

Poughkeepsies' Water Treatment Facility

MEMORANDUM

May 1, 2018

To: Joint Water Board
From: Randy J. Alstadt, P.E.
Water Plant Administrator
Subject: May 2018 Status Report

Water Quality/Production Issues

Process data for April 2018 and May 2018 are presented in the following tables. May Average Daily Flow were greater than April 2018 by 0.06 MGD. May 2018 demand was 0.75 MGD greater than May 2017. Quality was excellent. Plant effluent turbidity averaged 0.04 NTU while influent turbidity averaged 45 NTU (99.93% reduction).

Treatment Process Comparison April 2018 vs. May 2018

Parameter	April-18			May-18		
	Average	Maximum	Minimum	Average	Maximum	Minimum
Raw Flow, MGD	10.97	11.40	8.71	11.03	13.76	9.36
Raw Turbidity, NTU	43	115	10	45	154	12
Effluent Turbidity, NTU	0.03	0.06	0.03	0.04	0.07	0.03

Sludge Process Comparison April 2018 vs. May 2018

Parameter	April-18	May-18	Change	
			Quantity	Percent
Residual Solids, gallons	762,059	1,233,398	471,339	62%
Backwash, gallons	3,468,000	5,484,000	2,016,000	58%
Thickener, gallons	446,576	418,724	(27,852)	-6%
Plate Settler, gallons	52,655	98,813	46,158	88%
Centrifuge #1 gallons	476,671	371,513	(105,158)	-22%
Centrifuge #2 gallons	432,388	241,669	(190,719)	-44%
Centrifuge Total	909,059	613,182	(295,877)	-33%
Centrifuge #1 gpm	24	18	(6)	-26%
Centrifuge #2 gpm	27	22	(5)	-19%
Solids Hauled, tons	319.51	360.42	41	13%
Feed Solids Concentration	5.0	7.6	2.6	51%
Centrifuge #1 Cake percent	29.6	32.0	2.4	8%
Centrifuge #2 Cake percent	30.7	29.8	(0.9)	-3%

Plant Update

Plant operated well. The solids thickener had 1.0 feet of solids at the end of May which was 1 foot less than April 2018. Centrifuge average operating rate was 20 gpm (66% of April). This reduction was caused by increase in solids concentration of centrifuge feed solids.

Our ozone system is working well.

We have begun adding chlorine to backwash water for filters to reduce biological growth. This action seems to have improved filter runs.

Solids Contactor #2 and Sedimentation Basin #2 were drained for preventive maintenance. Maintenance was completed, basin filled and floating cover installed. We expect to take Solids Contactor #1 and Sedimentation Basin #1 out of service for maintenance in June.

The check valve on Low Lift Pump #1 failed closed. Valve can not be repaired. Replacement valve has been ordered. Repairs have been made to permit operation under emergency conditions requiring full time manual monitoring. Cost for repairs is estimated to be \$60,000.

The box drain which drains filter prior to backwashing failed in filter #3. Valve was installed in 2002. Failure was due to corrosion and appears to be impacting other box valves in remaining 5 filters. We are going to replace corroded parts with stainless steel in all 6 filters. Estimated cost is \$15,000.

Upgrade

PLC bid has not been released.

Trailer manufacturing is continuing. We expect to receive trailers in September 2018.

RLJ Electric has not completed any further work.

Staffing

Maintenance Mechanic, Keith Rauch, continues to be out due to a non work foot injury. His latest Doctor's excuse states he will be out until June 4th.

2017 Water Quality Report

Report was issued in May, published to web site and delivered to wholesale customers.