

# Operations Report

*Emmanuel S. Stuppard, Dir. of Engineering, Operations & Maintenance*



*January 2019*

## *DIRECTORS NOTES*

- I completed the Well #5A final reimbursement packet followed by submission to the NJ I-Bank for approval. I have been in constant communication with Cathy Kenner to help expedite the approval process, by completing and providing all documents as requested, on behalf of the Authority. The NJ I-Bank approved and authorized the release of **\$2,159,629.00** to Authority after I satisfied all requirements! As of February 11, 2019, I was made aware that the reimbursement has successfully been deposited into the Authority's account.
- As members of the co-op, HGAC-Buy, I reviewed several modular office units (mobile office trailer) of the 12'X50' size. Our current trailer is sized at 10'x50'. Through my research I have located four (4) vendors that provided quotes to build the unit new for the Authority. The quotes ranged from \$47k- \$81k, which include the unit with two offices, restroom, stairs with guiderail and landing, skirting, anchoring and other associated accessories. I have prepared a resolution for board approval for the purchase of the least expensive unit.
- We received a quote from Jeff Stevenson for chlorine tank installation of \$5,670.00. Currently, the WTP is draining the tank and it will take a few weeks. Coordination between the tank manufacturer, chemical supplier, and Stevenson is now taking place for a smooth transition.
- The Authority is pursuing the responsible party for damages to the sewer main located at 113 Nottingham. Contractor is responsive and working with the Authority to resolve payment.
- Time Clocks- finger prints and emails have been imported. Trial runs are occurring prior to going fully live.
- Pennoni and I have been in discussion regarding Well 6. Per the request of the Executive Director, I have asked Pennoni to provide the Authority with a proposal for a second opinion. A representative of Pennoni will review plans presented by of consultant and provide comments.
- Ford F250 delivered to the WTP.
- Disciplinary policy completed. Awaiting board approval to implement policy.
- Awaiting the delivery of the valve exerciser.
- Rowan University was interested in partnering up with the Authority to provide opportunities for students to gain exposure and experience. I am in conversation with Rowan to flesh out additional opportunities for the Authority staff and/or family members.
- I completed contract documents and specs for the maintenance of the 14 generators owned and operated by the Authority. Awaiting board approval to accept the lowest bidder following the completion of the bid opening on March 1, 2019.
- Bid opening occurred on 2.15.19 for the DRBC Nutrient Monitoring program. I have prepared a resolution to accept the lowest bidder. Program to proceed effectively on March 1, 2019- February 28, 2020.

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## Water, Pollution Control & System Maintenance Departments

### WATER TREATMENT

	2019	2018
Total Gallons Raw Water Pumped Year to Date (1.999 Billion permitted)	72.839	116.509
Total Monthly Gallons Raw Water Pumped - Million Gallons	72.839	116.509
Average in Million Gallons Per Day Raw Water Pumped Year to Date	2.35	3.758
Average Permitted Million Gallons Per Day	5.477	5.477
Total Gallons Treated Water Pumped - Million Gallons	70.458	112.373
Total Hours Treated Water Pumped	1,179	1,573
% of Wells runtime utilized* / % of Max Monthly Diversion (310 MGM)	32% 24%	35% / 38%
Total Treated Water Pumped From Main Plant - Million Gallons	39.084	64.044
Total Treated Water Pumped From Well # 1 - Million Gallons	17.493	37.646
Total Treated Water Pumped From Well # 5A - Million Gallons	9.088	4.327
Total Treated Water Pumped From Well # 6 - Million Gallons	4.792	5.416
Wash Water Recycled - Million Gallons	0	.940
Average Water Per Day to Distribution System - MGD	2.3	3.625
Highest Single Day of Pumping 1/31/2019 - MGD	3.969	4.760
Ratio of Max Day to Firm Capacity (10.522 MGD*) *including Well #5A	38%	45%
Total Water Delivered to Mount Laurel - this month - Million Gallons	2.792	35.446
Total Water Delivered to Mount Laurel - Year to Date - Million Gallons	2.792	35.446

<i>CHEMICALS USED (Water Plant - Meribrook Circle)</i>		<i>CHEMICALS USED (Well # 1-Sylvan Lane)</i>	
Sodium Hypochlorite	3,591 gals.	Sodium Hypochlorite	160 lbs.
Polymer	134 lbs.	Lime	13,100 lbs.
Lime	14,600 lbs.	Fluoride	501 lbs.
Fluoride	873 lbs.	Days Operated	22
Days Operated	28		
<i>CHEMICALS USED (Well #5A - Baldwin Lane)</i>		<i>CHEMICALS USED (Well #6 - Medallion Lane)</i>	
Chlorine Tablets	283 lbs.	Sodium Hypochlorite	438 lbs.
Lime	200 lbs.	Lime	850 lbs.
Fluoride	203 lbs.	Fluoride	112 lbs.
Sequestering Agent	741 lbs.	Polymer	29 lbs.
Days Operated	15	Days Operated	15

## Water Treatment and Distribution Departments (continued)

1. Posted four vehicles on GovDeals to be auctioned off.
2. New lime pumped installed and running good at one well.
3. Finished our semi-annual maintenance plan for oil changes and lubrication on all pumps, motors, valves.
4. 10 Well update: The job is complete, test results where good and back on-line(1-31-19).
5. Brock Cupitt & Anthony McMichael continue to do well in there training as WTP Operators.
6. Started to set up for chlorine tank #2 to be replaced. Have to use what we can and transfer the rest over to tank #1. Should take approx. 2 weeks

### Water Main Breaks

<i>DATE</i>	<i>LOCATION</i>	<i>SIZE MAIN</i>

**RECONSTRUCTION:**

RECONSTRUCTION:	Current Month:	Current Year	To Date:
(1986 to present) Contractor Water Main Replacement: (linear feet)	0	0	119,018
(1990 to present) System Water Main Replacement: (linear feet)	0	0	272,233
Total LF of 6" / 8" AC Mains (Twin Hills & Rittenhouse not included in total) = 381,800. Total LF Replaced To Date = 380,097 Ft (99.6%) with 1,703 Ft (0.4%) to go. Total installed at Town Center = 3,901 Ft of 6, 8, 10 DIP, 6,725 Ft of 12" PVC Low Pressure Main on Pageant & Salem Road and 528 Ft of 12" PVC Discharge Main @ Well #6 =			

**Service Leaks Repaired**

- 300 Building Westampton Courts leak in the meter pit, pressure side
- 29 Hancock Lane leak at the connection to the main
- 51 Hopewell Lane leak at the connection to the main
- 50 Hargrove Lane leak at the connection to the main
- 11 Patriot Lane we re-dug because neighbor was complaining but water but there were no leaks
- 5 Parish Lane PSE&G hit our service
- 46 Millstone Lane leak at the connection to the main

**Raised/Lowered Meters**

- 23 Beechnut Lane raised meter pit

**Fire Hydrants Repaired/ Serviced**

- 1 Babcock Lane replaced cross threaded 2" nozzle
- 4 Endwell Lane replaced cross threaded 2" nozzle
- Pinetree/Pastoral Lane replaced loose 2" nozzle and O-ring
- 25 Melrose Lane replaced both 2" O-rings and 4" O-ring, 4" and one 2" nozzle
- 72 Ironside Court in cul-de-sac had frozen water, opened hydrant to flush out ice and secured tightly

**Shut Offs/Turn Ons**

- 900 Building Westampton Courts plumber making repairs, shut off/turn on
- 56 Hamilton Lane hard to turn, shut off
- 39 Hamilton Lane hard to turn, Turn on

**Road Repairs**

- Filled in pot holes at the water plant with cold patch
- 36 Northampton Drive cold patch settled, raised to grade

- 10 Patriot Lane put cold patch for the curb
  - Dollar General shopping center JFK Way entrance filled in pot holes with cold patch
- Miscellaneous
- Inventory x 5 days
  - Took 2 loads of scrap to scrapyard
  - Took 2 loads asphalt to Winzinger
  - Took a load of concrete trap rock
  - Took a load of modify to the water plant to make a ramp for a contractor
  - Assisted PC with #3 primary tank chain repair
  - Greased the backhoes
  - Organized old brass fittings for auction x 2 days
  - Josh practiced on the backhoe x 4 days
  - Keith practiced on dump truck x 2 days
  - 115 Niagara Lane sink hole by the sidewalk where our water main is, filled in the hole with dirt/top soil



# *Pollution Control & Sewer Maintenance Departments*

<i>CATEGORY</i>	<i>ACTUAL</i>	<i>1/2019</i>	<i>STANDARD</i>	<i>PERMIT LIMITS</i>	<i>1/2018</i>
Flow	Total	152.817	MG	Report	94.424
	Daily	4.930	MGD	Report only	3.045
Leachate	Total	84,500	Gallons		73,700
	Daily	6,500	Gallons		2,377
Dissolved Oxygen	Weekly	9.04	Minimum	5.5 mg/l min	9.73
Chlorine Produced Oxidants	Daily	0.03	Maximum	0.13 mg/l max	0.02
	Monthly	0.01	Average	0.03 mg/l max	0.00
E. Coli	Monthly	<11	Average	126 max	49
Ammonia	Monthly	2.31	Average	(Nov-Apr) 35 mg/l	4.68
	Daily	2.96	Maximum	Report only	5.71
	Monthly	N/A	Average	(May-Oct) 11.6 mg/l max	NA
	Daily	N/A	Maximum	19 mg/l max	NA
BOD (5 day)	Effluent	14	Weekly Avg.	45 mg/l max	13
		9	Minimum		9
		11	Mon. Average	30 mg/l max	12
	Influent	295	Average		386
		95.1%	% Removal	88.5% min	96.6%
Total Suspended Solids	Effluent	24	Weekly Avg.	45 mg/l max	25
		13	Minimum		12
		18	Mon. Average	30 mg/l max	19
	Influent	285	Average		394
		93%	% Removal	85% min	94%
Digester Gas Metered	Total Daily	1,226,420 39,562	Cubic Feet Cubic Feet		1,109,300
Digester Gas Calculated	Total Daily	2,794,364 90,141	Cubic Feet Cubic Feet		1,518,583 48,987
Sludge Removed from Digester	Total Daily	258,577 8,341	Gallons Gallons		311,888 10,061
Sludge Transferred To Burl Co:	By		07516	Woolston	
NJ0082741 Burl Co. Comp.	Total	447.19	Tons	MCO1	170.71
	Average	63.88	Tons	Daily	5.51
Digester Sludge Solids	Final	3.09	Per Cent	Average	3.02
Dewatered Sludge Cake	Final	19.59	Per Cent	Average	20.89
Reduction Vol. Solids	Final	60.13	Per Cent		40.00%
Wet Metric Tons	Monthly	406.54	Metric Tons		155.19
	Daily	13.11	Metric Tons		5.01
Dry Metric Tons	Monthly	79.64	Metric Tons		32.42
	Daily	2.57	Metric Tons		1.05
<b>CHEMICAL USAGE</b>					

## *Pollution Control and Sewer Maintenance Department (Continued)*

1. The flow was in permit limits. Precipitation was an average of 3.44 inches The precipitation for the year is + 3.44 inches.
2. Removals and loadings --- no exceptions
3. Digester gas production decreased due to lower temperatures. Volatile solids reduction increased and sludge solids increased over last month.

### *MISCELLANEOUS*

## *SEWER SYSTEM MAINTENANCE*



<i>MAIN CLEANING TOTALS 2019</i>			<i>MAIN CLEANING TOTALS 2018</i>		
Preventive / TV CAM	0 / 144		Preventive		100815
Monthly	594		Monthly		611
Year To Date	101409		Year To Date		100815
Sections Cleaned In:					
Sections Completed					
<i>CALLOUTS</i>	<i>MONTH</i>	<i>YEAR TO DATE</i>	<i>SERVICE CONNECTIONS</i>	<i>MONTH</i>	<i>YEAR TO DATE</i>
Total	50	50	Total	9	
Customer problem	20	20	New	0	
Main Blockages	3	3	Replacement	4	
Lift Station	0	0	Partial Replacements	5	
Manholes	0	0	Vents Installed	9	
Miscellaneous / TV	3	3	Vents Pending	0	
Markouts - WMUA	24	24	Markout Request - WMUA	131	

There were (3) main blockages last month. (1) # 30 Granite LN. caused by rocks /dirt (2) # 53 Babbit Ln.caused by grease / roots (3) # 85 Triangle Ln caused by Roots. Did not have overflow into any homes.