

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

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

Subject: Monthly Report,

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, 2019. Please direct any questions to my attention. Thank you.

Sincerely,



Mike Evans
District Manager
Tidewater Utilities, Inc.

I. Effluent Quality and Compliance

July, 2019 Effluent Testing

Sample Data	Total Nitrogen	Total Phosphorus	BOD	TSS	Enterococcus
Average:	4.05mg/L	1.87 mg/L	<2.40 mg/L	<0.60 mg/L	<1.4
Maximum:	N/A	N/A	mg/L	mg/L	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 1.5039

Monthly average flow 0.8390

1. One Notice of Violation was sent to DNREC pertaining to the overflow of EQ tank during the storm and power outage On the 17th and 18th of July. See Letter attached.

II. Activities

STATION MAINTENANCE PERFORMED

- # 6 pump station had breaker tripped to # 2 pump. Amp draws were ok, possible weak breaker.
- #11 pump station had faulty starter replaced. Waiting on the replacement pump for #2 slot.
- Pump station 6,7,15,74,and 83 pump stations were check and amp draws on all pumps. Results were ok.
- With outstanding help from BPW both #11 and #19 pump stations were pumped out and cleaned.

MAINTENANCE PERFORMED

- With the help of BPW (ELECTRIC) the #1 Flight mixer in the flow equalization tank was removed and sent out to Hills Electric for servicing.
- Power Trans completed work on grit auger. Problems with the shaft
- Anoxic mixer "A" tripped out on 7/14/19. Operator pulled and removed object jammed in impeller. Now OK
- Pump out electrical man hole #3, two times during the month of July
- Maintance replaced memory board in eq pump #2 VFD
- Pressure washed headworks
- Cleaned transducers.

SAFETY INFORMATION

No work place injuries.

PPE inspected.

Eyewash and fire extinguisher inspections conducted. The fire extinguishers were inspected by an outside contractor.

**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. Contractor was onsite to review project and, provide options, and quote.

ADDITIONAL INFORMATION

1. The non-potable water pump is continuing to shut off in alarm. This event happened six times during the month of July. The issue is a bad check valve that is on order and should be replaced soon.
2. The sludge thickener has shut down on high permeate pressure twice in July and we are still trying to find out about replacing the bad plates in the membrane.
3. The #2 VFD at the headworks still is an issue but our maintenance department is getting it repaired.
4. Permeate pump in sludge thickener had a leak and needed to be replaced. As of this letter the new pump was installed.



NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

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

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

DISCHARGE MONITORING REPORT (DMR)

PERMIT NUMBER: DE0021512
 DISCHARGE NUMBER: 001
 REPORT DESIGNATOR: A
 DATA ENTRY COMPLETE: 8/14/2019
 REPORT SUBMITTED BY: daveweed69
 STATUS OF SUBMISSION: Submitted for Signature

MONITORING PERIOD

FROM: 2019 07 01 TO: 2019 07 31

#	PARAMETER	NDI	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			UNITS	NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE
			AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM				
1/1	Flow		0.339	1.5039	Mil Gal/Day				0	99/99	RCOTOT	
	Gross Effluent (50050)	-	No Limit Monitoring Req'd	No Limit Monitoring Req'd	Mil Gal/Day	No Monitoring Required	No Monitoring Required		-	99/99	RCOTOT	
1/2	Dissolved oxygen (DO)					1.61	5.17	mg/l	0	99/99	Imersion	
	Gross Effluent (00300)	-	No Monitoring Required	No Monitoring Required		No Monitoring Required	No Limit Monitoring Req'd		-	99/99	Imersion	
1/3	pH					7.4	8	Std pH Units	0	01/01	Grab	
	Gross Effluent (00400)	-	No Monitoring Required	No Monitoring Required		6	9	Std pH Units	-	01/01	Grab	
1/4	Enterococcus						<3.1	CFU/100 ML	0	01/07	Grab	
	Gross Effluent (31639)	-	No Monitoring Required	No Monitoring Required		No Monitoring Required	104	CFU/100 ML	-	01/07	Grab	
1/5	BOD5		<17.09	<18.75	lbs/Day		<2.4	mg/l	0	01/07	Composite 24	
	Gross Effluent (00310)	-	188	288	lbs/Day	No Monitoring Required	23	mg/l	-	01/07	Composite 24	
1/6	BOD5						178.2	mg/l	0	01/07	Composite 24	
	Raw Sewage (00310)	-	No Monitoring Required	No Monitoring Required		No Monitoring Required	No Limit Monitoring Req'd		-	01/30	Composite 24	
1/7	TSS		<4.34	<7.81	lbs/Day		<1	mg/l	0	01/07	Composite 24	
	Gross Effluent (00530)	-	188	288	lbs/Day	No Monitoring Required	23	mg/l	-	01/07	Composite 24	

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

Maximum daily flow on July 18th was due to storm issues which knocked out the programming of the Zenon controls this was duly noted in the five day letter. The average daily flows were 0.8390 MGD.

NAME/TITLE: PRINCIPAL EXECUTIVE OFFICER
 SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT
 TELEPHONE: _____ DATE: _____
 (ATTACH DIGITAL SIGNATURE RECEIPT FROM CROMBERRY)



NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS (include Facility Name/Location if different):
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PERMIT NUMBER: DE0021512
DISCHARGE NUMBER: 001
REPORT DESIGNATOR: A
DATA ENTRY COMPLETE: 8/14/2019
REPORT SUBMITTED BY: daveweed69
STATUS OF SUBMISSION: Submitted for Signature

#	PARAMETER	NDI	QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE		
			AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM				UNITS	
2/1	TSS	-	31.64	No Monitoring Required	-	No Monitoring Required	152.1	No Limit Monitoring Req'd	293	mg/l	0	01/07	Composite 24
2/2	Total Nitrogen	-	100	No Monitoring Required	lbs/Day	No Monitoring Required	4.05	No Limit Monitoring Req'd	4.05	mg/l	0	01/30	Composite 24
2/3	Phosphorus, Total	-	14.61	No Limit Monitoring Req'd	lbs/Day	No Monitoring Required	8	No Limit Monitoring Req'd	No Limit Monitoring Req'd	mg/l	0	01/30	Composite 24
	Gross Effluent (00665)	-	25	No Limit Monitoring Req'd	lbs/Day	No Monitoring Required	1.87	No Limit Monitoring Req'd	1.87	mg/l	0	01/30	Composite 24

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(ATTACH DIGITAL SIGNATURE RECEIPT FROM CROMBERRY)

TELEPHONE

DATE

TYPED OR PRINTED

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

YEAR	MO	DAY
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I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY OBTAIN AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO OBTAINED THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

NDI: (No Data Indicator) Reasons: 8 - No Sample (Other); 9 - No Sample (Monitoring Not Required this Monitoring Period); B - Not Detected; C - No Sample (No Discharge)

DMREC DISCHARGE MONITORING REPORT - DMFR1 (EPA FORM 3320-1 (Rev. 10-96) USED AS TEMPLATE), 2016.

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**DNREC
Water Resources
Surface Water Discharges Section
89 Kings Highway
Dover, DE 19901**

July 18, 2019

**RE: Lewes WWTF
Notice of Non-Compliance**

On July 18, 2019 at 2:50 AM there was a spill of approximately 3,440 gallons of untreated wastewater on the grounds of the Lewes Wastewater Treatment Facility.

On the previous evening, on July 17, 2019, there was a severe electrical storm resulting power failures and power surges throughout Sussex County, DE. At approximately 9:00 PM, the Ron Griffith, OnCall Operator and Plant DRC responded to multiple alarms received from the facility. Once onsite he initially found the plant without power, and subsequently, he discovered the Zenon PLC was malfunctioning and unable to control the operation of the plant. Tech Reps for the Zenon process were able to log in remotely to the system and reinstalled the control firmware, in order to place the plant back into operation.

During the lengthy process to re-establish communication and restore the PLC, the influent flow had to be held for nearly 9 hours, as the plant was unable to permeate any flow. This was done using a combination of the Flow EQ tank, treatment basins, the smaller side stream EQ, and the collection system,

At 2:50 am, as the influent Flow Equalization Tank level continued to rise, the staff went to turn off the incoming plant flow from the 2 main sewage lift stations. Both stations were running at 2:50 am at a combined flow rate of 1070 gpm when the tank first breached the overflow mark (14.4 feet). At 2:52 am Lift Station #8 was turned off and the flow was reduced to 650 gpm. At 2:54 am they reached the other lift station #4, and shut it down completely stopping the overflow back at the plant EQ basin.

As a result, a total metered flow of 3,440 gallons overflowed onto the ground surrounding the EQ Tank at the plant. The total duration of this event was recorded by the SCADA system at 8 minutes,

Hydrated Lime was later applied to the affected area. DNREC Departments of Enforcement, Compliance, and Shellfish were all notified of the incident.

At approximately 6:00 am, the facility was restored to automated operation. Lift stations were slowly returned to operation, and the plant began treatment of the stored wastewater.

If you have any question, please contact me at 302-218-9803.

Respectfully Submitted,

*For
Jeff Deats*

 *Mike Evans*

Jeffrey W. Deats

Statewide Production Manager

CC: File
Ronald Griffith, DRC
Darrin Gordon, BPW

2:50 AM	1070 gpm	Overflow Level 14.4 feet Lift Station #4 & #8 both running
2:52 AM	650 gpm	Overflow Level 14.4 feet. Lift Station # 8 turned Off
2:54 AM	0 gpm	Lift station # 4 turned Off; both stations now OFF

Over flow ceased

$1070\text{gpm} \times 2 \text{ minutes} = 2140 \text{ gallons}$

$650 \text{ gpm} \times 2 \text{ minutes} = 1300 \text{ gallons}$

$2140 + 1300 = 3440 \text{ Gallons Total}$

LEWES WWTF

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
					MGD	mg/L	Lbs.	Tons				
Carry Over												
January	31	0.8809	7.05	1605.62	27135.02				2,712,733.35			
February	28	0.9414	2.01	441.87	7467.60				2,685,471.93	0.42	95.65	27261.42
March	31	1.0168	6.26	1645.65	27811.49				2,674,820.89	0.17	37.37	10651.04
April	30	0.8032	3.35	673.22	11377.39				2,645,601.39	0.39	102.52	29219.50
May	31	0.7462	5.21	1005.13	16986.64				2,614,673.55	0.54	108.52	30927.84
June	30	0.7242	3.15	570.76	9645.91				2,534,388.47	1.46	281.67	80275.07
July	31	0.8390	4.05	878.51	14846.75				2,496,700.89	0.73	132.27	37697.59
August	31			0.00	0.00				2,381,096.01	1.87	405.63	115604.88
September	30			0.00	0.00				2,381,096.01	0.00	0.00	0.00
October	31			0.00	0.00				2,381,096.01	0.00	0.00	0.00
November	30			0.00	0.00				2,381,096.01	0.00	0.00	0.00
December	31			0.00	0.00				2,381,096.01	0.00	0.00	0.00
Year Balance									2,381,096.01			

Comments:

Authorized Signatory

DATE