COMMITMENT & INTEGRITY
DRIVE RESULTS

1111 Nantasket Ave.
Hull, Massachusetts 02045

T 781.925.0906

WOODARD
&CURRAN

August 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 – July 2020 – Discharge 001-A

Dear Ms. McDonald:

Enclosed please find the completed DMR for the month of July 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 – 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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1111 Nantasket Ave.
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&CURRAN

HULL, MA WATER POLLUTION CONTROL FACILITY
NPDES NO. MA0101231

Hull Water Pollution Control Facility – Staffing – July 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 – July 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) MAJOR
(SUBR E)
F- FINAL
TREATED SANITARY WASTEWATER

OMB No. 2040-0004

MA0101231	001 A
PERMIT NUMBER	**DISCHARGE NUMBER**

MONITORING PERIOD						
	YEAR	**MO**	**DAY**		**YEAR**	**MO**	**DAY**
FROM	20	07	01	**TO**	20	07	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	******	******	******	0.32	******	0.92	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	******	******	******	14	******	50	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-CEN T		ONCE/ MONTH	CALCTD
SOLIDS, SUSPENDED PERCENT REMOVA	SAMPLE MEASUREMENT	******	******	******	92	******	******	%	0	1/30	CA
81011 K 0 0 PERCENTREMOVAL	PERMIT REQUIREMENT	******	******	******	85 MO AVG	******	******	PER-CEN T		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	08	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

) 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	07	01	TO	20	07	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	81	98	LBS/DY	~~10~~ 11	14	20	mg/L	0	1/7 05/30	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	1,846	******	LBS/DY	240	******	******	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	******	7.30	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	185	153	LBS/DY	24	20	45	mg/L	0	1/7 05/30	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	2,258	******	LBS/DY	293	******	******	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	1.51	1.30	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	******	******	****	1.00	******	******	MGD	0	99/99	RC
50050 0 0 See Comments	PERMIT REQUIREMENT	******	******	****	REQ MO AVG	******	******	MGD		CONTIN	RCORDR

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.		TELEPHONE		DATE		
Aram Varjabedian - Project Manager John Struzziery, Director of WW Ops		Aram Varjabedian	781	925-1207	20	08	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

Date

Effluent

Effluent TSS		
Week Start	Week End	Avg
06/28/20	07/04/20	14
07/05/20	07/11/20	14
07/12/20	07/18/20	20
07/19/20	07/25/20	20
	MAX	20

Effluent BOD		
Week Start	Week End	Avg
06/28/20	07/04/20	4
07/05/20	07/11/20	4
07/12/20	07/18/20	14
07/19/20	07/25/20	8
	MAX	14

Data for dates in current month

Date	TSS mg/l	TSS Lbs	BOD mg/l	BOD LBS
07/01/20				
07/02/20				
07/03/20				
07/04/20				
07/05/20				
07/06/20				
07/07/20	14	124	4	37
07/08/20				
07/09/20				
07/10/20				
07/11/20				
07/12/20				
07/13/20				
07/14/20	20	143	14	98
07/15/20				
07/16/20				
07/17/20				
07/18/20				
07/19/20				
07/20/20				
07/21/20	20	153	8	61
07/22/20				
07/23/20				
07/24/20				
07/25/20				
07/26/20				
07/27/20				
07/28/20	45	357	20	158
07/29/20	19	147	7	50
07/30/20				
07/31/20				
MAX	45	357	20	158
AVG	24	185	11	81

Sunday Thru Saturday (avg placed on Saturday date)

Date	TSS mg/l	TSS LBS	BOD mg/l	BOD LBS
07/01/20				
07/02/20				
07/03/20				
07/04/20	14	131	4	35
07/05/20				
07/06/20				
07/07/20				
07/08/20				
07/09/20				
07/10/20				
07/11/20	14	124	4	37
07/12/20				
07/13/20				
07/14/20				
07/15/20				
07/16/20				
07/17/20				
07/18/20	20	143	14	98
07/19/20				
07/20/20				
07/21/20				
07/22/20				
07/23/20				
07/24/20				
07/25/20	20	153	8	61
07/26/20				
07/27/20				
07/28/20				
07/29/20				
07/30/20				
07/31/20				
MAX	20	153	14	98
Avg	17	138	8	58

Influent TSS		
Week Start	**Week End**	**Avg**
06/28/20	07/04/20	333
07/05/20	07/11/20	230
07/12/20	07/18/20	536
07/19/20	07/25/20	189
	Max	**536**

Influent BOD		
Week Start	**Week End**	**Avg**
06/28/20	07/04/20	220
07/05/20	07/11/20	160
07/12/20	07/18/20	430
07/19/20	07/25/20	180
	Max	430

TSS and BOD Loadings Check Sheet

Influent

Data for dates in current month

Date	TSS mg/l	TSS Lbs	BOD mg/l	BOD LBS
07/01/20				
07/02/20				
07/03/20				
07/04/20				
07/05/20				
07/06/20				
07/07/20	230	2,033	160	1,414
07/08/20				
07/09/20				
07/10/20				
07/11/20				
07/12/20				
07/13/20				
07/14/20	536	3,844	430	3,084
07/15/20				
07/16/20				
07/17/20				
07/18/20				
07/19/20				
07/20/20				
07/21/20	189	1,450	180	1,381
07/22/20				
07/23/20				
07/24/20				
07/25/20				
07/26/20				
07/27/20				
07/28/20	215	1,703	190	1,505
07/29/20				
07/30/20				
07/31/20				
MAX	**536**	**3,844**	**430**	**3,084**
AVG	**293**	**2,258**	**240**	**1,846**

Sunday Thru Saturday (avg placed on Saturday date)

Date	TSS mg/l	TSS Lbs	BOD mg/l	BOD LBS
07/01/20				
07/02/20				
07/03/20				
07/04/20	333.00		220.00	
07/05/20				
07/06/20				
07/07/20				
07/08/20				
07/09/20				
07/10/20				
07/11/20	230.00		160.00	
07/12/20				
07/13/20				
07/14/20				
07/15/20				
07/16/20				
07/17/20				
07/18/20	536.00		430.00	
07/19/20				
07/20/20				
07/21/20				
07/22/20				
07/23/20				
07/24/20				
07/25/20	189.00		180.00	
07/26/20				
07/27/20				
07/28/20				
07/29/20				
07/30/20				
07/31/20				
MAX	**536**		**430**	
AVG	**322**		**248**	

WOODARD & CURRAN

Hull Wastewater Treatment Plant Operations Data

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

Hull Wastewater Treatment Plant Operations Data

July, 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
Wed	01	Off	Off	On	On	0.04	64	71	30	0.7			1.35	0.39	2.34	
Thu	02	Off	Off	On	On	0.00	70	85	50	0.7			1.38	0.44	2.35	
Fri	03	Off	Off	On	Off	0.00	63	76	80	0.7			1.45	0.44	2.35	
Sat	04	Off	Off	On	Off	0.00	62	72	20	0.7			1.45	0.42	2.38	
Sun	05	Off	Off	On	On	0.09	66	70	75	0.7			1.49	0.47	2.33	
Mon	06	Off	Off	On	On	0.00	63	70	40	0.7			1.32	0.49	2.48	
Tue	07	Off	Off	On	Off	0.00	62	76	40	0.7	230	160	1.11	0.47	1.71	
Wed	08	Off	Off	On	Off	0.02	67	82	40	0.7			1.13	0.47	1.64	
Thu	09	Off	Off	On	On	0.00	72	85	25	0.7			1.03	0.46	1.73	
Fri	10	Off	Off	On	Off	0.01	70	74	20	0.7			0.98	0.43	1.66	
Sat	11	Off	Off	On	Off	0.02	71	85	30	0.7			1.03	0.39	1.68	
Sun	12	Off	Off	On	Off	0.00	72	88	50	0.7			1.63	0.37	1.63	
Mon	13	Off	Off	On	On	0.02	69	80	50	0.7			1.04	0.31	3.87	
Tue	14	Off	Off	On	On	0.27	66	76	40	0.7	536	430	0.94	0.32	1.49	
Wed	15	Off	Off	On	Off	0.02	62	70	50	0.7			0.92	0.36	0.99	
Thu	16	Off	Off	On	On	0.00	60	71	20	0.7			0.88	0.31	1.52	
Fri	17	Off	Off	On	On	0.16	59	73	45	0.7			0.97	0.30	0.80	
Sat	18	Off	Off	On	Off	0.00	68	88	20	0.7			1.03	0.31	1.60	
Sun	19	Off	Off	On	On	0.00	70	90	60	0.7			0.42	0.00	1.64	
Mon	20	Off	Off	On	Off	0.00	74	89	50	0.7			1.08	0.36	1.46	
Tue	21	Off	Off	On	On	0.00	73	85	25	0.7	189	180	0.98	0.36	1.66	
Wed	22	Off	Off	On	On	0.43	69	76	25	0.7			1.13	0.41	2.19	
Thu	23	Off	Off	On	On	0.46	66	85	50	0.7			1.22	0.38	2.23	
Fri	24	Off	Off	On	Off	0.00	69	78	30	0.7			1.18	0.45	1.64	
Sat	25	Off	Off	On	Off	0.00	68	85	40	0.7			1.11	0.42	1.66	
Sun	26	Off	Off	On	Off	0.00	70	88	50	0.7			1.05	0.36	1.69	
Mon	27	Off	Off	On	Off	0.00	76	91	45	0.7			1.55	0.33	1.55	
Tue	28	Off	Off	On	Off	0.00	80	96	45	0.7	215	190	0.98	0.45	1.54	
Wed	29	Off	Off	On	Off	0.00	73	94	30	0.7			0.96	0.41	3.90	
Thu	30	Off	Off	On	Off	0.00	74	87	45	0.7			0.96	0.44	2.84	
Fri	31	Off	Off	On	Off	0.00	74	80	50	0.70			0.99	0.45	1.59	
MIN		-	-	-	-	0.00	59	70	20	1	189	160	0.42	0.00		
MAX		-	-	-	-	0.46	80	96	80	1	536	430	1.63		3.90	
AVG		-	-	-	-	0.05	68	81	41	1	293	240	1.12			
SUM		-	-	-	-	1.54	-	-	1,270	22			-	-	-	-

Hull Wastewater Treatment Plant Operations Data

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				60	190	160	160	2,647		0.88	1.8			19,160	
Thu	02										0.88	1.5			17,350	
Fri	03										0.88	2.0			17,830	
Sat	04										0.79	1.8			13,190	
Sun	05										0.79	2.5			11,100	
Mon	06										0.83	2.5			20,570	
Tue	07				66	300	200	200	3,021		0.83	2.5			12,530	14.0
Wed	08				65	360	200	200	3,054	25,430	0.79	2.8			15,460	
Thu	09										0.88	2.5			14,370	
Fri	10										0.92	2.5			9,740	
Sat	11										0.92	4.0			7,540	
Sun	12				106	700	325	325	3,066		0.92	5.0			8,800	
Mon	13										0.92	5.0			15,910	
Tue	14										0.89	5.0			20,110	20.0
Wed	15				97	620	300	250	3,093		0.92	6.0			20,920	
Thu	16				136	775	375	290	2,753		0.92	5.0			19,880	
Fri	17										0.92	5.3			15,670	
Sat	18										0.92	6.0			16,600	
Sun	19										0.92	5.5			21,460	
Mon	20										0.90	6.0			23,700	
Tue	21				134	550	290	280	2,158		0.92	5.5			24,310	20.0
Wed	22				102	400	200	175	1,956	11,874	0.92	5.8			20,240	
Thu	23				65	300	140	140	2,148		0.90	3.0			11,740	
Fri	24				61	210	100	100	1,622		0.90	6.5			1,480	
Sat	25				67	290	160	0			0.90	5.5			2,890	
Sun	26					160	150	0	1,722		0.90	5.0			1,960	
Mon	27					200	120	120			0.94	4.0			0	
Tue	28				73	150	130	50	1,768		0.99	2.0			0	45.0
Wed	29				63	150	140	120	2,219	12,320	0.99	2.5			0	19.0
Thu	30				84	270	190	190	2,238		0.99	3.0			670	
Fri	31				90	260	200	180			0.99	2.0			70	
MIN					60	150	100	0	1,622	11,874	0.79	1.5			0	14.0
MAX					136	775	375	325	3,093	25,430	0.99	6.5			24,310	45.0
AVG					85	346	199	164	2,390	16,541	0.90	3.9			12,427	23.6
SUM		-	-	-	-	-	-	-	-	-	-	-	-	-	385,250	-

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
Wed	01		10	1.70	0.00	1.10	7.20	0.04	0.02	0.98	0.35						
Thu	02			1.92	0.00	1.12	7.20	0.04	0.84	0.79	0.56						
Fri	03			1.86	0.00	1.20	7.20	0.25	0.27	0.36	0.29	8.0					
Sat	04			2.08	0.00	1.30	7.20	0.02	0.05	0.04	0.04						
Sun	05			1.98	0.00	1.30	7.20	0.01	0.44	0.32	0.26						
Mon	06			2.04	0.00	1.30	7.30	0.54	0.65	0.73	0.64	7.2					
Tue	07	4.2		1.30	0.00	1.06	7.20	0.04	0.94	0.00	0.33						
Wed	08		10	1.35	0.00	0.95	7.20	1.04	0.85	0.18	0.69						
Thu	09			1.36	0.00	0.97	7.30	0.94	0.32	0.27	0.51						
Fri	10			1.34	0.00	0.92	7.30	0.91	0.80	0.35	0.69	7.7					
Sat	11			1.36	0.00	0.92	7.20	0.04	0.00	0.05	0.03						
Sun	12			1.66	0.00	0.92	7.20	0.03	0.01	0.00	0.01						
Mon	13			4.45	0.00	0.92	7.20	0.03	0.57	0.17	0.26						
Tue	14	13.6		1.36	0.00	0.86	7.20	0.96	0.33	0.26	0.52	6.5					
Wed	15		10	1.31	0.00	0.82	7.10	0.08	0.97	0.49	0.51						
Thu	16			1.33	0.00	0.82	7.20	0.90	0.22	0.04	0.39						
Fri	17			1.35	0.00	0.85	7.20	0.04	0.00	0.00	0.01	6.4					
Sat	18			1.36	0.00	0.89	7.10	0.51	0.40	0.32	0.41						
Sun	19			1.40	0.00	0.93	7.10	0.17	0.56	0.12	0.28						
Mon	20			1.34	0.00	0.90	7.10	0.80	0.86	0.41	0.69	6.2					
Tue	21	8.0		1.37	0.00	0.92	7.10	0.03	0.41	0.25	0.23						
Wed	22		10	2.11	0.00	1.01	7.20	0.95	0.66	0.24	0.62	7.2					
Thu	23			4.08	0.00	1.13	7.10	0.20	0.00	0.30	0.17						
Fri	24			1.52	0.00	1.05	7.30	1.05	0.86	0.84	0.92	4.9					
Sat	25			1.52	0.00	1.01	7.20	0.05	0.03	0.00	0.03						
Sun	26			1.57	0.00	1.05	7.10	0.48	0.23	0.12	0.28						
Mon	27			4.52	0.00	1.00	7.20	0.00	0.01	0.01	0.01						
Tue	28	20.0		1.55	0.00	0.95	7.20	0.13	0.00	0.01	0.05						
Wed	29	6.5	10	3.82	0.00	0.93	7.00	0.06	0.06	0.18	0.10						
Thu	30			6.03	0.00	1.00	7.00	0.00	0.02	0.00	0.01						
Fri	31			1.56	0.00	0.96	7.10	0.02	0.01	0.02	0.02						
MIN		4.2	10		0.00	0.82	7.00	0.00	0.00	0.00	0.01	4.90		-	-	-	-
MAX		20.0	10	6.03		1.30	7.30	1.05	0.97	0.98	0.92	8.00		-	-	-	-
AVG		10.5	10			1.00	7.17	0.33	0.37	0.25	0.32	6.76		-	-	-	-
SUM		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Hull Wastewater Treatment Plant Operations Data

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			73	0		0.0	8.9	19.9	10		1,766	124	4.0	
Thu	02			110	0		0.0	5.6	19.9			1,766	135	3.0	
Fri	03			244	9,000	6,006	0.0	7.9	20.3			1,766	161	5.0	
Sat	04			90	0		0.0	10.9	19.4			1,766	133	3.0	
Sun	05			16	0		0.0	9.5	20.9			1,766	160	4.0	
Mon	06			73	9,000	5,374	0.0	3.7	20.2			1,766	157	3.0	
Tue	07			98	0		0.0	4.1	20.2			1,752	126	2.8	
Wed	08			140	0		0.0	6.6	20.8	10		1,752	124	5.6	
Thu	09			110	0		0.0	6.4	22.0			1,752	124	1.6	
Fri	10			0	9,000	5,762	0.0	7.0	21.5			1,752	107	2.0	
Sat	11			237	0		0.0	8.4	21.7			1,752	112	4.0	
Sun	12			73	0		0.0	9.9	22.1			1,752	118	5.0	
Mon	13			73	0		0.0	7.8	21.9			1,752	106	3.0	
Tue	14			45	9,000	4,841	0.0	5.5	21.6			1,752	102	2.8	
Wed	15			239	0		0.0	6.6	20.7	10		1,752	134	2.2	
Thu	16			201	0		0.0	5.0	20.5			1,752	169	4.0	
Fri	17			223	9,000	4,774	0.0	6.9	20.0			1,747	124	3.0	
Sat	18			110	0		0.0	5.4	21.4			1,747	197	3.0	
Sun	19			92	0		0.0	3.1	22.8			1,747	151	3.0	
Mon	20			222	8,500	4,366	0.0	6.7	22.6			1,747	145	3.0	
Tue	21			181	0		0.0	7.9	21.8			1,747	179	4.0	
Wed	22			64	9,000	5,397	4.7	7.6	21.3	10		1,747	167	4.0	
Thu	23			171	0		4.7	6.9	21.8			1,747	199	2.6	
Fri	24			154	9,000	3,685	4.7	2.7	21.6			1,747	242	1.4	
Sat	25			90	0		4.6	3.1	21.4			1,747	176	3.0	
Sun	26			43	0		4.6	3.8	22.7			1,747	205	2.0	
Mon	27			65	0		4.7	3.8	22.5			1,747	191	3.0	
Tue	28			115	0		4.7	4.3	22.3			1,747	196	2.6	
Wed	29			89	0		4.7	4.4	22.6	50		1,747	219	2.4	
Thu	30			154	0		4.7	4.3	22.4			1,747	266	4.0	
Fri	31			145	0		4.7	4.4	21.7			1,747	250	4.0	
MIN		-	-	0	0	3,685	0	3	19	10	-	1,747	102	1.4	
MAX		-	-	244	9,000	6,006	5	11	23	50	-	1,766	266	5.6	
AVG		-	-	121	2,306	5,026	2	6	21	18	-	1,752	161	3.2	
SUM		-	-	3,741	71,500	40,205	-	-	-		-	-	-	-	

Hull WWTF
Monthly Rain, Temperature and Flow
July, 2020

Date	Rainfall	Minimum Air Temp	Maximum Air Temp	Effluent Flow
	Inches	F	F	MGD
07/01/20	0.04	64	71	1.100
07/02/20	0.00	70	85	1.120
07/03/20	0.00	63	76	1.200
07/04/20	0.00	62	72	1.300
07/05/20	0.09	66	70	1.300
07/06/20	0.00	63	70	1.300
07/07/20	0.00	62	76	1.060
07/08/20	0.02	67	82	0.950
07/09/20	0.00	72	85	0.970
07/10/20	0.01	70	74	0.920
07/11/20	0.02	71	85	0.920
07/12/20	0.00	72	88	0.920
07/13/20	0.02	69	80	0.920
07/14/20	0.27	66	76	0.860
07/15/20	0.02	62	70	0.820
07/16/20	0.00	60	71	0.820
07/17/20	0.16	59	73	0.850
07/18/20	0.00	68	88	0.890
07/19/20	0.00	70	90	0.930
07/20/20	0.00	74	89	0.900
07/21/20	0.00	73	85	0.920
07/22/20	0.43	69	76	1.010
07/23/20	0.46	66	85	1.130
07/24/20	0.00	69	78	1.050
07/25/20	0.00	68	85	1.010
07/26/20	0.00	70	88	1.050
07/27/20	0.00	76	91	1.000
07/28/20	0.00	80	96	0.950
07/29/20	0.00	73	94	0.930
07/30/20	0.00	74	87	1.000
07/31/20	0.00	74	80	0.960
Min	0.00	59	70	0.82
Max	0.46	80	96	1.30
Avg	0.05	68	81	1.00
Sum	1.54			31.06

Woodard and Curran
July, 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	%
Wed	01	WSW-4	65	Cloudy								0.640	0.123	80.8
Thu	02	W-3	65	Fog		0.070						0.200	0.005	97.5
Fri	03	NNE-15	70	Partly cloudy		0.100						0.160	0.005	96.9
Sat	04	NNE-9	62	Cpoudy	0.000	0.012				0.007		1.200	0.010	99.2
Sun	05	SSW-8	67	Partly cloudy		0.190						0.230	0.005	97.8
Mon	06	N-3	66	Cloudy								0.054	0.003	94.4
Tue	07	SSE-5	64	Cloudy								0.260	0.035	86.5
Wed	08	SSW-8	69	Cloudy								0.150	0.032	78.7
Thu	09	SW-6	74	Partly cloudy								1.400	0.130	90.7
Fri	10	S-4	71	Cloudy								0.180	0.023	87.2
Sat	11	S-12	74	Partly cloudy	0.000	0.026				0.000		0.640	0.059	90.8
Sun	12	SW-10	74	Partly cloudy		0.130						0.260	0.007	97.3
Mon	13	WSW-6	73	Cloudy		0.160						1.300	0.380	70.8
Tue	14	WNW-4	67	Partly Cloudy								0.270	0.015	94.4
Wed	15	NE-12	64	Cloudy								0.300	0.003	99.0
Thu	16	ENE-3	62	Sunny								1.700	0.036	97.9
Fri	17	SSE 4	60	Showers								1.400	0.073	94.8
Sat	18	W-4	69	Mostly cloudy	0.000	0.290				0.003		0.660	0.200	69.7
Sun	19	SW-8	79	Sunny		0.190								
Mon	20	SW-11	75	Cloudy								1.300	0.061	95.3
Tue	21	WNW-8	73	Sunny								0.730	0.220	69.9
Wed	22	NNE-7	70	Cloudy								0.150	0.013	91.3
Thu	23	WSW-7	76	Mostly cloudy								0.260	0.026	90.0
Fri	24	N-8	69	Partly Sunny								0.410	0.016	96.1
Sat	25	WNW-3	71	Sunny	0.000	0.029				0.003		0.700	0.082	88.3
Sun	26	ESE-9	85	Sunny		0.100						0.200	0.005	97.5
Mon	27	9.6 E SE	85	Sunny								0.450	0.032	92.9
Tue	28	N NE 5	88	Sunny								0.790	0.260	67.1
Wed	29	NNW-4	78	Partly cloudy								1.200	0.067	94.4
Thu	30	SW 6	75	Sunny								0.550	0.130	76.4
Fri	31	E-5	78	Partly cloudy										
Min.			60		0.000	0.012				0.000		0.054	0.003	67.1
Max.			88		0.000	0.290				0.007		1.700	0.380	99.2
Ave.			72		0.000	0.118				0.003		0.612	0.071	89.1
Target					<.01	<10.0	<10.0	<10.0	<10.0	.050	.050	<10.0	<1.0	95%

Woodard and Curran

July, 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
Wed	01	WSW-4	65	Cloudy							
Thu	02	W-3	65	Fog							
Fri	03	NNE-15	70	Partly cloudy							
Sat	04	NNE-9	62	Cpoudy	0.002	0.002	0.000	0.000	0.000	0.003	
Sun	05	SSW-8	67	Partly cloudy							
Mon	06	N-3	66	Cloudy							
Tue	07	SSE-5	64	Cloudy							
Wed	08	SSW-8	69	Cloudy							
Thu	09	SW-6	74	Partly cloudy							
Fri	10	S-4	71	Cloudy							
Sat	11	S-12	74	Partly cloudy	0.003	0.003		0.002	0.002	0.002	
Sun	12	SW-10	74	Partly cloudy							
Mon	13	WSW-6	73	Cloudy							
Tue	14	WNW-4	67	Partly Cloudy							
Wed	15	NE-12	64	Cloudy							
Thu	16	ENE-3	62	Sunny							
Fri	17	SSE 4	60	Showers							
Sat	18	W-4	69	Mostly cloudy	0.006	0.006	0.006			0.003	0.003
Sun	19	SW-8	79	Sunny							
Mon	20	SW-11	75	Cloudy							
Tue	21	WNW-8	73	Sunny							
Wed	22	NNE-7	70	Cloudy							
Thu	23	WSW-7	76	Mostly cloudy							
Fri	24	N-8	69	Partly Sunny							
Sat	25	WNW-3	71	Sunny	0.003	0.003	0.003			0.006	
Sun	26	ESE-9	85	Sunny							
Mon	27	9.6 E SE	85	Sunny							
Tue	28	N NE 5	88	Sunny							
Wed	29	NNW-4	78	Partly cloudy							
Thu	30	SW 6	75	Sunny							
Fri	31	E-5	78	Partly cloudy							
Min.			60		0.002	0.002	0.000	0.000	0.000	0.002	0.003
Max.			88		0.006	0.006	0.006	0.002	0.002	0.006	0.003
Ave.			72		0.004	0.004	0.003	0.001	0.001	0.004	0.003
Target					<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005