

May 2021

Monthly Operating Report





June 14, 2021

Mr. Keith Nastasia

Rockland Sewer Superintendent

587 Rear Summer Street

Rockland, MA 02370

RE: Rockland Wastewater Facility

Monthly Report—May 2021

Dear Mr. Nastasia,

Please see the enclosed May 2021 Monthly Operating Report (MOR) for the Suez Operations and Maintenance contract.

Please contact me at a suitable time should you have any questions regarding this report.

Sincerely,

Rick Kotouch

SUEZ Project Manager

CC: Charles Heshion

Dan Duross

MAY 2021 MONTHLY OPERATING REPORT

1. SUMMARY:

- The facility will be reporting **1** exceedance for the month of May 2021 for Monthly Avg. Flow
- Monthly Average flow was **2.614**, NPDES Limit is **2.5**
- There were no lost time / first aid injuries throughout the month
- The total rainfall for this reporting period was **5.06"**
- I&I Work is ongoing
- **193** work orders were closed in May, with **20** as corrective maintenance work orders, **3** of the 20 were emergency call outs, while **0** were related to the collection system.
- New permit still pending from EPA

2. STAFFING:

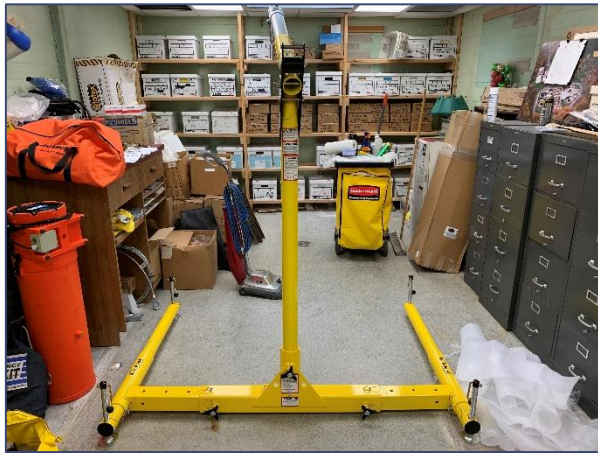
Current Employee Licenses as of 2/1/2021										
		Hoisting		Wastewater			NEWEA Collections			NEWEA Laboratory
Employee	Title	1C Forklift	1B Boom Truck & Forklift	4M	5C	7C	I	II	IV	I
Rick Kotouch	Project Manager					X			X	
Edwin McAuliffe	Asst. Project Manager		X			X		X		X
Steven Butts	Lab Technician					X				X
Chuck Amaral	Maintenance Foreman		X		X			X		
Megan Kelly Lynch	Operator	X				X				
Shaun Chaponis (Part Time Weekends)	Operator				X		X			
Garry Murrill	Operator				X			X		
Dan Sullivan-Xenos	Operator				X					
Kevin Fennell	Operator In Training									

3. EMPLOYEE HEALTH AND SAFETY:

Throughout the COVID-19 (Coronavirus) pandemic in an attempt to continue to serve the Town of Rockland with reliable operations and protect the staff of the Rockland team, SUEZ has implemented numerous procedures to ensure continuity of the operations. As the COVID-19 continues, SUEZ at the Rockland facility has downgraded to Threat Level 1 guidelines as follows:

Fully vaccinated SUEZ employees may now resume normal activities without wearing a mask or socially distancing. We still do ask that visitors to the facility check in and meet the COVID visitor guidelines and continue to wear masks unless fully vaccinated.

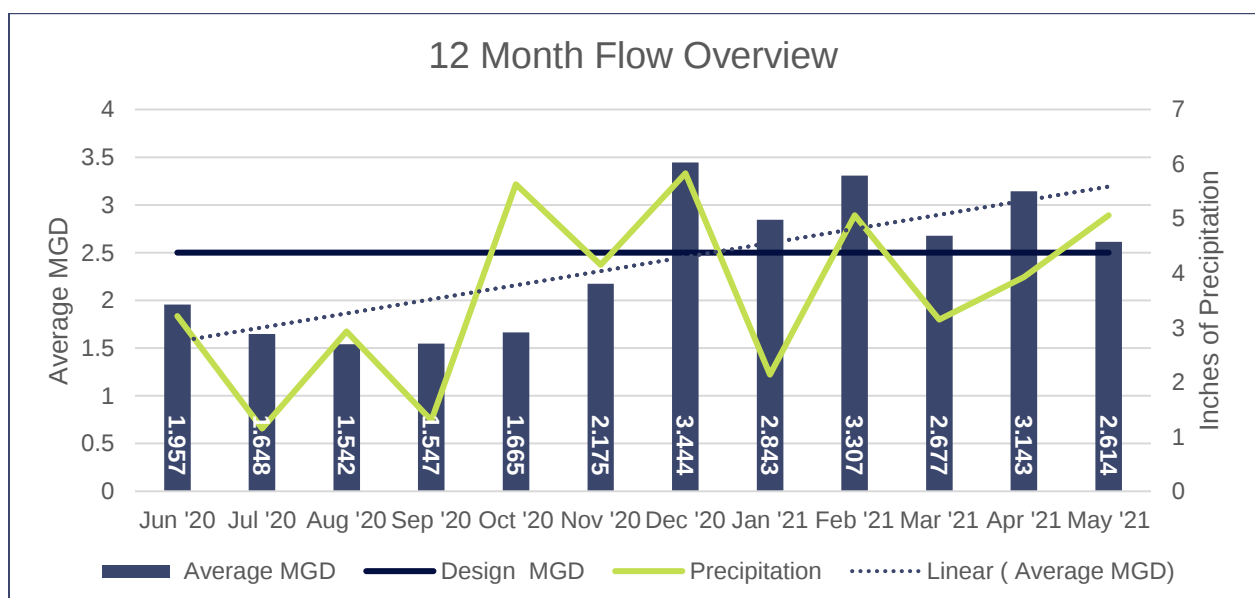
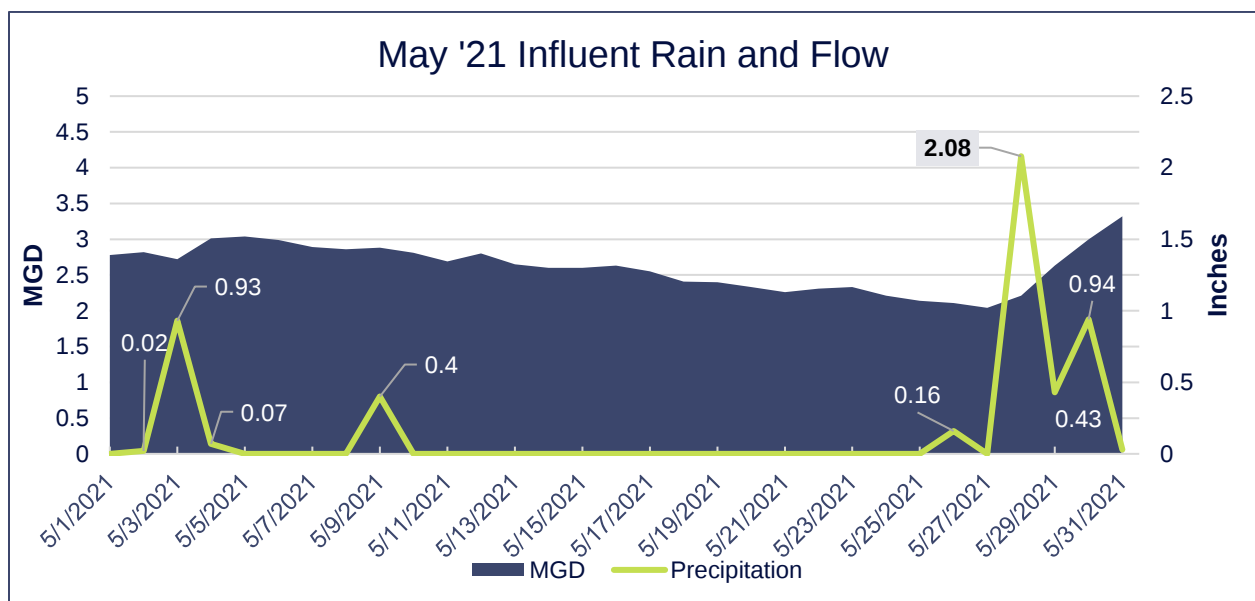
- SUEZ staff completed seasonal hot weather / outdoor safety throughout the month with a focus on ticks, stinging insects, snakes and other outdoor hazards.
- A new davit system purchased during the month to assist for safe entries into offline tanks for seasonal tank cleaning / maintenance. Honeywell staff was onsite to give the staff training on proper set up and operation of the equipment.



4 FLOWS AND LOADINGS:

4.0 FLOWS, PRECIPITATION, AND WEATHER

- The facility treated a total of **81.020** MG during the month. The daily average flow was **2.614** MGD. This was **0.458** MGD less than the previous May monthly average, which was recorded at **3.071** MGD. The highest **peak** flow was recorded on May 31 as **4.41** MGD. The lowest instantaneous flow was **1.00** MGD, recorded May 25.
- The highest daily flow was recorded on May 31 as **3.32** MGD. The lowest daily flow was recorded on May 27 as **2.040** MGD.
- A total of **5.06"** of precipitation was received at the facility. The highest single day precipitation total was recorded on May 28 as **2.08"**
- The coldest day was May 08 at **40°F**. The warmest day was May 23 at **89°F**.



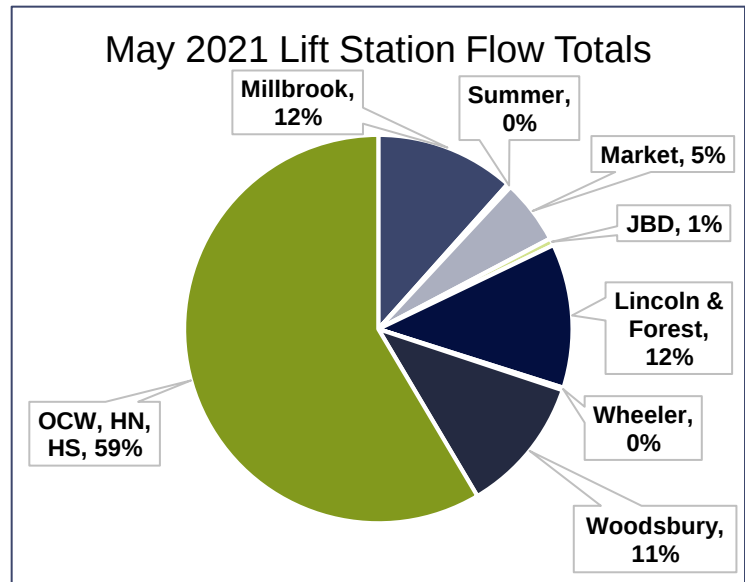
4.1 INFLUENT BOD AND TSS LOADINGS

ROCKLAND FLOW AND LOADINGS TRACKING						
Month/Yr	Inf. Flow	Inf BOD	Inf. TSS	Inf. Flow Mov. Avg.	Inf. BOD Mov. Avg.	Inf. TSS Mov. Avg.
	MGD	LBS	LBS	MGD	LBS	LBS
Jun '20	1.957	3,297	3,717	2.532	3,562	4,970
Jul '20	1.648	2,737	3,438	2.51	3,510	4,874
Aug '20	1.542	2,583	3,845	2.505	3,449	4,876
Sep '20	1.547	3,027	4,170	2.502	3,429	4,865
Oct '20	1.665	3,200	4,417	2.485	3,423	4,973
Nov '20	2.175	3,263	4,000	2.459	3,377	4,771
Dec '20	3.444	2,929	4,128	2.421	3,166	4,358
Jan '21	2.843	2,900	3,237	2.431	3,124	4,065
Feb '21	3.307	3,253	4,139	2.499	3,090	3,933
Mar '21	2.677	2,907	3,256	2.495	3,043	3,860
Apr '21	3.143	3,189	3,630	2.418	3,031	3,814
May '21	2.614	3,485	3,644	2.380	3,064	3,802

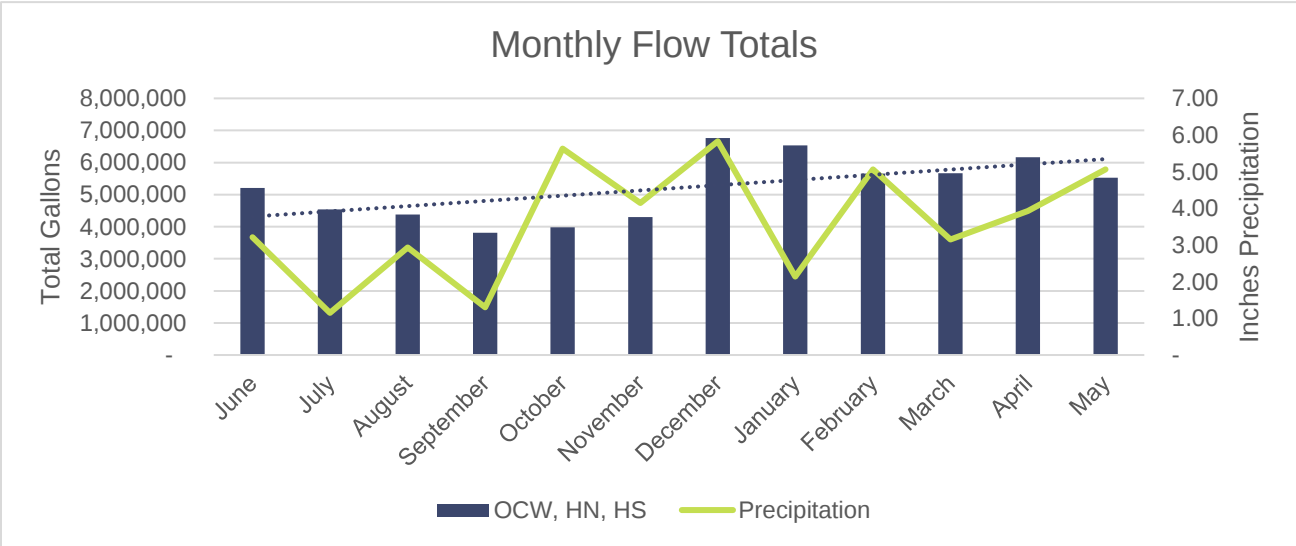
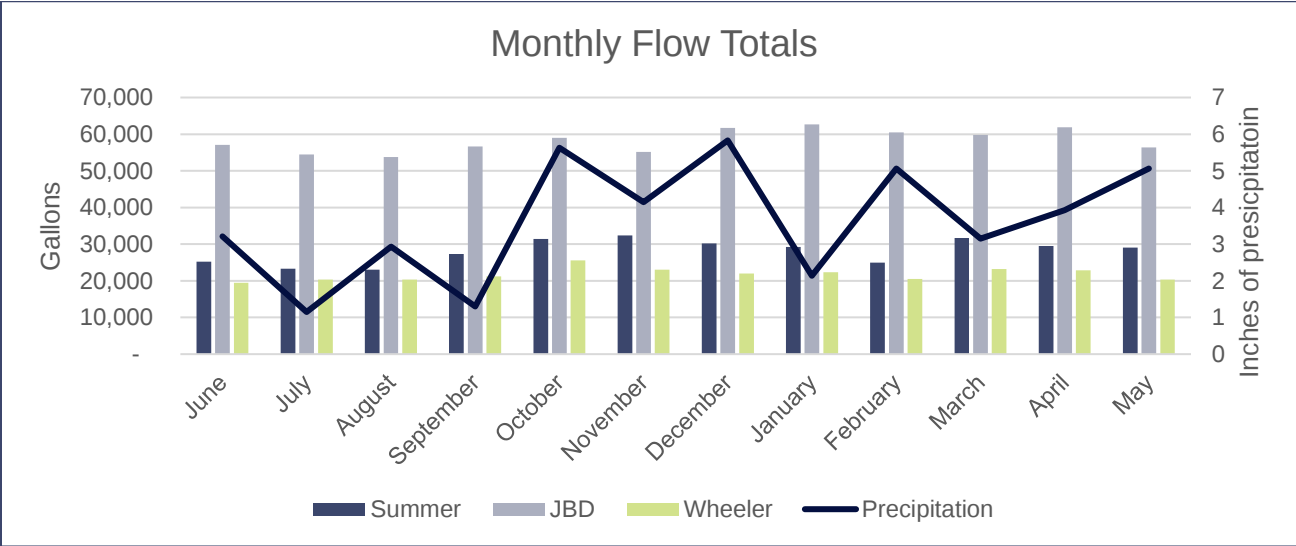
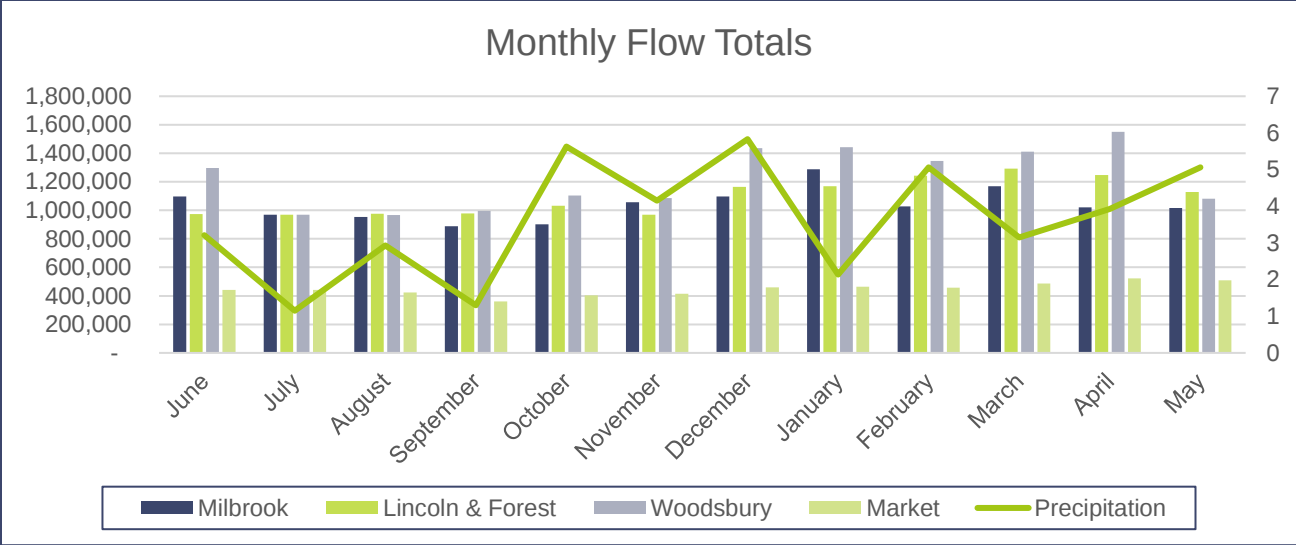
4.2 LIFT STATION FLOWS

The lift stations accounted for **9,369,666** gallons throughout the month, **11.6%** the total plant flow. Please note that monthly lift station flow totals are purely estimates based off of pump run hours and estimated flow rates. Values are not intended to in any way be used as design capacity volumes for potential future rehab / replacement projects.

Total Flows for May 2021		
Station	Total Gallons	% Off 12 Month Avg.
Millbrook	1,016,280	-3%
Summer	29,040	4%
Market	508,500	15%
John Burke	56,400	-3%
Lincoln, Forest	1,127,699	3%
Wheeler	20,340	0%
Woodsbury	1,081,800	-13%
OCW, HN, HS	5,529,607	7%
Total:	9,369,666	3%



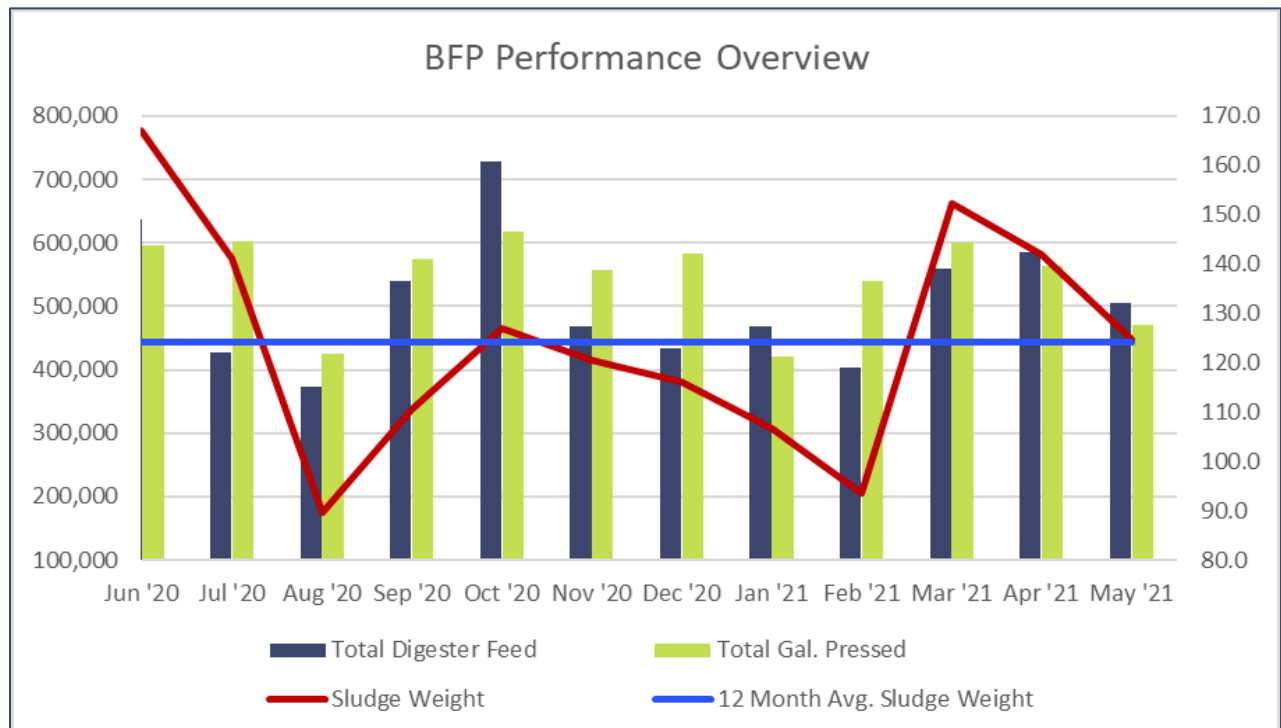
Lift Station Monthly Average Daily Flows (GPD)											
Month	Millbrook	Sumer	Market	John Burke	Lincoln	Forrest	Wheeler	Woodsbury	Old Country Way	Hingham North	Hingham South
	GPD	GPD	GPD	GPD	GPD	GPD	GPD	GPD	GPD	GPD	GPD
June '20	36,540	840	14,700	1,904	1,400	32,480	648	43,260	56,840	132,660	173,520
July '20	31,285	751	14,226	1,757	1,781	31,297	656	31,297	46,539	130,297	146,323
Aug '20	30,728	743	13,694	1,734	1,819	31,500	656	31,181	46,132	126,116	141,445
Sept '20	29,628	912	12,000	1,888	1,880	32,620	708	33,180	42,980	115,200	127,080
Oct '20	29,124	1,024	13,050	1,904	1,980	33,320	828	35,400	44,520	115,200	128,520
Nov '20	35,208	1,080	13,850	1,840	2,080	32,270	768	36,180	51,800	124,920	143,280
Dec '20	35,316	984	14,900	1,992	1,580	37,660	714	46,140	62,300	136,440	219,240
Jan '21	41,688	952	15,050	2,024	1,540	37,800	726	46,380	60,130	136,800	211,680
Feb '21	34,272	832	15,250	2,016	2,100	41,440	684	44,880	59,850	148,500	188,640
Mar '21	37,656	1,024	15,700	1,928	2,260	41,650	738	45,540	58,800	148,500	183,960
Apr '21	34,020	984	17,450	2,064	2,280	41,580	762	51,720	63,770	160,920	205,560
May '21	33,876	968	16,950	1,880	2,160	37,590	678	36,060	59,220	152,640	184,320
Average	34,112	925	14,735	1,911	1,905	35,934	714	40,101	54,407	135,683	171,131



5.0 SOLIDS HANDLING

The BFP was operated a total of **161.5** hours this month and a total of **470,321** gallons were processed producing **124.6** Wet Tons of sludge that was hauled from the facility. The average BFP feed percent solids were **2.62%** and the BFP Cake average percent solids were **21.62%**. The digester feed to BFP differential was **34,362** gallons (overflow) for the month. The sludge processing Dry Tons conversion sheet is attached to this report.

Date	BFP Run Hours	Total Digester Feed	Total BFP Feed	Polymer Used	Actual Sludge Weight	Average Press Feed Total Solids	Average Cake Total Solids	Sludge Pick Up	Grit Removed
	HRS	Gal.	Gal.	Gal.	Wet Tons	%	%	Dumpster	Tons
Jun '20	170.3	636,743	596,834	123.2	166.9	3.01	20.96	9.00	
Jul '20	174.0	426,114	601,924	127.6	141.1	2.99	22.25	8.00	
Aug '20	143.8	371,974	425,400	101.6	89.7	2.92	23.20	5.00	
Sep '20	183.3	539,761	575,031	142.4	110.5	2.96	23.51	5.00	
Oct '20	161.8	728,414	617,960	134.2	127.0	2.21	22.84	8.00	9.50
Nov '20	149.8	468,303	556,363	124.0	120.6	3.24	21.62	6.00	
Dec '20	177.0	432,663	582,869	137.8	116.1	1.52	20.00	7.00	
Jan '21	129.0	468,846	421,221	103.2	106.6	2.44	19.27	5.00	
Feb '21	146.0	403,368	540,139	92.0	93.5	2.00	19.19	6.00	
Mar '21	190.3	560,191	600,688	142.4	152.4	2.08	19.16	7.00	
Apr '21	172.5	585,402	564,039	131.3	142.1	2.48	20.23	8.00	
May '21	161.5	504,683	470,321	108.0	124.6	2.62	21.62	7.00	
Annual Total	1,959	6,126,462	6,552,789	1,468	1,491	****	****	81	9.50
Avg.	163	510,539	546,066	122	124	2.54	21.15	6.8	****



6.0 ENVIRONMENTAL COMPLIANCE

6.1 REGULATORY REPORTING

- EPA NETDMR submitted on the CDX website on 06/07/2021
- MADEP MOR mailed on 06/07/2021

6.2 NPDES COMPLIANCE

The facility will be reporting (1) exceedance for the month of May 2021

- The monthly average MGD was reported as **2.614** MGD. The NPDES Permit limit is 2.5 MGD.

7.0 ENERGY CONSUMPTION

Date	Plant Flow	BOD	BOD	TSS	TSS	NH3	Total P	Ph	Fecal Coliform	Aluminum	Copper	Dissolved Oxygen	Limits	Monthly Avg.	Weekly Avg.	Daily Max
	MGD	Mg/L	Lbs./Day	Mg/L	Lbs./Day	Mg/L	Mg/L	Ph	CFU/100 ml	Ug/L	Ug/L	Mg/L	BOD			
Sat, May 01	2.780							7.27				9.7	Oct. 1 - April 30	20 Mg/L 417 lbs/day	20 Mg/L 417 lbs/Day	30 Mg/L 626 lbs/Day
Sun, May 02	2.820							7.22	30			9.8				
Mon, May 03	2.720							7.35	24			10.1	May 1 - Sept. 30	6 Mg/L 125 lbs/Day	6 Mg/L 125 lbs/Day	10Mg/L 209 lbs/day
Tue, May 04	3.010	2.0	50	2.0	50	0.20	0.11	7.28	18	19	6.4	10.3				
Wed, May 05	3.040							7.21				10.0	TSS			
Thu, May 06	2.990	2.0	50	2.0	50	0.22	0.10	7.19				10.2	Oct. 1 - April 30	20 Mg/L 417 lbs/Day	20 Mg/L 417 lbs/Day	30 Mg/L 626 lbs/Day
Fri, May 07	2.890							7.28				10.4				
Sat, May 08	2.860							7.17				10.2	May 1 - Sept. 30	10 Mg/L 209 lbs/Day	10 Mg/L 209 lbs/Day	15Mg/L 313 lbs/day
Sun, May 09	2.880							7.21	15			10.2				
Mon, May 10	2.810							7.21	30			10.5	NH3			
Tue, May 11	2.690	2.0	45	3.3	74	0.20	0.09	7.24	66			11.6	Oct.1 - Mar. 31	3.3 Mg/L	3.3 Mg/l	5.7 Mg/L
Wed, May 12	2.800							7.31				10.3				
Thu, May 13	2.650	2.0	44	3.3	73	0.20	0.09	7.30				10.3	Apr. 1 - May 31	2.5 Mg/L	2.5 Mg/l	5.7 Mg/l
Fri, May 14	2.600							7.35				10.2				
Sat, May 15	2.600							7.35				10.5	June 1 - Sept. 30	1.0 Mg/L	1.0 Mg/L	1.5 Mg/L
Sun, May 16	2.630							7.45	14			9.9				
Mon, May 17	2.550							7.35	63			9.4	Total Phosphorus			
Tue, May 18	2.410	2.0	40	4.0	80	0.20	0.01	7.40	123			11.6	Apr. 1 - Oct. 31	0.2 Mg/L	*****	*****
Wed, May 19	2.400							7.46				9.6				
Thu, May 20	2.330	2.0	39	2.0	39	0.20	0.01	7.48				10.2	Nov. 1 - Mar. 31	1.0 Mg/L	*****	*****
Fri, May 21	2.260							7.40				10.2				
Sat, May 22	2.310							7.43				10.1	Ph			
Sun, May 23	2.330							7.43	14			8.7			6.5 - 8.3	
Mon, May 24	2.210							7.48	22			9.1	Fecal			
Tue, May 25	2.140	2.0	36	2.5	45	0.20	0.03	7.54	30			9.8	*****	200 CFU/100ml	*****	400 CFU/100ml
Wed, May 26	2.110							7.48				9.3				
Thu, May 27	2.040	2.0	34	2.0	34	0.20	0.01	7.53				9.3	Aluminum			
Fri, May 28	2.210							7.53				9.6	*****	88 ug/l	*****	*****
Sat, May 29	2.630							7.45				9.4	Copper			
Sun, May 30	3.000							7.49	16			9.1	*****	12 ug/l	*****	*****
Mon, May 31	3.320							7.48	23			9.6	Dissolved Oxygen			
Daily Max	3.320	2.00	50.21	4.00	80.40	0.22	0.11	7.54	123.00	*****	*****	*****	May 1 - Sept. 30		> 7.4 mg/L	
Daily Min.	2.040	*****	*****	*****	*****	*****	*****	7.17	*****	*****	*****	8.70	Plant Flow			
Month Avg.	2.614	2.00	42.25	2.64	55.63	0.20	0.06	7.37	34.857	19	6.4	*****	2.5 MGD			

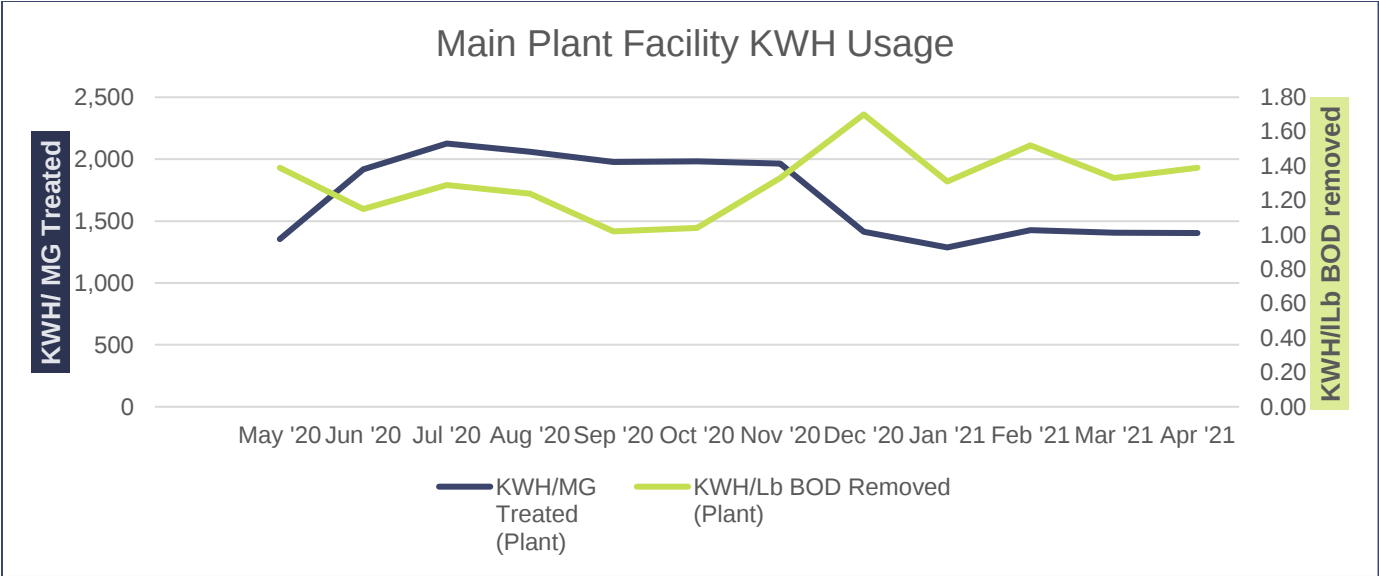
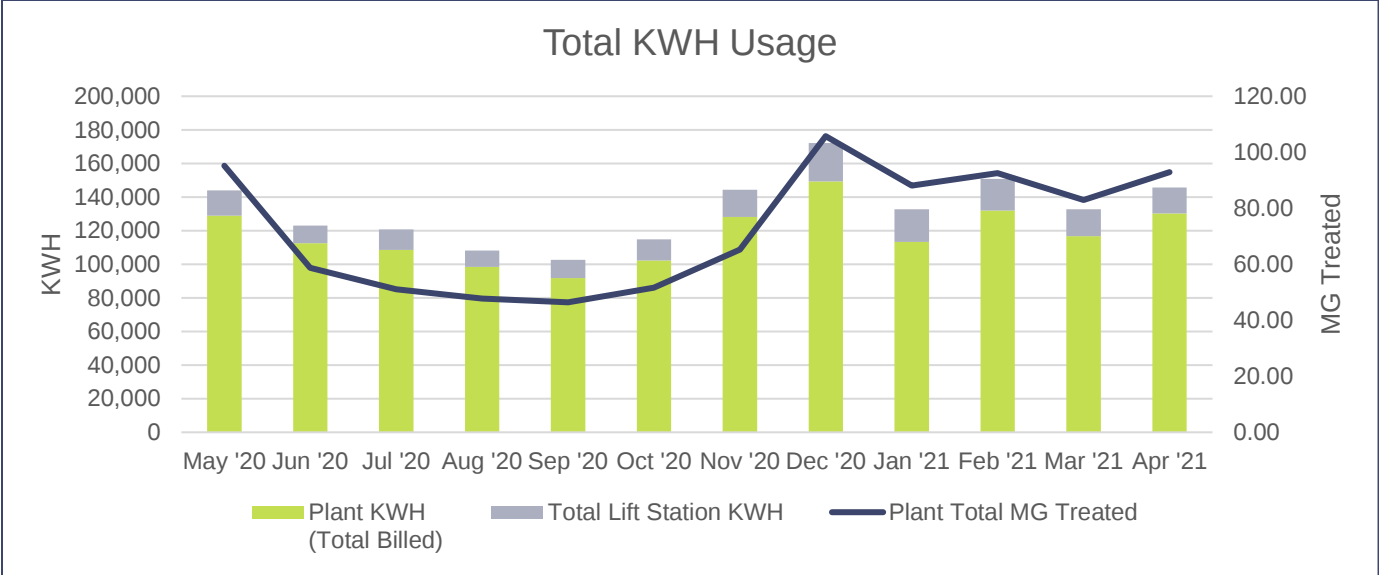
7.1 ELECTRICAL OVERVIEW

Due to billing cycle timing, all electrical data in the MOR will be one month behind. The following data is for electrical consumption during the **April 2021** operating period.

The facility used a total of **145,728 KWH** for the month of April 2021. Of this total, the lift stations accounted for **10.7%**, using **15,528 KWH**. The Main Plant accounted for the remaining **130,200 KWH**. The KWH/ MG treated was **1,402** for the month, which is **16%** lower than the previous 12-month average of **1,678 KWH/MG**. The KWH/Lb. BOD Removed was **1.39 KWH/Lb.** for the month, which is **5%** higher than the previous 12-month average of **1.32 KWH/Lb.**

Monthly Energy Consumption										
Month	Plant Average Daily Flow (NO HFMP)	Plant Total Influent Flow	Plant KWH (Total Billed)	KWH/MG Treated (Plant)	Plant Lbs BOD Removed	KWH/Lb BOD Removed (Plant)	Off Peak Demand (Plant)	Peak Demand (Plant)	Total Lift Station KWH	Total KWH (Plant & Stations)
	MGD	MG	KWH	KWH/MG	Lbs	KWH/Lb	KW	KW	KWH	KWH
May '20	3.07	95.21	129,000	1,355	92,608	1.39	231	231	14,938	143,938
Jun '20	1.96	58.70	112,500	1,917	97,906	1.15	183	195	10,488	122,988
Jul '20	1.65	51.09	108,600	2,126	84,003	1.29	174	195	12,168	120,768
Aug '20	1.54	47.79	98,400	2,059	79,230	1.24	171	186	9,781	108,181
Sep '20	1.55	46.42	91,800	1,978	89,861	1.02	162	186	10,919	102,719
Oct '20	1.66	51.60	102,300	1,983	98,117	1.04	174	216	12,588	114,888
Nov '20	2.17	65.24	128,100	1,964	96,589	1.33	231	246	16,289	144,389
Dec '20	3.41	105.75	149,400	1,413	87,985	1.70	246	246	22,735	172,135
Jan '21	2.84	88.12	113,400	1,287	86,723	1.31	222	240	19,293	132,693
Feb '21	3.31	92.59	132,000	1,426	86,598	1.52	216	228	18,800	150,800
Mar '21	2.68	83.00	116,700	1,406	87,712	1.33	198	216	16,048	132,748
Apr '21	3.10	92.87	130,200	1,402	93,957	1.39	219	219	15,528	145,728
Average	2.41	73.20	117,700	1,693	90,107	1.31	202	217	14,965	132,665

Monthly Lift Station KWH														
Month	Hingham North	Hingham South	Spruce	Butternut	Old Country Way	Market	Woodsbury	Lincoln	Forest	Wheeler	Summer	Milbrook	John Burke	Total
May '20	2,995	5,100	173	450	1,066	687	1,229	191	1,422	59	63	1,380	123	14,938
Jun '20	2,242	3,200	119	350	1,139	319	829	127	1,048	53	51	922	89	10,488
Jul '20	2,835	4,100	111	444	805	379	905	140	1,223	57	58	1,017	94	12,168
Aug '20	2,161	3,000	97	434	829	311	771	135	1,035	50	51	829	78	9,781
Sep '20	3,200	2,306	106	347	870	553	910	175	1,197	56	58	1,043	98	10,919
Oct '20	2,673	3,700	110	292	930	784	1,013	236	1,322	59	62	1,272	135	12,588
Nov '20	3,274	5,000	271	454	1,097	928	1,232	300	1,731	65	74	1,679	184	16,289
Dec '20	4,677	8,300	235	626	1,225	1,061	1,456	361	2,386	65	79	2,011	253	22,735
Jan '21	4,504	6,100	202	541	1,243	987	1,318	312	2,173	57	61	1,577	218	19,293
Feb '21	3,994	6,000	180	540	1,550	935	1,400	308	2,060	55	55	1,508	215	18,800
Mar '21	2,749	4,900	190	482	1,234	907	1,669	288	1,813	62	61	1,520	173	16,048
Apr '21	2,812	5,000	191	459	1,088	910	1,297	272	1,725	63	65	1,490	156	15,528
Average	3,176	4,726	165	452	1,090	730	1,169	237	1,595	58	62	1,354	151	14,965



8.0 MAINTENANCE

8.1 WORK ORDER OVERVIEW

WO Type	Total This Month	Total This Year
Preventative Maintenance	173	483
Corrective Maintenance	20	51
Emergency Call Outs Total	3	16

8.2 SIGNIFICANT CORRECTIVE WORK ORDERS FOR THE MONTH

CM Description	WO #
1. OCW Ixom Mixer Trial Purchase / Install	14917
2. Hingham South Backflow Repair	19000
3. Forest St. Backflow repair	19001
4. Main Plant Generator Heat pump / Block Heater Replacement	18658
5. Secondary Clarifier 2 Drive Oil Change / Seal Repair	18767
6. SCADA Tie in of Aeration DO Trending	19225
7. Hingham North Water Pump / Block heater Replaced	19226
8. Millbrook Block Heater Replaced	19227
9. Butternut Compressor 2 Motor Replacement	19229
10. Secondary Clarifier Weirs Cleaned	19230,19231
11. Chlorine Contact Chamber Cleaned	19232
12. Hingham South SCADA Level Control Correction	19233
13. BFP Upper Belt Replaced	19235
14. OCW Backflow Repair	18998
15. Market Backflow Repair	18999



8.3 SIGNIFICANT OPEN WORK ORDERS

Open CM Description	WO #
1. Woodsbury Pump 2 Inspect and Repair	14917
2. Hingham South Pump #1 Repair / Replacement	17427
3. Lime Unloader # 3 shaft repair	13568
4. Primary Scum Mixer Blade Replacement	10091
5. Effluent Pumps "HAND" control repair	14840
6. OCW, Woodsbury, and Lincoln valve exercising	

8.4 EMERGENCY CALL OUTS FOR THE MONTH

Type	Total this Month	Total this Year
Sewer Back Up / Collection System	0	2
Pump Station	2	7
Plant	1	9
Odor	0	0
Power Outages	0	7
Total:	3	25

1. Butternut Rd. 5/5/21
 - a. GM called in at 9:15 PM for loss of air. Found that Compressor 2 motor failed. Place Compressor 1 in lead, motor replaced on Compressor 2 on 5/6.
2. Hingham South 5/22/21
 - a. KF called in at 12 AM for low wet well. Verified level of wet well was ok and pumps operating properly. EIS in on 5/25 to remove compressor level indicator from alarm system when not selected as level indicator. It was then identified and corrected that the level indicator was showing the bubbler system at main plant HMI instead of radar level indicator.
3. Main Plant 5/31/21
 - a. GM called in at 4:35 PM for high wash box level. Lots of rags and grease built up, cleared in manual, back online.

8.5 INSPECTIONS / ANNUAL PMS COMPLETED DURING THE MONTH

1. All pump station alarms checked
2. Spruce and Butternut probes cleaned weekly
3. Eye wash inspections completed weekly
4. Fire extinguisher inspections completed monthly

8.6 COLLECTION SYSTEM AND IPP ASSISTANCE PERFORMED BY SUEZ

COLLECTION SYSTEM ASSISTANCE:

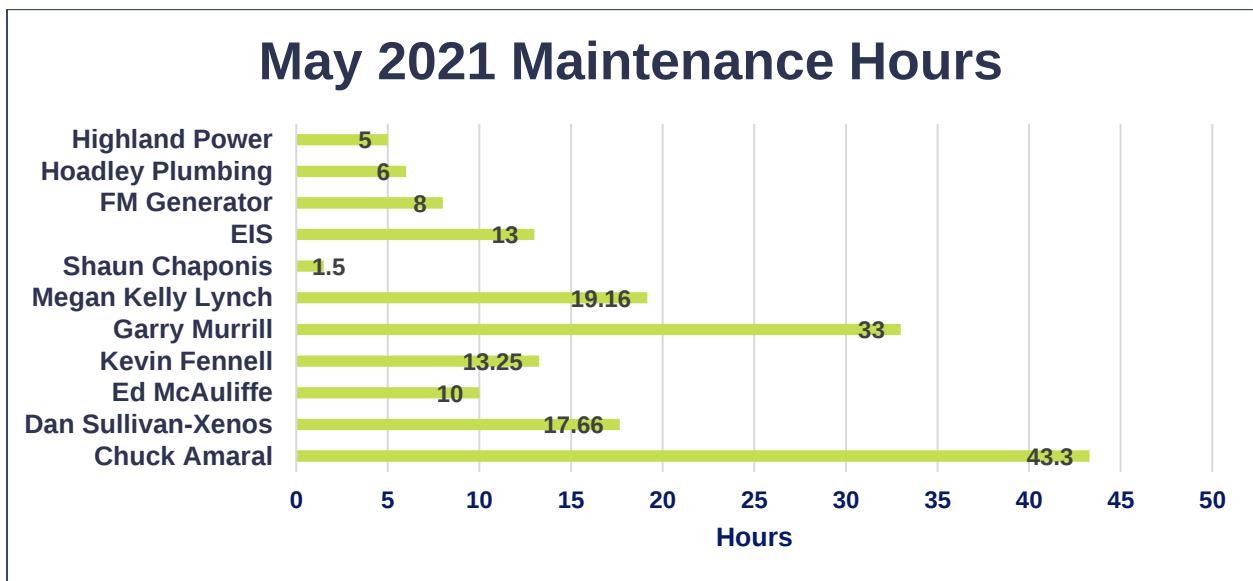
Type	Total This Month	Total This Year
Sewer Inspection / Tie-Ins	0	0
Sewer Location mark Outs	0	0
Sewer Back Up	0	0

INDUSTRIAL PRE TREATMENT ASSISTANCE:

Parameter	Monthly Total	Annual Total
Grease Trap Inspections	0	0
Bi-Annual Permit Renewals	0	0
Bi-Annual Permit Issuance	0	0
Annual IPP Final/Raw Sampling	0	0
EPA IPP Audit / Inspection	0	0

8.7 WORK ORDER STATISTICS

There were **169.87** total reported maintenance hours during the month. Of this total, outside contractors accounted for **19%** with **32** hours recorded.



9.0 ATTACHED REPORTS

- Discharge Monitoring Report
- HACH Wims Data Reports
- Cumulative and Monthly Violation Reports
- Financial Reports
- Solids Removal Summary