

LEWES WASTEWATER TREATMENT PLANT

Influent Flow Report

Influent Flow

Time	Flow
5/1/2020	666000
5/2/2020	647000
5/3/2020	644700
5/4/2020	865400
5/5/2020	167700
5/6/2020	596600
5/7/2020	309500
5/8/2020	589200
5/9/2020	567500
5/10/2020	516400
5/11/2020	524600
5/12/2020	500400
5/13/2020	682700
5/14/2020	856900
5/15/2020	886400
5/16/2020	893700
5/17/2020	871800
5/18/2020	845000
5/19/2020	840000
5/20/2020	844900
5/21/2020	859500
5/22/2020	898800
5/23/2020	982500
5/24/2020	912900
5/25/2020	913000
5/26/2020	879000
5/27/2020	861600
5/28/2020	859200
5/29/2020	900200
5/30/2020	917600
5/31/2020	904900
Total Flow :	23205600

LEWES WASTEWATER TREATMENT PLANT**Effluent Flow Report**

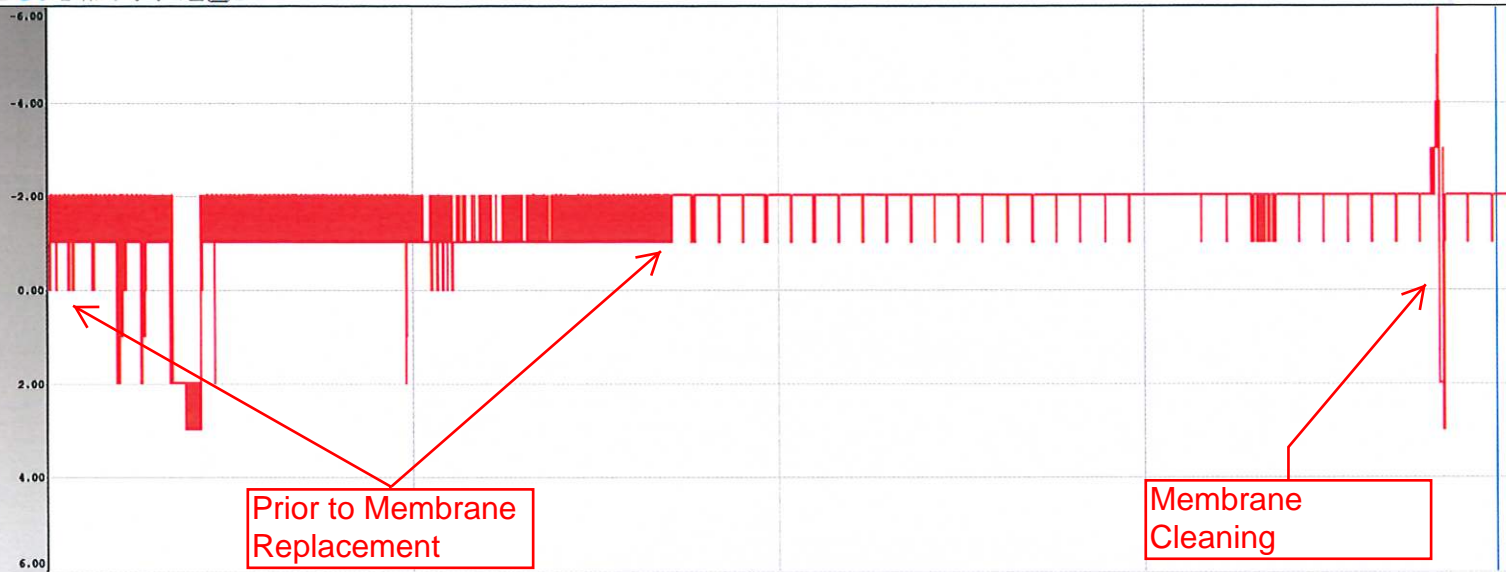
Effluent Flow

Time	Flow
5/1/2020	690600
5/2/2020	668500
5/3/2020	672600
5/4/2020	741900
5/5/2020	247400
5/6/2020	247400
5/7/2020	559700
5/8/2020	561300
5/9/2020	603900
5/10/2020	605200
5/11/2020	566800
5/12/2020	575600
5/13/2020	552900
5/14/2020	818300
5/15/2020	881600
5/16/2020	884000
5/17/2020	862600
5/18/2020	838500
5/19/2020	824800
5/20/2020	834400
5/21/2020	847800
5/22/2020	890300
5/23/2020	937600
5/24/2020	932200
5/25/2020	900900
5/26/2020	951500
5/27/2020	771100
5/28/2020	854500
5/29/2020	907200
5/30/2020	898300
5/31/2020	905800
Total Flow :	23035200



TRANSMEMBRANE PRESSURE

Cursor Time : 05/31/2020 03:43:29.490



Prior to Membrane Replacement

Membrane Cleaning

05/01/2020	03:10:03	Duration: 728.00000K	05/31/2020	11:10:03
Label	Current	Cursor		
Transmembrane PSI	-2.50	-2.00		

Open Previous

Reset Zoom

Main Menu

Print Trend

Kubota Digester Membranes

11:10:03

Thursday, June 4, 2020

User : Guest

Group : Guest

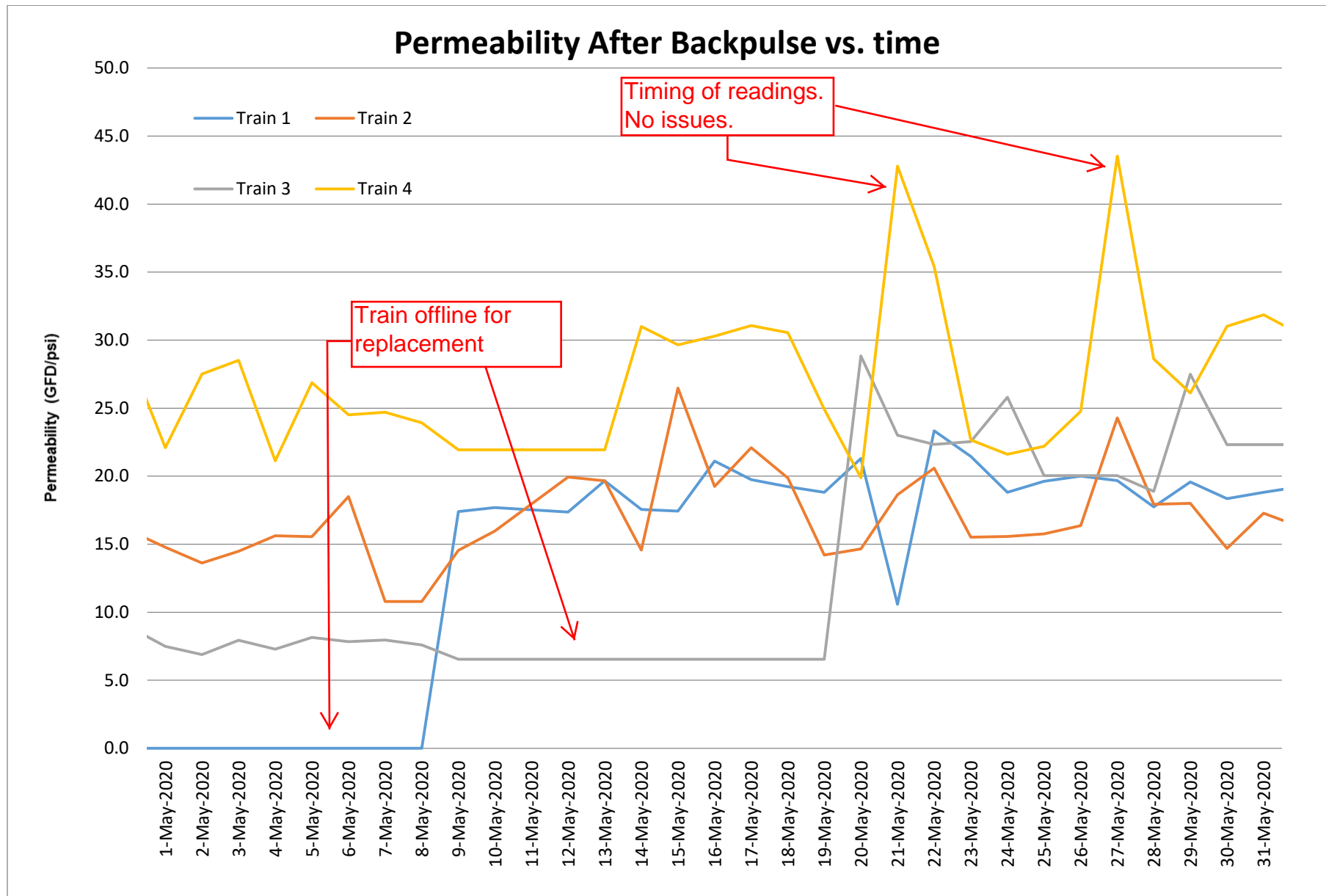
003 Acknowledged Alarms

005 Unacknowledged Alarms

008 Total Alarms

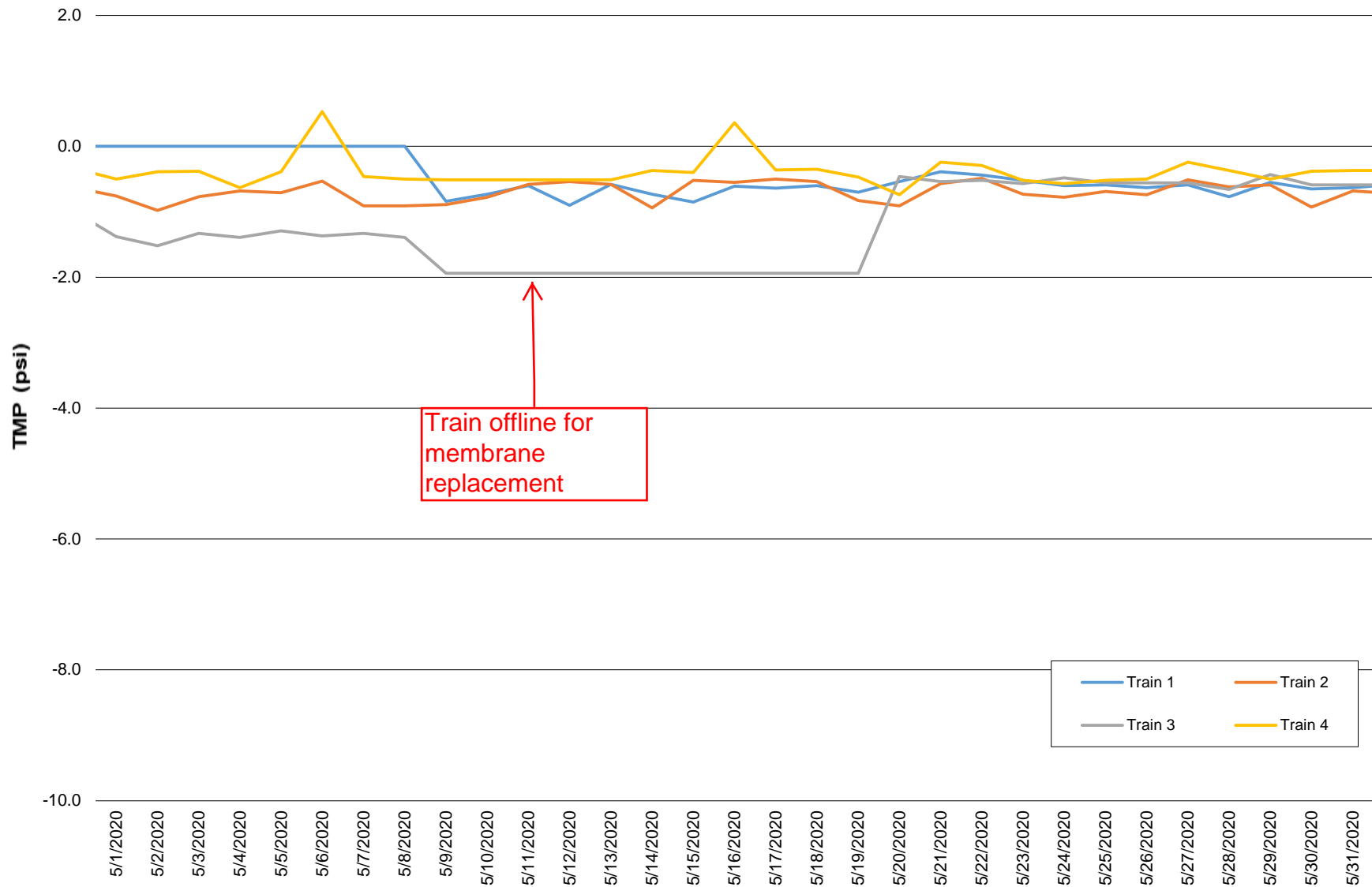
Influent Flow Vs. Rainfall





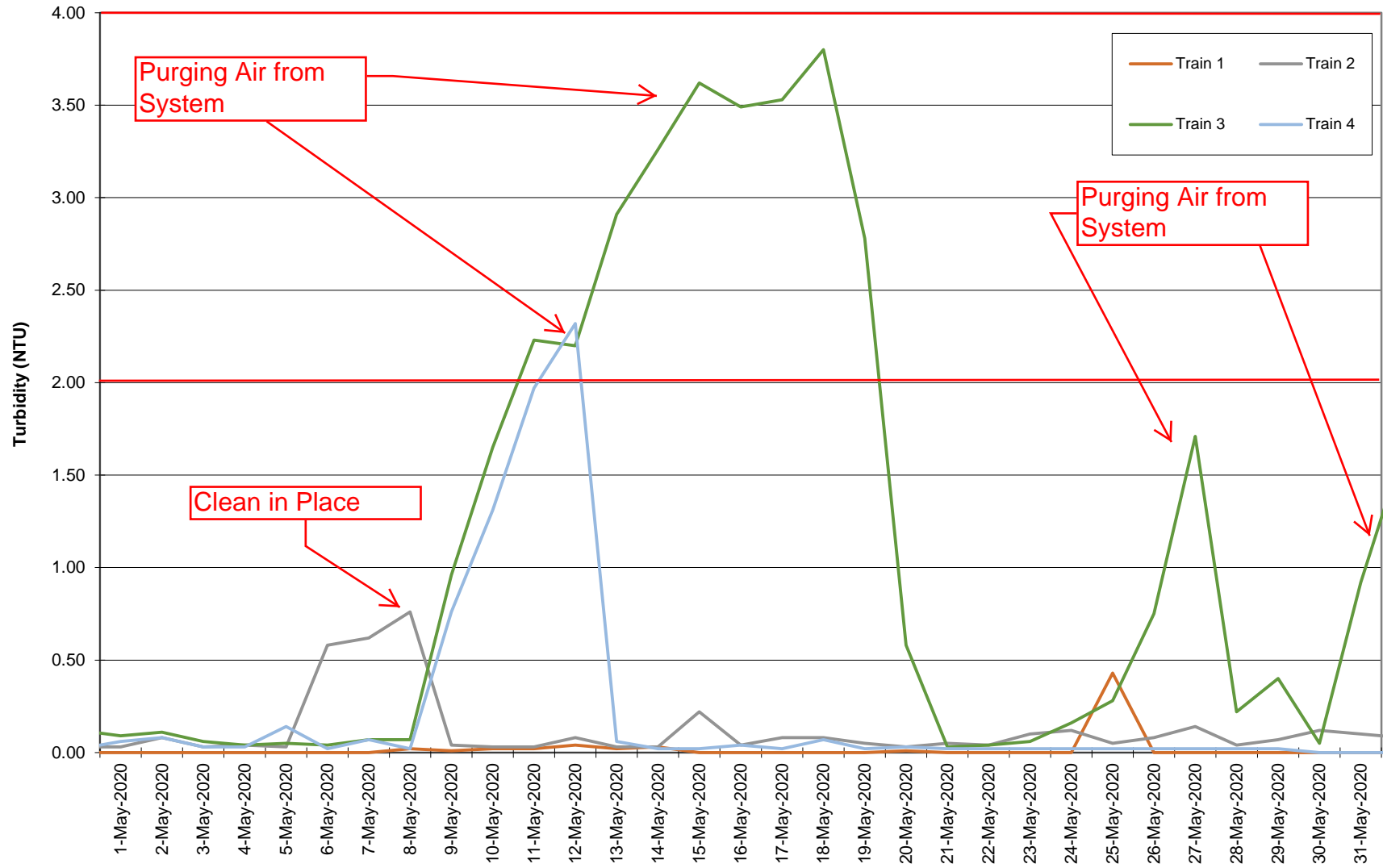
Lewes WWTP

TMP After Back Pulse vs. time



6/22/2020

Turbidity Profile



PUMP STATION 196

May-20		PS 196	
		METER READING	24 HOUR FLOW
FRI	1	42762140	0.117170
SAT	2	42879310	0.119030
SUN	3	42998340	0.134350
MON	4	43132690	0.125990
TUE	5	43258680	Flow to Wolfe Neck
WED	6	43373380	
THUR	7	43502510	
FRI	8	43613360	
SAT	9	43722110	
SUN	10	43845280	
MON	11	43961060	
TUE	12	44073150	
WED	13	44184680	0.286300
THUR	14	44470980	0.353290
FRI	15	44824270	0.374280
SAT	16	45198550	0.381660
SUN	17	45580210	0.372820
MON	18	45953030	0.361720
TUE	19	46314750	0.359930
WED	20	46674680	0.359820
THUR	21	47034500	0.369410
FRI	22	47403910	0.380890
SAT	23	47784800	0.395990
SUN	24	48180790	0.395170
MON	25	48575960	0.388470
TUE	26	48964430	0.376460
WED	27	49340890	0.376650
THUR	28	49717540	0.364680
FRI	29	50082220	0.388520
SAT	30	50470740	0.394980
SUN	31	50865720	0.388870
TOTAL			7.566450
COUNT			23
AVERAGE			0.328976
MINIMUM			0.117170
MAXIMUM			0.395990

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

DE0021512

PERMIT NUMBER

001

DISCHARGE NUMBER

MONITORING PERIOD

FROM 2020 05 01

TO 2020 05 31

REPORT DESIGNATOR

A

DATA ENTRY COMPLETE

6/3/2020

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			
1/1	Flow	SAMPLE MEASUREMENT		0.7431	0.9515	Mil Gal/Day				--	0	99/99	RCOTOT
	Gross Effluent (50050)	PERMIT REQUIREMENT	-	No Limit Monitoring Req'd	No Limit Monitoring Req'd	Mil Gal/Day	No Monitoring Required	No Monitoring Required	No Monitoring Required	--	--	99/99	RCOTOT
1/2	Dissolved oxygen (DO)	SAMPLE MEASUREMENT				--	2.32		6.23	mg/l	0	99/99	Imersion
	Gross Effluent (00300)	PERMIT REQUIREMENT	-	No Monitoring Required	No Monitoring Required	--	No Limit Monitoring Req'd	No Monitoring Required	No Limit Monitoring Req'd	mg/l	--	99/99	Imersion
1/3	pH	SAMPLE MEASUREMENT				--	7.2		7.7	Std pH Units	0	01/01	Grab
	Gross Effluent (00400)	PERMIT REQUIREMENT	-	No Monitoring Required	No Monitoring Required	--	6	No Monitoring Required	9	Std pH Units	--	01/01	Grab
1/4	Enterococcus	SAMPLE MEASUREMENT				--		<1	<1	CFU/100 ML	0	01/07	Grab
	Gross Effluent (31639)	PERMIT REQUIREMENT	-	No Monitoring Required	No Monitoring Required	--	No Monitoring Required	10	104	CFU/100 ML	--	01/07	Grab
1/5	BOD5	SAMPLE MEASUREMENT		<3.41	<70.16	lbs/Day		<4.35	10.2	mg/l	0	01/07	Composite 24
	Gross Effluent (00310)	PERMIT REQUIREMENT	-	188	288	lbs/Day	No Monitoring Required	15	23	mg/l	--	01/07	Composite 24
1/6	BOD5	SAMPLE MEASUREMENT				--		116	159	mg/l	0	01/07	Composite 24
	Raw Sewage (00310)	PERMIT REQUIREMENT	-	No Monitoring Required	No Monitoring Required	--	No Monitoring Required	No Limit Monitoring Req'd	No Limit Monitoring Req'd	mg/l	--	01/30	Composite 24
1/7	TSS	SAMPLE MEASUREMENT		<0.25	<3.97	lbs/Day		<0.39	<0.5	mg/l	0	01/07	Composite 24
	Gross Effluent (00530)	PERMIT REQUIREMENT	-	188	288	lbs/Day	No Monitoring Required	15	23	mg/l	--	01/07	Composite 24

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

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	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 GATHER AND EVALUATE THE INFORMATION SUBMITTED, BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING 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.	[ATTACH DIGITAL SIGNATURE RECEIPT FROM CROMERR]	TELEPHONE	DATE
TYPED OR PRINTED		SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		YEAR MO DAY

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)

DNREC DISCHARGE MONITORING REPORT - DMR1 [EPA FORM 3320-1 (Rev. 10-96) USED AS TEMPLATE], 2016.

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6/3/2020 1:49 PM

PAGE 1 OF 2

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)



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

DE0021512

PERMIT NUMBER

001

DISCHARGE NUMBER

MONITORING PERIOD

FROM 2020 05 01

TO 2020 05 31

REPORT DESIGNATOR

A

DATA ENTRY COMPLETE

6/3/2020

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	SAMPLE MEASUREMENT				--		130.23	332	mg/l	0	01/07	Composite 24
	Raw Sewage (00530)	PERMIT REQUIREMENT	-	No Monitoring Required	No Monitoring Required	--	No Monitoring Required	No Limit Monitoring Req'd	No Limit Monitoring Req'd	mg/l	--	01/30	Composite 24
2/2	Total Nitrogen	SAMPLE MEASUREMENT		5.2	5.2	lbs/Day		2.52	2.52	mg/l	0	01/30	Composite 24
	Gross Effluent (00600)	PERMIT REQUIREMENT	-	100	No Limit Monitoring Req'd	lbs/Day	No Monitoring Required	8	No Limit Monitoring Req'd	mg/l	--	01/30	Composite 24
2/3	Phosphorus, Total	SAMPLE MEASUREMENT		4.86	5.06	lbs/Day		1.71	2.45	mg/l	0	02/30	Composite 24
	Gross Effluent (00665)	PERMIT REQUIREMENT	-	25	No Limit Monitoring Req'd	lbs/Day	No Monitoring Required	2	No Limit Monitoring Req'd	mg/l	--	01/30	Composite 24

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

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

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 GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING 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.

[ATTACH DIGITAL SIGNATURE RECEIPT FROM CROMERR]

TELEPHONE

DATE

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

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TYPED OR PRINTED

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)

DNREC DISCHARGE MONITORING REPORT - DMR1 (EPA FORM 3320-1 (Rev. 10-96) USED AS TEMPLATE), 2016.

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6/3/2020 1:49 PM PAGE 2 OF 2

Submission Receipt

Copy of Record: 53898 Confirmation ID: d20206453898

Site: Howard Seymour Water Reclamation
Plant

Site ID: DE0021512

Submission: Discharge Monitoring Report for DE0021512 Howard Seymour
Water Reclamation Plant Outfall: 001, May, 2020

File Name: 20205-2385-60749445

File Type: .pdf

Report: DMR

Status: Signed

Hash of Data Document:

e0441e15e4a4436d67da14a8edd0a4467815653098e6ee7b3577f9a3332c0d30

Data Entry Completed: 6/3/2020
1:49 PM

By: David Weed (daveweed69)

E-Mail of Submitter: dweed@tuiwater.com

From: 208.87.236.201

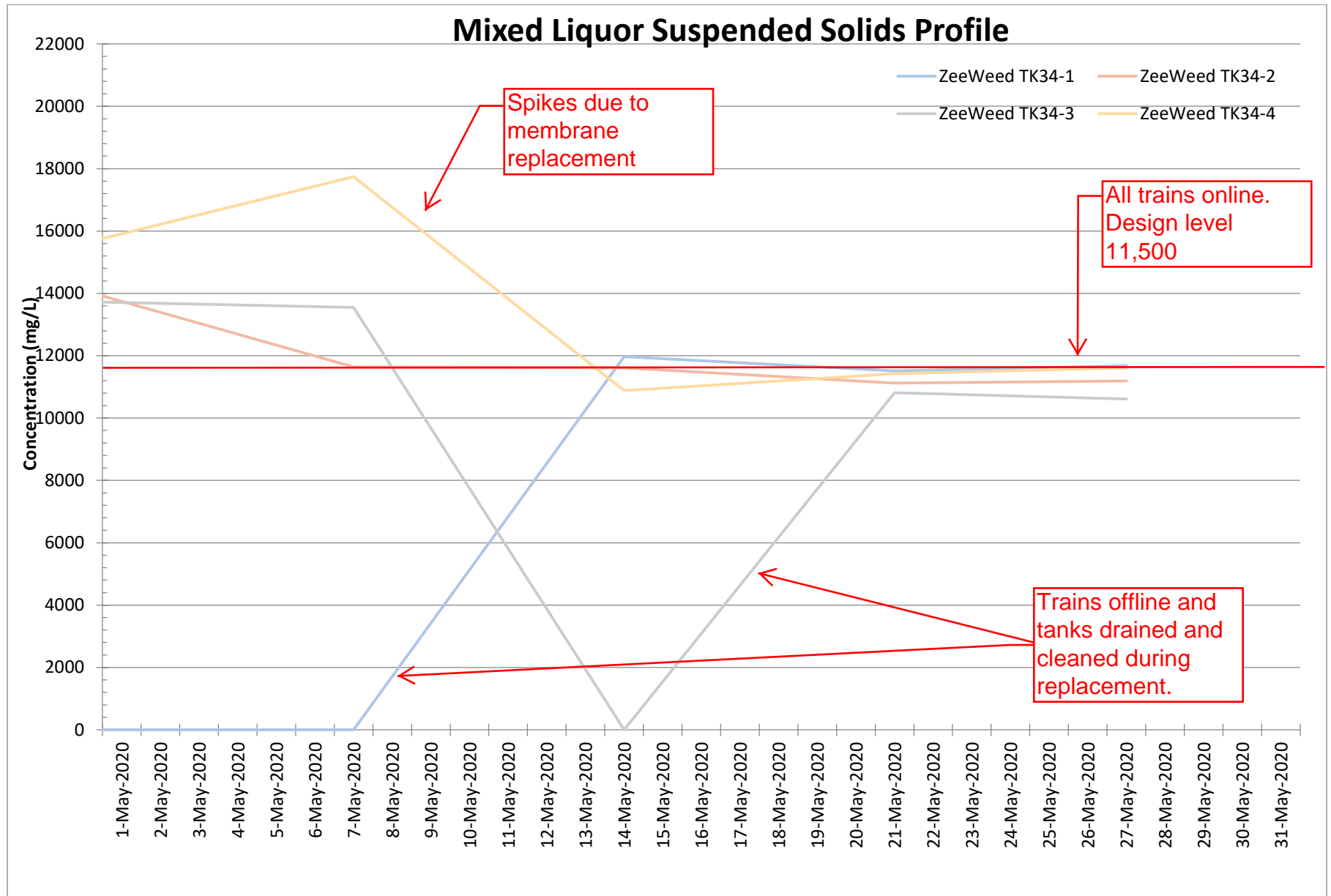
Signed: 6/4/2020 2:11 PM

By: David Weed (daveweed69)

E-Mail of Signator: dweed@tuiwater.com

From: 208.87.236.201

Token Used When Signed: gU6k+3cT05loxNndxavwCkWwhu2n8jEcEHCmlmGBoqc=



MONTHLY OPERATIONS REPORT

Tidewater Utilities

SITE: LEWES WWTF

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MAY

2020

GENERAL INFORMATION					FINAL EFFLUENT OUTFALL 001					Dup Samples 1 per week		
DATE	DAY	AIR deg F	Prec in,	WEATHER	EFF FLOW MGD	pH S.U.	p.H DUP	D.O., mg/l	TEMP. deg C	SAMPLE		TEST
										TIME	INITIALS	TIME
1	f	58	t	rain	0.6906	7.55		6.16	19.3	9:15	DBW	9:17
2	s	65	0.00	clear	0.6685	7.48		5.92	19.0	11:05	KB	11:15
3	s	72	0.00	cloudy	0.6726	7.53		6.06	19.6	15:06	KB	15:10
4	m	66	1.24	p cloudy	0.7419	7.56	7.56	5.90	20.5	8:25	DBW	8:38
5	t	55	0.00	clear	0.2474	7.57		6.06	19.5	10:40	JT	10:50
6	w	50	0.00	rain	0.2474	7.66		6.18	18.3	7:45	JT	7:59
7	t	47	0.25	p cloudy	0.5597	7.56		6.11	17.8	7:10	DBW	7:19
8	f	57	0.00	clear	0.5613	7.60		6.23	19.1	8:55	JT	9:02
9	s	42	0.25	clear	0.6039	7.37		2.97	16.5	10:29	GL	10:37
10	s	56	0.00	clear	0.6052	7.39		4.30	16.7	11:50	GL	11:52
11	m	57	t	p cloudy	0.5668	7.52	7.52	5.23	17.5	8:10	DBW	8:14
12	t	47	0.00	clear	0.5756	7.48		5.16	16.9	8:40	JT	8:48
13	w	54	0.00	clear	0.5529	7.52		5.58	19.3	10:44	DBW	10:47
14	t	50	0.00	clear	0.8183	7.37		3.88	19.9	9:28	DBW	9:37
15	f	66	0.00	clear	0.8816	7.44		5.05	20.5	8:45	DBW	8:51
16	s	74	0.00	clear	0.8840	7.47		4.27	21.0	9:38	DBW	9:47
17	s	61	0.00	cloudy	0.8626	7.41		4.49	20.3	10:15	DBW	10:25
18	m	51	t	cloudy	0.8385	7.44	7.44	4.33	19.5	8:32	DBW	8:43
19	t	55	0.25	cloudy	0.8248	7.57		4.00	18.9	7:35	JT	7:40
20	w	54	0.00	cloudy	0.8344	7.41		3.96	18.8	9:00	DBW	9:13
21	t	54	0.00	p cloudy	0.8478	7.43		4.47	19.3	8:24	DBW	8:35
22	f	62	0.01	drizzle	0.8903	7.38		4.41	19.5	9:55	DBW	10:04
23	s	71	0.64	clear	0.9376	7.31		3.43	20.6	12:30	GL	12:33
24	s	54	0.00	cloudy	0.9322	7.18		3.16	19.5	11:25	GL	11:30
25	m	58	0.00	cloudy	0.9009	7.23	7.23	2.98	19.8	12:25	GL	12:26
26	t	56	t	fog	0.9515	7.32		2.32	21.3	10:54	DBW	11:02
27	w	58	0.00	cloudy	0.7711	7.55		4.43	19.9	9:08	DBW	9:16
28	t	52	0.00	cloudy	0.8545	7.41		3.93	20.6	9:25	JT	9:34
29	f	74	t	p cloudy	0.9072	7.49		3.51	21.8	8:47	DBW	8:56
30	s	78	0.08	sun/cloud	0.8983	7.34		3.28	21.6	11:00	RC	11:07
31	s	68	0.00	sun/cloud	0.9058	7.40		3.99	21.2	11:36	RC	11:41
TOTAL					23.0352							
AVERAGE		59	0.10		0.7431			4.57	19.5			
MAXIMUM		78	1.24		0.9515	7.7		6.23	21.8			
MINIMUM		42	0.00		0.2474	7.2		2.32	16.50			

MONTHLY OPERATIONS REPORT

Tidewater Utilities

SITE: LEWES WWTF

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MAY

2020

SITE: LEWES WWTF

		FINAL EFFLUENT OUTFALL 001																		INF							
DATE	DAY	BOD5		TSS		ENTEROC.		TOTAL P		TOTAL N		AMMONIA AS N		NITRATE-NITRITE AS N		TKN		DATE	DAY			BOD5			TSS		
		mg/l	lbs/day	mg/l	lbs/day	Col/100 ml	Logarithm	mg/l	lbs/day	mg/l	lbs/day	mg/l	lbs/day	mg/l	lbs/day	mg/l	lbs/day			MGD	</>	mg/l	lbs/day	</>	mg/l	lbs/day	
1	f		0.00		0.00			0.00		0.00		0.00		0.00		0.00	0.00	1	f	0.6660			0.00			0.00	
2	s		0.00		0.00			0.00		0.00		0.00		0.00		0.00	0.00	2	s	0.6470			0.00			0.00	
3	s		0.00		0.00			0.00		0.00		0.00		0.00		0.00	0.00	3	s	0.6447			0.00			0.00	
4	m		0.00		0.00			0.00		0.00		0.00		0.00		0.00	0.00	4	m	0.8654			0.00			0.00	
5	t	< 2.40	< 4.95	< 0.50	< 1.03			2.45	5.06	2.52	5.20	0.06	0.12	2.02	4.17	0.50	1.03	5	t	0.1677	<	100.00	139.86	38.00	53.15		
6	w		0.00		0.00	< 1		0.00		0.00		0.00		0.00		0.00	0.00	6	w	0.5966			0.00			0.00	
7	t		0.00		0.00			0.00		0.00		0.00		0.00		0.00	0.00	7	t	0.3095			0.00			0.00	
8	f		0.00		0.00			0.00		0.00		0.00		0.00		0.00	0.00	8	f	0.5892			0.00			0.00	
9	s		0.00		0.00			0.00		0.00		0.00		0.00		0.00	0.00	9	s	0.5675			0.00			0.00	
10	s		0.00		0.00			0.00		0.00		0.00		0.00		0.00	0.00	10	s	0.5164			0.00			0.00	
11	m		0.00		0.00			0.00		0.00		0.00		0.00		0.00	0.00	11	m	0.5246			0.00			0.00	
12	t	< 2.40	11.52	< 0.50	2.40			0.97	4.66		0.00		0.00		0.00		0.00	12	t	0.5004		84.00	350.56	68.00	283.79		
13	w		0.00		0.00	< 1		0.00		0.00		0.00		0.00		0.00	0.00	13	w	0.6827			0.00			0.00	
14	t		0.00		0.00			0.00		0.00		0.00		0.00		0.00	0.00	14	t	0.8569			0.00			0.00	
15	f		0.00		0.00			0.00		0.00		0.00		0.00		0.00	0.00	15	f	0.8864			0.00			0.00	
16	s		0.00		0.00			0.00		0.00		0.00		0.00		0.00	0.00	16	s	0.8937			0.00			0.00	
17	s		0.00		0.00			0.00		0.00		0.00		0.00		0.00	0.00	17	s	0.8718			0.00			0.00	
18	m		0.00		0.00			0.00		0.00		0.00		0.00		0.00	0.00	18	m	0.8450			0.00			0.00	
19	t	10.20	70.16	< 0.05	0.34			0.00		0.00		0.00		0.00		0.00	0.00	19	t	0.8400		121.00	847.68	82.90	580.76		
20	w		0.00		0.00	< 1		0.00		0.00		0.00		0.00		0.00	0.00	20	w	0.8449			0.00			0.00	
21	t		0.00		0.00			0.00		0.00		0.00		0.00		0.00	0.00	21	t	0.8595			0.00			0.00	
22	f		0.00		0.00			0.00		0.00		0.00		0.00		0.00	0.00	22	f	0.8988			0.00			0.00	
23	s		0.00		0.00			0.00		0.00		0.00		0.00		0.00	0.00	23	s	0.9825			0.00			0.00	
24	s		0.00		0.00			0.00		0.00		0.00		0.00		0.00	0.00	24	s	0.9129			0.00			0.00	
25	m		0.00		0.00			0.00		0.00		0.00		0.00		0.00	0.00	25	m	0.9130			0.00			0.00	
26	t	< 2.40	19.05	< 0.50	3.97	< 1		0.00		0.00		0.00		0.00		0.00	0.00	26	t	0.8790		159.00	1165.61	332.00	2433.85		
27	w		0.00		0.00			0.00		0.00		0.00		0.00		0.00	0.00	27	w	0.8616			0.00			0.00	
28	t		0.00		0.00			0.00		0.00		0.00		0.00		0.00	0.00	28	t	0.8592			0.00			0.00	
29	f		0.00		0.00			0.00		0.00		0.00		0.00		0.00	0.00	29	f	0.9002			0.00			0.00	
30	s		0.00		0.00			0.00		0.00		0.00		0.00		0.00	0.00	30	s	0.9176			0.00			0.00	
31	s		0.00		0.00			0.00		0.00		0.00		0.00		0.00	0.00	31	s	0.9049			0.00			0.00	
			0.00		0.00																						
TOTAL																		TOTAL		23.2056							
AVERAGE		< 4.35	< 3.41	< 0.39	< 0.25	< 1.0		1.71	4.86	2.52	5.20	0.06	0.00	2.02	0.13	0.50	0.03	AVERAGE				116.00	80.76		130.23	108.11	
MAXIMUM		< 10.20	< 70.16	< 0.50	< 3.97	< 1.0		2.45	5.06	2.52	5.20	0.06	0.12	2.02	4.17	0.50	1.03	MAXIMUM				159.00	1165.61		332.00	2433.85	
MINIMUM		< 2.40	< 0.00	< 0.05	< 0.00	< 1.0		0.97	0.00	2.52	0.00	0.06	0.00	2.02	0.00	0.50	0.00	MINIMUM				84.00	0.00		38.00	0.00	

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
		MGD	mg/L	Lbs.	Lbs.	Tons	Lbs.	Lbs.	mg/L	Lbs.	Lbs.
Carry Over								3,195,312.26			
January	31	0.6789	7.74	1358.55	16030.85		-	3,179,281.41	0.15	26.33	310.68
February	29	0.8255	1.16	231.60	2732.88		-	3,176,548.53	0.06	11.58	136.64
March	31	0.8058	1.15	239.58	2827.06		-	3,173,721.47	0.07	14.58	172.08
April	30	0.6604	0.90	148.71	1754.76		-	3,171,966.70	0.51	84.27	994.37
May	31	0.7431	2.52	484.15	5712.91		-	3,166,253.79	1.71	328.53	3876.62
June	30			0.00	0.00		-	3,166,253.79		0.00	0.00
July	31			0.00	0.00		-	3,166,253.79		0.00	0.00
August	31			0.00	0.00		-	3,166,253.79		0.00	0.00
September	30			0.00	0.00		-	3,166,253.79		0.00	0.00
October	31			0.00	0.00		-	3,166,253.79		0.00	0.00
November	30			0.00	0.00		-	3,166,253.79		0.00	0.00
December	31			0.00	0.00		-	3,166,253.79		0.00	0.00
Year Balance								3,166,253.79			

Comments:


Authorized Signatory

6/1/2020

DATE

Alum offline for piping repairs.

WHITE MARSH ENVIRONMENTAL SYSTEMS, INC.
MONTHLY OPERTAING REPORT - LEWES WASTEWATER TREATMENT PLANT
ROOT CAUSE REPORT - CORRECTIVE ACTIONS SUMMARY - MAY 2020

Action Item	Due Date	Action Owner	Status Open/ Complete/ Ongoing	Comments/Notes
1. Replace all four trains of filter membranes	May 2020	BPW	Complete	Installation is complete.
2. Reset Turbidity set-point to Manufacture recommended setting	February 2020	WMES	Complete	Reset as of February 13, 2020.
3. Replace all four Turbidity monitors with new models that have additional functionality, including the ability to alarm on loss of flow.	February 2020	WMES	Complete	New model turbidity monitors installed as of February 13, 2020.
4. Have the BPW consulting engineers and BPW staff perform Quarterly WWTF walk through to evaluate the field condition, maintenance records, compliance records and the operation and maintenance of the WWTF.	February 2020	BPW	Complete	GMB performed their first walkthrough for the BPW on February 18, 2020. Paul Peris of WMES accompanied GMB on the walkthrough. WMES received a copy of the report from the first walkthrough on 4-30-20. Second walkthrough was performed on 5-19-20.
5. Review and update the plant Operation and Maintenance Manual to ensure that the current plant configuration is captured, including other updates such as Suez’s recommendation on chemical and mechanical cleaning	5/1/2020	BPW	Complete	Darrin Gordon issued an Updated Suez O and M Manual in electronic format to WMES representative on March 3, 2020. WMES is maintaining the electronic version and a hard copy desk version on-site at the Howard H. Seymour Water Reclamation Facility.
6. Issue Contract with Suez to remotely collect data (Insight-Pro) and provide cloud-based access to the data for BPW and plant operator. Suez will monitor and trend data, provide bi-weekly reporting and cleaning recommendations. Suez will provide an annual summary report.	5/1/2020	BPW	Open	Suez notified the BPW and WMES that the PLC was shipped on April 29, 2020. When the PLC is received by the BPW, it will be installed by the BPW's consultant (Keystone) in consultation with Suez. Programming of new panel scheduled for week of 6-15-20.
7. Perform an engineering analysis of the entire plant to identify ways to improve redundancy and reliability of the plant, including:	6/30/2020	BPW	Open	
a. Review current screen design to determine if there is a way to remove more of the “soft and spongy” material to reduce filter fouling	6/30/2020	BPW	Open	
b. Potential for splitting the four filter trains to have them operate in a redundant parallel configuration	6/30/2020	BPW	Open	
c. Configuration of turbidity meters to provide better protection against use of dirty water during back flush cycle	6/30/2020	BPW	Open	
8. WMES to establish an improvement program for monitoring of plant performance to be evaluated and accepted by BPW. The Corrective Actions contained in the WMES report are not detailed enough to provide assurance to BPW that the plant is being operated to industry Best Practices	5/16/2020	WMES	Complete	Included in April Monthly Report to BPW.



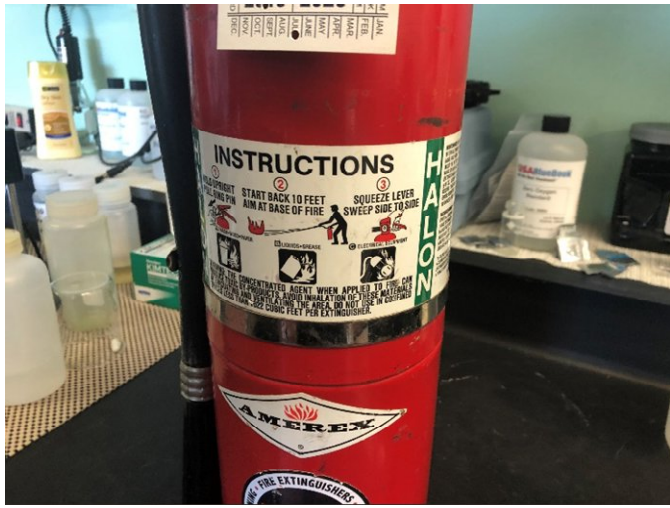
WHITE MARSH ENVIRONMENTAL SYSTEMS, INC.
MONTHLY OPERTAING REPORT - LEWES WASTEWATER TREATMENT PLANT
ROOT CAUSE REPORT - CORRECTIVE ACTIONS SUMMARY - MAY 2020




Action Item	Due Date	Action Owner	Status Open/ Complete/ Ongoing	Comments/Notes
9. Improve reporting requirements from WMES to BPW for:	5/16/2020	WMES	Complete/Ongoing	Started in April Monthly Report to BPW.
a. Off-normal conditions at the plant	5/16/2020	WMES	Complete/Ongoing	Started in April Monthly Report to BPW.
b. Discharges outside of Permit limits	5/16/2020	WMES	Complete/Ongoing	Started in April Monthly Report to BPW.
c. OHSA accidents	5/16/2020	WMES	Complete/Ongoing	Started in April Monthly Report to BPW.
d. Details included in monthly reports (to include trending of performance data, trending of equipment failures, preventative maintenance required, suggested capital improvements and other concerns)	5/16/2020	WMES	Complete/Ongoing	Started in April Monthly Report to BPW.
e. WMES to present their report at the monthly BPW meeting	5/16/2020	WMES	Complete/Ongoing	Started in April Monthly Report to BPW.
f. Require, as per the contract, a detailed yearly reporting on the operation of the plant to include the items listed in a. through d. above	1/15/2021	WMES	Open	To be included in Annual Report to BPW beginning with the 2020 Annual Report.
10. BPW staff to strengthen its oversight of Operators performance				
a. Through the review of trending data in monthly and annual reports	5/16/2020	BPW	Open	BPW indicates that its staff will commence this as part of the April monthly report process.
b. Schedule routine plant walk through with plant WMES management	5/16/2020	BPW	Open	BPW indicates that its staff will commence this as part of the April monthly report process.
c. Annual review of WMES Policies and Procedures	5/16/2020	BPW	Open	BPW indicates that its staff will commence this as part of the April monthly report process.
d. Reporting to the BPW Board of condition of the plant	5/16/2020	BPW	Open	BPW indicates that its staff will commence this as part of the April monthly report process.
e. Developing of an open Item tracking system	5/16/2020	BPW	Open	BPW indicates that its staff will commence this as part of the April monthly report process.
11. BPW Board of Directors to review its oversight function of the operation of the BPW.				
a. Continue to use outside subject matter experts such as Sargent and Lundy, Suez, GMB, etc. to provide the Board with guidance on the condition of the BPW systems	Annually	BPW	Open	To be completed annually by BPW. Schedule to be determined and added to tracking list that will be developed in Corrective Action 10. e.
b. Perform audit by a sub-group of the Board of the BPW operation and management systems				
12. WMES to develop plans for operating plant in off-normal conditions. BPW provided WMES with a Best Practices template and copy of the prior operating company plan. This should include, but not be limited to:	4/16/2020	WMES/BPW	Complete/Open	WMES portion complete, to be submitted as part of the amended March 2020 Monthly Report to the BPW. BPW portion Open; to be done by BPW Engineering Consultant.
a. Loss of filter membrane	4/16/2020	WMES/BPW	Complete/Open	WMES portion complete, to be submitted as part of the amended March 2020 Monthly Report to the BPW. BPW portion Open; to be done by BPW Engineering Consultant.
b. Digesters	4/16/2020	WMES/BPW	Complete/Open	WMES portion complete, to be submitted as part of the amended March 2020 Monthly Report to the BPW. BPW portion Open; to be done by BPW Engineering Consultant.
c. Other critical equipment	4/16/2020	WMES/BPW	Complete/Open	WMES portion complete, to be submitted as part of the amended March 2020 Monthly Report to the BPW. BPW portion Open; to be done by BPW Engineering Consultant.
d. Loss of Power	4/16/2020	WMES/BPW	Complete/Open	WMES portion complete, to be submitted as part of the amended March 2020 Monthly Report to the BPW. BPW portion Open; to be done by BPW Engineering Consultant.
e. Storm response	4/16/2020	WMES/BPW	Complete/Open	WMES portion complete, to be submitted as part of the amended March 2020 Monthly Report to the BPW. BPW portion Open; to be done by BPW Engineering Consultant.
f. Security Breach	4/16/2020	WMES/BPW	Complete/Open	WMES portion complete, to be submitted as part of the amended March 2020 Monthly Report to the BPW. BPW portion Open; to be done by BPW Engineering Consultant.
g. Terrorist/cyber terrorist attack	4/16/2020	WMES/BPW	Complete/Open	WMES portion complete, to be submitted as part of the amended March 2020 Monthly Report to the BPW. BPW portion Open; to be done by BPW Engineering Consultant.



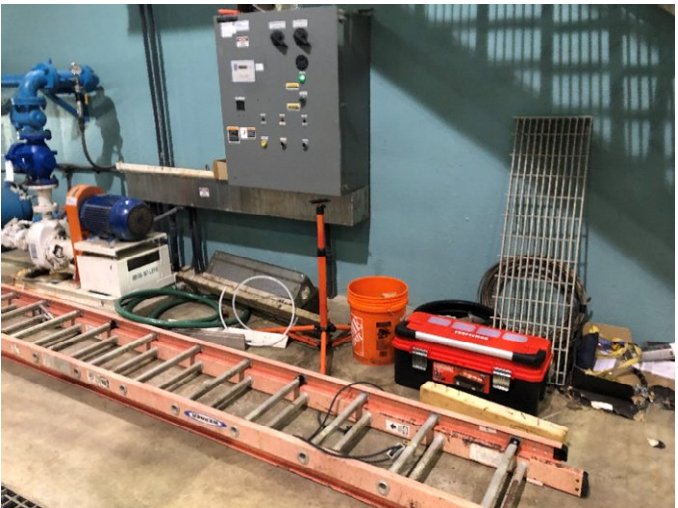
WHITE MARSH ENVIRONMENTAL SYSTEMS, INC.
MONTHLY OPERTAING REPORT - LEWES WASTEWATER TREATMENT PLANT
ROOT CAUSE REPORT - CORRECTIVE ACTIONS SUMMARY - MAY 2020


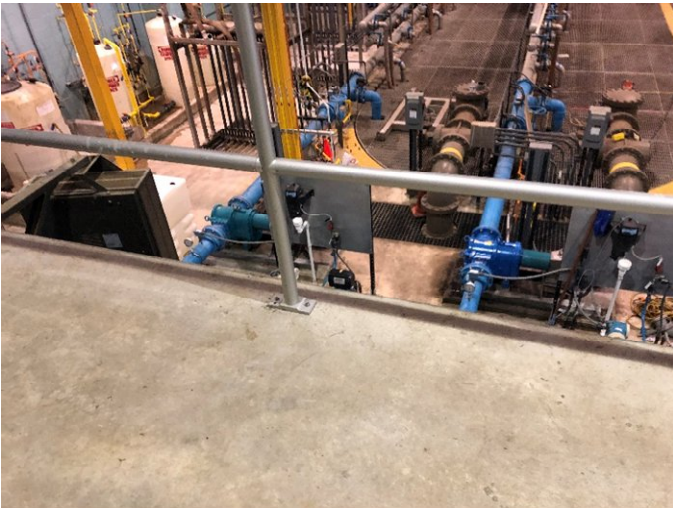

Action Item	Due Date	Action Owner	Status Open/ Complete/ Ongoing	Comments/Notes
13. BPW to look at other areas of its operation to determine if there are generic implications from the failure at the WWTF a. Evaluate the operation of the Water Department, electrical department and other areas of BPW operation to determine where improvements in Management practices are needed.	Undetermined	BPW	Open	Status: In process – Sargent & Lundy is currently performing a review of the BPW electrical system and will provide input to BPW for future capital projects and areas of improvement. Review quarterly at monthly BPW meeting
14. Require all WMES operational staff to have appropriate training by Suez on the proper operation and maintenance of the filters and plant	5/16/2020	WMES	Open	Information included in April Monthly Report to BPW.
15. WMES to review its safety manual to verify they are complying with the appropriate CDC guidelines and industry best practices for sanitary conditions. Post the appropriate areas of the plant as no-smoking/no-eating	4/16/2020	WMES	Complete	Commitment due as part of the March 2020 Monthly Report to the BPW.
16. WMES to review its safety practices and plant conditions to determine what changes may be required. Note: The Temporary cabling that was installed to protect employees appears to create other safety concerns.	4/16/2020	WMES	Complete	Commitment due as part of the March 2020 Monthly Report to the BPW.
17. BPW to audit WMES safety procedures and practices to included: a. Lock-out/Tag-out of equipment b. Confined entry permit c. Personal Protective Equipment d. General Housekeeping e. Chemical control and handling	April 2020 April 2020 April 2020 April 2020 April 2020	BPW BPW BPW BPW BPW	Unknown Unknown Unknown Unknown Unknown	To be completed prior to work starting in April 2020 when new filters are installed. To be completed prior to work starting in April 2020 when new filters are installed. To be completed prior to work starting in April 2020 when new filters are installed. To be completed prior to work starting in April 2020 when new filters are installed. To be completed prior to work starting in April 2020 when new filters are installed.
18. WMES to provide a monthly update on its Corrective Actions to BPW	4/16/2020	WMES	Ongoing	Started as part of the March 2020 Monthly Report to the BPW.
19. BPW Staff to provide an update on the status of the above Corrective Actions at routine monthly BPW meetings. This will be part of the standing agenda for the meetings	4/16/2020	BPW	Ongoing	Initially due as part of the review process of the March 2020 Monthly Report to the BPW.




RECOMMENDATIONS TRACKING – MIDDLESEX WATER



Rec. #		
MWC-022420-01	<p>Laboratory</p> <p>Information only – No recommendation</p>	
<p>Notes:</p>		
<p>STATUS: Corrected <input type="checkbox"/> Estimated Completion Date <input type="checkbox"/></p>		
MWC-022420-02	<p>Laboratory – A single eyewash bottle is supplied here. We recommend the installation of a permanent eye wash station that meets ANSI requirements.</p> <p>A unit can be attached to the faucet to accomplish this. See the link below for an example:</p>	
<p>Notes:</p>		
<p>STATUS: Corrected <input type="checkbox"/> Estimated Completion Date <input type="checkbox"/></p>		
MWC-022420-03	<p>Laboratory – A Halon portable fire extinguisher has been provided in the lab. Check with your supplier to determine if this unit is appropriate for this environment.</p>	
<p>Notes:</p>		
<p>STATUS: Corrected <input type="checkbox"/> Estimated Completion Date <input type="checkbox"/></p>		

Rec. # MWC-022420-04	<p>Garage There is a breaker panel with tape cover one of the closed breaker. The reason for this should be determined.</p> <p>There were not arc flash warnings on the cover of the pane which is a requirement of NFPA 70E.</p>	
Notes:		
STATUS: Corrected <input type="checkbox"/> Estimated Completion Date <input type="checkbox"/>		
MWC-022420-05	<p>Garage There is gasoline can with the word "diesel" written on it. This needs to be removed.</p>	
Notes:		
STATUS: Corrected <input type="checkbox"/> Estimated Completion Date <input type="checkbox"/>		
MWC-022420-06	Garage – There is a clothes dryer here with the vent laying on the floor. It was stated that this dryer is not used. If so, it should be removed from the Garage.	
Notes:		
STATUS: Corrected <input type="checkbox"/> Estimated Completion Date <input type="checkbox"/>		

Rec. # MWC-022420-13	<p>Process Building – A horizontal lifeline system has been installed by contractor who is performing work over the grates.</p> <p>Request engineering documents from the contractor that include details about this system and ensure that it is installed properly.</p>	
Notes:		
STATUS: Corrected <input type="checkbox"/> Estimated Completion Date <input type="checkbox"/>		
MWC-022420-14	<p>Process Building - A horizontal lifeline system has been installed by contractor who is performing work over the grates.</p> <p>Request engineering documents from the contractor that include details about this system and ensure that it is installed properly.</p>	
Notes:		
STATUS: Corrected <input type="checkbox"/> Estimated Completion Date <input type="checkbox"/>		
MWC-022420-15	Process Building Housekeeping in this building is very poor. Trip hazards are abundant due to poor material storage practices.	
Notes:		
STATUS: Corrected <input type="checkbox"/> Estimated Completion Date <input type="checkbox"/>		

Rec. # MWC-022420-19	Process Building – Signage is posted in several areas of the plant requiring PPE use. However it is not clear if these procedures are enforced.	
Notes:		
STATUS: Corrected <input type="checkbox"/> Estimated Completion Date <input type="checkbox"/>		
MWC-022420-20	Process Building – Mezzanine – Install toe boards to prevent objects from falling to a lower level.	
Notes:		
STATUS: Corrected <input type="checkbox"/> Estimated Completion Date <input type="checkbox"/>		
MWC-022420-21	Chemical Room – The lights in this room are not working and need to be repaired. Also, the sign outside the building states that goggles are required but it is not clear how/if this is enforced.	
Notes:		
STATUS: Corrected <input type="checkbox"/> Estimated Completion Date <input type="checkbox"/>		

Rec. # MWC-022420-25	Equipment Storage Building – Wood products haphazardly stored. Housekeeping and material storage methods in this area need improvement.	
Notes:		
STATUS: Corrected <input type="checkbox"/> Estimated Completion Date <input type="checkbox"/>		
MWC-022420-26	Equipment Storage Building – Various types of chemicals are stored haphazardly here. Oxidizers and gasoline were observed by stored side by side. Some, but not all, drums are stored on secondary containment (spill decks). This is an OSHA requirement and considered best practice.	
Notes: All flammable liquids need to be stored in flammable liquid storage bins. Consider replacing all gasoline cans with metal, self-closing units.		
STATUS: Corrected <input type="checkbox"/> Estimated Completion Date <input type="checkbox"/>		
MWC-022420-27	Digester Building – This equipment was set up in front of an open breaker panel. 36" of clearance must be maintained around electrical equipment. It is unclear what this mechanism is se being used for but it should be evaluated.	
Notes:		
STATUS: Corrected <input type="checkbox"/> Estimated Completion Date <input type="checkbox"/>		

Rec. #		
MWC-022420-31	<p>Digester Building – The grating on the stair landing was not secured with fasteners.</p> <p>These need to be installed.</p>	
Notes:		
STATUS: Corrected <input type="checkbox"/> Estimated Completion Date <input type="checkbox"/>		
MWC-022420-32	<p>Storage Building – Several 5 gallon drums of chemicals are stored here.</p> <p>It should be determined if these chemicals are needed and are being stored properly.</p>	
Notes:		
STATUS: Corrected <input type="checkbox"/> Estimated Completion Date <input type="checkbox"/>		