

WHITE MARSH

ENVIRONMENTAL SYSTEMS, INC.

A Middlesex Water Company Affiliate

February 8, 2018

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

Subject: Monthly Report, January 2018

Darrin,

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

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.

January 2018 Effluent Testing

Sample Data	Total Nitrogen	Total Phosphorus	BOD	TSS	Enterococcus
Average:	7.81 mg/L	0.36 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 0.6871 MGD
 Monthly average flow 0.5796 MGD

II. Activities

STATION MAINTENANCE PERFORMED

- Pump Station #4 (Gills Neck Rd and Savannah) construction is ongoing.
- The DNREC lift station was worked on. The pumps were pumped out, and the weep hole cleaned out. The floats were found to be wired incorrectly. Floats were rewired, and the station is now functioning correctly.
- The on-call operator was called out to station #19, (Pilotown Village) for a high-level alarm. A significant amount of grease was impeding the floats. The operator water blasted the grease away until the floats were operational. The next morning the station was vacuumed out with the help of the BPW.
- Maintenance in to work on manhole #5 at the plant to rewire the sump pump due to an electrical short.
- All pump stations were checked.

MAINTENANCE PERFORMED

- CDI in to haul out 6,500 gallons of liquid sludge due to the digester trouble and freezing conditions.
- Operators worked late into the night to install a new gear head on the lipicator machine in Headworks. Maintenance assisted.
- CDI in to haul another 6,400 gallons of liquid sludge because of continuing frozen conditions.
- Maintenance in to assess the digester air diffuser actuator valve that has been identified as part of the digester fails. The air valve will not close or open properly and is shutting down the digester permeation. The maintenance team identified that the cause of the trouble is the butterfly valve. Operators placed the air diffuser valve in manual open/close and the digester fails have stopped. Replacement of the butterfly valve is set for Spring.

MAINTENANCE PERFORMED

- Operator and maintenance removed and replaced a worn digester recycle pump. The digester is back on line. No further problems have occurred with the digester.
- Maintenance in to assess the Digester Blower Rebuild project.
- Alarms in Headworks 5mm and 2mm screens, Macerators, Liseptor, and Lipactor due to a fault in the Micrologic Controller. No call out was made because the Microcontroller was burned out. A maintenance electrician assisted the operator to replace it with a spare micrologic.
- HIE successfully calibrated the plant influent and effluent meters.
- Sherman in to put Freon into the heating/cooling air system.
- BPW in to assist operators with removing the Equalization Tank Mixer #2. Mixer has been sent out for repair to Hill's Electric.
- 90.75 tons of dried biosolids hauled away in January.
- Communication Fail alarms continue throughout the month. IT and ER recycled power on all PLC's. IT is working on a quote for PLC replacements through Schneider.

SAFETY INFORMATION

No work place injuries.

PPE inspected.

Eyewash and fire extinguisher inspections conducted.

ADDITIONAL INFORMATION

- New VOIP phones have been installed at the Lewes WWTP per BPW.
- Lewes encountered a severe snow shortly into the New Year. On 1/4/18 the plant operated under emergency protocol and only one operator came in to do routine operations. An estimated two feet of snow fell with significant snow drifts.
- The DRPC annual reporting has been submitted.
- The QA/QC annual reporting has been submitted.
- Due to several communications fails throughout the month, the daily effluent flow measurements had to be taken from the effluent flow meter rather than the SCADA 24-hour computer. DNREC was informed of the situation and was satisfied with the alternative method.
- Gloria Lefchick has passed the level 3 Wastewater exam

MANAGER COMMENTS

- Work needs to be initiated at Station #8 to isolate the influent valve so the influent flow meter can be installed. It is understood that the BPW will fix the valve problem, and Tidewater Maintenance will handle the meter installation
- Aeration basin air diffuser replacement project is still in the planning phase (Paul Perris with TUI).
- Digester blower rebuild project in planning phase (Paul Perris with TUI).
- Headworks grating project is in planning phase (Sam Schlegel with TUI).
- Trojan U.V. system overhaul is in final stages of planning. Currently waiting for Hayward Inc. final quote.
- EPA Annual Biosolids reporting is currently underway and close to completion.
- In regards to the Nutrient Offset Report for 2017; it looks like we have been using 77,129.89 lbs. Manure Offset / year. If Sussex County gets tied in, it's expected to increase by (5% +). Right now we have a balance of 130,000 lbs. We may need to relocate some manure in early 2019 (or sooner to be safe). We are also going to check with DNREC to see if we can obtain credit for the sludge you have hauled to PA.

PRELIMINARY BOARD DOCUMENT



NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS (include Facility Name/Location if different):
City of Lewes, Board of Public Works LBPW

NAME: DE0021512 PERMIT NUMBER
ADDRESS: 116 American Legion Road, Lewes, DE 19958 US
FACILITY: Howard Seymour Water Reclamation Plant

REPORT DESIGNATOR: A
DATA ENTRY COMPLETE: 2/8/2018
REPORT SUBMITTED BY: gloria.lefchick@ssservic.es.com
STATUS OF SUBMISSION: Submitted for Signature

#	PARAMETER	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		MEASURE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM			
1/1	Flow	5796	0.6871	Mill Gal/Day	No Monitoring Required	No Monitoring Required	-	0	99/99	Recorder
1/2	Dissolved oxygen (DO)	No Limit Monitoring Req	No Limit Monitoring Req	Mill Gal/Day	6.3	10.3	mg/l	0	99/99	Recorder
1/3	pH	No Monitoring Required	No Monitoring Required	-	No Limit Monitoring Req	No Limit Monitoring Req	mg/l	0	99/99	Measured
1/4	Enterococcus	No Monitoring Required	No Monitoring Required	-	7.38	8.18	Std pH Units	0	01/01	Grab
1/5	BOD5	No Monitoring Required	No Monitoring Required	-	6	9	Std pH Units	0	01/01	Grab
1/6	TSS	<1.86	<1.55	lbs/L	<1	<3	CFU/100 ML	0	01/07	Grab
1/7	Total Nitrogen	188	288	lbs/Day	No Monitoring Required	No Monitoring Required	mg/l	0	01/07	Comp 8
		<2.54	<2.76	lbs/Day	No Monitoring Required	<0.5	mg/l	0	01/07	Comp 8
		188	288	lbs/Day	No Monitoring Required	23	mg/l	0	01/07	Comp 8
		37.75	48.93	lbs/Day	No Monitoring Required	10.5	mg/l	0	02/30	Comp 8
		100	No Limit Monitoring Req	lbs/Day	No Monitoring Required	No Limit Monitoring Req	mg/l	0	01/30	Comp 8

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)
Total Nitrogen was run two times in January.
Due to PLC communication failures, total daily effluent flow gallons were read directly from the effluent flow meter and were estimated. 9 out of 31 days total effluent flow was read from the meter and estimated.

NAME/TITLE: PRINCIPAL EXECUTIVE OFFICER
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT
DATE: 2/8/2018



NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS (include Facility Name/Location if different):

NAME: City of Lewes - Board of Public Works LBPW
ADDRESS: 116 American Legion Road, Lewes, DE 19958 US
FACILITY: Howard Seymour Water Reclamation Plant

DE0021512
PERMIT NUMBER

001
DISCHARGE NUMBER

REPORT DESIGNATOR: A
DATA ENTRY COMPLETE: 2/8/2018
REPORT SUBMITTED BY: gloria.lefchick@stsservice.com

LOCATION: 116 American Legion Road, Lewes, DE 19958 US

2018 01 01 TO 2018 01 31

STATUS OF SUBMISSION: Submitted for Signature

#	PARAMETER	SAMPLE MEASUREMENT	PERMIT REQUIREMENT	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE	
				AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM				UNITS
2/1	Phosphorus, Total	1.74	No Limit Monitoring Req'd	1.68	1.68	lbs/Day	No Monitoring Required	0.36	0.36	mg/l	0	01/30	Comp 8
	Gross Effluent (00665)	0.5	No Limit Monitoring Req'd			lbs/Day	Monitoring Req'd	2	No Limit Monitoring Req'd	mg/l	-	01/30	Comp 8

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

Total Nitrogen was run two times in January. Due to PLC communication failures, total daily effluent flow gallons were read directly from the effluent flow meter and were estimated. 9 out of 31 days total effluent flows read from the meter and estimated.

NAME/TITLE: PRINCIPAL EXECUTIVE OFFICER

ATTACH DIGITAL SIGNATURE RECEIPT (RC CROMERR)

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

DATE: YEAR MONTH DAY

Submission Receipt

Copy of Record: 34663 Confirmation ID: r20182834663

Site: Howard Seymour Water Reclamation Plant Site ID: DE0021512

Submission: Discharge Monitoring Report for DE0021512 Howard Seymour
Water Reclamation Plant Outfall: 001, January, 2018

File Name: 20181-1207-60660265 File Type: .pdf

Report: DMR Status: Signed

Hash of Data Document:
de959b77f7084ded0667b13960d02ec8c10cac34808f328a4a1f56dce7119713

Data Entry Completed: 2/8/2018 2:25 PM By: Gloria Lefchick
(gloria.lefchick@stservices.com)
EMail of Submitter: Gloria.Lefchick@STServices.com From: 64.235.151.42

Signed: 2/8/2018 2:42 PM By: Ronald Griffith
(rgriffith@tuiwater.com)
EMail of Signator: rgriffith@tuiwater.com From: 108.87.234.202

Token Used When Signed: 6FDcO8yMsFmuHGa388aWw. 'okpo4' H0yyXpoBVAXtjyg=

PRELIMINARY BOARD DOCUMENT

**LEWES WWTF
NUTRIENT OFFSET REPORT**

MONTH	Days	Average Monthly Flow	Monthly Average TN	Total Monthly TN Discharged	TN Based 11.8 lbs Manure Offset Required	Poultry Manure Relocated		Poultry Manure Offset Balance	Monthly Average TP	Total Monthly TP Discharged	TP Based 11.8 lbs Manure Offset Required
						Tons	Lbs.				
Carry Over								130,493.68			
January	31	0.5796	7.81	117.37	13809.86	-	-	116,683.82	0.36	53.95	636.56
February	28			0.00	0.00	-	-	116,683.82		0.00	0.00
March	31			0.00	0.00	-	-	116,683.82		0.00	0.00
April	30			0.00	0.00	-	-	116,683.82		0.00	0.00
May	31			0.00	0.00	-	-	116,683.82		0.00	0.00
June	30			0.00	0.00	-	-	116,683.82		0.00	0.00
July	31			0.00	0.00	-	-	116,683.82		0.00	0.00
August	31			0.00	0.00	-	-	116,683.82		0.00	0.00
September	30			0.00	0.00	-	-	116,683.82		0.00	0.00
October	31			0.00	0.00	-	-	116,683.82		0.00	0.00
November	30			0.00	0.00	-	-	116,683.82		0.00	0.00
December	31			0.00	0.00	-	-	116,683.82		0.00	0.00
Year Balance								116,683.82			

Comments:



 Authorized Signatory

2/8/18

 DATE

PRELIMINARY BOARD DOCUMENT