

Monthly Operating Report

SEPTEMBER 2023



Rockland, MA WWTP





October 11, 2023

Mr. Chuck Heshion

Rockland Sewer Commission Chairman

587 Rear Summer Street

Rockland, MA 02370

RE: Rockland Wastewater Facility

Monthly Report—September 2023

Dear Mr. Heshion,

I have enclosed September'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

Sherri Vallie

SPETMEBER 2023 MONTHLY OPERATING REPORT

1. SUMMARY:

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

- 1) There was **0** lost time / first aid injuries throughout the month
- 2) The facility treated a total of **75,954,000** Million Gallons. The average daily flow was **2.532** MGD
- 3) The total rainfall for this reporting period was **6.17"**
- 4) I&I Work is ongoing
- 5) **181** work orders were closed in September, with **7** as corrective maintenance work order and **3** were emergency call outs
- 6) Massachusetts general wastewater permit began April 1st.

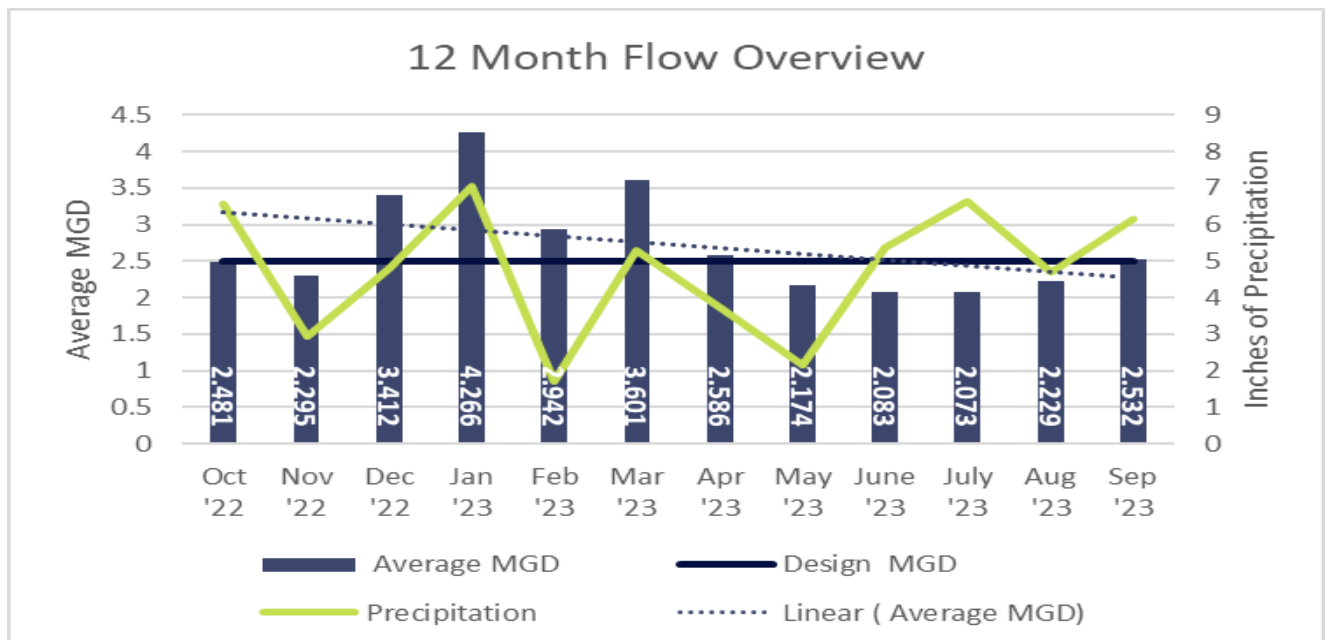
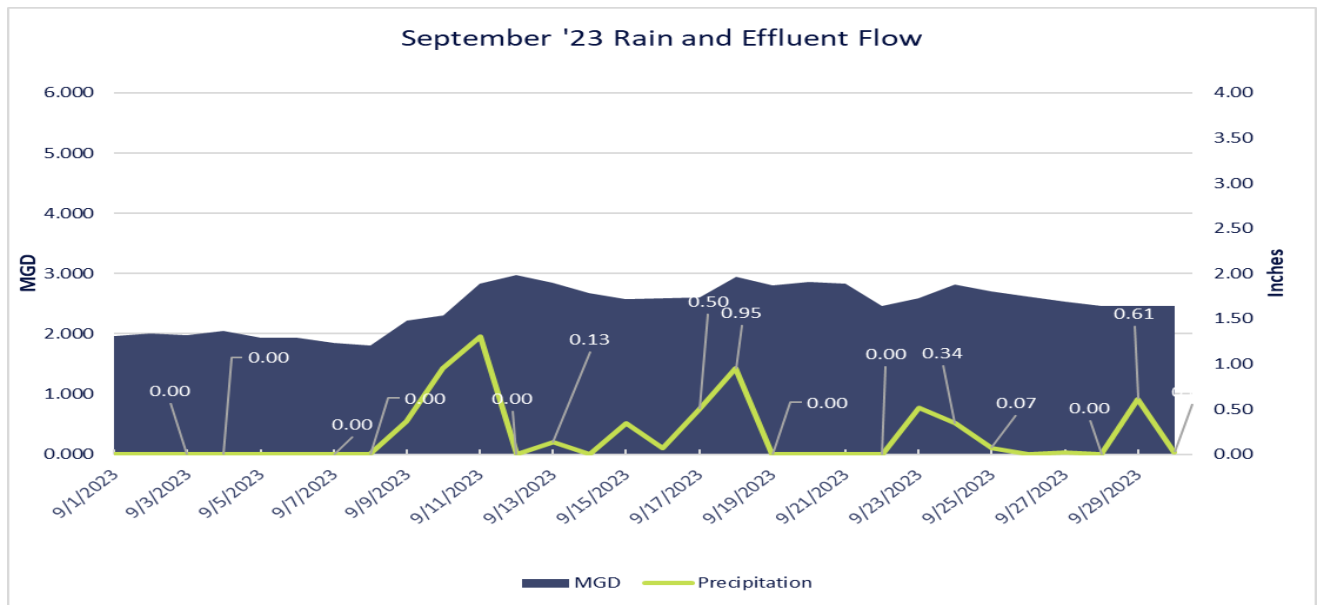
2. STAFFING:

Current Employee Licenses as of 09/14/2023										
		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	Operator				X			X		
Maxwell Jackson	Operator			X						
Cristian Ryan	Operator									
Michael Hurley	Operator									
Shaun Chaponis (Part Time Weekends)	Operator				X		X			

3 FLOWS AND LOADINGS:

3.0 FLOWS, PRECIPITATION, AND WEATHER

- The facility treated a total of **75,954,000** MG during the month. The daily average flow was **2.532** MGD. This was **0.724** MGD more than the previous September monthly average, which was recorded at **1.808** MGD. The highest daily flow was recorded on September 21st as 3.213 MGD. The lowest daily flow was recorded on September 8th as **1.787** MGD.
- The highest **peak** flow was recorded on September 26th as **5.180** MGD.
- A total of **6.17"** of precipitation was received at the facility. The highest single day precipitation total was recorded on September 11th as **1.30"**.
- The coldest day was September 26th at **42°F**. The warmest day was September 7th at **92°F**.



3.1 INFLUENT BOD AND TSS LOADING

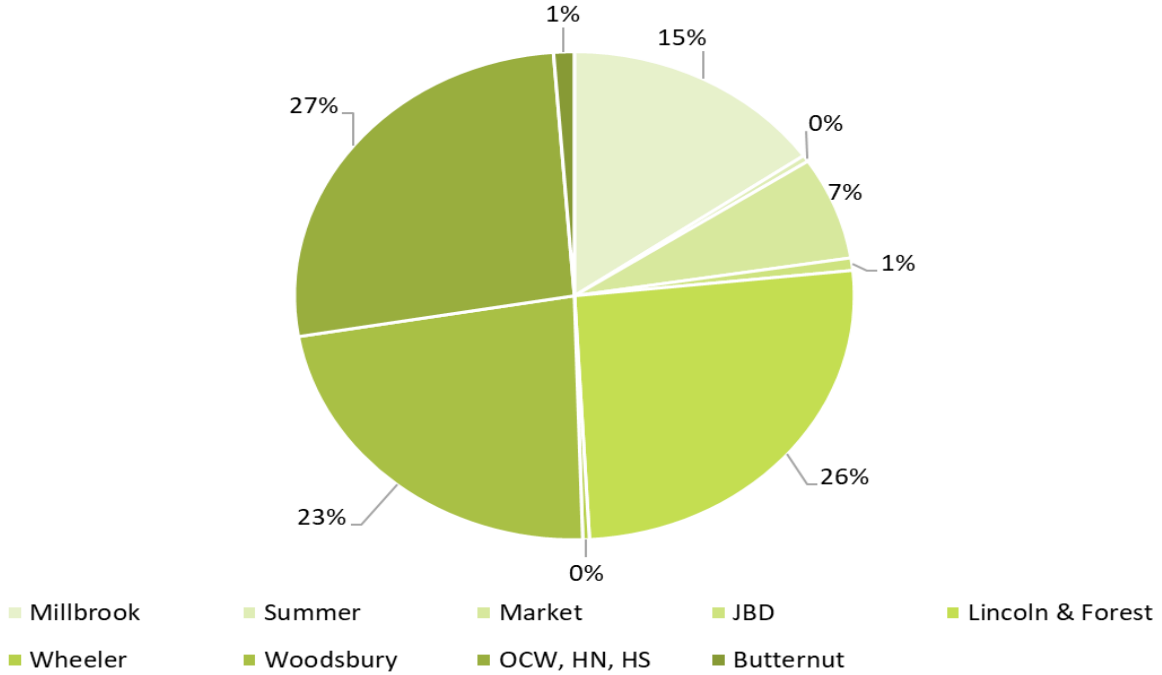
ROCKLAND FLOW AND LOADINGS TRACKING								
Month/Yr	Influent Flow	Effluent Flow	Influent Flow Moving Avg.	Effluent Flow Moving Avg.	Inf BOD	Inf. TSS	Inf. BOD Mov. Avg.	Inf. TSS Mov. Avg.
	MGD	MGD	MGD	MGD	LBS	LBS	LBS	LBS
Oct'22	2.481		2.538		3,323	4,180	3,608	3,904
Nov'22	2.295		2.469		4,948	3,227	3,832	3,881
Dec'22	3.412		2.544		4,234	3,802	3,885	3,890
Jan '23	4.266		2.67		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	3.123	3,539	3,250	3,842	3,718
Apr '23	2.586	2.212	2.577	2.82	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
June '23	2.083	1.735	2.61	2.473	5,090	3,154	4,050	3,489
July '23	2.404	2.073	2.666	2.407	4,496	3,599	4,148	3,494
Aug '23	2.102	2.024	2.706	2.352	4,639	3,338	4,259	3,459
Sep '23	2.457	2.532	2.760	2.374	4,551	2,931	4,330	3,388

3.2 LIFT STATION FLOWS

The lift stations accounted for **8,758,312** gallons throughout the month, **12%** 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 September 2023		
Station	Total Gallons	
Millbrook	849,959	
Summer	24,000	
Market	379,500	
John Burke	45,840	
Lincoln, Forest	1,436,401	
Wheeler	21,420	
Woodsbury	1,268,998	
OCW, HN, HS	4,665,594	
Butternut	66,600	
Total:	8,758,312	

September 2023 Lift Stations Daily Flows

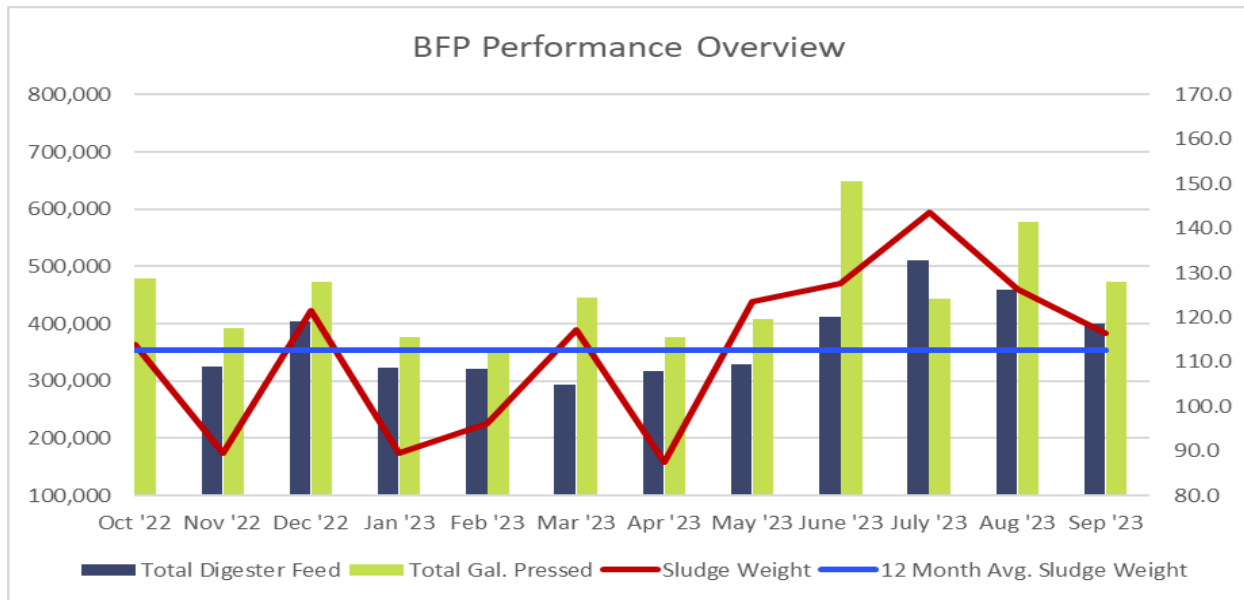


Lift Station Monthly Average Daily Flows (GPD)

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	GPD
Oct '22	38,114	1,092	14,758	1,386	2,419	49,181	743	43,897	46,810	149,807	273,484	3870
Nov '22	35,316	1,112	14,450	1,840	2,460	46,410	918	40,740	46,970	142,920	165,599	2640
Dec '22	47,052	888	14,750	2,480	2,580	56,070	786	57,780	60,155	169,200	199,974	3658
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
June '23	32,516	831	12,964	2,983	2,250	50,100	746	34,393	49,575	33,264	178,200	2,411
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
Average	40,154	937	14,272	2,888	2,815	53,130	1,495	48,226	55,972	147,589	195,726	3,276

4.0 SOLIDS HANDLING

The BFP was operated a total of **142.65** hours this month and a total of **473,224** gallons were processed producing **116.40** Wet Tons of sludge that was hauled from the facility. The average BFP feed percent solids were **1.92%** and the BFP Cake average percent solids were **22.35%**. 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
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	
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	4.00
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	
Annual Total	1,710	4,560,078	5,517,580	1,438	1,353	*****	*****	75	4.00
Avg.	143	380,007	459,798	120	113	1.94	21.15	6.3	*****

5.0 ENVIRONMENTAL COMPLIANCE

5.1 REGULATORY REPORTING

1. The EPA and MADEP August NETDMR was submitted on the CDX website on 10/10/2023

5.2 NPDES COMPLIANCE

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

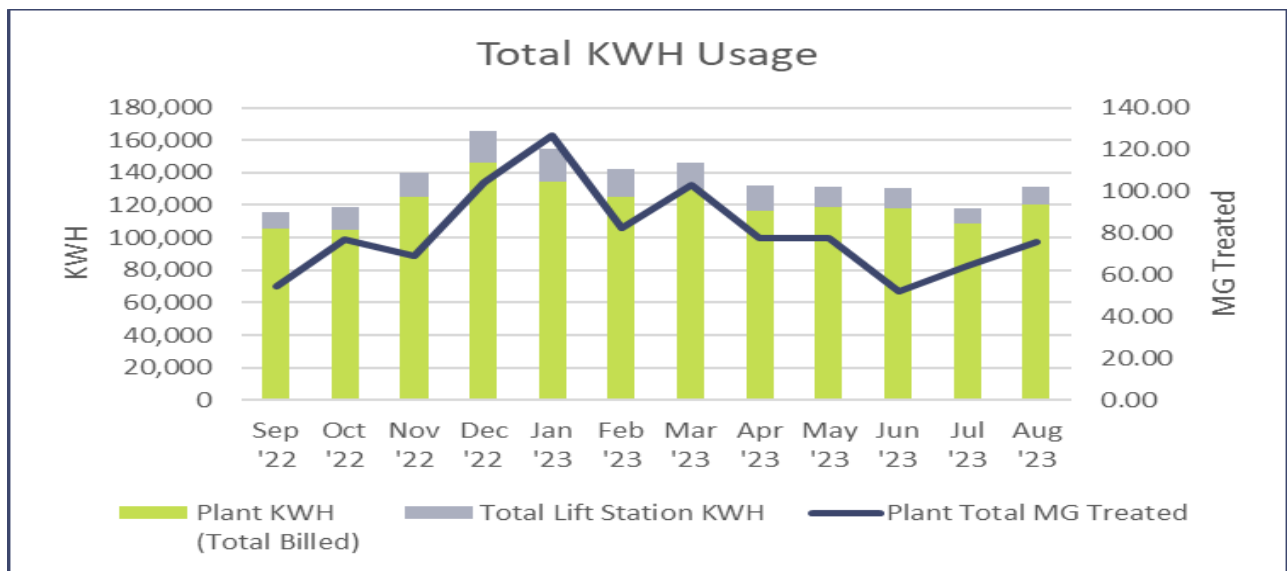
Date	Plant Flow	BOD	BOD	TSS	TSS	NH3	Total P	Ph	E. Coli Coliform	Aluminum	Copper	Dissolved Oxygen	Limits	Monthly Avg.	Weekly Avg.	Daily Max
	MGD	Mg/L	Lbs./Day	Mg/L	Lbs./Day	Mg/L	Mg/L	Ph	CFU/100 ml	Ug/L	Ug/L	Mg/L	BOD			
Fri, Sep 1	1.927							7.72				8.5	Oct. 1 - April 30	20 Mg/L 417 bs/day	20 Mg/L 417 lbs/Day	30 Mg/l 626 lbs/Day
Sat, Sep 2	1.928							7.50				8.2				
Sun, Sep 3	1.916							7.44				8.1	May1 - Sept. 30	6 Mg/L 125 lbs/Day	6 Mg/L 125 lbs/Day	10Mg/L 209 lbs/day
Mon, Sep 4	2.001							7.03				8.1				
Tue, Sep 5	1.869	5.0	78	4.0	62	1.00	0.13	7.53	62	3	4.00	7.9	TSS			
Wed, Sep 6	1.880							7.62				8.0	Oct. 1 - April 30	20 Mg/L 417 lbs/Day	20 Mg/L 417 lbs/Day	30 Mg/l 626 lbs/Day
Thu, Sep 7	1.820							7.67				8.0				
Fri, Sep 8	1.787							7.72				7.8	May1 - Sept. 30	10 Mg/L 209 lbs/Day	10 Mg/L 209 lbs/Day	15Mg/L 313 lbs/day
Sat, Sep 9	1.959							7.60				7.6				
Sun, Sep 10	2.337							7.55				7.7	NH3			
Mon, Sep 11	2.373							7.69				7.9	Oct.1 - Mar. 31	3.3 Mg/L	3.3 Mg/l	5.7 Mg/L
Tue, Sep 12	2.261	3.0	57	3.0	57	0.10	0.11	7.75	387			8.0				
Wed, Sep 13	2.645							7.50				8.1	Apr. 1 - May 31	2.5 Mg/L	2.5 Mg/l	5.7 Mg/l
Thu, Sep 14	2.667							7.66				8.2				
Fri, Sep 15	2.890							7.40				8.2	June1 - Sept. 30	1.0 Mg/L	1.0 Mg/L	1.5 Mg/L
Sat, Sep 16	2.920							7.43				8.1				
Sun, Sep 17	3.000							7.48				8.4	Total Phpsphorus			
Mon, Sep 18	2.759							7.57	141			8.5	Apr.1 - Oct.31	0.2 Mg/L	*****	*****
Tue, Sep 19	2.670	3.0	67	9.0	200	0.20	0.13	7.53				8.3				
Wed, Sep 20	2.009							7.59				8.4	Nov. 1 - Mar. 31	1.0 Mg/L	*****	*****
Thu, Sep 21	3.213							7.61				8.5				
Fri, Sep 22	2.652							7.50				8.5	Ph			
Sat, Sep 23	3.056							7.50				8.8	6.5 - 8.3			
Sun, Sep 24	3.113							7.60				8.6	E. Coli			
Mon, Sep 25	3.006							7.61				8.7	*****	126 CFU/100ml	*****	409 CFU/100ml
Tue, Sep 26	3.061							7.56	24			9.0				
Wed, Sep 27	2.892	3.0	72	2.0	48	0.10	0.09	7.55				9.0	Aluminum			
Thu, Sep 28	2.861							7.54				9.2	*****	88 ug/l	*****	*****
Fri, Sep 29	2.754							7.44				9.1				
Sat, Sep 30	2.728							7.53				9.2	Copper			
Daily Max	3.213	5.00	77.94	9.00	200.41	1.00	0.13	7.75	387.00	*****	*****	*****	May 1 - Sept. 30	> 7.4 mg/L		
Daily Min.	1.787	*****	*****	*****	*****	*****	*****	7.03	*****	*****	*****	7.60				
Month Avg.	2.532	3.50	68.50	4.50	91.75	0.35	0.12	7.55	95	3	4.0	*****	2.5 MGD			

6.0 ENERGY CONSUMPTION

6.1 ELECTRICAL OVERVIEW

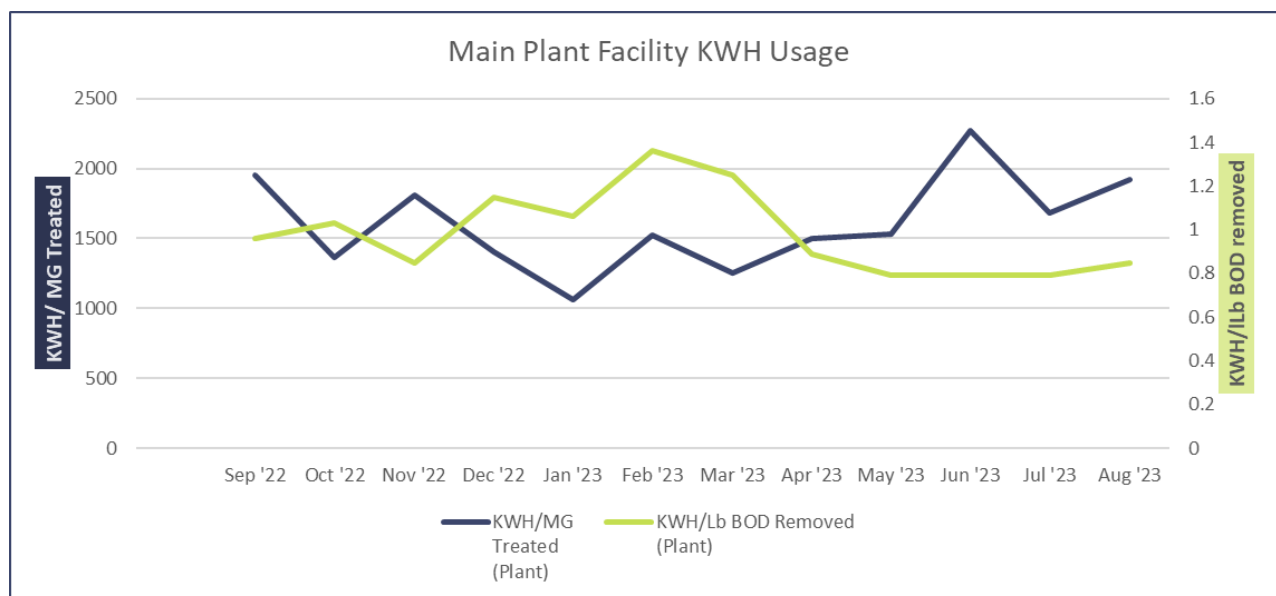
The department used a total of **131,493 KWH** for the month of September 2023. Of this total, the lift stations accounted for **8.3%**, using **10,893 KWH**. The Main Plant accounted for the remaining **120,600 KWH**. The KWH/ MG treated was **1,922** for the month and the KWH/Lb. BOD Removed was **0.85 KWH/Lb.** for the month.

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
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
May '23	2.5	77.4	118,800	1,535	151,100	0.79	183	189	12,637	131,437
Jun '23	1.73	52.04	118,200	2,271	149,709	0.79	183	201	12,127	130,327
Jul '23	2.07	64.26	108,300	1,685	137,511	0.79	222	231	10,113	118,413
Aug '23	2.02	75.95	120,600	1,922	142,457	0.85	192	201	10,893	131,493
Average	2.60	80.30	121,125	1,607	126,679	0.98	205	216	14,482	135,607



Monthly Lift Station KWH

Month	Hingham North	Hingham South	Spruce	Butternut	Old Country Way	Market	Woodsbury	Lincoln	Forest	Wheeler	Summer	Milbrook	John Burke	Total
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
May '23	2,373	3,800	114	69	956	695	1,034	201	1,587	57	59	1,459	233	12,637
Jun '23	2,040	4,200	145	62	887	409	1,116	186	1,714	65	63	1,064	176	12,127
Jul '23	1,810	3,600	157	57	897	306	868	156	1,159	56	58	891	98	10,113
Aug '23	2,145	3,400	109	58	911	313	838	163	1,933	59	56	818	90	10,893
Average	2,752	4,450	159	93	1,128	680	1,272	255	1,909	81	63	1,449	191	14,482



7.0 MAINTENANCE

7.1 WORK ORDER OVERVIEW

WO Type	Total This Month	Total This Year
Preventative Maintenance	177	527
Corrective Maintenance	7	47
Emergency Call Outs Total	3	8

7.2 EMERGENCY CALL OUTS FOR THE MONTH

Type	Total this Month	Total this Year
Sewer Back Up / Collection System	0	2
Pump Station	3	5
Plant	0	3
Odor	0	0
Power Outages	0	0
Total:	3	10

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. Dependable Petroleum monthly UST Inspection
6. Appollo Safety Quarterly Inspection – replaced methane sensor
7. Applied Dynamics – Annual Chain fall inspection

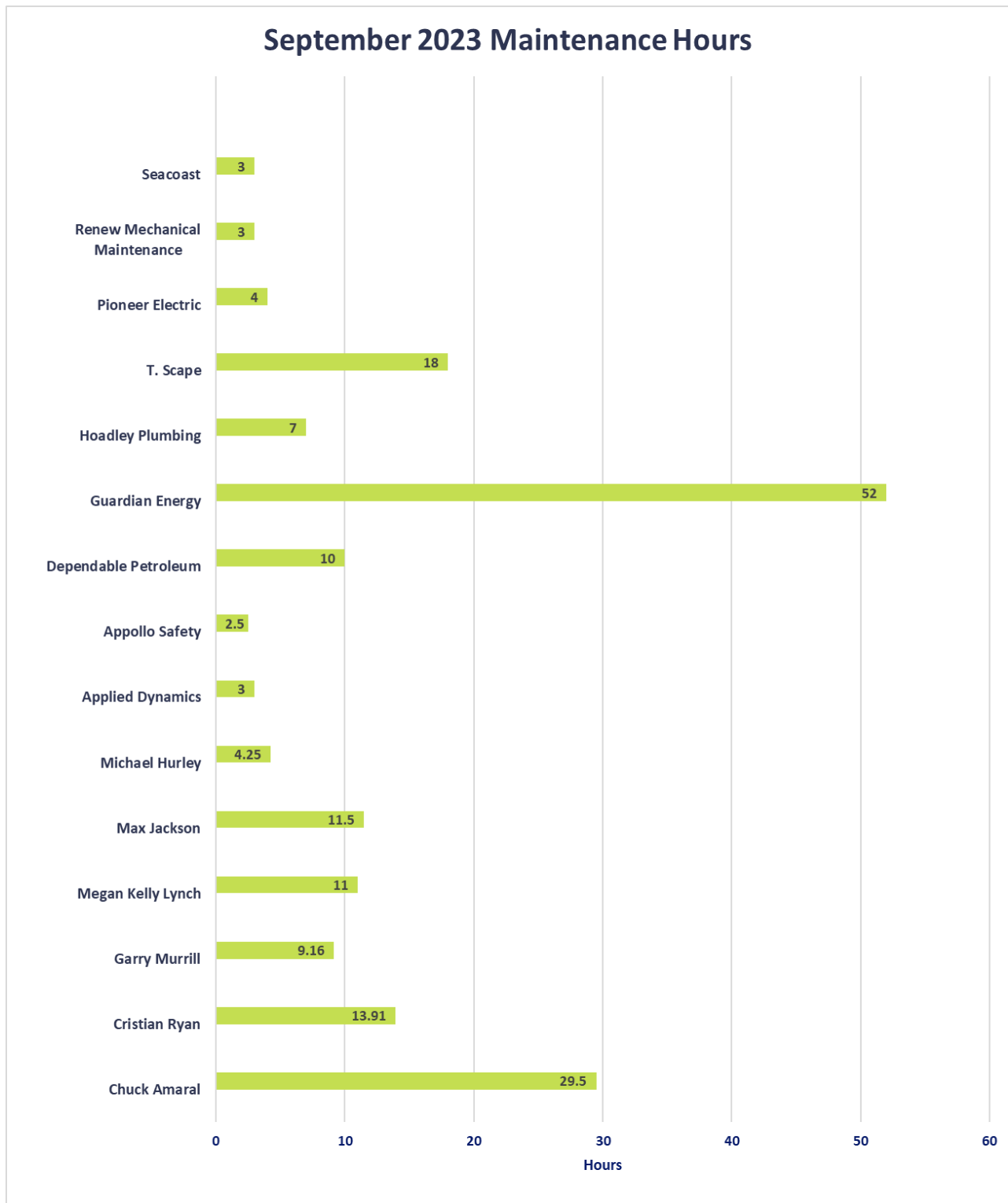
7.4 COLLECTION SYSTEM AND IPP ASSISTANCE PERFORMED BY VEOLIA

COLLECTION SYSTEM ASSISTANCE:

Type	Total This Month	Total This Year
Sewer Inspection / Tie-Ins	0	0
Sewer Location mark Outs	44	250
Sewer Back Up	0	0

7.5 WORK ORDER STATISTICS

There were 181.82 total reported maintenance hours during the month. Of this total, outside contractors accounted for 56% with **102.5** 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	\$9,842.28	\$28,713.56	\$71,286.44

8.1 SIGNIFICANT R&M PURCHASES

1. Appollo Safety Replaced Headworks Methane Sensor \$1,740.00
2. Applied Dynamics annual OSHA chain fall inspections \$1,560.00
3. Economy Lab Services annual lab calibration \$1,160.00
4. Pioneer Electric installed Hingham South mixer \$1,098.00

9.0 ATTACHED REPORTS

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