COMMITMENT & INTEGRITY
DRIVE RESULTS

1111 Nantasket Ave.
Hull, Massachusetts 02045

T 781.925.0906

WOODARD
&CURRAN

February 11, 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 – January 2020 – Discharge 001-A

Dear Ms. McDonald:

Enclosed please find the completed DMR for the month of January 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

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 – January 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 **Passed MA Gr4 exam on 12/26/19	MA Grade 4M
Operations/Maintenance Tech 1 – Ryan Holman **Passed MA Gr4 exam on 01/27/20	MA Grade 4M

Supplemental O&M Personnel supporting/assisting the Hull facility

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
Richard Gould – Part-time Operator	MA Grade 5C
Robert Scott – Area Manager	MA Grade 6C

Hull Water Pollution Control Facility – Schedule – January 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	6C	**						

- 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 usually part of the Sunday rotation, and also if licensed operations coverage is needed during the week.
- [***] If Sunday coverage is by Sr. O&M 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	01	01	TO	20	01	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	36	61	LBS/DY	3	3	3	mg/L	0	1/7	24
00310 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	768 MO AVG	WKLY AVG	LBS/DY	MO AVG	45 WKLY AVG	DAILY MX	mg/L		WEEKLY	COMP 24
BOD, 5-DAY (20 DEG. C)	SAMPLE MEASUREMENT	1,377	******	LBS/DY	120	******	******	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	******	******	****	6.50	******	7.50	SU	0	01/01	GR
00400 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	******	******	****	MINIMUM	******	MAXIMUM	SU		WEEKLY	GRAB
SOLIDS, TOTAL SUSPENDED	SAMPLE MEASUREMENT	110	163	LBS/DY	10	13	13	mg/L	0	1/7	24
00530 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	768 MO AVG	1152 WKLY AVG	LBS/DY	MO AVG	45 WKLY AVG	DAILY MX	mg/L		WEEKLY	COMP 24
SOLIDS, TOTAL SUSPENDED	SAMPLE MEASUREMENT	3,691	******	LBS/DY	319	******	******	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	1.63	2.77	MGD	******	******	******	****	0	99/99	RC
50050 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	12 MO AVG	DAILY MX	MGD	******	******	******	****		CONTINUOUS	RCORDR
FLOW, IN CONDUIT OR THRU TREATMENT PLANT	SAMPLE MEASUREMENT	******	******	****	1.49	******	******	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	20	02	11
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

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	01	01	TO	20	01	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	******	******	******	0.12	******	0.47	mg/L	0	03/01	GR
50060 1 0 EFFLUENT GROSS	PERMIT REQUIREMENT	******	******	******	MO AVG	******	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	******	******	******	98	******	******	%	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	******	******	******	97	******	******	%	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	02	11
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
12/29/19	01/04/20	8
01/05/20	01/11/20	8
01/12/20	01/18/20	7
01/19/20	01/25/20	13
	MAX	13

Effluent BOD		
Week Start	Week End	Avg
12/29/19	01/04/20	3
01/05/20	01/11/20	3
01/12/20	01/18/20	3
01/19/20	01/25/20	3
	MAX	3

Data for dates in current month

Date	TSS mg/l	TSS Lbs	BOD mg/l	BOD LBS
01/01/20				
01/02/20				
01/03/20				
01/04/20				
01/05/20				
01/06/20				
01/07/20	8	109	3	41
01/08/20				
01/09/20				
01/10/20				
01/11/20				
01/12/20				
01/13/20				
01/14/20	7	83	3	36
01/15/20				
01/16/20				
01/17/20				
01/18/20				
01/19/20				
01/20/20				
01/21/20	13	131	3	30
01/22/20				
01/23/20				
01/24/20				
01/25/20				
01/26/20				
01/27/20				
01/28/20	10	118	3	36
01/29/20				
01/30/20				
01/31/20				
MAX	13	131	3	41
AVG	10	110	3	36

Sunday Thru Saturday (avg placed on Saturday date)

Date	TSS mg/l	TSS LBS	BOD mg/l	BOD LBS
01/01/20				
01/02/20				
01/03/20				
01/04/20	8	163	3	61
01/05/20				
01/06/20				
01/07/20				
01/08/20				
01/09/20				
01/10/20				
01/11/20	8	109	3	41
01/12/20				
01/13/20				
01/14/20				
01/15/20				
01/16/20				
01/17/20				
01/18/20	7	83	3	36
01/19/20				
01/20/20				
01/21/20				
01/22/20				
01/23/20				
01/24/20				
01/25/20	13	131	3	30
01/26/20				
01/27/20				
01/28/20				
01/29/20				
01/30/20				
01/31/20				
MAX	13	163	3	61
Avg	9	122	3	42

Influent TSS		
Week Start	**Week End**	**Avg**
12/29/19	01/04/20	188
01/05/20	01/11/20	341
01/12/20	01/18/20	230
01/19/20	01/25/20	526
	Max	**526**

Influent BOD		
Week Start	**Week End**	**Avg**
12/29/19	01/04/20	99
01/05/20	01/11/20	110
01/12/20	01/18/20	60
01/19/20	01/25/20	210
	Max	210

TSS and BOD Loadings Check Sheet

Influent

Data for dates in current month

Date	TSS mg/l	TSS Lbs	BOD mg/l	BOD LBS
01/01/20				
01/02/20				
01/03/20				
01/04/20				
01/05/20				
01/06/20				
01/07/20	341	4,636	110	1,495
01/08/20				
01/09/20				
01/10/20				
01/11/20				
01/12/20				
01/13/20				
01/14/20	230	2,724	60	711
01/15/20				
01/16/20				
01/17/20				
01/18/20				
01/19/20				
01/20/20				
01/21/20	526	5,308	210	2,119
01/22/20				
01/23/20				
01/24/20				
01/25/20				
01/26/20				
01/27/20				
01/28/20	177	2,096	100	1,184
01/29/20				
01/30/20				
01/31/20				
MAX	**526**	**5,308**	**210**	**2,119**
AVG	**319**	**3,691**	**120**	**1,377**

Sunday Thru Saturday (avg placed on Saturday date)

Date	TSS mg/l	TSS Lbs	BOD mg/l	BOD LBS
01/01/20				
01/02/20				
01/03/20				
01/04/20	188.00		99.00	
01/05/20				
01/06/20				
01/07/20				
01/08/20				
01/09/20				
01/10/20				
01/11/20	341.00		110.00	
01/12/20				
01/13/20				
01/14/20				
01/15/20				
01/16/20				
01/17/20				
01/18/20	230.00		60.00	
01/19/20				
01/20/20				
01/21/20				
01/22/20				
01/23/20				
01/24/20				
01/25/20	526.00		210.00	
01/26/20				
01/27/20				
01/28/20				
01/29/20				
01/30/20				
01/31/20				
MAX	**526**		**210**	
AVG	**321**		**120**	

Hull Wastewater Treatment Plant Operations Data

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

Hull Wastewater Treatment Plant Operations Data

January, 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	Off	Off	0.00	35	39	20	0.7			3.03	2.29	3.47	
Thu	02	Off	Off	Off	Off	0.00	33	46	30	0.7			2.50	2.10	3.05	
Fri	03	Off	Off	Off	Off	0.00	42	48	25	0.7			2.29	1.76	2.66	
Sat	04	Off	Off	Off	Off	0.38	38	45	30	0.7			2.14	1.37	2.63	
Sun	05	Off	Off	Off	Off	0.00	31	38	30	0.7			2.30	1.66	2.83	
Mon	06	Off	Off	Off	Off	0.04	26	36	40	0.7			1.90	1.45	2.92	
Tue	07	Off	Off	Off	Off	0.04	33	40	30	0.7	341	110	1.90	1.08	5.95	
Wed	08	Off	Off	Off	Off	0.05	29	41	30	0.7			1.85	1.23	3.13	
Thu	09	Off	Off	Off	Off	0.00	22	30	25	0.7			1.66	1.30	2.62	
Fri	10	Off	Off	Off	Off	0.00	27	50	30	0.7			1.64	1.21	2.28	
Sat	11	Off	Off	Off	Off	0.00	47	64	35	0.7			1.66	1.12	2.40	
Sun	12	Off	Off	Off	Off	0.07	39	67	30	0.7			1.56	1.03	2.96	
Mon	13	Off	Off	Off	Off	0.07	35	41	40	0.7			1.52	0.92	3.05	
Tue	14	Off	Off	Off	Off	0.04	35	40	30	0.7	230	60	1.52	0.96	3.04	
Wed	15	Off	Off	Off	Off	0.00	37	47	40	0.7			1.48	0.60	2.38	
Thu	16	Off	Off	Off	Off	0.08	29	43	50	0.7			1.55	0.75	2.49	
Fri	17	Off	Off	Off	Off	0.00	14	29	30	0.7			1.63	1.18	2.12	
Sat	18	Off	Off	Off	Off	0.01	14	33	35	0.7			1.45	0.98	1.85	
Sun	19	Off	Off	Off	Off	0.33	0	42	35	0.7			1.73	1.11	2.33	
Mon	20	Off	Off	Off	Off	0.00	18	27	50	0.7			1.49	0.65	2.91	
Tue	21	Off	Off	Off	Off	0.00	18	25	60	0.7	526	210	1.32	0.64	2.76	
Wed	22	Off	Off	Off	Off	0.00	20	35	40	0.7			1.28	0.66	2.46	
Thu	23	Off	Off	Off	Off	0.00	27	47	40	0.7			1.27	0.81	2.84	
Fri	24	Off	Off	Off	Off	0.00	33	44	35	0.7			1.24	0.74	2.19	
Sat	25	Off	Off	Off	Off	0.66	40	50	25	0.7			1.40	0.68	2.95	
Sun	26	Off	Off	Off	Off	0.00	41	50	50	0.7			1.93	0.63	2.56	
Mon	27	Off	Off	Off	Off	0.00	36	44	50	0.7			1.80	1.16	2.30	
Tue	28	Off	Off	Off	Off	0.00	34	40	30	0.7	177	100	1.71	1.23	2.56	
Wed	29	Off	Off	Off	Off	0.00	28	40	35	0.7			1.59	0.90	2.24	
Thu	30	Off	Off	Off	Off	0.00	23	33	30	0.7			1.49	0.78	2.98	
Fri	31	Off	Off	Off	Off	0.00	27	44	35	0.70			1.28	0.94	2.20	
MIN		-	-	-	-	0.00	0	25	20	1	177	60	1.24	0.60		
MAX		-	-	-	-	0.66	47	67	60	1	526	210	3.03		5.95	
AVG		-	-	-	-	0.06	29	42	35	1	319	120	1.71			
SUM		-	-	-	-	1.77	-	-	1,095	22			-	-	-	-

Hull Wastewater Treatment Plant Operations Data

January, 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
Wed	01			1.0							0.93	2.0	2.5		11,820	
Thu	02			1.0	71	330	190	180	2,660		0.93	2.0	2.8		11,680	
Fri	03			0.8							0.93	3.0	2.0		11,750	
Sat	04			1.0							0.93	3.0	2.0		11,590	
Sun	05			1.3	72	380	200	190	2,782		0.88	1.5	2.0		11,750	
Mon	06			1.5							0.93	1.5	1.0		11,290	
Tue	07			1.0							0.98	2.0	2.3		10,680	8.0
Wed	08			0.3	80	400	250	220	3,110		1.01	2.0	2.8		11,100	
Thu	09			0.3							0.90	2.3	1.5		11,510	
Fri	10			0.5	78	480	260	240	3,332		0.88	2.0	2.0		11,520	
Sat	11			0.3							0.88	2.0	2.0		11,370	
Sun	12			0.5	77	570	260	250	3,382		0.90	1.3	1.5		12,530	
Mon	13			0.3							0.87	1.8	2.0		13,740	
Tue	14			1.3	76	600	290	250	3,779		0.85	2.0	1.3		13,260	7.0
Wed	15			1.0	78	550	270	250	3,455	11,252	0.82	1.5	1.5		13,520	
Thu	16			0.3	79	500	260	240	3,272		0.86	2.0	2.0		13,690	
Fri	17			0.3							0.92	2.0	1.5		12,870	
Sat	18			0.3							0.84	2.0	2.0		12,790	
Sun	19			1.0							0.84	1.5	1.5		13,200	
Mon	20			1.0	77	460	230	200	2,990		0.86	1.0	1.3		13,440	
Tue	21			0.3							0.93	2.3	2.5		12,820	13.0
Wed	22			0.3	78	440	230	200	2,949	10,940	0.93	1.0	1.0		13,040	
Thu	23			0.3							1.06	2.3	2.5		12,000	
Fri	24			1.5	89	750	350	300	3,904		1.06	1.5	1.5		12,020	
Sat	25			1.3							1.06	2.3	1.8		11,640	
Sun	26			0.5							1.06	2.3	1.8		11,640	
Mon	27			0.5							1.02	2.0	1.5		11,770	
Tue	28			0.0	83	420	250	225	3,012		1.02	2.0	2.5		11,480	10.0
Wed	29			1.0	93	770	360	300	3,850	6,822	1.06	2.3	2.5		11,810	
Thu	30			0.8							1.10	1.8	2.0		11,830	
Fri	31			1.5	98	810	380	300	3,857		1.21	3.0	2.0		11,850	
MIN				0.0	71	330	190	180	2,660	6,822	0.82	1.0	1.0		10,680	7.0
MAX				1.5	98	810	380	300	3,904	11,252	1.21	3.0	2.8		13,740	13.0
AVG				0.7	81	533	270	239	3,310	9,671	0.95	2.0	1.9		12,161	9.5
SUM		-	-	-	-	-	-	-	-	-	-	-	-	-	377,000	-

Hull Wastewater Treatment Plant Operations Data

January, 2020

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			3.53	1.66	2.77	6.70	0.35	0.29	0.25	0.30		6.5				
Thu	02			4.40	0.86	2.12	6.80	0.27	0.36	0.77	0.47	5.6	5.5				
Fri	03			4.50	0.85	1.88	6.70	0.09	0.17	0.39	0.22		6.5				
Sat	04			4.61	0.84	1.80	6.70	0.02	0.01	0.02	0.02	6.4	5.5				
Sun	05			5.16	0.16	1.95	6.90	0.00	0.51	0.26	0.26		7.3				
Mon	06			4.33	1.11	1.63	6.80	0.37	0.14	0.58	0.36	5.7	7.5				
Tue	07	3.0		2.46	1.04	1.63	6.70	0.17	0.04	0.02	0.08		6.0				
Wed	08		10	4.19	1.06	1.59	6.70	0.00	0.09	0.02	0.04	5.7	7.0				
Thu	09			5.13	0.01	1.43	6.80	0.35	0.22	0.00	0.19		6.0				
Fri	10			2.09	0.96	1.36	6.70	0.75	0.25	0.38	0.46	5.4	6.5				
Sat	11			2.19	0.01	1.38	6.70	0.19	0.37	0.15	0.24		7.0				
Sun	12			4.18	0.01	1.47	6.90	0.00	0.01	0.06	0.02		6.5				
Mon	13			4.13	0.68	1.42	6.50	0.18	0.12	0.07	0.12	5.3	7.5				
Tue	14	3.0		4.26	0.66	1.42	6.80	0.02	0.01	0.01	0.01		8.0				
Wed	15		10	1.99	0.79	1.36	6.90	0.02	0.02	0.01	0.02	5.0	6.5				
Thu	16			4.01	0.01	1.38	6.70	0.23	0.01	0.06	0.10	4.6	6.5				
Fri	17			3.89	0.75	1.36	6.80	0.02	0.03	0.00	0.02	4.8	6.0				
Sat	18			4.89	0.01	1.30	6.80	0.01	0.01	0.10	0.04		6.5				
Sun	19			4.05	0.83	1.40	7.10	0.47	0.00	0.02	0.16		6.0				
Mon	20			4.05	0.73	1.31	7.00	0.01	0.02	0.01	0.01	5.2	5.5				
Tue	21	3.0		3.85	0.74	1.21	6.80	0.04	0.23	0.01	0.09		6.8				
Wed	22		10	3.79	0.71	1.21	6.80	0.09	0.02	0.01	0.04	5.1	5.5				
Thu	23			4.75	0.01	1.13	6.70	0.02	0.02	0.00	0.01		6.5				
Fri	24			1.82	0.01	1.10	6.90	0.03	0.01	0.02	0.02	5.5	6.0				
Sat	25			4.15	0.74	1.33	6.70	0.03	0.02	0.02	0.02		6.5				
Sun	26			3.90	1.16	1.82	6.80	0.19	0.25	0.03	0.16		6.5				
Mon	27			2.13	1.13	1.50	7.50	0.18	0.14	0.07	0.13	4.8	5.0				
Tue	28	3.0		1.95	1.09	1.42	7.00	0.08	0.03	0.00	0.04		6.0				
Wed	29		10	2.08	0.01	1.30	7.10	0.03	0.08	0.03	0.05	4.9	7.3				
Thu	30			2.09	0.01	1.24	7.00	0.16	0.00	0.00	0.05		6.0				
Fri	31			1.83	0.01	1.12	7.00	0.02	0.01	0.01	0.01		6.0				
MIN		3.0	10		0.01	1.10	6.50	0.00	0.00	0.00	0.01	4.56	5.00	-	-	-	-
MAX		3.0	10	5.16		2.77	7.50	0.75	0.51	0.77	0.47	6.36	8.00	-	-	-	-
AVG		3.0	10			1.49	6.84	0.14	0.11	0.11	0.12	5.29	6.40	-	-	-	-
SUM		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Hull Wastewater Treatment Plant Operations Data

January, 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
Wed	01			52	0		1.4	3.4	10.8			2,425	73	1.0	
Thu	02			21	8,500	3,968	1.4	3.5	10.8			2,425	69	1.0	
Fri	03			16	0		1.4	3.4	11.9			2,425	70	1.0	
Sat	04			166	9,000	4,776	1.4	3.5	12.4			2,425	63	1.0	
Sun	05			46	0		1.4	3.4	11.6			2,425	68	1.0	
Mon	06			37	9,000	4,297	1.4	3.4	11.9			2,425	74	2.0	
Tue	07			52	0		1.5	3.4	11.2			2,422	57	1.0	
Wed	08			75	8,500	4,029	1.5	3.5	11.6	<10		2,422	63	1.0	
Thu	09			70	0		1.4	3.4	9.2			2,412	90	1.0	
Fri	10			56	8,500	3,806	1.5	3.4	10.8			2,412	82	1.0	
Sat	11			87	0		1.5	3.5	12.1			2,412	100	1.0	
Sun	12			117	0		1.4	3.4	16.0			2,412	102	1.0	
Mon	13			7	8,500	3,777	1.4	3.4	11.3			2,412	85	1.4	
Tue	14			150	0		1.4	3.4	11.7			2,412	78	1.0	
Wed	15			81	9,000	3,732	1.4	3.4	11.6	<10		2,390	76	1.0	
Thu	16			217	18,000	6,859	0.0	3.4	11.4			2,390	86	2.0	
Fri	17			126	9,000	3,635	0.0	3.4	8.7			2,386	75	1.0	
Sat	18			155	0		0.0	3.4	8.7			2,377	96	1.0	
Sun	19			32	0		0.0	3.4	11.3			2,377	60	2.0	
Mon	20			47	9,000	3,915	0.0	3.4	9.3			2,377	69	2.0	
Tue	21			75	0		0.0	3.4	8.2			2,377	80	1.2	
Wed	22			75	8,500	3,596	0.0	3.4	9.3	<10		2,377	80	0.8	
Thu	23			33	0		0.0	3.4	9.7			2,377	90	3.0	
Fri	24			73	9,000	4,110	0.0	3.5	10.7			2,377	55	1.0	
Sat	25			119	0		0.0	3.4	11.0			2,377	77	1.0	
Sun	26			54	0		0.0	3.4	11.5			2,377	89	2.0	
Mon	27			73	9,000	3,630	0.0	3.4	10.8			2,377	68	2.0	
Tue	28			60	0		0.0	3.4	10.4			2,377	63	1.4	
Wed	29			153	9,000	3,650	0.0	3.4	9.8	<10		2,377	80	1.0	
Thu	30			532	0		0.0	3.4	9.2			2,377	82	1.0	
Fri	31			83	0		0.0	3.4	9.3			2,377	83	1.0	
MIN		-	-	7	0	3,596	0	3	8	<10	-	2,377	55	0.8	
MAX		-	-	532	18,000	6,859	2	4	16	<10	-	2,425	102	3.0	
AVG		-	-	95	4,274	4,127	1	3	11	<10	-	2,397	77	1.3	
SUM		-	-	2,939	132,500	57,780	-	-	-		-	-	-	-	

Hull WWTF
Monthly Rain, Temperature and Flow
January, 2020

Date	Rainfall	Minimum Air Temp	Maximum Air Temp	Effluent Flow
	Inches	F	F	MGD
01/01/20	0.00	35	39	2.770
01/02/20	0.00	33	46	2.120
01/03/20	0.00	42	48	1.880
01/04/20	0.38	38	45	1.800
01/05/20	0.00	31	38	1.950
01/06/20	0.04	26	36	1.630
01/07/20	0.04	33	40	1.630
01/08/20	0.05	29	41	1.590
01/09/20	0.00	22	30	1.430
01/10/20	0.00	27	50	1.360
01/11/20	0.00	47	64	1.380
01/12/20	0.07	39	67	1.470
01/13/20	0.07	35	41	1.420
01/14/20	0.04	35	40	1.420
01/15/20	0.00	37	47	1.360
01/16/20	0.08	29	43	1.380
01/17/20	0.00	14	29	1.360
01/18/20	0.01	14	33	1.300
01/19/20	0.33	0	42	1.400
01/20/20	0.00	18	27	1.310
01/21/20	0.00	18	25	1.210
01/22/20	0.00	20	35	1.210
01/23/20	0.00	27	47	1.130
01/24/20	0.00	33	44	1.100
01/25/20	0.66	40	50	1.330
01/26/20	0.00	41	50	1.820
01/27/20	0.00	36	44	1.500
01/28/20	0.00	34	40	1.420
01/29/20	0.00	28	40	1.300
01/30/20	0.00	23	33	1.240
01/31/20	0.00	27	44	1.120
Min	0.00	0	25	1.10
Max	0.66	47	67	2.77
Avg	0.06	29	42	1.49
Sum	1.77			46.34

Woodard and Curran
January, 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-12	34	Clear										
Thu	02	SW-11	33	Partly cloudy										
Fri	03	SW-6	43	Cloudy										
Sat	04	NNW-3	44	Cloudy										
Sun	05	NW-24	34	Lt Rain		0.100								
Mon	06	NW-1	27	Partly cloudy		0.100								
Tue	07	W-11	33	Clear										
Wed	08	WSW-8	33	Cloudy										
Thu	09	WNW/18	23	Clear										
Fri	10	SSW-9	30	Partly cloudy										
Sat	11	SSW-13	54	Cloudy										
Sun	12	SW-24	61	Light rain		0.130								
Mon	13	S-10	35	Cloudy		0.130								
Tue	14	NNW-5	36	Cloudy										
Wed	15	W-9	40	Mostly cloudy										
Thu	16	SE-6	36	Light rain										
Fri	17	NW-23	19	Clear/windy										
Sat	18	WNW-7	13	Partly cloudy										
Sun	19	NW-10	29	Sunny		0.100								
Mon	20	NW 17	18	Sunny										
Tue	21	NNW 10	18	Clear										
Wed	22	W-4	17	Clear										
Thu	23	SSW-6	25	Clear		0.100								
Fri	24	NNW-6	27	Fair/cloudy										
Sat	25	E-13	41	Cloudy										
Sun	26	W-7	42	Cloudy		0.100								
Mon	27	W-3	37	Cloudy										
Tue	28	NNW12	38	Cloudy										
Wed	29	NNW-10	31	Cloudy										
Thu	30	N-9	24	Clear										
Fri	31	SW-6	26	Clear										
Min.			13			0.100								
Max.			61			0.130								
Ave.			32			0.109								
Target					<.01	<10.0	<10.0	<10.0	<10.0	.050	.050	<10.0	<1.0	95%

Woodard and Curran

January, 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-12	34	Clear							
Thu	02	SW-11	33	Partly cloudy							
Fri	03	SW-6	43	Cloudy							
Sat	04	NNW-3	44	Cloudy							
Sun	05	NW-24	34	Lt Rain							
Mon	06	NW-1	27	Partly cloudy							
Tue	07	W-11	33	Clear							
Wed	08	WSW-8	33	Cloudy							
Thu	09	WNW/18	23	Clear							
Fri	10	SSW-9	30	Partly cloudy							
Sat	11	SSW-13	54	Cloudy							
Sun	12	SW-24	61	Light rain							
Mon	13	S-10	35	Cloudy							
Tue	14	NNW-5	36	Cloudy							
Wed	15	W-9	40	Mostly cloudy							
Thu	16	SE-6	36	Light rain							
Fri	17	NW-23	19	Clear/windy							
Sat	18	WNW-7	13	Partly cloudy							
Sun	19	NW-10	29	Sunny							
Mon	20	NW 17	18	Sunny							
Tue	21	NNW 10	18	Clear							
Wed	22	W-4	17	Clear							
Thu	23	SSW-6	25	Clear							
Fri	24	NNW-6	27	Fair/cloudy							
Sat	25	E-13	41	Cloudy							
Sun	26	W-7	42	Cloudy							
Mon	27	W-3	37	Cloudy							
Tue	28	NNW12	38	Cloudy							
Wed	29	NNW-10	31	Cloudy							
Thu	30	N-9	24	Clear							
Fri	31	SW-6	26	Clear							
Min.			13								
Max.			61								
Ave.			32								
Target					<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005