

Monthly Operating Report

MAY 2024



Rockland, MA WWTP





June 11, 2024,

Mr. Chuck Heshion

Rockland Sewer Commission Chairman

587 Rear Summer Street

Rockland, MA 02370

RE: Rockland Wastewater Facility

Monthly Report—May 2024

Dear Mr. Heshion,

Please see the enclosed May 2024 Monthly Operating Report (MOR) for the Veolia Operations and Maintenance contract. I would like to thank Cristan Ryan of Veolia for overseeing the Maintenance portions of this report.

If you should have any questions, please let me know.

Sincerely,

Rick Kotouch

Veolia Project Manager

CC:

Daniel Duross

Sherri Vallie

MAY 2024 MONTHLY OPERATING REPORT

1.0 SUMMARY:

The facility will be reporting **1** exceedance for the Monthly Average Flow during this period.

- 1) There was **0** lost time / first aid injuries throughout the month.
- 2) The facility treated a total influent flow of **89.868** MG. The average daily effluent flow was **2.614** MGD and the permit is 2.5 MGD.
- 3) The total rainfall for this reporting period was **8.87."**
- 4) I&I Work is ongoing.
- 5) **159** work orders were closed out with **29** additional work orders as corrective maintenance. There were also **5** emergency call outs during this reporting period.

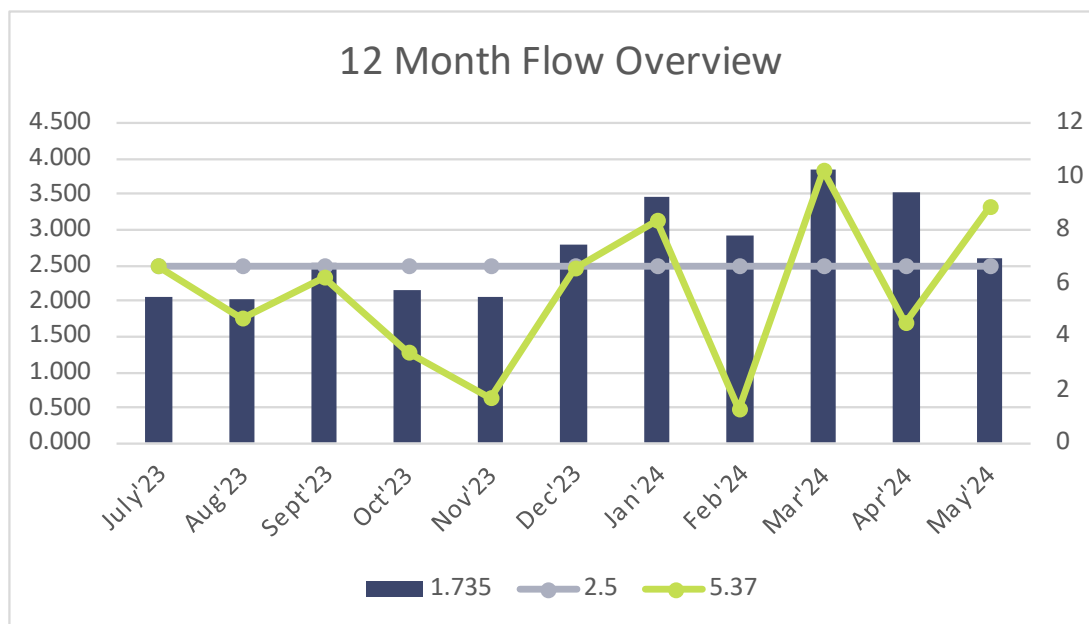
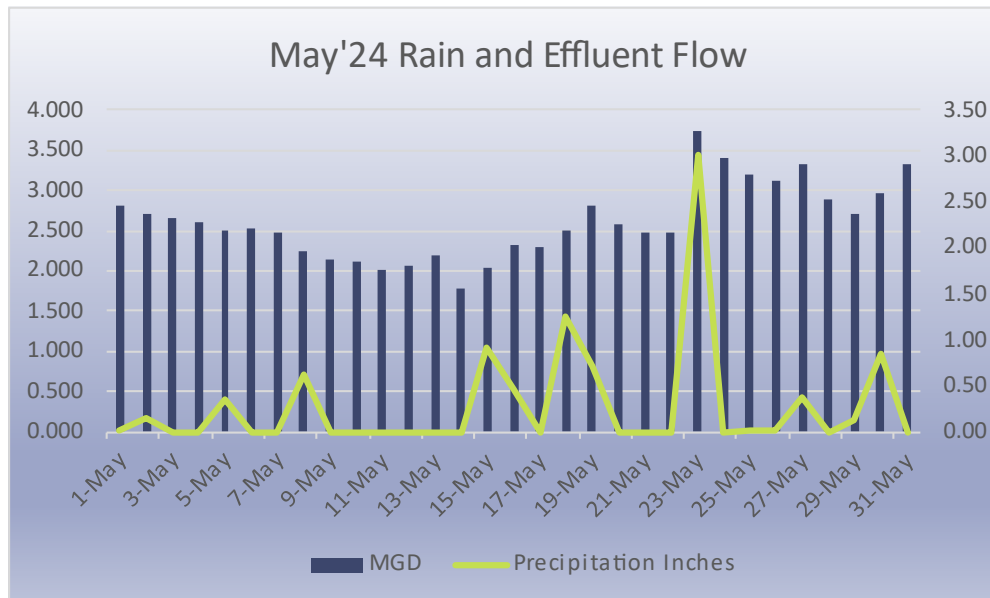
2.0 STAFFING:

Current Employee Licenses as of 05/31/2024										
		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	
Jesse Freeman	Asst. Project Manager					6C				
Steven Butts	Lab Technician					X				X
Charles Amaral	Maintenance Foreman				X			X		
Garry Murrill	Operator				X			X		
Open Position	Operator									
Cristian Ryan	Operator									
Yuri Fernandes	Operator				X					
Shaun Chaponis (Weekends)	Part-Time Operator				X		X			

3.0 FLOWS AND LOADINGS:

3.1 FLOWS, PRECIPITATION, AND WEATHER

- The facility treated a total of **89.868 MG** during the month of May. The daily average influent flow was **2.899** MGD and the daily average effluent flow for Permit was **2.614** MGD. This was **0.92** MGD less than the previous months effluent average. The highest daily effluent flow was recorded on May 23rd at **3.749 MGD**.
- A total of **8.87"** of precipitation was recorded at the facility. The highest single day precipitation total was recorded on May 23rd at **3.02"**.
- The coldest day was on May 11th at **37°F**. The warmest day was on May 22nd at **86°F**.



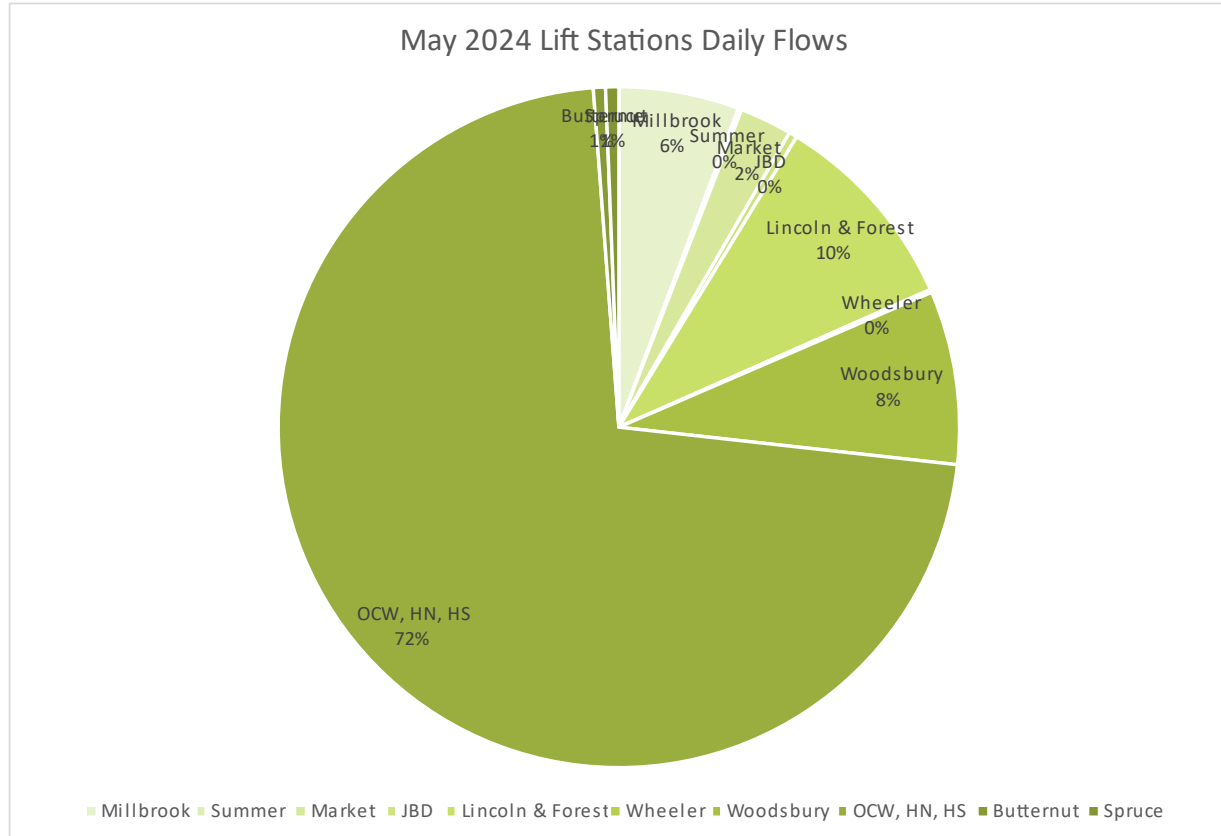
3.2 INFLUENT AND EFFLUENT FLOW TRACKING

ROCKLAND FLOW TRACKING				
Month/Year	Influent Flow	Effluent Flow	Influent Flow Moving Avg.	Effluent Flow Moving Avg.
	MGD	MGD	MGD	MGD
June '23	2.083	1.735	2.610	2.473
July '23	2.404	2.073	2.666	2.407
Aug '23	2.102	2.024	2.706	2.352
Sep '23	2.457	2.532	2.76	2.374
Oct '23	2.114	2.161	2.73	2.351
Nov '23	2.069	2.069	2.711	2.323
Dec '23	3.302	2.79	2.702	2.365
Jan '24	4.11	3.477	2.689	2.458
Feb '24	2.884	2.905	2.684	2.479
Mar '24	4.212	3.836	2.735	2.499
Apr '24	3.886	3.534	2.843	2.609
May '24	2.899	2.614	2.877	2.646

3.3 LIFT STATION FLOWS

The lift stations accounted for **17,971,200** gallons throughout the month or **20%** 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.

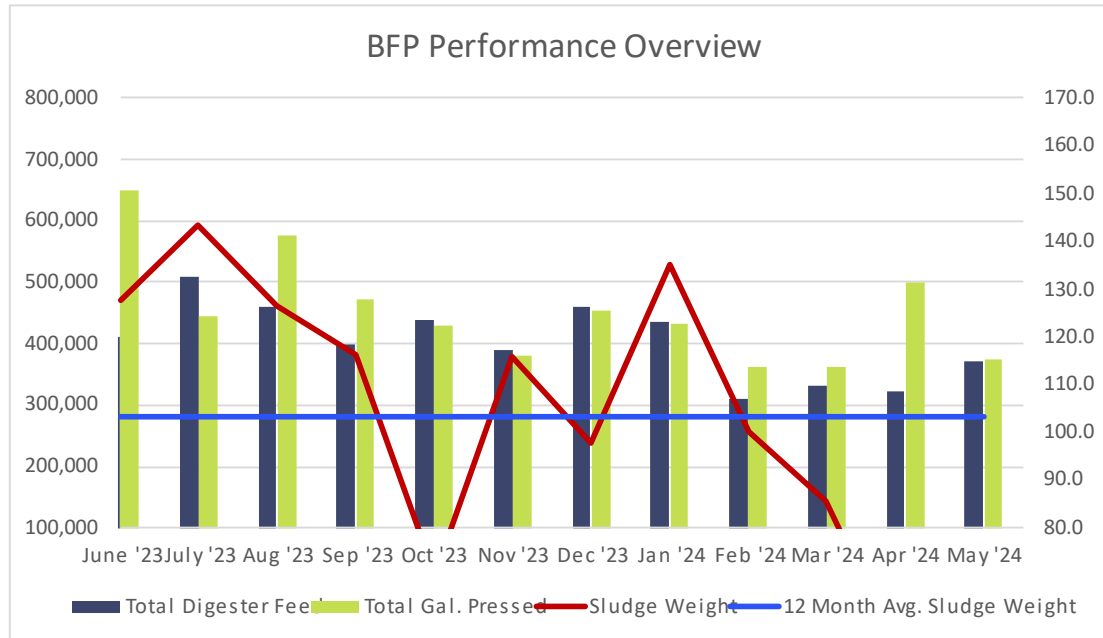
Total Flows for May 2024		
Station	Total Gallons	
Millbrook	1,024,920	
Summer	29,520	
Market	447,000	
John Burke	69,600	
Lincoln, Forest	1,730,100	
Wheeler	26,460	
Woodsbury	1,481,400	
OCW, HN, HS	12,946,200	
Butternut, Spruce	216,000	
Total:	17,971,200	



Lift Station Monthly Average Daily Flows (GPD)												
Month	Millbrook	Summer	Market	John Burke	Lincoln	Forrest	Wheeler	Woodbury	Old Country Way	Hingham North	Hingham South	Butternut & Spruce
	GPD	GPD	GPD	GPD	GPD	GPD	GPD	GPD	GPD	GPD	GPD	GPD
June '23	32,516	831	12,964	2,983	2,250	50,100	746	34,393	49,575	33,264	178,200	2411
July '23	32,554	960	13,339	2,897	2,721	54,300	778	44,550	54,300	151,971	174,343	2,475
Aug '23	43,894	857	13,875	3,180	3,086	57,600	5,001	58,243	67,200	180,707	219,858	4,146
Sep '23	30,356	857	13,554	1,637	2,679	51,300	765	45,321	52,650	153,900	166,628	2,379
Oct '23	36,720	866	14,250	1,843	2,550	50,850	784	57,343	50,325	145,414	156,986	2,025
Nov '23	30,047	857	13,286	3,137	2,743	58,050	1,080	36,450	46,650	130,757	145,414	2,539
Dec '23	35,833	969	14,411	2,237	2,936	59,250	791	50,079	57,300	153,128	189,000	3,536
Jan'24	36,373	1,123	18,643	2,246	3,836	62,700	849	66,793	82,050	174,729	242,614	5,271
Feb'24	32,207	909	14,946	2,949	3,536	51,000	797	47,700	56,475	148,693	177,043	4,243
Mar'24	43,470	1,320	14,411	3,317	7,500	58,200	1,061	61,714	77,625	193,436	246,471	5,529
Apr'24	31,912	1,099	15,290	3,066	2,787	52,568	842	58,355	78,852	184,994	236,903	5,632
May'24	33,062	952	14,419	2,245	2,768	53,042	854	47,787	53,381	159,735	204,503	6,968
Average GPD	35,039	960	14,516	2,766	3,244	54,520	1,164	49,936	59,908	150,502	193,729	3,484

4.0 SOLIDS HANDLING

The BFP operated a total of **131.0** hours this month and a total of **371,436** gallons were processed producing **68.40** Wet Tons of sludge that was hauled from the facility. The average BFP feed percent solids were **1.81%** and the BFP Cake average percent solids were **20.97%**.



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 in Tons
June '23	183.7	411,781	649,427	155.6	127.6	1.88	22.32	8.00	
July '23	128.4	444,319	510,385	109.6	143.6	2.11	21.39	7.00	
Aug '23	161.6	459,960	577,299	128.1	126.3	2.01	22.81	7.00	
Sep '23	142.7	400,268	473,224	113.6	116.4	1.92	22.35	6.00	
Oct '23	127.4	438,575	428,509	112.0	70.5	2.00	22.64	5.00	
Nov '23	132.4	389,377	381,901	108.8	116.0	2.18	22.12	8.00	
Dec '23	150.5	460,829	454,170	137.6	97.9	2.04	21.95	6.00	
Jan '24	152.4	436,721	432,214	123.2	135.3	2.27	20.80	7.00	
Feb '24	130.5	311,234	362,674	111.2	100.1	2.05	22.41	6.00	
Mar '24	122.3	331,384	362,712	119.2	85.7	2.32	21.64	6.00	
Apr '24	164.0	321,384	500,524	131.2	50.9	1.69	21.51	6.00	
May '24	131.0	371,436	373,008	108.0	68.4	1.81	20.97	5.00	5.00
Annual Total	1,727	4,777,268	5,506,047	1,458	1,239	*****	*****	78	5.00
Avg.	144	398,106	458,837	122	103	2.02	21.91	6.4	5.00

5.0 ENVIRONMENTAL COMPLIANCE

5.1 REGULATORY REPORTING

1. The EPA and MADEP APRIL NETDMR submitted in the CDX website on 6/7/2024.

5.2 NPDES COMPLIANCE

The facility will be reporting (1) exceedance(s) for the Monthly Average Flow. The actual Effluent Flow for May 2024 was **2.6** MGD and the General Permit is **2.5** MGD.

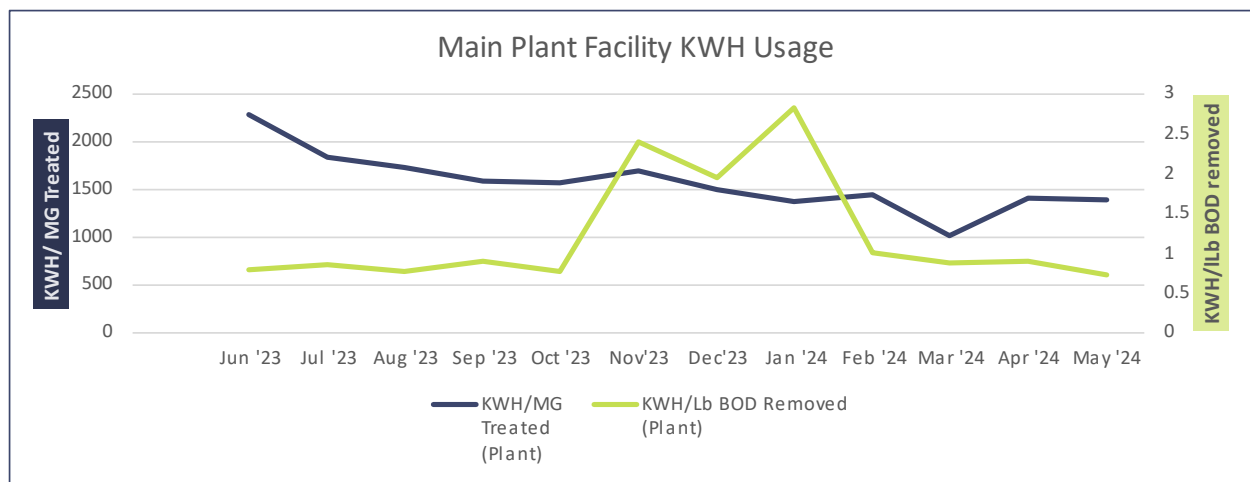
Date	Eff Plant Flow	BOD	BOD	TSS	TSS	NH3	Total P	Ph	E. Coli Coliform	Aluminum	Copper	Dissolve Oxygen	Limits	Monthly Avg.	Weekly Avg.	Daily Max
	MGD	Mg/L	Lbs./Day	Mg/L	Lbs./Day	Mg/L	Mg/L	Ph	CFU/100 ml	Ug/L	Ug/L	Mg/L	BOD			
5/1/24	2.824	6.0	141	3.0	71	1.10	0.16	7.20		6.0	5.0		Oct. 1 - April 30	20 Mg/L	20 Mg/L	30 Mg/L
5/2/24	2.700							7.12					May 1 - Sept. 30	6 Mg/L	6 Mg/L	10Mg/L
5/3/24	2.661							7.26						125	125	209
5/4/24	2.596							6.94					TSS			
5/5/24	2.510							7.05					Oct. 1 - April 30	20 Mg/L	20 Mg/L	30 Mg/L
5/6/24	2.520							7.29	31				May 1 - Sept. 30	10 Mg/L	10 Mg/L	15Mg/L
5/7/24	2.471							7.69						209	209	313
5/8/24	2.242	6.0	112	4.0	75		0.14	7.70					NH3			
5/9/24	2.154							7.41					Oct 1 - Mar. 31	3.3 Mg/L	3.3 Mg/l	5.7 Mg/L
5/10/24	2.107							6.79					Apr. 1 - May 31	2.5 Mg/L	2.5 Mg/l	5.7 Mg/l
5/11/24	2.190							7.11					June1 - Sept. 30	1.0 Mg/L	1.0 Mg/L	1.5 Mg/L
5/12/24	2.072							7.09	17				Total Phpsphorus			
5/13/24	2.205							7.11					Apr. 1 - Oct.31	0.2 Mg/L	*	*
5/14/24	1.778							7.26					Nov. 1 - Mar. 31	1.0 Mg/L	*****	*****
5/15/24	2.028	3.0	51	5.0	85	0.20	0.13	7.46					Ph			
5/16/24	2.322							7.38						6.5 - 8.3		
5/17/24	2.292							7.49					E. Coli			
5/18/24	2.497							7.46					*****	120 CFU/100 ml	*****	409 CFU/100 ml
5/19/24	2.820							7.41					*****	*****	*****	*****
5/20/24	2.574							7.47					Aluminum			
5/21/24	2.471							7.50	22				*****	88 ug/l	*****	*****
5/22/24	2.470	4.0	82	7.0	144		0.12	7.48					Copper			
5/23/24	3.749							7.46								
5/24/24	3.401							7.50								
5/25/24	3.190							7.52								
5/26/24	3.132							7.54								
5/27/24	3.327							7.54								
5/28/24	2.887							7.48	372							
5/29/24	2.715	6.0	136	7.0	159		0.18	7.57								
5/30/24	2.979							7.35								
5/31/24	3.318							7.35								
Daily Max	3.749	6.00	141	7.0	158	1.1	0.18	7.70	372.00	*****	*****	*****	May 1 - Sept. 30	> 7.4 mg/L		
Daily Min.	1.778							6.79	*****	*****	*****	*****		Plant Flow		
Month Avg.	2.614	5.0	104	5.2	107	0.7	0.15	7.35	46	6	5	*****		2.5 MGD		

6.0 ENERGY CONSUMPTION

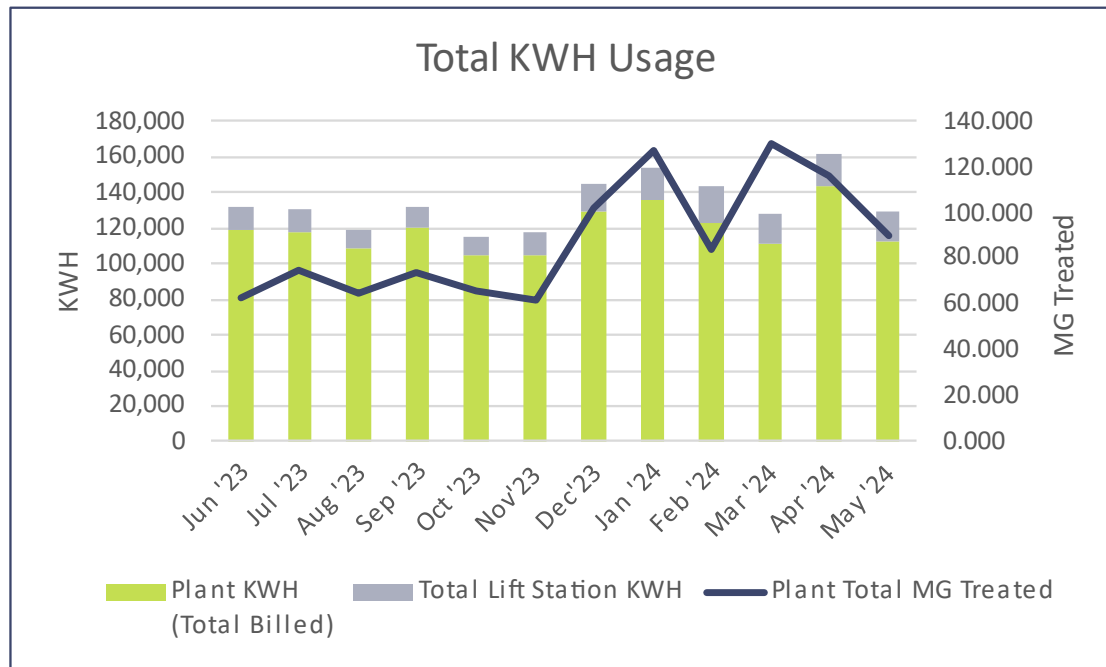
6.1 ELECTRICAL OVERVIEW

The Facility used a total of **128,866 KWH** for the month of May 2024. The Main Plant accounted for **112,800 KWH** and the lift stations used **16,066 KWH**. The KWH/ MG treated at the plant was **1.392** and the KWH/Lb. of BOD removed was **0.73** for the month.

Monthly Energy Consumption										
Month	Plant Average Daily Flow (NO HFMP)	Plant Total Effluent 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
Jun '23	1.73	52.04	118,800	2,283	15,021	0.79	183	189	12,637	131,437
Jul '23	2.07	64.26	118,200	1,839	137,759	0.86	183	201	12,127	130,327
Aug '23	2.02	62.74	108,300	1,726	142,542	0.76	222	231	10,113	118,413
Sep '23	2.53	75.95	120,600	1,588	134,488	0.9	192	201	10,893	131,493
Oct '23	2.16	67.00	105,300	1,572	134,616	0.78	195	213	10,331	115,631
Nov'23	2.07	62.06	104,700	1,687	43,777	2.39	195	201	13,297	117,997
Dec'23	2.79	86.49	129,300	1,495	66,318	1.95	207	234	15,313	144,613
Jan'24	3.18	98.54	135,600	1,376	48,027	2.82	261	273	18,956	154,556
Feb'24	2.90	84.23	122,400	1,453	122,094	1.00	213	231	21,708	144,108
Mar'24	3.58	110.89	111,000	1,001	128,077	0.87	222	216	16,633	127,633
Apr'24	3.40	101.85	143,700	1,411	158,901	0.90	228	237	17,451	161,151
May'24	2.61	81.03	112,800	1,392	155,428	0.73	210	219	16,066	128,866
Average	2.59	78.92	119,225	1,569	107,254	1.23	209	221	14,627	133,852



Monthly Lift Station KWH														
Month	Hingham North	Hingham South	Spruce	Butternut	Old Country Way	Market	Woodsbury	Lincoln	Forest	Wheeler	Summer	Milbrook	John Burke	Total
Jun '23	2,373	3,800	114	69	956	695	1,034	201	1,587	57	59	1,459	233	12,637
Jul '23	2,040	4,200	145	62	887	409	1,116	186	1,714	65	63	1,064	176	12,127
Aug '23	1,810	3,600	157	57	897	306	868	156	1,159	56	58	891	98	10,113
Sep '23	2,145	3,400	109	58	911	313	838	163	1,933	59	56	818	90	10,893
Oct '23	1,646	3,400	226	53	911	403	967	188	1,478	56	52	874	77	10,331
Nov '23	2,204	3,700	151	60	1,003	792	1,523	257	1,894	91	61	1,389	172	13,297
Dec'23	2,498	4,700	202	64	1,158	886	1,199	337	2,420	65	62	1,488	234	15,313
Jan'24	3,114	6,100	271	83	1,385	1,032	1,648	365	2,724	65	70	1,846	253	18,956
Feb'24	4,218	7,000	735	96	1,548	943	1,177	316	2,131	58	61	1,408	256	21,708
Mar'24	2,595	5,400	945	76	1,267	943	1,177	316	2,131	58	61	1,408	256	16,633
Apr'24	2,833	5,900	112	103	1,471	844	1,512	309	2,366	65	80	1,616	240	17,451
May'24	2,736	5,200	110	100	1,304	875	1,305	287	2,123	74	75	1,547	240	16,066
Average	2,518	4,700	273	73	1,142	703	1,197	257	1,972	64	63	1,317	194	14,627



7.0 MAINTENANCE

7.1 WORK ORDER OVERVIEW

WO Type	Total This Month	Total This Year
Preventative Maintenance	159	1,870
Corrective Maintenance	29	193
Emergency Call Outs Total	6	54

7.2 EMERGENCY CALL OUTS FOR THE MONTH

Type	Total this Month	Total this Year
Collection System, Emergency Mark-Outs	6	13
Pump Station	0	20
Plant	0	17
Odor	0	1
Power Outages	0	5
Total:	6	50

7.3 INSPECTIONS AND CALIBRATIONS

1. All pump station alarms are checked monthly.
2. Eye wash station inspections are completed weekly.
3. Fire extinguisher inspections are completed monthly.
4. Dependable Petroleum UST Inspections are completed monthly.
5. Annual lab equipment inspections completed by Economy Lab Services.

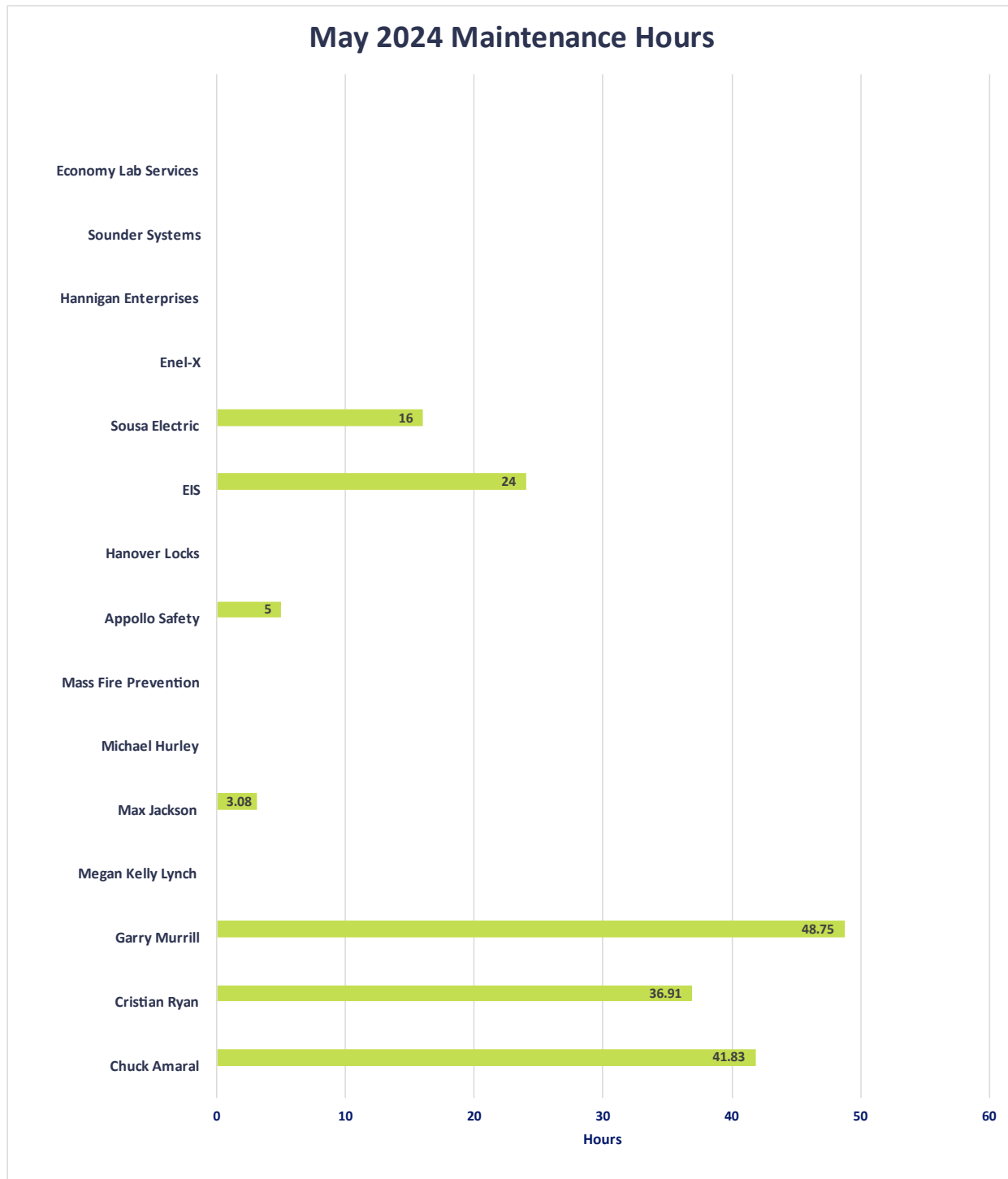
7.4 COLLECTION SYSTEM AND IPP ASSISTANCE PERFORMED BY VEOLIA

COLLECTION SYSTEM ASSISTANCE:

Type	Total This Month	Total This Year
Sewer Inspection / Tie-Ins	0	1
Sewer Location mark Outs	73	695
Sewer Back Up	1	5

7.5 WORK ORDER STATISTICS

There were 223.07 total reported maintenance hours during the month. Of this total, outside contractors accounted for 39% with **87** hours recorded.



8.0 FINANCIAL ACCOUNTING- REPAIR / MAINTENANCE (JULY '23 – JUNE '24)

Item	Budget	Spent Month	Spent Year	Remaining
R & M (Project)	\$100,000.00	\$6,540.20	\$98,892.66	\$1,107.34

8.1 SIGNIFICANT R&M PURCHASES

1. Purchased a Manhole Cover Lifter from Grainger – \$2,177.26
2. Annual Flow Chart Calibrations completed by EIS – \$973.75
3. Purchased a Ultrasonic Level Transmitter for Lime Tank from Amazon Business – \$628.29
4. HQI Overhead Doors replaced Sensor on Maintenance Garage Door – \$405.00

9.0 ATTACHED REPORTS

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