COMMITMENT & INTEGRITY
DRIVE RESULTS

1111 Nantasket Ave.
Hull, Massachusetts 02045

T 781.925.0906

WOODARD
&CURRAN

September 14, 2020

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 2020 – Discharge 001-A

Dear Ms. McDonald:

Enclosed please find the completed DMR for the month of August 2020. Please note that the facility's 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

COMMITMENT & INTEGRITY
DRIVE RESULTS

1111 Nantasket Ave.
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WOODARD
&CURRAN

HULL, MA WATER POLLUTION CONTROL FACILITY
NPDES NO. MA0101231

Hull Water Pollution Control Facility – Staffing – August 2020

Project Manager/Chief Operator – Aram Varjabedian	MA Grade 7C
Asst. Project Manager/Asst. Chief Operator – William Boornazian	MA Grade 7C
Lead Operator – Joseph Basler	MA Grade 5C
Operations/Maintenance Tech 2 – Eric Sutton	MA Grade 3M
Operations/Maintenance Tech 2 – David Wilson	MA Grade 4M
Operations/Maintenance Tech 1 – Ryan Holman	MA Grade 4M

Supplemental O&M Personnel supporting/assisting the Hull facility

Roger Boltrushek – Part-time Operator	MA Grade 7C
Jody St. George - Sr. Operations Specialist	MA Grade 7C
Richard Gould – Part-time Operator	MA Grade 5C
Robert Scott – Area Manager	MA Grade 6C

Hull Water Pollution Control Facility – Schedule – August 2020

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	7C	***	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	4M	X	X	X	X	X		
Part-Time Operator	7C or 5C	*						*
Sr. O&M Specialist	7C	**						

- Part-time operator schedule is usually one day every two weeks and the day can vary, but usually on a Sunday and can vary week-to-week. An asterisk [*] denotes those days that the part-time operator could be scheduled.
- [**] Sr. O&M Specialists coverage is occasionally part of the Sunday rotation, and also if licensed operations coverage is needed during the week.
- [***] If Sunday coverage is by Sr. O&M, Lead Operator, or PT operator, then PM and APM schedule is Monday through Friday. PM and APM available and part of the Sunday coverage rotation as needed, and for Saturday coverage if needed.
- PM & APM schedule is Monday through Friday

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	20	08	01	TO	20	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			QUALITY OR CONCENTRATION				NO. EX	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		VALUE	VALUE	UNITS	VALUE	VALUE	VALUE	UNITS			
BOD, 5-DAY (20 DEG. C)	SAMPLE MEASUREMENT	42	104	LBS/DY	6	13	8	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	1,145	******	LBS/DY	149	******	******	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	135	252	LBS/DY	17	32	28	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	1,875	******	LBS/DY	239	******	******	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	1.46	1.17	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	******	******	****	0.94	******	******	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.

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

TELEPHONE		DATE		
781	925-1207	20	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 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

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

MAJOR
(SUBR E)
F- FINAL
TREATED SANITARY WASTEWATER

MA0101231	001 A
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD	YEAR	MO	DAY		YEAR	MO	DAY
FROM	20	08	01	TO	20	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	******	******	******	0.33	******	0.72	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 GEO	******	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	******	******	******	96	******	******	%	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	******	******	******	93	******	******	%	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	20	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 MO

WET DATA ON DMR 001B

Date

Effluent

Effluent TSS		
Week Start	Week End	Avg
07/26/20	08/01/20	32
08/02/20	08/08/20	28
08/09/20	08/15/20	17
08/16/20	08/22/20	13
08/23/20	08/29/20	11
	MAX	**32**

Effluent BOD		
Week Start	Week End	Avg
07/26/20	08/01/20	13
08/02/20	08/08/20	8
08/09/20	08/15/20	8
08/16/20	08/22/20	3
08/23/20	08/29/20	3
	MAX	**13**

Data for dates in current month

Date	TSS mg/l	TSS Lbs	BOD mg/l	BOD LBS
08/01/20				
08/02/20				
08/03/20				
08/04/20	28	224	8	64
08/05/20				
08/06/20				
08/07/20				
08/08/20				
08/09/20				
08/10/20				
08/11/20	17	111	8	53
08/12/20				
08/13/20				
08/14/20				
08/15/20				
08/16/20				
08/17/20				
08/18/20	13	116	3	27
08/19/20				
08/20/20				
08/21/20				
08/22/20				
08/23/20				
08/24/20				
08/25/20	11	88	3	24
08/26/20				
08/27/20				
08/28/20				
08/29/20				
08/30/20				
08/31/20				
MAX	**28**	**224**	**8**	**64**
AVG	**17**	**135**	**6**	**42**

Sunday Thru Saturday (avg placed on Saturday date)

Date	TSS mg/l	TSS LBS	BOD mg/l	BOD LBS
08/01/20	32	252	13	104
08/02/20				
08/03/20				
08/04/20				
08/05/20				
08/06/20				
08/07/20				
08/08/20	28	224	8	64
08/09/20				
08/10/20				
08/11/20				
08/12/20				
08/13/20				
08/14/20				
08/15/20	17	111	8	53
08/16/20				
08/17/20				
08/18/20				
08/19/20				
08/20/20				
08/21/20				
08/22/20	13	116	3	27
08/23/20				
08/24/20				
08/25/20				
08/26/20				
08/27/20				
08/28/20				
08/29/20	11	88	3	24
08/30/20				
08/31/20				
MAX	**32**	**252**	**13**	**104**
Avg	**20**	**158**	**7**	**54**

Influent TSS		
Week Start	**Week End**	**Avg**
07/26/20	08/01/20	215
08/02/20	08/08/20	244
08/09/20	08/15/20	223
08/16/20	08/22/20	216
08/23/20	08/29/20	271
	Max	**271**

Influent BOD		
Week Start	**Week End**	**Avg**
07/26/20	08/01/20	190
08/02/20	08/08/20	120
08/09/20	08/15/20	220
08/16/20	08/22/20	170
08/23/20	08/29/20	84
	Max	220

TSS and BOD Loadings Check Sheet

Influent

Data for dates in current month

Date	TSS mg/l	TSS Lbs	BOD mg/l	BOD LBS
08/01/20				
08/02/20				
08/03/20				
08/04/20	244	1,954	120	961
08/05/20				
08/06/20				
08/07/20				
08/08/20				
08/09/20				
08/10/20				
08/11/20	223	1,451	220	1,431
08/12/20				
08/13/20				
08/14/20				
08/15/20				
08/16/20				
08/17/20				
08/18/20	216	1,928	170	1,517
08/19/20				
08/20/20				
08/21/20				
08/22/20				
08/23/20				
08/24/20				
08/25/20	271	2,170	84	673
08/26/20				
08/27/20				
08/28/20				
08/29/20				
08/30/20				
08/31/20				
MAX	**271**	**2,170**	**220**	**1,517**
AVG	**239**	**1,876**	**149**	**1,146**

Sunday Thru Saturday (avg placed on Saturday date)

Date	TSS mg/l	TSS Lbs	BOD mg/l	BOD LBS
08/01/20	215.00		190.00	
08/02/20				
08/03/20				
08/04/20				
08/05/20				
08/06/20				
08/07/20				
08/08/20	244.00		120.00	
08/09/20				
08/10/20				
08/11/20				
08/12/20				
08/13/20				
08/14/20				
08/15/20	223.00		220.00	
08/16/20				
08/17/20				
08/18/20				
08/19/20				
08/20/20				
08/21/20				
08/22/20	216.00		170.00	
08/23/20				
08/24/20				
08/25/20				
08/26/20				
08/27/20				
08/28/20				
08/29/20	271.00		84.00	
08/30/20				
08/31/20				
MAX	**271**		**220**	
AVG	**234**		**157**	

Hull Wastewater Treatment Plant Operations Data

August, 2020

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

Hull Wastewater Treatment Plant Operations Data

August, 2020

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
Sat	01	Off	Off	On	Off	0.00	68	81	30	0.7			1.09	0.45	3.82	
Sun	02	Off	Off	On	Off	0.00	72	80	50	0.7			1.09	0.47	6.05	
Mon	03	Off	Off	On	Off	0.00	77	89	45	0.7			1.09	0.49	4.44	
Tue	04	Off	Off	On	On	0.17	74	79	50	0.7	244	120	1.01	0.50	1.58	
Wed	05	Off	Off	On	Off	0.00	71	87	45	0.7			0.96	0.53	3.83	
Thu	06	Off	Off	On	On	0.00	67	80	35	0.7			0.92	0.53	2.38	
Fri	07	Off	Off	On	Off	0.00	66	71	45	0.7			0.86	0.46	1.31	
Sat	08	Off	Off	On	Off	0.00	64	77	35	0.7			0.88	0.46	1.45	
Sun	09	Off	Off	On	Off	0.00	68	77	50	0.7			0.91	0.43	4.64	
Mon	10	Off	Off	On	Off	0.00	70	89	45	0.7			0.86	0.43	1.49	
Tue	11	Off	Off	On	Off	0.00	73	89	45	0.7	223	220	0.80	0.37	3.29	
Wed	12	Off	Off	On	Off	0.00	75	86	45	0.7			0.77	0.00	3.54	
Thu	13	Off	Off	On	On	0.00	69	80	45	0.7			0.81	0.00	3.75	
Fri	14	Off	Off	On	On	0.00	66	76	45	0.7			0.81	0.00	2.29	
Sat	15	Off	Off	On	Off	0.00	66	68	20	0.7			0.86	0.00	1.81	
Sun	16	Off	Off	On	On	0.27	65	68	20	0.7			0.97	0.00	1.57	
Mon	17	Off	Off	On	Off	0.45	63	71	45	0.7			0.97	0.46	1.54	
Tue	18	Off	Off	On	On	0.00	66	81	30	0.7	216	170	1.12	0.59	2.01	
Wed	19	Off	Off	On	On	0.05	63	75	45	0.7			1.09	0.58	1.55	
Thu	20	Off	Off	On	On	0.00	61	77	30	0.7			1.07	0.56	2.75	
Fri	21	Off	Off	On	Off	0.00	63	85	45	0.7			1.07	0.58	1.57	
Sat	22	Off	Off	On	Off	0.02	67	71	20	0.7			1.15	0.64	2.01	
Sun	23	Off	Off	On	On	0.70	68	78	35	0.7			1.12	0.64	3.48	
Mon	24	Off	Off	On	On	0.00	67	85	45	0.7			1.06	0.55	1.58	
Tue	25	Off	Off	On	On	0.00	71	86	45	0.7	271	84	1.03	0.49	1.59	
Wed	26	Off	Off	On	Off	0.00	63	75	45	0.7			0.93	0.44	1.56	
Thu	27	Off	Off	On	On	0.18	61	67	30	0.7			0.97	0.42	1.53	
Fri	28	Off	Off	On	Off	0.00	62	78	45	0.7			0.95	0.43	1.57	
Sat	29	Off	Off	On	Off	0.28	65	74	15	0.7			0.99	0.42	1.59	
Sun	30	Off	Off	On	On	0.00	67	77	30	0.7			1.08	0.00	2.04	
Mon	31	Off	Off	On	On	0.00	58	71	50	0.70			0.94	0.46	1.45	
MIN		-	-	-	-	0.00	58	67	15	1	216	84	0.77	0.00		
MAX		-	-	-	-	0.70	77	89	50	1	271	220	1.15		6.05	
AVG		-	-	-	-	0.07	67	78	39	1	239	149	0.98			
SUM		-	-	-	-	2.12	-	-	1,205	22			-	-	-	-

Hull Wastewater Treatment Plant Operations Data

August, 2020

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
Sat	01				67	200	160	50	2,367		1.00	2.5			1,850	
Sun	02				89	290	200	190	2,245		0.90	3.0			1,490	
Mon	03				96	350	200	200	2,064		0.86	2.0			1,010	
Tue	04				73	380	220	220	2,974		0.83	3.0			1,340	28.0
Wed	05				77	330	200	200	2,579		0.83	3.0			1,650	
Thu	06				65	310	180	180	2,767		0.81	3.0			720	
Fri	07				79	360	210	210	2,651	8,862	0.78	2.5			1,230	
Sat	08				76	370	210	200	2,750		0.81	2.5			1,460	
Sun	09				80	400	240	230	2,986		0.89	3.3			1,460	
Mon	10				87	330	280	260	3,205		0.89	2.0			1,440	
Tue	11				83	540	280	260	3,368		0.89	3.5			5,580	17.0
Wed	12				87	520	310	290	3,545	10,352	1.07	3.8			4,570	
Thu	13				91	450	270	250	2,964		0.40	2.0	3.0		81,490	
Fri	14				86	630	320	300	3,692	7,124	0.00		2.5		6,690	
Sat	15				85	610	310	300	3,634		0.80		2.3		8,140	
Sun	16										0.80		3.0		6,570	
Mon	17				74	540	300	290	4,019	11,794	0.80		2.0		11,130	
Tue	18				67	350	220	220	3,250		0.80		3.0		10,830	13.0
Wed	19				61	400	250	240	4,097	11,952	0.80		2.5		11,380	
Thu	20				55	370	240	230	4,365		0.80		2.5		13,490	
Fri	21				54	370	230	220	4,248	7,920	0.80		2.0		14,960	
Sat	22				48	350	220	220	4,518		0.80		2.0		16,410	
Sun	23										0.80		2.0		17,260	
Mon	24										0.80		2.0		18,080	
Tue	25								2,921		0.80		2.0		19,080	11.0
Wed	26				62	350	220	200	3,548	12,270	0.80		2.0		18,390	
Thu	27										0.80		2.5		18,640	
Fri	28				62	360	230	210	3,683	10,650	0.80		2.5		16,200	
Sat	29										0.80		2.3		9,930	
Sun	30										0.80		2.0		11,940	
Mon	31				64	300	200	200	3,085		0.80		2.0		15,450	
MIN					48	200	160	50	2,064	7,124	0.00	2.0	2.0		720	11.0
MAX					96	630	320	300	4,518	12,270	1.07	3.8	3.0		81,490	28.0
AVG					74	394	238	224	3,261	10,116	0.79	2.8	2.3		11,286	17.3
SUM		-	-	-	-	-	-	-	-	-	-	-	-	-	349,860	-

Hull Wastewater Treatment Plant Operations Data

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
Sat	01			1.59	0.01	1.03	7.00	0.02	0.00	0.01	0.01						
Sun	02			1.61	0.01	1.09	7.00	0.00	0.04	0.02	0.02						
Mon	03			4.41	0.01	1.09	7.10	0.05	0.07	0.05	0.06						
Tue	04	8.0		1.52	0.01	0.96	7.00	0.09	0.94	0.91	0.65						
Wed	05		10	1.19	0.01	0.91	7.00	0.92	0.58	0.59	0.70						
Thu	06			1.18	0.01	0.89	7.00	0.37	0.18	1.03	0.53						
Fri	07			1.12	0.01	0.85	6.90	0.02	0.20	0.09	0.10						
Sat	08			1.21	0.01	0.85	7.00	0.02	0.75	0.41	0.39						
Sun	09			1.68	0.01	0.91	7.10	0.20	0.22	0.07	0.16						
Mon	10			1.41	0.01	0.84	7.20	0.98	0.01	0.01	0.33						
Tue	11	8.1		1.16	0.01	0.78	7.10	1.13	0.68	0.35	0.72						
Wed	12		10	1.07	0.01	0.54	7.00	0.94	0.45	0.67	0.69						
Thu	13			4.13	0.01	0.93	7.10	0.79	0.04	0.03	0.29						
Fri	14			1.22	0.01	0.78	7.00	0.01	0.18	0.22	0.14	6.4					
Sat	15			1.30	0.00	0.83	7.10	0.04	0.29	0.25	0.19						
Sun	16			1.49	0.01	0.94	7.10	0.00	0.04	0.59	0.21						
Mon	17			1.49	0.01	0.94	7.00	0.47	0.18	0.24	0.30	6.4					
Tue	18	3.0		4.84	0.00	1.07	7.00	0.03	0.58	0.47	0.36						
Wed	19		10	1.45	0.01	1.02	7.00	0.23	1.01	0.57	0.60						
Thu	20			1.38	0.01	1.00	7.00	1.09	0.55	0.45	0.70						
Fri	21			1.53	0.00	1.02	6.90	0.01	0.59	0.47	0.36	5.8					
Sat	22			1.75	0.00	1.09	7.00	0.07	0.35	0.56	0.33						
Sun	23			5.31	0.02	1.17	7.00	0.51	0.13	0.36	0.33						
Mon	24			1.46	0.00	0.99	7.30	0.42	0.08	0.09	0.20						
Tue	25	3.0		1.57	0.00	0.96	7.30	0.12	0.01	0.08	0.07	5.3					
Wed	26		10	1.50	0.00	0.90	7.20	0.14	0.10	0.46	0.23						
Thu	27			1.60	0.00	0.90	7.20	0.03	0.08	1.08	0.40						
Fri	28			1.50	0.00	0.90	7.30	0.10	0.05	0.28	0.14	6.1					
Sat	29			1.50	0.00	0.95	7.10	0.09	1.01	0.52	0.54						
Sun	30			1.68	0.00	1.01	7.10	0.07	0.05	0.11	0.08						
Mon	31			1.24	0.00	0.87	7.40	0.85	0.44	0.10	0.46						
MIN		3.0	10		0.00	0.54	6.90	0.00	0.00	0.01	0.01	5.27		-	-	-	-
MAX		8.1	10	5.31		1.17	7.40	1.13	1.01	1.08	0.72	6.42		-	-	-	-
AVG		5.5	10			0.94	7.08	0.32	0.32	0.36	0.33	6.00		-	-	-	-
SUM		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Hull Wastewater Treatment Plant Operations Data

August, 2020

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
Sat	01			80	0		4.6	6.0	22.2			1,749	249	4.0	
Sun	02			146	0		4.6	6.3	22.8			1,749	216	4.0	
Mon	03			6	0		4.7	6.5	23.0			1,747	201	2.0	
Tue	04			64	0		4.7	9.1	22.9			1,741	199	4.0	
Wed	05			124	0		4.6	5.5	22.6	<10		1,696	199	4.8	
Thu	06			157	0		0.5	3.2	22.5			1,696	265	3.2	
Fri	07			84	0		0.5	2.8	22.0			1,696	265	5.0	
Sat	08			65	0		0.5	3.1	22.1			1,696	162	4.0	
Sun	09			15	0		0.5	3.3	23.1			1,696	155	3.0	
Mon	10			59	0		0.5	3.5	22.5			1,696	122	4.0	
Tue	11			563	0		0.2	6.5	23.4			1,696	184	4.0	
Wed	12			58	0		0.3	6.8	24.0	<10		1,691	142	4.0	
Thu	13			620	0		3.0	6.5	24.1			1,691	156	4.0	
Fri	14			137	8,500	4,534	0.3	8.4	23.2			1,691	190	4.0	
Sat	15			99	0		0.3	6.7	22.4			1,691	184	3.8	
Sun	16			58	0		0.3	5.5	22.0			1,684	150	4.0	
Mon	17			83	8,500	4,557	0.3	15.0	22.0			1,684	170	3.4	
Tue	18			111	0		0.3	6.0	21.7			1,684	187	4.6	
Wed	19			81	0		0.3	8.5	22.0	<10		1,684	168	3.4	
Thu	20			323	0		0.3	5.0	21.9			1,684	217	4.6	
Fri	21			161	8,500	4,139	0.3	5.0	22.0			1,684	158	2.6	
Sat	22			131	0		0.3	6.0	22.5			1,684	215	5.0	
Sun	23			37	0		0.0	9.0	22.4			1,684	174	3.0	
Mon	24			48	0		0.3	0.0	23.0			1,684	181	4.0	
Tue	25			130	8,500	3,739	0.3	7.5	22.8			1,684	182	4.0	
Wed	26			176	0		0.3	6.0	21.7	<10		1,684	145	3.6	
Thu	27			812	0		0.3	6.9	21.6			1,684	165	4.4	
Fri	28			127	8,500	4,351	0.3	8.2	21.6			1,684	168	3.6	
Sat	29			157	0		0.3	11.1	22.3			1,684	182	3.4	
Sun	30			14	0		0.3	9.3	22.3			1,684	134	4.0	
Mon	31			13	0		0.3	5.0	21.5			1,684	162	6.0	
MIN		-	-	6	0	3,739	0	0	22	<10	-	1,684	122	2.0	
MAX		-	-	812	8,500	4,557	5	15	24	<10	-	1,749	265	5.0	
AVG		-	-	153	1,371	4,264	1	6	22	<10	-	1,696	182	3.9	
SUM		-	-	4,740	42,500	21,320	-	-	-		-	-	-	-	

Hull WWTF
Monthly Rain, Temperature and Flow
August, 2020

Date	Rainfall	Minimum Air Temp	Maximum Air Temp	Effluent Flow
	Inches	F	F	MGD
08/01/20	0.00	68	81	1.030
08/02/20	0.00	72	80	1.090
08/03/20	0.00	77	89	1.090
08/04/20	0.17	74	79	0.960
08/05/20	0.00	71	87	0.910
08/06/20	0.00	67	80	0.890
08/07/20	0.00	66	71	0.850
08/08/20	0.00	64	77	0.850
08/09/20	0.00	68	77	0.910
08/10/20	0.00	70	89	0.840
08/11/20	0.00	73	89	0.780
08/12/20	0.00	75	86	0.540
08/13/20	0.00	69	80	0.930
08/14/20	0.00	66	76	0.780
08/15/20	0.00	66	68	0.830
08/16/20	0.27	65	68	0.940
08/17/20	0.45	63	71	0.940
08/18/20	0.00	66	81	1.070
08/19/20	0.05	63	75	1.020
08/20/20	0.00	61	77	1.000
08/21/20	0.00	63	85	1.020
08/22/20	0.02	67	71	1.090
08/23/20	0.70	68	78	1.170
08/24/20	0.00	67	85	0.990
08/25/20	0.00	71	86	0.960
08/26/20	0.00	63	75	0.900
08/27/20	0.18	61	67	0.900
08/28/20	0.00	62	78	0.900
08/29/20	0.28	65	74	0.950
08/30/20	0.00	67	77	1.010
08/31/20	0.00	58	71	0.870
Min	0.00	58	67	0.54
Max	0.70	77	89	1.17
Avg	0.07	67	78	0.94
Sum	2.12			29.01

Woodard and Curran
August, 2020
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	%
Sat	01	N-0	72	Sunny	0.000	0.016				0.009		1.100	0.220	80.0
Sun	02	SSW-4	72	Mostly cloudy		0.160								
Mon	03	SW-12	78	Sunny								0.530	0.079	85.1
Tue	04	SSE-3	75	Partly cloudy								0.410	0.023	94.4
Wed	05	SSW-8	72	Sunny								0.620	0.023	96.3
Thu	06	NW-4	68	Partly cloudy								0.970	0.260	73.2
Fri	07	ENE 6	66	Fair								0.950	0.040	95.8
Sat	08	NNE-4	65	Partly cloudy	0.000	0.170				0.001		2.100	0.068	96.8
Sun	09	SW-7	68	Partly cloudy		0.130						0.260	0.007	97.3
Mon	10	SW-6	73	Sunny								0.000	0.210	
Tue	11	SW-7	74	Sunny								3.700	0.240	93.5
Wed	12	NNE-8	81	Sunny								2.300	0.070	97.0
Thu	13	N-6	79	Partly cloudy								2.600	0.061	97.7
Fri	14	NNE-3	66	Sunny								2.400	0.170	92.9
Sat	15	NNE-15	67	Cloudy	0.000	0.044				0.000		0.700	0.009	98.7
Sun	16	NE-11	66	Cloudy								1.800	0.059	96.7
Mon	17	NNE-13	64	Cloudy								1.200	0.073	93.9
Tue	18	WSW-7	67	Partly cloudy								0.780	0.034	95.6
Wed	19	NW-5	63	Sunny								0.054	0.052	3.7
Thu	20	NNW-6	62	Sunny								1.100	0.028	97.5
Fri	21	NNE-7	75	Sunny								0.440	0.021	95.2
Sat	22	N-3	69	Fair	1.000	0.008				0.000		1.100	0.190	82.7
Sun	23	NNE-2	75	Sunny		0.100						0.230	0.100	56.5
Mon	24	SW 2	71	Sunny								0.610	0.010	98.4
Tue	25	SW-6	77	Sunny								0.300	0.029	90.3
Wed	26	NW-6	66	Sunny								0.550	0.009	98.4
Thu	27	WSW-6	63	Mostly cloudy								0.910	0.069	92.4
Fri	28	NNW5	64	Cloudy								1.200	0.170	85.8
Sat	29	SSE-7	69	Cloudy	0.000	0.008				0.000		1.200	0.073	93.9
Sun	30	E-9	70	Clear		0.040						0.230	0.005	97.8
Mon	31	E-6	66	Sunny		1.060						1.100	0.280	74.5
Min.			62		0.000	0.008				0.000		0.000	0.005	3.7
Max.			81		1.000	1.060				0.009		3.700	0.280	98.7
Ave.			70		0.200	0.174				0.002		1.048	0.089	88.0
Target					<.01	<10.0	<10.0	<10.0	<10.0	.050	.050	<10.0	<1.0	95%

Woodard and Curran

August, 2020

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
Sat	01	N-0	72	Sunny	0.003	0.003	0.003	0.006	0.006	0.006	
Sun	02	SSW-4	72	Mostly cloudy							
Mon	03	SW-12	78	Sunny							
Tue	04	SSE-3	75	Partly cloudy							
Wed	05	SSW-8	72	Sunny							
Thu	06	NW-4	68	Partly cloudy							
Fri	07	ENE 6	66	Fair							
Sat	08	NNE-4	65	Partly cloudy		0.002	0.002	0.002	0.002	0.003	0.003
Sun	09	SW-7	68	Partly cloudy							
Mon	10	SW-6	73	Sunny							
Tue	11	SW-7	74	Sunny							
Wed	12	NNE-8	81	Sunny							
Thu	13	N-6	79	Partly cloudy							
Fri	14	NNE-3	66	Sunny							
Sat	15	NNE-15	67	Cloudy	0.000	0.000	0.000	0.001	0.001	0.001	
Sun	16	NE-11	66	Cloudy							
Mon	17	NNE-13	64	Cloudy							
Tue	18	WSW-7	67	Partly cloudy							
Wed	19	NW-5	63	Sunny							
Thu	20	NNW-6	62	Sunny							
Fri	21	NNE-7	75	Sunny							
Sat	22	N-3	69	Fair	0.002	0.002	0.001	0.001	0.001	0.001	
Sun	23	NNE-2	75	Sunny							
Mon	24	SW 2	71	Sunny							
Tue	25	SW-6	77	Sunny							
Wed	26	NW-6	66	Sunny							
Thu	27	WSW-6	63	Mostly cloudy							
Fri	28	NNW5	64	Cloudy							
Sat	29	SSE-7	69	Cloudy	0.002	0.003	0.002	0.002	0.002	0.000	
Sun	30	E-9	70	Clear							
Mon	31	E-6	66	Sunny							
Min.			62		0.000	0.000	0.000	0.001	0.001	0.000	0.003
Max.			81		0.003	0.003	0.003	0.006	0.006	0.006	0.003
Ave.			70		0.002	0.002	0.002	0.002	0.002	0.002	0.003
Target					<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005