COMMITMENT & INTEGRITY
DRIVE RESULTS

1111 Nantasket Ave.
Hull, Massachusetts 02045

T 781.925.0906

WOODARD
&CURRAN

February 12, 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 – January 2016 – Discharge 001-A

Dear Ms. McDonald:

Enclosed please find the completed DMR for the month of January 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.

Please note that for the Jan 12-13, 2016 BOD sample results, the contract lab indicated that incorrect sample volumes were used, which resulted in low depletion of dissolved oxygen, and this prevented the calculation of BOD values. The samples were re-run out-of-hold, and the results are estimated.

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	01	01	TO	16	01	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)	SAMPLE MEASUREMENT	70	101	LBS/DY	5	8	8	mg/L	0	1/7	24
00310 1 0 0 EFFLUENT GROSS VALUE	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)	SAMPLE MEASUREMENT	~~2,119~~ 2122	******	LBS/DY	165	******	******	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	******	******	****	6.60	******	7.00	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	167	229	LBS/DY	13	17	17	mg/L	0	1/7	24
00530 1 0 0 EFFLUENT GROSS VALUE	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	SAMPLE MEASUREMENT	3,794	******	LBS/DY	294	******	******	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	~~1.58~~ 1.61	2.70	MGD	******	******	******	****	0	99/99	RC
50050 1 0 0 EFFLUENT GROSS VALUE	PERMIT REQUIREMENT	3.07 12 MO AVG	DAILY MX	MGD	******	******	******	****		CONTINUOUS	RCORDR
FLOW, IN CONDUIT OR THRU TREATMENT PLANT	SAMPLE MEASUREMENT	******	******	****	1.75	******	******	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 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~~ 0906	16	02	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	01	01	TO	16	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	******	******	******	0.13	******	0.52	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~~ 0906	16	02	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

COMMITMENT & INTEGRITY
DRIVE RESULTS

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WOODARD
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HULL, MA WATER POLLUTION CONTROL FACILITY
NPDES NO. MA0101231

Hull Water Pollution Control Facility – Staffing – January 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 5C
James Gagliard – Sr. Operations Specialist	MA Grade 6C
Bill Boornazian – Engineer / Operator	MA Grade 6C
Frank Cavaleri – Area Manager	MA Grade 7C

Hull Water Pollution Control Facility – Schedule – January 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	5C	*	*	*	*	*	*	*

- 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
January, 2016

Date	Rainfall	Minimum Air Temp	Maximum Air Temp	Effluent Flow
	Inches	F	F	MGD
01/01/16	0.00	35	40	1.900
01/02/16	0.00	23	37	1.666
01/03/16	0.00	31	44	1.582
01/04/16	0.05	17	36	1.454
01/05/16	0.00	11	26	1.428
01/06/16	0.00	23	44	1.288
01/07/16	0.00	31	42	1.242
01/08/16	0.00	38	44	1.309
01/09/16	0.00	41	43	1.473
01/10/16	1.00	38	57	2.322
01/11/16	0.00	25	50	2.554
01/12/16	0.10	23	38	2.010
01/13/16	0.00	23	33	1.840
01/14/16	0.00	22	30	1.598
01/15/16	0.00	28	45	1.521
01/16/16	1.22	34	43	2.698
01/17/16	0.10	28	38	2.618
01/18/16	0.16	20	30	2.269
01/19/16	0.00	17	25	1.820
01/20/16	0.00	20	32	1.618
01/21/16	0.00	23	32	1.582
01/22/16	0.00	20	31	1.531
01/23/16	0.31	26	34	1.684
01/24/16	0.00	20	36	2.405
01/25/16	0.00	25	32	1.790
01/26/16	0.00	26	52	1.617
01/27/16	0.00	33	45	1.526
01/28/16	0.00	28	42	1.472
01/29/16	0.00	34	40	1.480
01/30/16	0.00	30	43	1.443
01/31/16	0.00	38	57	1.363
Min	0.00	11	25	1.24
Max	1.22	41	57	2.70
Avg	0.09	27	39	1.75
Sum	2.94			54.10

Hull Wastewater Treatment Plant Operations Data

January, 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
Fri	01		On	On	On	Off	On	On	Off	On	Off	Off	On	On	On	On
Sat	02		On	On	On	Off	On	On	Off	On	Off	Off	On	On	On	On
Sun	03		On	On	On	Off	On	On	Off	On	Off	Off	On	On	On	On
Mon	04		On	On	On	Off	On	On	Off	On	Off	Off	On	On	On	On
Tue	05		On	On	On	Off	On	On	Off	On	Off	Off	On	On	On	On
Wed	06		On	On	On	Off	On	On	Off	On	Off	Off	On	On	On	On
Thu	07		On	On	On	Off	On	On	Off	On	Off	Off	On	On	On	On
Fri	08		On	On	On	Off	On	On	Off	On	Off	Off	On	On	On	On
Sat	09		On	On	On	Off	On	On	Off	On	Off	Off	On	On	On	On
Sun	10		On	On	On	Off	On	On	Off	On	Off	Off	On	On	On	On
Mon	11		On	On	On	Off	On	On	Off	On	Off	Off	On	On	On	On
Tue	12		On	On	On	Off	On	On	Off	On	Off	Off	On	On	On	On
Wed	13		On	On	On	Off	On	On	Off	On	Off	Off	On	On	On	On
Thu	14		On	On	On	Off	On	On	Off	On	Off	Off	On	On	On	On
Fri	15		On	On	On	Off	On	On	Off	On	Off	Off	On	On	On	On
Sat	16		On	On	On	Off	On	On	Off	On	Off	Off	On	On	On	On
Sun	17		On	On	On	Off	On	On	Off	On	Off	Off	On	On	On	On
Mon	18		On	On	On	Off	On	On	Off	On	Off	Off	On	On	On	On
Tue	19		On	On	On	Off	On	On	Off	On	Off	Off	On	On	On	On
Wed	20		On	On	On	Off	On	On	Off	On	Off	Off	On	On	On	On
Thu	21		On	On	On	Off	On	On	Off	On	Off	Off	On	On	On	On
Fri	22		On	On	On	Off	On	On	Off	On	Off	Off	On	On	On	On
Sat	23		On	On	On	Off	On	On	Off	On	Off	Off	On	On	On	On
Sun	24		On	On	On	Off	On	On	Off	On	Off	Off	On	On	On	On
Mon	25		On	On	On	Off	On	On	Off	On	Off	Off	On	On	On	On
Tue	26		On	On	On	Off	On	On	Off	On	Off	Off	On	On	On	On
Wed	27		On	On	On	Off	On	On	Off	On	Off	Off	On	On	On	On
Thu	28		On	On	On	Off	On	On	Off	On	Off	Off	On	On	On	On
Fri	29		On	On	On	Off	On	On	Off	On	Off	Off	On	On	On	On
Sat	30		On	On	On	Off	On	On	Off	On	Off	Off	On	On	On	On
Sun	31		On	On	On	Off	On	On	Off	On	Off	Off	On	On	On	On
MIN		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MAX		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AVG		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SUM		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Hull Wastewater Treatment Plant Operations Data

January, 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
Fri	01	Off	Off	Off	Off	0.00	35	40	20	0.7			1.96	1.20	2.10	
Sat	02	Off	Off	Off	Off	0.00	23	37	20	0.7			1.77	1.10	1.90	
Sun	03	Off	Off	Off	Off	0.00	31	44	20	0.7			1.71	1.00	1.90	
Mon	04	Off	Off	Off	Off	0.05	17	36	20	0.7			1.58	1.10	1.80	
Tue	05	Off	Off	Off	Off	0.00	11	26	20	0.7			1.57	1.00	2.00	
Wed	06	Off	Off	Off	Off	0.00	23	44	20	0.7	355	220	1.57	0.00	5.00	
Thu	07	Off	Off	Off	Off	0.00	31	42	20	0.7			1.32	0.90	1.70	
Fri	08	Off	Off	Off	Off	0.00	38	44	20	0.7			1.31	0.40	5.30	
Sat	09	Off	Off	Off	Off	0.00	41	43	20	0.7			1.29	0.00	3.70	
Sun	10	Off	Off	Off	Off	1.00	38	57	20	0.7				0.00	3.70	
Mon	11	Off	Off	Off	Off	0.00	25	50	20	0.7						
Tue	12	Off	Off	Off	Off	0.10	23	38	20	0.7						
Wed	13	Off	Off	Off	Off	0.00	23	33	20	0.7	221	140		0.00	2.30	
Thu	14	Off	Off	Off	Off	0.00	22	30	20	0.7			1.59	1.20	2.00	
Fri	15	Off	Off	Off	Off	0.00	28	45	20	0.7			1.52	0.00	3.00	
Sat	16	Off	Off	Off	Off	1.22	34	43	20	0.7			2.56	0.00	4.50	
Sun	17	Off	Off	Off	Off	0.10	28	38	20	0.7			2.49	1.90	3.10	
Mon	18	Off	Off	Off	Off	0.16	20	30	20	0.7			2.17	1.80	3.40	
Tue	19	Off	Off	Off	Off	0.00	17	25	20	0.7			1.77	0.60	3.40	
Wed	20	Off	Off	Off	Off	0.00	20	32	20	0.7	419	190	1.57	0.00	3.20	
Thu	21	Off	Off	Off	Off	0.00	23	32	20	0.7			1.50	0.60	2.60	
Fri	22	Off	Off	Off	Off	0.00	20	31	20	0.7			1.48	0.00	4.30	
Sat	23	Off	Off	Off	Off	0.31	26	34	20	0.7			1.66	0.00	5.70	
Sun	24	Off	Off	Off	Off	0.00	20	36	20	0.7			1.55	0.00	4.70	
Mon	25	Off	Off	Off	Off	0.00	25	32	20	0.7			1.55	0.00	2.50	
Tue	26	Off	Off	Off	Off	0.00	26	52	20	0.7			1.58	0.00	3.20	
Wed	27	Off	Off	Off	Off	0.00	33	45	20	0.7	182	110	1.41	0.00	2.50	
Thu	28	Off	Off	Off	Off	0.00	28	42	20	0.7			1.40	1.00	2.00	
Fri	29	Off	Off	Off	Off	0.00	34	40	20	0.7			1.48	0.90	2.10	
Sat	30	Off	Off	Off	Off	0.00	30	43	20	0.7			1.50	0.90	4.10	
Sun	31	Off	Off	Off	Off	0.00	38	57	20	0.70			1.44	1.10	2.20	
MIN		-	-	-	-	0.00	11	25	20	1	182	110	1.29	0.00		
MAX		-	-	-	-	1.22	41	57	20	1	419	220	2.56		5.70	
AVG		-	-	-	-	0.09	27	39	20	1	294	165	1.64			
SUM		-	-	-	-	2.94	-	-	620	22			-	-	-	-

Hull Wastewater Treatment Plant Operations Data

January, 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
Fri	01			1.0							1.10		1.0		3,800	
Sat	02			1.0							1.11		0.5		3,600	
Sun	03			0.3							1.09		1.0		3,600	
Mon	04			1.3	80	300	200	200	2,490	7,788	0.86		0.0	1,050	3,400	
Tue	05			0.0	83	200	130	120	1,552	6,240	0.85		2.0	22,972	3,400	
Wed	06			1.0	73	300	190	180	2,589	6,542	1.09		2.0	3,216	7,600	10.0
Thu	07			1.0	76	330	200	190	2,631	6,106	1.09		1.5	1,534	12,000	
Fri	08			0.5	80	300	200	180	2,493	5,430	1.08		2.0	10,400	12,000	
Sat	09			1.0							1.11		1.5		12,000	
Sun	10			1.5							1.10		1.0		11,500	
Mon	11			1.3	80	180	120	120	1,489	6,124	1.08		1.0	1,102	12,000	
Tue	12			1.0	93	200	140	130	1,498	5,464	1.10		1.0	12,800	5,500	
Wed	13			0.0	80	270	170	160	2,104	5,748	1.03		1.0		0	10.0
Thu	14			1.0	83	400	230	210	2,756	6,284	0.98		1.0		4,400	
Fri	15			0.5	83	450	250	230	2,986	6,408	1.00		1.0		5,700	
Sat	16			1.0	87	360	220	200	2,517		1.06		1.0		7,000	
Sun	17			1.0	88	390	230	210	2,625	8,470	1.10		2.0		7,000	
Mon	18			2.0	81	400	230	220	2,729	8,528	1.06		2.5		6,200	
Tue	19			3.0	85	530	270	250	3,149	7,714	1.02		4.0		5,000	
Wed	20			1.0	84	500	260	250	3,077	7,068	1.03		1.0		5,100	17.0
Thu	21			2.0	89	470	270	250	3,028	6,226	1.04		0.5		5,000	
Fri	22			2.0	87	450	290	260	3,309	6,556	1.04		1.5		5,000	
Sat	23			1.0	80	460	270	260	3,347		1.08		1.0		5,400	
Sun	24			1.0							1.01		1.0		5,800	
Mon	25			1.0	72	400	220	200	3,034	7,162	1.02		0.6		6,000	
Tue	26			0.0	65	400	200	200	3,052	7,832	0.95		1.0		8,500	
Wed	27			0.0	84	380	240	220	2,838	7,546	0.91		1.0		8,200	14.0
Thu	28			0.0	78	490	240	220	3,074	7,258	0.90		1.0		8,400	
Fri	29			1.0	77	420	240	220	3,115	7,022	0.89		1.5		9,700	
Sat	30			1.0							0.91		1.0		8,300	
Sun	31			2.2							0.90		1.0		8,400	
MIN				0.0	65	180	120	120	1,489	5,430	0.85		0.0	1,050	0	10.0
MAX				3.0	93	530	290	260	3,347	8,528	1.11		4.0	22,972	12,000	17.0
AVG				1.0	81	373	218	203	2,673	6,834	1.02		1.3	7,582	6,758	12.8
SUM		-	-	-	-	-	-	-	-	-	-	-	-	-	209,500	-

Hull Wastewater Treatment Plant Operations Data

January, 2016

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
Fri	01			2.00	1.00	1.90	6.70	0.04	0.02	0.05	0.04		1.0				
Sat	02			1.90	0.80	1.67	6.80	0.48	0.04	0.07	0.20	4.8	5.0				
Sun	03			1.90	0.80	1.58	6.60	0.02	0.01	0.02	0.02		3.0				
Mon	04			2.60	0.90	1.45	6.60	0.03	0.02	0.03	0.03	4.3	3.0				
Tue	05			1.90	0.90	1.43	6.90	0.04	0.04	0.13	0.07						
Wed	06	3.8	10	5.40	0.80	1.29	6.70	0.03	0.06	0.18	0.09	4.3	6.0				
Thu	07			1.80	0.80	1.24	6.70	0.03	0.04	0.07	0.05		6.0				
Fri	08			5.50	0.80	1.31	6.70	0.36	0.08	0.06	0.17	4.1	5.0				
Sat	09			6.00	0.80	1.47	6.70	0.04	0.06	0.09	0.06		6.0				
Sun	10			6.00	0.00	2.32	6.70	0.04	0.03	0.34	0.14		6.0				
Mon	11			6.30	0.90	2.55	6.80	0.03	0.02	0.02	0.02	4.9	3.5				
Tue	12			6.10	0.80	2.01	6.80	0.65	0.12	0.09	0.29		6.0				
Wed	13	5.2	10	5.90	0.00	1.84	6.80	0.04	0.06	0.20	0.10	4.6	6.0				
Thu	14			4.10	0.00	1.60	6.80	0.38	0.95	0.22	0.52		6.0				
Fri	15			6.00	0.80	1.52	6.80	0.08	0.36	0.10	0.18	4.5	5.0				
Sat	16			6.10	0.90	2.70	6.80	0.02	0.43	0.05	0.17		6.0				
Sun	17			6.10	0.90	2.62	6.70	0.04	0.01	0.02	0.02		5.0				
Mon	18			6.10	0.90	2.27	6.70	0.02	0.02	0.02	0.02	4.2	5.0				
Tue	19			6.10	0.90	1.82	6.80	0.04	0.43	0.04	0.17		6.5				
Wed	20	7.5	10	6.00	0.20	1.62	6.90	0.05	0.40	0.06	0.17	4.1	6.0				
Thu	21			5.90	0.80	1.58	6.90	0.04	0.07	0.18	0.10	4.0	6.0				
Fri	22			6.00	0.80	1.53	7.00	0.04	0.08	0.08	0.07	3.9	1.5				
Sat	23			5.90	0.80	1.68	6.90	0.04	0.09	0.10	0.08		1.5				
Sun	24			6.10	0.90	2.41	7.00	0.29	0.06	0.65	0.33		6.0				
Mon	25			5.90	0.80	1.79	7.00	0.04	0.02	0.08	0.05	4.4	4.0				
Tue	26			5.70	0.00	1.62	6.80	0.03	0.04	0.02	0.03		5.0				
Wed	27	4.5	10	1.90	1.00	1.53	6.70	0.05	0.05	0.06	0.05	4.5	6.0				
Thu	28			1.90	0.90	1.47	7.00	0.04	0.97	0.04	0.35		6.0				
Fri	29			2.00	0.90	1.48	6.80	0.08	0.05	0.73	0.29	4.3	5.0				
Sat	30			5.70	0.80	1.44	6.80	0.27	0.08	0.07	0.14	4.0	3.0				
Sun	31			2.00	0.80	1.36	6.70	0.01	0.02	0.03	0.02		5.0				
MIN		3.8	10		0.00	1.24	6.60	0.01	0.01	0.02	0.02	3.90	1.00	-	-	-	-
MAX		7.5	10	6.30		2.70	7.00	0.65	0.97	0.73	0.52	4.90	6.50	-	-	-	-
AVG		5.3	10			1.75	6.79	0.11	0.15	0.13	0.13	4.33	4.83	-	-	-	-
SUM		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Hull Wastewater Treatment Plant Operations Data

January, 2016

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
Fri	01				0		6.9	3.3	10.9			42	149	4.0
Sat	02				9,000	3,602	6.9	3.4	12.0			42	138	4.0
Sun	03				0		6.9	3.3	11.9			42	128	2.0
Mon	04				9,000	3,293	6.9	3.2	11.9			42	102	2.0
Tue	05				0		7.0	3.3	10.0			42	117	4.0
Wed	06				9,000	3,265	7.0	3.3	11.0	<10		42	183	6.0
Thu	07				0		7.0	3.3	12.3			42	87	2.0
Fri	08				9,000	3,118	7.0	3.3	12.6			42	90	6.0
Sat	09				0		7.0	3.3	12.5			42	102	2.0
Sun	10				0		6.9	3.3	12.4			42	103	2.0
Mon	11				9,000	3,714	7.0	3.3	10.8			42	166	2.0
Tue	12				0		7.0	3.3	10.9			42	166	2.0
Wed	13				9,000	3,479	7.0	3.3	10.4	<10		42	98	0.0
Thu	14				0		7.0	3.3	10.0			42	83	0.0
Fri	15				9,000	3,407	7.0	3.3	11.8			42	70	0.0
Sat	16				0		7.0	3.3	10.8			42	64	0.0
Sun	17				0		7.0	3.3	10.6			42	121	0.0
Mon	18				9,000	3,173	6.9	3.3	10.1			42	102	0.0
Tue	19				0		6.9	3.3	8.9			42	67	0.0
Wed	20				9,000	3,125	6.9	3.3	9.8	<10		42	92	0.0
Thu	21				9,000	3,056	6.9	3.3	9.4			42	60	0.0
Fri	22				9,000	2,986	7.0	3.3	9.3			42	87	0.0
Sat	23				0		7.0	3.3	10.3			42	62	0.0
Sun	24				0		6.9	3.3	8.0			42	92	0.0
Mon	25				9,000	3,303	7.0	3.3	7.4			42	91	0.0
Tue	26				0		6.9	3.3	9.6			42	97	0.0
Wed	27				9,000	3,391	7.0	3.3	10.9	<10		42	58	0.0
Thu	28				0		7.0	3.3	10.5			42	63	0.0
Fri	29				9,000	3,261	6.9	3.3	11.3			42	75	0.0
Sat	30				9,000	3,022	6.9	3.3	10.2			42	71	0.0
Sun	31				0		7.0	3.3	10.9			42	74	0.0
MIN		-	-	-	0	2,986	7	3	7	<10	-	42	58	0.0
MAX		-	-	-	9,000	3,714	7	3	13	<10	-	42	183	6.0
AVG		-	-	-	4,355	3,280	7	3	11	<10	-	42	99	1.2
SUM		-	-	-	135,000	49,195	-	-	-		-	-	-	-

January 2016

Hingham Flow

	Daily Com	100011 Hingham Flow KGAL
1 Fri		67.00
2 Sat		60.00
3 Sun		58.00
4 Mon		51.00
5 Tue		48.00
6 Wed		46.00
7 Thu		43.00
8 Fri		40.00
9 Sat		44.00
10 Sun		67.00
11 Mon		78.00
12 Tue		67.00
13 Wed		60.00
14 Thu		57.00
15 Fri		54.00
16 Sat		82.00
17 Sun		87.00
18 Mon		73.00
19 Tue		61.00
20 Wed		57.00
21 Thu		55.00
22 Fri		56.00
23 Sat		52.00
24 Sun		52.00
25 Mon		50.00
26 Tue		45.00
27 Wed		61.00
28 Thu		58.00
29 Fri		56.00
30 Sat		54.00
31 Sun		57.00
MIN		40.00
MAX		87.00
AVG		57.94
SUM		1,796.00
GeoMean		56.97

		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 Fri		Wsw13	37	Pt sunny	0.002	0.240		0.120	3.500	0.000	0.000	0.140	0.002
2 Sat		Wsw-14	33	Partly cloudy	0.002	0.114		0.047	0.250	0.000	0.000	0.350	0.004
3 Sun		.75	41	Clear	0.000	0.960		1.500	0.340	0.002	0.000	0.150	0.006
4 Mon		NNW-20	31	Mostly Cloudy	0.001	0.130		1.600	0.042	0.002	0.000	0.240	0.011
5 Tue		NW-17	12	Partly Cloudy	0.001	0.100		0.860	0.042	0.001	0.000	0.140	0.004
6 Wed		SW-12	25	Sunny	0.000	0.180		0.210	0.140	0.001	0.000	0.280	0.005
7 Thu		WSW-7	29	Fair	0.001	0.130		1.500	0.280	0.009	0.000	0.210	0.005
8 Fri		Nne-13	39	Cldy	0.000	2.600		2.100	0.280	0.009	0.000	0.220	0.130
9 Sat		East 11mph	40	Cloudy	0.000	0.160		0.700	0.420	0.002	0.003	0.440	0.004
10 Sun		ESE-15	46	Cloudy	0.001	0.160		0.660	0.280	0.003	0.000	0.320	0.004
11 Mon		W-26	33	Fair	0.004	0.130		0.170	3.800	0.000	0.000	0.680	0.110
12 Tue		SSE-8	36	Fair	0.001	0.130		0.027	1.700	0.001	0.000	0.210	0.110
13 Wed		W -29	29	Sunny	0.001	0.042		0.170	4.800	0.003	0.000	0.240	*0.240*
14 Thu		Sw-13	21	Cloudy	0.001	0.112		0.240	*31.000*	0.009	0.000	1.700	*0.240*
15 Fri		S-2	27	Cloudy	0.001	0.077		0.360	0.730	0.002	0.000	0.310	*0.230*
16 Sat		N-18	41	Rain	0.002	0.043		0.072	0.098	0.000	0.001	0.050	0.033
17 Sun		NW-10	35	Partly Cloudy	0.004	0.100		0.370	0.130	0.001	0.000	0.095	0.048
18 Mon		Wsw 15	28	Cloudy	0.000	0.210		0.210	0.061	0.000	0.000	0.051	0.039
19 Tue		W-24	21	Partly Cloudy	0.004	0.130		0.021	0.015	0.000	0.000	0.066	0.110
20 Wed		W	22	Clear	0.002	0.015		0.015	0.006	0.002	0.000	0.480	0.006
21 Thu		WNW-17	27	Sunny	0.003	0.130		0.360	0.044	0.002	0.000	0.066	0.072
22 Fri		Ne-15	20	Clear	0.000	0.083		0.220	0.063	0.002	0.000	0.068	0.042
23 Sat		NE 28	33	Cloudy/Windy	0.000	0.170		0.053	0.000	0.000	0.002	0.055	0.067
24 Sun		Nnw	18	Clear	0.002	0.069		0.290	0.068	0.002	0.001	0.042	0.068
25 Mon		Nnw	21	Sunny	0.004	0.016		0.000	0.690	0.005	0.006	0.530	*0.240*
26 Tue		Ssw-20	50	Cloudy	0.003	0.160		0.061	0.089	0.002	0.000	0.670	0.140
27 Wed		Nw	42	Overcast	0.000	0.170		0.121	0.170	0.000	0.000	0.460	0.134
28 Thu		S-10	34	Sunny	0.005	0.130		0.290	0.123	0.002	0.000	0.110	0.064
29 Fri		N -4	35	Calm	0.000	0.110		0.240	0.220	0.001	0.000	0.190	0.105
30 Sat		W-14	31	Sunny	0.000	0.120		0.170	0.200	0.002	0.002	0.130	0.105
31 Sun		SW-12	42	Cloudy	0.002	0.160		0.750	0.119	0.001	0.000	0.110	0.079
MIN		-	12	-	0.000	0.015	-	0.000	0.000	0.000	0.000	0.042	0.002
MAX		-	50	-	0.005	2.600	-	2.100	31.000	0.009	0.006	1.700	0.240
AVG		-	32	-	0.002	0.228	-	0.436	1.603	0.002	0.000	0.284	0.079
SUM		-	979	-	0.047	7.081	-	13.507	49.700	0.066	0.015	8.803	2.457
GeoMean		-	30	-	0.014	0.124	-	0.235	0.237	0.011	0.301	0.188	0.036

January 2016

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 Fri		98.6	0.000	0.000	0.000	0.000	0.000	0.000	0.001
2 Sat		98.9	0.003	0.003	0.004	0.004	0.004	0.000	0.003
3 Sun		96.0	0.002	0.002	0.002	0.002	0.002	0.002	0.002
4 Mon		95.4	0.002	0.002	0.002	0.002	0.002	0.002	0.002
5 Tue		97.1	0.004	0.004	0.004	0.008	0.008	0.009	0.004
6 Wed		98.2	0.002	0.003	0.003	0.003	0.003	0.003	0.003
7 Thu		97.6	0.007	0.007	0.007	0.007	0.007	0.008	0.008
8 Fri		40.9	0.001	0.002	0.001	0.001	0.001	0.001	0.001
9 Sat		99.1	0.004	0.004	0.003	0.002	0.002	0.000	0.001
10 Sun		98.8	0.001	0.001	0.001	0.001	0.001	0.001	0.001
11 Mon		83.8	0.006	0.006	0.005	0.005	0.005	0.012	0.005
12 Tue		47.6	0.003	0.004	0.003	0.003	0.003	0.003	0.003
13 Wed		0.0	0.002	0.002	0.003	0.003	0.003	0.002	0.003
14 Thu		85.9	0.002	0.002	0.003	0.002	0.002	0.003	0.002
15 Fri		25.8	0.004	0.004	0.002	0.004	0.004	0.003	0.004
16 Sat		34.0	0.002	0.002	0.002	0.003	0.003	0.002	0.001
17 Sun		49.5	0.004	0.004	0.004	0.004	0.004	0.004	0.004
18 Mon		23.5	0.002	0.004	0.002	0.002	0.002	0.004	0.000
19 Tue		-66.7	0.004	0.004	0.004	0.004	0.004	0.004	0.004
20 Wed		98.8	0.002	0.003	0.004	0.004	0.004	0.004	0.002
21 Thu		-9.1	0.003	0.004	0.004	0.004	0.004	0.004	0.004
22 Fri		38.2	0.004	0.003	0.004	0.003	0.003	0.004	0.002
23 Sat		-21.8	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24 Sun		-61.9	0.002	0.003	0.002	0.003	0.003	0.002	0.002
25 Mon		54.7	0.005	0.005	0.006	0.006	0.006	0.002	0.004
26 Tue		79.1	0.004	0.005	0.004	0.004	0.004	0.024	0.004
27 Wed		70.9	0.002	0.002	0.002	0.002	0.002	0.001	0.001
28 Thu		41.8	0.004	0.004	0.004	0.004	0.004	0.002	0.004
29 Fri		44.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30 Sat		19.2	0.002	0.002	0.002	0.002	0.002	0.003	0.002
31 Sun		28.2	0.004	0.004	0.004	0.004	0.004	0.004	0.004
MIN		-66.7	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MAX		99.1	0.007	0.007	0.007	0.008	0.008	0.024	0.008
AVG		51.2	0.003	0.003	0.003	0.003	0.003	0.004	0.003
SUM		1,586.9	0.087	0.095	0.091	0.096	0.096	0.113	0.081
GeoMean		51.1	0.005	0.005	0.005	0.005	0.005	0.008	0.004