 636,211 gallons of liquid sludge producing 240.19 tons of wet cake including 29,925 gallons of water plant sludge containing 23.3% solids or 56.55 tons of dry solids. 961 pounds of polymer were used at a cost of \$997.52. Cost of disposal at the Lake County Landfill was \$7,386.60.

Digester and Greenhouse Heating

The anaerobic digesters consumed 9,565 cubic ft. of generated methane and 134,135 cubic ft. of purchased gas. The greenhouse used 4.0 cubic ft. of purchased gas.

Pump Stations

Erie Street pumps recorded 70.10 hours and pumped 420,600 gallons of wastewater.

Fern Drive pumps recorded 46.20 hours and pumped 609,840 gallons of wastewater.

Poplar Lane pump recorded 116.76 hours and pumped 3,853,080 gallons of wastewater.

Jackson Street pump recorded 39.14 hours and pumped 716,262 gallons of wastewater.

Recreation Park pump recorded 122.32 hours and pumped 2,201,760 gallons of wastewater.

Sanford Street pump recorded 64.30 hours and pumped 964,500 gallons of wastewater.

Valley View pumps recorded 24.37 hours and pumped 263,196 gallons of wastewater.

Brookstone flow meter recorded 1,009,647 gallons of sewer flow.

The Seven (7) pump stations pumped 9,029,238 gallons of wastewater and 36 man-hours were required in maintenance.

Respectfully Submitted,



Randy Bruback
Superintendent

Water Pollution Control Plant