

Monthly Operating Report

NOVEMBER 2022



Rockland, MA WWTP





December 14, 2022

Mr. Chuck Heshion

Rockland Sewer Commission Chairman

587 Rear Summer Street

Rockland, MA 02370

RE: Rockland Wastewater Facility

Monthly Report—November 2022

Dear Mr. Heshion,

I have enclosed November's 2022 Monthly Operating Report (MOR) for the Veolia Operations and Maintenance contract.

Please contact me soon as possible should you have any questions regarding this report.

Sincerely,

Rick Kotouch

Veolia Project Manager

CC:

Daniel Duross

Sherry Vallie

NOVEMBER 2022 MONTHLY OPERATING REPORT

1. SUMMARY:

The facility will be reporting **0** exceedance for the month of November 2022

- 1) There was **0** lost time / first aid injuries throughout the month
- 2) The facility treated a total of **68,860** Million Gallons. The average daily flow was **2.295** MGD
- 3) The total rainfall for this reporting period was **2.93"**
- 4) I&I Work is ongoing
- 5) **182** work orders were closed in November, with **11** as corrective maintenance work order and **4** were emergency call outs
- 6) The new NPDES Permit was issued in November 2021 and became effective in February 2022

2. STAFFING:

Current Employee Licenses as of 08/31/2022										
		Hoisting		Wastewater			NEWEA Collections			NEWEA Laboratory
Employee	Title	1C Forklift	1B Boom Truck & Forklift	3M	5C	7C	I	II	IV	I
Richard Kotouch	Project Manager					X			X	
Megan Kelly-Lynch	Asst. Project Manager	X				X				
Steven Butts	Lab Technician					X				X
Charles Amaral	Maintenance Foreman				X			X		
Garry Murrill	O&M Tech II				X			X		
Maxwell Jackson	O&M Tech I			X						
Cristian Ryan	Operator in Training									
Shaun Chaponis (Part Time Weekends)	O&M Tech II				X		X			

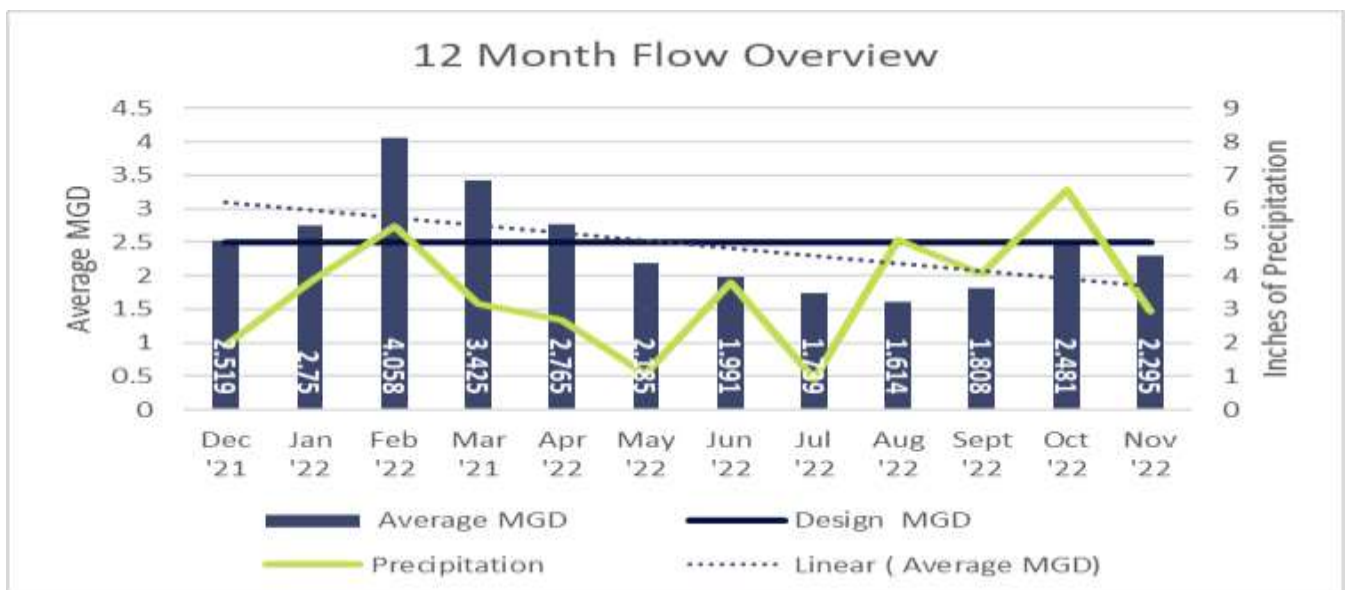
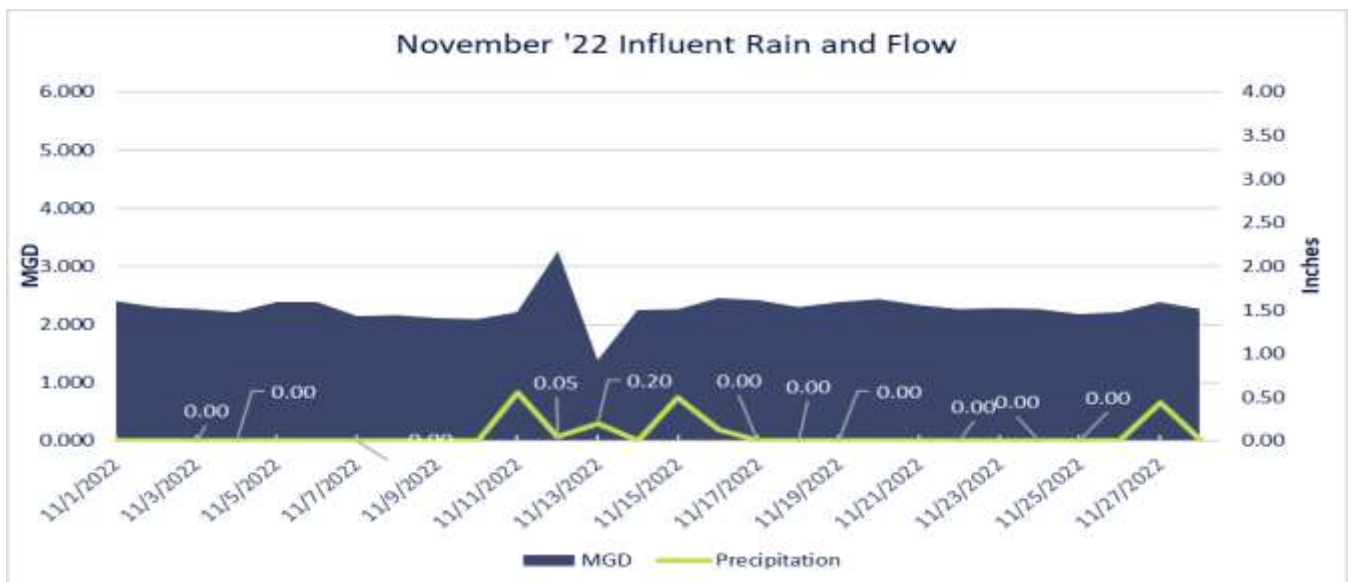
3. EMPLOYEE HEALTH AND SAFETY:

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, Veolia has implemented numerous procedures to ensure continuity of the operations. As the COVID-19 Delta variant and Omicron rates decrease, Veolia at the Rockland facility has downgraded to a Threat Level 0 guideline as follows: We ask all essential personnel, contractor's to stay home if they have Covid like symptoms or have been exposed to someone having Covid.

4 FLOWS AND LOADINGS:

4.0 FLOWS, PRECIPITATION, AND WEATHER

- The facility treated a total of **68.860** MG during the month. The daily average flow was **2.295** MGD. This was **0.830** MGD less than the previous November monthly average, which was recorded at **3.125** MGD. The highest daily flow was recorded on November 30th as **2.540** MGD. The lowest daily flow was recorded on November 10th as **2.090** MGD.
- The highest **peak** flow was recorded on November 12th as **3.790** MGD. The lowest instantaneous flow was **0.880** MGD, recorded November 22th.
- A total of **2.93"** of precipitation was received at the facility. The highest single day precipitation total was recorded on November 30th as **1.02"**
- The coldest day was November 21st at **19°F**. The warmest day was November 6th at **75°F**.



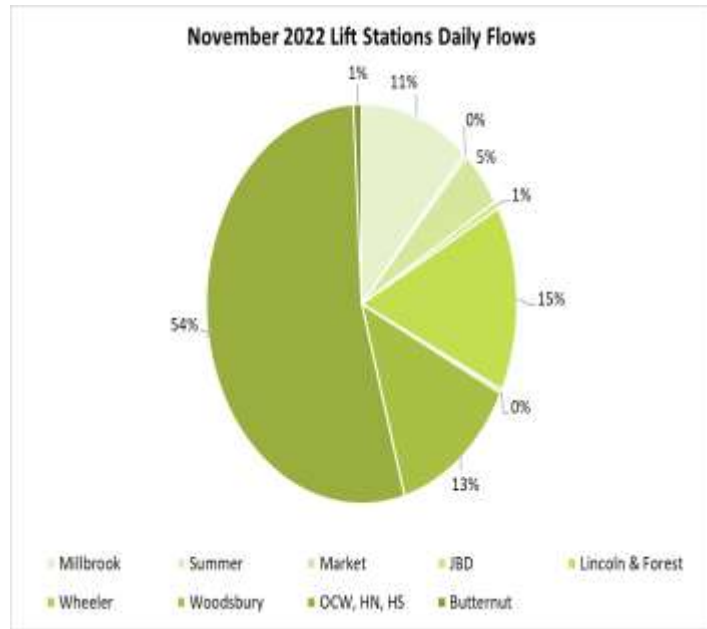
4.1 INFLUENT BOD AND TSS LOADING

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
Dec '21	2.519	3,597	3,699	2.938	3,019	3,738
Jan '22	2.75	3,909	3,676	2.931	3,103	3,774
Feb '22	4.058	3,910	3,913	2.993	3,158	3,755
Mar '22	3.425	3,887	4,456	3.055	3,240	3,855
Apr '22	2.765	3,907	4,051	3.024	3,299	3,891
May '22	2.185	3,809	4,229	2.988	3,326	3,909
Jun'22	1.991	4,343	4,006	2.952	3,365	3,975
Jul'22	1.739	3,316	3,546	2.810	3,446	3,990
Aug'22	1.614	3,313	3,758	2.702	3,469	3,969
Sep'22	1.808	3,716	3,838	2.597	3,581	3,880
Oct'22	2.481	3,323	4,180	2.538	3,608	3,904
Nov'22	2.295	4,948	3,227	2.469	3,832	3,881

4.2 LIFT STATION FLOWS

The lift stations accounted for **9,270,759** gallons throughout the month, **13%** of 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.

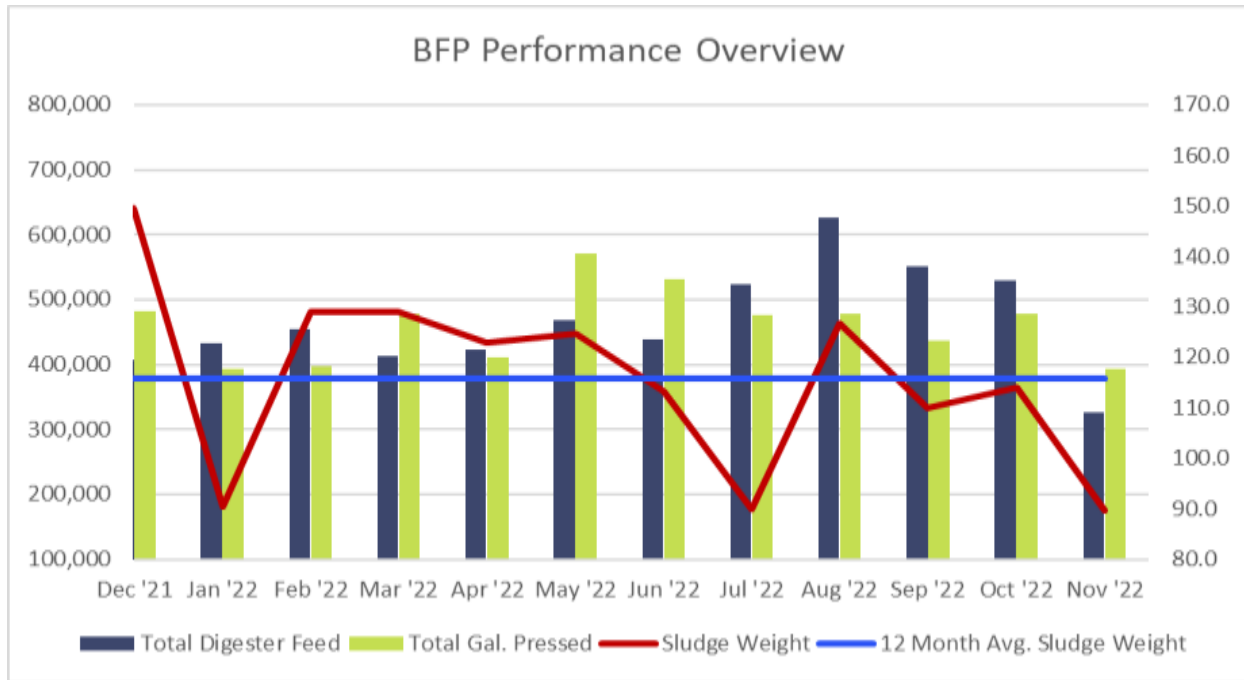
Total Flows for October 2022	
Station	Total Gallons
Millbrook	1,059,482
Summer	33,360
Market	433,500
John Burke	55,200
Lincoln, Forest	1,392,301
Wheeler	27,540
Woodsbury	1,222,203
OCW, HN, HS	4,967,974
Butternut	79,200
Total:	9,270,759



Lift Station Monthly Average Daily Flows (GPD)												
Month	Millbrook	Summer	Market	John Burke	Lincoln	Forrest	Wheeler	Woodsbury	Old Country Way	Hingham North	Hingham South	Butternut
	GPD	GPD	GPD	GPD	GPD	GPD	GPD	GPD	GPD	GPD	GPD	
Dec '21	31,459	929	15,677	1,881	3,232	42,339	703	49,355	59,206	157,994	182,555	OLD System
Jan '22	31,738	937	15,677	2,655	2,400	39,155	726	45,348	53,110	144,540	155,380	
Feb '22	33,156	920	16,150	2,456	2,600	42,980	834	46,620	57,960	151,920	172,800	
Mar '22	31,459	929	15,677	1,881	3,232	42,339	703	49,355	59,206	157,994	182,555	
Apr '22	33,156	920	16,150	2,456	2,600	42,980	834	46,620	57,960	151,920	172,800	
May '22	31,738	937	15,677	2,655	2,400	39,155	726	45,348	53,110	142,142	155,380	
Jun '22	33,073	994	15,640	1,872	2,520	41,300	828	45,060	53,900	144,540	159,480	
Jul '22	27,975	1,223	14,318	1,644	2,110	36,581	586	32,865	51,755	73,335	273,484	
Aug '22	31,459	1,076	15,581	2,145	2,439	40,442	703	38,265	44,100	134,843	113,574	3,475
Sep '22	29,628	976	15,400	1,816	2,389	45,990	732	45,660	42,350	134,460	141,480	2,040
Oct '22	38,114	1,092	14,758	1,386	2,419	49,181	743	43,897	46,810	149,807	273,484	3,870
Nov '22	35,316	1,112	14,450	1,840	2,460	46,410	918	40,740	46,970	142,920	165,599	2,640
Average	32,356	1,004	15,430	2,057	2,567	42,404	753	44,094	52,203	140,535	179,048	3,006

5.0 SOLIDS HANDLING

The BFP was operated a total of **130.0** hours this month and a total of **393,155** gallons were processed producing **89.6** Wet Tons of sludge that was hauled from the facility. The average BFP feed percent solids were **1.96%** and the BFP Cake average percent solids were **22.45%**. 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
Dec '21	152.8	407,825	481,140	126.2	149.5	1.56	20.29	7.00	
Jan '22	141.3	433,648	392,237	101.8	90.5	1.86	18.19	6.00	
Feb '22	140.8	453,426	396,361	112.0	128.9	2.07	18.64	6.00	
Mar '22	533.0	412,533	477,919	136.1	128.9	1.79	18.32	7.00	
Apr '22	133.8	422,314	410,793	123.4	123.0	2.66	19.69	6.00	
May '22	174.3	468,083	571,658	154.1	124.7	1.89	21.14	8.00	
June '22	151.3	439,371	530,756	132.9	113.3	2.26	21.92	6.00	
July '22	137.5	524,233	475,614	119.6	89.8	2.04	22.05	5.00	
Aug '22	152.6	626,023	477,850	132.8	126.8	2.15	23.45	7.00	
Sep '22	140.6	550,718	436,908	118.4	110.0	2.46	24.43	7.00	
Oct '22	154.3	528,474	478,215	142.4	114.0	2.48	22.86	6.00	
Nov '22	130.0	325,410	393,155	90.4	89.6	1.96	22.45	5.00	
Annual Total	2,142	5,592,058	5,522,606	1,490	1,389	****	****	76	0.00
Avg.	179	466,005	460,217	124	116	2.10	21.12	6.3	****

6.0 ENVIRONMENTAL COMPLIANCE

6.1 REGULATORY REPORTING

1. The EPA and MADEP November 22 NETDMR was submitted on the CDX website on 12/08/2022

6.2 NPDES COMPLIANCE

The facility will be reporting (0) exceedance(s) for the month of November 2022

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				
Tues Nov 1	2.400	11.0	220	4.0	80	2.80	0.25	7.60		11	5.3		BOD			
Wed Nov 2	2.310							7.54	372				Oct. 1 - April 30	20 Mg/L 417 lbs/day	20 Mg/L 417 lbs/Day	30 Mg/L 626 lbs/Day
Thurs Nov 3	2.270	3.0	57	4.7	89	0.15	0.15	7.40					May 1 - Sept. 30	6 Mg/L 125 lbs/Day	6 Mg/L 125 lbs/Day	10Mg/L 209 lbs/day
Fri Nov 4	2.210							7.42					TSS			
Sat Nov 5	2.390							7.30					Oct. 1 - April 30	20 Mg/L 417 lbs/Day	20 Mg/L 417 lbs/Day	30 Mg/L 626 lbs/Day
Sun Nov 6	2.380							7.48	41				May 1 - Sept. 30	10 Mg/L 209 lbs/Day	10 Mg/L 209 lbs/Day	15Mg/L 313 lbs/day
Mon Nov 7	2.150							7.47	103				NH3			
Tues Nov 8	2.170	2.0	36	2.0	36	0.16	0.22	7.36	66				Oct.1 - Mar. 31	3.3 Mg/L	3.3 Mg/l	5.7 Mg/L
Wed Nov 9	2.110							7.21					Apr. 1 - May 31	2.5 Mg/L	2.5 Mg/l	5.7 Mg/l
Thurs Nov 10	2.090	2.0	35	2.2	38	1.50	0.29	7.27					June 1 - Sept. 30	1.0 Mg/L	1.0 Mg/L	1.5 Mg/L
Fri Nov 11	2.220							7.09					Total Phosphorus			
Sat Nov 12	2.370							7.42					Apr. 1 - Oct.31	0.2 Mg/L	*****	*****
Sun Nov 13	2.290							7.38	78				Nov. 1 - Mar. 31	1.0 Mg/L	*****	*****
Mon Nov 14	2.250							7.35	104				Ph			
Tues Nov 15	2.270	2.0	38	2.8	53	0.10	0.25	7.13	76				6.5 - 8.3			
Wed Nov 16	2.460							7.35					Fecal			
Thurs Nov 17	2.430	2.0	41	4.7	95	0.10	0.31	7.39					*****	200 CFU/100ml	*****	400 CFU/100ml
Fri Nov 18	2.310							7.12					Aluminum			
Sat Nov 19	2.380							7.37					*****	88 ug/l	*****	*****
Sun Nov 20	2.440							7.43	135				Copper			
Mon Nov 21	2.340							7.33	306				May 1 - Sept. 30	> 7.4 mg/L		
Tues Nov 22	2.270	5.3	100	4.7	89	0.71	0.29	7.26	100				Plant Flow			
Wed Nov 23	2.280	4.4	84	4.0	76	0.10	0.29	7.46					2.5 MGD			
Thurs Nov 24	2.260							7.48								
Fri Nov 25	2.190							7.53								
Sat Nov 26	2.220							7.36								
Sun Nov 27	2.380							7.46	30							
Mon Nov 28	2.260							7.30	33							
Tues Nov 29	2.220	4.2	78	6.30	117	0.30	0.26	7.22	23							
Wed Nov 30	2.540							7.26								
Daily Max	2.540	11.00	220.18	6.30	116.64	2.80	0.31	7.60	372	*****	*****	*****				
Daily Min.	2.090	*****	*****	*****	*****	*****	*****	7.09	*****	*****	*****	*****				
Month Avg.	2.295	3.99	76.56	3.93	74.78	0.66	0.26	7.36	112.846	11	5.3	*****				

7.0 ENERGY CONSUMPTION

7.1 ELECTRICAL OVERVIEW

The department used a total of **118,976 KWH** for the month of November 2022. Of this total, the lift stations accounted for **12%**, using **14,276 KWH**. The Main Plant accounted for the remaining **104,700 KWH**.

The KWH/ MG treated was **1,647** for the month, which is **19%** higher than the previous 12-month average of **1,338 KWH/MG**. The KWH/Lb. BOD Removed was **0.78 KWH/Lb.** for the month, which is **45%** lower than the previous 12-month average of **1.43 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
Dec '21	2.52	78.08	120,600	1,545	109,345	1.1	201	213	17,164	150,064
Jan '22	2.75	85.26	139,500	1,636	118,805	1.17	225	264	15,850	136,450
Feb '22	4.06	113.62	142,500	1,254	116,417	1.22	234	261	22,069	161,569
Mar '22	3.43	106.19	122,400	1,153	117,284	1.04	222	222	19,576	162,076
Apr '22	2.77	82.96	123,000	1,483	115,947	1.06	198	204	16,322	138,722
May '22	2.19	67.74	123,000	1,816	116,352	1.06	183	198	15,055	138,055
June '22	1.99	59.74	114,900	1,923	129,049	0.89	189	201	12,123	135,380
July '22	1.74	53.9	106,800	1,981	101,883	1.05	198	216	12,123	127,023
Aug '22	1.61	50.02	123,000	2,465	101,859	1.21	177	195	9,326	116,126
Sep '22	1.81	54.23	105,900	1,953	110,510	0.96	186	210	10,344	133,644
Oct '22	2.48	76.91	117,300	1,525	101,712	1.15	195	201	9,877	115,777
Nov '22	2.30	68.86	113,400	1,647	146,152	0.78	184	213	14,276	118,976
Average	2.47	74.79	121,025	1,698	115,443	1.06	199	217	14,509	136,155

Monthly Lift Station KWH														
Month	Hingham North	Hingham South	Spruce	Butternut	Old Country Way	Market	Woodsbury	Lincoln	Forest	Wheeler	Summer	Milbrook	John Burke	Total
Dec '21	3,279	4,900	188	654	1,244	970	1,416	363	2,116	61	70	1,666	237	17,164
Jan '22	3,246	4,600	187	554	1,270	854	1,264	309	1,742	56	58	1,501	209	15,850
Feb '22	5,072	6,800	230	438	1,573	1,185	1,605	373	2,434	59	68	1,989	243	22,069
Mar '22	3,783	6,200	194	515	1,647	946	1,683	319	2,259	55	61	1,717	197	19,576
Apr '22	2,995	5,100	246	434	1,260	851	1,353	283	1,915	58	67	1,524	236	16,322
May '22	3,149	5,000	215	161	257	964	1,332	280	1,809	72	69	1,562	185	15,055
June '22	2,429	4,100	111	58	1,001	667	930	176	1,418	57	61	1,256	116	12,380
July '22	2,540	4,300	109	63	863	347	892	168	1,371	59	74	1,234	113	12,123
Aug '22	2,119	2,900	110	49	741	337	685	134	1,202	49	69	832	89	9,326
Sept '22	2,293	3,200	102	54	871	334	820	153	1,337	54	68	967	91	10,344
Oct '22	2,094	2,900	110	48	807	348	928	172	1,269	48	56	1,015	82	9,877
Nov '22	2,943	4,100	195	73	952	887	1,308	260	1,942	69	80	1,325	142	14,276
Average	2,995	4,508	166	258	1,041	724	1,185	249	1,417	58	67	1,382	162	14,530

8.0 MAINTENANCE

8.1 WORK ORDER OVERVIEW

WO Type	Total This Month	Total This Year
Preventative Maintenance	182	1924
Corrective Maintenance	11	120
Emergency Call Outs Total	4	38

8.2 SIGNIFICANT CORRECTIVE WORK ORDERS FOR THE MONTH

CM Description	WO #
Wilkinson Electrical working on Digester boiler replacement	22837
Pioneer Electric wired portable generator for plant	22838
New England Generator came out to pull the water pump from plant generator	22839
Renew Mechanical Maintenance pulled Effluent pump #3 to have sent out for repair	22840
Triple G Services brought a crane to pull Effluent pump #3	22841
EIS was wiring Effluent Flow, rain gauge, and bisulfite to SCADA	22842
EIS was working on Butternut signal to SCADA	22843
Wilkinson Electrical working on Digester boiler replacement	22844
Pioneer Electric was fixing the BFP VFD	22847
Wilkinson Electrical working on Digester boiler replacement	22848
Wilkinson Electrical working on Digester boiler replacement	22849

8.3 SIGNIFICANT OPEN WORK ORDERS

CM Description	WO #
Lime Unloader #3 Corrective	13568
Hingham South Pump #1 Replacement	17427

8.4 EMERGENCY CALL OUTS FOR THE MONTH

Type	Total this Month	Total this Year
Sewer Back Up / Collection System	3	13
Pump Station	2	13
Plant		4
Odor	0	0
Power Outages	1	12
Total:	6	38

8.5 INSPECTIONS / ANNUAL PMS COMPLETED DURING THE MONTH

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

8.6 COLLECTION SYSTEM AND IPP ASSISTANCE PERFORMED BY VEOLIA

COLLECTION SYSTEM ASSISTANCE:

Type	Total This Month	Total This Year
Sewer Inspection / Tie-Ins	1	1
Sewer Location mark Outs	29	314
Sewer Back Up	3	13

8.7 WORK ORDER STATISTICS

There were **137** total reported maintenance hours during the month. Of this total, outside contractors accounted for **48%** with **65** hours recorded.

