

# Monthly Operating Report

*JANUARY 2023*



***Rockland, MA WWTP***





February 14, 2023

Mr. Chuck Heshion

Rockland Sewer Commission Chairman

587 Rear Summer Street

Rockland, MA 02370

RE: Rockland Wastewater Facility

Monthly Report—January 2023

Dear Mr. Heshion,

I have enclosed January's 2023 Monthly Operating Report (MOR) for the Veolia Operations and Maintenance contract.

Please contact me if you should you have any questions regarding this report.

Sincerely,

Rick Kotouch

Veolia Project Manager

CC:

Daniel Duross

Sherry Vallie

# JANUARY 2023 MONTHLY OPERATING REPORT

## 1. SUMMARY:

The facility will be reporting **1** exceedance for the month of January 2023

- 1) There was **0** lost time / first aid injuries throughout the month
- 2) The facility treated a total of **132,233,000** Million Gallons. The average daily flow was **4.266** MGD
- 3) The total rainfall for this reporting period was **7.07"**
- 4) I&I Work is ongoing
- 5) **198** work orders were closed in January, with **32** as corrective maintenance work order and 6 were emergency call outs
- 6) Massachusetts general wastewater permit is currently on hold.

## 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			

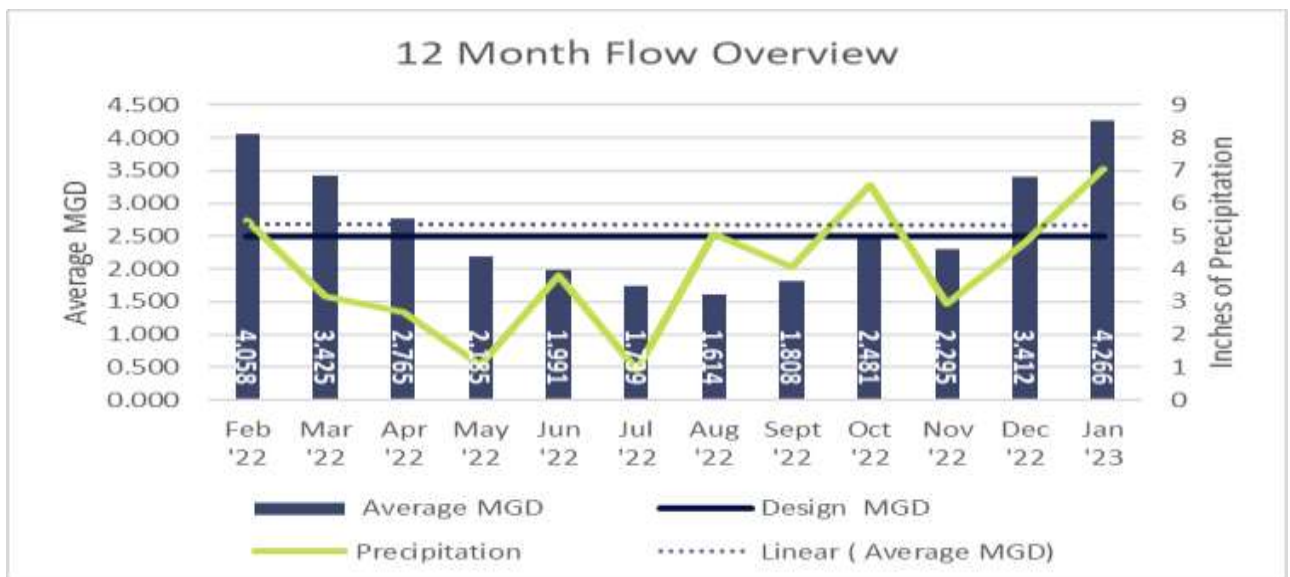
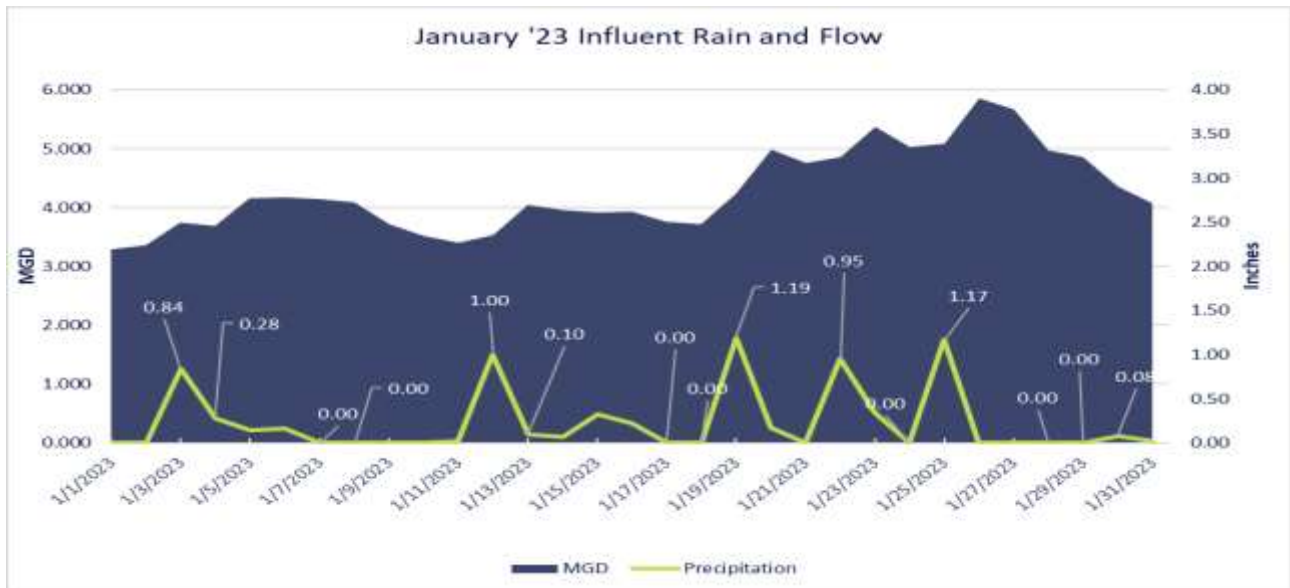
## 3. EMPLOYEE HEALTH AND SAFETY:

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 132,233,000 MG during the month. The daily average flow was **4.266** MGD. This was **1.516** MGD more than the previous January monthly average, which was recorded at **2.750** MGD. The highest daily flow was recorded on January 26<sup>th</sup> as **5.849** MGD. The lowest daily flow was recorded on January 1<sup>st</sup> as **3.290** MGD.
- The highest **peak** flow was recorded on January 27<sup>th</sup> as **6.020** MGD. The lowest instantaneous flow was **2.200** MGD, recorded on January 3<sup>rd</sup>.
- A total of **7.07"** of precipitation was received at the facility. The highest single day precipitation total was recorded on January 19<sup>th</sup> as **1.19"**
- The coldest day was January 31<sup>st</sup> at **20°F**. The warmest day was January 13<sup>th</sup> at **59°F**.



#### 4.1 INFLUENT BOD AND TSS LOADING

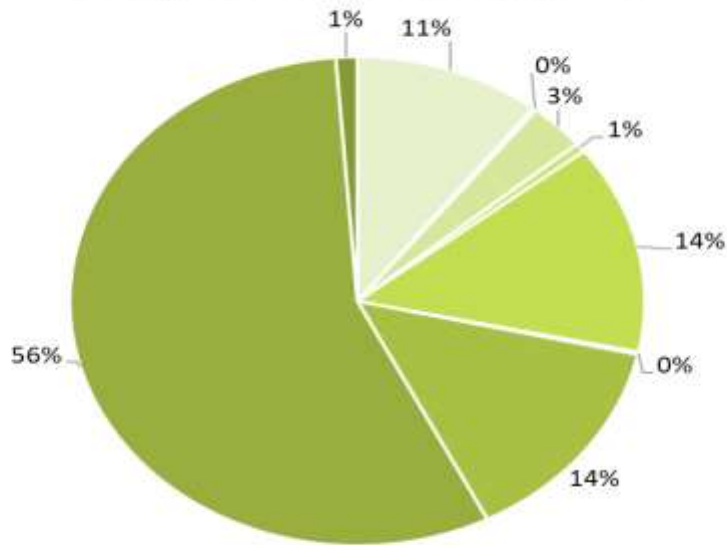
<b>ROCKLAND FLOW AND LOADINGS TRACKING</b>						
Month/Yr	Inf. Flow	Inf BOD	Inf. TSS	Inf. Flow Mov. Avg.	Inf. BOD Mov. Avg.	Inf. TSS Mov. Avg.
	MGD	LBS	LBS	MGD	LBS	LBS
Feb '22	4.058	3,910	3,913	2.993	3,158	3,755
Mar '22	3.425	3,887	4,456	3.055	3,240	3,855
Apr '22	2.765	3,907	4,051	3.024	3,299	3,891
May '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	2.81	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
Dec'22	3.412	4,234	3,802	2.544	3,885	3,890
Jan '23	4.266	4,250	3,763	2.670	2,913	3,897

#### 4.2 LIFT STATION FLOWS

The lift stations accounted for **13,754,037** gallons throughout the month, **10%** 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.

<b>Total Flows for January 2023</b>		
Station	Total Gallons	
Millbrook	1,427,758	
Summer	30,480	
Market	445,499	
John Burke	87,840	
Lincoln, Forest	1,940,401	
Wheeler	24,660	
Woodsbury	1,965,599	
OCW, HN, HS	7,668,000	
Butternut	163,800	
<b>Total:</b>	<b>13,754,037</b>	

**January 2023 Lift Stations Daily Flows**



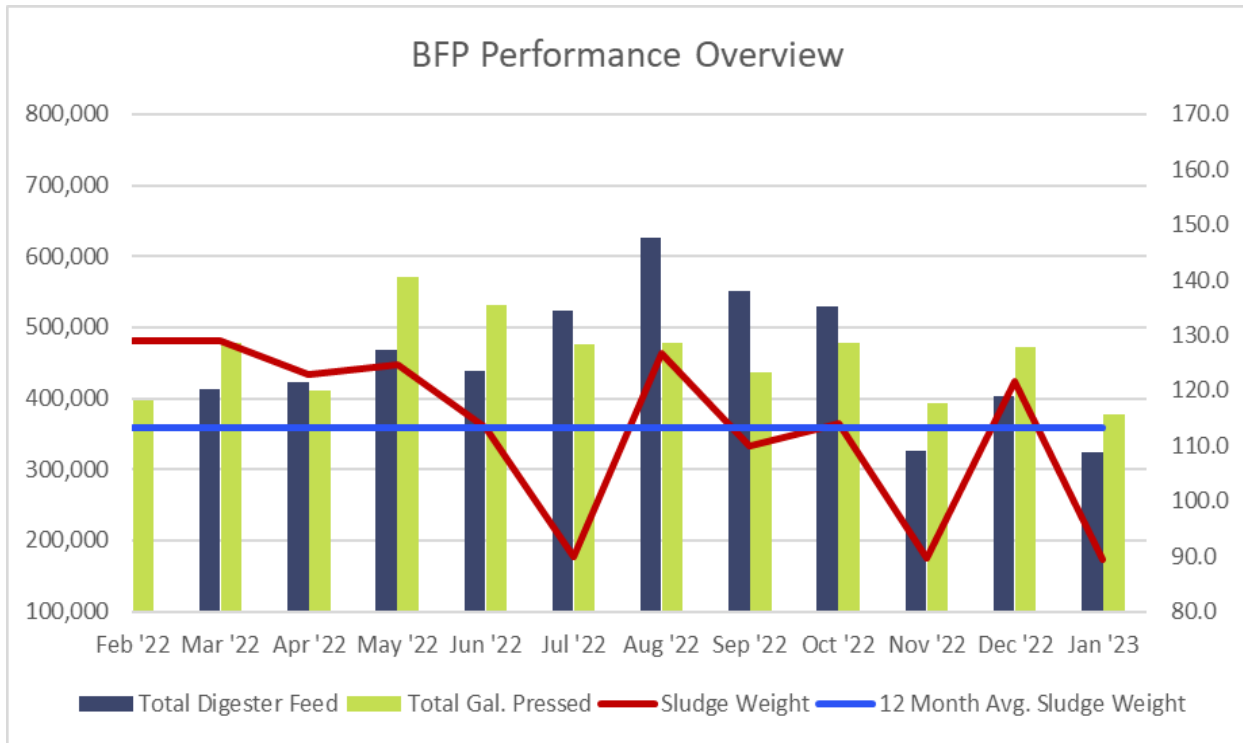
- Millbrook
- Summer
- Market
- JBD
- Lincoln & Forest
- Wheeler
- Woodsbury
- OCW, HN, HS
- Butternut

**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	
Feb '22	33,156	920	16,150	2,456	2,600	42,980	834	46,620	57,960	151,920	172,800	Old System
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	
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
Dec '22	47,052	888	14,750	2,480	2,580	56,070	786	57,780	60,155	169,200	199,974	3,658
Jan '23	47,052	888	14,750	2,480	2,580	56,070	786	57,780	60,155	169,200	199,974	3,658
<b>Average</b>	<b>34,932</b>	<b>996</b>	<b>15,275</b>	<b>2,093</b>	<b>2,527</b>	<b>44,958</b>	<b>765</b>	<b>45,832</b>	<b>52,869</b>	<b>143,523</b>	<b>184,215</b>	<b>3,224</b>

## 5.0 SOLIDS HANDLING

The BFP was operated a total of **129.2** hours this month and a total of **377,362** gallons were processed producing **89.43** Wet Tons of sludge that was hauled from the facility. The average BFP feed percent solids were **1.72%** and the BFP Cake average percent solids were **19.24%**. 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 '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	
Dec '22	150.5	403,272	472,903	115.2	121.6	1.73	20.27	6.00	
Jan '23	129.2	324,034	377,362	119.2	89.4	1.72	19.24	6.00	
<b>Annual Total</b>	2,128	5,477,891	5,499,494	1,497	1,360	****	****	75	0.00
<b>Avg.</b>	177	456,491	458,291	125	113	2.10	21.21	6.3	****

## 6.0 ENVIRONMENTAL COMPLIANCE

### 6.1 REGULATORY REPORTING

1. The EPA and MADEP January NETDMR was submitted on the CDX website on 2/9/2023

### 6.2 NPDES COMPLIANCE

The facility will be reporting (1) exceedance(s) for the month of January 2023

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 Jan 1	3.290							7.24					<b>BOD</b>			
Mon Jan 2	3.360							7.33	182				Oct. 1 - April 30	20 Mg/L 417 lbs/day	20 Mg/L 417 lbs/Day	30 Mg/l 626 lbs/Day
Tue Jan 3	3.740	2.0	62	6.7	209	0.10	0.43	7.45	226	14	4.6		May 1 - Sept. 30	6 Mg/L 125 Lbs/Day	6 Mg/L 125 lbs/Day	10Mg/L 209 Lbs/day
Wed Jan 4	3.690							7.32	26				<b>TSS</b>			
Thur Jan 5	4.160	3.0	104	4.0	139	0.46	0.47	7.33					Oct. 1 - April 30	20 Mg/L 417 Lbs/Day	20 Mg/L 417 Lbs/Day	30 Mg/l 626 lbs/Day
Fri Jan 6	4.180							7.38					May 1 - Sept. 30	10 Mg/L 209 Lbs/Day	10 Mg/L 209 lbs/Day	15Mg/L 313 Lbs/day
Sat Jan 7	4.140							7.12					<b>NH3</b>			
Sun Jan 8	4.090							7.26	30				Oct.1 - Mar. 31	3.3 Mg/L	3.3 Mg/l	5.7 Mg/L
Mon Jan 9	3.720							7.37	32				Apr. 1 - May 31	2.5 Mg/L	2.5 Mg/l	5.7 Mg/l
Tue Jan 10	3.510	2.6	76	2.5	73	0.12	0.49	7.28	20				June 1 - Sept. 30	1.0 Mg/L	1.0 Mg/L	1.5 Mg/L
Wed Jan 11	3.410							7.31					<b>Total Phosphorus</b>			
Thur Jan 12	3.530	2.3	68	2.0	59	0.63	0.56	6.87					Apr. 1 - Oct.31	0.2 Mg/L	*****	*****
Fri Jan 13	4.040							7.38					Nov. 1 - Mar. 31	1.0 Mg/L	*****	*****
Sat Jan 14	3.960							7.31					<b>Ph</b>			
Sun Jan 15	3.920							7.30	20				6.5 - 8.3			
Mon Jan 16	3.930							7.41	32				<b>Fecal</b>			
Tue Jan 17	3.760	5.0	157	15.0	470	0.10	0.72	7.50	40				*****	200 CFU/100ml	*****	400 CFU/100ml
Wed Jan 18	3.710							7.42					<b>Aluminum</b>			
Thur Jan 19	4.230	2.2	78	2.8	99	0.10	0.38	7.48					*****	88 ug/l	*****	*****
Fri Jan 20	4.980							7.34					<b>Copper</b>			
Sat Jan 21	4.757							7.31								
Sun Jan 22	4.860							7.29	24							
Mon Jan 23	5.371							7.26	192							
Tue Jan 24	5.031	3.6	151	6.7	281	0.12	0.45	7.23	136							
Wed Jan 25	5.083							7.18								
Thur Jan 26	5.849	10.0	488	11.0	537	1.70		7.15								
Fri Jan 27	5.665							7.20								
Sat Jan 28	4.974							7.31								
Sun Jan 29	4.852							7.30	25							
Mon Jan 30	4.363							7.26	104							
Tue Jan 31	4.079	5.7	194	2.0	68	0.46	0.24	7.20	11							
Daily Max	5.849	10.00	487.82	15.00	536.60	1.70	0.72	7.50	226.00	*****	*****	*****	May 1 - Sept. 30	>7.4 Mg/L		
Daily Min.	3.290	*****	*****	*****	*****	*****	*****	6.87	*****	*****	*****	*****	<b>Plant Flow</b>			
Month Avg.	4.266	4.04	153.11	5.86	215.00	0.42	0.47	7.29	73.333	14	4.6	*****	2.5 MGD			



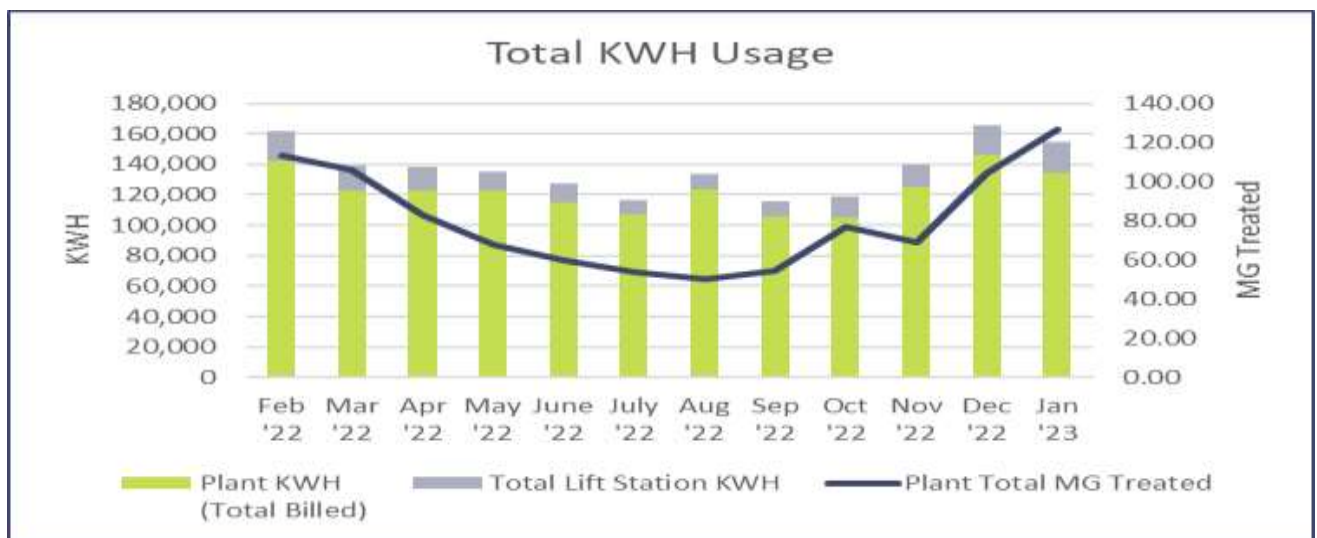
## 7.0 ENERGY CONSUMPTION

### 7.1 ELECTRICAL OVERVIEW

The department used a total of **154,449 KWH** for the month of January 2023. Of this total, the lift stations accounted for **15%**, using **20,049 KWH**. The Main Plant accounted for the remaining **134,400 KWH**.

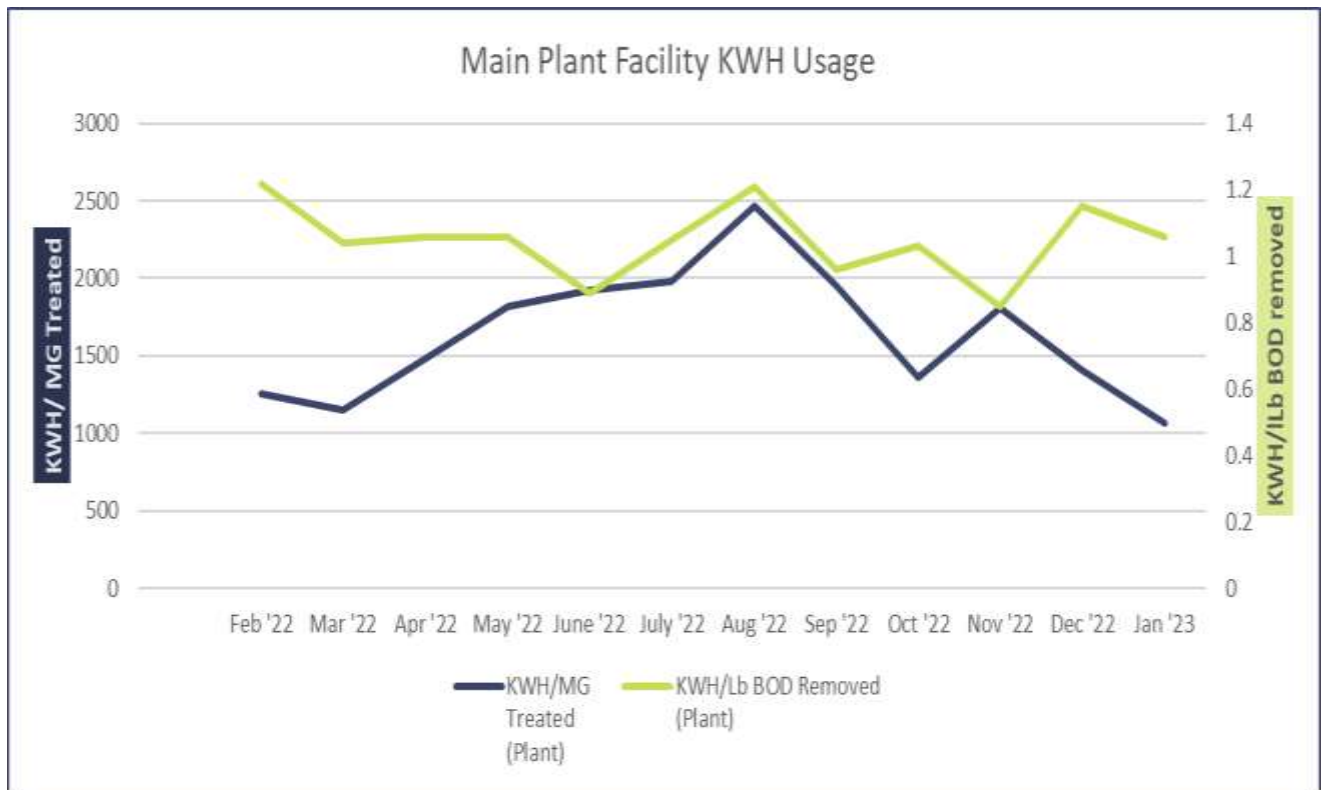
The KWH/ MG treated was **1,062** for the month, which is **37%** lower than the previous 12-month average of **1,687 KWH/MG**. The KWH/Lb. BOD Removed was **1.06 KWH/Lb.** for the month, which is the same as the previous 12-month average of **1.06 KWH/Lb.**

Monthly Lift Station KWH														
Month	Hingham North	Hingham South	Spruce	Butternut	Old Country Way	Market	Woodsbury	Lincoln	Forest	Wheeler	Summer	Millbrook	John Burke	Total
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	1,353	851	1,353	283	1,915	58	67	1,524	236	16,322
Apr '22	3,149	5,000	215	161	1,332	964	1,332	280	1,809	72	69	1,562	185	15,055
May '22	2,429	4,100	111	58	930	667	930	176	1,418	57	61	1,256	116	12,380
June '22	2,540	4,300	109	63	853	347	892	168	1,371	59	74	1,234	113	12,123
July '22	2,119	2,900	110	49	741	337	685	134	1,202	49	69	832	89	9,326
Aug '22	2,293	3,200	102	54	871	334	820	153	1,337	54	68	967	91	10,344
Sept '22	2,094	2,900	110	48	807	348	928	172	1,269	48	56	1,015	82	9,877
Oct '22	2,943	4,100	195	73	952	887	1,308	260	1,942	69	80	1,325	142	14,276
Nov '22	2,907	4,600	218	66	1,184	832	1,240	308	2,043	63	67	1,734	207	15,469
Dec '22	3,575	6,100	156	83	1,427	957	1,841	352	2,515	63	63	2,026	263	19,421
Jan '23	3,577	6,500	145	90	1,802	924	1,848	341	2,466	123	62	1,863	308	20,049
Average	2,867	4,583	159	141	1,158	700	1,238	246	1,796	64	66	1,421	169	14,518



## 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
Feb '22	4.06	113.62	142,500	1,254	116,417	1.22	234	261	19,576	162,076
Mar '22	3.43	106.19	122,400	1,153	117,284	1.04	222	222	16,322	138,722
Apr '22	2.77	82.96	123,000	1,483	115,947	1.06	198	204	15,055	138,055
May '22	2.19	67.74	123,000	1,816	116,352	1.06	183	198	12,380	135,380
June '22	1.99	59.74	114,900	1,923	129,049	0.89	189	201	12,123	127,023
July '22	1.74	53.9	106,800	1,981	101,883	1.05	198	216	9,326	116,126
Aug '22	1.61	50.02	123,300	2,465	101,859	1.21	177	195	10,344	133,644
Sep '22	1.81	54.23	105,900	1,953	110,510	0.96	186	210	9,877	115,777
Oct '22	2.48	76.91	104,700	1,361	101,712	1.03	195	201	14,276	118,976
Nov '22	2.3	68.86	124,800	1,812	146,152	0.85	186	213	15,469	140,269
Dec '22	3.36	104.19	146,400	1,405	127,264	1.15	243	258	19,421	165,821
Jan '23	4.08	126.55	134,400	1,062	126,998	1.06	252	258	20,049	154,449
Average	2.65	80.41	122,675	1,639	117,619	1.05	205	220	14,518	137,193



## 8.0 MAINTENANCE

### 8.1 WORK ORDER OVERVIEW

WO Type	Total This Month	Total This Year
<b>Preventative Maintenance</b>	<b>166</b>	<b>166</b>
<b>Corrective Maintenance</b>	<b>32</b>	<b>32</b>
<b>Emergency Call Outs Total</b>	<b>6</b>	<b>6</b>

### 8.2 SIGNIFICANT CORRECTIVE WORK ORDERS FOR THE MONTH

CM Description	WO #
Wilkinson worked on boiler replacement	23229
HQI replaced the Maintenance Door Motor	23232
Kelly's Oil repaired #2 Heater for Main Building	23233
Wilkinson did the boiler start up	23234
WWSI pumped out the wet wells at Summer, Wheeler, John Burke, Lincoln, and Forest	23239
EST was calibrating the Effluent Flow Meter	23251
Wilkinson demo the boiler	23240
Wilkinson installed safety shutoff	23241
EIS was working on SCADA network	23247
Wilkinson (Brzek was hired) Installing pipe installation	23248
EST was troubleshooting the Effluent Flow Meter	23249
R.M.M & Triple G Installed #3 Effluent Pump	23252
Pioneer Electric hooked up Electric to Effluent #3 pump	23254
Pioneer Electric troubleshot BFP VFD	23255
EST & N.E. Environment installing new Effluent Flow Meter	23253

### 8.3 EMERGENCY CALL OUTS FOR THE MONTH

Type	Total this Month	Total this Year
<b>Sewer Back Up / Collection System</b>	<b>2</b>	<b>2</b>
<b>Pump Station</b>	<b>4</b>	<b>4</b>
<b>Plant</b>	<b>2</b>	<b>2</b>
<b>Odor</b>	<b>0</b>	<b>0</b>
<b>Power Outages</b>	<b>0</b>	<b>0</b>
<b>Total:</b>	<b>8</b>	<b>8</b>

#### 8.4 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. Monthly UST Inspection for Digester Boiler and Plant Generator

#### 8.5 COLLECTION SYSTEM AND IPP ASSISTANCE PERFORMED BY VEOLIA

##### *COLLECTION SYSTEM ASSISTANCE:*

Type	Total This Month	Total This Year
Sewer Inspection / Tie-Ins	0	0
Sewer Location mark Outs	81	81
Sewer Back Up	0	0

#### 8.6 WORK ORDER STATISTICS

There were **170** total reported maintenance hours during the month. Of this total, outside contractors accounted for 50% with **185** hours recorded.

