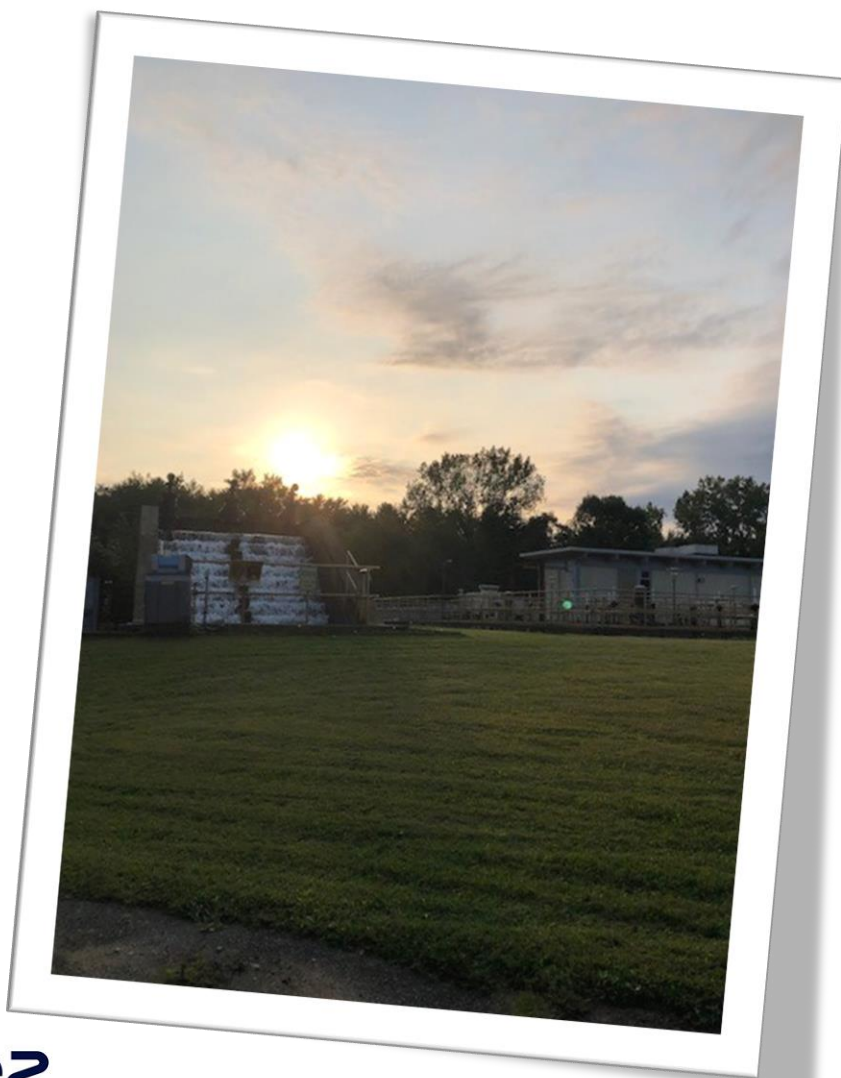


September 2021

Monthly Operating Report





October 15, 2021

Mr. Keith Nastasia

Rockland Sewer Superintendent

587 Rear Summer Street

Rockland, MA 02370

RE: Rockland Wastewater Facility

Monthly Report—September 2021

Dear Mr. Nastasia,

Please see the enclosed September 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

SEPTEMBER 2021 MONTHLY OPERATING REPORT

1. SUMMARY:

- 1) The facility will be reporting **1** exceedance for the month of September 2021.
 - 1) Monthly Average flow was reported as **3.064** MGD, NPDES limit is 2.5 MGD
- 2) There were no lost time / first aid injuries throughout the month
- 3) The facility treated a total of **91.931** Million Gallons.
- 4) The total rainfall for this reporting period was **7.13"**
- 5) I&I Work is ongoing
- 6) **202** work orders were closed in September, with **10** as corrective maintenance work orders, **1** of the 10 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										
		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 Delta variant continues, SUEZ at the Rockland facility has upgraded to a Threat Level 2 guideline as follows:

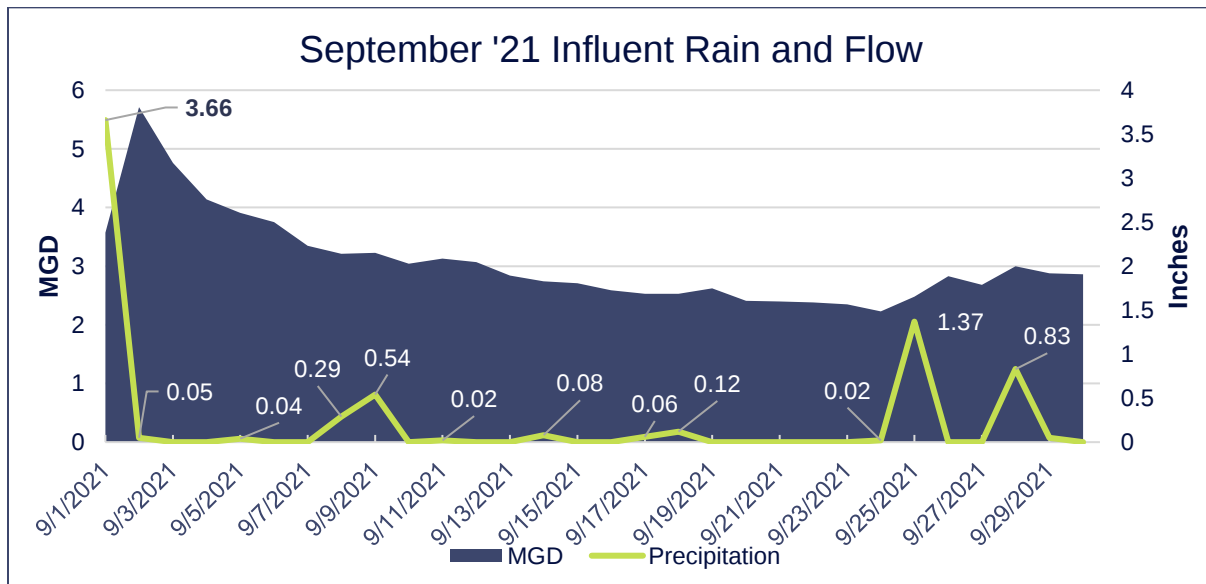
All Suez employees, visitors, and contractors will use face covering indoors except when at their assigned seat or when eating or drinking. All unvaccinated employees must wear a KN/N-95 respirator based on a risk assessment.

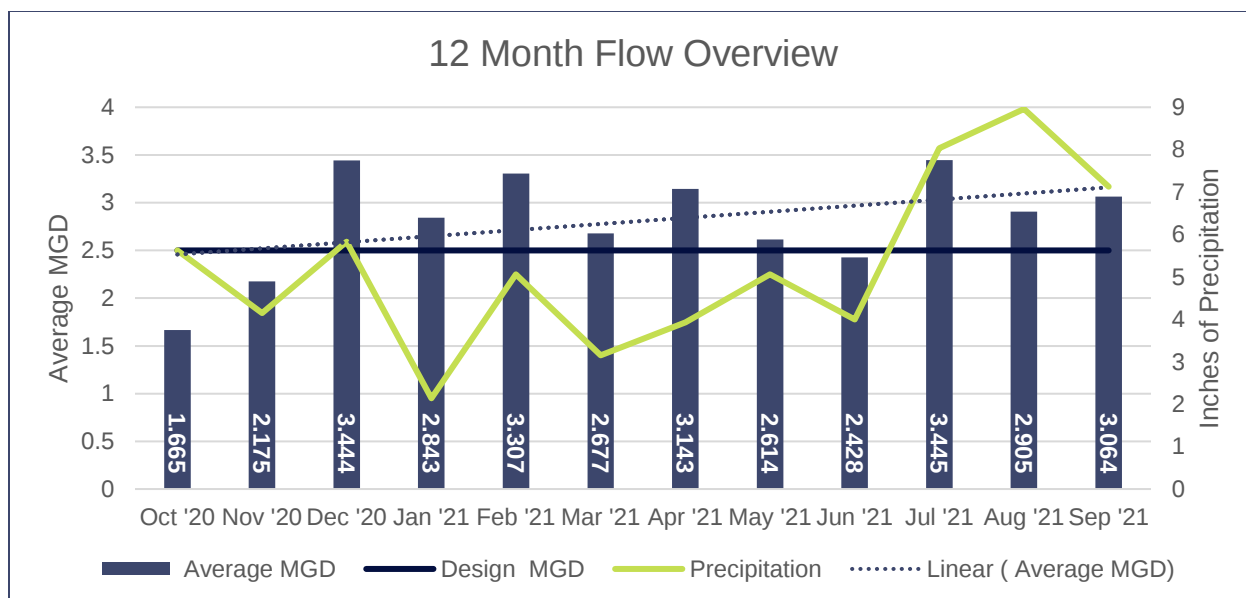
Visitors are still recommended to call ahead to set up appointments for in person visits at the site. All contractors and sales personnel are still required to be screened before entering the premises and meet the Covid visitor guidelines.

4 FOWS AND LOADINGS:

4.0 FLOWS, PRECIPITATION, AND WEATHER

- The facility treated a total of **91.931** MG during the month. The daily average flow was **3.064** MGD. This was **1.517** MGD more than the previous September monthly average, which was recorded at **1.547** MGD. The highest **peak** flow was recorded on September 2 as **5.90** MGD. The lowest instantaneous flow was **1.28** MGD, recorded September 21.
- The highest daily flow was recorded on September 2 as **5.711** MGD. The lowest daily flow was recorded on September 24 as **2.230** MGD.
- A total of **7.13"** of precipitation was received at the facility. The highest single day precipitation total was recorded on September 1 as **3.66"**
- The coldest day was September 29 at **52°F**. The warmest day was September 8 at **85°F**.





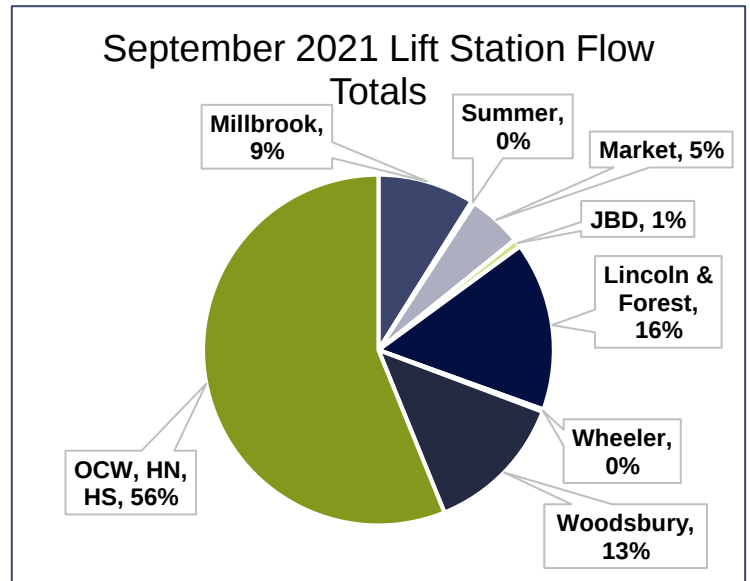
4.1 INFLUENT BOD AND TSS LOADINGS

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
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
Aug '21	2.905	3,044	4,011	2.683	3,118	3,798
Sep '21	3.064	2,376	4,904	2.809	3,064	3,859

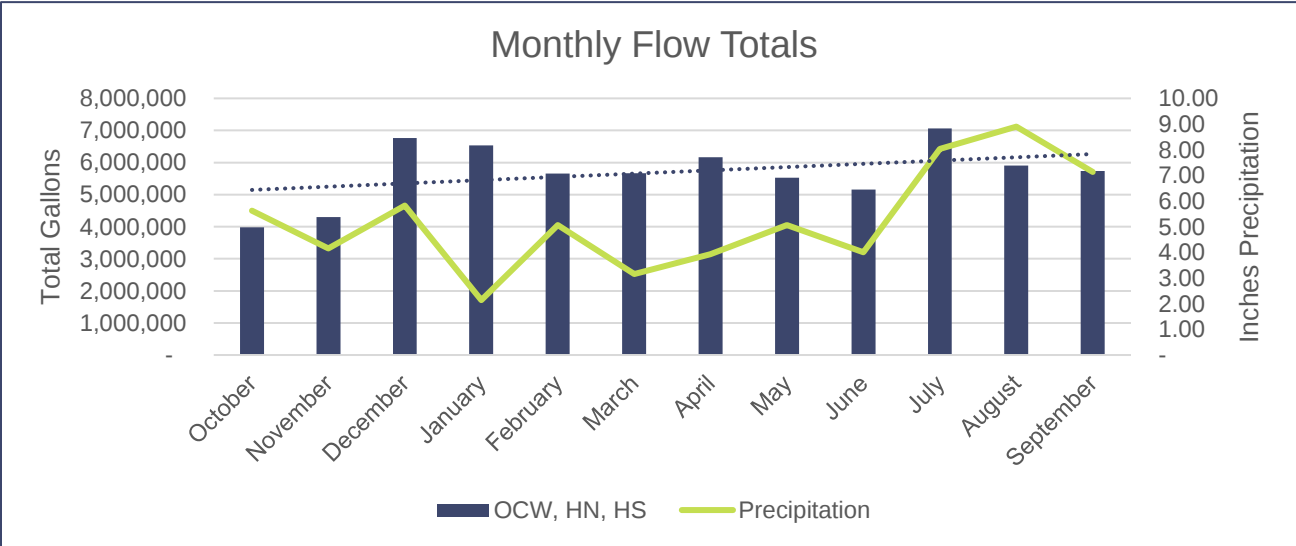
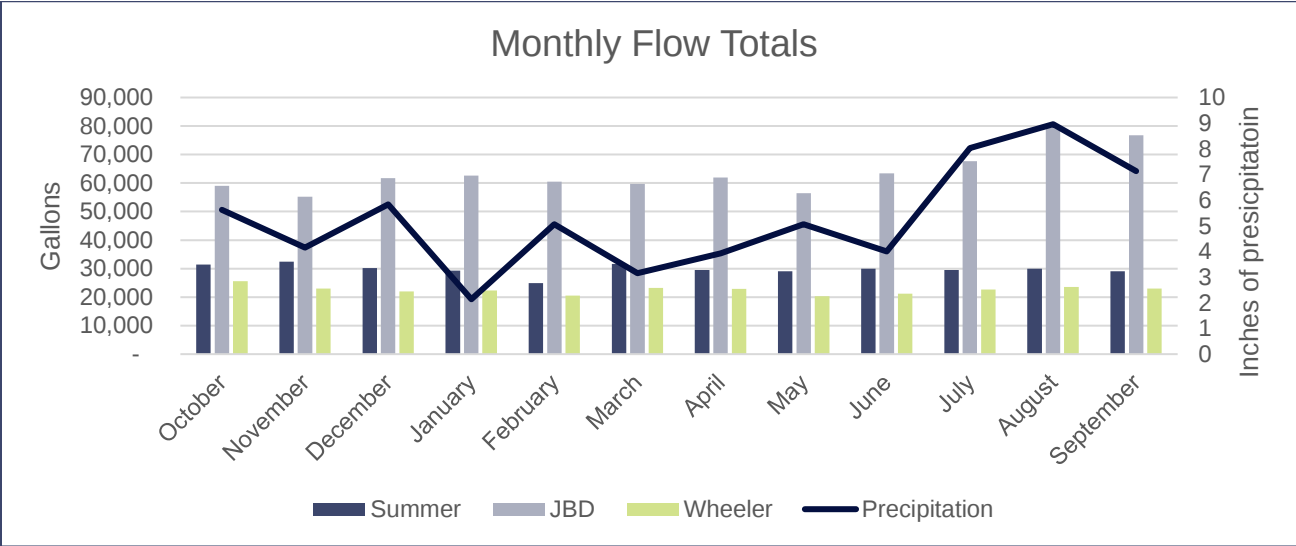
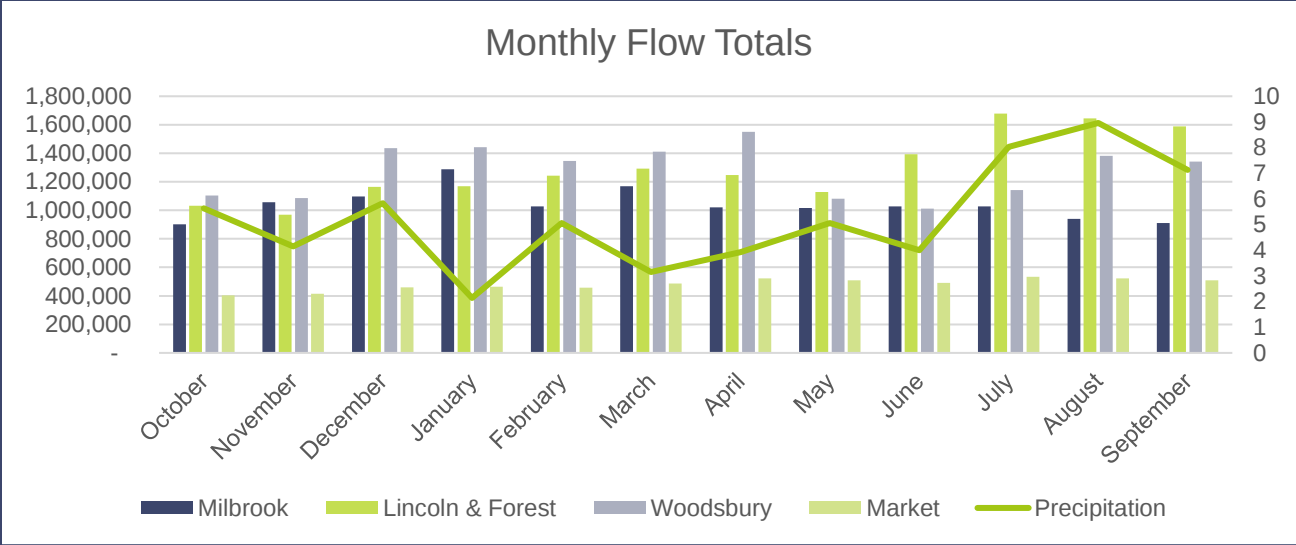
4.2 LIFT STATION FLOWS

The lift stations accounted for **10,214,818** gallons throughout the month, **11.3%** 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 September 2021		
Station	Total Gallons	% Off 12 Month Avg.
Millbrook	910,440	-13%
Summer	29,040	-3%
Market	510,000	7%
John Burke	76,800	23%
Lincoln, Forest	1,589,700	25%
Wheeler	23,040	0%
Woodsbury	1,341,000	5%
OCW, HN, HS	5,734,797	1%
Total:	10,214,818	3%



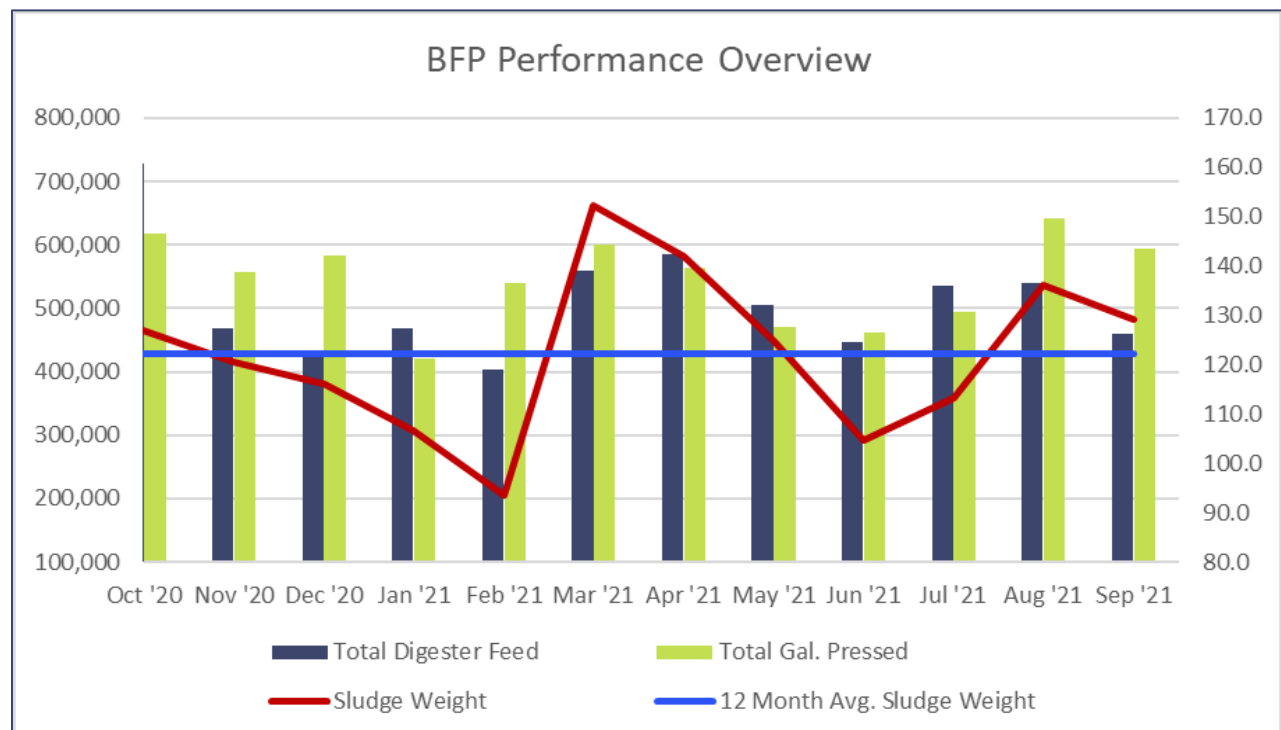
Lift Station Monthly Average Daily Flows (GPD)											
Month	Millbrook	Sumer	Market	John Burke	Lincoln	Forrest	Wheeler	Woodsbury	Old Country Way	Hingham North	Hingham South
	GPD	GPD	GPD	GPD	GPD	GPD	GPD	GPD	GPD	GPD	GPD
Oct '20	29,124	1,024	13,050	1,904	1,980	33,320	828	35,400	44,520	115,200	128,520
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
Aug '21	30,345	968	16,887	2,563	2,826	53,042	761	44,594	62,797	169,839	190,568
Sept '21	30,348	968	17,000	2,560	2,840	52,990	768	44,700	63,070	170,460	191,160
Average	34,108	978	15,809	2,089	2,612	42,490	739	41,844	58,866	151,463	187,238



5.0 SOLIDS HANDLING

The BFP was operated a total of **154.3** hours this month and a total of **594,127** gallons were processed producing **129.2** Wet Tons of sludge that was hauled from the facility. The average BFP feed percent solids were **1.97%** and the BFP Cake average percent solids were **21.24%**. The digester feed to BFP differential was **-102,906** 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
Oct '20	161.8	728,414	617,960	134.2	127.0	2.96	22.84	8.00	9.5
Nov '20	149.8	468,303	556,363	124.0	120.6	2.21	21.62	6.00	
Dec '20	177.0	432,663	582,869	137.8	116.1	3.24	20.00	7.00	
Jan '21	129.0	468,846	421,221	103.2	106.6	1.52	19.27	5.00	
Feb '21	146.0	403,368	540,139	92.0	93.5	2.44	19.19	6.00	
Mar '21	190.3	560,191	600,688	142.4	152.4	2.00	19.16	7.00	
Apr '21	172.5	585,402	564,039	131.3	142.1	2.08	20.23	8.00	
May '21	161.5	504,683	470,321	108.0	124.6	2.48	21.62	7.00	
Jun '21	148.3	447,325	460,923	109.1	104.5	2.62	23.59	6.00	
Jul '21	129.3	536,074	495,343	90.4	113.3	2.16	21.29	7.00	
Aug '21	154.6	538,761	641,667	128.7	136.1	2.33	21.24	7.00	
Sep '21	154.3	459,723	594,127	133.0	129.2	1.97	21.08	6.00	
Annual Total	1,874	6,133,753	6,545,660	1,434	1,466	*****	*****	80	9.50
Avg.	156	511,146	545,472	120	122	2.33	20.93	6.7	*****



6.0 ENVIRONMENTAL COMPLIANCE

6.1 REGULATORY REPORTING

- EPA NETDMR submitted on the CDX website on 10/08/2021
- MADEP MOR mailed on 10/08/2021
- Annual Industrial Pretreatment Report mailed to USEPA and MADEP on 9/15/2021

6.2 NPDES COMPLIANCE

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

- 1) Monthly Average flow reported as 3.064 MGD. NPDES limit is 2.5 MGD

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				
Wed, Sep 01	3.570							7.33				8.3				
Thu, Sep 02	5.711	2.0	95	2.0	95	0.20	0.17	7.28				10.0	Oct. 1 - April 30	20 Mg/L 417 lbs/day	20 Mg/L 417 lbs/Day	30 Mg/L 626 lbs/Day
Fri, Sep 03	4.760							7.30				9.0	May 1 - Sept. 30	6 Mg/L 125 lbs/Day	6 Mg/L 125 lbs/Day	10Mg/L 209 lbs/day
Sat, Sep 04	4.140							7.37				9.0				
Sun, Sep 05	3.910							7.41	46			9.1				
Mon, Sep 06	3.750							7.42	65			8.7				
Tue, Sep 07	3.350	2.0	56	3.7	103	0.22	0.19	7.48	62	10	5.1	8.7	Oct. 1 - April 30	20 Mg/L 417 lbs/Day	20 Mg/L 417 lbs/Day	30 Mg/L 626 lbs/Day
Wed, Sep 08	3.210							7.43				8.6	May 1 - Sept. 30	10 Mg/L 209 lbs/Day	10 Mg/L 209 lbs/Day	15Mg/L 313 lbs/day
Thu, Sep 09	3.230	2.0	54	3.7	100	0.72	0.28	7.36				8.9				
Fri, Sep 10	3.040							7.41				8.8				
Sat, Sep 11	3.130							7.44				8.8				
Sun, Sep 12	3.070							7.49	49			8.9	Oct.1 - Mar. 31	3.3 Mg/L	3.3 Mg/l	5.7 Mg/L
Mon, Sep 13	2.840							7.26	28			8.3	Apr. 1 - May 31	2.5 Mg/L	2.5 Mg/l	5.7 Mg/l
Tue, Sep 14	2.740	3.4	78	4.7	107	0.98	0.18	7.32	21			8.6	June 1 - Sept. 30	1.0 Mg/L	1.0 Mg/L	1.5 Mg/L
Wed, Sep 15	2.710							7.39				8.6				
Thu, Sep 16	2.590	2.0	43	2.0	43	0.25	0.15	7.41				8.4				
Fri, Sep 17	2.530							7.38				8.4				
Sat, Sep 18	2.530							7.41				8.9				
Sun, Sep 19	2.620							7.49	33			8.6	Apr. 1 - Oct. 31	0.2 Mg/L	*****	*****
Mon, Sep 20	2.410							7.42				8.9	Nov. 1 - Mar. 31	1.0 Mg/L	*****	*****
Tue, Sep 21	2.400	2.0	40	2.0	40	0.20	0.15	7.32	50			9.2				
Wed, Sep 22	2.380							7.29	122			8.4				
Thu, Sep 23	2.350	2.0	39	2.0	39	0.20	0.11	7.45				8.8				
Fri, Sep 24	2.230							7.32				8.8				
Sat, Sep 25	2.480							7.40				8.7				
Sun, Sep 26	2.830							7.44	62			8.9				
Mon, Sep 27	2.680							7.49				8.7				
Tue, Sep 28	3.000	2.0	50	2.0	50	0.20	0.10	7.40				9.3				
Wed, Sep 29	2.880							7.29	42			8.7				
Thu, Sep 30	2.860	3.0	72	2.0	48	0.20	0.12	7.34	48			9.2				
Daily Max	5.711	3.40	95.26	4.70	107.40	0.98	0.28	7.49	122.00	*****	*****	*****	May 1 - Sept. 30		> 7.4 mg/L	
Daily Min.	2.230	*****	*****	*****	*****	*****	*****	7.26	*****	*****	*****	8.30				
Month Avg.	3.064	2.27	58.56	2.68	69.44	0.35	0.16	7.38	52.33	10	5.1	*****				

7.0 ENERGY CONSUMPTION

7.1 ELECTRICAL OVERVIEW

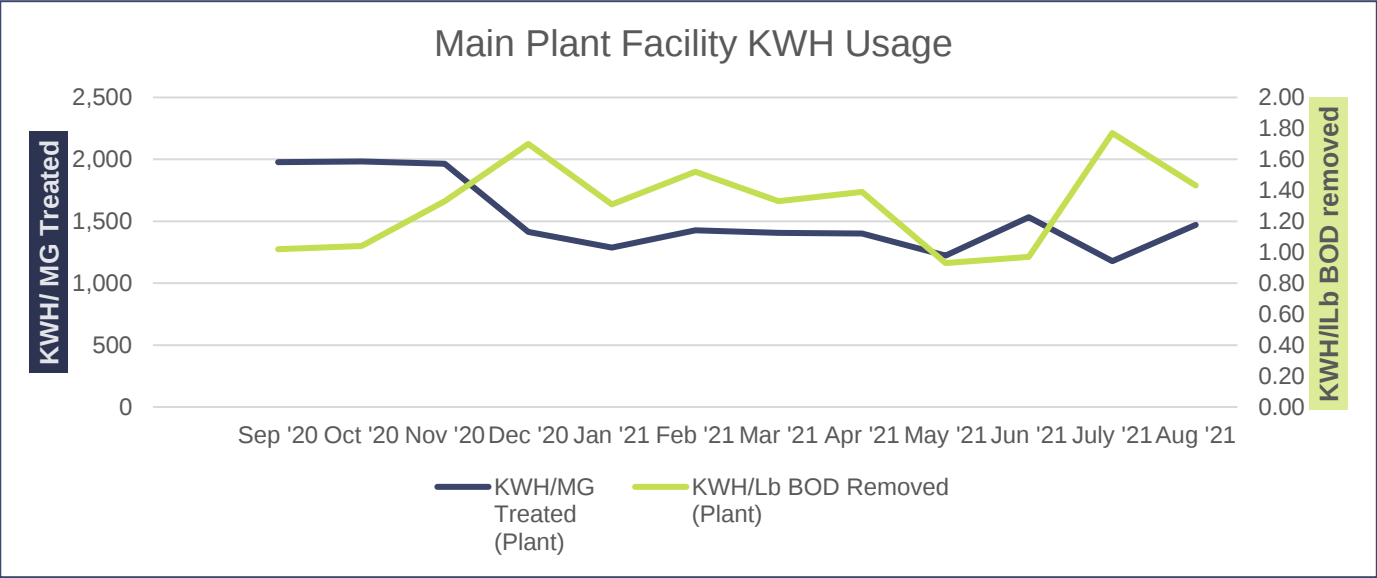
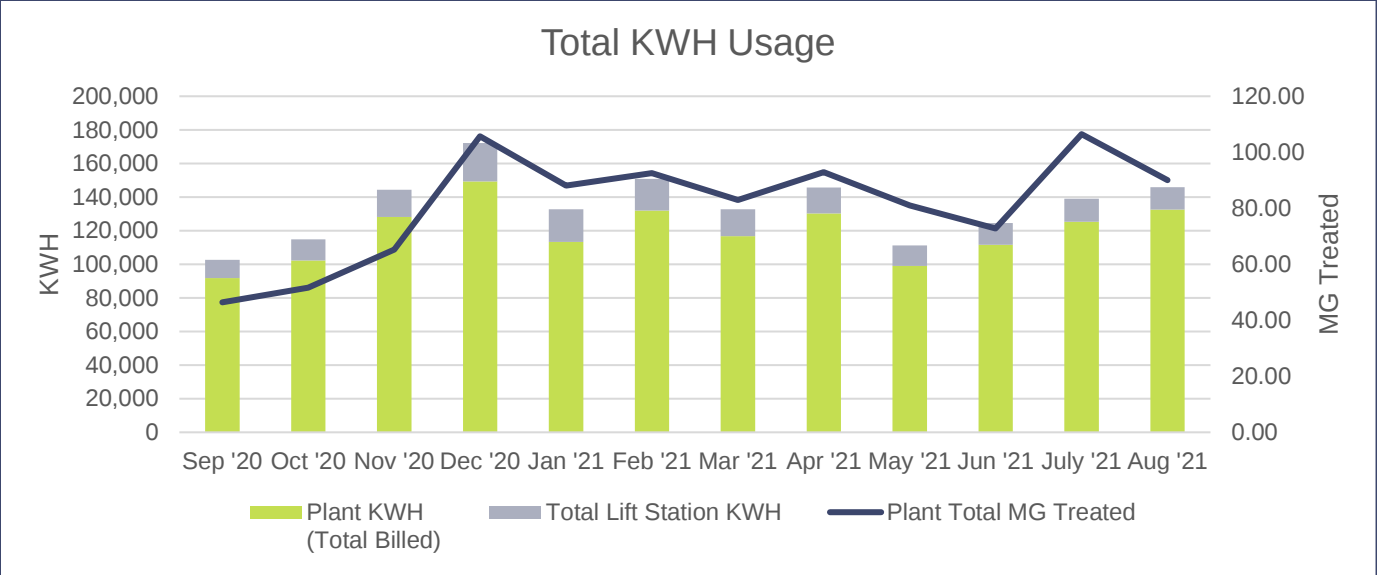
Due to billing cycle timing, all electrical data in the MOR will be one month behind. The following data is for electrical consumption during the **August 2021** operating period.

The department used a total of **145,916 KWH** for the month of August 2021. Of this total, the lift stations accounted for **9.1%**, using **13,316 KWH**. The Main Plant accounted for the remaining **132,600 KWH**.

The KWH/ MG treated was **1,472** for the month, which is **6%** lower than the previous 12-month average of **1,571 KWH/MG**. The KWH/Lb. BOD Removed was **1.43 KWH/Lb.** for the month, which is **10%** higher than the previous 12-month average of **1.30 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
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
July '21	3.43	106.47	125,400	1,178	70,944	1.77	222	249	13,555	138,955
Aug '21	2.91	90.06	132,600	1,472	92,787	1.43	249	255	13,316	145,916
Average	2.68	81.33	119,375	1,522	92,724	1.31	212	227	15,341	134,716

Monthly Lift Station KWH														
Month	Hingham North	Hingham South	Spruce	Butternut	Old Country Way	Market	Woodsbury	Lincoln	Forest	Wheeler	Summer	Milbrook	John Burke	Total
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
Jun '21	2,809	4,300	177	335	887	362	901	253	1,719	65	62	883	105	12,858
July '21	2,969	4,800	159	415	987	347	1,112	152	1,454	54	62	914	130	13,555
Aug '21	2,740	4,700	170	486	1,044	344	892	159	1,630	58	62	908	123	13,316
Average	3,232	4,909	178	441	1,099	732	1,172	249	1,712	59	63	1,338	158	15,341



8.0 MAINTENANCE

8.1 WORK ORDER OVERVIEW

WO Type	Total This Month	Total This Year
Preventative Maintenance	190	1,177
Corrective Maintenance	10	98
Emergency Call Outs Total	1	34

8.2 SIGNIFICANT CORRECTIVE WORK ORDERS FOR THE MONTH

CM Description	WO #
1. Secondary Clarifier Motor Replaced	20093
2. Grit Chamber Cleaned	20095
3. Contact Chamber Cleaned	20096
4. Secondary Clarifiers 1&2 Cleaned	20085 & 20086
5. Final Chlorine Analyzer Replaced	20087
6. Primary Ferric Pump 1 Roller Tube Replaced	20089

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

8.4 EMERGENCY CALL OUTS FOR THE MONTH

Type	Total this Month	Total this Year
Sewer Back Up / Collection System	0	2
Pump Station	1	19
Plant	0	12
Odor	0	0
Power Outages	0	11
Total:	1	44

1. Old Country Way 9/13/21
 - a. DS called in on 9/12 for High Wet Well Float at 2 PM. Pump 2 not pumping, placed in lead only Pump #1.
 - b. EM and CA pulled pump on 9/13 – no rag in pump, removed from service for wear ring replacement.

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 Transfer Switch Inspections Completed

8.6 COLLECTION SYSTEM AND IPP ASSISTANCE PERFORMED BY SUEZ

COLLECTION SYSTEM ASSISTANCE:

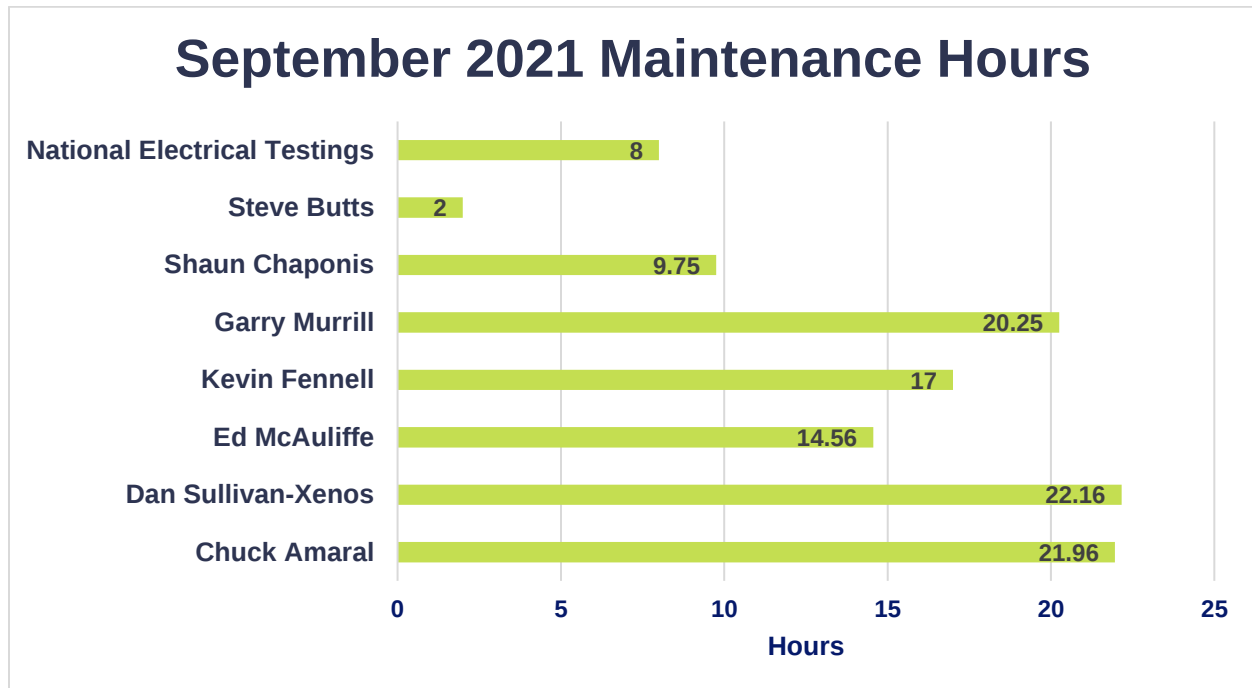
Type	Total This Month	Total This Year
Sewer Inspection / Tie-Ins	0	0
Sewer Location mark Outs	0	0
Sewer Back Up	0	0

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 **107.68** total reported maintenance hours during the month. Of this total, outside contractors accounted for **7%** with **8** hours recorded.



9.0 ATTACHED REPORTS

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