COMMITMENT & INTEGRITY
DRIVE RESULTS

1111 Nantasket Ave.
Hull, Massachusetts 02045

T 781.925.0906

WOODARD
&CURRAN

December 14, 2017

Ms. Marie J. McDonald
U.S. Environmental Protection Agency
Water Enforcement, OES4-SMR
5 Post Office Square
Boston, MA 02109-3912

Subject: Hull, MA Water Pollution Control Facility (WPCF) – NPDES Permit No. MA0101231
Discharge Monitoring Reports – November 2017 – Discharge 001-A

Dear Ms. McDonald:

Enclosed please find the completed DMR for the month of November 2017. Please note that the facility effluent was in compliance with NPDES requirements.

Should you have questions concerning this submittal, please contact the undersigned at 781-925-0906. Thank you for your assistance.

Sincerely,

Aram Varjabedian

Aram Varjabedian – Woodard & Curran
Project Manager

Enc. DMR forms, support documentation

Cc: David Burns, MA DEP (SERO) Lakeville, MA
John J. Struzziery - Director of Wastewater Operations/Assistant Director of Public Works
Ryan Joyce – Division of Marine Fisheries

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DRIVE RESULTS

1111 Nantasket Ave.
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&CURRAN

HULL, MA WATER POLLUTION CONTROL FACILITY
NPDES NO. MA0101231

Hull Water Pollution Control Facility – Staffing – November 2017

Project Manager/Chief Operator – Aram Varjabedian	MA Grade 7C
Asst. Project Manager/Asst. Chief Operator – William Boornazian	MA Grade 6C
Lead Operator – Joseph Basler	MA Grade 5C
Operations/Maintenance Tech 2 – Eric Sutton	MA Grade 3M
Operations/Maintenance Tech 2 – David Wilson	
Operations/Maintenance Tech 1 – Vacant – Posted for hire	

Supplemental O&M Personnel supporting/assisting the Hull facility

Kate Roosa – Part-time O&M Support	Ma Grade 4M
Roger Boltrushek – Part-time Operator	MA Grade 7C
James Gagliard – Sr. Operations Specialist	MA Grade 6C
Jody St. George - Sr. Operations Specialist	MA Grade 7C
Frank Cavaleri – Area Manager	MA Grade 7C
Robert Scott – Asst. Area Manager	MA Grade 6C

Hull Water Pollution Control Facility – Schedule – November 2017

Schedule for 8 Hour/Day coverage:

	License	Sun	Mon	Tue	Wed	Thur	Fri	Sat
Project Manager	7C			X	X	X	X	X
Asst. Project Manager	6C	X	X	X	X	X		
Lead Operator	5C			X	X	X	X	X
O&M Tech 1		X	X	X	X	X		
O&M Tech 2	3M		X	X	X	X	X	
O&M Tech 2		X	X	X	X	X		
Part-Time Operator	7C	*					*	*

- Part-time operator schedule is usually one day per week and the day can vary week-to-week. An asterisk denotes those days that the part-time operator could be scheduled.
- Filling O&M Tech 1 position with Sr. O&M Specialist coverage and additional staff overtime.

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)

Name HULL W P C F
Address 1111 NANTASKET AVE
HULL MA 02045

Facility HULL W P C F
Location HULL MA 02045
Attn: John Struzziery, Director of WW Ops

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

OMB No. 2040-0004

PERMIT NUMBER	DISCHARGE NUMBER
MA0101231	001 A

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	17	11	01	TO	17	11	30

MAJOR
(SUBR E)
F- FINAL
TREATED SANITARY WASTEWATE

*** NO DISCHARGE [ ] ***

NOTE: Read instructions before completing this form

PARAMETER		QUANTITY OR LOADING VALUE	QUANTITY OR LOADING VALUE	QUANTITY OR LOADING UNITS	QUALITY OR CONCENTRATION VALUE	QUALITY OR CONCENTRATION VALUE	QUALITY OR CONCENTRATION VALUE	QUALITY OR CONCENTRATION UNITS	NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
BOD, 5-DAY (20 DEG. C)	SAMPLE MEASUREMENT	32	60	LBS/DY	4	5	5	mg/L	0	1/7	24
00310 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	768 MO AVG	WKLY AVG	LBS/DY	30 MO AVG	45 WKLY AVG	50 DAILY MX	mg/L		WEEKLY	COMP 24
BOD, 5-DAY (20 DEG. C)	SAMPLE MEASUREMENT	1,636	******	LBS/DY	203	******	******	mg/L	0	1/7	24
00310 G 0 0 RAW SEW/INFLUENT	PERMIT REQUIREMENT	REPORT MO AVG	******	LBS/DY	REPORT MO AVG	******	******	mg/L		WEEKLY	COMP 24
PH	SAMPLE MEASUREMENT	******	******	****	6.90	******	7.40	SU	0	01/01	GR
00400 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	******	******	****	6.5 MINIMUM	******	8.5 MAXIMUM	SU		WEEKLY	GRAB
SOLIDS, TOTAL SUSPENDED	SAMPLE MEASUREMENT	132	194	LBS/DY	15	18	18	mg/L	0	1/7	24
00530 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	768 MO AVG	1152 WKLY AVG	LBS/DY	30 MO AVG	45 WKLY AVG	50 DAILY MX	mg/L		WEEKLY	COMP 24
SOLIDS, TOTAL SUSPENDED	SAMPLE MEASUREMENT	2,304	******	LBS/DY	271	******	******	mg/L	0	1/7	24
00530 G 0 0 RAW SEW/INFLUENT	PERMIT REQUIREMENT	REPORT MO AVG	******	LBS/DY	REPORT MO AVG	******	******	mg/L		WEEKLY	COMP 24
FLOW, IN CONDUIT OR THRU TREATMENT PLANT	SAMPLE MEASUREMENT	1.59	1.40	MGD	******	******	******	****	0	99/99	RC
50050 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	3.04 12 MO AVG	DAILY MX	MGD	******	******	******	****		CONTINUO US	RCORDR
FLOW, IN CONDUIT OR THRU TREATMENT PLANT	SAMPLE MEASUREMENT	******	******	****	1.14	******	******	MGD	0	99/99	RC
50050 0 0 See Comments	PERMIT REQUIREMENT	******	******	****	REQ MO AVG	******	******	MGD		CONTIN	RCORDR

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

Aram Varjabedian - Project Manager
John Struzziery, Director of WW Ops

TYPED OR PRINTED

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.

Aram Varjabedian
SIGNATURE OF PRICIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE AREA CODE	TELEPHONE NUMBER	DATE YEAR	DATE MO	DATE DAY
781	925-1207	17	12	14

COMMENT AND EXPANATION OF ANY VIOLATIONS (Reference all attachments here)

REPORT MAXIMUM AND MINIMUM DAILY FLOW RATES AND TOTAL FLOW FOR EACH OPERATING DAY WITH DMR EACH MONTH

WET DATA ON DMR 001B

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if different)

Name HULL W P C F
Address 1111 NANTASKET AVE
HULL MA 02045

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

OMB No. 2040-0004

MAJOR
(SUBR E)
F- FINAL
TREATED SANITARY WASTEWATER

MA0101231	001 A
PERMIT NUMBER	DISCHARGE NUMBER

Facility HULL W P C F
Location HULL MA 02045
Attn: John Struzziery, Director of WW Ops

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	17	11	01	TO	17	11	30

*** NO DISCHARGE ***

NOTE: Read instructions before completing this form

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
Chlorine, Total Residual	SAMPLE MEASUREMENT	******	******	******	0.10	******	0.37	mg/L	0	03/01	GR
50060 1 0 EFFLUENT GROSS	PERMIT REQUIREMENT	******	******	******	0.7 MO AVG	******	1 DAILY MAX	mg/L		THREE PER DAY	GRAB
ENTEROCOCCI	SAMPLE MEASUREMENT	******	******	******	<10	******	<10	CFU/100 ml	0	1/7	GR
61211 1 0 EFFLUENT GROSS	PERMIT REQUIREMENT	******	******	******	35 MO AVG	******	276 DAILY MAX	CFU/100 ml		WEEKLY	GRAB
COLIFORM, FECAL GENERAL	SAMPLE MEASUREMENT	******	******	******	<10	******	<10	#/100 ml	0	1/7	GR
74055 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	******	******	******	88 MO GEO	******	260 DAILY MX	#/100 ml		WEEKLY	GRAB
BOD, 5-DAY PERCENT REMOVAL	SAMPLE MEASUREMENT	******	******	******	98	******	******	%	0	1/30	CA
81010 K 0 0 PERCENTREMOVAL	PERMIT REQUIREMENT	******	******	******	85 MO AVG	******	******	PER-CENT		ONCE/ MONTH	CALCTD
SOLIDS, SUSPENDED PERCENT REMOVA	SAMPLE MEASUREMENT	******	******	******	95	******	******	%	0	1/30	CA
81011 K 0 0 PERCENTREMOVAL	PERMIT REQUIREMENT	******	******	******	85 MO AVG	******	******	PER-CENT		ONCE/ MONTH	CALCTD
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										
	SAMPLE MEASUREMENT										
	PERMIT REQUIREMENT										

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE		
Aram Varjabedian - Project Manager John Struzziery, Director of WW Ops	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.	Aram Varjabedian	781	925-1207	17	12	14
TYPED OR PRINTED		SIGNATURE OF PRICIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	AREA CODE	NUMBER	YEAR	MO	DAY

COMMENT AND EXPANATION OF ANY VIOLATIONS (Reference all attachments here)

REPORT MAXIMUM AND MINIMUM DAILY FLOW RATES AND TOTAL FLOW FOR EACH OPERATING DAY WITH DMR EACH MO

WET DATA ON DMR 001B

Date

Effluent

Effluent TSS		
Week Start	Week End	Avg
10/29/17	11/04/17	14
11/05/17	11/11/17	18
11/12/17	11/18/17	14
11/19/17	11/25/17	13
	MAX	18

Effluent BOD		
Week Start	Week End	Avg
10/29/17	11/04/17	5
11/05/17	11/11/17	4
11/12/17	11/18/17	5
11/19/17	11/25/17	3
	MAX	5

Data for dates in current month

Date	TSS mg/l	TSS Lbs	BOD mg/l	BOD LBS
11/01/17				
11/02/17				
11/03/17				
11/04/17				
11/05/17				
11/06/17				
11/07/17	18	194	4	39
11/08/17				
11/09/17				
11/10/17				
11/11/17				
11/12/17				
11/13/17				
11/14/17	14	127	5	42
11/15/17				
11/16/17				
11/17/17				
11/18/17				
11/19/17				
11/20/17				
11/21/17	13	105	3	24
11/22/17				
11/23/17				
11/24/17				
11/25/17				
11/26/17				
11/27/17				
11/28/17	14	102	3	22
11/29/17				
11/30/17				
MAX	18	194	5	42
AVG	15	132	4	32

Sunday Thru Saturday (avg placed on Saturday date)

Date	TSS mg/l	TSS LBS	BOD mg/l	BOD LBS
11/01/17				
11/02/17				
11/03/17				
11/04/17	14	175	5	60
11/05/17				
11/06/17				
11/07/17				
11/08/17				
11/09/17				
11/10/17				
11/11/17	18	194	4	39
11/12/17				
11/13/17				
11/14/17				
11/15/17				
11/16/17				
11/17/17				
11/18/17	14	127	5	42
11/19/17				
11/20/17				
11/21/17				
11/22/17				
11/23/17				
11/24/17				
11/25/17	13	105	3	24
11/26/17				
11/27/17				
11/28/17				
11/29/17				
11/30/17				
MAX	18	194	5	60
Avg	15	150	4	41

Influent TSS		
Week Start	**Week End**	**Avg**
10/29/17	11/04/17	183
11/05/17	11/11/17	153
11/12/17	11/18/17	239
11/19/17	11/25/17	453
	Max	**453**

Influent BOD		
Week Start	**Week End**	**Avg**
10/29/17	11/04/17	230
11/05/17	11/11/17	60
11/12/17	11/18/17	140
11/19/17	11/25/17	240
	Max	240

TSS and BOD Loadings Check Sheet

Influent

Data for dates in current month

Date	TSS mg/l	TSS Lbs	BOD mg/l	BOD LBS
11/01/17				
11/02/17				
11/03/17				
11/04/17				
11/05/17				
11/06/17				
11/07/17	153	1,646	60	646
11/08/17				
11/09/17				
11/10/17				
11/11/17				
11/12/17				
11/13/17				
11/14/17	239	2,173	140	1,273
11/15/17				
11/16/17				
11/17/17				
11/18/17				
11/19/17				
11/20/17				
11/21/17	453	3,665	240	1,942
11/22/17				
11/23/17				
11/24/17				
11/25/17				
11/26/17				
11/27/17				
11/28/17	239	1,734	370	2,685
11/29/17				
11/30/17				
MAX	**453**	**3,665**	**370**	**2,685**
AVG	**271**	**2,305**	**203**	**1,637**

Sunday Thru Saturday (avg placed on Saturday date)

Date	TSS mg/l	TSS Lbs	BOD mg/l	BOD LBS
11/01/17				
11/02/17				
11/03/17				
11/04/17	183.00		230.00	
11/05/17				
11/06/17				
11/07/17				
11/08/17				
11/09/17				
11/10/17				
11/11/17	153.00		60.00	
11/12/17				
11/13/17				
11/14/17				
11/15/17				
11/16/17				
11/17/17				
11/18/17	239.00		140.00	
11/19/17				
11/20/17				
11/21/17				
11/22/17				
11/23/17				
11/24/17				
11/25/17	453.00		240.00	
11/26/17				
11/27/17				
11/28/17				
11/29/17				
11/30/17				
MAX	**453**		**240**	
AVG	**257**		**168**	

Hull Wastewater Treatment Plant Operations Data

November, 2017

Date		Manual Screen Used	Mechanical Screen	GRIT CHAMBER	GRIT CLASSIFIER	PRI CLAR #1	PRI CLAR #2	AT #1	AT #2	AT #3	AT #4	SEC CLAR #1	SEC CLAR #2	CL2 BASIN #1	CL2 BASIN #2	GRAVITY THICK #1
		Yes/No	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF
Wed	01	Yes	Off	Off	Off	Off	Off	On	Off	On	Off	Off	On	On	On	Off
Thu	02	Yes	Off	Off	Off	Off	Off	On	Off	On	Off	Off	On	On	On	Off
Fri	03	Yes	Off	Off	Off	Off	Off	On	Off	On	Off	Off	On	On	On	On
Sat	04	Yes	Off	Off	Off	Off	Off	On	Off	On	Off	Off	On	On	On	On
Sun	05	Yes	Off	Off	Off	Off	Off	On	Off	On	Off	Off	On	On	On	On
Mon	06	Yes	Off	Off	Off	On	Off	On	Off	On	Off	Off	On	On	On	On
Tue	07	Yes	Off	Off	Off	On	Off	On	Off	On	Off	Off	On	On	On	On
Wed	08	Yes	Off	Off	Off	Off	Off	On	Off	On	Off	Off	On	On	On	On
Thu	09	Yes	Off	Off	Off	Off	Off	On	Off	On	Off	Off	On	On	On	On
Fri	10	No	On	Off	Off	Off	Off	On	Off	On	Off	Off	On	On	On	On
Sat	11	No	On	Off	Off	Off	Off	On	Off	On	Off	Off	On	On	On	On
Sun	12	No	On	Off	Off	Off	Off	On	Off	On	Off	Off	On	On	On	On
Mon	13	No	On	Off	Off	Off	Off	On	Off	On	Off	Off	On	On	On	On
Tue	14	No	On	Off	Off	Off	Off	On	Off	On	Off	Off	On	On	On	On
Wed	15	No	On	Off	Off	Off	Off	On	Off	On	Off	Off	On	On	On	On
Thu	16	No	On	Off	Off	Off	Off	On	Off	On	Off	Off	On	On	On	On
Fri	17	No	On	Off	Off	Off	Off	On	Off	On	Off	Off	On	On	On	On
Sat	18	No	On	Off	Off	Off	Off	On	Off	On	Off	Off	On	On	On	On
Sun	19	No	On	Off	Off	Off	Off	On	Off	On	Off	Off	On	On	On	On
Mon	20	No	On	Off	Off	Off	Off	On	Off	On	Off	Off	On	On	On	On
Tue	21	No	On	Off	Off	Off	Off	On	Off	On	Off	Off	On	On	On	On
Wed	22	No	On	Off	Off	Off	Off	On	Off	On	Off	Off	On	On	On	On
Thu	23	No	On	Off	Off	Off	Off	On	Off	On	Off	Off	On	On	On	On
Fri	24	No	On	Off	Off	Off	Off	On	Off	On	Off	Off	On	On	On	On
Sat	25	No	On	Off	Off	Off	Off	On	Off	On	Off	Off	On	On	On	On
Sun	26	No	On	Off	Off	Off	Off	On	Off	On	Off	Off	On	On	On	On
Mon	27	No	On	Off	Off	Off	Off	On	Off	On	Off	Off	On	On	On	On
Tue	28	No	On	Off	Off	Off	Off	On	Off	On	Off	Off	On	On	On	On
Wed	29	No	On	Off	Off	Off	Off	On	Off	On	Off	Off	On	On	On	On
Thu	30	No	On	Off	Off	Off	Off	On	Off	On	Off	Off	On	On	On	On
MIN		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MAX		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AVG		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SUM		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Hull Wastewater Treatment Plant Operations Data

November, 2017

Date		GRAVITY THICK #2	SLUDGE TANK #1	SLUDGE TANK #2	RST	Rainfall	MIN AIR TEMP	MAX AIR TEMP	GRIT REMOVED	SCREENINGS	INF TSS (Report)	INF BOD (Report)	INF FLOW	INFLUENT Q MINIMUM	INFLUENT Q MAXIMUM	PRI TSS
		ON/OFF	ON/OFF	ON/OFF	ON/OFF	Inches	Deg F	Deg F	LBS	CU FT	MG/L	MG/L	MGD	MGD	MGD	MG/L
Wed	01	Off	Off	On	Off	0.00	42	53	0	0.5			1.06	0.03	2.91	
Thu	02	Off	Off	On	Off	0.00	52	69	0	0.5			1.33	0.00	2.79	
Fri	03	Off	Off	On	Off	0.00	54	72	0	0.5			1.20	0.00	3.27	
Sat	04	Off	Off	On	Off	0.00	44	53	0	0.7			0.72	0.22	3.54	
Sun	05	Off	Off	On	Off	0.00	49	60	0	0.6			1.00	0.00	3.70	
Mon	06	Off	Off	On	Off	0.02	51	64	0	0.6			0.89	0.00	3.59	
Tue	07	Off	Off	On	Off	0.22	39	51	0	0.6	153	60	0.76	0.19	3.76	
Wed	08	Off	Off	On	Off	0.06	39	43	0	0.6			0.76	0.18	4.04	
Thu	09	Off	Off	On	On	0.00	36	50	0	0.7			0.91	0.00	3.60	
Fri	10	Off	Off	On	On	0.00	26	48	0	0.7			1.27	0.44	2.34	
Sat	11	Off	Off	On	Off	0.00	25	35	0	0.7			0.87	0.57	1.50	
Sun	12	Off	Off	On	On	0.00	31	47	0	0.7			0.71	0.00	1.56	
Mon	13	Off	Off	On	Off	0.25	38	48	0	0.7			0.81	0.00	1.65	
Tue	14	Off	Off	On	On	0.02	38	43	0	0.7	239	140	0.90	0.00	1.63	
Wed	15	Off	Off	On	On	0.00	36	46	0	0.7			0.87	0.00	1.64	
Thu	16	Off	Off	On	On	0.17	36	50	0	0.7			0.90	0.00	1.71	
Fri	17	Off	Off	On	On	0.00	35	41	0	0.7			0.90	0.00	2.44	
Sat	18	Off	Off	On	On	0.10	32	48	0	0.7			1.22	0.41	2.70	
Sun	19	Off	Off	On	On	0.30	36	59	0	0.7			1.46	0.00	2.72	
Mon	20	Off	Off	On	On	0.00	35	42	0	0.7			1.04	0.45	2.64	
Tue	21	Off	Off	On	On	0.00	38	55	0	0.7	453	240	1.24	0.44	2.12	
Wed	22	Off	Off	On	On	0.84	38	52	0	0.7			1.80	0.48	3.04	
Thu	23	Off	Off	On	On	0.00	31	42	0	0.7			1.90	0.46	2.76	
Fri	24	Off	Off	On	On	0.00	33	52	0	0.7			1.67	0.47	2.47	
Sat	25	Off	Off	On	On	0.00	40	58	0	0.7			1.71	1.24	2.58	
Sun	26	Off	Off	On	On	0.00	44	51	0	0.7			1.64	1.23	2.75	
Mon	27	Off	Off	On	On	0.00	28	45	0	0.7			1.50	0.98	1.94	
Tue	28	Off	Off	On	On	0.00	25	45	0	0.7	239	370	1.46	0.47	1.94	
Wed	29	Off	Off	On	On	0.00	39	59	0	0.7			1.47	1.04	1.97	
Thu	30	Off	Off	On	On	0.00	35	45	0	0.7			1.49	0.80	2.70	
MIN		-	-	-	-	0.00	25	35	0	1	153	60	0.71	0.00		
MAX		-	-	-	-	0.84	54	72	0	1	453	370	1.90		4.04	
AVG		-	-	-	-	0.07	38	51	0	1	271	203	1.18			
SUM		-	-	-	-	1.98	-	-	0	20			-	-	-	-

Hull Wastewater Treatment Plant Operations Data

November, 2017

Date	PRI BOD MG/L	PRI #1 BLANKET FT	PRI #2 BLANKET FT	MLS SVI MG/L	MLSS 5 MIN SET MIN	MLSS 30 MIN SET	MLSS 60 MIN SET	MLSS	RAS TSS	RAS FLOW	SEC #1 BLANKET	SEC #2 BLANKET	WAS TSS THCK	WAS FLOW GALLONS THCK	EFF TSS (Report)
	MG/L	FT	FT	MG/L	MG/L	ML	ML	MG/L	MG/L	MGD	FT	FT	MG/L	GAL	MG/L
Wed 01				121	320	190	180	1,568		0.77		1.0		5,720	
Thu 02					360	220	200			0.63		1.8		6,600	
Fri 03				112	370	200	190	1,778		0.66		1.0		17,480	
Sat 04										0.73		3.0		22,970	
Sun 05										0.70		4.0		30,047	
Mon 06								2,475		0.73		2.0		30,680	
Tue 07					860	500	370			0.77		4.5		27,060	18.0
Wed 08				160	820	410	330	2,557		0.73		2.0		28,320	
Thu 09					850	600	400			0.84		1.0		22,670	
Fri 10				186	850	500	370	2,676		0.68		2.0		30,580	
Sat 11										0.72		2.0		28,630	
Sun 12										0.75		4.0		29,920	
Mon 13								3,084		0.75		4.0		33,540	
Tue 14					925	600	410			0.73		4.0		37,630	14.0
Wed 15				195	930	550	400	2,809		0.71		4.0		36,840	
Thu 16					900	580	430			0.64		2.5		40,130	
Fri 17				175	870	420	330	2,398		0.64		1.5		41,520	
Sat 18										0.74		2.5		36,090	
Sun 19										0.74		1.5		34,100	
Mon 20								2,080		0.74		1.5		34,820	
Tue 21					630	310	250			0.74		3.5		35,770	13.0
Wed 22				167	650	330	270	1,965		0.78		1.0		31,480	
Thu 23										0.74		2.8		33,450	
Fri 24										0.74		1.0		31,280	
Sat 25										0.74		2.0		28,730	
Sun 26										0.74		2.0		38,470	
Mon 27								2,319		0.70		1.5		29,680	
Tue 28					750	340	280			0.72		1.0		29,140	14.0
Wed 29				154	600	300	300	1,943		0.72		1.0		31,040	
Thu 30					780	360	280			0.72		4.0		32,550	
MIN				112	320	190	180	1,568		0.63		1.0		5,720	13.0
MAX				195	930	600	430	3,084		0.84		4.5		41,520	18.0
AVG				159	717	401	312	2,304		0.72		2.3		29,898	14.8
SUM	-	-	-	-	-	-	-	-	-	-	-	-	-	896,937	-

Hull Wastewater Treatment Plant Operations Data

November, 2017

Date		EFF BOD (Report)	EFF FECAL #/100	EFF MAX DAILY FLOW MGD	EFF MIN DAILY FLOW MGD	EFF FLOW MGD	EFF #1pH	CL2 RES #1	CL2 RES #2	CL2 RES #3	CL2 RES Daily Avg	THICKENED SLUDGE TS	THICKENER #1 BLANKET	THICKENER #2 BLANKET	LEACHATE TSS	LEACHATE BOD	LEACHATE COD
		MG/L	ML	MGD	MGD	MGD	SU	MG/L	MG/L	MG/L	MG/L	%	FT	FT	MG/L	MG/L	MG/L
Wed	01		10	2.38	0.00	1.19	7.00	0.07	0.40	0.04	0.17						
Thu	02			2.32	0.00	1.24	7.20	0.50	0.03	0.59	0.37						
Fri	03			2.45	0.00	1.19	7.30	0.69	0.21	0.15	0.35						
Sat	04			2.37	0.00	1.21	7.20	0.02	0.03	0.08	0.04						
Sun	05			5.52	0.00	1.38	7.00	0.06	0.02	0.01	0.03						
Mon	06			5.55	0.00	1.40	7.00	0.04	0.00	0.01	0.02						
Tue	07	3.6		2.34	0.00	1.29	7.20	0.02	0.07	0.04	0.04	3.6					
Wed	08		10	2.42	0.00	1.39	7.00	0.30	0.40	0.13	0.28						
Thu	09			2.25	0.00	1.22	7.20	0.43	0.20	0.12	0.25	3.5					
Fri	10			1.86	0.00	1.18	7.30	0.52	0.31	0.18	0.34	3.7					
Sat	11			1.84	0.00	1.00	7.40	0.65	0.02	0.03	0.23	3.9					
Sun	12			1.84	0.00	0.94	7.30	0.00	0.02	0.03	0.02						
Mon	13			2.23	0.00	0.99	7.30	0.02	0.02	0.04	0.03	2.9					
Tue	14	4.6		1.87	0.00	1.09	7.30	0.03	0.13	0.21	0.12						
Wed	15		10	1.97	0.00	1.17	7.40	0.05	0.04	0.04	0.04	4.9					
Thu	16			2.17	0.00	1.21	7.40	0.02	0.03	0.04	0.03						
Fri	17			1.78	0.00	1.15	7.20	0.06	0.01	0.04	0.04	4.8					
Sat	18			1.92	0.00	1.13	7.10	0.04	0.07	0.04	0.05	5.3					
Sun	19			2.44	0.00	1.36	7.10	0.01	0.00	0.00	0.00						
Mon	20			1.68	0.00	1.08	7.00	0.01	0.01	0.02	0.01	5.1					
Tue	21	3.0		1.80	0.00	0.97	7.10	0.04	0.10	0.05	0.06						
Wed	22		10	1.97	0.00	1.27	7.00	0.06	0.06	0.02	0.05	6.2					
Thu	23			1.93	0.80	1.27	7.20	0.01	0.02	0.01	0.01						
Fri	24			1.80	0.00	1.06	7.00	0.06	0.51	0.09	0.22	5.2					
Sat	25			1.75	0.00	1.10	7.00	0.05	0.02	0.06	0.04						
Sun	26			1.81	0.00	1.05	7.00	0.03	0.01	0.00	0.01						
Mon	27			1.75	0.00	0.98	7.00	0.04	0.01	0.02	0.02	5.0					
Tue	28	3.0		1.80	0.00	0.87	7.20	0.05	0.06	0.04	0.05						
Wed	29		10	1.79	0.00	0.87	6.90	0.02	0.01	0.03	0.02	4.6					
Thu	30			1.79	0.00	0.89	7.10	0.03	0.33	0.03	0.13						
MIN		3.0	10		0.00	0.87	6.90	0.00	0.00	0.00	0.00	2.94		-	-	-	-
MAX		4.6	10	5.55		1.40	7.40	0.69	0.51	0.59	0.37	6.18		-	-	-	-
AVG		3.6	10			1.14	7.15	0.13	0.11	0.07	0.10	4.52		-	-	-	-
SUM		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Hull Wastewater Treatment Plant Operations Data

November, 2017

Date		LEACHATE	Groundwater Underdrain	Potable H2O Calc.	Thickened Feed Sludge Gallons to truck	THICKENED SLDG	Sludge Holding Tank Level	Thickened Sludge Holding Tank Level	EFF TEMP	Enterococci	Toxicity	GALS HEATING OIL	NaOCl	NaOH	Hingham Flow
		GAL	GAL	GAL	GAL	LBS/DAY	FT	FT	DEG C	No/100ml	%	Inches	Gallons	Gallons	MGD
Wed	01			29	0		2.0	8.7	17.5	<10		72	33	0.0	0.026
Thu	02			171	0		1.9	9.7	18.0			72	40	0.0	0.024
Fri	03			17	0		2.0	11.8	18.2			72	40	0.0	0.022
Sat	04			43	0		1.9	11.8	16.4			72	35	0.0	0.020
Sun	05			48	0		2.0	11.9	17.1			72	97	0.0	0.021
Mon	06			52	0		2.0	11.9	18.5			72	102	0.0	0.020
Tue	07			58	9,000	2,734	1.9	11.9	15.7			72	123	0.0	0.020
Wed	08			18	0		2.0	11.9	15.4	<10		72	78	0.0	0.020
Thu	09			20	9,000	2,602	2.0	11.4	16.1			72	32	0.0	0.020
Fri	10			43	9,000	2,801	1.9	9.8	14.6			72	174	2.0	0.020
Sat	11			64	9,000	2,916	1.9	5.1	14.2			72	157	4.0	0.021
Sun	12			25	0		2.0	11.9	14.7			72	93	2.0	0.023
Mon	13			27	9,000	2,213	1.9	11.8	16.0			72	102	2.0	0.021
Tue	14			188	0		2.1	9.2	15.1			72	88	2.0	0.020
Wed	15			85	9,000	3,682	2.0	6.4	14.9	<10		72	109	2.0	0.021
Thu	16			130	0		2.0	4.1	15.2			72	99	2.0	0.020
Fri	17			19	9,000	3,590	2.0	7.7	14.9			72	74	2.0	0.020
Sat	18			78	9,000	3,950	2.1	6.9	15.0			72	96	2.0	0.021
Sun	19			69	0		2.1	9.1	15.7			72	84	2.0	0.023
Mon	20			127	9,000	3,803	2.0	8.9	12.9			72	110	2.0	0.022
Tue	21			75	0		2.1	6.2	14.5			72	103	2.0	0.022
Wed	22			76	9,000	4,639	2.0	7.7	15.6	<10		72	82	2.0	0.025
Thu	23			45	0		2.0	6.6	13.4			72	106	4.0	0.032
Fri	24			19	9,000	3,939	1.9	9.2	14.8			72	103	2.0	0.029
Sat	25			17	0		1.9	6.2	15.1			72	93	2.0	0.027
Sun	26			21	0		1.9	7.1	14.4			72	73	2.0	0.027
Mon	27			62	9,000	3,777	1.9	7.9	14.0			72	106	2.0	0.024
Tue	28			152	0		1.9	4.6	13.4			72	91	2.0	0.021
Wed	29			37	9,000	3,445	2.0	7.0	14.3	<10		72	66	10.8	0.020
Thu	30			125	0		1.9	6.2	13.5			72	67	1.2	0.021
MIN		-	-	17	0	2,213	2	4	13	<10	-	72	32	0.0	0.020
MAX		-	-	188	9,000	4,639	2	12	19	<10	-	72	174	10.8	0.032
AVG		-	-	65	3,900	3,392	2	9	15	<10	-	72	89	1.8	0.022
SUM		-	-	1,939	117,000	44,091	-	-	-		-	-	-	-	0.674

Hull WWTF
Monthly Rain, Temperature and Flow
November, 2017

Date	Rainfall	Minimum Air Temp	Maximum Air Temp	Effluent Flow
	Inches	F	F	MGD
11/01/17	0.00	42	53	1.190
11/02/17	0.00	52	69	1.240
11/03/17	0.00	54	72	1.190
11/04/17	0.00	44	53	1.210
11/05/17	0.00	49	60	1.380
11/06/17	0.02	51	64	1.400
11/07/17	0.22	39	51	1.290
11/08/17	0.06	39	43	1.390
11/09/17	0.00	36	50	1.220
11/10/17	0.00	26	48	1.180
11/11/17	0.00	25	35	1.000
11/12/17	0.00	31	47	0.940
11/13/17	0.25	38	48	0.990
11/14/17	0.02	38	43	1.090
11/15/17	0.00	36	46	1.170
11/16/17	0.17	36	50	1.210
11/17/17	0.00	35	41	1.150
11/18/17	0.10	32	48	1.130
11/19/17	0.30	36	59	1.360
11/20/17	0.00	35	42	1.080
11/21/17	0.00	38	55	0.970
11/22/17	0.84	38	52	1.270
11/23/17	0.00	31	42	1.270
11/24/17	0.00	33	52	1.060
11/25/17	0.00	40	58	1.100
11/26/17	0.00	44	51	1.050
11/27/17	0.00	28	45	0.980
11/28/17	0.00	25	45	0.870
11/29/17	0.00	39	59	0.870
11/30/17	0.00	35	45	0.890
Min	0.00	25	35	0.87
Max	0.84	54	72	1.40
Avg	0.07	38	51	1.14
Sum	1.98			34.14

Woodard and Curran
November, 2017
In Plant Sulfide Readings

Date		Wind Direction	Outside Temp	Outside Condition	Front Door	Head Works	Primary Tank No. 1	Primary Tank No. 2	Gravity Thickener	Aeration Tanks	Rotory Sludge Thickener Room	Scrubber In	Roof Exhaust Scrubber Out	% Removal
		Direction	Deg F	Condition	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%
Wed	01	W-4	44	Mostly cloudy	0.002	0.007			0.010	0.002	0.005			
Thu	02	SSE-10	55	Cloudy	0.013	0.670			0.005	0.065	0.001			
Fri	03	SSW-8	56	Mostly cloudy	0.004	0.004			0.009	0.015	0.001			
Sat	04	NNW - 11	44	Partly cloudy	0.004	0.002			0.119	0.005	0.001			
Sun	05	SW-10	50	Partly cloudy	0.000	0.001			0.098	0.002	0.000			
Mon	06	SE-6	63	Partly cloudy	0.002	0.006			0.490	0.006	0.000			
Tue	07	NNW-12	42	Partly cloudy	0.000	0.004			0.400	0.000	0.002			
Wed	08	N-18	42	Cloudy	0.000	0.001			20.000	0.001	0.000			
Thu	09	NNW-13	37	Fair	0.012	0.007			50.000	0.020	0.007	9.100	3.300	63.7
Fri	10	W-24	44	Cloudy/windy	0.007	0.340			34.000	0.005	0.016	13.000	1.400	89.2
Sat	11	NW-15	25	Sunny	0.002	0.085			0.087	0.005	0.002	0.280	0.011	96.1
Sun	12	WNW-4	33	Mostly cloudy	0.005	0.590			25.000	0.005	0.002	10.300	2.100	79.6
Mon	13	NE-0	47	Cloudy	0.002	0.290			0.057	0.002	0.002	0.190	0.013	93.2
Tue	14	SW-12	35	Partly cloudy	0.004	0.150			4.200	0.002		0.930	0.084	91.0
Wed	15	N-9	39	Partly cloudy	0.007	0.410			44.000	0.005	0.007	15.000	4.200	72.0
Thu	16	E-5	47	Rain	0.013	0.640			34.000	0.012	0.000	14.000	3.200	77.1
Fri	17	WNW-22	41	Mostly cloudy	0.006	0.001			29.000	0.001	0.001	10.500	2.600	75.2
Sat	18	NNW-3	31	Sunny	0.004	0.530			36.000	0.006	0.002	9.000	2.300	74.4
Sun	19	SSW-18	58	Rain	0.002	0.031			0.012	0.003	0.013	0.125	0.010	92.0
Mon	20	NW-10	36	Sunny	0.005	0.014			0.850	0.001	0.005	0.470	0.043	90.9
Tue	21	SSW-10	39	Sunny	0.005	0.021			0.810	0.004	0.003	0.550	0.061	88.9
Wed	22	SSE-7	52	Rain	0.000	0.220			0.021	0.008	0.012	0.420	0.023	94.5
Thu	23	NW-12	34	Sunny	0.002	0.101			0.107	0.007	0.004	0.140	0.007	95.0
Fri	24	NW-4	34	Sunny	0.002	0.880			0.002	0.007	0.002	0.005	0.003	40.0
Sat	25	S-10	42	Sunny	0.001	0.390			0.120	0.001	0.001	0.022	0.001	95.5
Sun	26	NNW-5	48	Partly cloudy	0.000	0.139			0.000	0.001	0.002	0.003	0.001	66.7
Mon	27	SWS-8	36	Partly cloudy	0.003	0.310			0.004	0.002	0.002	0.004	0.002	50.0
Tue	28	NNW-5	26	Partly cloudy	0.004	0.910			0.001	0.003	0.007	0.009	0.002	77.8
Wed	29	WNW-10	52	Partly cloudy	0.003	3.000						0.040	0.003	92.5
Thu	30	ENE-5	36	Sunny	0.006	0.290			0.004	0.005	0.010	0.007	0.006	14.3
Min.			25		0.000	0.001			0.000	0.000	0.000	0.003	0.001	14.3
Max.			63		0.013	3.000			50.000	0.065	0.016	15.000	4.200	96.1
Ave.			42		0.004	0.335			9.635	0.007	0.004	3.823	0.880	77.7
Target					<.01	<10.0	<10.0	<10.0	<10.0	.050	.050	<10.0	<1.0	95%

Woodard and Curran

November, 2017

Outside Plant Sulfide Readings

Date		Wind Direction	Outside Temp	Outside Condition	Cemetery Flag Pole	Garage At Cemetery	Duck Lane	Duck Lane And Nantasket Ave	Seawall Across From Plant	Fire Hydrant Across Inland Bay Side	Front Of Aeration Bayside
		Direction	Deg F	Condition	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Wed	01	W-4	44	Mostly cloudy	0.004	0.004	0.039	0.002	0.002	0.002	0.003
Thu	02	SSE-10	55	Cloudy	0.000	0.001	0.001	0.000	0.000	0.000	0.000
Fri	03	SSW-8	56	Mostly cloudy	0.001	0.001	0.000	0.000	0.000	0.001	0.001
Sat	04	NNW - 11	44	Partly cloudy	0.006	0.007	0.000	0.000	0.000	0.001	0.004
Sun	05	SW-10	50	Partly cloudy	0.000	0.000	0.001	0.001	0.001	0.000	0.000
Mon	06	SE-6	63	Partly cloudy	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Tue	07	NNW-12	42	Partly cloudy	0.005	0.002	0.001	0.001	0.001	0.000	0.001
Wed	08	N-18	42	Cloudy	0.000	0.001	0.001	0.000	0.000	0.000	0.000
Thu	09	NNW-13	37	Fair	0.009	0.005	0.006	0.008	0.008	0.006	0.005
Fri	10	W-24	44	Cloudy/windy	0.007	0.007	0.007	0.007	0.007	0.005	0.007
Sat	11	NW-15	25	Sunny	0.006	0.007	0.000	0.000	0.000	0.001	0.004
Sun	12	WNW-4	33	Mostly cloudy	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Mon	13	NE-0	47	Cloudy	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Tue	14	SW-12	35	Partly cloudy	0.019	0.004	0.005	0.008	0.008	0.004	0.004
Wed	15	N-9	39	Partly cloudy	0.009	0.009	0.007	0.007	0.007	0.007	0.006
Thu	16	E-5	47	Rain	0.006	0.007	0.008	0.006	0.006	0.010	0.013
Fri	17	WNW-22	41	Mostly cloudy	0.007	0.006	0.006	0.006	0.006	0.007	0.007
Sat	18	NNW-3	31	Sunny	0.006	0.006	0.006	0.006	0.006	0.007	0.006
Sun	19	SSW-18	58	Rain	0.000	0.001	0.001	0.001	0.001	0.001	0.002
Mon	20	NW-10	36	Sunny	0.005	0.006	0.007	0.005	0.005	0.007	0.006
Tue	21	SSW-10	39	Sunny	0.007	0.007	0.007	0.007	0.007	0.007	0.006
Wed	22	SSE-7	52	Rain	0.000	0.000	0.001	0.000	0.000	0.000	0.000
Thu	23	NW-12	34	Sunny	0.004	0.004	0.001	0.001	0.001	0.004	0.004
Fri	24	NW-4	34	Sunny	0.004	0.003	0.004	0.004	0.004	0.005	0.004
Sat	25	S-10	42	Sunny	0.000	0.002	0.002	0.002	0.002	0.002	0.000
Sun	26	NNW-5	48	Partly cloudy	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Mon	27	SWS-8	36	Partly cloudy	0.003	0.003	0.003	0.002	0.002	0.002	0.004
Tue	28	NNW-5	26	Partly cloudy	0.003	0.003	0.003	0.003	0.003	0.002	0.004
Wed	29	WNW-10	52	Partly cloudy							
Thu	30	ENE-5	36	Sunny	0.005	0.006	0.007	0.007	0.007	0.005	0.006
Min.			25		0.000	0.000	0.000	0.000	0.000	0.000	0.000
Max.			63		0.019	0.009	0.039	0.008	0.008	0.010	0.013
Ave.			42		0.004	0.004	0.005	0.003	0.003	0.003	0.004
Target					<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005