COMMITMENT & INTEGRITY
DRIVE RESULTS

1111 Nantasket Ave.
Hull, Massachusetts 02045

T 781.925.0906

WOODARD
&CURRAN

April 8, 2016

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 – March 2016 – Discharge 001-A

Dear Ms. McDonald:

Enclosed please find the completed DMR for the month of March 2016. Please note that the facility operated in complete compliance with all NPDES requirements.

Please find the updated staffing plan and schedule for the Hull WPCF.

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
James Dow – Chief Facility Manager – Town of Hull WPCF
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 J STRUZZIERY CHRMN COMM

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	16	03	01	TO	16	03	31

OMB No. 2040-0004

MAJOR
(SUBR E)
F- FINAL
TREATED SANITARY WASTEWATEF

*** 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) 00310 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	72	131	LBS/DY	5	6	6	mg/L	0	1/7	24
	PERMIT REQUIREMENT	768 MO AVG	1,152 WKLY AVG	LBS/DY	30 MO AVG	45 WKLY AVG	50 DAILY MX	mg/L		WEEKLY	COMP 24
BOD, 5-DAY (20 DEG. C) 00310 G 0 0 RAW SEW/INFLUENT	SAMPLE MEASUREMENT	3,138	******	LBS/DY	216	******	******	mg/L	0	1/7	24
	PERMIT REQUIREMENT	REPORT MO AVG	******	LBS/DY	REPORT MO AVG	******	******	mg/L		WEEKLY	COMP 24
PH 00400 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	******	******	****	6.90	******	7.20	SU	0	01/01	GR
	PERMIT REQUIREMENT	******	******	****	6.5 MINIMUM	******	8.5 MAXIMUM	SU		~~WEEKLY~~ DAILY	GRAB
SOLIDS, TOTAL SUSPENDED 00530 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	223	345	LBS/DY	15	20	20	mg/L	0	1/7	24
	PERMIT REQUIREMENT	768 MO AVG	1,152 WKLY AVG	LBS/DY	30 MO AVG	45 WKLY AVG	50 DAILY MX	mg/L		WEEKLY	COMP 24
SOLIDS, TOTAL SUSPENDED 00530 G 0 0 RAW SEW/INFLUENT	SAMPLE MEASUREMENT	5,770	******	LBS/DY	400	******	******	mg/L	0	1/7	24
	PERMIT REQUIREMENT	REPORT MO AVG	******	LBS/DY	REPORT MO AVG	******	******	mg/L		WEEKLY	COMP 24
FLOW, IN CONDUIT OR THRU TREATMENT PLANT 50050 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	~~1.57~~ 1.60	2.76	MGD	******	******	******	****	0	99/99	RC
	PERMIT REQUIREMENT	3.07 12 MO AVG	DAILY MX	MGD	******	******	******	****		CONTINUOUS	RCORDR
FLOW, IN CONDUIT OR THRU TREATMENT PLANT 50050 0 0 See Comments	SAMPLE MEASUREMENT	******	******	****	1.64	******	******	MGD	0	99/99	RC
	PERMIT REQUIREMENT	******	******	****	REQ MO AVG	******	******	MGD		CONTIN	RCORDR

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER			TELEPHONE		DATE		
Aram Varjabedian - Project Manager James Dow, Chief Facility Manager	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	16	04	12
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 J STRUZZIERY CHRMN COM

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	16	03	01	TO	16	03	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	******	******	******	0.19	******	0.63	mg/L	0	03/01	GR
50060 1 0 EFFLUENT GROSS	PERMIT REQUIREMENT	******	******	******	0.7 MO AVG	******	1 DAILY MAX	mg/L		THREE PER DAY	GRAB
ENTEROCOCCI	SAMPLE MEASUREMENT	******	******	******	<10	******	<10	CFU/100 ml	0	1/7	GR
61211 1 0 EFFLUENT GROSS	PERMIT REQUIREMENT	******	******	******	35 MO AVG	******	276 DAILY MAX	CFU/100 ml		WEEKLY	GRAB
COLIFORM, FECAL GENERAL	SAMPLE MEASUREMENT	******	******	******	<10	******	<10	#/100 ml	0	1/7	GR
74055 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	******	******	******	88 MO GEO	******	260 DAILY MX	#/100 ml		WEEKLY	GRAB
BOD, 5-DAY PERCENT REMOVAL	SAMPLE MEASUREMENT	******	******	******	98	******	******	%	0	1/30	CA
81010 K 0 0 PERCENTREMOVAL	PERMIT REQUIREMENT	******	******	******	85 MO AVG	******	******	PER-CENT		ONCE/ MONTH	CALCTD
SOLIDS, SUSPENDED PERCENT REMOVAL	SAMPLE MEASUREMENT	******	******	******	96	******	******	%	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 James Dow, Chief Facility Manager	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	16	04	12
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

Hull Wastewater Treatment Plant Operations Data

March, 2016

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

Hull Wastewater Treatment Plant Operations Data

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	Off	Off	0.00	34	47	20	0.7	543	200	1.75	1.10	2.40	
Wed	02	Off	Off	Off	Off	0.31	25	53	20	0.7			1.84	1.00	2.80	
Thu	03	Off	Off	Off	Off	0.00	21	35	20	0.7			1.68	1.00	2.50	
Fri	04	Off	Off	Off	Off	0.07	29	34	20	0.7			1.59	0.00	3.90	
Sat	05	Off	Off	Off	Off	0.00	24	35	20	0.7			1.86	1.00	2.90	
Sun	06	Off	Off	Off	Off	0.00	30	42	20	0.7			1.74	0.00	4.50	
Mon	07	Off	Off	Off	Off	0.00	32	47	20	0.7			1.56	0.80	2.50	
Tue	08	Off	Off	Off	Off	0.00	38	50	20	0.7	326	220	1.46	0.00	2.90	
Wed	09	Off	Off	Off	Off	0.00	41	68	20	0.7			1.30	0.00	2.80	
Thu	10	Off	Off	Off	Off	0.36	42	61	20	0.7			1.40	0.40	3.10	
Fri	11	Off	Off	Off	Off	0.13	39	45	20	0.7			1.59	0.00	3.60	
Sat	12	Off	Off	Off	Off	0.00	36	60	20	0.7			1.43	0.00	4.10	
Sun	13	Off	Off	Off	Off	0.00	45	63	20	0.7			1.31	0.00	0.00	
Mon	14	Off	Off	Off	Off	0.19	39	45	20	0.7			1.25	0.00	0.00	
Tue	15	Off	Off	Off	Off	1.32	41	45	20	0.7	331	190	2.47	0.00	4.60	
Wed	16	Off	Off	Off	Off	0.04	41	48	20	0.7			2.37	1.20	3.00	
Thu	17	Off	Off	Off	Off	0.07	43	61	20	0.7			2.20	1.30	3.20	
Fri	18	Off	Off	Off	Off	0.03	38	50	20	0.7			2.00	1.20	2.90	
Sat	19	Off	Off	Off	Off	0.00	28	45	20	0.7			1.88	0.00	4.30	
Sun	20	Off	Off	Off	Off	0.02	26	35	20	0.7			1.77	1.00	2.70	
Mon	21	Off	Off	Off	Off	0.32	29	42	20	0.7			1.85	1.00	2.60	
Tue	22	Off	Off	Off	Off	0.00	33	47	20	0.7	434	290	1.76	1.20	2.40	
Wed	23	Off	Off	Off	Off	0.00	40	56	20	0.7			1.60	1.00	2.20	
Thu	24	Off	Off	Off	Off	0.00	37	42	20	0.7			1.53	1.00	2.20	
Fri	25	Off	Off	Off	Off	0.02	38	44	20	0.7			1.66	0.00	2.90	
Sat	26	Off	Off	Off	Off	0.00	34	43	20	0.7			1.57	0.00	2.80	
Sun	27	Off	Off	Off	Off	0.00	28	44	20	0.7			1.48	0.00	2.60	
Mon	28	Off	Off	Off	Off	0.30	36	47	20	0.7			1.60	0.00	4.50	
Tue	29	Off	Off	Off	Off	0.00	40	48	20	0.7	367	180	1.64	1.10	2.50	
Wed	30	Off	Off	Off	Off	0.00	36	56	20	0.7			1.42	0.00	2.20	
Thu	31	Off	Off	Off	Off	0.00	42	66	20	0.70			1.31	0.90	1.70	
MIN		-	-	-	-	0.00	21	34	20	1	326	180	1.25	0.00		
MAX		-	-	-	-	1.32	45	68	20	1	543	290	2.47		4.60	
AVG		-	-	-	-	0.10	35	49	20	1	400	216	1.67			
SUM		-	-	-	-	3.18	-	-	620	22			-	-	-	-

WOODARD & CURRAN

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
Tue 01			0.5	70	350	200	190	2,849	7,220	0.97		0.5		12,000	11.0
Wed 02			0.5	67	300	180	180	2,652	6,188	0.98		0.5		12,000	
Thu 03			1.0	70	340	180	170	2,558	5,972	0.98		0.0		9,000	
Fri 04			0.5	66	310	170	170	2,553	5,948	0.98		1.0		7,500	
Sat 05			0.5							0.98		0.0		6,000	
Sun 06			1.5							0.96		0.5		6,000	
Mon 07			2.0	70	430	220	200	3,145	8,082	0.95		1.2		12,000	
Tue 08			1.0	65	420	220	200	3,349	7,416	0.95		1.0		9,000	17.0
Wed 09			0.5							0.63		1.0		0	
Thu 10			1.0	61	360	200	190	3,264	7,370	0.97		2.0		12,000	
Fri 11			1.0	61	370	200	190	3,269	7,100	0.95		1.0		12,000	
Sat 12			1.0							0.96		1.0		11,250	
Sun 13			2.5							0.92		1.5		12,000	
Mon 14			1.5	69	400	200	200	2,870	10,402	0.89		2.0		21,000	
Tue 15			0.5	63	290	150	150	2,368	11,380	0.83		2.5		12,000	15.0
Wed 16			1.0	65	300	150	150	2,286	11,670	0.80		2.0		7,500	
Thu 17			1.0	64	320	180	170	2,809	10,916	0.86		1.5		0	
Fri 18			1.5	65	350	200	180	3,047	9,224	0.79		2.5		6,000	
Sat 19			1.5							0.78		1.0		4,500	
Sun 20			1.0							0.77		1.3		4,500	
Mon 21			1.0							0.77		0.5		4,500	
Tue 22			1.5	68	400	220	200	3,219	8,934	0.73		1.5		12,000	13.0
Wed 23			0.5	80	350	200	180	2,500	7,196	0.72		1.0		0	
Thu 24			1.0	68	390	220	200	3,079	7,584	0.71		1.0		0	
Fri 25			1.0	73	450	250	230	3,407	7,638	0.71		1.0		12,000	
Sat 26			0.5							0.69		0.5		6,000	
Sun 27			2.0							0.69		2.0		9,000	
Mon 28			0.3	78	450	250	250	3,197	9,002	0.69		0.0		9,750	
Tue 29			1.0	77	420	225	210	2,912	7,912	0.71		1.0		9,000	20.0
Wed 30			1.5	75	400	210	200	2,777	6,710	0.70		1.0		8,200	
Thu 31			1.0	82	440	240	220	2,903	6,686	0.72		0.5		0	
MIN			0.3	61	290	150	150	2,286	5,948	0.63		0.0		0	11.0
MAX			2.5	82	450	250	250	3,407	11,670	0.98		2.5		21,000	20.0
AVG			1.1	69	373	203	192	2,905	8,121	0.83		1.1		7,958	15.2
SUM	-	-	-	-	-	-	-	-	-	-	-	-	-	246,700	-

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
Tue	01	3.0		2.70	0.00	1.52	7.10	0.07	0.10	0.13	0.10		7.0				
Wed	02		10	2.50	0.00	1.62	7.20	0.79	0.07	0.57	0.48	4.8	6.0				
Thu	03			2.60	0.00	1.47	7.20	0.06	0.64	0.09	0.26	4.6	5.5				
Fri	04			2.60	0.00	1.39	7.10	0.04	0.12	0.18	0.11	4.1	1.0				
Sat	05			5.10	0.70	1.64	7.20	0.05	0.04	0.55	0.21		1.5				
Sun	06			4.90	0.80	1.59	6.90	0.06	0.01	0.00	0.02		2.5				
Mon	07			4.80	0.80	1.42	6.90	0.05	0.05	0.03	0.04	4.1	2.5				
Tue	08	5.6		4.80	0.80	1.42	7.00	0.08	0.59	0.62	0.43		1.5				
Wed	09		10	4.70	0.00	0.94	7.10	0.08	0.01	0.04	0.04		4.0				
Thu	10			4.80	0.80	1.53	7.00	0.12	0.41	0.36	0.30	4.5	0.5				
Fri	11			6.00	0.30	1.79	7.10	0.23	0.82	0.20	0.42		2.0				
Sat	12			6.80	0.70	1.75	7.00	0.19	0.19	0.80	0.39		2.5				
Sun	13			2.10	0.00	1.57	6.90	0.03	0.00	0.01	0.01		5.0				
Mon	14			2.10	0.80	1.54	6.90	0.07	0.03	0.04	0.05	5.1	2.0				
Tue	15	5.7		7.50	0.70	2.76	7.00	0.89	0.57	0.43	0.63		5.0				
Wed	16		10	4.30	1.80	2.56	7.00	0.55	0.04	0.23	0.27	4.7	1.5				
Thu	17			4.40	1.20	2.25	6.90	0.43	0.11	0.18	0.24		1.5				
Fri	18			4.30	1.20	2.03	6.90	0.19	0.50	0.13	0.27	4.5	1.0				
Sat	19			4.40	1.10	1.83	7.00	0.07	0.10	0.12	0.10		2.0				
Sun	20			2.70	1.20	1.70	7.00	0.01	0.00	0.03	0.01		4.0				
Mon	21			2.60	1.10	1.75	6.90	0.00	0.01	0.02	0.01		5.0				
Tue	22	3.4		2.30	1.20	1.61	6.90	0.08	0.05	0.11	0.08	4.3	5.5				
Wed	23		10	2.10	1.10	1.47	6.90	0.09	0.10	0.33	0.17		6.5				
Thu	24			2.10	1.10	1.48	7.10	0.09	0.13	0.08	0.10	4.6	2.0				
Fri	25			2.30	1.10	1.56	7.00	0.18	0.09	0.12	0.13	3.8	1.0				
Sat	26			2.60	1.10	1.52	7.10	0.56	0.06	0.72	0.45		2.0				
Sun	27			2.60	1.10	1.46	7.00	0.03	0.01	0.01	0.02		5.0				
Mon	28			3.90	0.00	1.54	7.00	0.05	0.04	0.03	0.04	4.3	2.5				
Tue	29	6.4		2.10	1.10	1.53	7.00	0.07	0.04	0.10	0.07		7.0				
Wed	30		10	2.20	0.00	1.32	7.00	0.08	0.07	0.09	0.08	4.6	6.0				
Thu	31			2.00	0.00	1.28	7.00	0.39	0.44	0.11	0.31		7.0				
MIN		3.0	10		0.00	0.94	6.90	0.00	0.00	0.00	0.01	3.80	0.50	-	-	-	-
MAX		6.4	10	7.50		2.76	7.20	0.89	0.82	0.80	0.63	5.10	7.00	-	-	-	-
AVG		4.8	10			1.64	7.01	0.18	0.18	0.21	0.19	4.46	3.48	-	-	-	-
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
		GAL	GAL	Cu Ft	GAL	LBS/DAY	FT	FT	DEG C	No/100ml	%	Inches	Gallons	Gallons
Tue	01			8	0		7.1	6.4	10.2			42	58	0.0
Wed	02			8	9,000	3,607	7.0	6.4	12.0	<10		42	26	0.0
Thu	03			0	9,000	3,454	6.8	6.4	9.2			42	53	0.0
Fri	04			15	9,000	3,146	6.7	6.4	9.7			42	25	0.0
Sat	05			0	0		6.7	6.4	9.3			42	47	0.0
Sun	06			0	0		6.7	6.4	10.3			42	37	2.0
Mon	07			8	9,000	3,078	3.9	7.5	11.2			42	53	0.0
Tue	08			15	0		3.9	7.5	10.6			42	58	0.0
Wed	09			0	0		3.9	7.5	10.5	<10		42	41	0.0
Thu	10			2,018	9,000	3,430	4.0	7.5	11.6			42	65	0.0
Fri	11			8	0		3.9	7.5	11.1			41	66	2.0
Sat	12			8	0		3.8	7.5	10.7			41	78	0.0
Sun	13			8	0		3.7	7.5	11.4			41	58	0.0
Mon	14			0	9,000	3,833	3.7	7.5	11.2			41	58	0.0
Tue	15			23	0		3.7	7.5	10.5			41	60	0.0
Wed	16			38	9,000	3,594	3.8	7.7	10.3	<10		41	89	0.0
Thu	17			8	0		3.8	7.7	11.3			41	52	0.0
Fri	18			15	9,000	3,452	3.7	7.7	11.8			41	70	0.0
Sat	19			8	0		3.7	7.7	10.2			41	65	0.0
Sun	20			15	0		3.6	7.7	10.0			41	49	0.0
Mon	21			8	0		3.6	7.7	9.7			41	52	0.0
Tue	22			8	9,000	3,251	3.6	7.7	10.2			41	55	0.0
Wed	23			15	0		3.7	7.7	11.5	<10		41	66	0.0
Thu	24			0	9,000	3,486	3.6	7.7	11.1			41	45	0.0
Fri	25			15	9,000	2,883	3.6	7.7	10.0			41	43	0.0
Sat	26			8	0		3.6	7.7	10.6			41	41	0.0
Sun	27			8	0		3.9	7.7	11.2			41	47	0.0
Mon	28			8	9,000	3,250	3.6	7.7	8.7			41	38	0.0
Tue	29			8	0		3.6	7.7	10.7			41	38	0.0
Wed	30			8	9,000	3,468	3.6	9.2	11.3	<10		41	41	2.0
Thu	31			45	0		3.7	9.2	11.9			41	47	2.0
MIN		-	-	-	0	2,883	4	6	9	<10	-	41	25	0.0
MAX		-	-	-	9,000	3,833	7	9	12	<10	-	42	89	2.0
AVG		-	-	-	3,774	3,379	4	7	11	<10	-	41	52	0.3
SUM		-	-	-	117,000	43,932	-	-	-		-	-	-	-

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 – March 2016

Project Manager/Chief Operator – Aram Varjabedian	MA Grade 7C
Asst. Project Manager/Asst. Chief Operator – Kevin Stetson	MA Grade 6C
Operations/Maintenance Tech 2 – Joseph Basler	MA Grade 5C
Operations/Maintenance Tech 1 – Eric Sutton	MA Grade 3M
Operations/Maintenance Tech 2 – Rick Clark	
Operations/Maintenance Tech 1 – John Currier	MA Grade 2M

Supplemental O&M Personnel supporting/assisting the Hull facility

Pat Owens – Part-time Operator	MA Grade 6C
James Gagliard – Sr. Operations Specialist	MA Grade 6C
Jody St. George - Sr. Operations Specialist	MA Grade 7C
Bill Boornazian – Engineer / Operator	MA Grade 6C
Frank Cavaleri – Area Manager	MA Grade 7C

Hull Water Pollution Control Facility – Schedule – March 2016

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		
O&M Tech 2	5C			X	X	X	X	X
O&M Tech 1	2M	X	X	X	X	X		
O&M Tech 2			X	X	X	X	X	
O&M Tech 1			X	X	X	X	X	
Part-Time Operator	6C	*	*	*	*	*	*	*

- Part-time operator schedule varies at one to two days per week and the day varies week-to-week

Hull WWTF
Monthly Rain, Temperature and Flow
March, 2016

Date	Rainfall	Minimum Air Temp	Maximum Air Temp	Effluent Flow
	Inches	F	F	MGD
03/01/16	0.00	34	47	1.520
03/02/16	0.31	25	53	1.619
03/03/16	0.00	21	35	1.465
03/04/16	0.07	29	34	1.387
03/05/16	0.00	24	35	1.636
03/06/16	0.00	30	42	1.585
03/07/16	0.00	32	47	1.415
03/08/16	0.00	38	50	1.416
03/09/16	0.00	41	68	0.941
03/10/16	0.36	42	61	1.530
03/11/16	0.13	39	45	1.792
03/12/16	0.00	36	60	1.754
03/13/16	0.00	45	63	1.566
03/14/16	0.19	39	45	1.542
03/15/16	1.32	41	45	2.760
03/16/16	0.04	41	48	2.557
03/17/16	0.07	43	61	2.251
03/18/16	0.03	38	50	2.027
03/19/16	0.00	28	45	1.832
03/20/16	0.02	26	35	1.699
03/21/16	0.32	29	42	1.753
03/22/16	0.00	33	47	1.609
03/23/16	0.00	40	56	1.474
03/24/16	0.00	37	42	1.475
03/25/16	0.02	38	44	1.560
03/26/16	0.00	34	43	1.521
03/27/16	0.00	28	44	1.464
03/28/16	0.30	36	47	1.539
03/29/16	0.00	40	48	1.527
03/30/16	0.00	36	56	1.319
03/31/16	0.00	42	66	1.281
Min	0.00	21	34	0.94
Max	1.32	45	68	2.76
Avg	0.10	35	49	1.64
Sum	3.18			50.82

March 2016

Hingham Flow

	Daily Com	100011 Hingham Flow KGAL
1 Tue		62.30
2 Wed		65.10
3 Thu		63.30
4 Fri		63.60
5 Sat		65.00
6 Sun		65.00
7 Mon		56.10
8 Tue		51.40
9 Wed		48.30
10 Thu		47.10
11 Fri		45.70
12 Sat		48.00
13 Sun		50.80
14 Mon		52.80
15 Tue		91.70
16 Wed		94.40
17 Thu		95.00
18 Fri		80.40
19 Sat		69.20
20 Sun		68.20
21 Mon		65.80
22 Tue		60.90
23 Wed		55.00
24 Thu		55.90
25 Fri		55.90
26 Sat		58.40
27 Sun		60.30
28 Mon		60.80
29 Tue		58.20
30 Wed		56.90
31 Thu		52.00
MIN		45.70
MAX		95.00
AVG		62.05
SUM		1,923.50
GeoMean		60.90

March 2016

Hydrogen Sulfide Data

		4.00 Hydrogen Sulfide Data\Hydrogen Sulfide Weather Data			4.00 Hydrogen Sulfide Data\Hydrogen Sulfide Inside Plant Data								
	03 Hydorgen Sulfide Log	400011 Wind Direction Direction	400012 Outside Temp Deg F	400013 Outside Condition Condition	400021 Front Door ppm	400022 Head Works ppm	400023 Primary Tank No. 1 ppm	400024 Primary Tank No. 2 ppm	400025 Gravity Thickener ppm	400026 Aeration Tanks ppm	400027 Rotory Sludge Thickener Room ppm	400028 Scrubber In ppm	400029 Roof Exhaust Scrubber Out ppm
1 Tue		E-8	43	Partly Cloudy	0.001	0.160		0.120	0.128	0.001	0.000	0.082	0.073
2 Wed		S-17	53	Cloudy	0.001	0.130		0.100	0.001	0.000	0.000	0.041	0.036
3 Thu		W-10	33	Sunny	0.001	0.100		0.087	0.016	0.001	0.000	0.051	0.037
4 Fri		N-6	30	Cloudy	0.002	0.130		0.064	0.080	0.001	0.002	0.100	0.067
5 Sat		NNW-18	26	Fair	0.001	0.130		0.022	0.049	0.000	0.001	0.110	0.058
6 Sun		NNW-5	38	Partly Cloudy	0.001	0.130		1.400	0.110	0.002	0.000	0.110	0.067
7 Mon		SSW-20	43	Mostly Cloudy	0.001	0.100		0.550	0.110	0.001	0.000	0.110	0.081
8 Tue		NNE-7	46	Partly Cloudy	0.001	0.130		0.210	0.092	0.004	0.000	0.073	0.053
9 Wed		SW-15	46	Cloudy								0.000	0.000
10 Thu		SW-8	64	Showers	0.001	0.160		1.200	0.170	0.006	0.000	0.130	0.103
11 Fri		Calm	50	Rain	0.000	0.520		0.160	0.940	0.001	0.000	0.110	0.110
12 Sat		WNW-7	33	Sunny	0.004	0.170		0.150	0.080	0.004	0.001	0.097	0.073
13 Sun		NW-18	56	Partly Cloudy	0.001	0.130		0.750	0.970	0.028	0.000	0.450	*0.240*
14 Mon		E-17	42	Cloudy	0.001	0.100		1.900	0.024	0.002	0.000	0.240	0.120
15 Tue		NE-20	45	Rain	0.001	0.100		0.095	0.024	0.022	0.000	0.130	0.053
16 Wed		ENE-8	48	Cloudy	0.001	0.130		0.170	0.023	0.018	0.000	0.120	0.110
17 Thu		WSW-6	49	Mostly Cloudy	0.001	0.130		0.110	0.116	0.001	0.000	0.108	0.100
18 Fri		Wsw 15	44	P/C	0.000	0.026		0.420	0.050	0.001	0.000	0.038	0.024
19 Sat		NNW-9	45	Mostly Sunny	0.002	0.009		0.220	0.029	0.002	0.000	0.018	0.011
20 Sun		NNE-14	33	Partly Cloudy	0.001	0.130		0.220	0.002	0.002	0.000	0.026	0.026
21 Mon		WNW-11	32	Cloudy	0.001	0.100		0.530	0.024	0.002	0.000	0.022	0.015
22 Tue		W-16	39	Partly Cloudy	0.001	0.160		0.094	0.033	0.001	0.000	0.026	0.017
23 Wed		SW-9	61	Cloudy	0.001	0.160		0.089	0.036	0.001	0.000	0.064	0.036
24 Thu		Ne 23	39	Cloudy	0.000	0.250		0.120	0.230	0.000	0.000	0.050	0.045
25 Fri		ENE 4	44	Fog	0.000	0.160		0.120	0.500	0.170	0.000	0.047	0.045
26 Sat		NNW-12	38	Cloudy	0.002	0.045		0.083	0.027	0.000	0.000	0.024	0.018
27 Sun		N-2	37	Cloudy	0.001	0.130		2.800	1.900	0.009	0.000	0.100	0.079
28 Mon		E-13	41	Rain	0.001	0.130		0.000	0.000	0.029	0.000	0.123	0.097
29 Tue		WNW-21	44	Mostly Cloudy	0.001	0.130		0.550	0.011	0.001	0.000	0.069	0.034
30 Wed		W-10	35	Sunny	0.000	0.003		0.450	0.170	0.002	0.000	0.010	0.004
31 Thu		Ssw 21	40	P/C	0.000	0.100		0.002	0.210	0.001	0.001	0.140	0.014
MIN		-	26	-	0.000	0.003	-	0.000	0.000	0.000	0.000	0.000	0.000
MAX		-	64	-	0.004	0.520	-	2.800	1.900	0.170	0.002	0.450	0.240
AVG		-	42	-	0.001	0.133	-	0.426	0.205	0.010	0.000	0.091	0.060
SUM		-	1,317	-	0.030	3.983	-	12.786	6.155	0.313	0.005	2.819	1.846
GeoMean		-	42	-	0.004	0.102	-	0.206	0.071	0.007	0.407	0.076	0.050

Hydrogen Sulfide Data

			4.00 Hydrogen Sulfide Data\Hydrogen Sulfide Outside Plant Data						
	03 Hydorgen Sulfide Log	400030 % Removal %	400031 Cemetery Flag Pole ppm	400032 Garage At Cemetery ppm	400033 Duck Lane ppm	400034 Duck Lane And Nantasket Ave ppm	400035 Seawall Across From Plant ppm	400036 Fire Hydrant Across Inland Bay Side ppm	400037 Front Of Aeration Bayside ppm
1 Tue		11.0	0.000	0.000	0.000	0.000	0.000	0.001	0.000
2 Wed		12.2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3 Thu		27.5	0.003	0.003	0.003	0.003	0.003	0.003	0.002
4 Fri		33.0	0.000	0.001	0.001	0.000	0.000	0.000	0.000
5 Sat		47.3	0.002	0.002	0.002	0.002	0.002	0.001	0.003
6 Sun		39.1	0.004	0.004	0.004	0.004	0.004	0.004	0.003
7 Mon		26.4	0.000	0.000	0.000	0.000	0.000	0.000	0.001
8 Tue		27.4	0.002	0.002	0.002	0.005	0.005	0.000	0.002
9 Wed									
10 Thu		20.8	0.003	0.004	0.004	0.004	0.004	0.004	0.004
11 Fri		0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12 Sat		24.7	0.004	0.004	0.004	0.004	0.004	0.003	0.004
13 Sun		46.7	0.004	0.004	0.005	0.090	0.090	0.100	0.004
14 Mon		50.0	0.002	0.004	0.004	0.002	0.002	0.002	0.002
15 Tue		59.2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16 Wed		8.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17 Thu		7.4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18 Fri		36.8	0.002	0.002	0.002	0.002	0.002	0.002	0.001
19 Sat		38.9	0.002	0.002	0.002	0.002	0.002	0.002	0.004
20 Sun		0.0	0.001	0.000	0.000	0.001	0.001	0.001	0.000
21 Mon		31.8	0.001	0.000	0.000	0.000	0.000	0.011	0.001
22 Tue		34.6	0.002	0.002	0.002	0.002	0.002	0.002	0.002
23 Wed		43.8	0.001	0.001	0.001	0.001	0.001	0.001	0.001
24 Thu		10.0	0.000	0.001	0.000	0.000	0.000	0.000	0.000
25 Fri		4.3	0.001	0.000	0.002	0.001	0.001	0.000	0.002
26 Sat		25.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
27 Sun		21.0	0.003	0.003	0.003	0.003	0.003	0.003	0.003
28 Mon		21.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29 Tue		50.7	0.001	0.001	0.001	0.002	0.002	0.001	0.001
30 Wed		60.0	0.001	0.001	0.000	0.000	0.000	0.000	0.000
31 Thu		90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MIN		0.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MAX		90.0	0.004	0.004	0.005	0.090	0.090	0.100	0.004
AVG		30.3	0.001	0.001	0.001	0.004	0.004	0.005	0.001
SUM		908.9	0.039	0.041	0.042	0.128	0.128	0.141	0.040
GeoMean		21.2	0.023	0.030	0.039	0.044	0.044	0.043	0.030