

**WHITE MARSH**  
ENVIRONMENTAL SYSTEMS, INC.  
A Middlesex Water Company Affiliate


October 12, 2018

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

**Subject: Monthly Report, September 2018**

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

Sincerely, y,



Mike Evans  
District Manager  
Tidewater Utilities, Inc.

## I. Effluent Quality and Compliance

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

### September 2018 Effluent Testing

Sample Data	Total Nitrogen	Total Phosphorus	BOD	TSS	Enterococcus
Average:	1.83 mg/L	1.72 mg/L	<2.40 mg/L	<0.93 mg/L	<1.25 Col.
Maximum:	N/A	N/A	<2.40 mg/L	1.20 mg/L	2.0 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 1.2396 MGD  
Monthly average flow 0.7499 MGD

## II. Activities

### STATION MAINTENANCE PERFORMED

- Point Watch monitoring system installed at stations 4, 8, 74, and 83.
- Replaced all level float switches at station 12.
- Maintenance work at station #5.
- VFD out on pump #1 at station #8. Maintenance looking for a replacement.

### MAINTENANCE PERFORMED

- Work nearing completion for the rehabilitation of sludge drying vacuum drum unit.
- Continued liquid sludge hauling to reduce solids in system continuing.
- Dried biosolids hauled.
- Continuing to rotate out all blowers for servicing and rehabilitation.

### SAFETY INFORMATION

No work place injuries.

PPE inspected.

Eyewash and fire extinguisher inspections conducted.

Annual fire extinguisher inspection

\*\*Caustic lines in chemical building, process building and in the retaining area of process building have deteriorated. Crystallization is occurring causing a safety hazard. Leaking Caustic is seeping through the retaining wall in the process building as well.

**ADDITIONAL INFORMATION**

Whitemarsh is evaluating hydrogen sulfide in the Gorman Rupp E.Q. pump cabinets.

Whitemarsh is evaluating the bioreactor air diffuser replacement project.

Schneider Electric and E.D. Supply met with Maintenance and operations to discuss Head works /FD MCC replacement.

Whitemarsh is evaluating the caustic line replacement project.

Whitemarsh is also evaluating the odor complaints at station #4 to assist the BPW with developing a solution.

**LEWES WWTP  
NUTRIENT OFFSET REPORT**

MONTH	Days	Average Monthly Flow	Monthly Average TN	Total Monthly TN Discharged	TN Based 16.9 lbs Manure Offset Required		Poultry Manure Relocated		Poultry Manure Offset Balance	Monthly Average TP	Total Monthly TP Discharged	TP Based 285 lbs Manure Offset Required
					Tons	Lbs.	Tons	Lbs.				
Carry Over									130,493.68			
January	31	0.5796	7.81	170.35		19778.52			110,715.16	0.36	53.95	15374.59
February	28	0.6519	4.68	712.4	1554.93	12040.31	3,109,860.00	3,201,919.16	3,201,919.16	0.43	65.46	18655.99
March	31	0.7362	4.73	900.3		15214.98			3,186,704.18	0.25	47.58	13561.52
April	30	0.6802	2.40	720.45		690.45			3,141,596.37	0.93	158.27	45107.81
May	31	0.7910	1.47	300.62		500.52			3,111,288.71	0.52	106.34	30307.66
June	30	0.7215	1.80	324.93		549.40			3,092,767.43	0.36	64.99	18521.28
July	31	0.7569	2.92	571.41		8656.3			3,068,189.20	0.62	121.33	34578.23
August	31	0.7073	4.85	886.90		14,275.66			2,988,352.92	1.34	245.04	69836.27
September	30	0.7499	1.83	343.35		5802.6			2,896,379.16	1.72	322.71	91973.77
October	31			0.00		0.00			2,896,379.16		0.00	0.00
November	30			0.00		0.00			2,896,379.16		0.00	0.00
December	31			0.00		0.00			2,896,379.16		0.00	0.00
<b>Year Balance</b>									2,896,379.16			

Comments: Effective July 1, 2018 we will be using the new required Manure offset lbs. of 16.9 lbs. for TN and 285 lbs for TP as set by DNREC. This sheet has been recalculated to reflect these calculations back to January 1, 2018.

*Paul Lee*  
Authorized Signatory

10/15/18  
DATE

