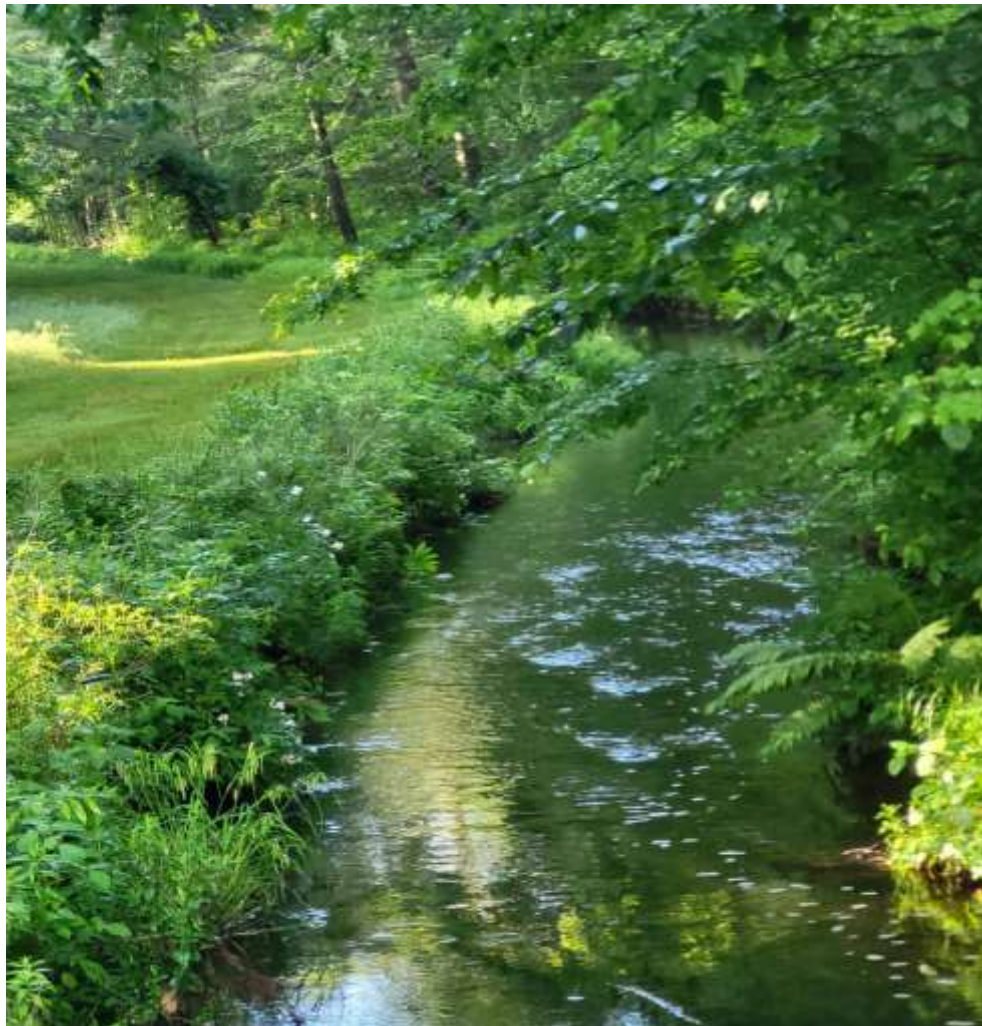


# Monthly Operating Report

**MAY 2023**



***Rockland, MA WWTP***





June 15, 2023

Mr. Chuck Heshion

Rockland Sewer Commission Chairman

587 Rear Summer Street

Rockland, MA 02370

RE: Rockland Wastewater Facility

Monthly Report—May 2023

Dear Mr. Heshion,

I have enclosed May'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

# MAY 2023 MONTHLY OPERATING REPORT

## 1. SUMMARY:

The facility will be reporting **0** exceedance for the month of May 2023

- 1) There was **0** lost time / first aid injuries throughout the month
- 2) The facility treated a total of **67,390,000** Million Gallons. The average daily flow was **2.174** MGD
- 3) The total rainfall for this reporting period was **2.15"**
- 4) I&I Work is ongoing
- 5) **158** work orders were closed in May, with **8** as corrective maintenance work order and 4 were emergency call outs
- 6) Massachusetts general wastewater permit began April 1st.

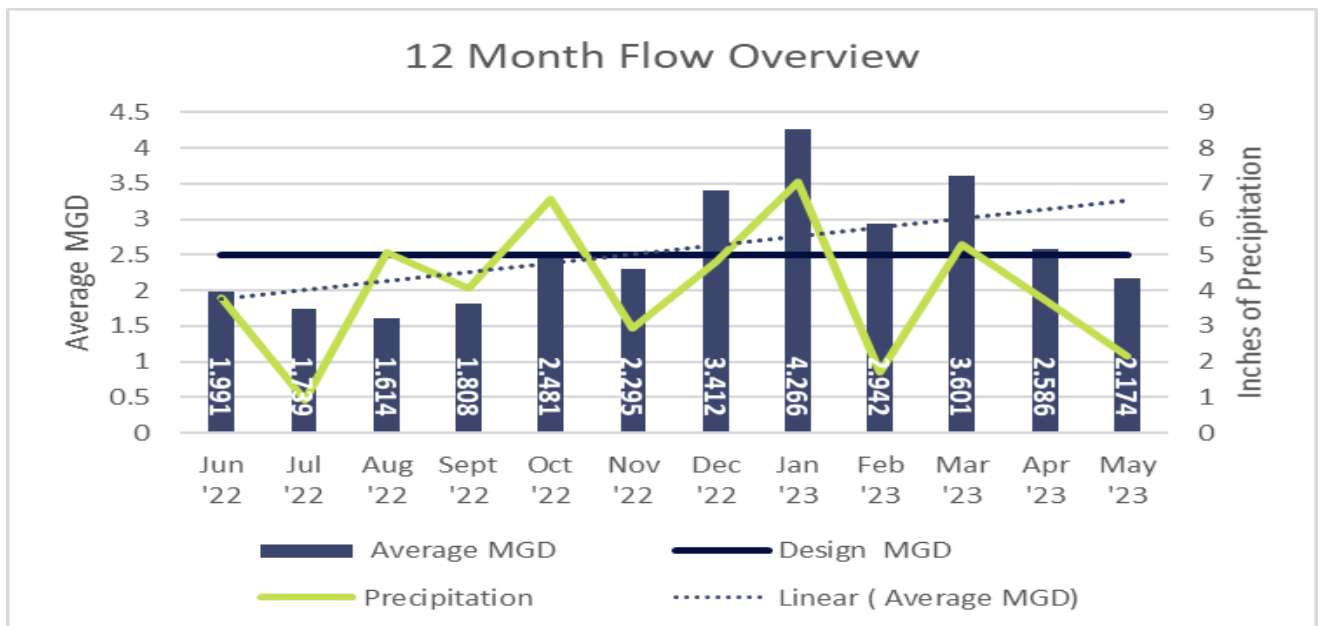
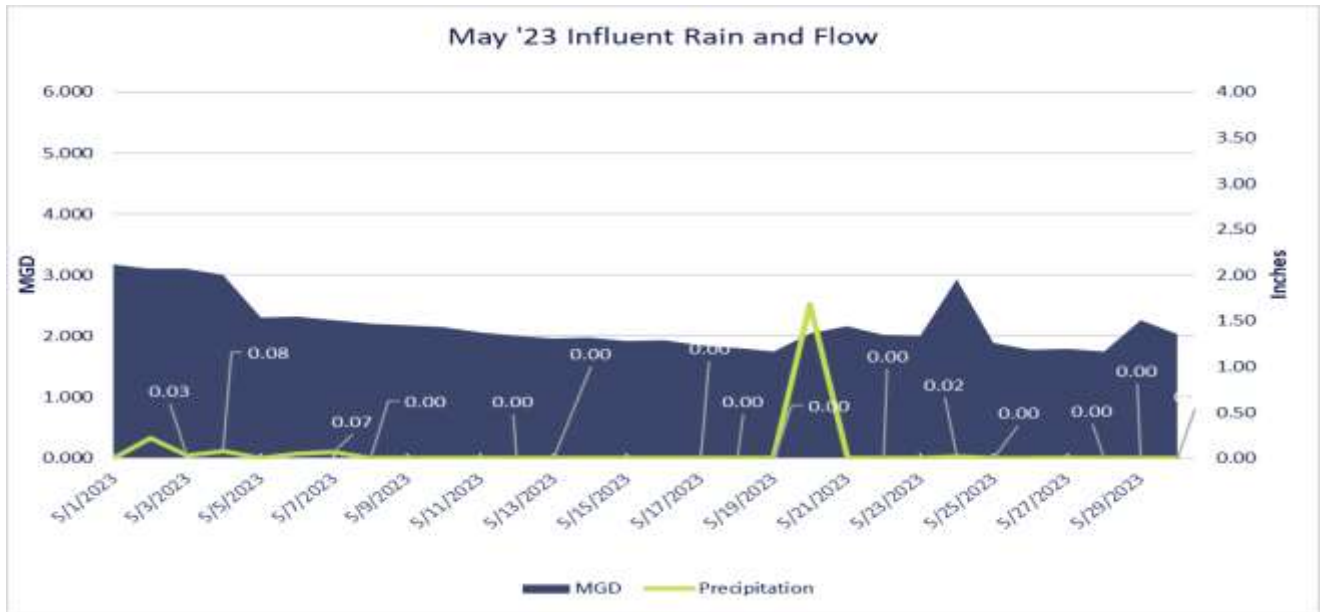
## 2. STAFFING:

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 FLOWS AND LOADINGS:

#### 3.0 FLOWS, PRECIPITATION, AND WEATHER

- The facility treated a total of **67,390,000** MG during the month. The daily average flow was **2.174** MGD. This was **0.011** MGD less than than the previous May monthly average, which was recorded at **2.185** MGD. The highest daily flow was recorded on the May 1<sup>st</sup> as 3.180 MGD. The lowest daily flow was recorded on May 31<sup>st</sup> as **1.668** MGD.
- The highest **peak** flow was recorded on May 22<sup>nd</sup> as **3.820** MGD.
- A total of **2.15"** of precipitation was received at the facility. The highest single day precipitation total was recorded on May 20<sup>th</sup> as **1.68"**
- The coldest day was May 18<sup>th</sup> at **31°F**. The warmest day was May 28<sup>th</sup> at **84°F**.



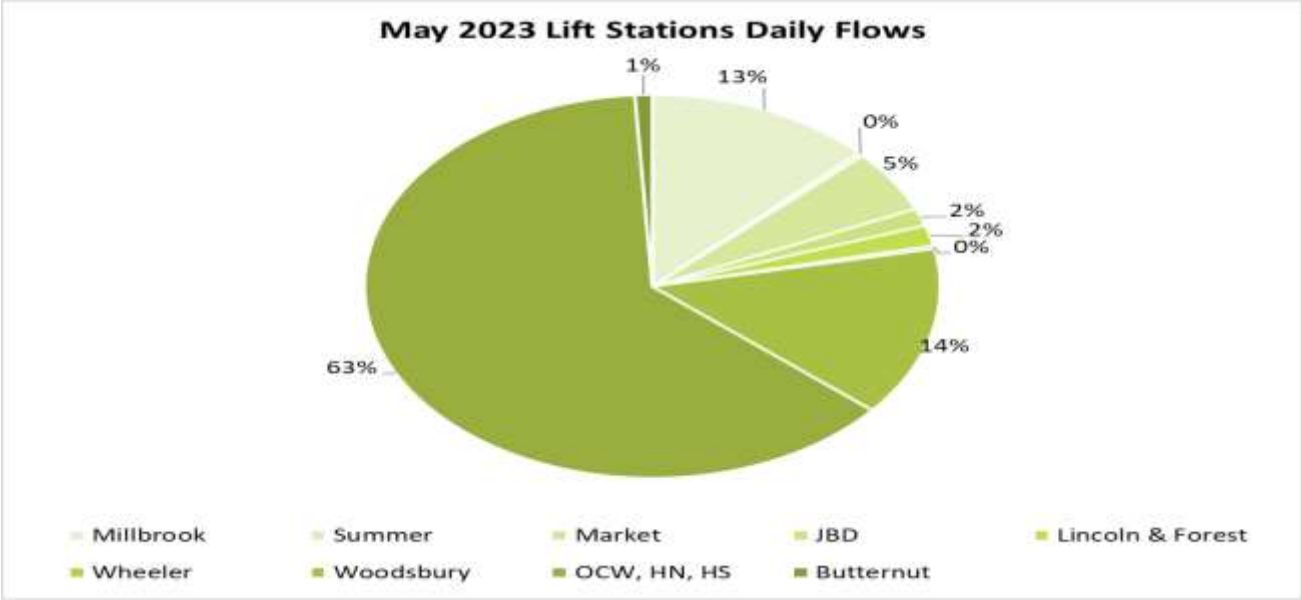
### 3.1 INFLUENT BOD AND TSS LOADING

ROCKLAND FLOW AND LOADINGS TRACKING								
Month/Yr	Influent Flow	Effluent Flow	Influent Flow Moving Avg.	Effluent Flow Moving Avg.	Inf BOD	Inf. TSS	Inf. BOD Mov. Avg.	Inf. TSS Mov. Avg.
	MGD	MGD	MGD	MGD	LBS	LBS	LBS	LBS
Jun'22	1.991		2.952		4,343	4,006	3,365	3,975
Jul'22	1.739		2.810		3,316	3,546	3,446	3,990
Aug'22	1.614		2.702		3,313	3,758	3,469	3,969
Sep'22	1.808		2.597		3,716	3,838	3,581	3,880
Oct'22	2.481		2.538		3,323	4,180	3,608	3,904
Nov'22	2.295		2.469		4,948	3,227	3,832	3,881
Dec'22	3.412		2.544		4,234	3,802	3,885	3,890
Jan '23	4.266		2.670		4,250	3,763	2,913	3,897
Feb '23	2.942	2.646	2.577	2.646	3,408	2,970	3,871	3,819
Mar '23	3.601	3.601	2.592	3.267	3,539	3,250	3,842	3,718
Apr '23	2.586	2.212	2.577	3.003	4,495	3,386	3,891	3,663
May '23	2.497	2.174	2.603	2.658	4,969	2,999	3,988	3,560

### 3.2 LIFT STATION FLOWS

The lift stations accounted for **9,298,500** gallons throughout the month, **14%** 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 2023		
Station	Total Gallons	
Millbrook	1,023,840	
Summer	24,480	
Market	429,000	
John Burke	118,320	
Lincoln, Forest	1,394,400	
Wheeler	21,960	
Woodsbury	1,153,800	
OCW, HN, HS	5,054,400	
Butternut	78,300	
<b>Total:</b>	<b>9,298,500</b>	

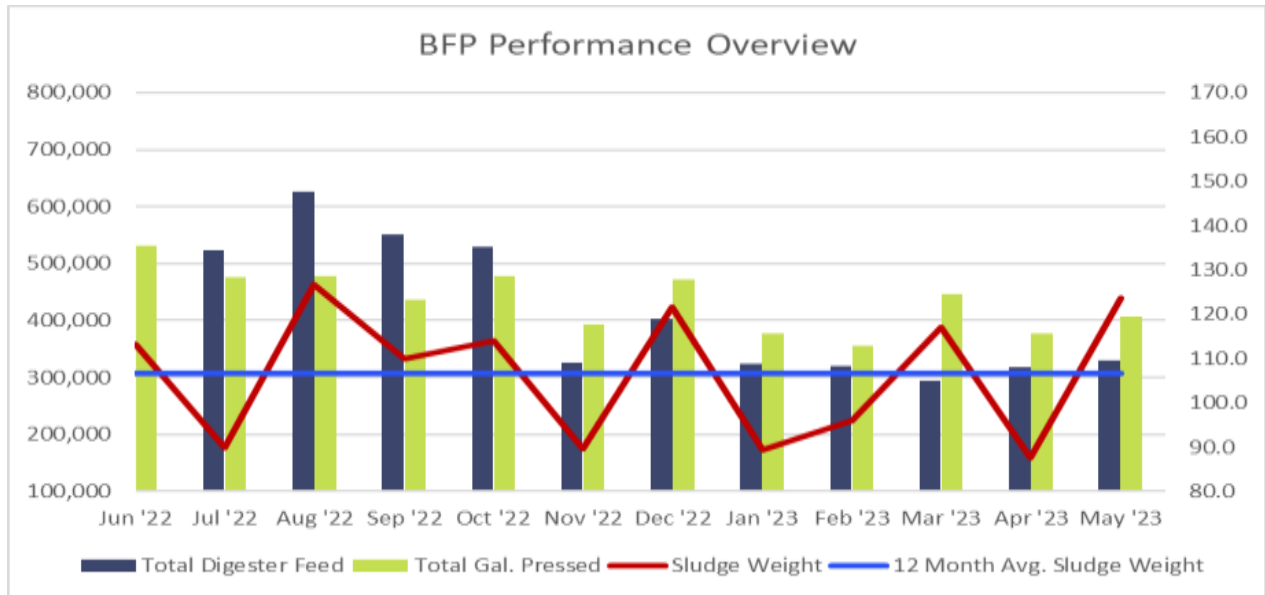


### Lift Station Monthly Average Daily Flows (GPD)

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	
Jun '22	33,073	994	15,640	1,872	2,520	41,300	828	45,060	53,900	144,540	159,480	Old System
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	3475
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
Feb '23	44,087	866	13,554	5,186	3,000	52,950	4,899	50,207	58,650	164,565	199,029	3,182
Mar '23	48,137	1,029	14,893	3,180	3,879	56,625	868	52,650	69,450	172,221	220,629	4,243
Apr '23	46,209	994	15,054	3,180	3,343	57,150	861	52,714	53,325	137,507	170,486	3,857
May '23	36,566	874	15,321	4,226	2,786	49,800	784	40,436	52,425	145,800	180,514	2,796
<b>Average</b>	<b>38,722</b>	<b>1,001</b>	<b>14,872</b>	<b>2,620</b>	<b>2,709</b>	<b>49,047</b>	<b>1,125</b>	<b>46,504</b>	<b>53,337</b>	<b>144,867</b>	<b>191,476</b>	<b>3,342</b>

#### 4.0 SOLIDS HANDLING

The BFP was operated a total of **125.55** hours this month and a total of **407,350** gallons were processed producing **123.54** Wet Tons of sludge that was hauled from the facility. The average BFP feed percent solids were **2.08%** and the BFP Cake average percent solids were **21.52%**. 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
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	
Feb '23	134.3	320,572	355,441	115.5	96.1	1.59	18.77	6.00	
Mar '23	147.1	293,999	445,395	128.8	117.1	1.62	18.98	6.00	
Apr '23	123.3	318,169	377,424	105.6	87.5	2.21	20.87	6.00	
May '23	125.6	329,820	407,350	114.4	123.5	2.08	21.52	6.00	
Annual Total	1,676	4,984,095	5,228,373	1,435	1,279	****	****	72	0.00
Avg.	140	415,341	435,698	120	107	2.03	21.40	6.0	****

## 5.0 ENVIRONMENTAL COMPLIANCE

### 5.1 REGULATORY REPORTING

1. The EPA and MADEP May NETDMR was submitted on the CDX website on 6/8/2023

### 5.2 NPDES COMPLIANCE

The facility will be reporting (0) exceedance(s) for the month of May 2023

Date	Plant Flow	BOD	BOD	TSS	TSS	NH3	Total P	Ph	E. Coli 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				
Mon, May 1	3.180							7.56				10.4				
Tue, May 2	3.100	4.0	103	8	207	0.10	0.19	7.64		2	5.0	10.1	Oct. 1 - April 30	20 Mg/L 417 lbs/day	20 Mg/L 417 lbs/Day	30 Mg/l 626 lbs/Day
Wed, May 3	3.100							7.58	96			9.7				
Thur, May 4	3.000							7.54				9.6	May 1 - Sept. 30	6 Mg/L 125 lbs/Day	6 Mg/L 125 lbs/Day	10Mg/L 209 lbs/day
Fri, May 5	2.300							7.67				10.3	<b>TSS</b>			
Sat, May 6	2.312							7.44				9.6	Oct. 1 - April 30	20 Mg/L 417 lbs/Day	20 Mg/L 417 lbs/Day	30 Mg/l 626 lbs/Day
Sun, May 7	2.266							7.43				9.6				
Mon, May 8	2.205							7.63				9.1	May 1 - Sept. 30	10 Mg/L 209 lbs/Day	10 Mg/L 209 lbs/Day	15Mg/L 313 lbs/day
Tue, May 9	2.182	5.0	109	4.0	87	0.10	0.16	7.57	326			10.0				
Wed, May 10	2.147							7.48				9.9	<b>NH3</b>			
Thur, May 11	2.069							7.53				10.2	Oct.1 - Mar. 31	3.3 Mg/L	3.3 Mg/l	5.7 Mg/L
Fri, May 12	2.012							7.52				10.3				
Sat, May 13	1.965							7.46				9.9	Apr. 1 - May 31	2.5 Mg/L	2.5 Mg/l	5.7 Mg/l
Sun, May 14	1.979							7.47				10.1				
Mon, May 15	1.915							7.51				10.3	June 1 - Sept. 30	1.0 Mg/L	1.0 Mg/L	1.5 Mg/L
Tue, May 16	1.927	4.0	77	5.0	96	0.10	0.11	7.67				9.9				
Wed, May 17	1.844							7.55	14			9.5	<b>Total Phosphorus</b>			
Thur, May 18	1.804							7.48				10.2	Apr. 1 - Oct. 31	0.2 Mg/L	*****	*****
Fri, May 19	1.748							7.49				10.4				
Sat, May 20	2.046							7.37				10.4	Nov. 1 - Mar. 31	1.0 Mg/L	*****	*****
Sun, May 21	2.155							7.32				9.5				
Mon, May 22	2.023							7.19				9.5	<b>Ph</b>			
Tue, May 23	2.001	4.0	80	6.0	120	0.40	0.10	7.47	54			10.1				6.5 - 8.3
Wed, May 24	2.929							7.47				9.5	<b>E. Coli</b>			
Thur, May 25	1.896							7.54				9.5	*****	126 CFU/100ml	*****	409 CFU/100ml
Fri, May 26	1.778							7.59				9.6	<b>Aluminum</b>			
Sat, May 27	1.789							7.44				9.6	*****	88 ug/l	*****	*****
Sun, May 28	1.746							7.52				9.5	<b>Copper</b>			
Mon, May 29	2.264							7.55				9.5				
Tue, May 30	2.040	6.0	102	2.0	34	1.00	0.09	7.58	9			9.4				
Wed, May 31	1.668							7.57				9.6				
Daily Max	3.180	6.00	109.25	8.00	206.83	1.00	0.19	7.67	326	*****	*****	*****	May 1 - Sept. 30	> 7.4 mg/L		
Daily Min.	2.040	*****	*****	*****	*****	*****	*****	7.19	*****	*****	*****	9.10	<b>Plant Flow</b>			
Month Avg.	2.497	4.60	94.20	5.00	108.80	0.34	0.13	7.51	100	2	5.0	*****	2.5 MGD			

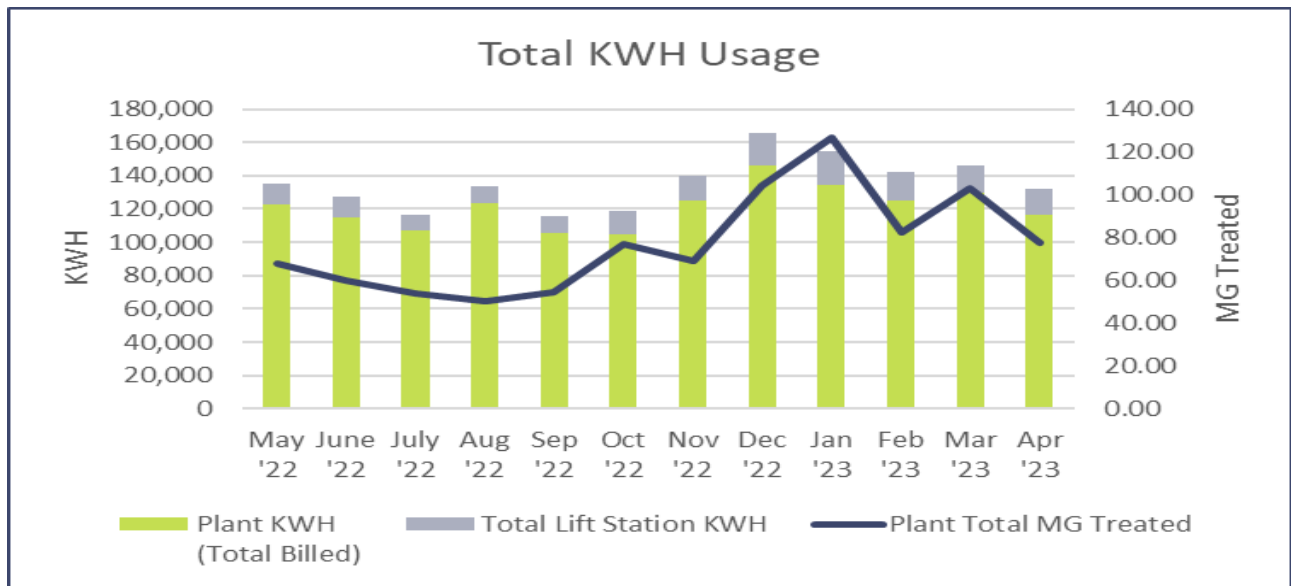


## 6.0 ENERGY CONSUMPTION

### 6.1 ELECTRICAL OVERVIEW

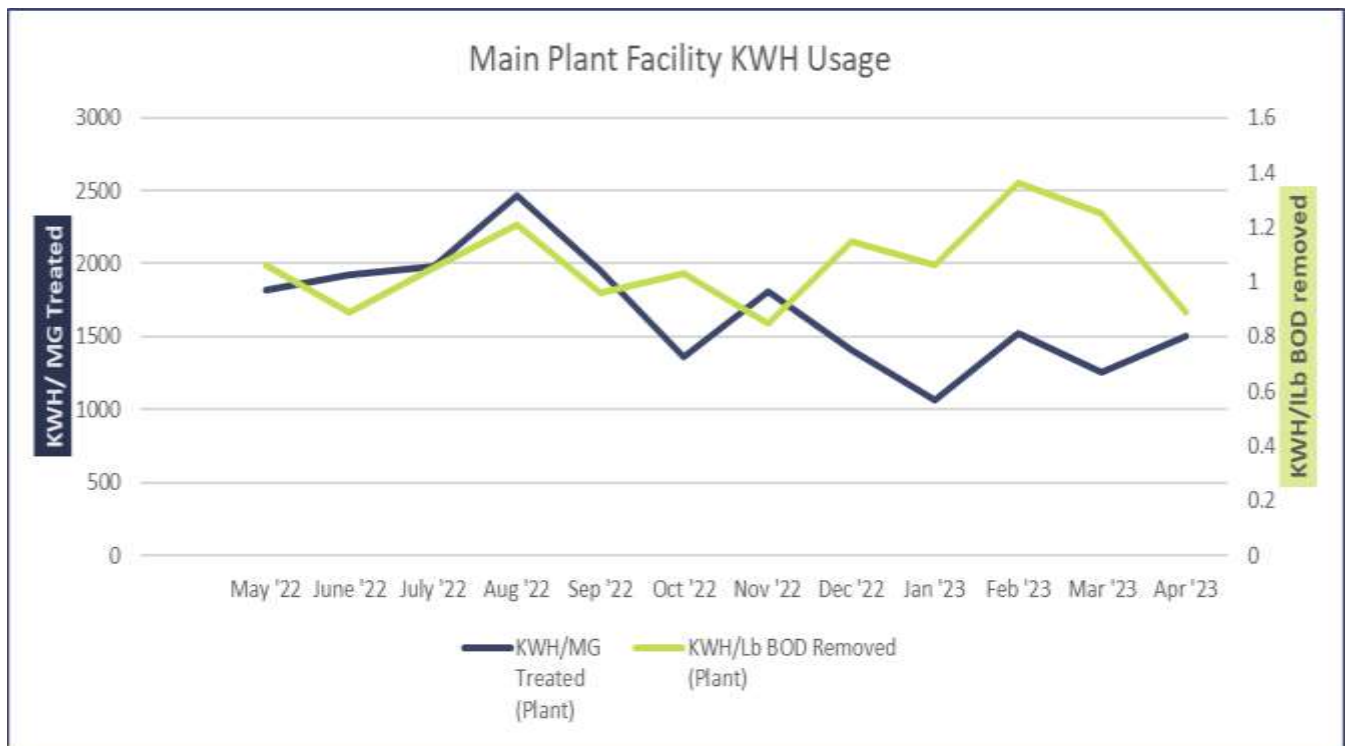
The department used a total of **132,293 KWH** for the month of May 2023. Of this total, the lift stations accounted for **12.0%**, using **15,893 KWH**. The Main Plant accounted for the remaining **116,400 KWH**. The KWH/ MG treated was **1,501** for the month, which is **10%** lower than the previous 12-month average of **1,670 KWH/MG**. The KWH/Lb. BOD Removed was **0.89 KWH/Lb.** for the month, which is **18%** lower than the previous 12-month average of **1.08 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 '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
Feb '23	2.94	82.38	125,400	1,522	92,522	1.36	213	210	16,712	142,112
Mar '23	3.33	103.31	129,600	1,254	103,530	1.25	204	213	16,322	145,922
Apr '23	2.59	77.57	116,400	1,501	130,686	0.89	198	210	15,893	132,293
Average	2.54	77.12	121,300	1,671	115,710	1.06	202	215	14,349	135,649



## 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 '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
Feb '23	3,039	5,000	141	70	1,281	862	1,440	325	2,187	227	59	1,749	332	16,712
Mar '23	2,995	5,100	246	434	1,260	851	1,353	283	1,915	58	67	1,524	236	16,322
Apr '23	3,531	4,100	176	0	1,174	781	1,447	311	2,179	82	65	1,922	125	15,893
Average	2,837	4,408	152	91	1,107	677	1,228	249	1,820	79	66	1,454	175	14,349



## 7.0 MAINTENANCE

### 7.1 WORK ORDER OVERVIEW

WO Type	Total This Month	Total This Year
<b>Preventative Maintenance</b>	<b>158</b>	<b>830</b>
<b>Corrective Maintenance</b>	<b>8</b>	<b>66</b>
<b>Emergency Call Outs Total</b>	<b>4</b>	<b>26</b>

### 7.2 EMERGENCY CALL OUTS FOR THE MONTH

Type	Total this Month	Total this Year
<b>Sewer Back Up / Collection System</b>	0	7
<b>Pump Station</b>	3	9
<b>Plant</b>	1	8
<b>Odor</b>	0	0
<b>Power Outages</b>	0	1
<b>Total:</b>	<b>4</b>	<b>25</b>

### 7.3 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. Depedable Petroleum monthly UST Inspection

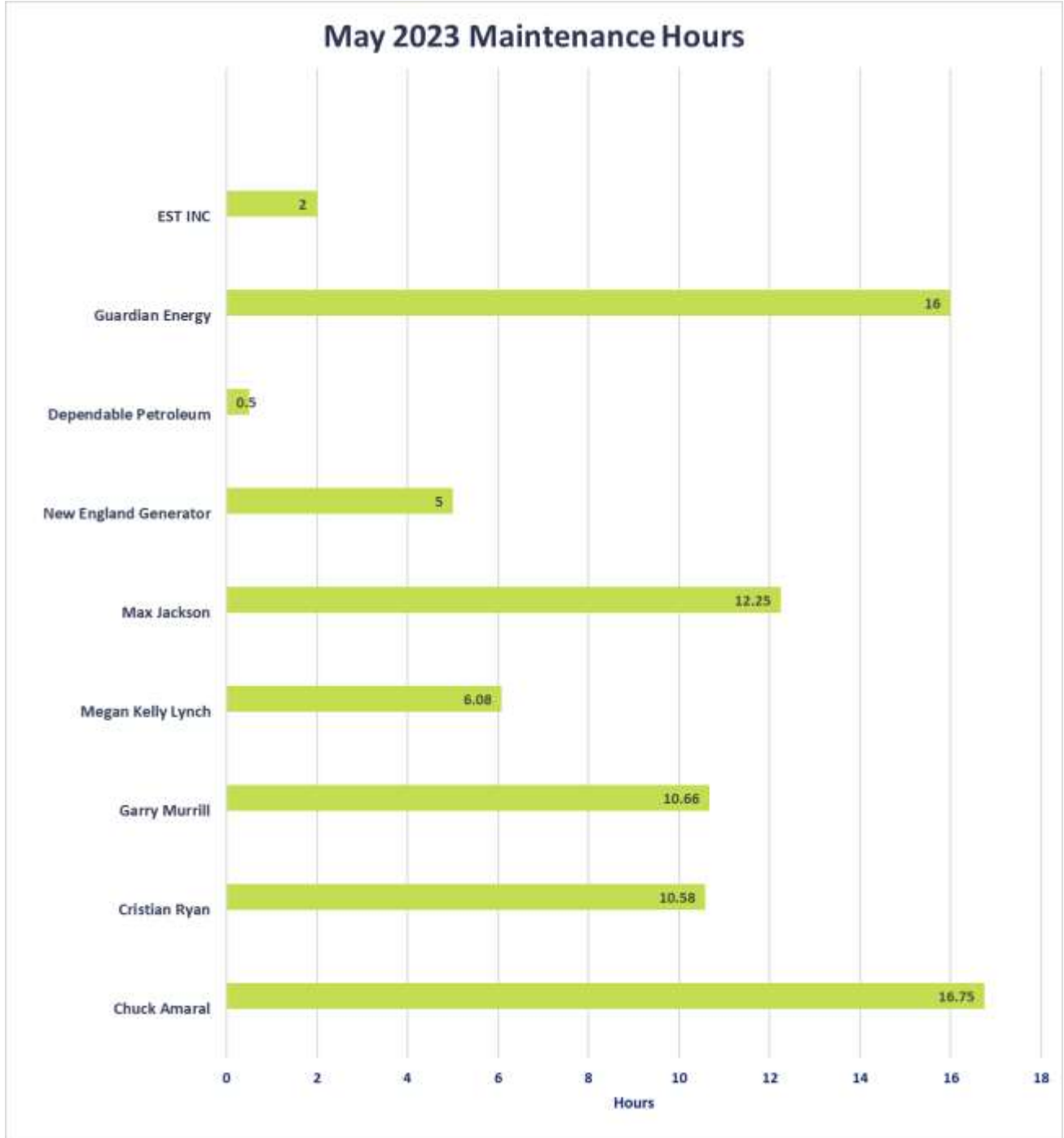
### 7.4 COLLECTION SYSTEM AND IPP ASSISTANCE PERFORMED BY VEOLIA

#### **COLLECTION SYSTEM ASSITANCE:**

Type	Total This Month	Total This Year
<b>Sewer Inspection / Tie-Ins</b>	0	0
<b>Sewer Location mark Outs</b>	292	497
<b>Sewer Back Up</b>	0	5

## 7.5 WORK ORDER STATISTICS

There were **79.82** total reported maintenance hours during the month. Of this total, outside contractors accounted for 29% with **23.5** hours recorded.



## 8.0 FINANCIAL ACCOUNTING- REPAIR / MAINTENANCE (JULY '22 – JUNE '23)

Item	Budget	Spent Month	Spent Year	Remaining
<b>R &amp; M (Project)</b>	\$100,000.00	\$3,899.99	\$94,449.85	\$5,550.15

### 8.1 SIGNIFICANT R&M PURCHASES

1. Purchased HSN Mixer for \$1,691.00
2. Purchased portable CO Meters for \$456.86

## 9.0 ATTACHED REPORTS

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