

WHITE MARSH
ENVIRONMENTAL SYSTEMS, INC.

A Middlesex Water Company Affiliate

August 15, 2017

Mr. Darrin Gordon
General Manager
Lewes Board of Public Works
107 Franklin Avenue
Lewes, DE 19958

Subject: Monthly Report, July 2017

Mr. Gordon:

On July 29th, we experienced a significant rain event that resulted in 4.75 inches of precipitation within 24 hours. Due to heavy infiltration, the operator on call dutifully managed the inflow for several hours and left only when the high flow rate had subsided. The daily flow increased by an estimated 400,000 gallons from the infiltration.

Attached is a summary of the Operations and Maintenance activities at the Board's lift stations and wastewater treatment plant for the month of July 2017. Please direct any questions to my attention. Thank you.

Sincerely,



Mike Evans
District Manager
Tidewater Utilities, Inc.

I. Effluent Quality and Compliance

- Discharge Monitoring Report submitted to DNREC with 100% compliance for the month.

July 2017 Effluent Testing

Sample Data	Total Nitrogen	Total Phosphorus	BOD	TSS	Enterococcus
Average:	2.29 mg/L	0.88 mg/L	<2.40 mg/L	<0.50 mg/L	<1.0 Col.
Maximum:	N/A	N/A	<2.40 mg/L	<0.50 mg/L	<1.0 Col.
Permit Limit:	8 mg /L average	2 mg /L average	15 mg/L average 23 mg/L MAX	15 mg/L average 23 mg/l MAX	10 Col. average

Maximum daily flow 1.2286 MGD
 Monthly average 0.7325 MGD

II. Activities

STATION MAINTENANCE PERFORMED

MAINTENANCE PERFORMED

- Changed oil in all 5 membrane blowers.
- The two Control Room A/C units failed. One unit failed from an electrical problem, and the other unit failed from a low coolant level due to an ongoing leak in the system. Sherman Technician came out to inspect them. He recharged the leaky unit and recommended an electrician rewire one of the unit's A/C disconnect. Tidewater electrician rewired and put A/C back in service. Sherman will return in the fall to replace the leaking tubing on the other unit.
- Recovery cleans were completed on all 4 membrane trains.
- Secondary RAS pump #2 failure. Tidewater maintenance switched VFDs with Secondary RAS pump #1. No further failures were experienced. In collaboration with the BPW, a plan was developed on how to remove the RAS pumps in case of emergency repair is necessary.

MAINTENANCE PERFORMED

- Membrane blower E tripped out. The operator tried to reset the circuit breaker and it blew the main power to the process building. Restarted main power and called in Tidewater electricians to troubleshoot. No electrical issues were found. Restarted blower E and are monitoring unresolved issue.
- BPW flushed hydrants.
- A rain event left the Lewes wastewater plant 4.75 inches of precipitation. The operator on call managed the plant for several hours and didn't leave until the flow had subsided. An additional operator assisted for a short period to assist manual operation of the plant during the rain event.

SAFETY INFORMATION

No work place injuries.

PPE inspected.

COMMENTS

- Plant tour with environmental science teachers. The teachers were very inquisitive and the Lewes wastewater operators were very informative.
- The air diffusers in the two biological ditches will need replacing once the summer season is over. The new air diffusers are on site.
- Digester hypochlorite recovery will be conducted in August.