

# Monthly Operating Report

**MAY 2022**



**Rockland, MA WWTP**





June 15, 2022

Mr. David P. Taylor

Rockland Interim Sewer Superintendent

587 Rear Summer Street

Rockland, MA 02370

RE: Rockland Wastewater Facility

Monthly Report—May 2022

Dear Mr. Taylor,

Please see the enclosed May 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: Charles Heshion

Dan Duross

Sherri Vallie

# MAY 2022 MONTHLY OPERATING REPORT

## 1. SUMMARY:

- 1) The facility will be reporting **0** exceedance for the month of May 2022
- 2) There was **0** lost time / first aid injuries throughout the month
- 3) The facility treated a total of **67.735** Million Gallons. The average daily flow was **2.185** MGD
- 4) The total rainfall for this reporting period was **1.08"**
- 5) I&I Work is ongoing
- 6) **210** work orders were closed in May, with **25** as corrective maintenance work order and **5** were emergency call outs
- 7) The new NPDES Permit was issued in November 2021 and became effective in February 2022

## 2. STAFFING:

Current Employee Licenses as of 04/11/2022										
		Hoisting		Wastewater			NEWEA Collections			NEWEA Laboratory
Employee	Title	1C Forklift	1B Boom Truck & Forklift	3M	5C	7C	I	II	IV	I
Rick Kotouch	Project Manager					X			X	
Megan Kelly-Lynch	Asst. Project Manager	X				X				
Steven Butts	Lab Technician					X				X
Chuck Amaral	Maintenance Foreman				X			X		
Garry Murrill	Operator				X			X		
Dan Sullivan-Xenos	Operator				X					
Max Jackson	Operator			X						
Shaun Chaponis (Part Time Weekends)	Operator				X		X			

### 3. EMPLOYEE HEALTH AND SAFETY:

The employee that slipped on black ice in the parking lot on 3/2/2022 and returned back to work on 3/21/22 is still working with job duty restrictions.

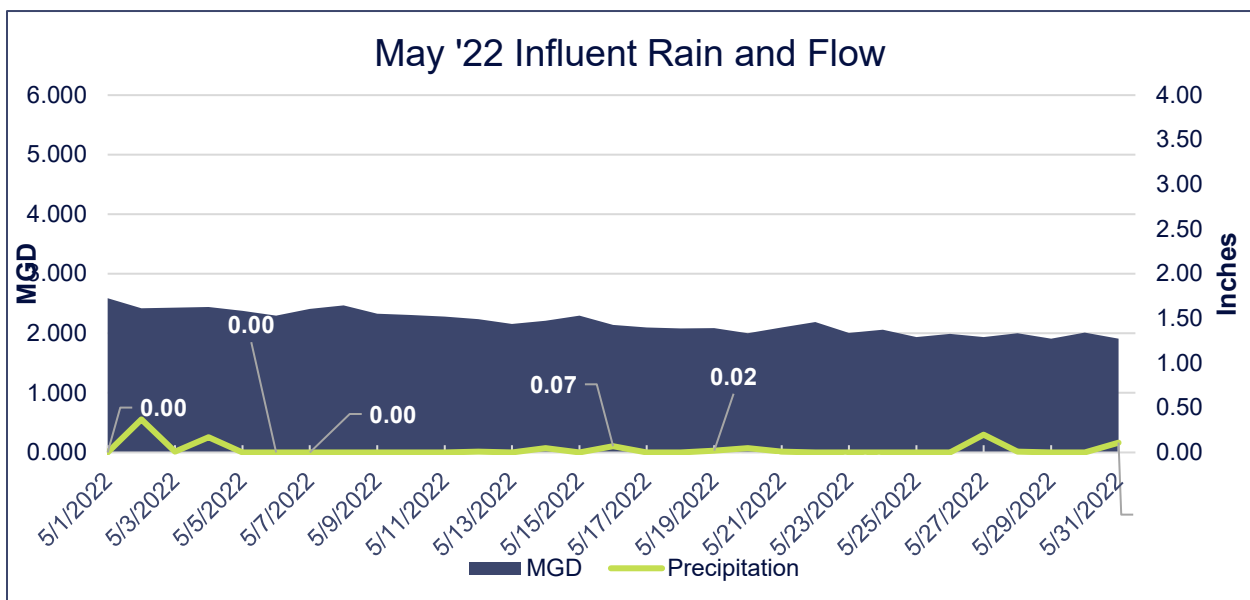
Throughout the COVID-19 (Coronavirus) pandemic in an attempt to continue to serve the Town of Rockland with reliable operations and protect the staff of the Rockland team, Suez/Veolia has implemented numerous procedures to ensure continuity of the operations. As the COVID-19 Delta variant and Omicron rates decreases, Veolia at the Rockland facility has downgraded to a Threat Level 0 guideline as follows:

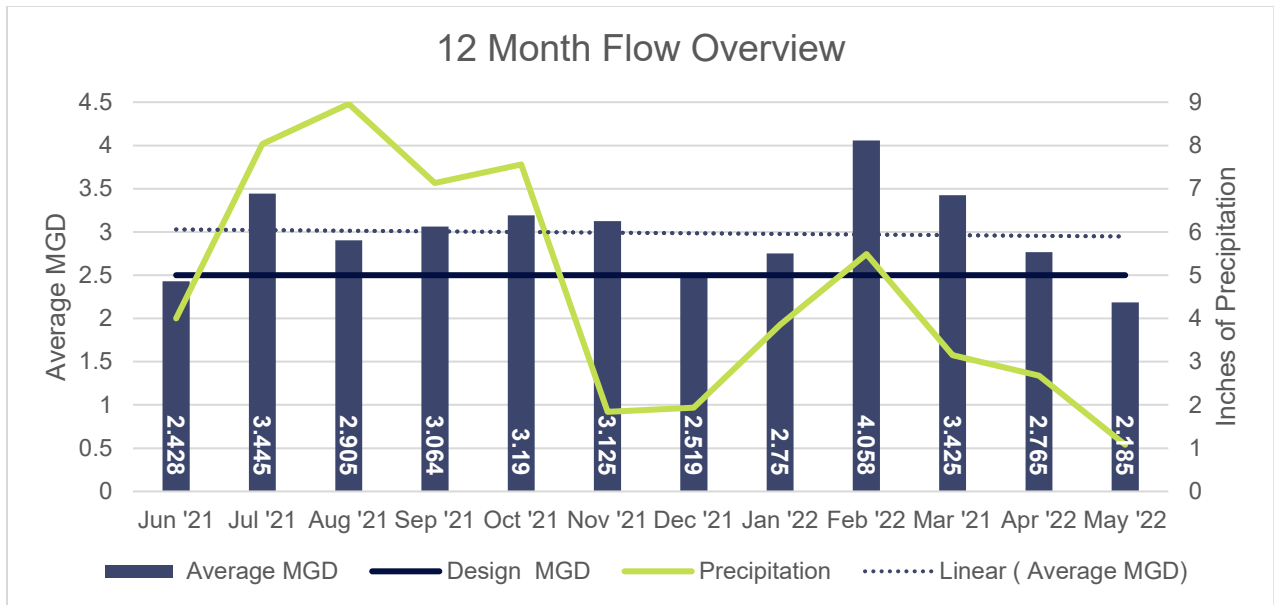
All essential personnel are required to be screened before entering the premises and meet the Covid visitor guidelines. Use of common areas/dining areas, in-person meetings and training are now permitted.

### 4 FLOWS AND LOADINGS:

#### 4.0 FLOWS, PRECIPITATION, AND WEATHER

- The facility treated a total of **67.735** MG during the month. The daily average flow was **2.185** MGD. This was **0.429** MGD less than the previous May monthly average, which was recorded at **2.614** MGD. The highest **peak** flow was recorded on May 8 as **3.150** MGD. The lowest instantaneous flow was **0.590** MGD, recorded May 31.
- The highest daily flow was recorded on May 31 as **2.590** MGD. The lowest daily flow was recorded on May 1 as **1.910** MGD.
- A total of **1.08** of precipitation was received at the facility. The highest single day precipitation total was recorded on May 31 as **0.37"**
- The coldest day was May 9 at **38°F**. The warmest day was May 22 at **92°F**.





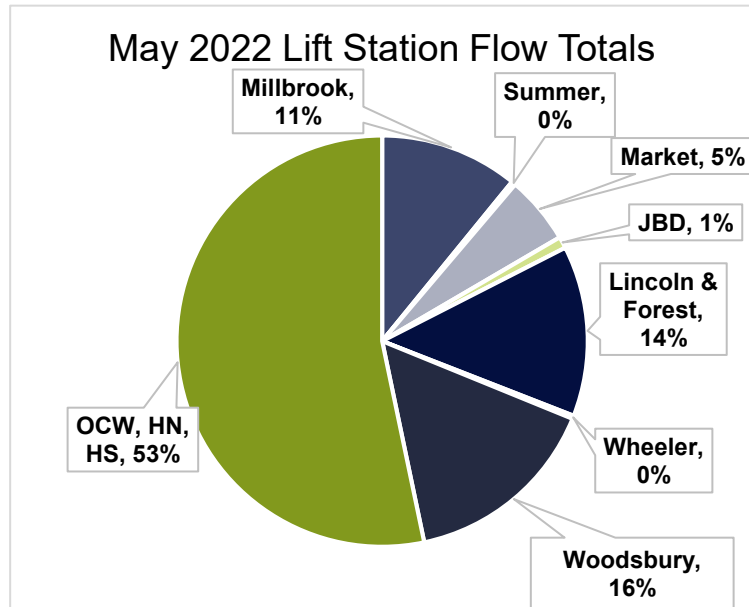
## 4.1 INFLUENT BOD AND TSS LOADING

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
<b>Jun '21</b>	2.428	3,874	3,572	2.419	3,112	3,790
<b>Jul '21</b>	3.445	2,344	3,371	2.569	3,080	3,784
<b>Aug '21</b>	2.905	3,044	4,011	2.683	3,118	3,798
<b>Sep '21</b>	3.064	2,376	4,904	2.809	3,064	3,859
<b>Oct '21</b>	3.190	2,990	3,889	2.936	3,046	3,815
<b>Nov '21</b>	3.125	2,270	3,500	3.015	2,963	3,774
<b>Dec '21</b>	2.519	3,597	3,699	2.938	3,019	3,738
<b>Jan '22</b>	2.750	3,909	3,676	2.936	3,103	3,774
<b>Feb '22</b>	4.058	3,910	3,913	2.993	3,158	3,755
<b>Mar '22</b>	3.425	3,887	4,456	3.055	3,240	3,855
<b>Apr '22</b>	2.765	3,907	4,051	3.024	3,299	3,891
<b>May '22</b>	2.185	3,809	4,229	2,988	3,326	3,909

## 4.2 LIFT STATION FLOWS

The lift stations accounted for **9,477,480** gallons throughout the month, **11.3%** 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.

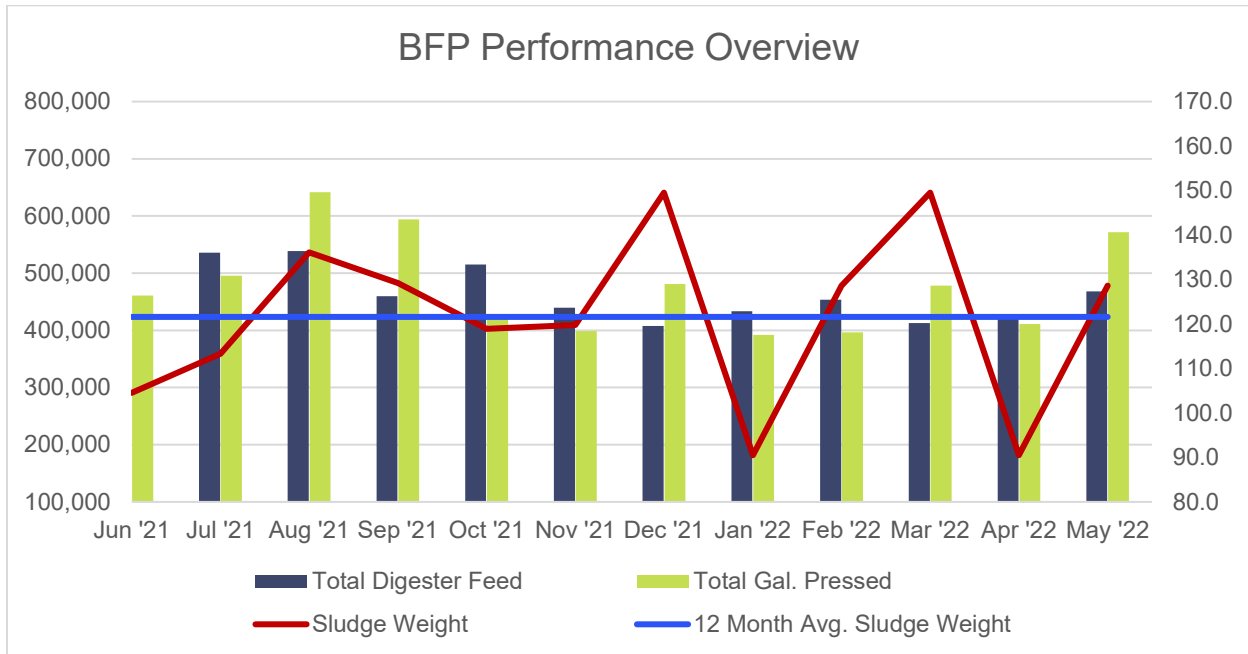
Total Flows for May 2022	
Station	Total Gallons
Millbrook	983,880
Summer	29,040
Market	486,000
John Burke	82,320
Lincoln, Forest	1,213,803
Wheeler	22,500
Woodsbury	1,405,797
OCW, HN, HS	4,816,790
<b>Total:</b>	<b>9,040,130</b>



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 '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
Oct '21	29,822	898	15,339	2,121	3,252	51,552	639	50,458	65,303	163,568	187,084
Nov '21	33,156	920	16,150	2,456	2,600	42,980	834	46,620	57,960	151,920	172,800
Dec '21	31,459	929	15,677	1,881	3,232	42,339	703	49,355	59,206	157,994	182,555
Jan '22	31,738	937	15,677	2,655	2,400	39,155	726	45,348	53,110	142,142	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
<b>Average</b>	<b>31,985</b>	<b>940</b>	<b>16,168</b>	<b>2,332</b>	<b>3,140</b>	<b>45,837</b>	<b>747</b>	<b>44,963</b>	<b>59,151</b>	<b>159,436</b>	<b>180,251</b>

## 5.0 SOLIDS HANDLING 6.1 REGULATORY REPORTING

The BFP was operated a total of **174** hours this month and a total of **571,658** gallons were processed producing **125** Wet Tons of sludge that was hauled from the facility. The average BFP feed percent solids were **1.89%** and the BFP Cake average percent solids were **21.149%**. 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 '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	
Aug '21	154.6	538,761	641,667	128.7	136.1	1.97	21.24	7.00	
Sep '21	154.3	459,723	594,127	133.0	129.2	1.75	21.08	6.00	
Oct '21	108.5	515,074	420,101	86.6	118.9	2.67	21.17	5.00	
Nov '21	120.0	439,762	398,853	90.4	119.8	2.25	20.40	7.00	
Dec '21	152.8	407,825	481,140	126.2	149.5	1.56	20.29	7.00	4
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	128.6	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	
<b>Annual Total</b>	<b>2,091</b>	<b>5,534,548</b>	<b>5,741,122</b>	<b>1,392</b>	<b>1,467</b>	<b>****</b>	<b>****</b>	<b>78</b>	<b>4.00</b>
<b>Avg.</b>	<b>174</b>	<b>461,212</b>	<b>478,427</b>	<b>116</b>	<b>122</b>	<b>2.08</b>	<b>20.42</b>	<b>6.5</b>	<b>****</b>

## 6.0 ENVIRONMENTAL COMPLIANCE

### 6.1 REGULATORY REPORTING

1. The EPA and MADEP May 22 NETDMR was submitted on the CDX website on 06/08/2022

### 6.2 NPDES COMPLIANCE

The facility will be reporting (0) exceedance(s) for the month of May 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				
Sun, May 01	2.590							7.51	2				<b>BOD</b>			
Mon, May 02	2.420							7.43	12				Oct. 1 - April 30	20 Mg/L 417 lbs/day	20 Mg/L 417 lbs/Day	30 Mg/l 626 lbs/Day
Tues, May 03	2.430	2.0	41	2.0	41	0.23	0.14	7.51	8	6	5.3		May1 - Sept. 30	6 Mg/L 125 Lbs/Day	6 Mg/L 125 lbs/Day	10Mg/L 209 Lbs/day
Wed, May 04	2.440							7.47					<b>TSS</b>			
Thu, May 05	2.380	2.0	40	2.5	50	0.44	0.14	7.43					Oct. 1 - April 30	20 Mg/L 417 Lbs/Day	20 Mg/L 417 Lbs/Day	30 Mg/l 626 lbs/Day
Fri, May 06	2.300							7.40					May1 - Sept. 30	10 Mg/L 209 Lbs/Day	10 Mg/L 209 lbs/Day	15Mg/L 313 Lbs/day
Sat, May 07	2.410							7.42					<b>NH3</b>			
Sun, May 08	2.470							7.41	9				Oct.1 - Mar. 31	3.3 Mg/L	3.3 Mg/l	5.7 Mg/L
Mon, May 09	2.330							7.42	10				Apr. 1 - May 31	2.5 Mg/L	2.5 Mg/l	5.7 Mg/l
Tues, May 10	2.310	2.0	39	4.0	77	0.23	0.10	7.41	12				June1 - Sept. 30	1.0 Mg/L	1.0 Mg/L	1.5 Mg/L
Wed, May 11	2.280							7.33					<b>Total Phosphorus</b>			
Thu, May 12	2.240	3.0	56	2.0	37	0.36	0.08	7.35					Apr.1 - Oct.31	0.2 Mg/L	*****	*****
Fri, May 13	2.160							7.23					Nov. 1 - Mar. 31	1.0 Mg/L	*****	*****
Sat, May 14	2.210							7.26					<b>Ph</b>			
Sun, May 15	2.300							7.43	12				6.5 - 8.3			
Mon, May 16	2.140							7.46	10				<b>Fecal</b>			
Tues, May 17	2.100	2.9	51	3.3	58	1.60	0.14	7.46	14				*****	200 CFU/100ml	*****	400 CFU/100ml
Wed, May 18	2.080							7.44					<b>Aluminum</b>			
Thu, May 19	2.090	4.1	71	2.8	49	2.70	0.12	7.52					*****	88 ug/l	*****	*****
Fri, May 20	2.000							7.03					<b>Copper</b>			
Sat, May 21	2.100							7.29					*****	12 ug/l	*****	*****
Sun, May 22	2.190							7.55	3				<b>Dissolved Oxygen</b>			
Mon, May 23	2.005							7.46	10				May 1 - Sept. 30	> 7.4 mg/L		
Tues, May 24	2.060	3.9	67	2.5	43	2.80	0.13	7.45	16				<b>Plant Flow</b>			
Wed, May 25	1.940							7.39					2.5 MGD			
Thu, May 26	1.990	3.4	56	2.0	33	2.00	0.17	7.27								
Fri, May 27	1.940							7.51								
Sat, May 28	2.000							7.26								
Sun, May 29	1.910							7.23	4							
Mon, May 30	2.010							7.26	4							
Tues, May 31	1.910	4.8	76	2.2	35	2.00	0.11	7.36	5							
Daily Max	3.050	2.00	49.71	4.00	94.41	0.19	0.15	7.55	23	*****	*****	*****				
Daily Min.	2.480	*****	*****	*****	*****	*****	*****	6.94	*****	*****	*****	*****				
Month Avg.	2.765	1.84	41.75	3.38	76.63	0.13	0.12	7.31	8.83	13	5.9	*****				



## 7.0 ENERGY CONSUMPTION

### 7.1 ELECTRICAL OVERVIEW

Due to the billing cycle timing, all electrical data in the MOR will be one month behind. The following data is for electrical consumption during the **April 2022** operating period.

The department used a total of **154,555 KWH** for the month of April 2022. Of this total, the lift stations accounted for **9.7%**, using **15,055 KWH**. The Main Plant accounted for the remaining **139,500 KWH**. The KWH/ MG treated was **1,636** for the month, which is **16.19%** higher than the previous 12-month average of **1,349 KWH/MG**. The KWH/Lb. BOD Removed was **1.17 KWH/Lb.** for the month, which is **15%** lower than the previous 12-month average of **1.38 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 '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
Jul '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
Sep '21	3.05	91.41	110,400	1,208	69,519	1.59	204	231	11,923	122,323
Oct '21	3.18	98.51	107,100	1,087	90,595	1.18	231	234	13,538	120,638
Nov '21	3.12	93.74	132,900	1,418	65,739	2.02	201	216	17,164	150,064
Dec '21	2.52	78.08	120,600	1,545	109,345	1.1	201	213	15,850	136,450
Jan '22	2.75	85.26	139,500	1,636	118,805	1.17	225	264	22,069	161,569
Feb '22	3.12	93.74	132,900	1,418	65,739	2.02	201	216	19,576	152,476
Mar '22	2.52	78.08	120,600	1,545	109,345	1.1	201	213	16,322	136,922
Apr '22	2.75	85.26	139,500	1,636	118,805	1.17	225	264	15,055	154,555
Average	2.87	87.87	122,675	1,408	94,419	1.37	214	231	15,282	137,957

#### 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 '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
Jul '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
Sep '21	2,648	3,900	150	421	885	397	836	185	1,395	52	53	892	109	11,923
Oct '21	2,754	4,000	179	529	908	697	1,142	225	1,667	49	57	1,215	116	13,538
Nov '21	3,279	4,900	188	654	1,244	970	1,416	363	2,116	61	70	1,666	237	17,164
Dec '21	3,246	4,600	187	554	1,270	854	1,264	309	1,742	56	58	1,501	209	15,850
Jan '22	5,072	6,800	230	438	1,573	1,185	1,605	373	2,434	59	68	1,989	243	22,069
Feb '22	3,783	6,200	194	515	1,647	946	1,683	319	2,259	55	61	1,717	197	19,576
Mar '22	2,995	5,100	246	434	1,260	851	1,353	283	1,915	58	67	1,524	236	16,322
Apr '22	3,149	5,000	215	161	257	964	1,332	280	1,809	72	69	1,562	185	15,055
Average	3,152	4,842	187	438	1,082	715	1,200	256	1,789	58	62	1,335	166	15,282

## 8.0 MAINTENANCE

### 8.1 WORK ORDER OVERVIEW

WO Type	Total This Month	Total This Year
<b>Preventative Maintenance</b>	<b>185</b>	<b>865</b>
<b>Corrective Maintenance</b>	<b>25</b>	<b>49</b>
<b>Emergency Call Outs Total</b>	<b>5</b>	<b>22</b>

### 8.2 SIGNIFICANT CORRECTIVE WORK ORDERS FOR THE MONTH

CM Description	WO #
1. Replaced Relief Valve on Pressure Boiler	21743
2. Replaced Fuel Line and filter on John Deere	21739
3. Cleaned Plant Generator water valve	21742
4. Replaced Coupling on the BFP Water Pump	217

### 8.3 SIGNIFICANT OPEN WORK ORDERS

CM Description	WO #
<b>Facility Fire Alarm Repair</b>	20240 & 20241
<b>Influent Pump #1 (Spare) Rebuild</b>	20248
<b>Lime Unloader #3 Corrective</b>	13568
<b>Hingham South Pump #1 Replacement</b>	17427

### 8.4 EMERGENCY CALL OUTS FOR THE MONTH

Type	Total this Month	Total this Year
<b>Sewer Back Up / Collection System</b>	0	5
<b>Pump Station</b>	1	6
<b>Plant</b>	1	1
<b>Odor</b>	0	0
<b>Power Outages</b>	2	2
<b>Total:</b>	<b>4</b>	<b>14</b>

## 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
5. Grit Chamber Cleaning
6. Fire Sprinkler System Inpection

## 8.6 COLLECTION SYSTEM AND IPP ASSISTANCE PERFORMED BY VEOLIA

### *COLLECTION SYSTEM ASSITANCE:*

Type	Total This Month	Total This Year
<b>Sewer Inspection / Tie-Ins</b>	0	0
<b>Sewer Location mark Outs</b>	0	3
<b>Sewer Back Up</b>	0	5

## 8.7 WORK ORDER STATISTICS

There were **93.26** total reported maintenance hours during the month. Of this total, outside contractors accounted for **8%** with **8** hours recorded.

### May 2022 Maintenance Hours

