COMMITMENT & INTEGRITY
DRIVE RESULTS

1111 Nantasket Ave.
Hull, Massachusetts 02045

T 781.925.0906

WOODARD
&CURRAN

June 10, 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 – May 2016 – Discharge 001-A

Dear Ms. McDonald:

Enclosed please find the completed DMR for the month of May 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

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	05	01	TO	16	05	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	57	79	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	1,856	******	LBS/DY	174	******	******	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	******	******	****	6.60	******	6.90	SU	0	01/01	GR
	PERMIT REQUIREMENT	******	******	****	6.5 MINIMUM	******	8.5 MAXIMUM	SU		WEEKLY	GRAB
SOLIDS, TOTAL SUSPENDED 00530 1 0 0 EFFLUENT GROSS VALUE	SAMPLE MEASUREMENT	146	184	LBS/DY	14	17	17	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	3,424	******	LBS/DY	331	******	******	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	~~1.55~~ 1.58	2.07	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	******	******	****	1.36	******	******	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	06	10
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	05	01	TO	16	05	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	******	******	******	0.09	******	0.34	mg/L	0	03/01	GR
50060 1 0 EFFLUENT GROSS	PERMIT REQUIREMENT	******	******	******	0.7 MO AVG	******	1 DAILY MAX	mg/L		THREE PER DAY	GRAB
ENTEROCOCCI	SAMPLE MEASUREMENT	******	******	******	<10	******	<10	CFU/100 ml	0	1/7	GR
61211 1 0 EFFLUENT GROSS	PERMIT REQUIREMENT	******	******	******	35 MO AVG	******	276 DAILY MAX	CFU/100 ml		WEEKLY	GRAB
COLIFORM, FECAL GENERAL	SAMPLE MEASUREMENT	******	******	******	<10	******	<10	#/100 ml	0	1/7	GR
74055 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	******	******	******	88 MO GEO	******	260 DAILY MX	#/100 ml		WEEKLY	GRAB
BOD, 5-DAY PERCENT REMOVAL	SAMPLE MEASUREMENT	******	******	******	97	******	******	%	0	1/30	CA
81010 K 0 0 PERCENTREMOVAL	PERMIT REQUIREMENT	******	******	******	85 MO AVG	******	******	PER-CENT		ONCE/ MONTH	CALCTD
SOLIDS, SUSPENDED PERCENT 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	06	10
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

TSS and BOD Loadings Check Sheet

TSS		
Week Start	**Week End**	**Avg**
05/01/16	05/07/16	13.0
05/08/16	05/14/16	14.0
05/15/16	05/21/16	12.0
05/22/16	05/28/16	17.0
	MAX	**17.0**

BOD		
Week Start	**Week End**	**Avg**
05/01/16	05/07/16	6.0
05/08/16	05/14/16	6.0
05/15/16	05/21/16	5.4
05/22/16	05/28/16	3.6
	MAX	**6.0**

Current Month Only

Date	TSS	BOD
05/01/16		
05/02/16		
05/03/16	13.0	6.0
05/04/16		
05/05/16		
05/06/16		
05/07/16		
05/08/16		
05/09/16		
05/10/16	14.0	6.0
05/11/16		
05/12/16		
05/13/16		
05/14/16		
05/15/16		
05/16/16		
05/17/16	12.0	5.4
05/18/16		
05/19/16		
05/20/16		
05/21/16		
05/22/16		
05/23/16		
05/24/16	17.0	3.6
05/25/16		
05/26/16		
05/27/16		
05/28/16		
05/29/16		
05/30/16		
05/31/16	13.0	6.0

Sunday Thru Saturday (avg placed on Saturday date)

Date	TSS	BOD
05/01/16		
05/02/16		
05/03/16		
05/04/16		
05/05/16		
05/06/16		
05/07/16	13.0	6.0
05/08/16		
05/09/16		
05/10/16		
05/11/16		
05/12/16		
05/13/16		
05/14/16	14.0	6.0
05/15/16		
05/16/16		
05/17/16		
05/18/16		
05/19/16		
05/20/16		
05/21/16	12.0	5.4
05/22/16		
05/23/16		
05/24/16		
05/25/16		
05/26/16		
05/27/16		
05/28/16	17.0	3.6
05/29/16		
05/30/16		
05/31/16		
MAX	**17.0**	**6.0**

Hull Wastewater Treatment Plant Operations Data

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

Hull Wastewater Treatment Plant Operations Data

May, 2016

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
Sun	01	Off	Off	On		0.10	37	55	20	0.7			1.16	0.60	1.70	
Mon	02	Off	Off	On	On	0.30	43	51	20	0.7			1.23	0.70	1.80	
Tue	03	Off	Off	On	On	0.10	44	50	20	0.7	339	170	1.26	0.00	3.80	
Wed	04	Off	Off	On	On	0.40	43	51	20	0.7			1.37	0.00	4.00	
Thu	05	Off	Off	On	On	0.60	43	45	20	0.7			1.70	0.90	3.30	
Fri	06	Off	Off	On	On	0.10	44	54	20	0.7			2.07	0.00	3.30	
Sat	07	Off	Off	On	Off	0.00	46	51	20	0.7			1.86	0.00	4.10	
Sun	08	Off	Off	On	Off	0.00	46	65	20	0.7			1.94	1.10	2.10	
Mon	09	Off	Off	On	Off	0.00	46	65	20	0.7			1.68	1.20	2.40	
Tue	10	Off	Off	On	On	0.00	35	72	20	0.7	256	220	1.47	0.90	2.20	
Wed	11	Off	Off	On	On	0.00	40	78	20	0.7			1.43	0.00	2.40	
Thu	12	Off	Off	On	Off	0.00	46	74	20	0.7			1.32	0.90	1.70	
Fri	13	Off	Off	On	On	0.10	51	77	20	0.7			1.37	0.50	1.80	
Sat	14	Off	Off	On	On	0.00	56	80	20	0.7			1.39	0.00	3.70	
Sun	15	Off	Off	On	Off	0.00	44	62	20	0.7			1.23	0.00	3.80	
Mon	16	Off	Off	On	On	0.00	40	59	20	0.7			1.12	0.70	1.70	
Tue	17	Off	Off	On	On	0.00	50	70	20	0.7	404	230	1.06	0.00	4.00	
Wed	18	Off	Off	On	Off	0.00	46	61	20	0.7			1.06	0.70	1.60	
Thu	19	Off	Off	On	On	0.00	45	66	20	0.7			1.11	0.00	1.70	
Fri	20	Off	Off	On	On	0.00	44	74	20	0.7			1.11	0.00	3.90	
Sat	21	Off	Off	On	Off	0.00	53	76	20	0.7			1.12	0.00	1.70	
Sun	22	Off	Off	On	On	0.00	56	64	20	0.7			1.21	0.00	2.80	
Mon	23	Off	Off	On	On	0.00	43	74	20	0.7			1.24	0.00	2.20	
Tue	24	Off	Off	On	On	0.48	51	56	20	0.7	271	130	1.25	0.80	1.70	
Wed	25	Off	Off	On	On	0.00	51	84	20	0.7			1.24	0.00	1.70	
Thu	26	Off	Off	On	On	0.00	58	79	20	0.7			1.20	0.00	1.70	
Fri	27	Off	Off	On	On	0.00	58	73	20	0.7			1.19	0.80	1.70	
Sat	28	Off	Off	On	On	0.00	66	91	20	0.7			1.29	0.00	3.50	
Sun	29	Off	Off	On	On	0.00	53	77	20	0.7			1.25	0.00	1.90	
Mon	30	Off	Off	On	On	0.70	53	73	20	0.7			1.51	0.00	3.90	
Tue	31	Off	Off	On	Off	0.00	68	87	20	0.70	383	120	1.33	0.00	2.80	
MIN		-	-	-	-	0.00	35	45	20	1	256	120	1.06	0.00		
MAX		-	-	-	-	0.70	68	91	20	1	404	230	2.07		4.10	
AVG		-	-	-	-	0.09	48	68	20	1	331	174	1.35			
SUM		-	-	-	-	2.88	-	-	620	22			-	-	-	-

Hull Wastewater Treatment Plant Operations Data

May, 2016

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
Sun	01			2.0							0.82		2.0			
Mon	02			1.0	101	700	350	320	3,475	6,762	0.87		0.3			
Tue	03			1.0	99	730	340	270	3,414	7,166	0.85		4.0			13.0
Wed	04			0.5	99	590	300	250	3,023	6,890	0.78		1.5			
Thu	05			1.5	82	500	250	220	3,025	7,792	0.80		3.0			
Fri	06			2.0	84	420	200	190	2,372	5,200	0.80		2.0			
Sat	07			0.0							0.78		3.0			
Sun	08			1.0							0.83		1.0			
Mon	09			1.0	90	450	250	240	2,760	8,658	0.88		1.0			
Tue	10			2.0	84	500	260	240	3,086	5,838	0.86		1.0			14.0
Wed	11			1.5	90	410	210	205	2,327	6,678	0.82		1.5			
Thu	12			1.0	84	400	220	220	2,618	6,702	0.81		1.0			
Fri	13			1.0	87	400	230	230	2,632	6,416	1.37		2.5			
Sat	14			1.5							0.88		0.8			
Sun	15			0.5							0.93		0.5			
Mon	16			1.0	90	450	250	210	2,763	6,434	0.94		1.0			
Tue	17			0.0	80	450	230	220	2,847	5,910	0.89		1.0			12.0
Wed	18			1.0	90	430	230	210	2,536	5,858	0.79		1.0			
Thu	19			1.5	89	450	240	240	2,686	6,174	0.79		0.5			
Fri	20			1.0	88	430	240	240	2,723	6,506	0.82		1.0			
Sat	21			1.5							0.78		1.5			
Sun	22			0.0							0.84		1.5			
Mon	23			0.6	69	400	200	200	2,876	7,038	0.78		0.6			
Tue	24			0.5	70	400	210	210	2,981	6,440	0.84		1.0			17.0
Wed	25			1.0	72	300	180	180	2,466	5,750	0.87		0.5			
Thu	26			1.0	82	260	180	180	2,187	5,720	0.93		1.0			
Fri	27			1.0	79	300	175	175	2,213	5,802	0.91		0.0			
Sat	28			2.0							0.91		2.0			
Sun	29			1.5							0.93		2.0			
Mon	30			2.0							0.89		1.0			
Tue	31			1.0	83	300	200	200	2,421	6,692	0.83		1.0			13.0
MIN				0.0	69	260	175	175	2,187	5,200	0.78		0.0			12.0
MAX				2.0	101	730	350	320	3,475	8,658	1.37		4.0			17.0
AVG				1.1	85	441	235	221	2,735	6,496	0.87		1.3			13.8
SUM		-	-	-	-	-	-	-	-	-	-	-	-	-		-

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
Sun	01			1.90	0.70	1.18	6.60	0.00	0.02	0.00	0.01						
Mon	02			1.90	0.70	1.24	6.60	0.03	0.05	0.07	0.05						
Tue	03	6.0		4.60	0.70	1.26	6.80	0.01	0.09	0.09	0.06	7.2					
Wed	04		10	4.60	0.80	1.41	6.80	0.32	0.10	0.07	0.16						
Thu	05			4.60	0.80	1.77	6.90	0.04	0.66	0.16	0.29	6.3					
Fri	06			4.50	0.80	2.07	6.80	0.10	0.14	0.36	0.20						
Sat	07			4.50	0.20	1.97	6.80	0.32	0.08	0.63	0.34						
Sun	08			4.70	0.80	2.06	6.80	0.02	0.05	0.04	0.04						
Mon	09			4.50	0.80	1.76	6.80	0.02	0.03	0.07	0.04	7.3					
Tue	10	6.0		4.40	0.80	1.57	6.90	0.09	0.16	0.16	0.14						
Wed	11		10	2.00	0.80	1.47	6.80	0.05	0.11	0.12	0.09						
Thu	12			1.80	0.80	1.35	6.80	0.07	0.09	0.48	0.21	7.1					
Fri	13			4.40	0.80	1.37	6.80	0.06	0.11	0.12	0.10						
Sat	14			4.30	0.80	1.40	6.70	0.01	0.00	0.00	0.00						
Sun	15			1.90	0.80	1.31	6.80	0.06	0.07	0.06	0.06						
Mon	16			1.70	0.70	1.20	6.90	0.03	0.07	0.05	0.05	6.7					
Tue	17	5.4		1.70	0.70	1.10	6.90	0.05	0.05	0.06	0.05						
Wed	18		10	1.50	0.70	1.05	6.90	0.05	0.05	0.04	0.05	6.5					
Thu	19			1.60	0.70	1.11	6.90	0.09	0.10	0.07	0.09						
Fri	20			1.60	0.70	1.08	6.80	0.03	0.05	0.06	0.05						
Sat	21			1.80	0.70	1.11	6.70	0.10	0.09	0.04	0.08						
Sun	22			2.00	0.80	1.19	6.70	0.02	0.01	0.01	0.01						
Mon	23			1.60	0.80	1.22	6.80	0.03	0.04	0.03	0.03	6.9					
Tue	24	3.6		1.60	0.80	1.23	6.80	0.06	0.07	0.05	0.06						
Wed	25		10	1.70	0.10	1.21	6.80	0.10	0.06	0.09	0.08	6.4					
Thu	26			1.90	0.00	1.16	6.80	0.06	0.54	0.08	0.23						
Fri	27			1.60	0.80	1.15	6.90	0.05	0.06	0.06	0.06						
Sat	28			4.40	0.80	1.24	6.90	0.06	0.06	0.07	0.06	6.9					
Sun	29			4.30	0.70	1.19	6.90	0.02	0.04	0.02	0.03						
Mon	30			4.70	0.70	1.43	6.90	0.01	0.02	0.01	0.01						
Tue	31	6.0		1.60	0.70	1.17	6.90	0.04	0.00	0.02	0.02	6.0					
MIN		3.6	10		0.00	1.05	6.60	0.00	0.00	0.00	0.00	5.99		-	-	-	-
MAX		6.0	10	4.70		2.07	6.90	0.32	0.66	0.63	0.34	7.30		-	-	-	-
AVG		5.4	10			1.36	6.81	0.06	0.10	0.10	0.09	6.73		-	-	-	-
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	Cu Ft	GAL	LBS/DAY	FT	FT	DEG C	No/100ml	%	Inches	Gallons	Gallons	Gallons
Sun	01				0		4.1	2.9	13.6			41	72	0.0	0.050
Mon	02				0		4.2	7.9	13.0			41	69	0.0	0.049
Tue	03				9,000	5,385	4.2	6.2	13.1			41	101	0.0	0.044
Wed	04				0		4.2	4.1	13.0	<10		41	69	0.0	0.044
Thu	05				9,000	4,742	4.2	3.4	11.9			41	82	0.0	0.046
Fri	06				0		4.2	6.2	12.0			41	177	2.0	0.050
Sat	07				0		4.2	1.7	11.3			41	105	0.0	0.057
Sun	08				0		4.2	5.1	13.8			41	100	0.0	0.058
Mon	09				9,000	5,553	4.2	6.9	13.2			41	68	0.0	0.056
Tue	10				0		4.3	4.4	13.1			41	94	0.0	0.048
Wed	11				0		4.3	6.3	14.0	<10		41	91	0.0	0.045
Thu	12				9,000	5,350	4.3	6.8	14.4			41	66	0.0	0.042
Fri	13				0		4.4	8.1	14.5			41	68	2.0	0.042
Sat	14				0		4.4	3.2	15.5			41	110	2.0	0.042
Sun	15				0		4.4	4.7	15.3			41	48	2.0	0.043
Mon	16				9,000	5,041	4.4	7.3	13.3			41	90	2.0	0.043
Tue	17				0		4.5	6.4	14.3			41	78	2.0	0.043
Wed	18				9,000	4,900	4.5	7.4	15.8	<10		41	106	2.0	0.042
Thu	19				0		4.5	10.9	15.0			41	45	4.0	0.045
Fri	20				0		4.5	5.9	15.6			41	77	2.0	0.045
Sat	21				0		6.3	5.7	16.2			41	77	2.0	0.039
Sun	22				0		4.6	8.0	16.5			41	69	2.0	0.041
Mon	23				9,000	5,188	4.6	9.8	17.2			41	63	2.0	0.042
Tue	24				0		4.6	7.3	15.8			41	70	4.0	0.041
Wed	25				9,000	4,808	4.7	3.4	15.4	<10		41	100	2.0	0.040
Thu	26				0		4.7	7.7	16.9			41	49	2.0	0.038
Fri	27				0		4.7	3.9	16.6			41	110	4.0	0.037
Sat	28				9,000	5,179	4.8	8.3	17.1			41	70	2.0	0.035
Sun	29				0		4.8	5.9	17.8			41	85	4.0	0.035
Mon	30				0		4.7	8.3	17.0			41	53	2.0	0.026
Tue	31				9,000	4,496	4.8	7.6	17.9			41	74	2.0	0.027
MIN		-	-	-	0	4,496	4	2	11	<10	-	41	45	0.0	0.026
MAX		-	-	-	9,000	5,553	6	11	18	<10	-	41	177	4.0	0.058
AVG		-	-	-	2,903	5,064	5	6	15	<10	-	41	82	1.5	0.043
SUM		-	-	-	90,000	50,642	-	-	-		-	-	-	-	1.333

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 – May 2016

Project Manager/Chief Operator – Aram Varjabedian	MA Grade 7C
Asst. Project Manager/Asst. Chief Operator – Kevin Stetson	MA Grade 6C
Lead Operator – Joseph Basler	MA Grade 5C
Operations/Maintenance Tech 2 – Eric Sutton	MA Grade 3M
Operations/Maintenance Tech 2 – Rick Clark	
Operations/Maintenance Tech 1 – 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 – May 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		
Lead Operator	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 2			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
May, 2016

Date	Rainfall	Minimum Air Temp	Maximum Air Temp	Effluent Flow
	Inches	F	F	MGD
05/01/16	0.10	37	55	1.179
05/02/16	0.30	43	51	1.241
05/03/16	0.10	44	50	1.258
05/04/16	0.40	43	51	1.405
05/05/16	0.60	43	45	1.774
05/06/16	0.10	44	54	2.067
05/07/16	0.00	46	51	1.972
05/08/16	0.00	46	65	2.057
05/09/16	0.00	46	65	1.762
05/10/16	0.00	35	72	1.574
05/11/16	0.00	40	78	1.470
05/12/16	0.00	46	74	1.350
05/13/16	0.10	51	77	1.368
05/14/16	0.00	56	80	1.396
05/15/16	0.00	44	62	1.312
05/16/16	0.00	40	59	1.198
05/17/16	0.00	50	70	1.098
05/18/16	0.00	46	61	1.054
05/19/16	0.00	45	66	1.108
05/20/16	0.00	44	74	1.082
05/21/16	0.00	53	76	1.105
05/22/16	0.00	56	64	1.187
05/23/16	0.00	43	74	1.220
05/24/16	0.48	51	56	1.230
05/25/16	0.00	51	84	1.209
05/26/16	0.00	58	79	1.158
05/27/16	0.00	58	73	1.154
05/28/16	0.00	66	91	1.240
05/29/16	0.00	53	77	1.186
05/30/16	0.70	53	73	1.431
05/31/16	0.00	68	87	1.166
Min	0.00	35	45	1.05
Max	0.70	68	91	2.07
Avg	0.09	48	68	1.36
Sum	2.88			42.01

May 2016

Hingham Flow

	Daily Com	100011 Hingham Flow KGAL
1 Sun		49.90
2 Mon		49.00
3 Tue		43.80
4 Wed		43.50
5 Thu		46.20
6 Fri		49.80
7 Sat		57.00
8 Sun		58.00
9 Mon		56.40
10 Tue		47.90
11 Wed		44.60
12 Thu		41.80
13 Fri		42.30
14 Sat		42.00
15 Sun		43.00
16 Mon		43.00
17 Tue		42.70
18 Wed		41.50
19 Thu		44.80
20 Fri		45.30
21 Sat		39.20
22 Sun		41.30
23 Mon		41.80
24 Tue		40.90
25 Wed		40.40
26 Thu		37.70
27 Fri		37.40
28 Sat		34.50
29 Sun		34.50
30 Mon		26.20
31 Tue		26.80
MIN		26.20
MAX		58.00
AVG		43.01
SUM		1,333.20
GeoMean		42.39

May 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 Sun		S-5	44	Cloudy	0.000	0.160		0.720	0.130	0.000	0.000	0.130	0.110
2 Mon		NE-11	47	Fog	0.000	0.130		0.920	0.200	0.000	0.000	0.240	0.150
3 Tue		NE-5	48	Cloudy	0.000	0.130		0.610	0.160	0.000	0.000	0.130	0.128
4 Wed		NE-14	48	Cloudy	0.001	0.130		0.130	0.140	0.000	0.000	0.112	0.103
5 Thu		N	45	Cloudy	0.000	0.700		0.830		0.000		0.370	0.110
6 Fri		N-9	48	Cloudy	0.000	0.003		0.120	1.100	0.000	0.002	0.350	0.029
7 Sat		NE-13	47	Cloudy/fog	0.000	0.132		0.082	0.015	0.009	0.000	0.068	0.058
8 Sun		SSW-14	57	Rain	0.000	0.130		0.190	0.220	0.001	0.000	0.110	0.098
9 Mon		WSW-14	55	Partly Cloudy	0.001	0.130		0.180	0.110	0.000	0.000	0.150	0.134
10 Tue		WNW-9	57	Sunny	0.000	0.100		0.170	0.055	0.000	0.000	0.120	0.110
11 Wed		E-13	66	Sunny	0.000	0.100		0.440	0.053	0.000	0.000	0.111	0.026
12 Thu		E-10	64	Sunny	0.002	0.130		0.026	0.009	0.005	0.000	0.140	0.024
13 Fri		S -6	55	P/C	0.001	0.001		0.850	0.024	0.003	0.000	0.170	0.017
14 Sat		SW 13	75	Sunny	0.001	0.130		1.200	0.000	0.012	0.140	0.120	0.020
15 Sun		W-17	52	Partly Cloudy	0.000	0.120		1.700	0.014	0.000	0.000	0.170	0.020
16 Mon		W-22	47	Cloudy	0.000	0.100		1.500	0.017	0.000	0.000	0.170	0.028
17 Tue		W-11	61	Cloudy	0.001	0.130		0.760	0.009	0.000	0.000	0.220	0.018
18 Wed		NNE-6	53	Partly Cloudy	0.001	0.130		0.660	0.036	0.000	0.000	0.240	0.020
19 Thu		ESE-11	61	Partly Cloudy	0.000	0.100		0.280	0.026	0.000	0.350	0.260	0.018
20 Fri		W-8	52	Sunny	0.003	1.900		0.240	0.026	0.003	0.001	0.330	0.022
21 Sat		Sw 7	51	P/C	0.001	0.001		0.780	0.490	0.004	0.000	0.430	0.021
22 Sun		NE-10	57	Cloudy	0.000	0.100		1.100	0.064	0.000	1.100	0.350	0.020
23 Mon		ENE-5	66	Partly Cloudy	0.001	0.130		0.550	0.055	0.004	0.004	0.390	0.022
24 Tue		NE-14	52	Fog/cloudy	0.000	0.130		0.500	0.200	0.000	0.000	0.110	0.021
25 Wed		SSW-8	56	Cloudy	0.000	0.130		0.290	0.106	0.000	0.000	0.290	0.022
26 Thu		SSW-2	65	Sunny	0.000	0.130		1.200	0.012	0.000	0.010	0.280	0.009
27 Fri		E 6	62	Cldy	0.002	0.001		0.520	0.015	0.004	0.000	0.540	0.004
28 Sat		Sw-9	67	Pt sunny	0.000	0.900		0.550	0.016	0.002	0.001	2.300	0.011
29 Sun		N-13	57	Cloudy	0.000	*8.110*		0.072	0.004	0.000	0.160	1.100	0.008
30 Mon		SE-5	59	Cloudy	0.000	0.100		0.000	0.000	0.000	0.006	0.004	0.000
31 Tue		SW-9	85	Cloudy	0.000	0.100		*11.600*	0.012	0.000	0.000	0.580	0.004
MIN		-	44	-	0.000	0.001	-	0.000	0.000	0.000	0.000	0.004	0.000
MAX		-	85	-	0.003	8.110	-	11.600	1.100	0.012	1.100	2.300	0.150
AVG		-	57	-	0.000	0.465	-	0.928	0.111	0.002	0.059	0.325	0.045
SUM		-	1,759	-	0.015	14.418	-	28.770	3.318	0.047	1.774	10.085	1.385
GeoMean		-	56	-	0.093	0.095	-	0.465	0.057	0.166	0.263	0.206	0.032

			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 Sun		15.4	0.002	0.002	0.002	0.002	0.002	0.002	0.002
2 Mon		37.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3 Tue		1.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4 Wed		8.0	0.002	0.002	0.002	0.002	0.002	0.002	0.002
5 Thu		70.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
6 Fri		91.7	0.002	0.001	0.001	0.001	0.001	0.001	0.002
7 Sat		14.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8 Sun		10.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9 Mon		10.7	0.001	0.001	0.001	0.001	0.001	0.001	0.001
10 Tue		8.3	0.002	0.002	0.002	0.002	0.002	0.002	0.004
11 Wed		76.6	0.005	0.005	0.004	0.004	0.004	0.005	0.005
12 Thu		82.9	0.004	0.004	0.004	0.004	0.004	0.004	0.004
13 Fri		90.0	0.001	0.001	0.001	0.001	0.001	0.002	0.001
14 Sat		83.3	0.003	0.003	0.004	0.003	0.003	0.003	0.004
15 Sun		88.2	0.000	0.000	0.000	0.000	0.000	0.000	0.000
16 Mon		83.5	0.002	0.002	0.002	0.002	0.002	0.004	0.002
17 Tue		91.8	0.002	0.002	0.002	0.002	0.002	0.002	0.002
18 Wed		91.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19 Thu		93.1	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20 Fri		93.3	0.004	0.004	0.004	0.004	0.004	0.004	0.004
21 Sat		95.1	0.004	0.004	0.004	0.004	0.004	0.003	0.003
22 Sun		94.3	0.002	0.002	0.002	0.002	0.002	0.002	0.002
23 Mon		94.4	0.004	0.004	0.004	0.004	0.004	0.006	0.005
24 Tue		80.9	0.000	0.000	0.000	0.000	0.000	0.000	0.000
25 Wed		92.4	0.000	0.000	0.000	0.000	0.000	0.000	0.000
26 Thu		96.8	0.004	0.003	0.003	0.003	0.003	0.005	0.004
27 Fri		99.3	0.002	0.002	0.002	0.002	0.002	0.002	0.002
28 Sat		99.5	0.002	0.002	0.002	0.002	0.002	0.004	0.002
29 Sun		99.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30 Mon		100.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31 Tue		99.3	0.002	0.002	0.002	0.002	0.002	0.002	0.002
MIN		1.5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MAX		100.0	0.005	0.005	0.004	0.004	0.004	0.006	0.005
AVG		70.8	0.002	0.002	0.002	0.002	0.002	0.002	0.002
SUM		2,194.7	0.050	0.048	0.048	0.047	0.047	0.056	0.053
GeoMean		51.3	0.025	0.024	0.024	0.024	0.024	0.026	0.025