

January 2021

Monthly Operating Report





February 11, 2021

Mr. David Taylor

Rockland Sewer Superintendent

587 Rear Summer Street

Rockland, MA 02370

RE: Rockland Wastewater Facility

Monthly Report—January 2021

Dear Mr. Taylor,

Please see the enclosed January 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: Walter Simmons

Charles Heshion

Ronald Savicke

JANUARY 2021 MONTHLY OPERATING REPORT

1. SUMMARY:

- The facility will be reporting **1** exceedance for the month of January 2021 for Monthly Avg. Flow
- Monthly Average flow was **2.843**, NPDES Limit is **2.5**
- There were no lost time / first aid injuries throughout the month
- The total rainfall for this reporting period was **2.14"**
- I&I Work is ongoing
- 176** work orders were closed in January, with **12** as corrective maintenance work orders, **8** of the 12 were emergency call outs, while **1** was related to the collection system.
- New permit still pending from EPA
- Due to the increase in local COVID cases, as of Dec. 14, 2020 the Rockland Project has been raised to the SUEZ Threat Level 3 status in order to protect the safety and continued operations of the Treatment Plant

2. STAFFING:

Operator Dan Sullivan-Xenos has shown his commitment to improving his wastewater knowledge by successfully passing and subsequently receiving the MA Grade 5C Wastewater Treatment Plant Operators License. Dan continues to show his commitment to the facility by continuously showing a willingness to learn and take on new roles and responsibilities. SUEZ acknowledges Dan's achievement with the understanding that the attainment of the grade 5C exam is not an easy task to accomplish. Congratulations Dan!

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:

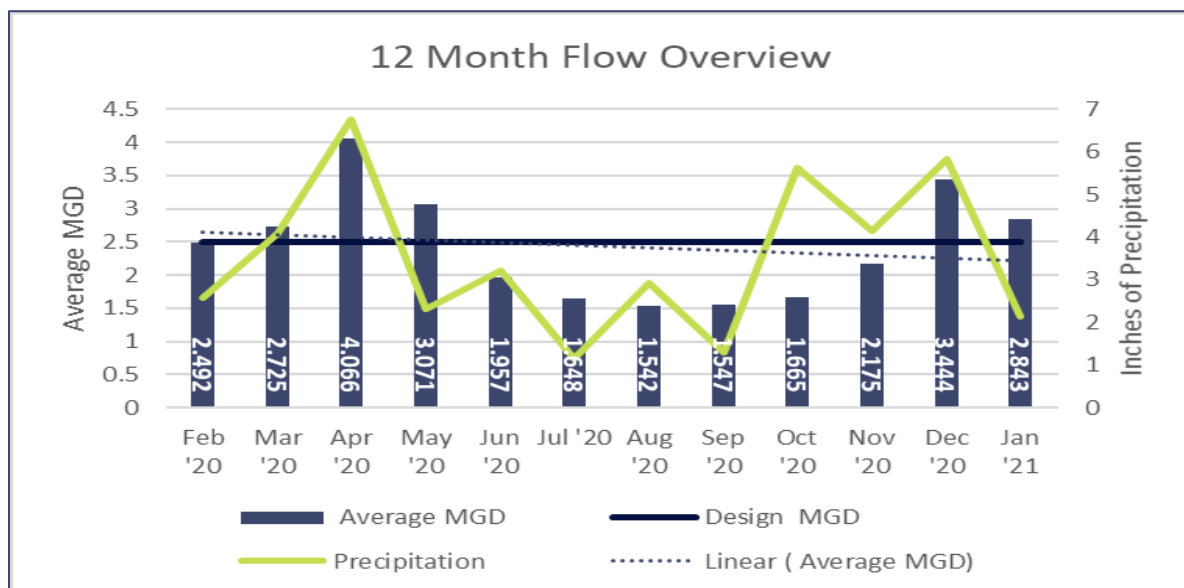
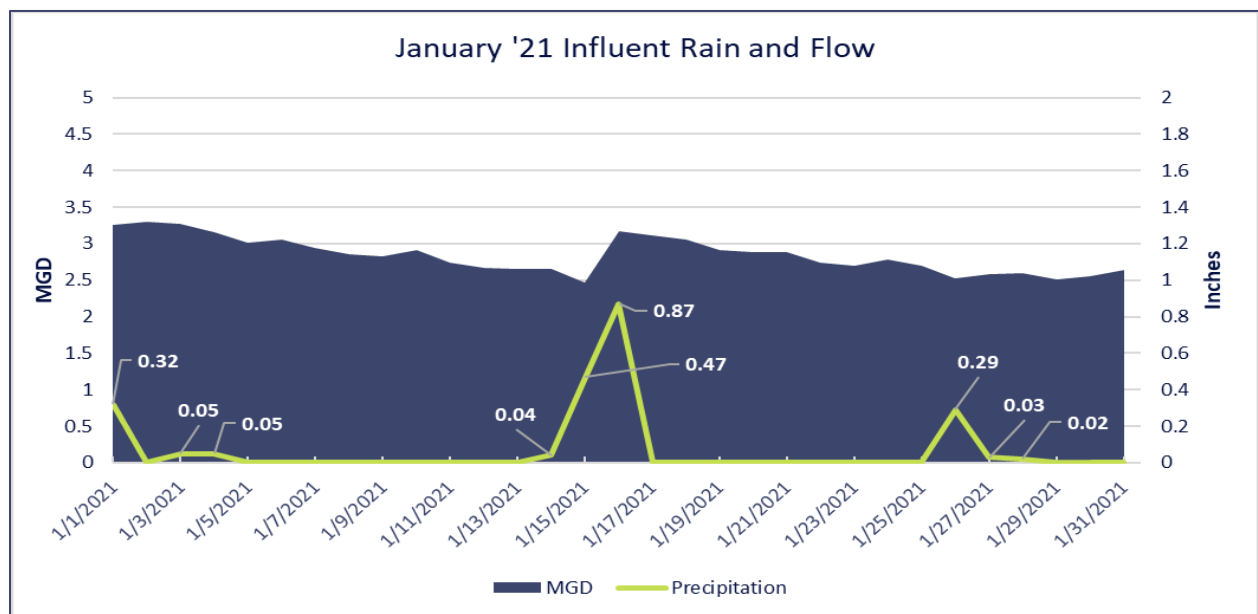
Throughout the COVID-19 (Coronavirus) pandemic in an attempt to continue to serve the Town of Rockland with reliable operations and protect the staff of the Rockland team, SUEZ has implemented numerous procedures to ensure continuity of the operations. As the COVID-19 continues to escalate, SUEZ at the Rockland facility has entered the Threat Level 3 guidelines as follows:

1. Due to the COVID-19 (Coronavirus) pandemic to prevent the entire SUEZ staff from becoming infected the following measures will continue to be taken to keep the wastewater treatment plant operating, pump stations inspected and NPDES permit required samples collected
2. The staff of 8 employees were divided into 2 groups and will work switch from working 1 week on and 1 week off to beginning on Monday, December 14th, 2020 until further notice.
3. All deliveries will continue to be limited to the main entrance door atrium area to minimize interaction with SUEZ and Town of Rockland employees. The main door is locked with the plant phone number listed on the door and a waterproof wireless doorbell was recently installed to notify SUEZ Management and the Town of Rockland Administrator of any potential visitors.
4. All employees will continue cleaning and disinfecting frequently touched objects and surfaces twice per shift using a regular household cleaning spray or wipes
5. All employees will continue to follow the social distancing of a minimum of 6' at all times during their shifts. In the event of a COVID-19 Virus exposure, Environmental Response Services of Middleboro, MA 508-998-6229 or Clean Harbors (Safety Clean) 205-209-8328 would be contacted.
6. There were 8 safety inspections completed throughout the month
7. There was 1 unsafe conditions identified and reported through the SUEZ Intelex system during the month.
 - a. The reported unsafe condition was a trip hazard caused by hoses around the secondary clarifiers. The hoses were repositioned by staff to eliminate the hazard.

4 FLOWS AND LOADINGS:

4.0 FLOWS, PRECIPITATION, AND WEATHER

- The facility treated a total of **88.120** MG during the month. The daily average flow was **2.843** MGD. This was **0.121** MGD less than the previous January monthly average, which was recorded at **2.843** MGD. The highest **peak** flow was recorded on January 2 as **3.80** MGD. The lowest instantaneous flow was **1.35** MGD, recorded January 30.
- The highest daily flow was recorded on January 2 as **3.300** MGD. The lowest daily flow was recorded on January 15 as **2.47** MGD.
- A total of **2.14"** of precipitation was received at the facility. The highest single day precipitation total was recorded on Jan 16 as **0.87"**
- The coldest day was Jan 30 at **3°F**. The warmest day was Jan 16 at **52°F**.



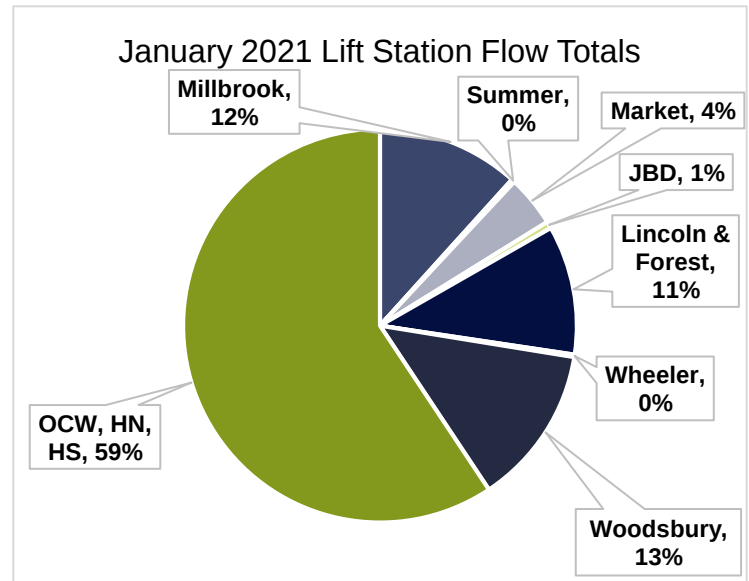
4.1 INFLUENT BOD AND TSS LOADINGS

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
Feb '20	2.492	3,656	5,723	2.488	3,722	5,305
Mar '20	2.725	3,472	4,132	2.451	3,669	5,254
Apr '20	4.066	3,334	4,184	2.518	3,565	5,132
May '20	3.071	3,082	3,793	2.547	3,519	5,035
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

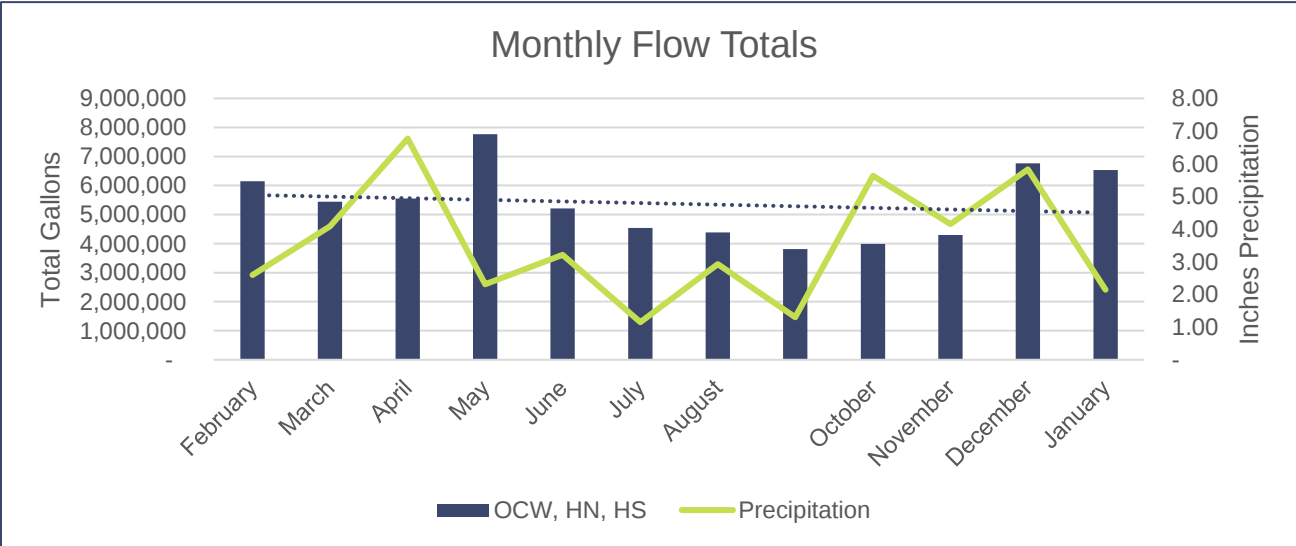
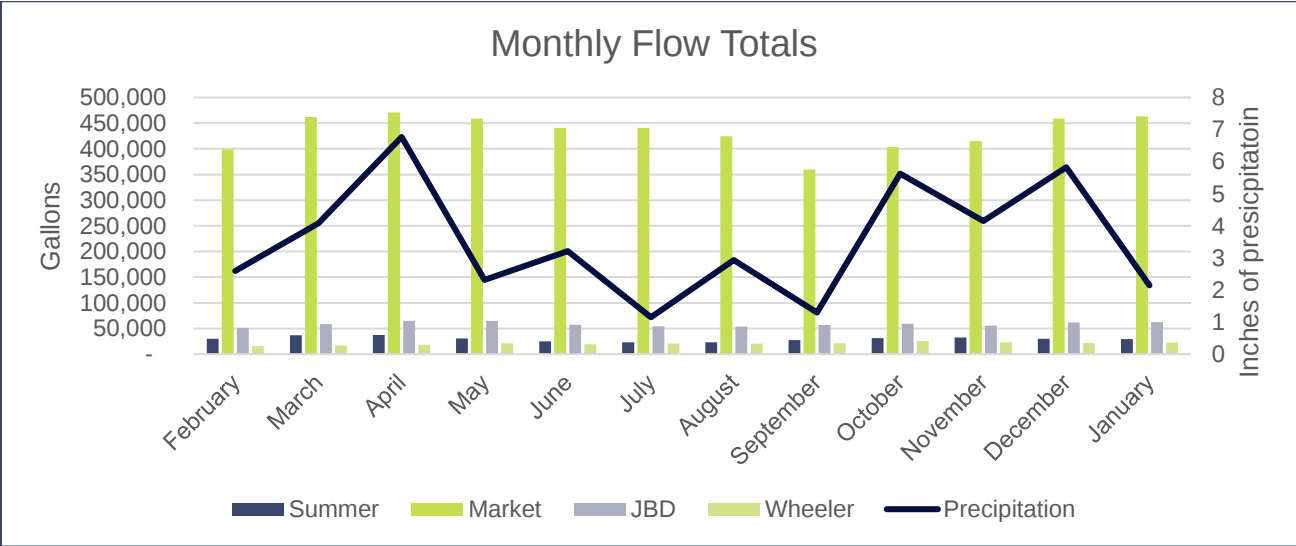
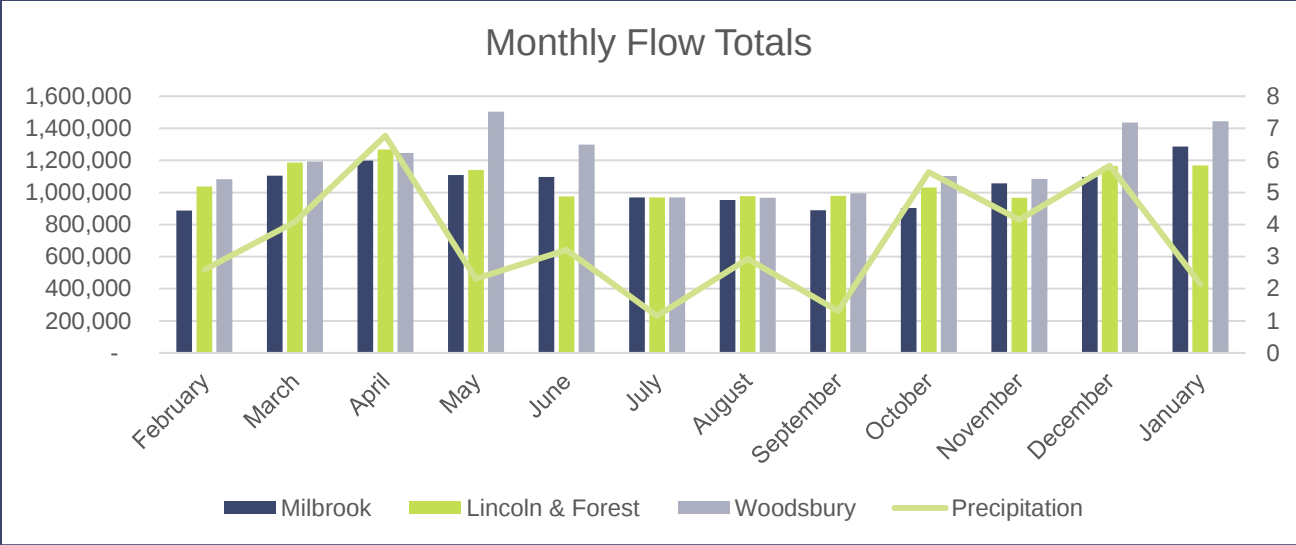
4.2 LIFT STATION FLOWS

The lift stations accounted for **11,012,398** gallons throughout the month, **12.5%** 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 January 2021		
	Total Gallons	% Off 12 Month Avg.
Millbrook	1,287,360	26%
Summer	29,280	-2%
Market	463,500	8%
John Burke	62,640	8%
Lincoln, Forest	1,169,700	10%
Wheeler	22,320	0%
Woodsbury	1,443,601	23%
OCW, HN, HS	6,533,996	24%
Total:	11,012,398	22%



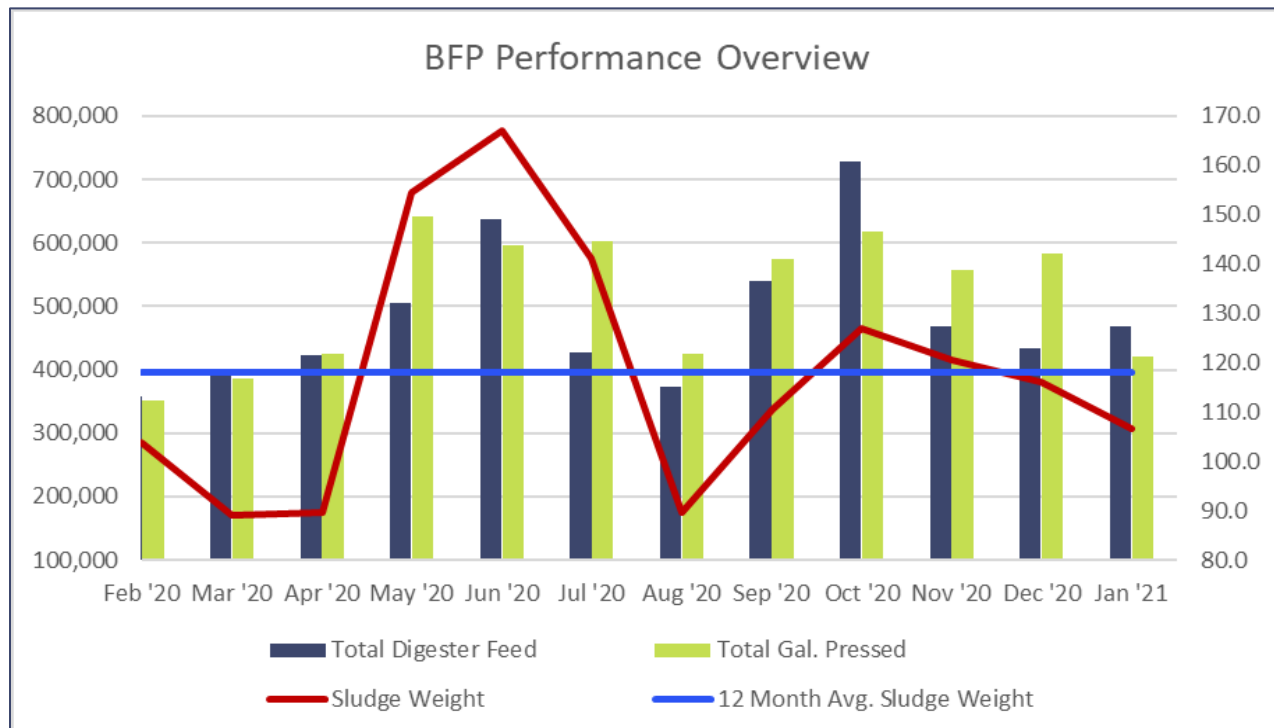
Lift Station Monthly Average Daily Flows											
Month	Millbrook	Sumer	Market	John Burke	Lincoln	Forrest	Wheeler	Woodsbury	Old Country Way	Hingham North	Hingham South
	GPD	GPD	GPD	GPD	GPD	GPD	GPD	GPD	GPD	GPD	GPD
Feb. '20	30,575	1,043	13,759	1,763	2,731	35,772	546	37,366	57,786	155,669	211,903
March '20	35,640	1,192	14,903	1,889	2,090	38,274	540	38,497	60,765	139,355	175,587
April '20	39,924	1,240	15,700	2,168	1,620	42,280	594	41,580	73,080	141,840	185,040
May '20	35,779	991	14,806	2,098	1,394	36,784	679	48,542	65,710	140,226	250,490
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
Average	34,286	979	14,220	1,913	1,825	35,171	672	39,083	55,715	132,894	176,176



5.0 SOLIDS HANDLING

The BFP was operated a total of **129** hours this month and a total of **421,221** gallons were processed producing **107** Wet Tons of sludge that was hauled from the facility. The average BFP feed percent solids were **2.44%** and the BFP Cake average percent solids were **19.27%**. The digester feed to BFP differential was **47,625** 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
Feb '20	128.0	358,640	351,941	97.6	103.9	1.74	16.97	6.00	
Mar '20	134.3	393,120	386,861	85.6	89.0	2.69	17.20	5.00	
Apr '20	131.8	422,607	424,043	103.2	89.5	2.89	18.88	6.00	
May '20	180.8	505,318	642,038	137.6	154.6	1.75	20.13	8.00	
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	
Annual Total	1,864	5,752,503	6,182,485	1,418	1,416	*****	*****	78	9.50
Avg.	155	479,375	515,207	118	118	2.53	20.57	6.5	*****



6.0 ENVIRONMENTAL COMPLIANCE

6.1 REGULATORY REPORTING

- EPA NETDMR submitted on the CDX website on 02/08/2021
- MADEP MOR mailed on 02/08/2021
- Annual 503B Sludge Report submitted on CDX website on 01/27/21 and mailed to MADEP

6.2 NPDES COMPLIANCE

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

- The monthly average MGD was reported as **2.843** MGD. The NPDES Permit 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	BOD			
Fri, Jan 01	3.250							7.29					Oct. 1 - April 30	20 Mg/L 417 bs/day	20 Mg/L 417 lbs/Day	30 Mg/l 626 lbs/Day
Sat, Jan 02	3.300							7.37					May 1 - Sept. 30	6 Mg/L 125 lbs/Day	6 Mg/L 125 lbs/Day	10Mg/L 209 lbs/day
Sun, Jan 03	3.270							7.23	37				TSS			
Mon, Jan 04	3.150							7.46	162				Oct. 1 - April 30	20 Mg/L 417 lbs/Day	20 Mg/L 417 lbs/Day	30 Mg/l 626 lbs/Day
Tue, Jan 05	3.010	3.5	88	4.7	118	0.62	0.630	7.43	68	11	4.7		May 1 - Sept. 30	10 Mg/L 209 lbs/Day	10 Mg/L 209 lbs/Day	15Mg/L 313 lbs/day
Wed, Jan 06	3.050							7.39					NH3			
Thu, Jan 07	2.940	5.2	128	2.0	49	2.30	0.770	7.33					Oct. 1 - Mar. 31	3.3 Mg/L	3.3 Mg/l	5.7 Mg/L
Fri, Jan 08	2.860							7.37					Apr. 1 - May 31	2.5 Mg/L	2.5 Mg/l	5.7 Mg/l
Sat, Jan 09	2.830							7.46					June 1 - Sept. 30	1.0 Mg/L	1.0 Mg/L	1.5 Mg/L
Sun, Jan 10	2.910							7.41	19				Total Phpsphorus			
Mon, Jan 11	2.740							7.38	11				Apr. 1 - Oct. 31	0.2 Mg/L	*****	*****
Tue, Jan 12	2.670	3.4	76	2.2	49	2.30	0.830	7.43	8				Nov. 1 - Mar. 31	1.0 Mg/L	*****	*****
Wed, Jan 13	2.660							7.45					Ph			
Thu, Jan 14	2.650	5.5	122	2.5	55	1.90		7.41					6.5 - 8.3			
Fri, Jan 15	2.470							7.49					Fecal			
Sat, Jan 16	3.170							7.30					*****	200 CFU/100ml	*****	400 CFU/100ml
Sun, Jan 17	3.120							7.35	13				Aluminum			
Mon, Jan 18	3.060							7.36	214				*****	88 ug/l	*****	*****
Tue, Jan 19	2.910	4.1	100	4.0	97	0.62	0.770	7.48	374				Copper			
Wed, Jan 20	2.890							7.46					*****	12 ug/l	*****	*****
Thu, Jan 21	2.890	5.4	130	3.2	77	1.60		7.45					Dissolved Oxygen			
Fri, Jan 22	2.740							7.48					May 1 - Sept. 30	> 7.4 mg/L		
Sat, Jan 23	2.700							7.41					Plant Flow			
Sun, Jan 24	2.780							7.40	5				2.5 MGD			
Mon, Jan 25	2.700							7.26	9							
Tue, Jan 26	2.520	4.9	103	2.2	46	2.80	0.800	7.60	5							
Wed, Jan 27	2.580							7.71								
Thu, Jan 28	2.600	3.6	78	3.0	65	1.20		7.49								
Fri, Jan 29	2.510							7.27								
Sat, Jan 30	2.550							7.35								
Sun, Jan 31	2.640							7.19	9							
Daily Max	3.300	5.50	130.15	4.70	117.99	2.80	0.83	7.71	374.00	*****	*****	*****	May 1 - Sept. 30	> 7.4 mg/L		
Daily Min.	2.470	*****	*****	*****	*****	*****	*****	7.19	*****	*****	*****	*****	Plant Flow			
Month Avg.	2.843	4.45	103.13	2.98	69.50	1.67	0.76	7.40	71.846	11	4.7	*****	2.5 MGD			

7.0 ENERGY CONSUMPTION

7.1 ELECTRICAL OVERVIEW

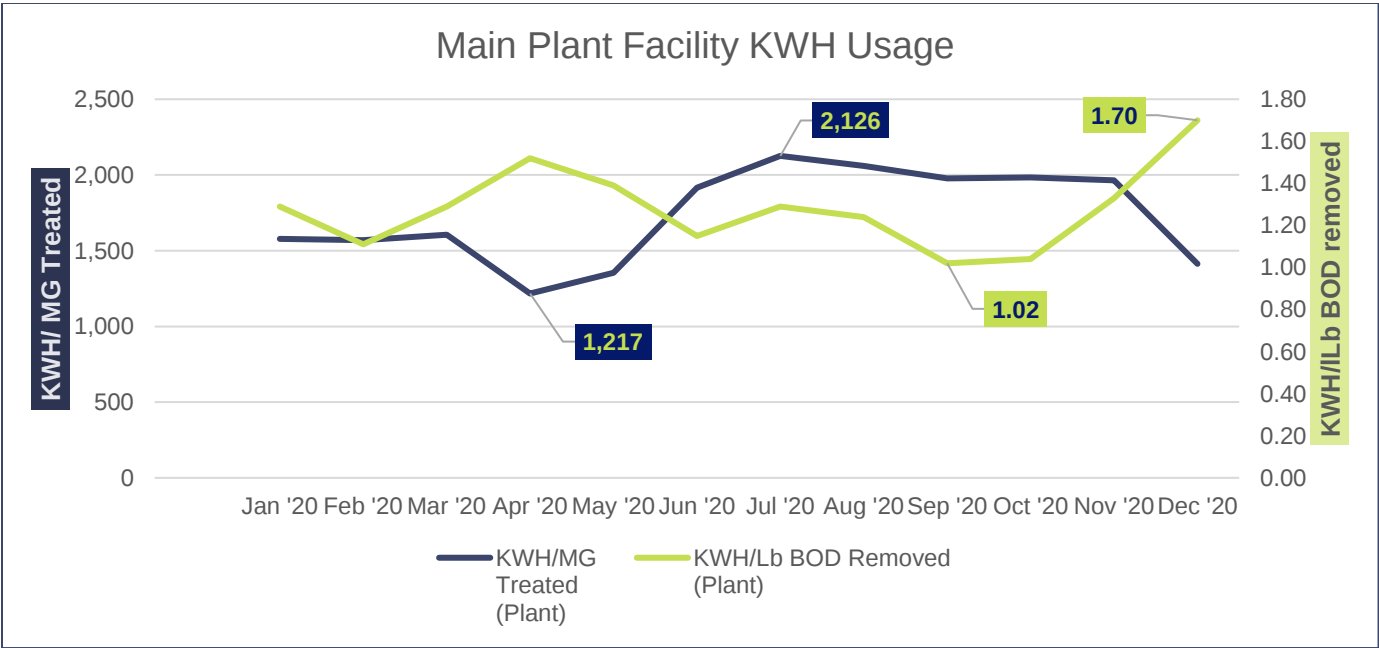
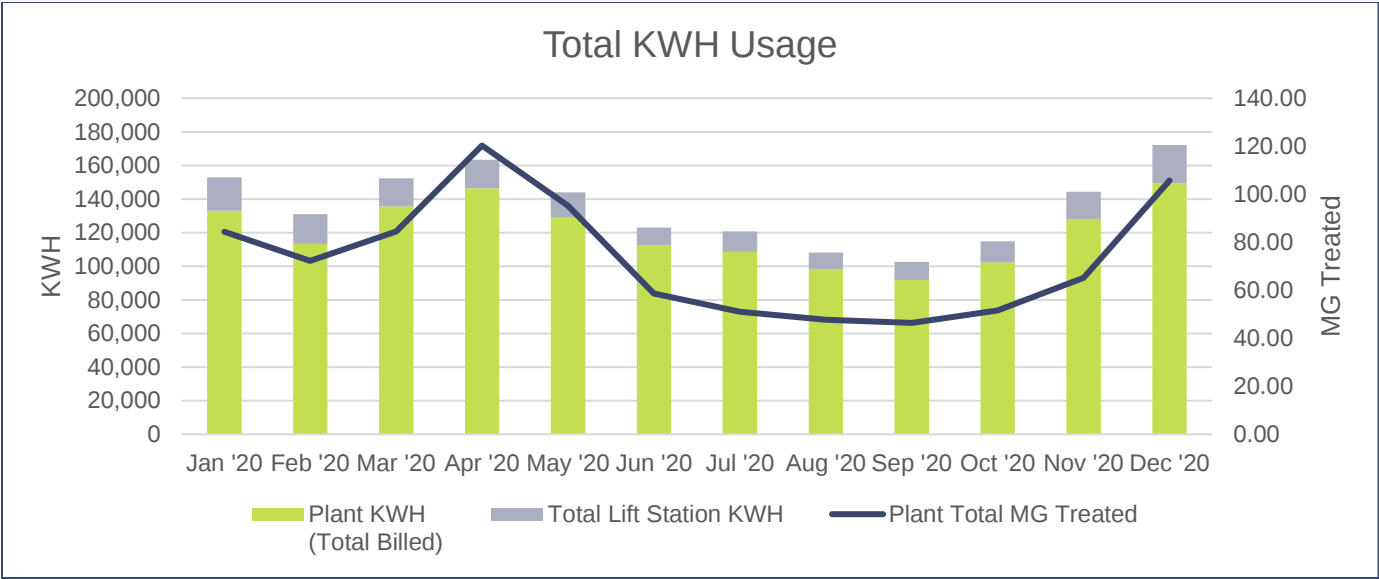
Due to billing cycle timing, all electrical data in the MOR will be one month behind. The following data is for electrical consumption during the **December 2020** operating period.

The facility used a total of **172,135 KWH** for the month of December 2020. Of this total, the lift stations accounted for **13%**, using **22,735 KWH**. The Main Plant accounted for the remaining **149,400 KWH**.

The KWH/ MG treated was **1,413** for the month, which is **18%** lower than the previous 12-month average of **1,726 KWH/MG**. The KWH/Lb. BOD Removed was **1.70 KWH/Lb.** for the month, which is **39%** higher than the previous 12-month average of **1.22 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
Jan '20	2.72	84.36	133,200	1,579	103,401	1.29	219	225	19,665	152,865
Feb '20	2.49	72.27	113,400	1,569	102,056	1.11	204	213	17,583	130,983
Mar '20	2.73	84.48	135,600	1,605	104,853	1.29	270	270	16,713	152,313
Apr '20	4.01	120.31	146,400	1,217	96,567	1.52	237	267	16,939	163,339
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
Average	2.41	73.60	120,725	1,730	94,431	1.28	209	223	15,067	135,792

Monthly Lift Station KWH														
Month	Hingham North	Hingham South	Spruce	Butternut	Old Country Way	Market	Woodsbury	Lincoln	Forest	Wheeler	Summer	Milbrook	John Burke	Total
Jan '20	4,311	6,000	202	511	1,870	964	1,551	347	1,967	50	71	1,615	206	19,665
Feb '20	3,421	5,800	182	466	1,697	885	1,223	311	1,793	47	67	1,501	190	17,583
Mar '20	3,270	5,100	190	581	1,398	869	1,365	277	1,817	48	72	1,527	199	16,713
Apr '20	3,341	5,500	196	596	1,408	853	1,320	243	1,711	55	69	1,476	171	16,939
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
Average	3,200	4,759	166	463	1,195	716	1,150	237	1,554	55	65	1,356	152	15,067



8.0 MAINTENANCE

8.1 WORK ORDER OVERVIEW

WO Type	Total This Month	Total This Year
Preventative Maintenance	164	164
Corrective Maintenance	12	12
Emergency Call Outs Total	8	8

8.2 SIGNIFICANT CORRECTIVE WORK ORDERS FOR THE MONTH

CM Description	WO #
1. Influent Pump #3 rebuilt by Blanchard Electric	17426
2. Effluent pH probe replaced with new and calibrated	18431
3. OCW mixer pulled and cleaned	18433
4. Effluent Pump #3 local control switch repaired	18101
5. Millbrook Pump 2 pulled and cleaned	18426

8.3 SIGNIFICANT OPEN WORK ORDERS

Open CM Description	WO #
1. Woodsbury Road Flush Valve Repair / Replacement	17636
2. Hingham South Repair / Replacement	17427
3. OCW Mixer Starting Relay Replacement	14917
4. Lime Unloader # 3 shaft repair	13568
5. Primary Scum Mixer Blade Replacement	10091
6. Aerator 1-2 Loss of Signal from DO probe causing unit to be run in HAND	13566
7. Effluent Pumps "HAND" control repair	14840
8. 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	1	1
Pump Station	1	1
Plant	4	4
Odor	0	0
Power Outages	2	2
Total:	8	8

1. Loss of Power 01/12/21
 - a. GM called in for loss of power at JBD, power restored and station reset
2. 39 Robin Lane 01/14/21
 - a. GM out to assist DT for back up at 39 Robin Lane. Line plugged with rags/wipes, Soares called in to jet line. Line flowing now
3. Main Plant 01/17/21
 - a. GM called in at 5 PM for low ph. Increased lime pump speed
4. Main Plant 01/18/21
 - a. DS called in for burglar alarm at 8 PM. Plant ok, did notice deer running around property.
5. Main Plant 01/19/21
 - a. DS called in at 5 PM for low pH alarm. Verified reading with calibrated pH meter. EM and DS installed and calibrated new effluent pH meter on 1/20/01
6. Main Plant 01/23/21
 - a. DS called in at 3:45 PM for Influent Pump 3 failure to run. Cleaned pump and adjusted rotation to 2-3-1
7. Spruce St. 01/27/21
 - a. GM called in at 1 AM for loss of air. Cleaned probe and reset station, back online.
8. Loss of Power 01/29/21
 - a. GM called in at 1:30 AM for loss of power at Main Plant, Millbrook, and Woodsbury. All stations reset, ok.

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. Dependable Petroleum UST inspections completed on 01/22

8.6 COLLECTION SYSTEM AND IPP ASSISTANCE PERFORMED BY SUEZ

COLLECTION SYSTEM ASSISTANCE:

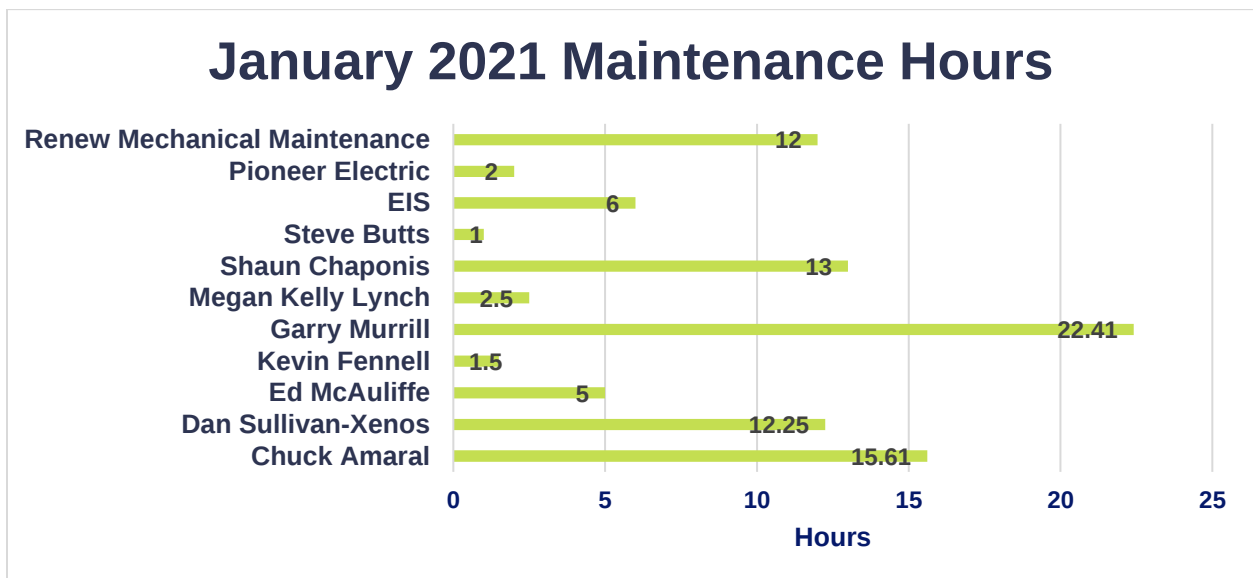
Type	Total This Month	Total This Year
Sewer Inspection / Tie-Ins	0	0
Sewer Location mark Outs	0	0
Sewer Back Up	0	0

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 **93** total reported maintenance hours during the month. Of this total, outside contractors accounted for **21%** with **20** hours recorded.



9.0 FINANCIAL ACCOUNTING- REPAIR / MAINTENANCE (JULY '20 – JUNE '21)

Item	Budget	Spent Month	Spent Year	Remaining
R & M (Project)	\$100,000	\$6,243.94	\$62,035.22	\$37,964.78

9.1 SIGNIFICANT R&M PURCHASES

- Seacoast Supply inspected HSS Pump (unrepairable) for \$2,000.00
- EIS installed two wireless DO Probes at 2-2 aerator and NIT Building for \$2,613.00
- Pioneer Electrical installed new power switch on Effluent Pump #3 for \$536.00

10.0 ATTACHED REPORTS

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