



## **PAINESVILLE WATER DIVISION**

**April 2011**

### **OVERVIEW AND HIGHLIGHT**

The water division repaired 2 main breaks. On April 10, 2011 a 43 year old 16" cast iron main cracked 9'-7" on E. Walnut St. hill. This break was caused from a water hammer or pressure surge in the main. It is not uncommon for these types of water breaks to happen during hydrant flushing periods, when pressure zones are changing due to valves being exercised within an aging distribution system. The second break was on an 8" ductile iron main located at 11390 Big Creek Ct on April 26, 2011. This 23 year old ductile iron pipe had a hole in it, which was caused by corrosion.

The water division replaced two leaking service lines, one at N. State St. for the St. Mary's Gym and one at 6225 Colleen Dr. There were also two repair clamps that required replacement due to corrosion of the nuts holding the clamp tight. An 8" repair clamp was replaced on Freedom Rd. at Dyson Corp. on 4-30-11 because it began to leak. A 6" repair clamp was also replaced on a main in the Headlands State Park on 4-12-11 because it had started leaking.

There were five hydrants repaired and one replaced in the system in the month of April. The hydrant that was replaced was in the City of Painesville, and three of the hydrants which were repaired are located in Grand River Village, and the other two were in the City of Painesville.

Additionally there were six new service lines installed in the month of April. Two of the new service lines installed were in Concord Township, and the remaining four installed were in the City of Painesville. All the interconnect meters were read and verified off in April to make sure they are in the closed position.

**Training-** Free seminar at Alloway for 6 contact hours attended by Danine Schultz, Bruce Hook, and Frank McKeon.

Flushing low flow water mains and keeping accurate documentation during Uni-Directional flushing.

### **Goals achieved**

#### **Water Distribution #1 and Water Plant Goal #1- To maintain a safe, reliable and high quality water supply to our customers/Optimize Water Plant operations**

Actions- All breaks were repaired

Actions- Started Uni-Directional flushing

Actions- Potassium Permanganate feed screw installed and calibrated

Actions- #1 floc and flume cleaned

Actions- Low service pump #2 returned from Estabrook

Actions- Began the cleaning of #3 primary basin and inspection; basin in service

Actions- Working on repairs to filter#6 surface sweep valve

Actions- All brass pins on sludge tubes 1-9 replaced, gaskets replaced on sludge tubes 7-9. Sludge tube #7 repaired.

## **Water Distribution #2- Optimize system operations**

Actions- Distribution employees working in Lab and Plant operations

Actions- Distribution employees Bruce Hook and Leonard Crosby are helping with plant maintenance and plant employee Edward Bardell helping with maintenance at tanks and pump stations.

Actions- Ronald Foresi (Heavy Equipment Operator) is hauling sludge from the plant on a regular basis.

## **Water Distribution #3 and Water Plant Goal #4 – Responsiveness to the community/Employee relations and communications**

Actions- Shop Safety Meeting on April 22<sup>th</sup>, 2011.

## **Water Distribution Goal #4 and Water Plant Goal #5 - Provide the highest qualified, professional workforce/Responsiveness to the community**

Action- Requested from customers and received Backflow tests

Action- Performed new service line inspections

Action- Susan Fuerst attended all Lake County Safety Council meetings

## **Water Plant Goal #2- Good working relationship with the EPA and being in compliance with all regulations.**

Action-Had several discussions with EPA representative Stephen Bopple.

Action-Quarterly THM/HAA5 collection

Action-T.O.C. phosphate and nitrate collected and sent to Alloway for monthly compliance.

**Water Plant Goal #6 - Organize Plant procedures in the laboratory, maintenance and operations.**

Action-Performed weekly chemical analysis of Elm St.

Action-Monthly laboratory quality controls on all laboratory equipment.

Action-Quarterly turbidity meter calibration.



**DIVISION OF WATER**  
**April 2011 REPORT**  
 (ALL FLOW IN MILLION GALLONS)

**Finished Water Pumped to System  
 (Million Gallons)**  
**Water Purchased from AquaOhio**  
**Water Sold to AquaOhio**  
**Chestnut Pump Station**  
**Crile Pump Station**  
**Hermitage Pump Station**

**New Service City**  
**New Service Outside City**  
**Abandon Service City**  
**Abandon Service Outside City**  
**Service Line Replaced With  
 Copper Or Plastic**  
**Footage New Main Installed City**  
**Footage New Main Installed Out of City**  
**Hydrants Repaired**  
**New Hydrants installed**

**Inspector Hours billed**

**Inspector Hours worked**

**Water Main Breaks:**

4-10-11 - 9'-7" split on 16 C.I. Pipe on E. Walnut St. Hill  
 4-26-11 - Hole on 8" D.I. Pipe at 11390 Big Creek Ct.

	<b>Last Year To Date</b>	<b>This Year To Date</b>	<b>This Month Last Year</b>	<b>This Month</b>
	376.76	367.93	92.92	89.003
	3.436	4.211	0.914	0.985
	3.149	0.005	3.093	0.000
	85.000	85.954	22.000	20.922
	41.340	42.370	9.640	10.950
	0.523	0.323	0.229	0.089
	12	8	1	4
	12	8	3	2
	1	1	0	1
	0	1	0	1
	1P, 2C.	3-C.	2	2
	0	0	0	0
	<small>Pri.-775' of 8" D.I. Pub.-1,020' of 8" PVC</small>	0	0	0
	12	10	7	5
	2	2	0	1
	242 Reg. 40.5 O.T.	0	0	0
	44.5 Reg. 5.5 O.T.	0	70.5 Reg. 2 O.T.	0

(City)  
 (Concord)

43 = Backflow Tested  
 5 = Service Inspections  
 281 = O.U.P.S. Tickets

**Miscellaneous:**

4-11-11 - Began 2011 unidirectional flushing  
 4-4-11 - Abandone old 3/4" service at 230 E. Walnut St. (City)  
 4-5-11- Re-new 3/4" service at 283 E. Walnut St (City)  
 4-7-11 Re-new service on State St. for St. Mary's Gym (City)  
 4-12-11-Replace clamp on 6" C.I. pipe at headlands park (Grand River)  
 4-20-11-Repair 1" copper leak at 6225 Colleen Dr. (Concord)  
 4-30-11-Replace clamp on 8" C.I. 53 Freedom Rd. (Pain. Town.)

**George P. Ginnis**  
**Mark Connor**  
**Frank Mckeon**

**Water Division Superintendent**  
**Water Distribution Supervisor**  
**Water Treatment Plant Chief Operator**

**Pumpage, Turbidity & Chemical Use**

**Pumpage (MG)**

Finished Flow 89.00  
 Raw Flow 94.36  
 Wash Water 1.92  
 Plant Usage Service water 3.28

**Turbidity**

Average Raw 56.90  
 Average Applied 2.34  
 Average Tap 0.08

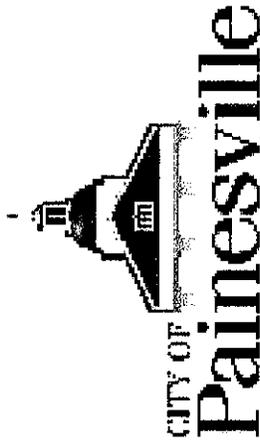
**Chemicals Use (LBS)**

Alum 26919  
 Zinc OrthoPhosphate 2399  
 Potassium Permanganat 36  
 Fluoride 65% 1064  
 Chlorine 2553  
 Cationic Polymer 189  
 Caustic \* 10167

**Chemical Use Dosage (mg/L)**

Alum 33.70  
 Zinc OrthoPhosphate 3.05  
 Potassium Permanganat 0.04  
 Fluoride 65% 0.81  
 Chlorine 3.24  
 Cationic Polymer 0.24  
 Caustic \* 12.57

APRIL 2011



Chemical	Price / lb	Total Chem Cost	Cost / MG
Alum	\$ 0.14905	\$ 4,012.28	\$ 30.49
Zinc OrthoPhosphate	\$ 0.5570	\$ 1,336.24	\$ 14.18
Potassium Permanganate	\$ 2.9800	\$ 107.28	\$ 1.10
Fluoride 65%	\$ 0.4250	\$ 452.20	\$ 4.80
Chlorine	\$ 0.2390	\$ 610.17	\$ 6.35
Cationic Polymer	\$ 0.5600	\$ 105.84	\$ 0.70
Caustic *	\$ 0.4200	\$ 4,270.14	\$ 24.64
<b>TOTAL</b>	<b>\$ 5.33</b>	<b>\$ 10,894.15</b>	<b>\$ 115.45</b>

AVERAGE CHEMICAL COST/MG FINNISHED \$ 122.40  
 AVERAGE CHEMICAL COST/MG \$ 115.45  
 AVERAGE DAILY CHEMICAL COST \$ 363.14  
 TOTAL CHEMICAL COST FOR THE MONTH \$ 10,894.15

**Electrical Usage Per Million Gallons High Service**

KW'S/MG 1911.24  
 MAX DEMAND 271.80  
 COST / MG \$212.49