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COMMITMENT & INTEGRITY DRIVE RESULTS

# HULL WATER POLLUTION CONTROL FACILITY

MAY  
2023

## MONTHLY OPERATING REPORT



NPDES NO. MAG590037

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# 1 EXECUTIVE SUMMARY

**This Monthly Operating Report provides a summary of the pertinent information and activities that occurred at Hull WPCF during the month of May 2023.**

- No lost-time incidents for the month of May.
- Continuing Covid-19 awareness- adhering to W&C, Town of Hull, and CDC guidelines and sharing any protocol updates.
- There were 162 effluent samples taken in May.
- There were no after-hours alarm calls that required a response by W&C staff.
- The Asset Management Accounts summaries for contract year #8 is attached- the latest revision date is 5/6/2023.
- There was one call from a resident for an E-One grinder pump issue.
- W&C's O&M continued its efforts to support the various ongoing engineering projects and upgrades at the plant- see the projects section.
- The weekly BioBot Covid-19 wastewater sampling & monitoring program continued with W&C staff assisting Brian Kiley of the HSD when needed.

***Mike Sullivan – Plant Manager***

***Town of Hull WPCF***

***7/6/2023***

**Woodard & Curran strives to deliver a high-quality operations service and is responsive to our customers' concerns. Please feel free to request any modifications to the format or content of this report.**

## 2 FLOWS AND LOADINGS



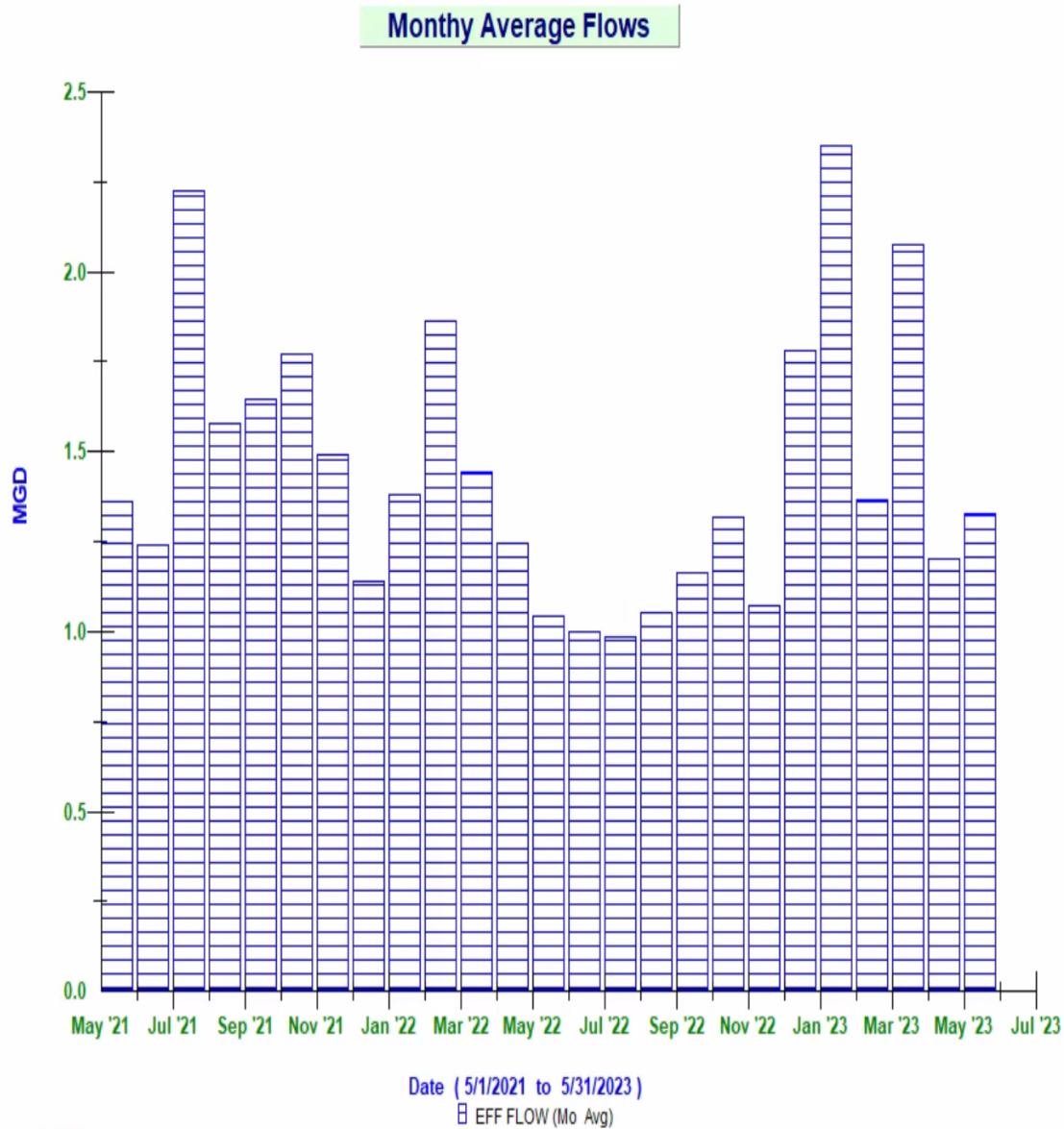
### Average Daily Flows and Loadings for *MAY 2023*

Month / Year	Eff Flow	Inf Flow	Inf BOD	Inf TSS	Eff BOD	EFF TSS
	MGD	MDG	LBS	LBS	LBS	LBS
May '21	1.36	1.47	1,590.23	2,080.35	41.12	83.10
May '22	1.04	1.09	1,249.58	1,739.44	29.35	68.42
May '23	1.33	1.36	1,690.94	2,045.02	41.51	83.50

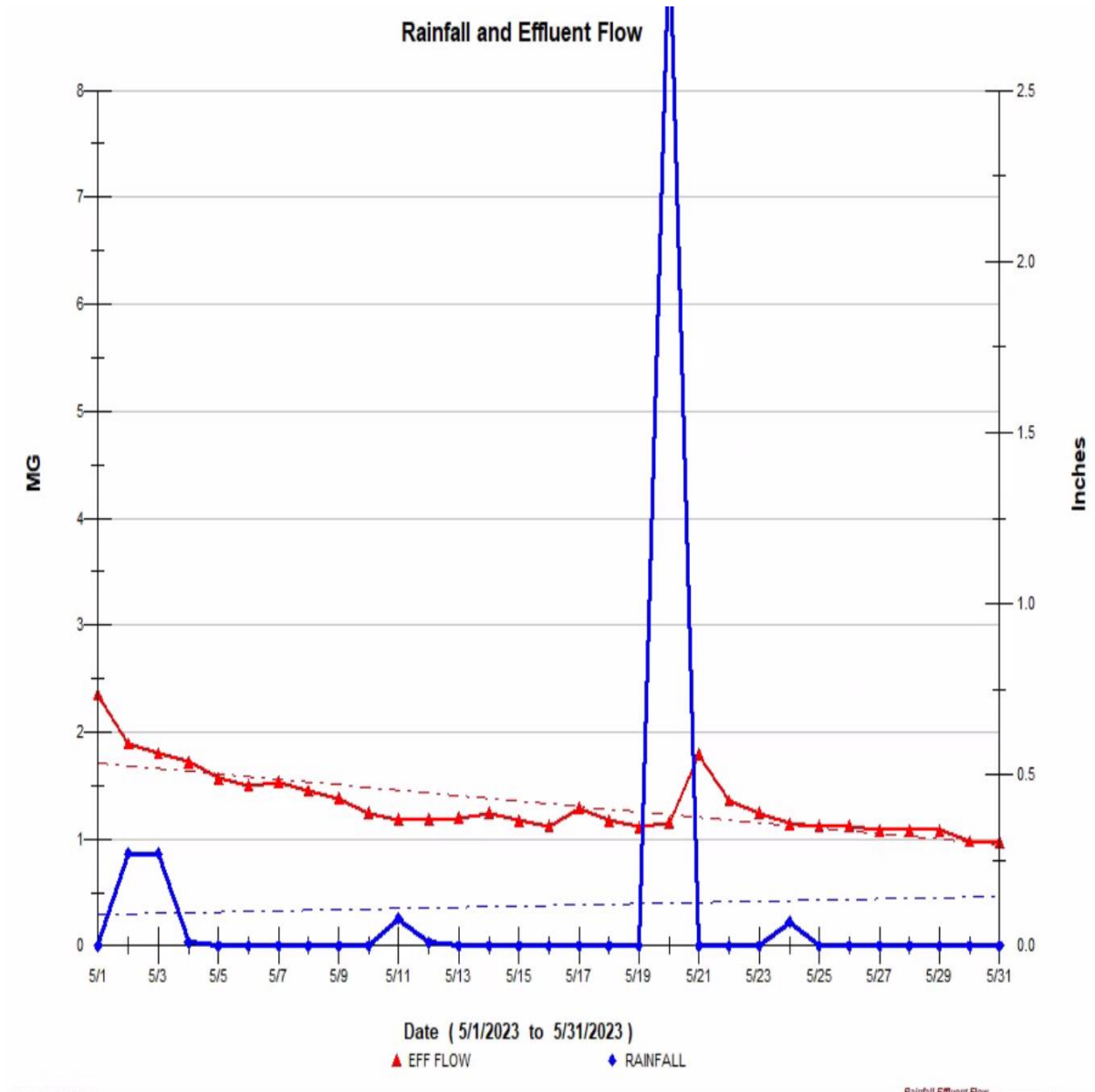
\* On-Going -the existing influent flow meters are strap-on doppler flow meters, and the existing pipe condition prevents getting a strong signal. An area velocity meter in the aeration tank inlet channel is used as well as the headworks influent Parshall Flume meter to monitor influent flows. All reported loadings are based on the effluent flow meter [new mag meter April 2021]. All meters are tied into the Scada system so that influent flows can be monitored.

### AVERAGE EFFLUENT MONTHLY FLOWS – 2+ YEAR COMPARISON

The monthly average flow for May was 1.33 MGD, less than the 2.07 MGD seen in April. The total precipitation for May was 4.31 inches, a bit more than April's 3.90 inches, and with no impact on the plant's process conditions. The graph below shows the 2-plus year summary of the monthly average flows.



## TWO MONTH SUMMARY OF RAINFALL AND THE INFLUENCE ON EFFLUENT FLOWS



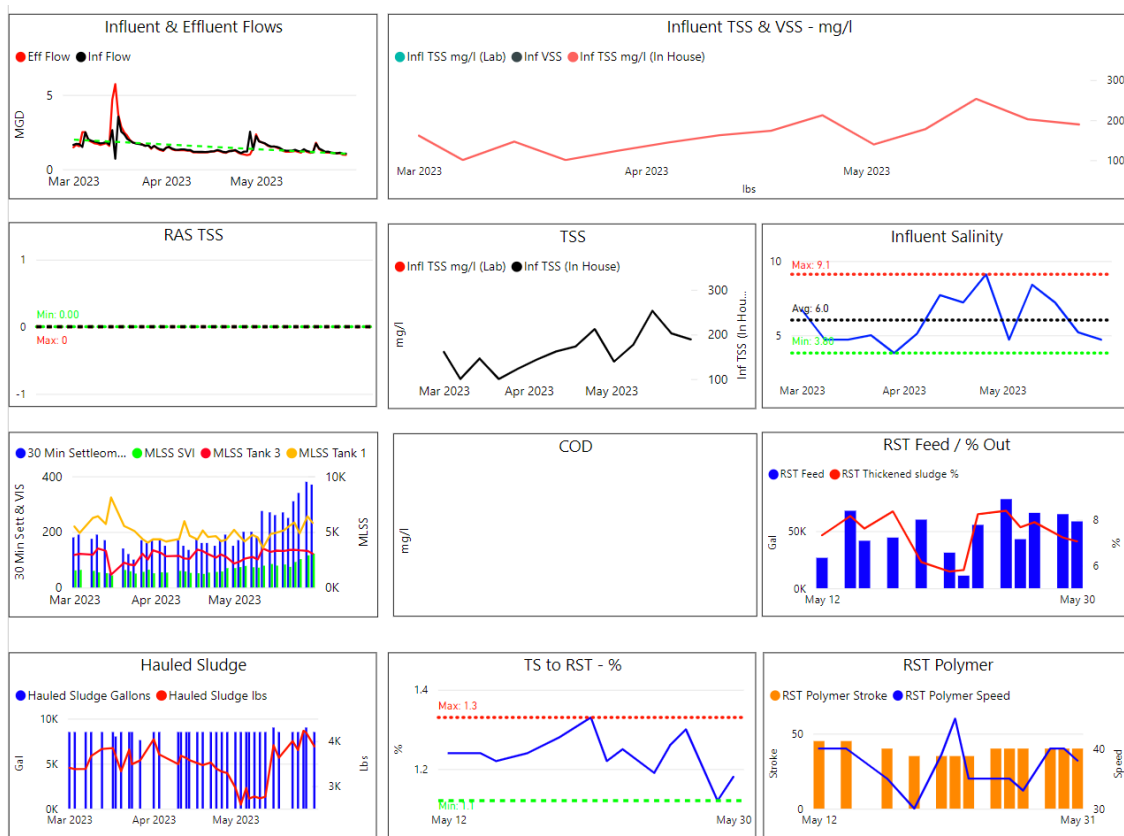
This graph shows the days where precipitation occurred [rainfall] [Blue Peaks].

# 3 COMPLIANCE



## ➤ Plant Effluent

- The plant process conditions throughout May were steady.



Monthly Process Summary graphs from power BI: March-April-May 2023.

## ➤ SECONDARY PROCESSES – POWER BI GRAPHS

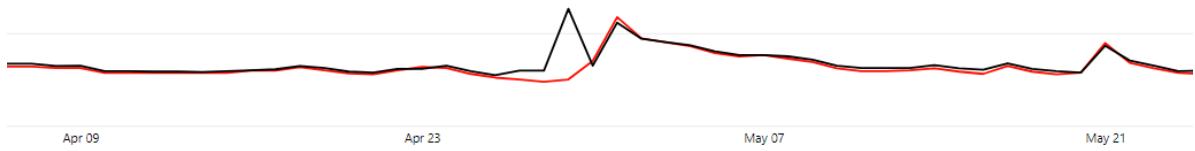
### Hull Wastewater Treatment Facility

4/1/2023

5/31/2023

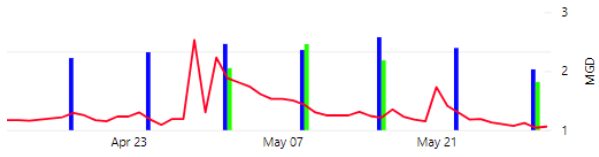


Influent & Effluent Flows

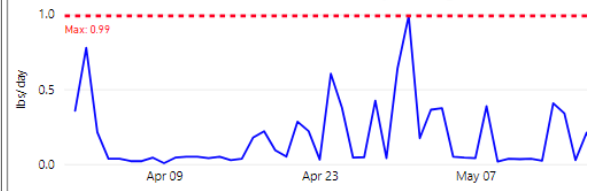


Flow and Loadings

e) ● Inf BOD lbs/day ● Inf Flow

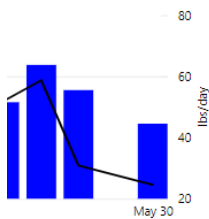


CL2 Daily Average



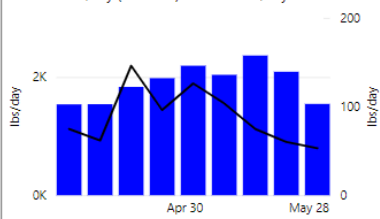
3OD

lbs/day

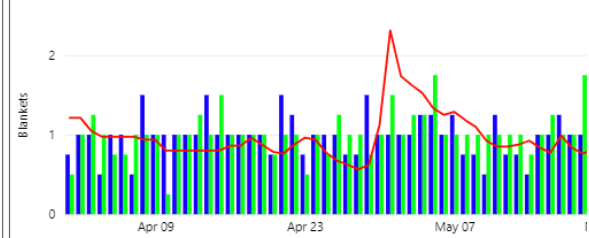


TSS

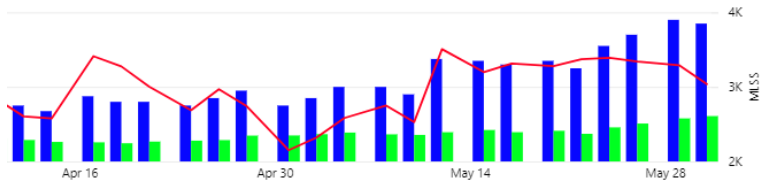
● Inf TSS lbs/day (In House) ● Eff TSS lbs/day



● Sec 2 Blanket ● Sec 1 Blanket ● Eff Flow



r ● MLSS SVI ● MLSS Tank 3



BOD & TSS Removal

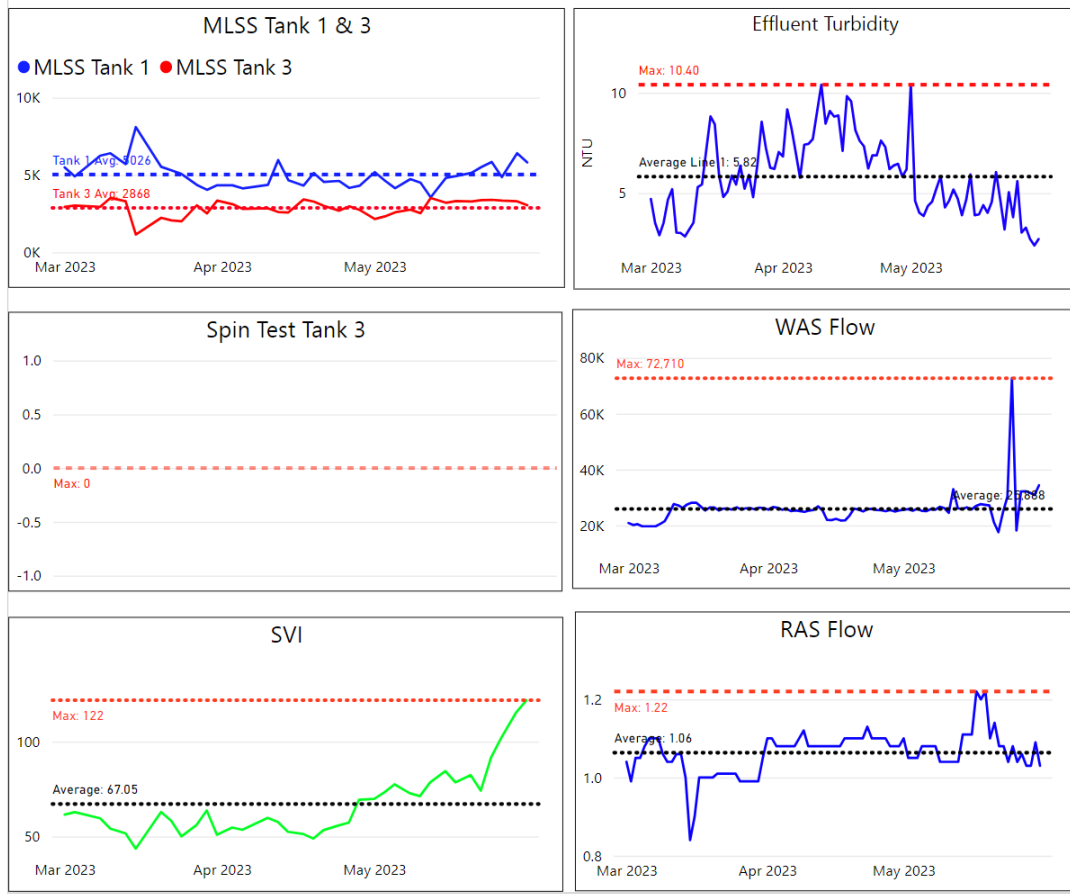
Date	Eff TSS Removal	Eff BOD Removal
7/31/2021	93.82	95.73
8/31/2021	98.00	98.43
9/30/2021	97.95	94.78
10/31/2021	97.05	97.68
11/30/2021	98.32	98.03
12/31/2021	95.25	97.41
1/31/2022	92.72	96.96

Vio

Date NOTES  
4/12/2023 EFF Enteroc

2-month period ending on 5/31/2023.





**Additional Power BI Graphs showing trends of various processes – 3/1/2023- 5/31/2023.**

## 4 KEY PERFORMANCE INDICATORS



<u>Permit Compliance</u>												
Parameter Info			Permit Requirements					Results				
Parameter	Hach WIMS Variable #	Units	Daily Max	Daily Min	Weekly Avg Max	Monthly Avg Max	Freq	Period Avg	Period Min	Period Max	# of Samples	# of Violations
Eff TSS	104 / 999081	MG/L	50		45	30	1 X Week	7.5	5.8	9.0	5	0
Eff TSS	184	LBS			1152	768	1 X Week	83.5	53.1	126.1	5	0
% TSS Rem	208	%		85			1 X Month	96.1			1	0
Eff BOD	108	MG/L	50		45	30	1 X Week	3.5	3.0	5.1	5	0
Eff BOD	185	LBS			1152	768	1 X Week	41.5	24.5	58.7	4	0
% BOD Rem	207	%		85			1 X Month	97.8			1	0
Eff Chlorine	142	MG/L	1			0.7	3 X Day	0.23	0.02	0.99	93	0
Eff Fecal	111	#/100 ML	260			88	1 X Week	10.0	10.0	10.0	14	0
Eff pH	136	SU	8.5	6.5			1 X Daily	6.8	6.6	7.2	31	0
Enterococci	255	#/100 ML	276			35	1 X Week	10	10	10	5	0

There were 162 effluent samples taken in May.

## ➤ EFFLUENT COMPLIANCE POWER BI GRAPHS

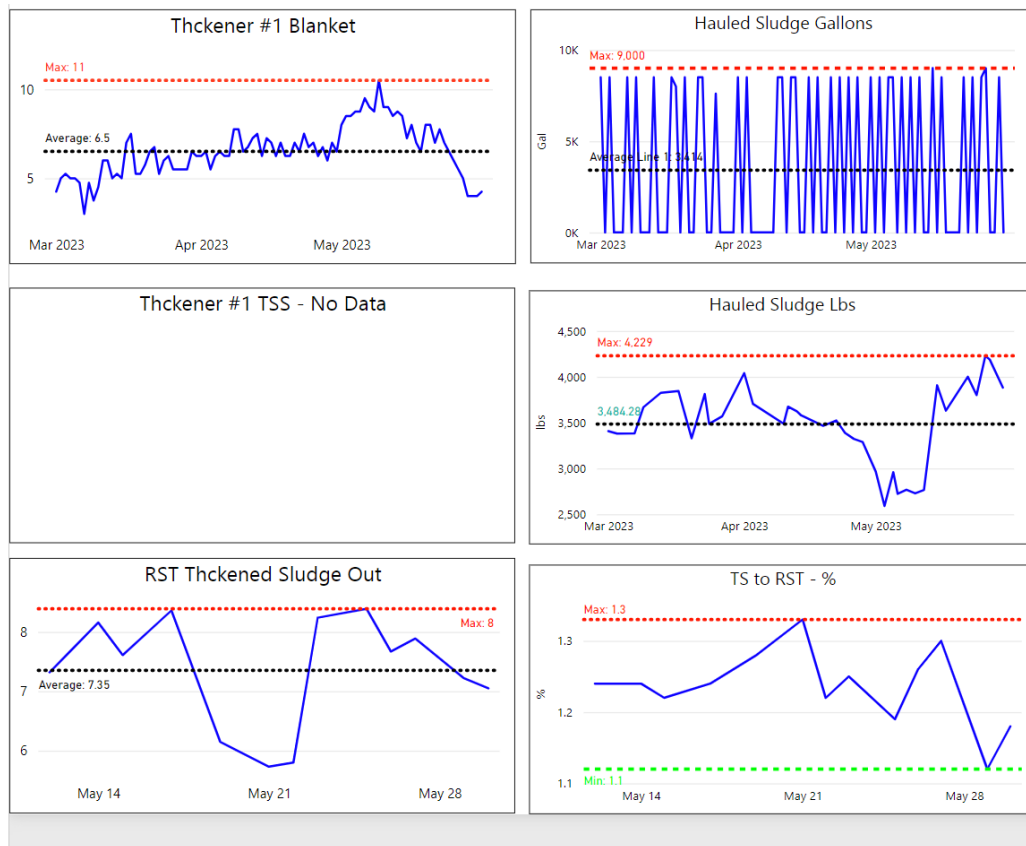


The quality of the effluent was satisfactory, and the turbidity (NTU) levels were normal.

### Sewage Gallons Treated vs Sludge Disposed

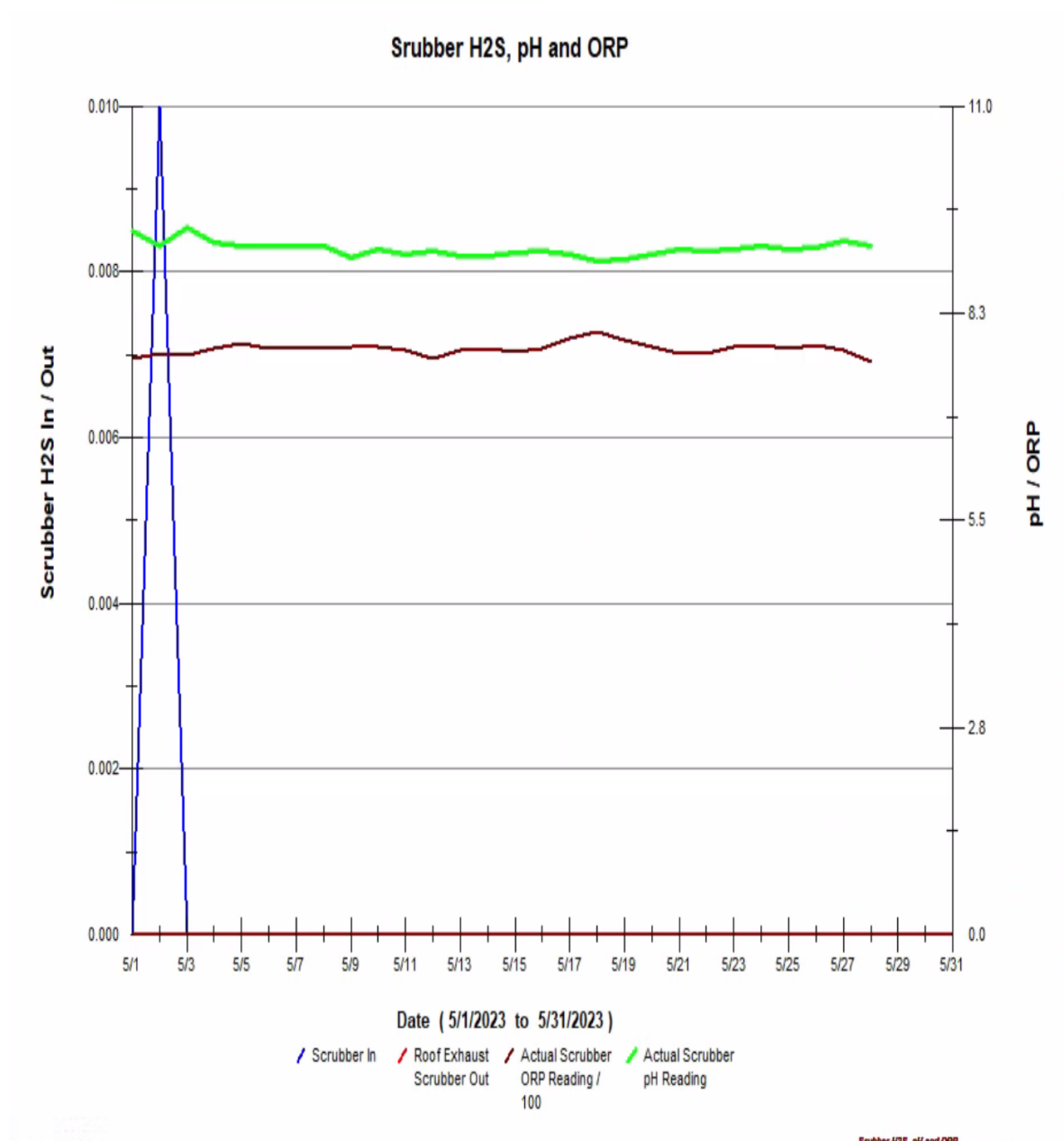
Month	Effluent Treated, MG	Sludge Disposed, Gals
May 2021	42.3	131,500
May 2022	32.3	112,000
May 2023	41.2	120,000

➤ **Additional Power BI graphs for sludge solids for 3-month period ending 5/31/2023.**



The Bioxide system was on, but the feed rates were minimal, as normal seasonal temperatures were cooler. Monthly graphs are attached below, and the daily average Bioxide use for May was about XX gallons per day.

- The “In-Pipe” bacteria containers in the collection system manholes were changed out on May 1st and 26th.
- Slight changes - Hydrogen sulfide (H<sub>2</sub>S) monitoring units were recording and trending on the odor scrubber. [inlet and outlet]. Increased scrubber fan speed slightly. See graph below:



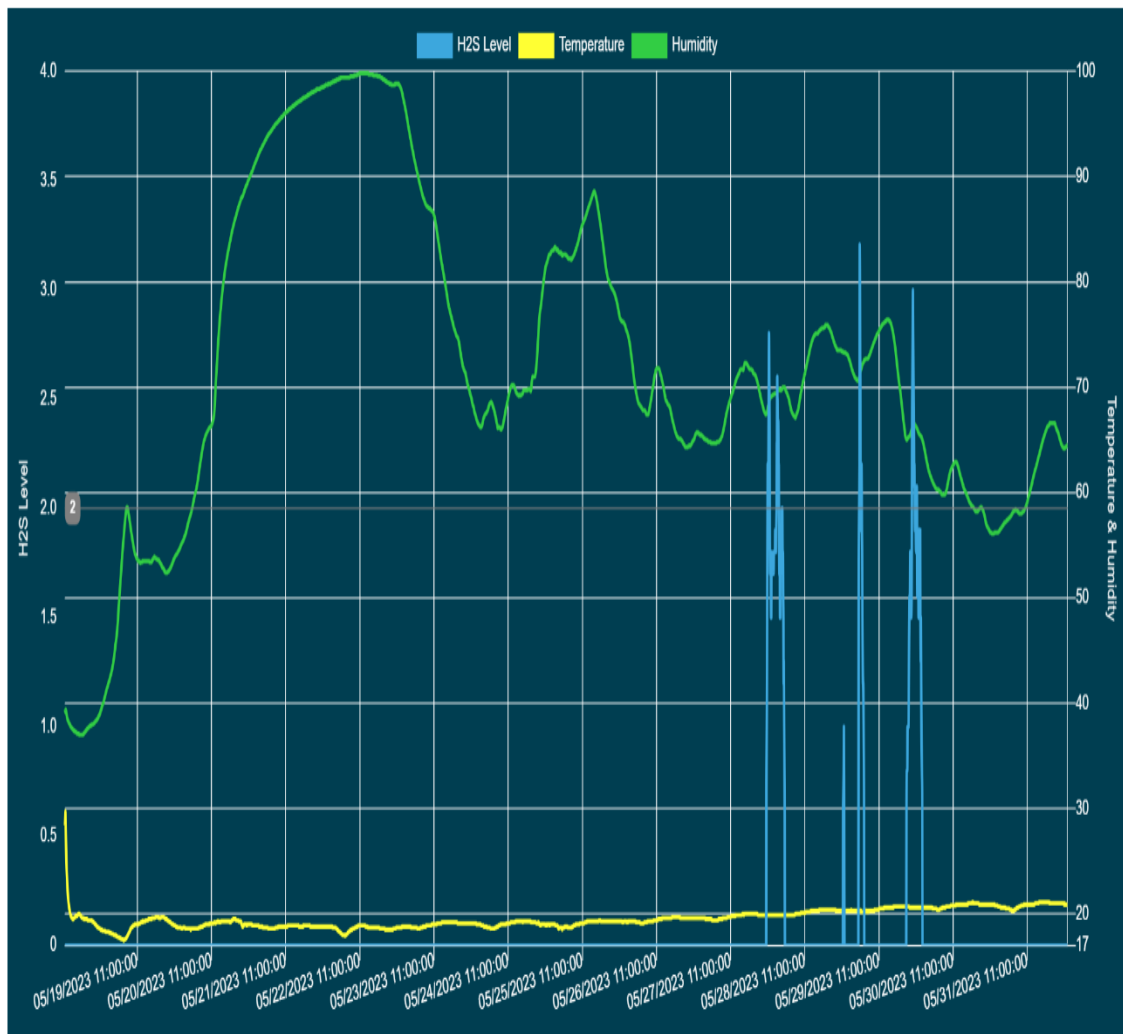
[pictured below: Scrubber trend and trending graphs for H2S levels recorded from the vapor link system cellular at XYZ Street/Nantasket Ave and Nantasket Ave/Water Street manholes.

# XYZ – Nantasket Ave [closest to plant]

05/01/2023 00:00:00

05/31/2023 23:59:59

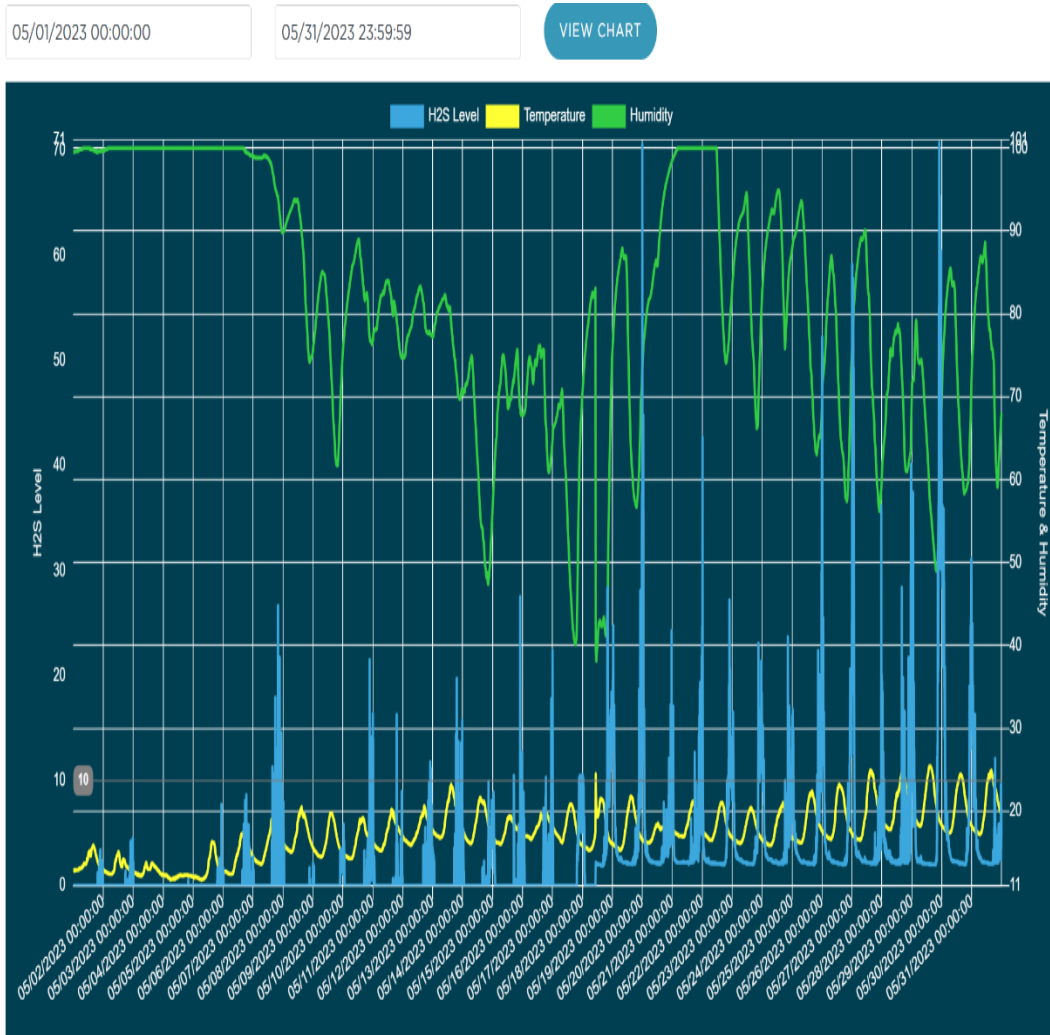
VIEW CHART



The odor data logging unit at XYZ monitoring the overall H2S levels close to the plant. From the graph, the daily pattern of H2S levels see a rise in the mid-afternoon until late evening/early AM.

## Nantasket Ave/Water Street [ at end of PS 3 force main and PS 4 discharge]

Pump station #3 - H2S is monitored at the end of the force main in the manhole at Nantasket Ave & Water Street. Bioxide is added to allow excess nitrate in the sewage system to treat the additional H2S added from other parts the system – such as PS #4, contributions from lines feeding the interceptor - PS #5, PS #6, PS #9, Spinnaker Island, etc., all the way to the wastewater plant. H2S levels through March were minimal with generally mild temps for wintertime, and adjustments for substantially less Bioxide feed were made. The average daily use of Bioxide in the collection system through May was 55 gallons per day.



Nantasket Ave

# 5 MAINTENANCE SUMMARY

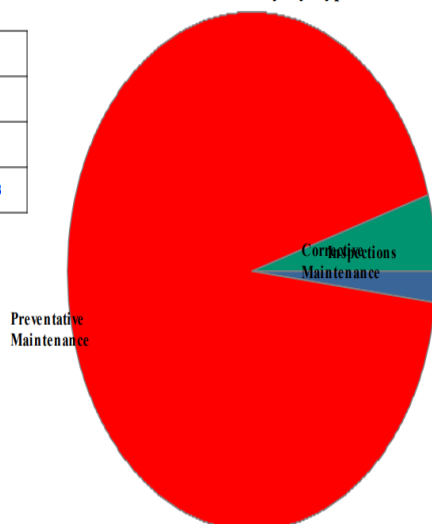


## Maintenance History Report Hull Wastewater

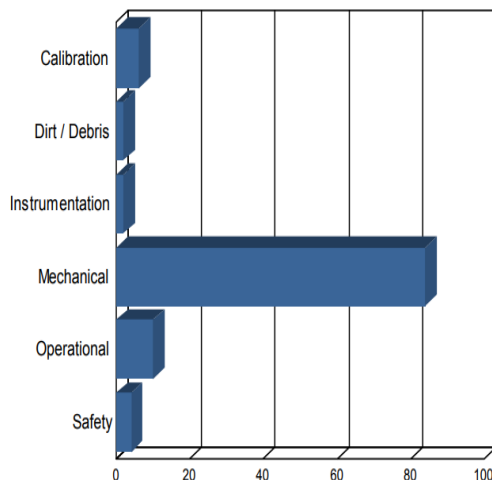
Start Date: 5/1/2023  
End Date: 5/31/2023

Corrective Maintenance	2
Inspections	5
Preventative Maintenance	101
<b>Total Work Orders</b>	<b>108</b>

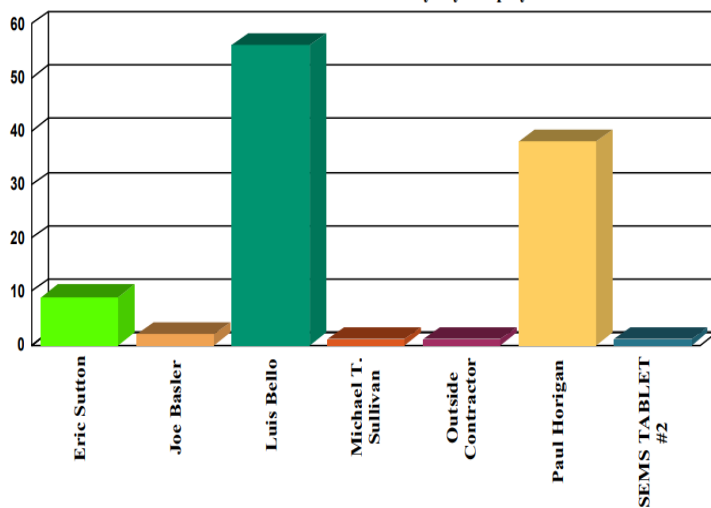
Work Order History By Type



Work Order History by Reason



Work Order History By Employee



Employee	WO Count	Labor Hours
Eric Sutton	9	4
Joe Basler	2	0
Luis Bello	56	2
Michael T. Sullivan	1	1
Outside Contractor	1	1
Paul Horigan	38	34
SEMS TABLET #2	1	0
<b>Totals</b>	<b>108</b>	<b>43</b>



## 6 SAFETY



It is Woodard & Curran's policy to maintain a safe and healthy working environment for all employees and to comply with all applicable occupational health & safety regulations.

- No lost time incidents were reported for May.
- Monthly PM's - emergency eyewash and shower inspections, fire extinguishers, and emergency lighting inspections completed.
- Monthly calibrations were performed on all MX4 & Max XT11 gas meters.
- On-going Covid-19 Pandemic awareness with daily review and as needed and keeping in contact with all onsite contractors regarding Hull and W&C covid-19 protocols.
- W&C's Pure Safety topic for May was Hazzard Communications.
- The monthly W&C SPARKS safety meeting was held on May 29, including a review of W&C's monthly "Lessons Learned!"
- W&C's monthly safety inspection checklist for the plant was completed.

## 7 STAFF DEVELOPMENT

**Training is an important part of any operation to ensure employee health and safety is assured, quality standards are supported, staff skills are improved, career opportunities become available, and higher productivity is achieved.**

**Listed is a general outline of training that the staff received over the course of the month:**

- All staff completed W&C's monthly Pure Safety training module and our monthly safety meeting was held on May 29. Topics discussed were landscaping & mower safety, ticks, and poisonous plants about our jobsites. Staff also reviewed the "near-miss" incidents occurring at all W&C projects during the month of April in "Lessons Learned!"
- Regular, usually daily, operational updates and process control discussions, pump station operations, Dig Safes, and the HVAC construction project work scope ongoing at the plant. Daily safety briefings and Covid-19 protocol updates if necessary.

### **Staffing related items:**

- Plant continued to have weekend coverage supplemented with part-time staffers Roger Boltrushek and Ryan Holman, in addition to Mike S, Joe B, Luis B, Eric S, and Joel T.
- O&M Specialists Paul Horigan and Jody St George continue to assist as needed with plant O&M projects.
- Sadly, operator Joel Terrio left W&C for a position in South Carolina that is more in line with his career path and goals- our BEST WISHES to Joel.

## 8 COLLECTION SYSTEM

### A. WET WELL CLEANING

The actual schedule for wet well cleaning: May 2023 to April 2024:

(X-Cleaned) - (Orange – Inspected) - (Green – See notes) - (blank – no work done)

Frequency of cleaning	Pump Station							
	A	1	3	4	5	6	9	D
May, 2023								
June, 2023	X			X				
July, 2023								
Aug., 2023								
Sept. 2023								
Oct., 2023								
Nov, 2023								
Dec., 2023								
Jan., 2024								
Feb., 2024								
March 2024								
April 2024								

All pump stations except for Pump Station 3 and Station D have an aerator/mixer in the wet wells.

## **B. COLLECTION SYSTEM MAINTENANCE**

**Collection system work is being documented and tracked in Utility Cloud [UC] and a summarized report for September has been included as an attachment with the Monthly Operating Report.**

**Woodard & Curran assisted/conducted camera work and sewer system support in the Hull collection system at the following areas during the month of September. Ongoing backup and blockage call outs requiring an increase in labor and time to support. Below summarizes W&C's efforts at the various call out locations.**

There was one call for an E-One Grinder pump– see UC summary.

- Pump stations' back-up power emergency generator testing- consisting of weekly no load running and a monthly loaded running.
- All Pump station wet wells were inspected in May- the monthly station inspections are completed and combined with the monthly station PM's.
- Upload new or updated tie-cards to the UC as required.
- Dig-Safe mark outs are completed throughout the Town of Hull as needed to assist and facilitate scheduled and emergency gas repairs, broken water mains, roadway paving projects, and other residential and town projects. All are listed in the UC summary.

## 9 PROJECT MANAGEMENT & ADMINISTRATION



### A. ON-GOING PROJECTS AND SUPPORT ITEMS

#### May updates:

- Phase 1 construction work in the operations building is nearly complete with just some minor punch list tasks being addressed. Phase 2 lead contractor Barletta Engineering of Canton, MA has been onsite periodically- at this time they are waiting on parts to arrive- such as electrical MCCs, influent pumps, and aeration parts for tanks 2 & 4.
- Plant Manager Mike S. and Assistant Plant Manager Joe B. continue to meet weekly with John S. and Brian K. to discuss the Hull Sewer Department operations, any treatment plant issues, collection system maintenance, and any upcoming projects.
- At Pump Station # 9 on May 18 a new cooling fan unit was needed for the VFD for pump #1- as the VFD showed overtemp fault would not allow the pump to run. The fan unit mounts underneath the VFD drive unit and draws in cooling air.

Date	Asset ID	Asset Description	Asset Class	Name
5/31/2023 13:13	04-010	16 ANDREW AVE	Hull Parcels	Sutton, Eric
5/6/2023 13:21	05-029	1 VAUTRINOT AVE	Hull Parcels	Sutton, Eric
5/31/2023 13:16	05-029	1 VAUTRINOT AVE	Hull Parcels	Sutton, Eric
5/31/2023 13:15	05-077	71 HIGHLAND AVE	Hull Parcels	Sutton, Eric
5/18/2023 7:21	06-069	109 SPRING ST	Hull Parcels	Sutton, Eric
5/9/2023 10:35	06-076	27 JAMES AVE	Hull Parcels	Sutton, Eric
5/6/2023 13:18	10-006	0 PT ALLERTON AVE	Hull Parcels	Sutton, Eric
5/17/2023 11:51	13-122	5 Q STREET	Hull Parcels	Sutton, Eric
5/10/2023 10:03	15-031	46 K STREET	Hull Parcels	Sutton, Eric
5/15/2023 12:38	15-036	36 K STREET	Hull Parcels	Sutton, Eric
5/9/2023 10:31	16-144-A	40 A H STREET	Hull Parcels	Sutton, Eric
5/9/2023 10:32	16-146	36 H STREET	Hull Parcels	Sutton, Eric
5/23/2023 11:13	17-042	197 BEACH AVE	Hull Parcels	Sutton, Eric
5/1/2023 13:42	17-121	65 E STREET	Hull Parcels	Sutton, Eric
5/29/2023 10:57	18-018	25 B STREET	Hull Parcels	Sutton, Eric
5/10/2023 10:06	18-104	5 PROSPECT AVE	Hull Parcels	Sutton, Eric
5/17/2023 11:49	19-068	165 BEACH AVE	Hull Parcels	Sutton, Eric
5/22/2023 14:32	19-087	189 A SAMOSET AVE	Hull Parcels	Sutton, Eric
5/24/2023 14:58	19-093	195 A SAMOSET AVE	Hull Parcels	Sutton, Eric
5/1/2023 13:40	19-144-A	182 SAMOSET AVE	Hull Parcels	Sutton, Eric
5/18/2023 13:47	19-163	141 BEACH AVE	Hull Parcels	Sutton, Eric
5/9/2023 10:28	20-053	55 PROSPECT AVE	Hull Parcels	Sutton, Eric
5/30/2023 14:50	21-065	101 MANOMET AVE	Hull Parcels	Sutton, Eric
5/3/2023 11:14	23-086	6 WARREN STREET	Hull Parcels	Sutton, Eric
5/1/2023 13:39	23-136	88 MANOMET AVE	Hull Parcels	Sutton, Eric
5/9/2023 10:33	25-119	52 A SAMOSET AVE	Hull Parcels	Sutton, Eric
5/23/2023 11:04	26-014	59 BATES ST	Hull Parcels	Sutton, Eric
5/14/2023 14:04	29-097	62 WHITEHEAD AVE	Hull Parcels	Sutton, Eric
5/23/2023 10:16	30-044	108 EDGEWATER RD	Hull Parcels	Sutton, Eric
5/16/2023 11:41	31-078	29 CLIFTON AVE	Hull Parcels	Sutton, Eric
5/23/2023 11:20	34-097	247 NANTASKET AVE	Hull Parcels	Sutton, Eric
5/3/2023 11:13	36-017	47 BAY STREET	Hull Parcels	Sutton, Eric
5/26/2023 14:38	36-111	20 STANDISH RD	Hull Parcels	Sutton, Eric
5/5/2023 9:25	36-176	0 HAMPTON CIRCLE	Hull Parcels	Sutton, Eric
5/25/2023 10:00	36-176	0 HAMPTON CIRCLE	Hull Parcels	Sutton, Eric
5/17/2023 11:55	39-120	50 WYOLA RD	Hull Parcels	Sutton, Eric
5/4/2023 14:30	39-145	1 ROCKVIEW RD	Hull Parcels	Sutton, Eric
5/24/2023 13:30	44-045	175 GEO WASH BLVD	Hull Parcels	Sutton, Eric
5/30/2023 13:43	47-081	97 NORTH TRURO ST	Hull Parcels	Sutton, Eric
5/14/2023 14:02	47-098	125 NORTH TRURO ST	Hull Parcels	Sutton, Eric
5/24/2023 13:39	48-005	280 ATLANTIC AVE	Hull Parcels	Sutton, Eric
5/24/2023 13:39	48-005	280 ATLANTIC AVE	Hull Parcels	Sutton, Eric
5/5/2023 9:23	48-029	16 STATE PARK RD	Hull Parcels	Sutton, Eric

5/1/2023 13:37 49-077	10 VALLEY BEACH AVE	Hull Parcels	Sutton, Eric
5/23/2023 10:28 51-006	181 ATLANTIC AVE	Hull Parcels	Sutton, Eric
5/29/2023 12:14 51-006	181 ATLANTIC AVE	Hull Parcels	Sutton, Eric
5/31/2023 13:10 51-033	40 STONY BEACH RD	Hull Parcels	Sutton, Eric
5/17/2023 11:58 51-076	12 MAPLE LANE	Hull Parcels	Sutton, Eric
5/26/2023 14:39 52-006	34 GUN ROCK AVE	Hull Parcels	Sutton, Eric
5/17/2023 12:01 52-039	143 A ATLANTIC AVE	Hull Parcels	Sutton, Eric
5/3/2023 9:16 56 Salisbury St	56 Salisbury St Grinder Pump	Hull Grinder Pumps	Sutton, Eric
5/17/2023 12:09 56-037	1153 NANTASKET AVE	Hull Parcels	Sutton, Eric
5/25/2023 14:20 Bateria UNIT #21	UNIT #21	Hull In Pipe Bateria Unit	Sutton, Eric
5/25/2023 14:41 Bateria UNIT #22	UNIT #22	Hull In Pipe Bateria Unit	Sutton, Eric
5/25/2023 14:16 Bateria UNIT # 8	UNIT # 8	Hull In Pipe Bateria Unit	Sutton, Eric
5/25/2023 14:12 Bateria UNIT #1	UNIT #1	Hull In Pipe Bateria Unit	Sutton, Eric
5/25/2023 14:16 Bateria UNIT #10	UNIT #10	Hull In Pipe Bateria Unit	Sutton, Eric
5/25/2023 14:18 Bateria UNIT #11	UNIT #11	Hull In Pipe Bateria Unit	Sutton, Eric
5/25/2023 14:40 Bateria UNIT #12	UNIT #12	Hull In Pipe Bateria Unit	Sutton, Eric
5/25/2023 14:39 Bateria UNIT #13	UNIT #13	Hull In Pipe Bateria Unit	Sutton, Eric
5/25/2023 14:21 Bateria UNIT #14	UNIT #14	Hull In Pipe Bateria Unit	Sutton, Eric
5/25/2023 14:27 Bateria UNIT #15	UNIT #15	Hull In Pipe Bateria Unit	Sutton, Eric
5/25/2023 14:19 Bateria UNIT #16	UNIT #16	Hull In Pipe Bateria Unit	Sutton, Eric
5/25/2023 14:17 Bateria UNIT #17	UNIT #17	Hull In Pipe Bateria Unit	Sutton, Eric
5/25/2023 14:18 Bateria UNIT #18	UNIT #18	Hull In Pipe Bateria Unit	Sutton, Eric
5/25/2023 14:18 Bateria UNIT #19	UNIT #19	Hull In Pipe Bateria Unit	Sutton, Eric
5/25/2023 14:13 Bateria UNIT #2	UNIT #2	Hull In Pipe Bateria Unit	Sutton, Eric
5/25/2023 14:19 Bateria UNIT #20	UNIT #20	Hull In Pipe Bateria Unit	Sutton, Eric
5/25/2023 14:40 Bateria UNIT #23	UNIT #23	Hull In Pipe Bateria Unit	Sutton, Eric
5/25/2023 14:11 Bateria UNIT #24	UNIT #24	Hull In Pipe Bateria Unit	Sutton, Eric
5/25/2023 14:17 Bateria UNIT #3	UNIT #3	Hull In Pipe Bateria Unit	Sutton, Eric
5/25/2023 14:11 Bateria UNIT #4	UNIT #4	Hull In Pipe Bateria Unit	Sutton, Eric
5/25/2023 14:14 Bateria UNIT #5	UNIT #5	Hull In Pipe Bateria Unit	Sutton, Eric
5/25/2023 14:14 Bateria UNIT #6	UNIT #6	Hull In Pipe Bateria Unit	Sutton, Eric
5/25/2023 14:15 Bateria UNIT #7	UNIT #7	Hull In Pipe Bateria Unit	Sutton, Eric
5/25/2023 14:42 Bateria UNIT #9	UNIT #9	Hull In Pipe Bateria Unit	Sutton, Eric
5/18/2023 7:33 MH-20097	SEMS_Asset	Sanitary Manhole	Sutton, Eric
5/16/2023 15:00 MH-20873	SEMS_Asset	Sanitary Manhole	Sutton, Eric





[illegible]



# Maintenance History Report

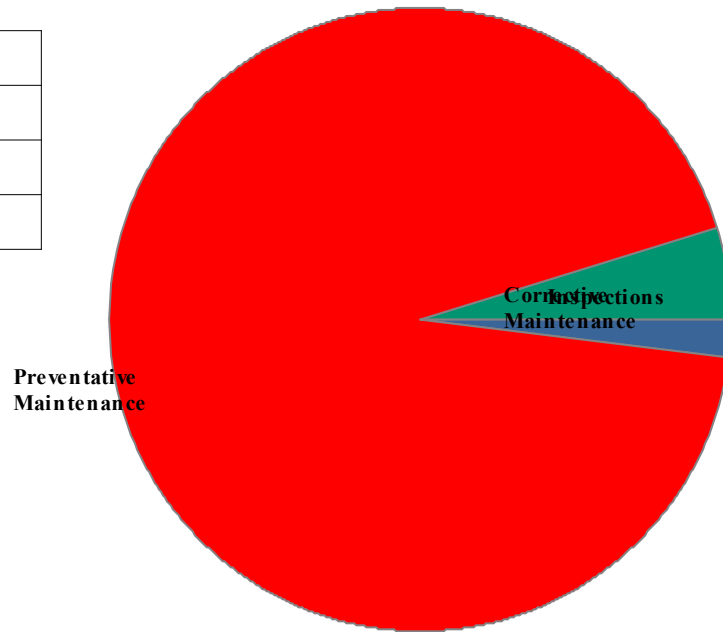
Start Date: 5/1/2023

End Date: 5/31/2023

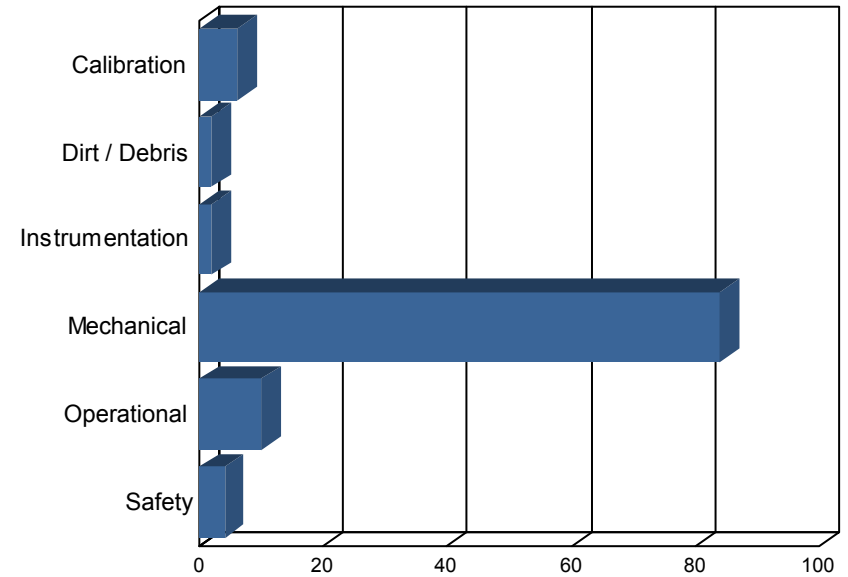
## Hull Wastewater

### Work Order History By Type

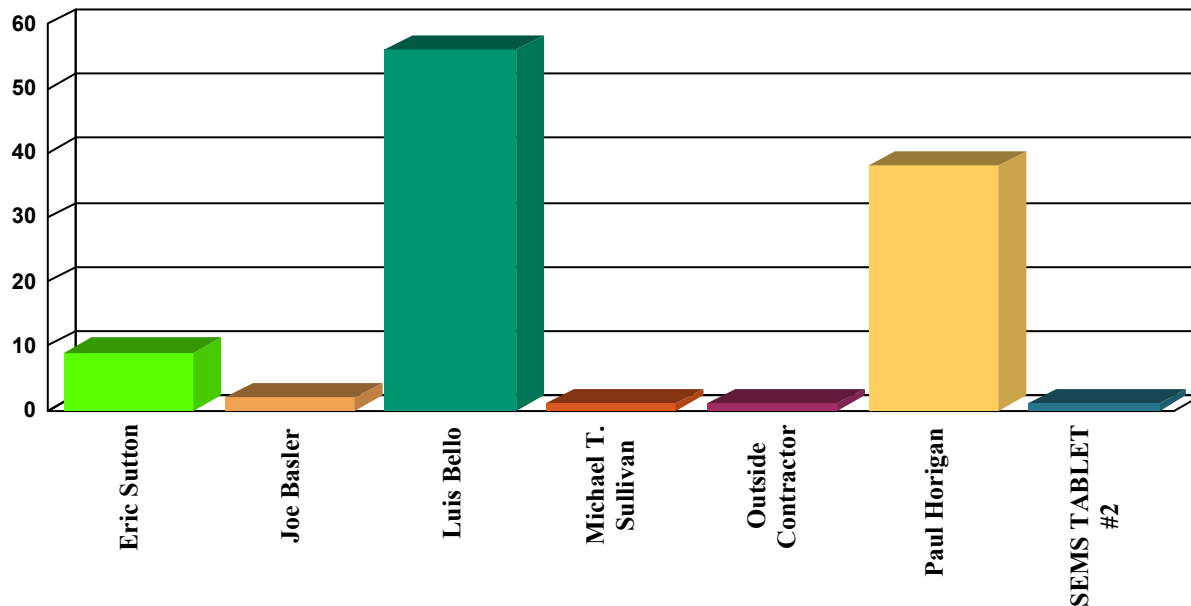
Corrective Maintenance	2
Inspections	5
Preventative Maintenance	101
<b>Total Work Orders</b>	<b>108</b>



### Work Order History by Reason



### Work Order History By Employee



Employee	WO Count	Labor Hours
Eric Sutton	9	4
Joe Basler	2	0
Luis Bello	56	2
Michael T. Sullivan	1	1
Outside Contractor	1	1
Paul Horigan	38	34
SEMS TABLET #2	1	0
<b>Totals</b>	<b>108</b>	<b>43</b>

## Corrective Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
5/1/23	17885	Bisulfite System	Low input	Cleaned injector	Eric Sutton	5/1/23	Completed
5/18/23	17886	PS 9 Pump 1	Not pumping due to fault on VFD	Es Ms on site observed VFD fault heat sink, (fan issue)which caused to overheat and shut down. Lock out tag out procedure done to expose fans. Powered down VFD, Re powered VFD fans came back on now VFD is operational.	Eric Sutton	5/18/23	Completed

## Inspections

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
5/2/23	17584	Truck 1 - 2010 Dodge Ram 1500	Monthly vehicle inspection on do-Forms		Michael T. Sullivan	5/1/23	Completed
5/2/23	17592	PS 1	PS #1 Inspection - Monthly		Luis Bello	5/4/23	Completed
5/4/23	17430	Emergency Lighting & exit signs	Emergency Lighting Inspection - Monthly		Luis Bello	5/10/23	Completed
5/31/23	17737	Blower Room Exhaust Fan 1	Monthly operational inspection	Completed	Paul Horigan	6/1/23	Completed
5/31/23	17738	Blower Room Exhaust Fan 2	Monthly operational inspection	Com0leted as requested	Paul Horigan	6/1/23	Completed

## Preventative Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
5/1/23	17531	PS Kholer Trailer Mounted Generator	Generator Weekly - Test Run no load		Luis Bello	5/1/23	Completed
5/1/23	17563	Generators "All Pump Station"	Generator Weekly - Test Run no load		Luis Bello	5/1/23	Completed
5/2/23	17582	PS 1	PUMP STATIONS - QUATERLY PM'S		Eric Sutton	5/2/23	Completed
5/2/23	17289	Aeration Tank 1 Oxygen Probe	AT #1 DO Probe Clean and Calibrate - Monthly		Paul Horigan	4/4/23	Completed
5/2/23	17476	PS 3	PUMP STATIONS - QUATERLY PM'S		Eric Sutton	5/2/23	Completed
5/2/23	17477	PS 4	PUMP STATIONS - QUATERLY PM'S		Eric Sutton	5/2/23	Completed
5/2/23	17457	Aeration Tank 3 Oxygen Probe	AT #3 DO Probe Clean and Calibrate - Monthly		Paul Horigan	5/2/23	Completed
5/2/23	17456	Aeration Tank 1 Oxygen Probe	AT #1 DO Probe Clean and Calibrate - Monthly		Paul Horigan	5/2/23	Completed
5/2/23	17572	PS Onan Trailer mounted generator	Montly operational test run		Luis Bello	5/1/23	Completed
5/2/23	17480	PS 5	PUMP STATIONS - QUATERLY PM'S		Eric Sutton	5/2/23	Completed
5/2/23	17481	PS 6	PUMP STATIONS - QUATERLY PM'S		Eric Sutton	5/2/23	Completed
5/2/23	17484	PS 9	PUMP STATIONS - QUATERLY PM'S		Eric Sutton	5/2/23	Completed
5/2/23	17485	PS A	PUMP STATIONS - QUATERLY PM'S		Eric Sutton	5/2/23	Completed
5/2/23	17365	GasAlert Max XTII #2	monthly calibration		Luis Bello	4/27/23	Completed

## Preventative Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
5/2/23	17558	Meters - 4 Gas Confined Space #2	4 gas meter calibration - monthly		Luis Bello	5/1/23	Completed
5/3/23	17436	Generator #1- Emergency Kohler 750	Generator Weekly - Test Run no load		Luis Bello	5/1/23	Completed
5/3/23	17431	Generator #2 - Backup Detroit 500	Generator Weekly - Test Run no load		Luis Bello	5/1/23	Completed
5/3/23	17358	Ventis MX4 #5 - 4 Gas	4 Gas Meter #5 Calibration - Monthly		Luis Bello	4/27/23	Waiting for Parts
5/3/23	17525	GasAlert Max XTII #1	4 gas meter calibration - monthly		Luis Bello	5/1/23	Completed
5/4/23	17440	Influent Sluice Isolation Gate	Weekly operate through full range		Joe Basler	5/3/23	Completed
5/4/23	17441	Influent Sluice Isolation Gate	Weekly operate through full range		Joe Basler	5/10/23	Completed
5/4/23	17554	High level floats	Weekly High Float Alarm test		Luis Bello	5/7/23	Completed
5/4/23	17555	High level floats	Weekly High Float Alarm test		Luis Bello	5/14/23	Completed
5/4/23	17568	All Plant Gear box reducers	GEAR BOX MAINT - WEEKLY		Luis Bello	5/7/23	Completed
5/4/23	17569	All Plant Gear box reducers	GEAR BOX MAINT - WEEKLY		Luis Bello	5/14/23	Completed
5/5/23	17586	Portable Generator - Honda	Portable Generator Inspection - Monthly		Luis Bello	5/3/23	Completed
5/6/23	17358	Ventis MX4 #5 - 4 Gas	4 Gas Meter #5 Calibration - Monthly	Dispatched To 6032936642	SEMS TABLET #2	4/27/23	Waiting for Parts
5/8/23	17487	PS 1 Generator	PS #1 Generator Inspection and Load Test - Monthly		Luis Bello	5/3/23	Completed
5/8/23	17488	PS 1 Generator	PS #1 Generator Inspection and Test - Weekly		Luis Bello	5/3/23	Completed
5/8/23	17489	PS 1 Generator	PS #1 Generator Inspection and Test - Weekly		Luis Bello	5/10/23	Completed
5/8/23	17493	PS 3 Generator	PS #3 Generator Inspection and Test - Weekly		Luis Bello	5/3/23	Completed
5/8/23	17494	PS 3 Generator	PS #3 Generator Inspection and Test - Weekly		Luis Bello	5/10/23	Completed
5/8/23	17498	PS 3 Generator	PS #3 Generator Inspection and Load Test - Monthly		Luis Bello	5/3/23	Completed
5/8/23	17499	PS 4 Generator	PS #4 Generator Inspection and Load Test - Monthly		Luis Bello	5/3/23	Completed
5/8/23	17500	PS 4 Generator	PS #4 Generator Inspection and Test - Weekly		Luis Bello	5/3/23	Completed
5/8/23	17501	PS 4 Generator	PS #4 Generator Inspection and Test - Weekly		Luis Bello	5/10/23	Completed
5/8/23	17511	PS 9 Generator	PS #9 Generator Inspection and Load Test - Monthly		Luis Bello	5/3/23	Completed
5/8/23	17512	PS 9 Generator	PS #9 Generator Inspection and Test - Weekly		Luis Bello	5/3/23	Completed
5/8/23	17513	PS 9 Generator	PS #9 Generator Inspection and Test - Weekly		Luis Bello	5/10/23	Completed
5/8/23	17517	PS 6 Generator	PS #6 Generator Inspection and Test - Weekly		Luis Bello	5/3/23	Completed
5/8/23	17518	PS 6 Generator	PS #6 Generator Inspection and Test - Weekly		Luis Bello	5/10/23	Completed

## Preventative Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
5/8/23	17522	PS 6 Generator	PS #5 Generator Inspection and Load Test - Monthly		Luis Bello	5/3/23	Completed
5/8/23	17505	PS 5 Generator	PS #5 Generator Inspection and Test - Weekly		Luis Bello	5/3/23	Completed
5/8/23	17506	PS 5 Generator	PS #5 Generator Inspection and Test - Weekly		Luis Bello	5/10/23	Completed
5/8/23	17510	PS 5 Generator	PS #5 Generator Inspection and Load Test - Monthly		Luis Bello	5/3/23	Completed
5/8/23	17567	Generators "All Pump Station"	Generator - Monthly Load Test		Luis Bello	5/7/23	Completed
5/8/23	17565	Generators "All Pump Station"	Generator Weekly - Test Run no load		Luis Bello	5/22/23	Completed
5/8/23	17358	Ventis MX4 #5 - 4 Gas	4 Gas Meter #5 Calibration - Monthly		Luis Bello	4/27/23	Waiting for Parts
5/12/23	17530	PS Kohler Trailer Mounted Generator	Generator - Monthly Load Test	Complete	Outside Contractor	5/7/23	Completed
5/12/23	17435	Generator #1- Emergency Kohler 750	Generator - Monthly Load Test	Completed as requested	Paul Horigan	5/7/23	Completed
5/12/23	17549	Chlorine probe ATI	Change electrolyte	Complete	Paul Horigan	5/1/23	Completed
5/15/23	17594	GODWIN Portable Pump	Test Run Godwin Pump-Monthly	Completed, start runtime hrs 307.2 end hrs 307.7	Paul Horigan	5/3/23	Completed
5/15/23	17287	Aeration Blower 1	Aeration Blower #1 Air Filter Inspection - monthly	Completed as requested	Paul Horigan	4/25/23	Completed
5/15/23	17566	Generators "All Pump Station"	Generator Weekly - Test Run no load		Luis Bello	5/29/23	Completed
5/15/23	17564	Generators "All Pump Station"	Generator Weekly - Test Run no load		Luis Bello	5/15/23	Completed
5/16/23	17432	Generator #2 - Backup Detroit 500	Generator Weekly - Test Run no load	Completed	Luis Bello	5/15/23	Completed
5/16/23	17437	Generator #1- Emergency Kohler 750	Generator Weekly - Test Run no load	Done	Paul Horigan	5/15/23	Completed
5/16/23	17439	Generator #1- Emergency Kohler 750	Generator Weekly - Test Run no load		Luis Bello	5/29/23	Completed
5/16/23	17434	Generator #2 - Backup Detroit 500	Generator Weekly - Test Run no load		Luis Bello	5/29/23	Completed
5/17/23	17570	All Plant Gear box reducers	GEAR BOX MAINT - WEEKLY	Completed as requested	Paul Horigan	5/21/23	Completed
5/17/23	17301	RST Feed Pump 1	Monthly Check Pump Couplings	Completed as requested	Paul Horigan	4/5/23	Completed
5/17/23	17447	Influent Pump 1	Monthly Check Pump Couplings	Completed as requested	Paul Horigan	5/3/23	Completed
5/17/23	17448	Influent Pump 2	Monthly Check Pump Couplings	Completed as requested	Paul Horigan	5/3/23	Completed
5/17/23	17449	Influent Pump 3	Monthly Check Pump Couplings	Completed as requested	Paul Horigan	5/3/23	Completed
5/17/23	17450	Influent Pump 4	Monthly Check Pump Couplings	Completed as requested	Paul Horigan	5/3/23	Completed
5/17/23	17451	Influent Pump 5	Monthly Check Pump Couplings	Completed as requested	Paul Horigan	5/3/23	Completed
5/17/23	17523	Plant Water Pump 2	Monthly Check Pump Couplings	Completed as requested	Paul Horigan	5/3/23	Completed
5/17/23	17469	Primary Sludge Pump 1	Monthly Check Pump Couplings	Completed as requested	Paul Horigan	5/3/23	Completed

## Preventative Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
5/17/23	17470	Primary Sludge Pump 2	Monthly Check Pump Couplings	Completed as requested	Paul Horigan	5/3/23	Completed
5/17/23	17463	RAS Pump 2	Monthly Check Pump Couplings	Completed as requested	Paul Horigan	5/3/23	Completed
5/17/23	17461	RAS Pump 1	RAS Pump #1 PM - Quarterly	Completed as requested	Paul Horigan	5/3/23	Completed
5/17/23	17462	RAS Pump 1	Monthly Check Pump Couplings	Completed as requested	Paul Horigan	5/3/23	Completed
5/17/23	17464	RAS Pump 2	RAS Pump #2 PM - Quarterly	Completed as requested	Paul Horigan	5/3/23	Completed
5/17/23	17466	RAS Pump 3	Monthly Check Pump Couplings	Completed as requested	Paul Horigan	5/3/23	Completed
5/17/23	17465	RAS Pump 3	RAS Pump #3 PM - Quarterly	Completed as requested	Paul Horigan	5/3/23	Completed
5/17/23	17467	RST Feed Pump 1	Monthly Check Pump Couplings	Completed as requested	Paul Horigan	5/3/23	Completed
5/17/23	17468	RST Feed Pump 2	Monthly Check Pump Couplings	Completed as requested	Paul Horigan	5/3/23	Completed
5/17/23	17559	Recirculation pump #1	Monthly Check Pump Couplings	Completed as requested	Paul Horigan	5/3/23	Completed
5/17/23	17471	Sludge Transfer Pump 1	Monthly Check Pump Couplings	Completed as requested	Paul Horigan	5/3/23	Completed
5/17/23	17472	Sludge Transfer Pump 2	Monthly Check Pump Couplings	Completed as requested	Paul Horigan	5/3/23	Completed
5/18/23	17442	Influent Sluice Isolation Gate	Weekly operate through full range		Luis Bello	5/17/23	Completed
5/18/23	17443	Influent Sluice Isolation Gate	Weekly operate through full range		Luis Bello	5/24/23	Completed
5/18/23	17444	Influent Sluice Isolation Gate	Weekly operate through full range		Luis Bello	5/31/23	Completed
5/18/23	17556	High level floats	Weekly High Float Alarm test		Luis Bello	5/21/23	Completed
5/18/23	17557	High level floats	Weekly High Float Alarm test		Luis Bello	5/28/23	Completed
5/18/23	17571	All Plant Gear box reducers	GEAR BOX MAINT - WEEKLY		Luis Bello	5/28/23	Completed
5/22/23	17492	PS 1 Generator	PS #1 Generator Inspection and Test - Weekly		Luis Bello	5/31/23	Completed
5/22/23	17497	PS 3 Generator	PS #3 Generator Inspection and Test - Weekly		Luis Bello	5/31/23	Completed
5/22/23	17504	PS 4 Generator	PS #4 Generator Inspection and Test - Weekly		Luis Bello	5/31/23	Completed
5/22/23	17509	PS 5 Generator	PS #5 Generator Inspection and Test - Weekly		Luis Bello	5/31/23	Completed
5/22/23	17521	PS 6 Generator	PS #6 Generator Inspection and Test - Weekly		Luis Bello	5/31/23	Completed
5/22/23	17516	PS 9 Generator	PS #9 Generator Inspection and Test - Weekly		Luis Bello	5/31/23	Completed
5/23/23	17438	Generator #1- Emergency Kohler 750	Generator Weekly - Test Run no load		Luis Bello	5/22/23	Completed
5/23/23	17433	Generator #2 - Backup Detroit 500	Generator Weekly - Test Run no load		Luis Bello	5/22/23	Completed
5/23/23	17491	PS 1 Generator	PS #1 Generator Inspection and Test - Weekly	Done	Paul Horigan	5/24/23	Completed
5/23/23	17533	PS Kohler Trailer Mounted Generator	Generator Weekly - Test Run no load	Done	Paul Horigan	5/22/23	Completed

## Preventative Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
5/24/23	17532	PS Kholer Trailer Mounted Generator	Generator Weekly - Test Run no load	Completed	Paul Horigan	5/15/23	Completed
5/24/23	17452	Aeration Blower 1	Aeration Blower #1 Air Filter Inspection - monthly	Completed	Paul Horigan	5/23/23	Completed
5/24/23	17453	Aeration Blower 2	Aeration Blower #2 Air Filter Inspection - Monthly	Completed as requested	Paul Horigan	5/25/23	Completed
5/31/23	17553	Mechanical Screen	Power wash entire unit to clear all accumulated material	Completed as requested	Paul Horigan	5/1/23	Completed
5/31/23	17302	RST Feed Pump 2	Monthly Check Pump Couplings		Paul Horigan	4/5/23	Completed

Asset Management Accounts - Year 9							
		Actual to date			Projected for Final Estimate		
Account		Budgeted Amount	Spent to Date	Delta	Projected costs and incl PO's	Final est	Delta
09M-101A	Preventive Maint	\$242,712.26	\$29,900.99	\$212,811.27	\$114,140.00	\$144,040.99	\$98,671.27
09M-102B	Capital and Major Repairs	\$140,000.00	\$20,815.35	\$119,184.65	\$70,500.00	\$91,315.35	\$48,684.65
09M-103A	Major Sub Contractors	\$206,459.14	\$51,162.72	\$155,296.42	\$179,000.00	\$230,162.72	(\$23,703.58)
blank							
	Asset Management	\$589,171.40	\$101,879.06	\$487,292.34	\$363,640.00	\$465,519.06	\$123,652.34

\$487,292.34

Budget expended	Time Status	
	NOW=	7/5/2023
	Start	5/1/2020
12.3%	317.9%	305.6%
14.9%	317.9%	303.1%
24.8%	317.9%	293.1%
17.3%	317.9%	300.6%

09S	D Street	\$7,500.00	\$2,640.00	\$4,860.00	\$0.00	\$2,640.00	\$4,860.00
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35.2%	317.9%	282.7%
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09C	Odor Control Chemicals	\$100,000.00	\$87,064.00	\$12,936.00	\$0.00	\$87,064.00	\$12,936.00
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87.1%	317.9%	230.9%
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\$500,228.34

Estimated total  
remaining 09M,  
09C \$136,588.34



Hull 2022-2023 - 09M Projects, Tasks, and Needs - (MS)								
Maintenance Account - Year 9 - 05_01_23 to 04_30_24								
FOR 2023 M.O.R.					\$363,640.00			<a href="#">7/5/2023 10:12</a>
Priority [1=high]	Description	Status	completed	Task	Estimates & funds remaining	Final Completed Cost	Lead	Comments
1	Mechanical Work Labor by O&M specialists	Pending		101A	\$25,000.00			Placeholder for Jody St. George, Paul Horigan & WC Support Staff - Total budget \$25,000;
1	Pump and Motor Repairs/Replacements [invoiced and pcard]	Pending		101A	\$20,000.00			to keep existing equipment running - utilize various outside contractor repair shops, new purchases. orig budget \$20,000;
1	Lubricants	Pending		101A	\$1,000.00			Various Suppliers for oil and grease. Budgeted \$1000.
1	Generator Prev. Maintenance and Repairs	Pending		101A	\$25,000.00			Orig budget \$25,000. General PM and CM Repair Work - <b>Placeholder</b>
1	Fire Alarm Inspections and Service	Pending		101A	\$4,000.00			Original Budget \$4,000 - Semi Annual - Flight Alarm Co.Inspections, central station, and service calls
2	Universal waste disposal	Pending		101A	\$500.00			Placeholder - \$500
1	Service the Forklift	Pending		101A	\$400.00			Placeholder \$400 - Annual cost - outside vendor.
1	Overhead Hoist Inspection & repairs	Pending		101A	\$1,700.00			Annual task - Applied Dynamics - Inspection Work - due in spring/summer 2023
1	Flow meter verification and calibration	Pending		101A	\$1,200.00			Placeholder \$1,200 - Annual - Ray Ferland or other 1 visit annually -
1	Facility Building - Roof Inspection	Pending		101A	\$2,800.00			\$2800 Annual Placeholder - Established contract with Tecta America. Need for new proposal.
2	Jerome H2S Meter Inspection	Pending		102B	\$11,000.00			Placeholder if new meter is to be planned for. Factors for new meter replacement to be considered.
1	Janitorial Supplies	Pending		101A	\$3,000.00			Orig budget \$3,000 - Estimated annual expenditures
1	Manhole Inspections	Pending		101A				As required,and/or scheduled
2	General mechanical and electrical items/supplies	Pending		101A	\$20,000.00			Grainger, FWWebb, EJP,Hoadley, McMasterCarr, etc; orig budget \$20,000,
1	Thompson Pump repairs	Pending		101A				
2	Large Hoses & fittings	Pending		101A	\$3,000.00			Orig budget \$3,000. Replacements and/or Service - On-Going - As Needed.
1		Pending		102B				
3		Pending		101A				
		Pending		101A				
1 of 41	Lab Equip Calibration	Pending		101A	\$640.00			Annual service \$64009M Planned Costs

Hull 2022-2023 - 09M Projects, Tasks, and Needs - (MS)								
Maintenance Account - Year 9 - 05_01_23 to 04_30_24								
FOR 2023 M.O.R.					\$363,640.00			<a href="#">7/5/2023 10:12</a>
Priority [1=high]	Description	Status	completed	Task	Estimates & funds remaining	Final Completed Cost	Lead	Comments
1		Pending		101A				
	Duperon Service Call	Pending		102B				recommended services per last visit, need repair report[s]
2		Pending		101A				
1		Pending		102B				
2	New Magnetic flow meters for RAS and WAS	Pending		102B	\$9,000.00			hardware - does not include installation [estimate for Equip - \$9,000] May or may not occur. Remove from planned projects for 09M.
2		Pending		102B				
1		Pending		102B				
1		Pending		102B				
1		Pending		102B				
3	Sanitaire hardware purchase for aer tk 1	Pending		102B				Purchase more hardware ??
1		Pending		102B				
2		Pending		102B				
2	Pump Station #3 - spare rotating, assy, or pump	Pending		102B				TBD- estimates being obtained
3	New 4-inch valves or 6-inch valves for pri building between the tanks & Installation	Pending		102B				Valves - cost: \$3000, sub-contracted labor - either WC or outside co.\$5,000 - <b>totl estim \$8,000</b>
3	Odor log data loggers & calibr kit	Pending		102B				if funds avail
3		Pending		102B				
3	Gravity Thickener #1 sandblasting/painting	Pending		102B				Estimate \$50,000+ - would need to go out for competitive bid request
2		Pending		102B				

Hull 2022-2023 - 09M Projects, Tasks, and Needs - (MS)								
Maintenance Account - Year 9 - 05_01_23 to 04_30_24								
FOR 2023 M.O.R.					\$363,640.00			<a href="#">7/5/2023 10:12</a>
Priority [1=high]	Description	Status	completed	Task	Estimates & funds remaining	Final Completed Cost	Lead	Comments
1	Grit classifier system parts	Pending		102B	\$4,500.00			Plan for additional tail shaft assy and housing & bushings. Pricing out items/costs by various vendors incl Mfr. 3/16 update - recommendations provided for spare parts
	Plant Water System [Pump and/or parts]	Pending		102B	\$6,000.00			consider spare motor or complete unit. Under review/hold [est \$6,000].
1		Pending		102B				
1	Electrical Work	Pending		103A	\$35,000.00			Orig budget \$35,000. Electricians: Glen Fellows, HiVoltage, or other;
1	SCADA Work - service calls, etc	Pending		103A	\$6,000.00			Steve Rose and the SCADA Support Team; budget \$6,000;
1	E-One Repairs and Replacement	Pending		103A	\$65,000.00			Orig budget: \$65,000. Based on historica/recent costs.
1	Automatic Transfer Switch inspection and servicing	Pending		101A	\$2,400.00			\$2400 - Annual Service planned for NETS - Transfer Switch
1	Wetwell Inspections and Cleaning - Plant/Pump Stations	Pending		103A	\$8,000.00			As required, plant or pump stations; orig budget \$8,000;
1	Sewer Line Cleaning - Emergencies, pump & haul	Pending		103A	\$10,000.00			Placeholder - As required for various sub-contractors; could be Hoadley, Truax, WindRiver, BMC, or other, collection system & plant; budget \$10,000
1	Collection System and plant - emerg & unplanned calls - Jetting & CCTV work - various contractors	Pending		103A	\$15,000.00			Budget - 15,000, Plan to be developed
1		Pending		102B				
3		Pending		103A				
3	SHT1 - demo of equip, air piping & diffuser install/materials	Pending		103A				demo concrete in tank - \$15,000 - sub-contractor and installation of new equip -additional new equip \$6,000; air piping to the tank \$10,000; Total estimate: \$31k to 35K ??. For consideration with outside contractor
4	Generators - Load Bank Testing Plant & Pump Stations	Pending		103A				Look at 09M -last done under 06M. SSGen - review cost estimates.
1	Generators and portable pumps - Annual repairs	Pending		103A	\$20,000.00			SSGen - \$20,000
1	MCC work at the Pump Stations & IR scan for plant and pump s	Pending		103A				Review recent propsal and develop plan
3	Low pressure sewer valve box insp & mtce	Pending		103A				placeholder for contractor O&M inspections and potential repairs; Looking at Rosano-Davis or another contractor & W&C to investigate;come up with plan to rempve covers and inspect
1	Grit screw installation	Pending		102B	\$40,000.00			\$40,000 placeholder installation.
1		Pending		102B				
3 of 41		Pending		101A				09M Planned Costs

Hull 2022-2023 - 09M Projects, Tasks, and Needs - (MS)								
Maintenance Account - Year 9 - 05_01_23 to 04_30_24								
FOR 2023 M.O.R.					\$363,640.00			<a href="#">7/5/2023 10:12</a>
Priority [1=high]	Description	Status	completed	Task	Estimates & funds remaining	Final Completed Cost	Lead	Comments
	HDWK fiberglass slide gate	Pending		101A	\$3,500.00			Soliciting estimates for at least one new slide gate. Placeholder [Jan 2023] \$3,000; Adjust estimate up to \$3,500 for one gate. No orders placed yet. 3/16 [AV]
1	SC #1 Structural Steel Repairs			103A	\$20,000.00			Based on T&M - center supports, scrapers, other - IPC Lydon.
TOTAL					\$363,640.00			