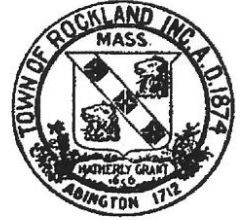


July 2021

Monthly Operating Report





August 13, 2021

Mr. Keith Nastasia

Rockland Sewer Superintendent

587 Rear Summer Street

Rockland, MA 02370

RE: Rockland Wastewater Facility

Monthly Report—July 2021

Dear Mr. Nastasia,

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

Please contact me at your convenience should you have any questions regarding this report.

Sincerely,

Rick Kotouch

SUEZ Project Manager

CC: Charles Heshion

Dan Duross

JULY 2021 MONTHLY OPERATING REPORT

1. SUMMARY:

- 1) The facility will be reporting **3** exceedances for the month of July 2021.
 - 1) Monthly Average flow was reported as **3.445** MGD, NPDES limit is 2.5 MGD
 - 2) The facility failed the Bio-Toxicity Wet Acute LC50
 - 3) The facility failed the Bio-toxicity Wet Chronic C-NOEC
- 2) There were no lost time / first aid injuries throughout the month
- 3) The facility treated a total of **106.8** Million Gallons.
- 4) The total rainfall for this reporting period was **8.03"**
- 5) I&I Work is ongoing
- 6) **211** work orders were closed in July, with **17** as corrective maintenance work orders, **9** of the 17 were emergency call outs, while **0** were related to the collection system.
- 7) New permit still pending from EPA

2. STAFFING:

Current Employee Licenses as of 2/1/2021

Employee	Title	Hoisting		Wastewater			NEWEA Collections			NEWEA Laboratory
		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 COVID-19 continues, SUEZ at the Rockland facility has downgraded to Threat Level 1 guidelines as follows:

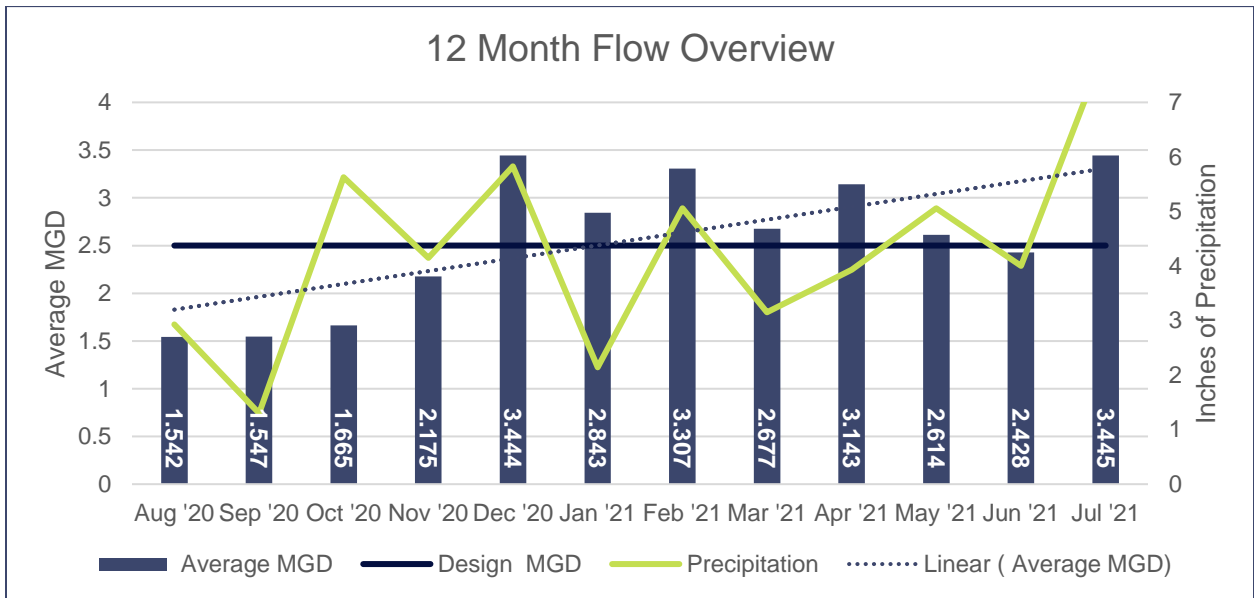
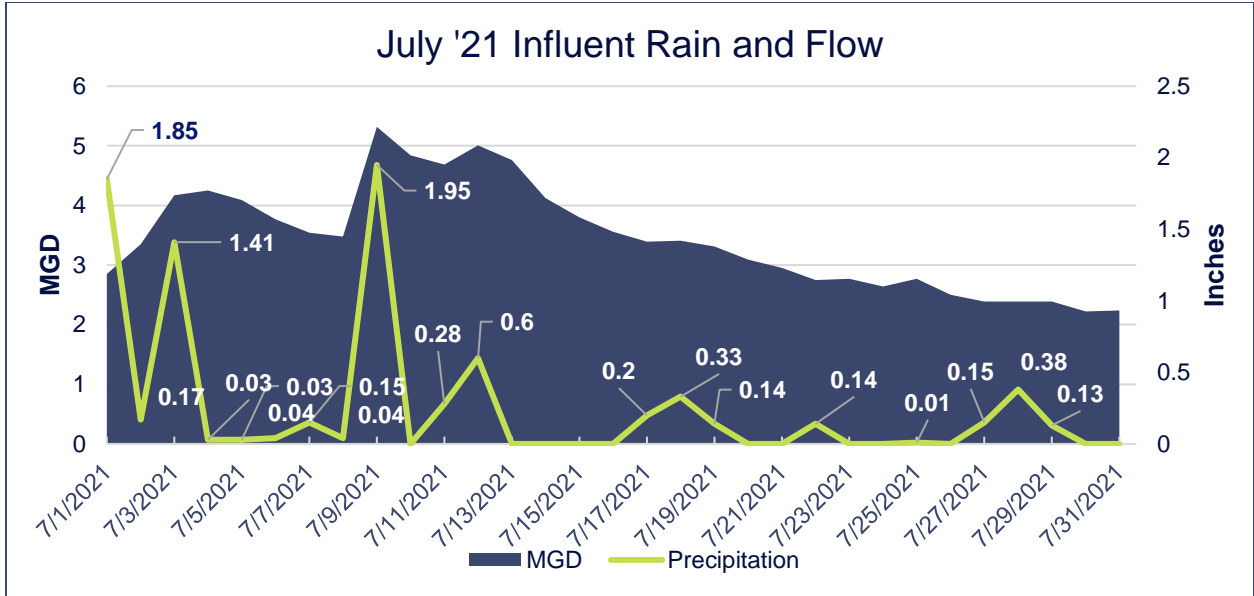
Fully vaccinated SUEZ employees may now resume normal activities without wearing a mask or socially distancing. We still do ask that visitors to the facility check in and meet the COVID visitor guidelines and continue to wear masks unless fully vaccinated.

Visitors are still recommended to call ahead of time to set up appointments for in person visits at the site. All contractors and sales personnel will still be required to be screened before entering the premises.

4 FOWS AND LOADINGS:

4.0 FLOWS, PRECIPITATION, AND WEATHER

- The facility treated a total of **106.803** MG during the month. The daily average flow was **3.445** MGD. This was **1.797** MGD more than the previous July monthly average, which was recorded at **1.648** MGD. The highest **peak** flow was recorded on July 9 as **5.73** MGD. The lowest instantaneous flow was **0.780** MGD, recorded July 30.
- The highest daily flow was recorded on July 9 as **5.318** MGD. The lowest daily flow was recorded on July 30 as **2.220** MGD.
- A total of **8.03"** of precipitation was received at the facility. The highest single day precipitation total was recorded on July 9 as **1.95"**
- The coldest day was July 4 at **53°F**. The warmest day was July 16 at **94°F**.



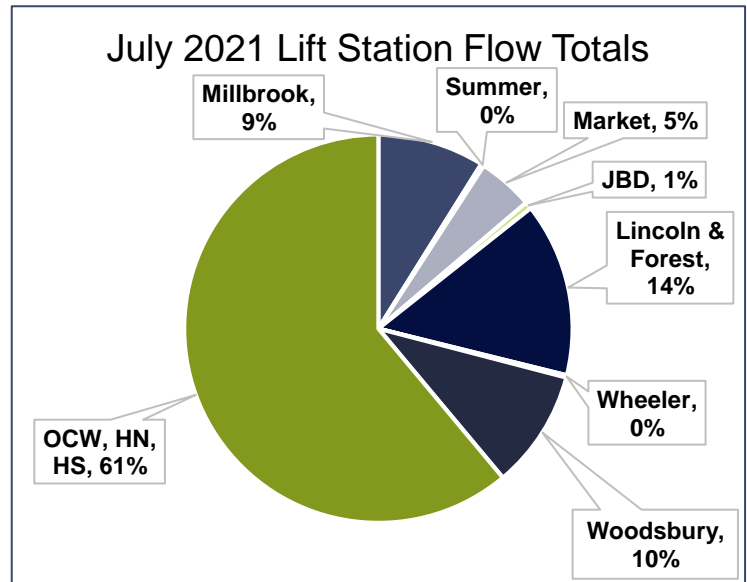
4.1 INFLUENT BOD AND TSS LOADINGS

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
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	2.38	3,064	3,802
Jun '21	2.428	3,874	3,572	2.419	3,112	3,790
Jul '21	3.445	2,344	3,371	2.569	3,080	3,784

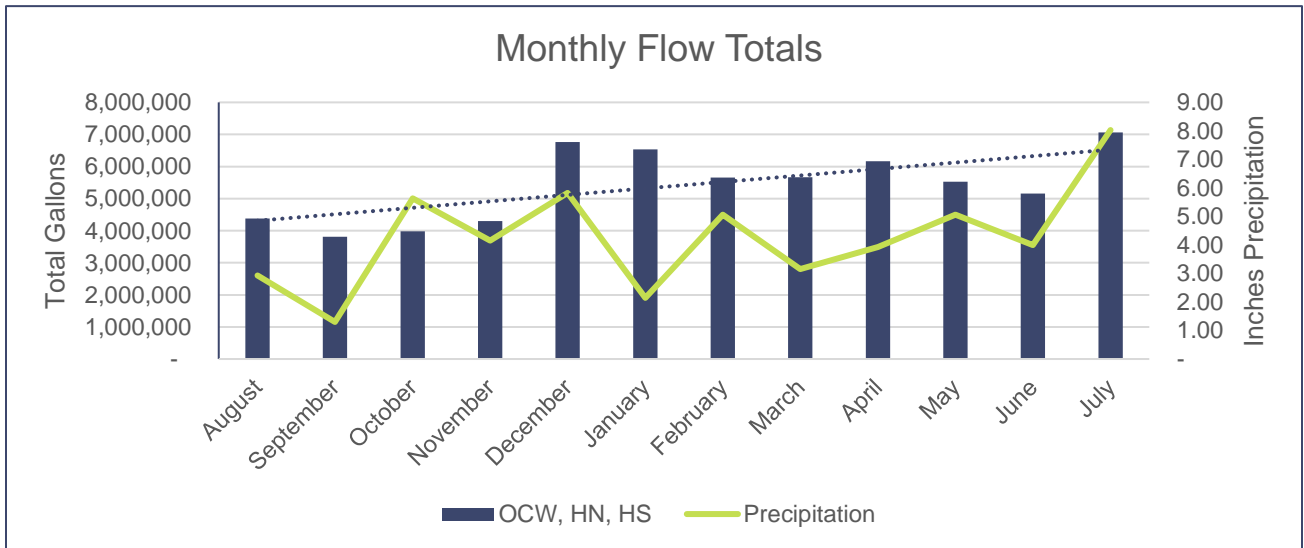
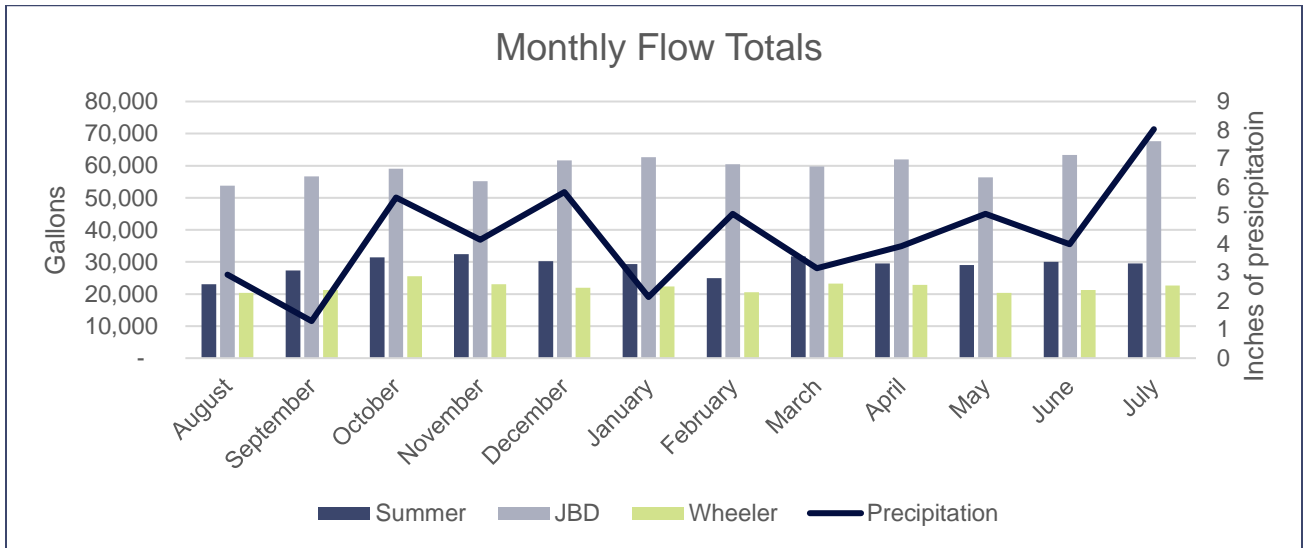
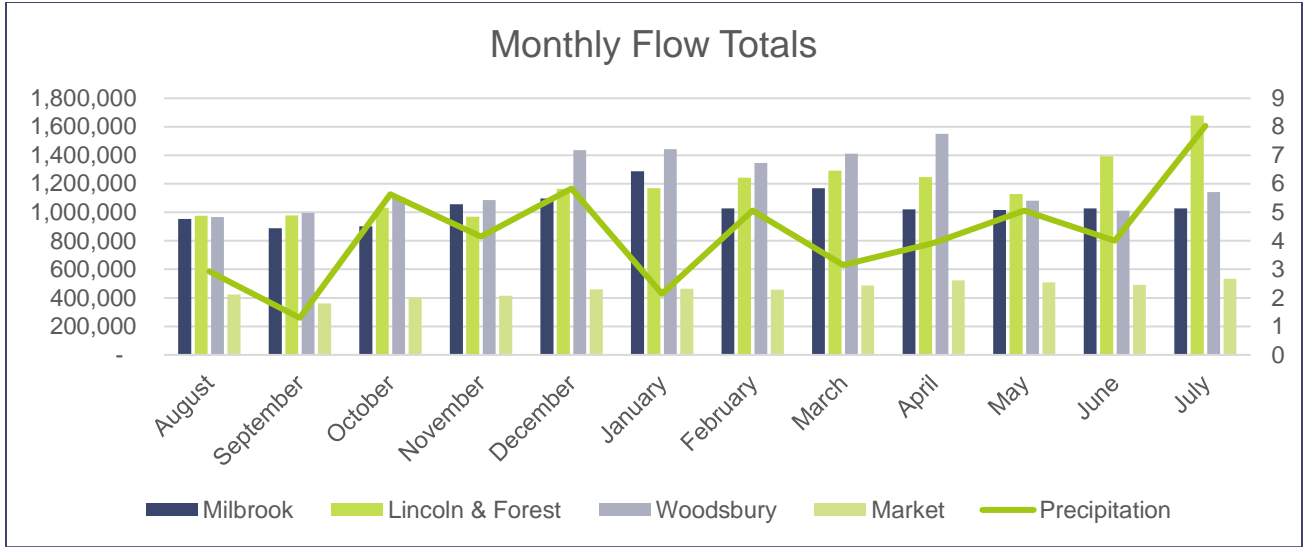
4.2 LIFT STATION FLOWS

The lift stations accounted for **11,564,337** gallons throughout the month, **10.8%** 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 July 2021		
Station	Total Gallons	% Off 12 Month Avg.
Millbrook	1,028,161	-1%
Summer	29,520	2%
Market	534,000	18%
John Burke	67,680	14%
Lincoln, Forest	1,667,901	47%
Wheeler	22,680	0%
Woodsbury	1,141,200	-7%
OCW, HN, HS	7,063,196	34%
Total:	11,564,337	25%



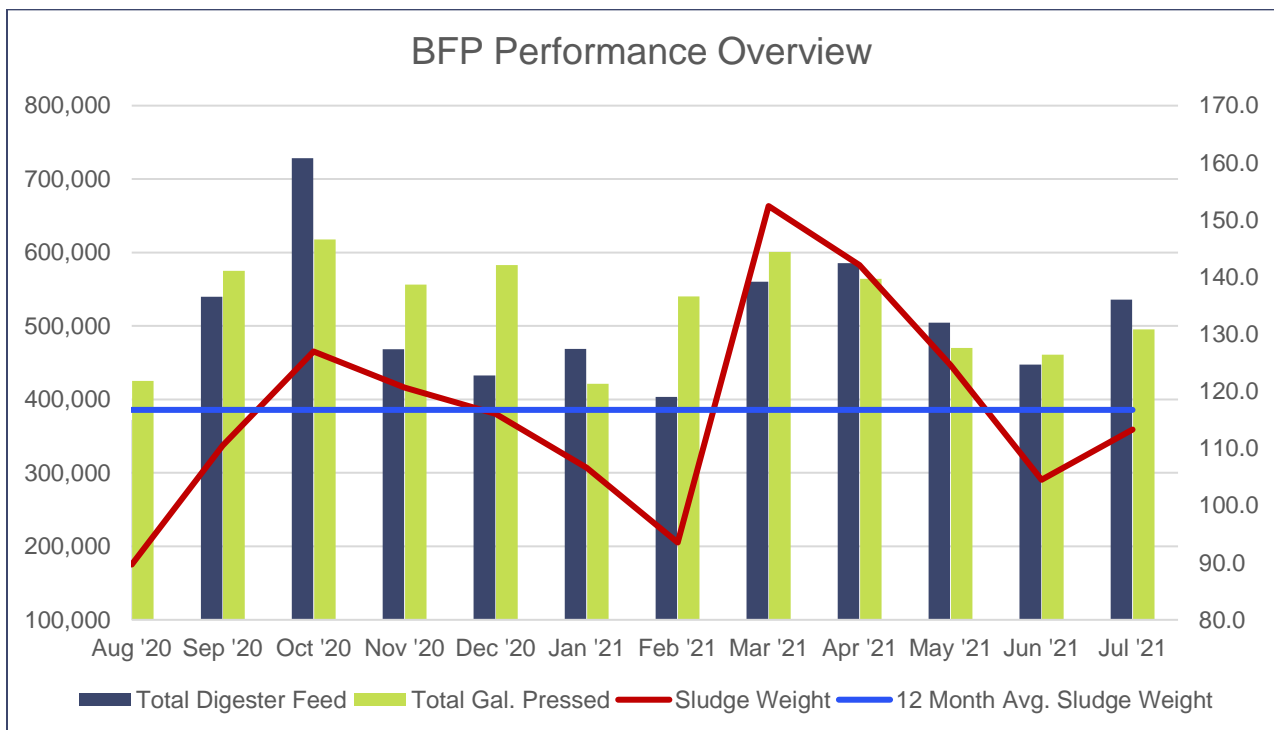
Lift Station Monthly Average Daily Flows (GPD)											
Month	Millbrook	Sumer	Market	John Burke	Lincoln	Forrest	Wheeler	Woodsbury	Old Country Way	Hingham North	Hingham South
	GPD	GPD	GPD	GPD	GPD	GPD	GPD	GPD	GPD	GPD	GPD
Aug '20	30,728	743	13,694	1,734	1,819	31,500	656	31,181	46,132	126,116	141,445
Sept '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
June '21	34,272	1,000	16,400	2,112	5,020	46,410	708	33,720	51,240	153,360	172,080
July '21	33,166	952	17,226	2,183	4,684	54,126	732	36,813	68,894	199,974	227,845
Average	34,080	955	15,127	1,964	2,449	38,997	725	39,766	55,803	143,214	177,804



5.0 SOLIDS HANDLING

The BFP was operated a total of **129.3** hours this month and a total of **495,343** gallons were processed producing **113.3** Wet Tons of sludge that was hauled from the facility. The average BFP feed percent solids were **2.33%** and the BFP Cake average percent solids were **21.29%**. The digester feed to BFP differential was **40,731** 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
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	
Jun '21	148.3	447,325	460,923	109.1	104.5	2.16	23.59	6.00	
Jul '21	129.3	536,074	495,343	90.4	113.3	2.33	21.29	7.00	
Annual Total	1,893	6,047,004	6,310,297	1,416	1,401	****	****	77	9.50
Avg.	158	503,917	525,858	118	117	2.41	21.29	6.4	****



6.0 ENVIRONMENTAL COMPLIANCE

6.1 REGULATORY REPORTING

- EPA NETDMR submitted on the CDX website on 08/10/2021
- MADEP MOR mailed on 08/10/2021
- No Exposure Certification (NEC) for exclusion from the EPA's Multi Permit Stormwater Discharges submitted on the CDX website on 07/30/2021

6.2 NPDES COMPLIANCE

The facility will be reporting (3) exceedances for the month of July 2021

- 1) Monthly Average flow was reported as **3.445** MGD. NPDES limit is 2.5 MGD
- 2) The facility failed the Bio-Toxicity Acute LC50. Actual was **70.4%**, NPDES limit is 100%
- 3) The facility failed the Bio-toxicity Chronic C-NOEC. Actual was **25%**, NPDES limit is 99%

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				
Thu, Jul 01	2.850	2.0	48	2.0	48	0.31	0.17	7.52				8.9	BOD			
Fri, Jul 02	3.350							7.51				9.1	Oct 1 - April 30	20 Mg/L 417 lbs/day	20 Mg/L 417 lbs/Day	30 Mg/l 626 lbs/Day
Sat, Jul 03	4.170							7.48				8.9	May 1 - Sept. 30	6 Mg/L 125 Lbs/Day	6 Mg/L 125 lbs/Day	10Mg/L 209 Lbs/day
Sun, Jul 04	4.250							7.43	125			8.6	TSS			
Mon, Jul 05	4.090							7.35	55			9.0	Oct 1 - April 30	20 Mg/L 417 Lbs/Day	20 Mg/L 417 Lbs/Day	30 Mg/l 626 lbs/Day
Tue, Jul 06	3.770	2.0	63	2.0	63	0.20	0.17	7.42	386	6	7.6	8.6	May 1 - Sept. 30	10 Mg/L 209 Lbs/Day	10 Mg/L 209 lbs/Day	15Mg/L 313 Lbs/day
Wed, Jul 07	3.540							7.52				8.6	NH3			
Thu, Jul 08	3.480	2.0	58	2.0	58	0.20	0.13	7.46				8.8	Oct.1 - Mar. 31	3.3 Mg/L	3.3 Mg/l	5.7 Mg/L
Fri, Jul 09	5.318							7.40				8.8	Apr. 1 - May 31	2.5 Mg/L	2.5 Mg/l	5.7 Mg/l
Sat, Jul 10	4.842							7.40				9.0	June 1 - Sept. 30	1.0 Mg/L	1.0 Mg/L	1.5 Mg/L
Sun, Jul 11	4.684							7.08	50			9.3	Total Phosphorus			
Mon, Jul 12	5.010							7.28	382			8.6	Apr. 1 - Oct.31	0.2 Mg/L	*****	*****
Tue, Jul 13	4.760	2.2	87	3.0	119	0.41	0.14	7.41	84			9.4	Nov. 1 - Mar. 31	1.0 Mg/L	*****	*****
Wed, Jul 14	4.120							7.37				9.3	Ph			
Thu, Jul 15	3.800	2.0	63	2.0	63	0.20	0.13	7.45				8.8	6.5 - 8.3			
Fri, Jul 16	3.560							7.54	50			9.0	Fecal			
Sat, Jul 17	3.390							7.53				8.5	*****	200 CFU/100ml	*****	400 CFU/100ml
Sun, Jul 18	3.410							7.50	75			9.0	Aluminum			
Mon, Jul 19	3.310							7.48	182			8.6	*****	88 ug/l	*****	*****
Tue, Jul 20	3.090	2.0	52	2.8	72	0.20	0.14	7.54	50			9.0	Copper			
Wed, Jul 21	2.950							7.55				8.5	*****	12 ug/l	*****	*****
Thu, Jul 22	2.750	2.0	46	2.0	46	0.20	0.12	7.52				9.5	Dissolved Oxygen			
Fri, Jul 23	2.770							7.66				9.5	May 1 - Sept. 30 > 7.4 mg/L			
Sat, Jul 24	2.640							7.55				9.2	Plant Flow			
Sun, Jul 25	2.770							7.51	85			9.3	2.5 MGD			
Mon, Jul 26	2.500							7.47	64			8.6				
Tue, Jul 27	2.390	2.0	40	3.3	66	0.20	0.13	7.36	230			8.5				
Wed, Jul 28	2.390							7.53				8.4				
Thu, Jul 29	2.390	2.0	40	2.70	54	0.27	0.16	7.46				8.7				
Fri, Jul 30	2.220							7.51				9.0				
Sat, Jul 31	2.240							7.39				9.9				
Daily Max	5.318	2.20	87.34	3.30	119.10	0.41	0.17	7.66	386.00	*****	*****	*****				
Daily Min.	2.220	*****	*****	*****	*****	*****	*****	7.08	*****	*****	*****	8.40				
Month Avg.	3.445	2.02	55.22	2.42	65.44	0.24	0.14	7.46	147.33	6	7.6	*****				

7.0 ENERGY CONSUMPTION

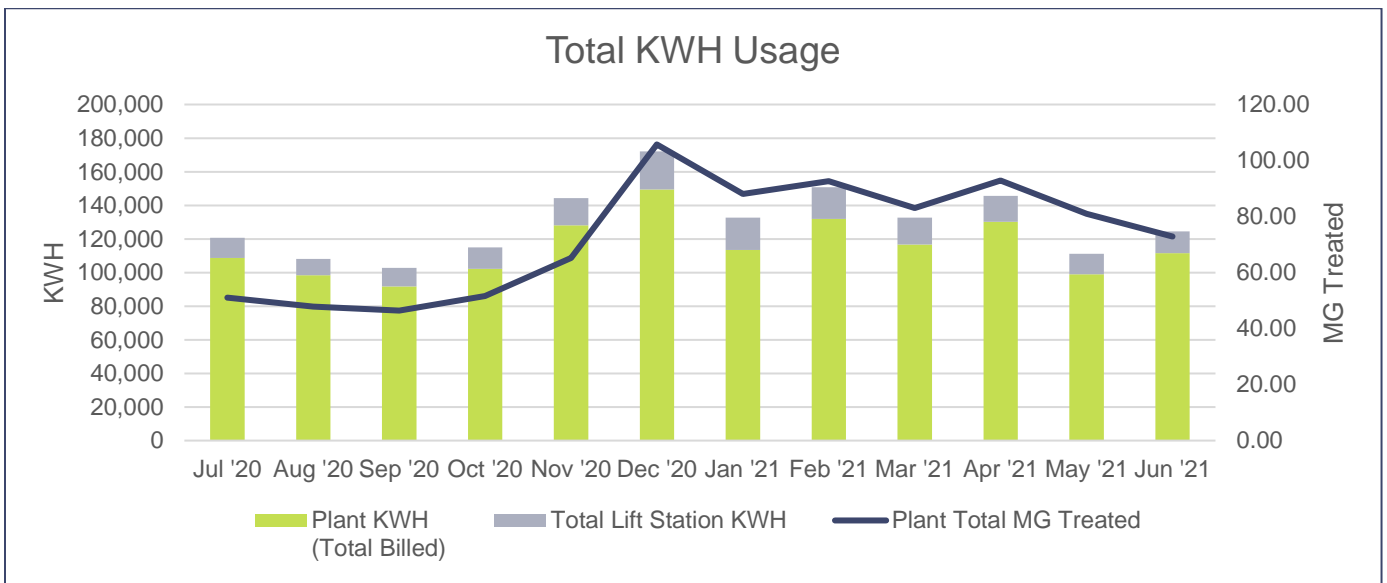
7.1 ELECTRICAL OVERVIEW

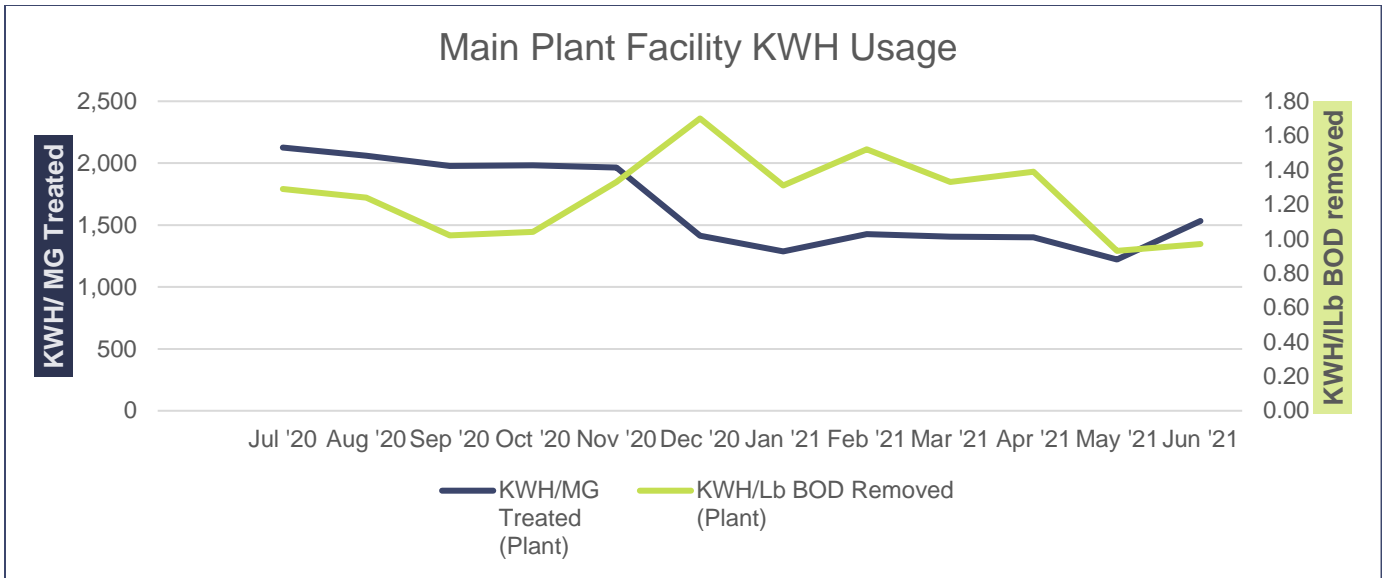
Due to billing cycle timing, all electrical data in the MOR will be one month behind. The following data is for electrical consumption during the **June 2021** operating period.

The department used a total of **124,458 KWH** for the month of June 2021. Of this total, the lift stations accounted for **10.3%**, using **12,858 KWH**. The Main Plant accounted for the remaining **111,600 KWH**. The KWH/ MG treated was **1,532** for the month, which is **8.9%** lower than the previous 12-month average of **1,682 KWH/MG**. The KWH/Lb. BOD Removed was **0.97 KWH/Lb.** for the month, which is **24%** lower than the previous 12-month average of **1.27 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
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	3.1	92.87	130,200	1,402	93,957	1.39	219	219	15,528	145,728
May '21	2.61	81.02	99,000	1,222	106,715	0.93	186	189	12,161	111,161
Jun '21	2.43	72.83	111,600	1,532	114,694	0.97	219	228	12,858	124,458
Average	2.41	73.19	115,125	1,650	92,682	1.26	202	216	14,931	130,056

Monthly Lift Station KWH														
Month	Hingham North	Hingham South	Spruce	Butternut	Old Country Way	Market	Woodsbury	Lincoln	Forest	Wheeler	Summer	Milbrook	John Burke	Total
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
May '21	2,384	3,800	144	319	1,027	665	858	175	1,330	52	57	1,247	103	12,161
June '21	2,809	4,300	177	335	887	362	901	253	1,719	65	62	883	105	12,858
Average	3,173	4,709	168	439	1,065	732	1,144	246	1,643	59	62	1,340	151	14,931





8.0 MAINTENANCE

8.1 WORK ORDER OVERVIEW

WO Type	Total This Month	Total This Year
Preventative Maintenance	194	837
Corrective Maintenance	17	77
Emergency Call Outs Total	8	28

8.2 SIGNIFICANT CORRECTIVE WORK ORDERS FOR THE MONTH

CM Description	WO #
1. Hingham North Generator Battery Replacement	19652
2. Hingham South Generator Battery Replacement	19653
3. Millbrook Pumps 1 & 2 Pulled and Cleaned	19654 & 19655
4. Woodsbury Pumps 1 & 3 (Slot 2) Pulled and Cleaned	19656 & 19657
5. Backflow Prevention Valve #1 (Basement Top) Replaced	19659
6. Secondary Clarifier Tank Weirs Cleaned	19643

7. Chlorine Contact Chamber Cleaned	19646
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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. Hoist #11 Chain Replacement	19431
5. Effluent Pumps "HAND" control repair	14840
6. OCW, Woodsbury, and Lincoln valve exercising	
7. Chopper Pump 1 VFD Fan Installation	19471
8. WAS Pump 1 Mechanical Seal Replacement	19467



Woodsbury Pump 1

8.4 EMERGENCY CALL OUTS FOR THE MONTH

Type	Total this Month	Total this Year
Sewer Back Up / Collection System	0	2
Pump Station	3	14
Plant	3	12
Odor	0	0
Power Outages	3	10
Total:	9	38

1. Loss of Power 7/9/21
 - a. GM called in at 3 AM for loss of power at Main Plant, Millbrook, and John Burke Drive. All power restored and stations reset.
2. Spruce St. 7/22/21
 - a. GM called in at 10:30 PM for loss of air. Cleaned probe and reset station.
3. John Burke Drive 7/26/21
 - a. Gm called in at 8 PM for pump overload. Placed #2 pump in lead. EM and CA out to inspect next day. Bumped pump in hand, cleared rag, reset station and settings.
4. Main Plant 7/4/21
 - a. KF called in at 2:30 PM for Influent Pump 3 failure to run. GM out to assist, cleaned pump and adjusted pump setting for high flows. Reset and back online.
5. Main Plant 7/6/21
 - a. KF called in at 8:50 PM for auger overload. DS out to assist, back flushed grinder and reset. Back online.
6. Hingham South 7/7/21
 - a. GM called in at 5:40 PM for low wet well. GM inspected wet well and pumps, all ok. Reset.
7. Loss of Power 7/7/21
 - a. GM called in at 4:30 PM for loss of power at Lincoln Rd. caused by downed tree. Power restored and station back to normal.

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
5. Annual Hoist Inspection completed by Applied Dynamics on 7/7/21
6. Annual Generator maintenance / inspections completed by M & S Electric on 07/13
7. Annual Boom Truck and Forklift inspections completed by Cranes 101 on 7/19
8. JBD, Summer, Wheeler, Forest, Woodsbury, and Lincoln Rd. Wet Wells Cleaned out via pump truck and Confined Space Entry on 7/19/21. WWSI on site with pump truck and SUEZ staff performed entries and cleaning.

Wheeler Ave Wet Well Cleanout – Before and After:



Woodsbury Wet Well Cleanout – Before and After:



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

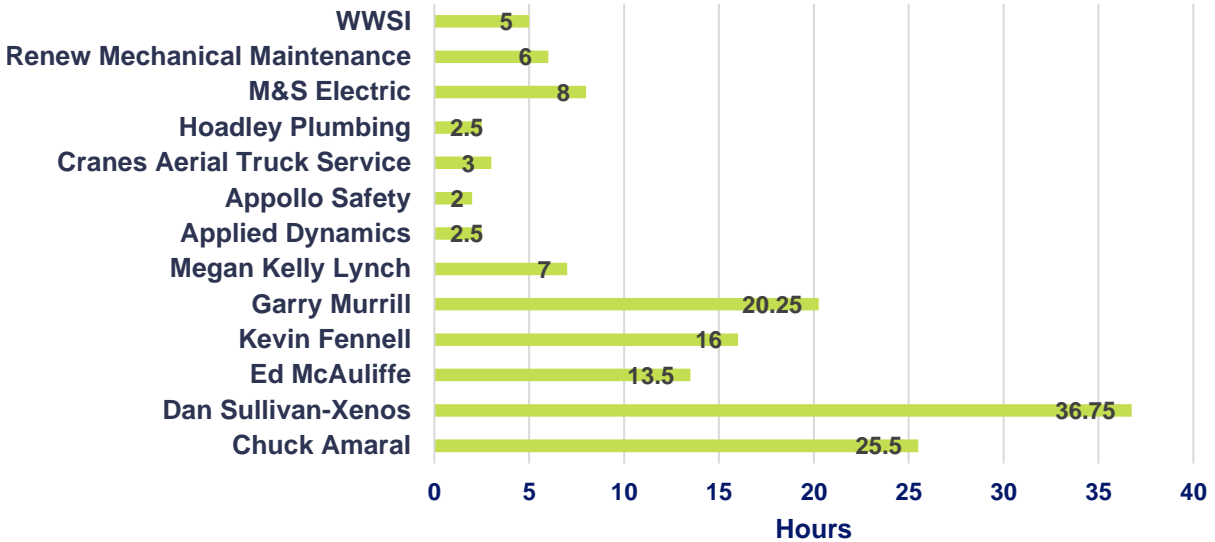
INDUSTRIAL PRE TREATMENT ASSISTANCE:

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 **148** total reported maintenance hours during the month. Of this total, outside contractors accounted for **20%** with **29** hours recorded.

July 2021 Maintenance Hours



9.0 ATTACHED REPORTS

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