COMMITMENT & INTEGRITY
DRIVE RESULTS

1111 Nantasket Ave.
Hull, Massachusetts 02045

T 781.925.0906

WOODARD
&CURRAN

September 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 – August 2017 – Discharge 001-A

Dear Ms. McDonald:

Enclosed please find the completed DMR for the month of August 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

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)

MA0101231	001 A
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	17	08	01	TO	17	08	31

OMB No. 2040-0004

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	70	91	LBS/DY	7	9	9	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	2,030	******	LBS/DY	206	******	******	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	******	******	****	7.00	******	7.50	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	225	347	LBS/DY	21	28	30	mg/L	0	1/7 07/30	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	3,859	******	LBS/DY	388	******	******	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	1.60	1.85	MGD	******	******	******	****	0	99/99	RC
50050 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	3.04 12 MO AVG	DAILY MX	MGD	******	******	******	****		CONTINUOUS	RCORDR
FLOW, IN CONDUIT OR THRU TREATMENT PLANT	SAMPLE MEASUREMENT	******	******	****	1.27	******	******	MGD	0	99/99	RC
50050 0 0 See Comments	PERMIT REQUIREMENT	******	******	****	REQ MO AVG	******	******	MGD		CONTIN	RCORDR

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	09	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 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	08	01	TO	17	08	31

*** 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	******	******	******	0.02	******	0.24	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	******	******	******	97	******	******	%	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
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		DATE		
781	925-1207	17	09	14
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
07/30/17	08/05/17	20
08/06/17	08/12/17	28
08/13/17	08/19/17	20
08/20/17	08/26/17	17
	MAX	28

Effluent BOD		
Week Start	Week End	Avg
07/30/17	08/05/17	9
08/06/17	08/12/17	6
08/13/17	08/19/17	6
08/20/17	08/26/17	8
	MAX	9

Data for dates in current month

Date	TSS mg/l	TSS Lbs	BOD mg/l	BOD LBS
08/01/17	27	272	9	88
08/02/17				
08/03/17				
08/04/17	13	129		
08/05/17				
08/06/17				
08/07/17				
08/08/17	30	430	6	91
08/09/17				
08/10/17	25	264		
08/11/17				
08/12/17				
08/13/17				
08/14/17				
08/15/17	20	192	6	53
08/16/17				
08/17/17				
08/18/17				
08/19/17				
08/20/17				
08/21/17				
08/22/17	17	184	8	86
08/23/17				
08/24/17				
08/25/17				
08/26/17				
08/27/17				
08/28/17				
08/29/17	14	106	4	32
08/30/17				
08/31/17				
MAX	**30**	**430**	**9**	**91**
AVG	**21**	**225**	**7**	**70**

Sunday Thru Saturday (avg placed on Saturday date)

Date	TSS mg/l	TSS LBS	BOD mg/l	BOD LBS
08/01/17				
08/02/17				
08/03/17				
08/04/17				
08/05/17	20	201	9	88
08/06/17				
08/07/17				
08/08/17				
08/09/17				
08/10/17				
08/11/17				
08/12/17	28	347	6	91
08/13/17				
08/14/17				
08/15/17				
08/16/17				
08/17/17				
08/18/17				
08/19/17	20	192	6	53
08/20/17				
08/21/17				
08/22/17				
08/23/17				
08/24/17				
08/25/17				
08/26/17	17	184	8	86
08/27/17				
08/28/17				
08/29/17				
08/30/17				
08/31/17				
MAX	**28**	**347**	**9**	**91**
Avg	**21**	**231**	**7**	**80**

Influent TSS		
Week Start	**Week End**	**Avg**
07/30/17	08/05/17	570
08/06/17	08/12/17	253
08/13/17	08/19/17	268
08/20/17	08/26/17	277
	Max	**570**

Influent BOD		
Week Start	**Week End**	**Avg**
07/30/17	08/05/17	240
08/06/17	08/12/17	140
08/13/17	08/19/17	130
08/20/17	08/26/17	160
	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
08/01/17	570	5,752	240	2,422
08/02/17				
08/03/17				
08/04/17				
08/05/17				
08/06/17				
08/07/17				
08/08/17	253	3,587	140	1,985
08/09/17				
08/10/17				
08/11/17				
08/12/17				
08/13/17				
08/14/17				
08/15/17	268	2,570	130	1,247
08/16/17				
08/17/17				
08/18/17				
08/19/17				
08/20/17				
08/21/17				
08/22/17	277	3,003	160	1,735
08/23/17				
08/24/17				
08/25/17				
08/26/17				
08/27/17				
08/28/17				
08/29/17	571	4,381	360	2,762
08/30/17				
08/31/17				
MAX	**571**	**5,752**	**360**	**2,762**
AVG	**388**	**3,859**	**206**	**2,030**

Sunday Thru Saturday (avg placed on Saturday date)

Date	TSS mg/l	TSS Lbs	BOD mg/l	BOD LBS
08/01/17				
08/02/17				
08/03/17				
08/04/17				
08/05/17	570.00		240.00	
08/06/17				
08/07/17				
08/08/17				
08/09/17				
08/10/17				
08/11/17				
08/12/17	253.00		140.00	
08/13/17				
08/14/17				
08/15/17				
08/16/17				
08/17/17				
08/18/17				
08/19/17	268.00		130.00	
08/20/17				
08/21/17				
08/22/17				
08/23/17				
08/24/17				
08/25/17				
08/26/17	277.00		160.00	
08/27/17				
08/28/17				
08/29/17				
08/30/17				
08/31/17				
MAX	**570**		**240**	
AVG	**342**		**168**	

COMMITMENT & INTEGRITY
DRIVE RESULTS

1111 Nantasket Ave.
Hull, Massachusetts 02045

T 781.925.0906

WOODARD
&CURRAN

HULL, MA WATER POLLUTION CONTROL FACILITY
NPDES NO. MA0101231

Hull Water Pollution Control Facility – Staffing – August 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 – Rick Clark	
Operations/Maintenance Tech 1 – Vacant – Posted for hire	

Supplemental O&M Personnel supporting/assisting the Hull facility

Pat Owens – Part-time Operator	MA Grade 6C
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

Hull Water Pollution Control Facility – Schedule – August 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	6C	*						*
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.

Hull Wastewater Treatment Plant Operations Data

August, 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
Tue	01	No	On	On	On	Off	Off	On	Off	On	Off	Off	On	On	On	Off
Wed	02	No	On	On	On	Off	Off	On	Off	On	Off	Off	On	On	On	Off
Thu	03	No	On	On	On	Off	Off	On	Off	On	Off	Off	On	On	On	Off
Fri	04	No	On	On	On	Off	Off	On	Off	On	Off	Off	On	On	On	Off
Sat	05	No	On	On	On	Off	Off	On	Off	On	Off	Off	On	On	On	Off
Sun	06	No	On	On	On	Off	On	On	Off	On	Off	Off	On	On	On	Off
Mon	07	No	On	On	On	Off	On	On	Off	On	Off	Off	On	On	On	Off
Tue	08	No	On	On	On	Off	On	On	Off	On	Off	Off	On	On	On	Off
Wed	09	No	On	On	On	Off	On	On	Off	On	Off	Off	On	On	On	Off
Thu	10	No	On	On	On	Off	On	On	Off	On	Off	Off	On	On	On	Off
Fri	11	No	On	On	On	Off	On	On	Off	On	Off	Off	On	On	On	Off
Sat	12	No	On	On	On	Off	Off	On	Off	On	Off	Off	On	On	On	Off
Sun	13	No	On	On	On	Off	Off	On	Off	On	Off	Off	On	On	On	Off
Mon	14	No	On	On	On	Off	Off	On	Off	On	Off	Off	On	On	On	Off
Tue	15	No	On	On	On	Off	Off	On	Off	On	Off	Off	On	On	On	Off
Wed	16	No	On	On	On	Off	Off	On	Off	On	Off	Off	On	On	On	Off
Thu	17	No	On	On	On	Off	Off	On	Off	On	Off	Off	On	On	On	Off
Fri	18	No	On	On	On	Off	Off	On	Off	On	Off	Off	On	On	On	Off
Sat	19	No	On	On	On	Off	Off	On	Off	On	Off	Off	On	On	On	Off
Sun	20	No	On	On	On	Off	Off	On	Off	On	Off	Off	On	On	On	Off
Mon	21	No	On	On	On	Off	Off	On	Off	On	Off	Off	On	On	On	Off
Tue	22	No	On	On	On	Off	Off	On	Off	On	Off	Off	On	On	On	Off
Wed	23	No	On	On	On	Off	Off	On	Off	On	Off	Off	On	On	On	Off
Thu	24	No	On	On	On	Off	Off	On	Off	On	Off	Off	On	On	On	Off
Fri	25	No	On	On	On	Off	Off	On	Off	On	Off	Off	On	On	On	Off
Sat	26	No	On	On	On	Off	Off	On	Off	On	Off	Off	On	On	On	Off
Sun	27	No	On	On	On	Off	Off	On	Off	On	Off	Off	On	On	On	Off
Mon	28	No	On	On	On	Off	Off	On	Off	On	Off	Off	On	On	On	Off
Tue	29	No	On	On	On	Off	Off	On	Off	On	Off	Off	On	On	On	Off
Wed	30	No	On	On	On	Off	Off	On	Off	On	Off	Off	On	On	On	Off
Thu	31	No	On	On	On	Off	Off	On	Off	On	Off	Off	On	On	On	Off
MIN		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MAX		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AVG		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SUM		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Hull Wastewater Treatment Plant Operations Data

August, 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
Tue	01	Off	Off	On	On	0.00	65	82	35	0.7	570	240	1.45	2.55		
Wed	02	Off	Off	On	On	0.30	66	82	35	0.7			1.48	2.05		
Thu	03	Off	Off	On	On	0.00	67	82	35	0.7			1.48	2.28		
Fri	04	Off	Off	On	On	0.00	69	84	35	0.7			1.46	2.77		
Sat	05	Off	Off	On	On	0.00	61	82	35	0.7			1.51	2.25		
Sun	06	Off	Off	On	On	0.00	63	74	35	0.7			1.56	2.28		
Mon	07	Off	Off	On	On	0.10	64	74	35	0.7			1.18	2.21		
Tue	08	Off	Off	On	On	0.00	62	67	35	0.7	253	140	1.30	1.90		
Wed	09	Off	Off	On	On	0.00	62	79	35	0.7			1.41	2.75		
Thu	10	Off	Off	On	On	0.00	64	77	35	0.7			1.41	2.11		
Fri	11	Off	Off	On	On	0.00	64	81	35	0.7			1.43	1.98		
Sat	12	Off	Off	On	On	0.10	63	75	35	0.7			1.41	2.07		
Sun	13	Off	Off	On	On	0.00	67	77	35	0.7			1.50	2.13		
Mon	14	Off	Off	On	On	0.00	63	74	35	0.7			1.39	1.95		
Tue	15	Off	Off	On	On	0.00	65	78	35	0.7	268	130	1.38	1.94		
Wed	16	Off	Off	On	On	0.00	64	80	35	0.7			1.38	2.46		
Thu	17	Off	Off	On	Off	0.00	64	79	35	0.7			1.38	2.55		
Fri	18	Off	Off	On	On	0.00	64	80	35	0.7			1.41	2.64		
Sat	19	Off	Off	On	On	0.00	60	75	35	0.7			1.49	2.28		
Sun	20	Off	Off	On	On	0.00	67	80	35	0.7			1.58	2.22		
Mon	21	Off	Off	On	On	0.00	64	83	35	0.7			1.52	2.22		
Tue	22	Off	Off	On	On	0.00	68	89	35	0.7	277	160	1.52	2.13		
Wed	23	Off	Off	On	On	0.02	62	84	35	0.7			1.56	2.12		
Thu	24	Off	Off	On	On	0.00	59	82	35	0.7			1.52	2.24		
Fri	25	Off	Off	On	On	0.00	59	72	35	0.7			1.44	1.90		
Sat	26	Off	Off	On	On	0.00	57	78	35	0.7			1.34	2.29		
Sun	27	Off	Off	On	On	0.00	57	68	35	0.7			1.26	1.96		
Mon	28	Off	Off	On	On	0.00	59	69	35	0.7			1.22	3.00		
Tue	29	Off	Off	On	On	0.00	57	68	35	0.7	571	360	1.13	2.49		
Wed	30	Off	Off	On	On	0.00	60	67	35	0.7			1.15	2.72		
Thu	31	Off	Off	On	On	0.00	58	78	35	0.70			1.21	1.91		
MIN		-	-	-	-	0.00	57	67	35	1	253	130	1.13	1.90		
MAX		-	-	-	-	0.30	69	89	35	1	571	360	1.58			
AVG		-	-	-	-	0.02	63	77	35	1	388	206	1.40			
SUM		-	-	-	-	0.52	-	-	1,085	22			-	-	-	-

Hull Wastewater Treatment Plant Operations Data

August, 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
Tue 01					300	180	140			0.70		2.0		62,880	27.0
Wed 02				67	200	120	100	1,785		0.70		1.5		56,850	
Thu 03										0.68		1.0		52,620	
Fri 04								1,819		0.68		1.5		68,320	13.0
Sat 05										0.68		1.5		52,350	
Sun 06										0.68		1.0		60,260	
Mon 07				67	230	150	120	2,222		0.79		1.0		43,120	
Tue 08										0.88		1.0		46,120	30.3
Wed 09				101	219	170	110	1,676		0.84		1.5		47,880	
Thu 10										0.72		1.5		59,070	25.1
Fri 11								1,588		0.64		1.0		33,090	
Sat 12										0.64		0.6		42,620	
Sun 13										0.64		1.5		44,500	
Mon 14				57	200	120	100	2,094		0.64		1.0		42,530	
Tue 15										0.64		1.5		42,690	20.0
Wed 16				61	120	100	100	1,635		0.64		1.0		20,780	
Thu 17										0.64		1.5		28,000	
Fri 18				42	130	80	70	1,880		0.64		1.5		37,550	
Sat 19										0.64		1.5		46,150	
Sun 20										0.64		1.5		39,310	
Mon 21				120	210	170	80	1,319		0.64		1.5		37,000	
Tue 22										0.66		1.5		40,320	17.0
Wed 23				82	210	150	90	1,819		0.66		2.5		30,370	
Thu 24										0.66		1.5		33,640	
Fri 25				100	290	210	100	2,084		0.69		2.5		25,080	
Sat 26										0.69		1.5		27,570	
Sun 27										0.69		1.3		32,222	
Mon 28				89	310	180	170	2,022		0.69		1.0		31,050	
Tue 29										0.69		2.0		31,320	13.8
Wed 30				104	250	200	150	1,915		0.69		1.0		41,510	
Thu 31										0.69		1.5		56,030	
MIN				42	120	80	70	1,319		0.64		0.6		20,780	13.0
MAX				120	310	210	170	2,222		0.88		2.5		68,320	30.3
AVG				81	222	153	111	1,835		0.68		1.4		42,348	20.9
SUM	-	-	-	-	-	-	-	-	-	-	-	-	-	1,312,802	-

Hull Wastewater Treatment Plant Operations Data

August, 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
Tue	01	8.7		1.69	0.72	1.21	7.30	0.02	0.00	0.01	0.01						
Wed	02		10	4.26	0.68	1.24	7.20	0.02	0.10	0.04	0.05	6.7					
Thu	03			1.80	0.75	1.24	7.30	0.00	0.00	0.01	0.00						
Fri	04			1.77	0.58	1.19	7.30	0.02	0.01	0.02	0.02						
Sat	05			2.44	0.64	1.55	7.40	0.00	0.03	0.03	0.02	7.3					
Sun	06			2.43	1.26	1.85	7.50	0.00	0.00	0.00	0.00						
Mon	07			2.15	1.26	1.56	7.40	0.00	0.01	0.02	0.01						
Tue	08	6.4		9.70	0.53	1.70	7.20	0.01	0.03	0.01	0.02	7.0					
Wed	09		10	16.57	0.00	1.68	7.40	0.07	0.53	0.13	0.24						
Thu	10			1.98	0.00	1.26	7.30	0.04	0.02	0.01	0.02						
Fri	11			1.89	0.00	1.16	7.30	0.02	0.01	0.02	0.02	6.7					
Sat	12			2.00	0.00	1.24	7.30	0.01	0.00	0.02	0.01						
Sun	13			1.94	0.00	1.27	7.40	0.00	0.00	0.00	0.00						
Mon	14			1.90	0.00	1.15	7.40	0.03	0.01	0.03	0.02	5.1					
Tue	15	5.5		1.90	0.00	1.15	7.30	0.03	0.00	0.03	0.02						
Wed	16		10	1.90	0.00	1.15	7.30	0.01	0.00	0.00	0.00						
Thu	17			1.90	0.00	1.11	7.30	0.00	0.01	0.01	0.01	6.2					
Fri	18			2.04	0.00	1.18	7.20	0.01	0.02	0.00	0.01						
Sat	19			2.04	0.00	1.30	7.20	0.03	0.02	0.02	0.02						
Sun	20			2.09	0.00	1.36	7.10	0.00	0.02	0.00	0.01						
Mon	21			1.95	0.00	1.30	7.10	0.02	0.01	0.01	0.01	6.2					
Tue	22	7.9		1.94	0.00	1.30	7.00	0.00	0.01	0.01	0.01	6.7					
Wed	23		10	1.74	1.00	1.34	7.10	0.03	0.01	0.01	0.02						
Thu	24			1.87	1.01	1.29	7.10	0.05	0.02	0.03	0.03						
Fri	25			2.01	0.00	1.24	7.00	0.04	0.01	0.03	0.03	6.3					
Sat	26			3.38	0.00	1.19	7.10	0.02	0.00	0.02	0.01						
Sun	27			1.96	0.00	1.13	7.20	0.01	0.00	0.00	0.00						
Mon	28			1.94	0.00	1.00	7.20	0.03	0.02	0.03	0.03	5.2					
Tue	29	4.2		1.95	0.00	0.92	7.10	0.07	0.03	0.00	0.03						
Wed	30		10	2.04	0.00	1.00	7.00	0.03	0.02	0.03	0.03						
Thu	31			1.93	0.00	1.03	7.20	0.03	0.02	0.02	0.02	7.5					
MIN		4.2	10		0.00	0.92	7.00	0.00	0.00	0.00	0.00	5.09		-	-	-	-
MAX		8.7	10	16.57		1.85	7.50	0.07	0.53	0.13	0.24	7.50		-	-	-	-
AVG		6.5	10			1.27	7.23	0.02	0.03	0.02	0.02	6.45		-	-	-	-
SUM		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Hull Wastewater Treatment Plant Operations Data

August, 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
Tue	01			796,649	0		4.1	6.2	21.1			37	57	3.0	0.021
Wed	02			15	9,000	5,029	4.1	4.1	21.6	<10		37	41	2.0	0.019
Thu	03			15	0		4.1	8.3	21.5			37	54	2.0	0.021
Fri	04			22	0		4.3	8.7	21.2			37	51	2.0	0.022
Sat	05			22	9,000	5,451	4.4	4.8	21.7			37	51	2.0	0.020
Sun	06			49	0		4.4	4.6	20.9			37	73	2.0	0.020
Mon	07			17	0		4.4	6.2	20.7			37	51	2.0	0.020
Tue	08			66	8,500	4,955	4.5	7.3	20.6			37	71	4.0	0.018
Wed	09			210	0		4.6	4.7	20.8	<10		37	55	2.0	0.019
Thu	10			56	0		4.7	9.0	21.0			37	43	4.0	0.019
Fri	11			146	9,000	5,068	4.8	9.2	21.2			37	54	2.0	0.020
Sat	12			70	0		4.9	7.4	21.0			37	46	2.0	0.018
Sun	13			30	0		5.0	7.8	21.7			37	56	2.0	0.018
Mon	14			29	9,000	3,820	8.1	9.5	21.3			37	48	4.0	0.019
Tue	15			58	0		5.2	11.9	21.6			37	48	2.0	0.019
Wed	16			81	0		5.3	10.9	21.7	<10		37	42	2.0	0.018
Thu	17			184	9,000	4,653	5.3	8.0	20.6			37	71	2.0	0.018
Fri	18			52	0		5.5	7.6	22.3			37	54	2.0	0.019
Sat	19			65	0		5.5	6.9	21.4			37	78	2.0	0.019
Sun	20			17	0		5.4	9.7	21.7			37	85	4.0	0.019
Mon	21			44	9,000	4,653	5.4	8.5	21.4			37	110	2.0	0.020
Tue	22			49	9,000	5,029	5.6	12.1	21.8			37	128	2.0	0.019
Wed	23			49	0		5.6	7.2	22.0	<10		37	95	2.0	0.019
Thu	24			85	0		5.7	11.3	20.2			37	76	2.0	0.019
Fri	25			71	8,500	4,473	5.8	12.3	21.4			37	80	2.0	0.019
Sat	26			68	0		5.8	5.1	21.1			37	72	2.0	0.018
Sun	27			9	0		5.8	3.1	21.4			37	86	2.0	0.018
Mon	28			50	9,000	3,686	5.7	4.2	21.1			37	103	2.0	0.018
Tue	29			71	0		5.8	7.9	20.9			37	72	2.0	0.018
Wed	30			109	0		5.8	12.1	20.8	<10		37	114	2.0	0.019
Thu	31			152	9,000	3,629	5.8	3.6	20.6			37	125	2.0	0.020
MIN		-	-	9	0	3,629	4	3	20	<10	-	37	41	2.0	0.018
MAX		-	-	796,649	9,000	5,451	8	12	22	<10	-	37	128	4.0	0.022
AVG		-	-	25,762	3,161	4,586	5	8	21	<10	-	37	71	2.3	0.019
SUM		-	-	798,612	98,000	50,446	-	-	-		-	-	-	-	0.593

Hull WWTF
Monthly Rain, Temperature and Flow
August, 2017

Date	Rainfall	Minimum Air Temp	Maximum Air Temp	Effluent Flow
	Inches	F	F	MGD
08/01/17	0.00	65	82	1.210
08/02/17	0.30	66	82	1.240
08/03/17	0.00	67	82	1.240
08/04/17	0.00	69	84	1.190
08/05/17	0.00	61	82	1.550
08/06/17	0.00	63	74	1.850
08/07/17	0.10	64	74	1.560
08/08/17	0.00	62	67	1.700
08/09/17	0.00	62	79	1.680
08/10/17	0.00	64	77	1.260
08/11/17	0.00	64	81	1.160
08/12/17	0.10	63	75	1.240
08/13/17	0.00	67	77	1.270
08/14/17	0.00	63	74	1.150
08/15/17	0.00	65	78	1.150
08/16/17	0.00	64	80	1.150
08/17/17	0.00	64	79	1.110
08/18/17	0.00	64	80	1.180
08/19/17	0.00	60	75	1.300
08/20/17	0.00	67	80	1.360
08/21/17	0.00	64	83	1.300
08/22/17	0.00	68	89	1.300
08/23/17	0.02	62	84	1.340
08/24/17	0.00	59	82	1.290
08/25/17	0.00	59	72	1.240
08/26/17	0.00	57	78	1.190
08/27/17	0.00	57	68	1.130
08/28/17	0.00	59	69	1.000
08/29/17	0.00	57	68	0.920
08/30/17	0.00	60	67	1.000
08/31/17	0.00	58	78	1.030
Min	0.00	57	67	0.92
Max	0.30	69	89	1.85
Avg	0.02	63	77	1.27
Sum	0.52			39.29

Woodard and Curran

August, 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
Tue	01	N-0	69	Sunny	0.006	0.006	0.008	0.008	0.008	0.007	0.006
Wed	02	SW-3	80	Sunny	0.004	0.004	0.017	0.017	0.017	0.004	0.004
Thu	03	SW-4	67	Mostly Cloudy							
Fri	04	N-0	68	Sunn6	0.002	0.002	0.002	0.002	0.002	0.003	0.002
Sat	05	N-0	69	Sunny	0.000	0.000	0.000	0.000	0.000	0.002	0.000
Sun	06	SE-7	65	Sunny	0.005	0.004	0.004	0.005	0.005	0.005	0.005
Mon	07	NW-5	68	Partly cloudy	0.002	0.003	0.003	0.003	0.003	0.004	0.002
Tue	08	N-7	67	Partly cloudy	0.005	0.003	0.002	0.003	0.003	0.006	0.087
Wed	09	N-0	78	Sunny	0.004	0.005	0.006	0.007	0.007	0.006	0.004
Thu	10	N-0	85	Sunn6	3.000	0.006	0.005	0.006	0.006	0.007	0.007
Fri	11	SW-0	68	Sunny	0.005	0.006	0.006	0.005	0.005	0.008	0.004
Sat	12	N-3	64	Cloudy	0.003	0.003	0.002	0.001	0.001	0.002	0.002
Sun	13	W-6	73	Sunny	0.008	0.008	0.006	0.008	0.008	0.007	0.008
Mon	14	N-0	68	Sunny	0.006	0.007	0.007	0.010	0.010	0.023	0.006
Tue	15	N-0	70	Cloudy	0.003	0.003	0.002	0.002	0.002	0.004	0.003
Wed	16	N-0	68	Sunny	0.003	0.003	0.004	0.003	0.003	0.002	0.002
Thu	17	N-0	80	Sunny	0.004	0.004	0.004	0.004	0.004	0.006	0.005
Fri	18	SSE-9	60	Rainy	0.001	0.002	0.001	0.000	0.000	0.001	0.002
Sat	19	N-0	66	Partly cloudy	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Sun	20	W-9	70	Sunny	0.003	0.003	0.003	0.003	0.003	0.003	0.003
Mon	21	WNW-6	75	Mostly Sunny							
Tue	22	SSW-10	85	Sunny	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Wed	23	N-0	88	Sunny & humid	0.003	0.003	0.002	0.002	0.002	0.002	0.003
Thu	24	W-1	71	Sunny.	0.004	0.004	0.004	0.004	0.004	0.004	0.003
Fri	25	W-2	65	Partly Cloudy							
Sat	26	N -O	58	Sunny	0.004	0.003	0.003	0.003	0.003	0.003	0.003
Sun	27	NNW-2	60	Sunny	0.002	0.002	0.002	0.002	0.002	0.004	0.002
Mon	28	NW-2	68	Sunny and cool	0.009	0.004	0.004	0.004	0.004	0.004	0.016
Tue	29	SSE-7	77	Partly cloudy	0.001	0.001	0.001	0.001	0.001	0.000	0.001
Wed	30	NNE-18	62	Rain	0.002	0.002	0.002	0.003	0.003	0.004	0.002
Thu	31	N-0	77	Sunny	0.004	0.004	0.004	0.004	0.004	0.004	0.004
Min.			58		0.000	0.000	0.000	0.000	0.000	0.000	0.000
Max.			88		3.000	0.008	0.017	0.017	0.017	0.023	0.087
Ave.			71		0.111	0.004	0.004	0.004	0.004	0.005	0.007
Target					<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

Woodard and Curran
August, 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	%
Tue	01	N-0	69	Sunny	0.002	5.700				0.009	0.003	0.860	0.220	74.4
Wed	02	SW-3	80	Sunny	0.000	4.000				0.001	0.000	0.780	0.220	71.8
Thu	03	SW-4	67	Mostly Cloudy								0.780	0.240	69.2
Fri	04	N-0	68	Sunn6	0.000	6.000				0.000	0.000	0.810	0.240	70.4
Sat	05	N-0	69	Sunny	0.001	4.400				0.002	0.001	2.900	0.680	76.6
Sun	06	SE-7	65	Sunny	0.006	0.600				0.006	0.004	0.780	0.115	85.3
Mon	07	NW-5	68	Partly cloudy	0.002	0.130				0.002	0.150	1.300	0.200	84.6
Tue	08	N-7	67	Partly cloudy	0.003	5.000				0.087	0.048	2.600	0.480	81.5
Wed	09	N-0	78	Sunny	0.010	5.000				1.200	0.006	4.900	1.400	71.4
Thu	10	N-0	85	Sunn6	0.004	10.130				1.050	0.006	3.500	1.200	65.7
Fri	11	SW-0	68	Sunny	0.004	12.000				0.016	0.002	1.700	0.110	93.5
Sat	12	N-3	64	Cloudy	0.001	0.004				0.004	0.001	1.300	0.440	66.2
Sun	13	W-6	73	Sunny	0.006	1.100				0.004	0.006	2.000	0.220	89.0
Mon	14	N-0	68	Sunny	0.003	0.380				0.004	0.000	14.000	0.260	98.1
Tue	15	N-0	70	Cloudy	0.003	0.130				0.004	0.000	1.100	0.220	80.0
Wed	16	N-0	68	Sunny	0.001	0.130				0.001	0.000	0.750	0.260	65.3
Thu	17	N-0	80	Sunny	0.004	4.200				0.010	0.003	1.000	0.330	67.0
Fri	18	SSE-9	60	Rainy	0.000	3.000				0.006	0.000	1.800	0.290	83.9
Sat	19	N-0	66	Partly cloudy	0.006	4.100				0.002	0.006	0.960	0.230	76.0
Sun	20	W-9	70	Sunny	0.003	5.130				0.004	0.024	1.200	0.220	81.7
Mon	21	WNW-6	75	Mostly Sunny								1.700	1.200	29.4
Tue	22	SSW-10	85	Sunny	0.002	5.000				0.003	0.002	1.030	0.470	54.4
Wed	23	N-0	88	Sunny & humid	0.001	0.900				0.001	0.002	1.300	0.140	89.2
Thu	24	W-1	71	Sunny.	0.005	0.650				0.005	0.006	1.300	0.260	80.0
Fri	25	W-2	65	Partly Cloudy								2.800	0.810	71.1
Sat	26	N -O	58	Sunny	0.002	0.280				0.002	0.004	0.720	0.072	90.0
Sun	27	NNW-2	60	Sunny								2.400	0.520	78.3
Mon	28	NW-2	68	Sunny and cool	0.003	0.780				0.003	0.002	0.840	0.066	92.1
Tue	29	SSE-7	77	Partly cloudy	0.002	0.073				0.000	0.000	0.680	0.069	89.9
Wed	30	NNE-18	62	Rain	0.003	6.200				0.002	0.000	2.800	0.400	85.7
Thu	31	N-0	77	Sunny	0.003	0.360				0.002	0.001	0.630	0.057	91.0
Min.			58		0.000	0.004				0.000	0.000	0.630	0.057	29.4
Max.			88		0.010	12.000				1.200	0.150	14.000	1.400	98.1
Ave.			71		0.003	3.162				0.090	0.010	1.975	0.375	77.5
Target					<.01	<10.0	<10.0	<10.0	<10.0	.050	.050	<10.0	<1.0	95%