



1111 Nantasket Avenue
Hull, MA 02045

woodardcurran.com

HULL, MA WATER POLLUTION CONTROL FACILITY

DECEMBER 2023

MONTHLY OPERATING REPORT



0217319.00

Town of Hull, MA

Permit No. MAG590037

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EXECUTIVE SUMMARY

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

- No lost-time incidents for the month of December.
- There were 155 effluent samples taken in December.
- There were no after-hours alarm calls that required a response by W&C staff.
- The Asset Management Accounts summaries for contract year #9 is attached- the latest revision date is 12/17/2023.
- There were no calls for any E-One grinder pump issues.
- 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 sampling the raw influent 3X weekly for analysis.
- An SSO, a Sanitary Sewer Overflow, had to be reported for a sewage spill over occurring at the plant on December 11.

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.

Mike Sullivan – Plant Manager
Town of Hull WPCF
3/20/2024

1. FLOWS AND LOADING



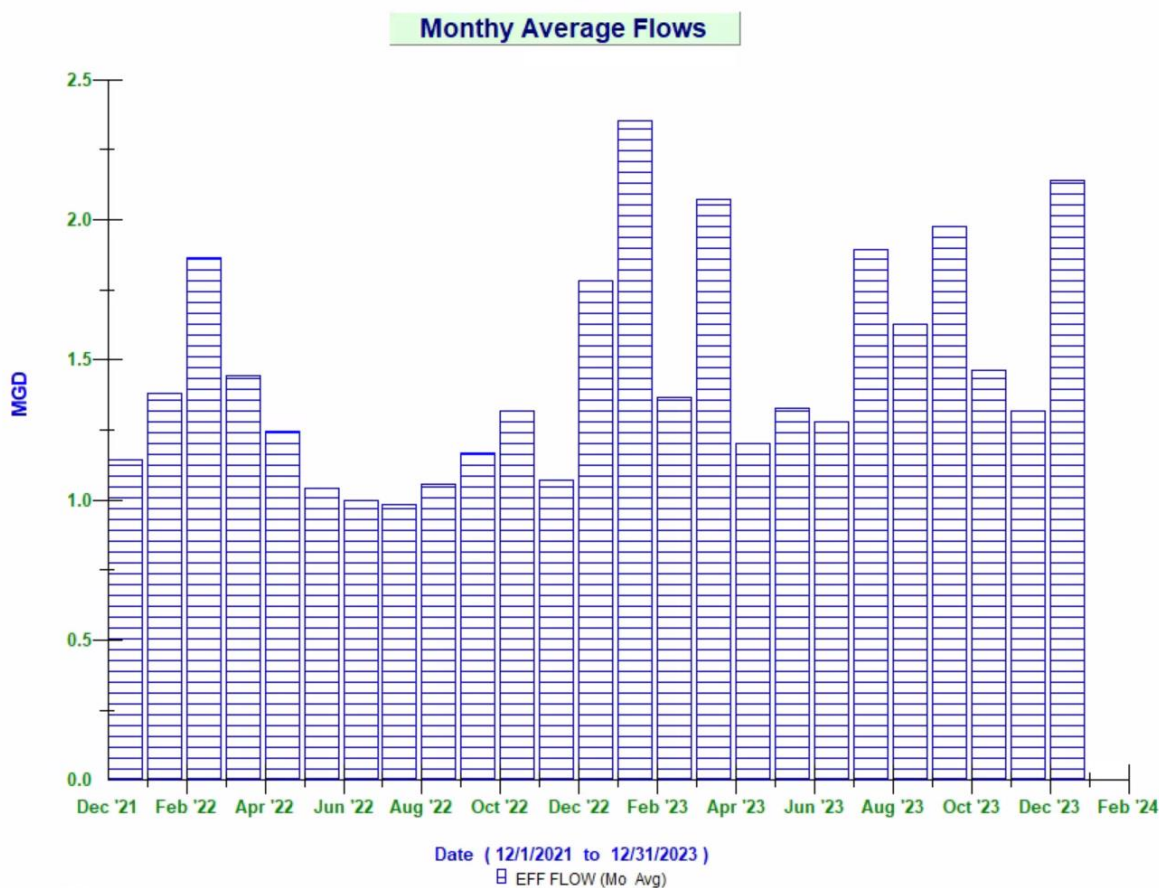
1.1 Average Daily Flows and Loadings – December 2023

Month / Year	Eff Flow	Inf Flow	Inf BOD	Inf TSS	Eff BOD	EFF TSS
	MGD	MDG	LBS	LBS	LBS	LBS
Dec '21	1.14	1.21	1,529.72	1,603.68	41.08	76.63
Dec '22	1.78	1.85	1,580.10	1,801.48	70.25	109.31
Dec '23	2.14	3.45	3,478.99	7,129.70	86.62	334.08

* 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.

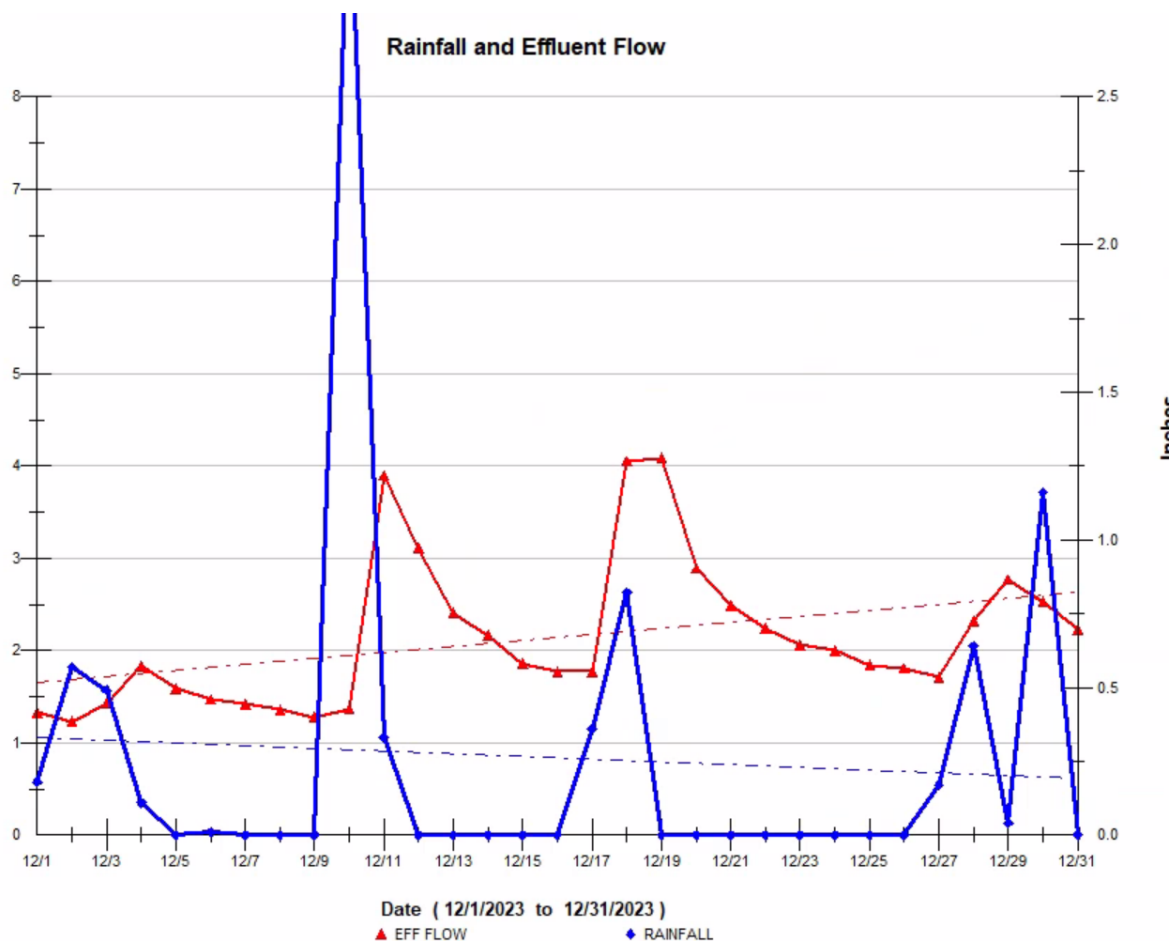
1.2 Average effluent monthly flows – 2+ year comparison

The monthly average flow for December was 2.14 MGD, more than the 1.32 MGD seen in November. While the total precipitation for December was 3.52 inches, a bit more than November's 2.27 inches, and had no impact on the plant's process conditions. The graph below shows the 2-plus year summary of the monthly average flows.



1.3 One Month Summary of Rainfall and the Influence on Effluent Flows

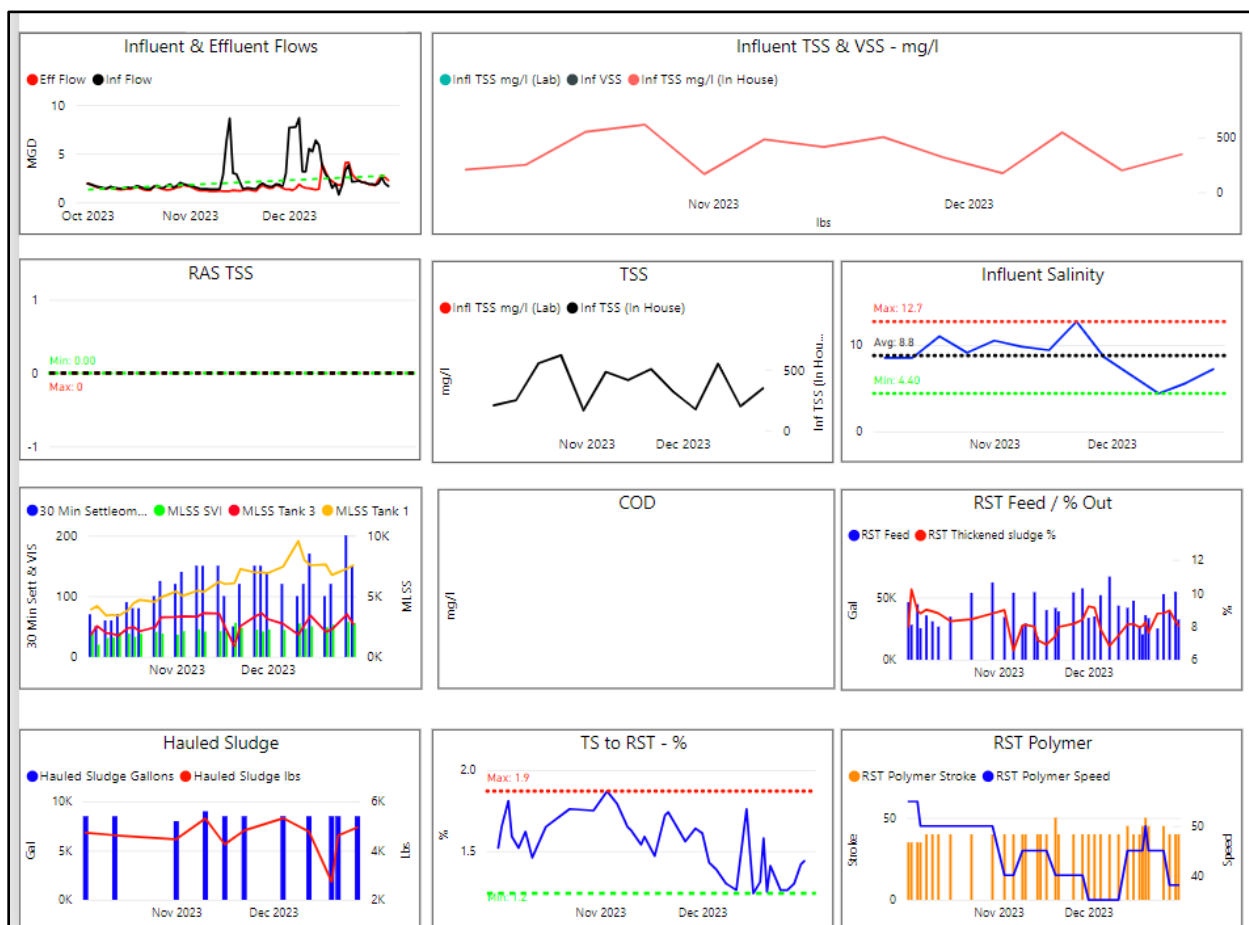
The graph shows the days where precipitation occurred [rainfall] [Blue Peaks].



2. COMPLIANCE

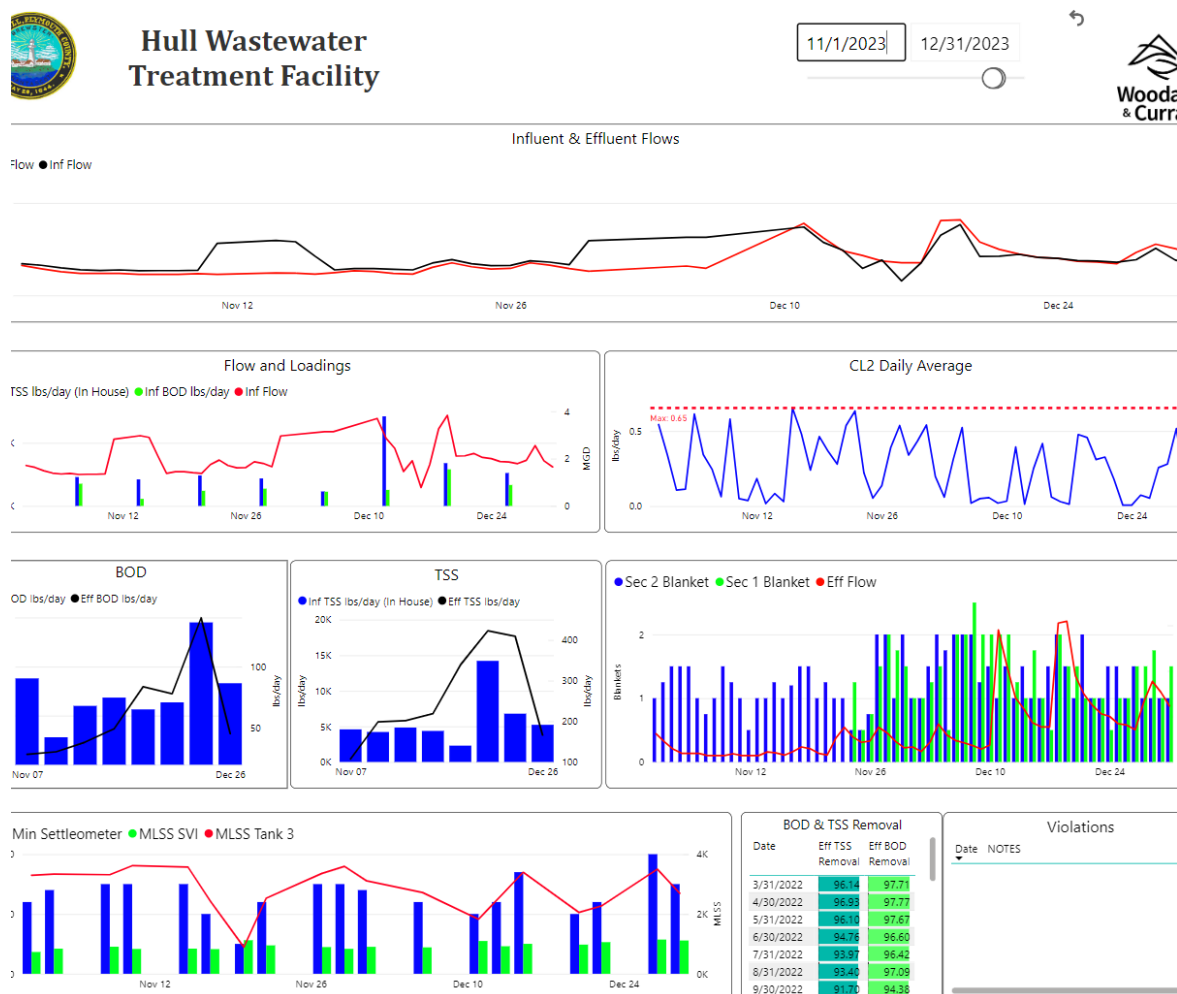
2.1 Plant Effluent

The plant process conditions through December were steady. Below are Process Summary Graphs produced on the Power BI dashboard illustrating trends year-to-date.

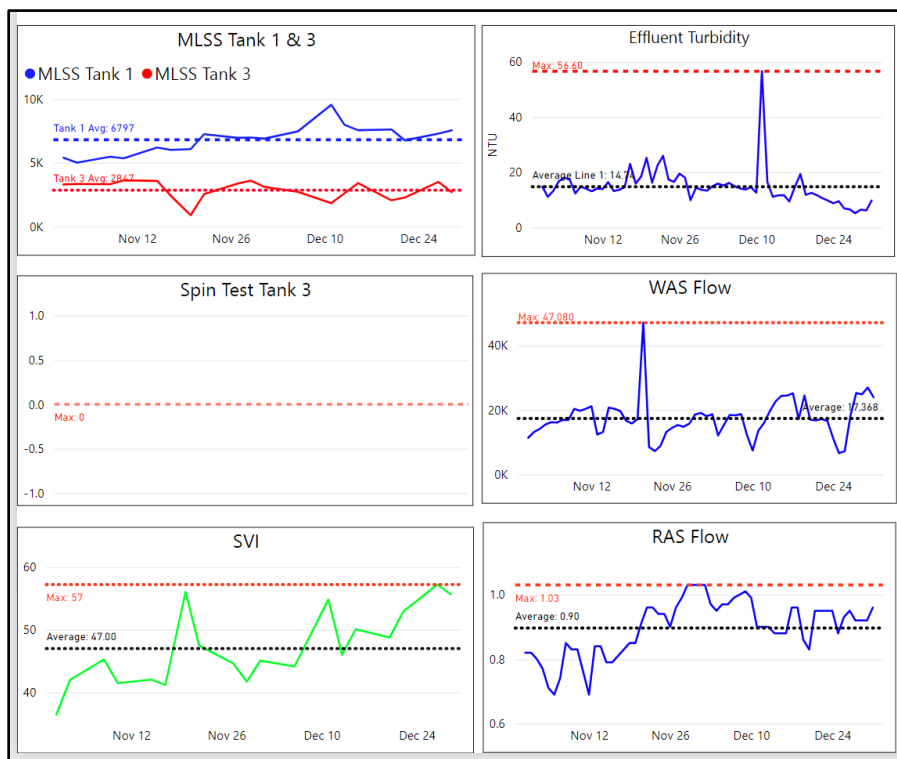


2.2 Secondary Processes

Below are Process Summary Graphs produced on the Power BI dashboard illustrating trends over a 2-month period ending on 12-31-2023.



Secondary Processes continued...



2.3 Permit Compliance

There were 155 effluent samples taken in the month of December. A table summarizing the results of these samples is shown below. The quality of effluent was satisfactory, and turbidity (NTU) levels were normal.

Permit Compliance												
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	16.2	11.0	25.5	4	0
Eff TSS	184	LBS			1152	768	1 X Week	334.1	166.0	422.8	4	0
% TSS Rem	208	%		85			1 X Month	94.9			1	0
Eff BOD	108	MG/L	50		45	30	1 X Week	4.1	3.0	6.3	4	0
Eff BOD	185	LBS			1152	768	1 X Week	86.6	45.3	139.9	4	0
% BOD Rem	207	%		85			1 X Month	97.5			1	0
Eff Chlorine	142	MG/L	1			0.7	3 X Day	0.21	0.01	0.54	93	0
Eff Fecal	111	#/100 ML	260			88	1 X Week	11.8	10.0	30.0	11	0
Eff pH	136	SU	8.5	6.5			1X Daily	6.9	6.7	7.6	31	0
Enterococci	255	#/100 ML	276			35	1 X Week	13	10	30	4	0
Totals											155	0

Effluent Quality

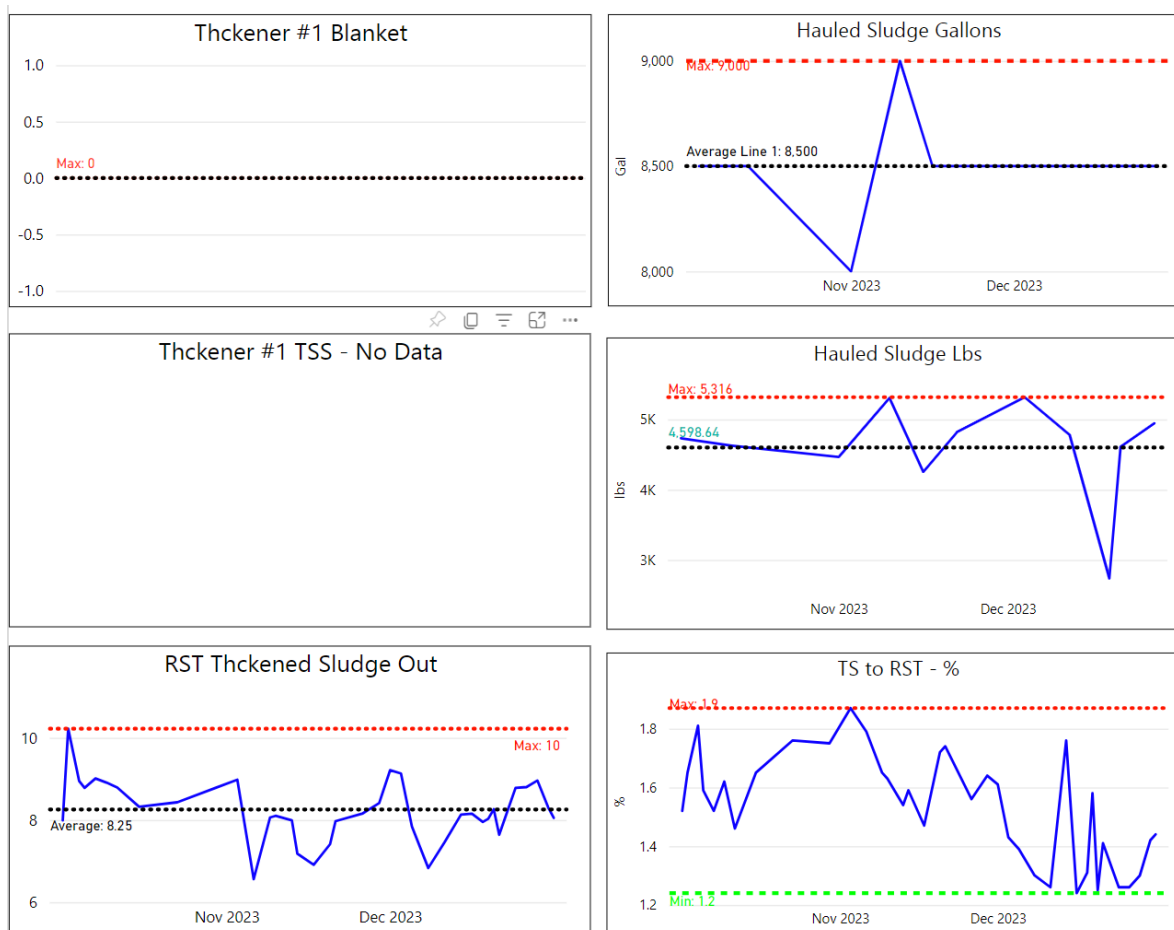


2.4 Solids Handling & Odor Control

Sewage Gallons Treated vs Sludge Disposed

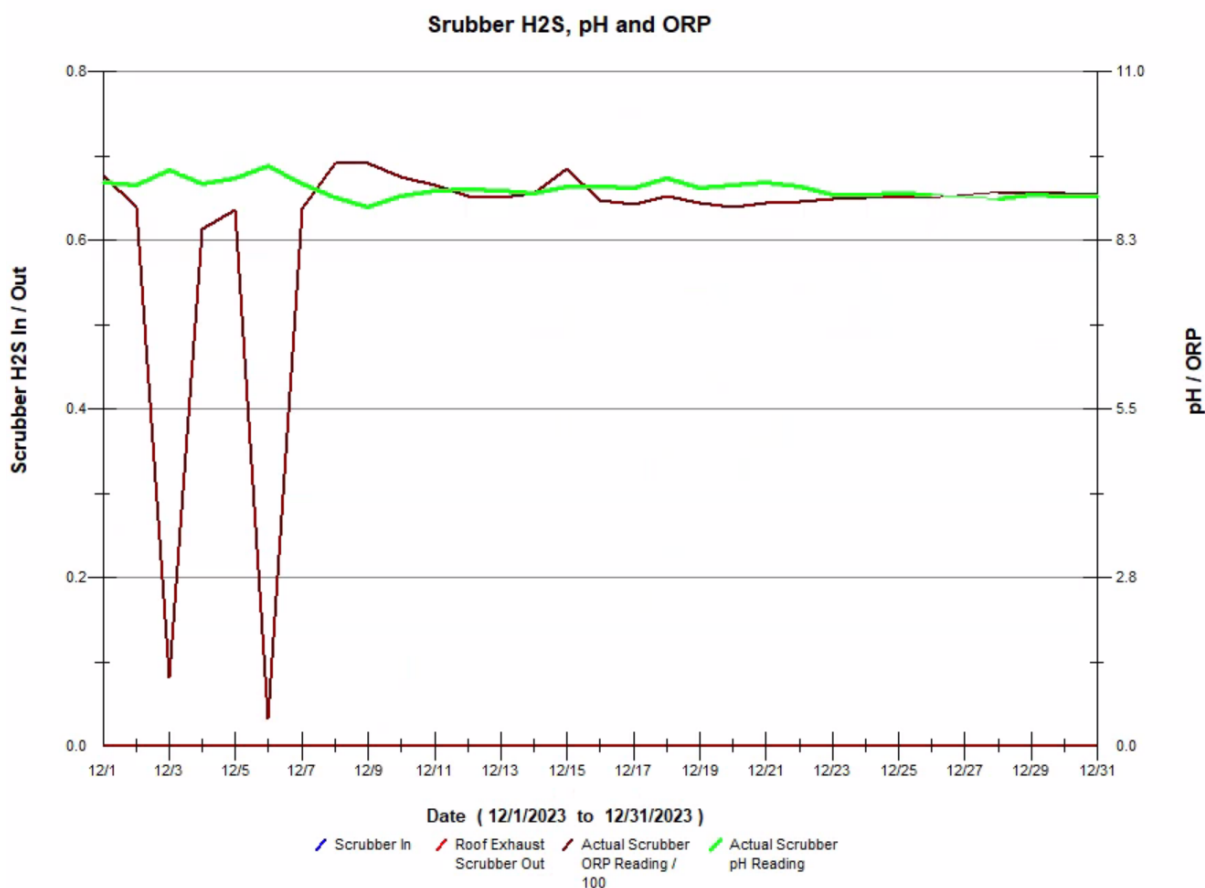
Month	Effluent Treated, MG	Sludge Disposed, Gals
DEC 2021	35.41	94,500
DEC 2022	55.29	68,000
DEC 2023	66.32	42,500

Graphs illustrating sludge/solids handling parameters over a 3-month period (ending 12-31-2023) generated by Power BI are shown below.

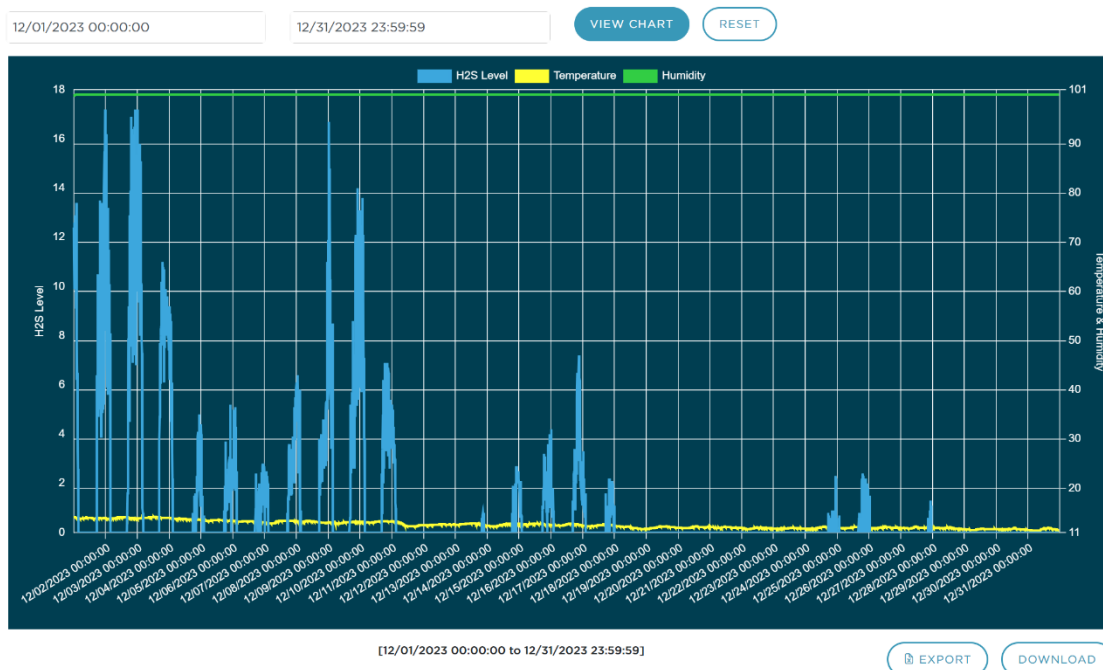


The Bioxide system was on, but the feed rates were minimal, as the normal seasonal temperatures were cooler. Monthly graphs are attached below, and the daily average Bioxide use for December was about 114 gallons per day.

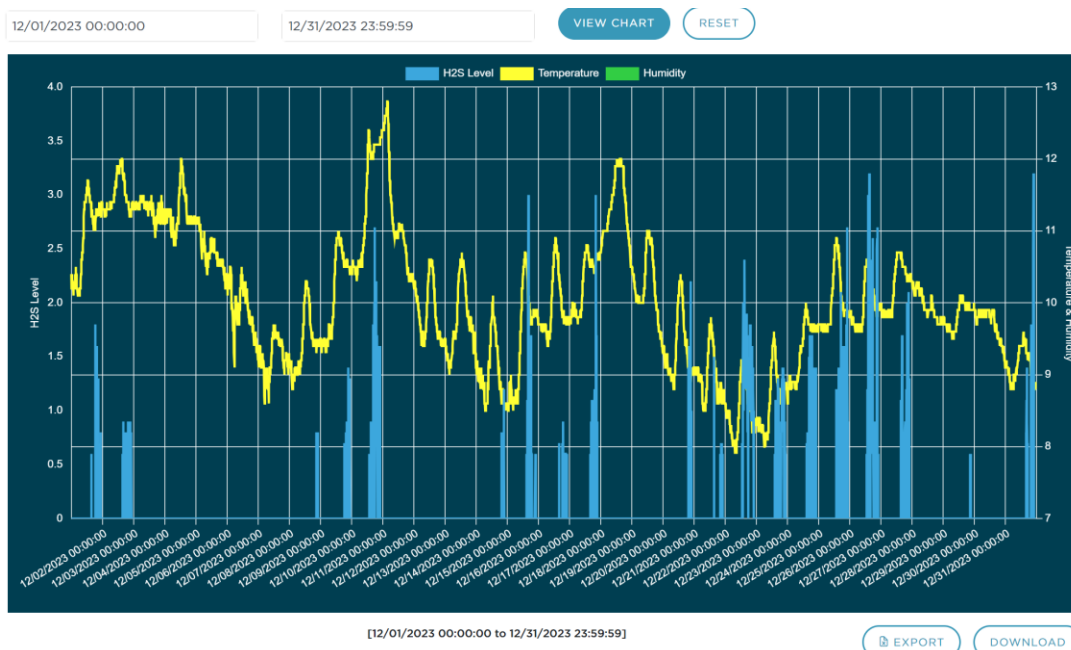
- The "In-Pipe" bacteria containers in the collection system manholes were changed out on December 13th and 29th.
- Slight changes - Hydrogen sulfide (H₂S) monitoring units were recording and trending on the odor scrubber. [inlet and outlet]. Increased scrubber fan speed slightly. See graph below:



The odor data logging unit at XYZ monitoring locations, recording the overall H₂S levels close to the plant, are shown in the graph below. During the month of October there was normal H₂S detected at this monitoring location.

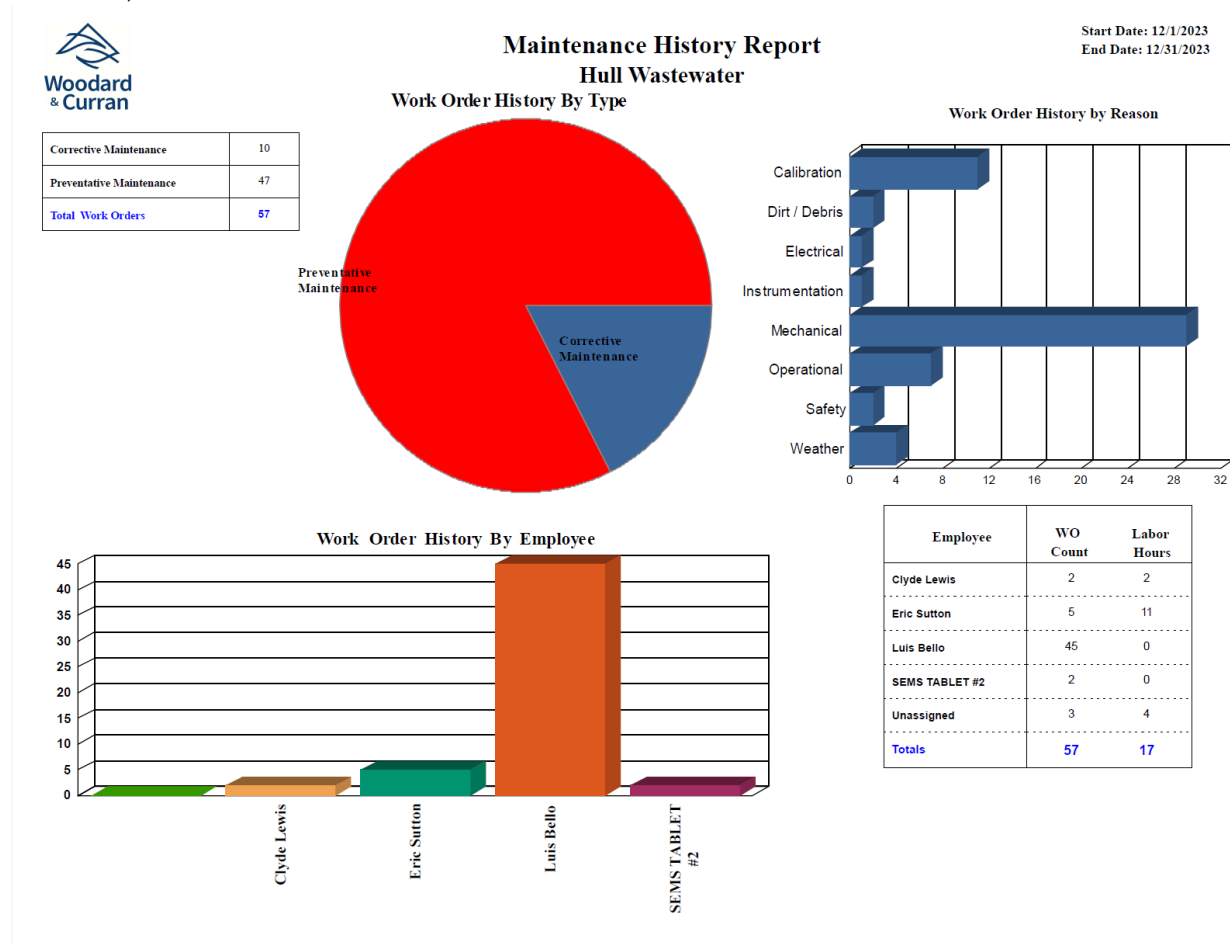


Pump station #3 - H₂S is monitored at the end of the force main in the manhole at Nantasket Ave & Water Street. Bioxide is added to allow excess nitrate in the sewage system to treat the additional H₂S from other parts the system – such as PS #4, contributions from lines feeding the interceptor - PS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



3. MAINTENANCE SUMMARY

F Tiverton, RI



The SEMS monthly work order summary for November is attached for review.

3.1 Maintenance Summary

On December 13 at Pump Station #5- on Draper Ave, High-Voltage Electric replaced the 175 amp breaker that powers both pumps and also repaired a 'hot spot' on the circuit panel lug. Septage pumper Rosano-Davis was onsite to pump down the wet-well, if necessary, as the pumps were disabled for about 2.5 hours.

On the 14th Industrial Pump Services of Tiverton, RI was at Pump Station #3 for both pumps, which were suspected of being blocked. IPS was able to inspect pump #2 and determine that it was not blocked. However, the #1 pump assembly could not be broken apart from its volute and raised up and away for an inspection. IPS was advised by W&C staff to leave the pump and volute intact as it was still pumping septage, but well knowing that corrective maintenance action would have to be undertaken very soon. IPS subsequently returned on January 16 fully equipped to successfully remove the pump & volute as one unit to be repaired at their facility.

- On December 22 a new wet-well level reading transducer was installed into the stilling well at PS#3. The older failed transducer which was left in the stilling well was removed, as well as the newer, and also failed, unit removed from the wet-well.
- On Dec 27 Drain-Ambulance was called into the plant to address a 2nd floor backup which caused a flood upstairs. The blockage was found in one of the first floor drain lines out behind the garage. The line was snaked, and proper flow was soon restored.

Please see the attached summary totals and planned expenditures for the Asset Management accounts for contract year (8).

4. 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.

- There were no lost time incidents reported for December.
- 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.
- W&C's Pure Safety topic for December was Ladder Safety Awareness.
- W&C's monthly safety inspection checklist for the plant and all pump stations was completed.
- The staff's monthly SPARKS safety meeting was held on December 20th, including a look at W&C's monthly "Lessons Learned!"- which is a review of all safety related incidents occurring at other W&C projects during the previous month.

5. STAFF DEVELOPMENT

5.1 Training

Training is an important part of any operation to ensure that 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. The staff's monthly SPARKS safety meeting was held on December 20. Topics discussed were forklift operation, sitework trenching, and guarding floor & wall openings on the jobsite.

5.2 Staffing Updates

- Plant continues 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, Clyde L, and Ben P.
- O&M Specialist Paul Horigan continues to assist here at Hull as needed with plant O&M projects as needed.

6. COLLECTION SYSTEM

6.1 Wet Well Maintenance

Pump stations are maintained by the operations team at the Hull WPCF. Below is a maintenance summary for the pump stations owned by the Town of Hull.

Table Key:

"X" – Pump Station Cleaned

■ – Pump Station Inspected

■ – See notes for additional information

blank – No Work Performed

Month	Pump Station							
	A	1	3	4	5	6	9	D
May 2023								
June 2023	X			X				
July 2023								
August 2023								
September 2023								
October 2023								
November 2023								
December 2023								
January 2024								
February 2024								
March 2024								
April 2024								

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

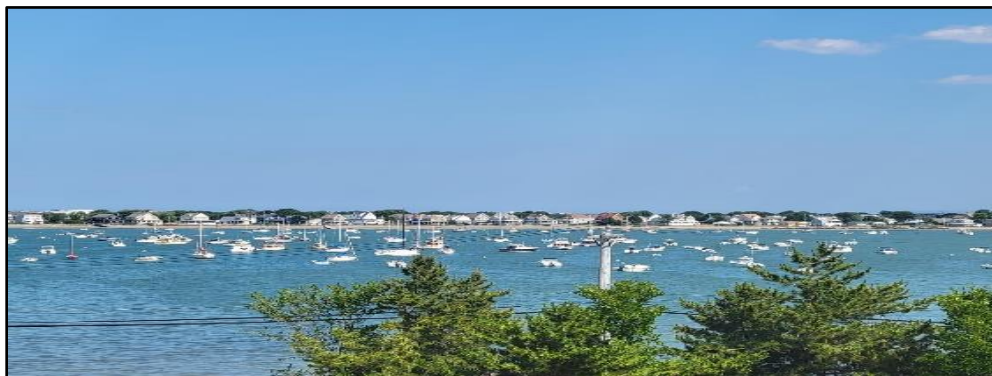
6.2 Collection System Maintenance

Collection system work is documented and tracked in Utility Cloud (UC). A summarized report for December has been included as an attachment to the Monthly Operating Report.

Woodard & Curran assisted/conducted camera work and sewer system support in the Hull collection system. Ongoing backup and blockage calls require labor & time to support. A summary of W&C's efforts at various collection system locations is as follows:

- There was an SSO reported to the DEP for a spillover on Dec 11, as Hull had some 2 inches of rain. The five influent pumps' lead/lag operation is changed to help manage sewage pumping during high flow events, with two larger, 50 hp pumps leading. As the inflows lessened towards midday, the pump order had yet to be changed by W&C staff. At about 1:45 pm the influent wet well level rose, turning on the second influent pump and sending a surge of sewage through the plant, some of which spilled over out of the distribution box. The D-Box is on the west side of the plant, and no sewage left the plant grounds to possibly get into the local waters.
- No calls for E-One Grinder pump service in December.
- On December 11 a resident at 46 Duck Lane reported a backup. The up and downstream manholes were opened, and sewage flow was evident, so W&C staff advised the homeowner to call a plumber.
- On Dec 14 Rosano-Davis cleaned out the manhole at the intersections of Rockland House Road and Rockland Circle, by PS#3. The line into the manhole was a bit surcharged and many rags and grease chunks were removed, however, not much improvement on the flow was seen.
- December 18 saw some 2.75 inches of rainfall and with the ensuing high flows Primary Clarifier # 1 was opened to store inflow and lessen the chance of another SSO.
- On December 21 the BMC Corp. was out jetting the line running through the parking lot by Rockland Circle & Rockland House Road to PS #3. Also while there the BMC vector cleaned and de-ragged PS#3's wet-well.
- A salinity test of the sewage flowing in two manholes out by the High School was performed. It is suspected that there is groundwater infiltration into the lines in the area which would likely have some saltwater content.
- Pump station emergency generator testing consists of a weekly no load running, and a once monthly loaded running.
- All Pump station wet wells were inspected in December- 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.

7. PROJECT MANAGEMENT & ADMINISTRATION



7.1 Ongoing Projects and Support Items- December Updates:

- Phase 2 Influent upgrade lead contractor Barletta Heavy Division and other subcontractors are onsite regularly.
- Plant Manager Mike S. and Assistant Plant Manager Joe B. are meeting weekly with John S. and Tom M. to discuss the Hull Sewer Department operations, any treatment plant issues, the collection system maintenance, Phase 2 work, and any upcoming projects.





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Date	Asset ID	Asset Description	Asset Class	Name
12/19/2023 11:21	01-002-A	2 A PEMBERTON WHARF	Hull Parcels	Sutton, Eric
12/27/2023 13:36	01-021	5 ARTHUR ST	Hull Parcels	Sutton, Eric
12/1/2023 10:14	10-012	41 PT ALLERTON AVE	Hull Parcels	Sutton, Eric
12/15/2023 14:36	12-067	11 BLUFF RD	Hull Parcels	Sutton, Eric
12/1/2023 10:31	17-047	66 C STREET	Hull Parcels	Sutton, Eric
12/19/2023 11:24	17-121	65 E STREET	Hull Parcels	Sutton, Eric
12/19/2023 11:38	17-128	221 BEACH AVE	Hull Parcels	Sutton, Eric
12/11/2023 8:38	18 Nantasket Ave	18 Nantasket Ave Grinder Pump	Hull Grinder Pumps	Sutton, Eric
12/1/2023 10:35	19-092	195 SAMOSET AVE	Hull Parcels	Sutton, Eric
12/1/2023 10:33	20-136	25 MILFORD ST	Hull Parcels	Sutton, Eric
12/15/2023 14:05	23-046	101 SAMOSET AVE	Hull Parcels	Sutton, Eric
12/15/2023 13:59	23-065	113 SAMOSET AVE	Hull Parcels	Sutton, Eric
12/15/2023 14:08	23-075	556 NANTASKET AVE	Hull Parcels	Sutton, Eric
12/15/2023 13:56	23-092	126 SAMOSET AVE	Hull Parcels	Sutton, Eric
12/15/2023 14:12	34-018	26 A BAY STREET	Hull Parcels	Sutton, Eric
12/27/2023 13:34	35-050	106 BAY STREET	Hull Parcels	Sutton, Eric
12/27/2023 13:38	51-015	7 RICHARDS RD	Hull Parcels	Sutton, Eric
12/13/2023 14:57	Bacteria UNIT #21	UNIT #21	Hull In Pipe Bacteria Unit	Sutton, Eric
12/29/2023 12:10	Bacteria UNIT #21	UNIT #21	Hull In Pipe Bacteria Unit	Sutton, Eric
12/13/2023 15:00	Bacteria UNIT #22	UNIT #22	Hull In Pipe Bacteria Unit	Sutton, Eric
12/13/2023 14:50	Bateria UNIT # 8	UNIT # 8	Hull In Pipe Bacteria Unit	Sutton, Eric
12/13/2023 14:44	Bateria UNIT #1	UNIT #1	Hull In Pipe Bacteria Unit	Sutton, Eric
12/13/2023 14:51	Bateria UNIT #10	UNIT #10	Hull In Pipe Bacteria Unit	Sutton, Eric
12/13/2023 14:54	Bateria UNIT #11	UNIT #11	Hull In Pipe Bacteria Unit	Sutton, Eric
12/13/2023 14:58	Bateria UNIT #12	UNIT #12	Hull In Pipe Bacteria Unit	Sutton, Eric
12/13/2023 14:58	Bateria UNIT #13	UNIT #13	Hull In Pipe Bacteria Unit	Sutton, Eric
12/13/2023 14:57	Bateria UNIT #14	UNIT #14	Hull In Pipe Bacteria Unit	Sutton, Eric
12/13/2023 14:56	Bateria UNIT #15	UNIT #15	Hull In Pipe Bacteria Unit	Sutton, Eric
12/13/2023 14:55	Bateria UNIT #16	UNIT #16	Hull In Pipe Bacteria Unit	Sutton, Eric
12/13/2023 14:51	Bateria UNIT #17	UNIT #17	Hull In Pipe Bacteria Unit	Sutton, Eric
12/13/2023 14:54	Bateria UNIT #18	UNIT #18	Hull In Pipe Bacteria Unit	Sutton, Eric
12/13/2023 14:52	Bateria UNIT #19	UNIT #19	Hull In Pipe Bacteria Unit	Sutton, Eric
12/13/2023 14:45	Bateria UNIT #2	UNIT #2	Hull In Pipe Bacteria Unit	Sutton, Eric
12/13/2023 14:55	Bateria UNIT #20	UNIT #20	Hull In Pipe Bacteria Unit	Sutton, Eric
12/13/2023 14:59	Bateria UNIT #23	UNIT #23	Hull In Pipe Bacteria Unit	Sutton, Eric
12/13/2023 14:45	Bateria UNIT #24	UNIT #24	Hull In Pipe Bacteria Unit	Sutton, Eric
12/13/2023 14:53	Bateria UNIT #3	UNIT #3	Hull In Pipe Bacteria Unit	Sutton, Eric
12/29/2023 12:08	Bateria UNIT #3	UNIT #3	Hull In Pipe Bacteria Unit	Sutton, Eric
12/13/2023 14:46	Bateria UNIT #4	UNIT #4	Hull In Pipe Bacteria Unit	Sutton, Eric
12/29/2023 12:11	Bateria UNIT #4	UNIT #4	Hull In Pipe Bacteria Unit	Sutton, Eric
12/13/2023 14:49	Bateria UNIT #5	UNIT #5	Hull In Pipe Bacteria Unit	Sutton, Eric

12/13/2023 14:48 Bateria UNIT #6	UNIT #6
12/13/2023 14:50 Bateria UNIT #7	UNIT #7
12/13/2023 14:59 Bateria UNIT #9	UNIT #9

Hull In Pipe Bacteria Unit	Sutton, Eric
Hull In Pipe Bacteria Unit	Sutton, Eric
Hull In Pipe Bacteria Unit	Sutton, Eric

[illegible]

Hull - In Pipe Bacteria Units [View](#)

Hull - In Pipe Bacteria Units [View](#)

Hull - In Pipe Bacteria Units [View](#)



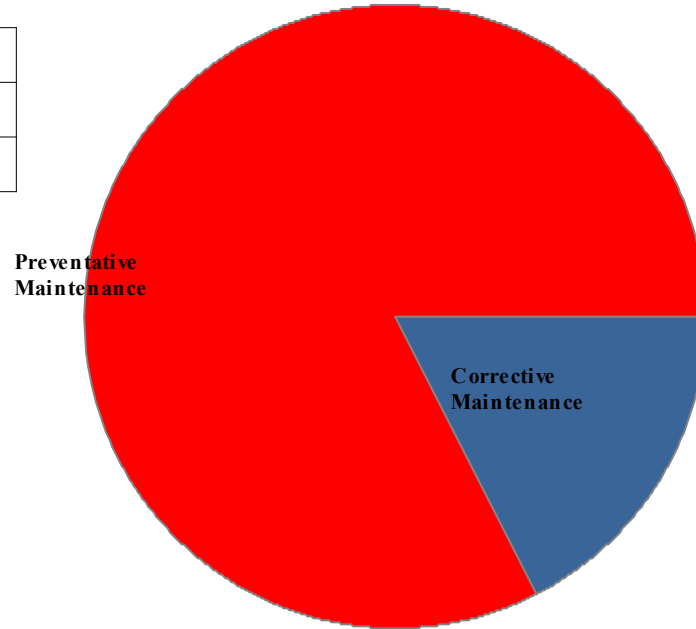
Maintenance History Report

Hull Wastewater

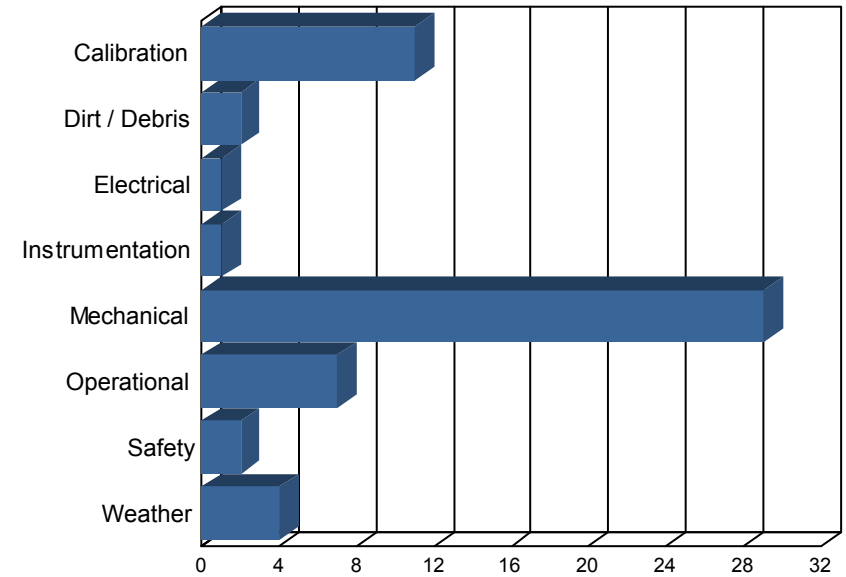
Start Date: 12/1/2023
End Date: 12/31/2023

Work Order History By Type

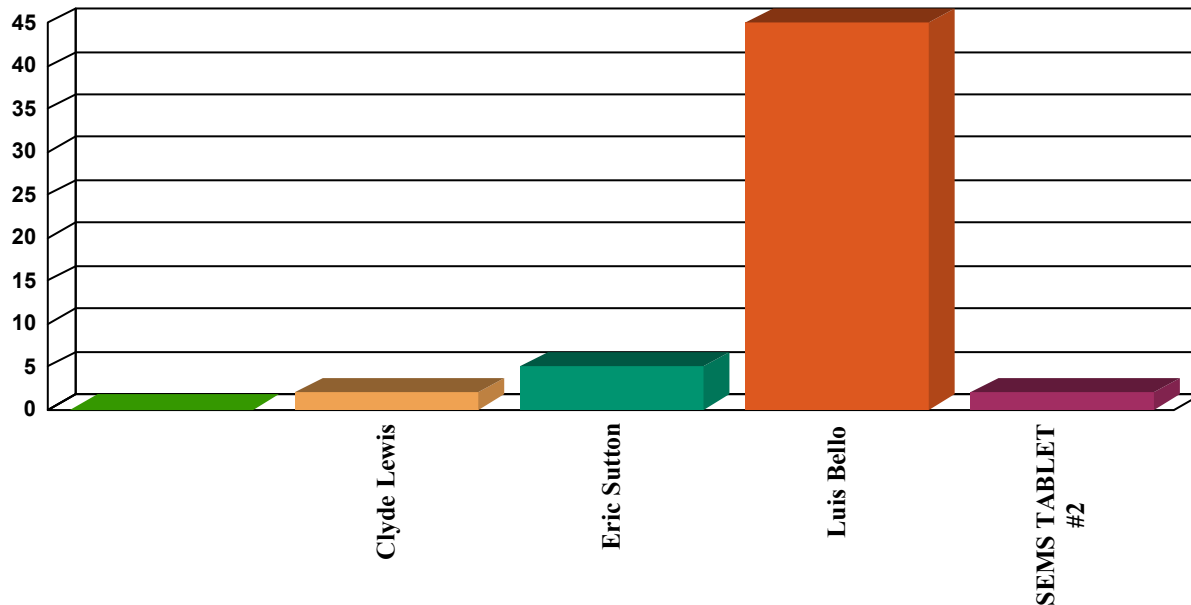
Corrective Maintenance	10
Preventative Maintenance	47
Total Work Orders	57



Work Order History by Reason



Work Order History By Employee



Employee	WO Count	Labor Hours
Clyde Lewis	2	2
Eric Sutton	5	11
Luis Bello	45	0
SEMS TABLET #2	2	0
Unassigned	3	4
Totals	57	17

Corrective Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
12/10/23	18946	PS D - DPW Stormwater Pump Station	Set up 6" trash pump up do to rain event	Es CL set 6" trash pump up due to rain event		12/10/23	Completed
12/12/23	18947	30 - WW Treatment Plant - General	D box area fumed due to sso	Ez Cl BP at d box area liked grass due to overflow on d box	Clyde Lewis	12/12/23	Completed
12/12/23	18948	PS D Building	Removed 6 inch pump from station due to weather event brought back to plant	Cl es, retrieved 6inch trash pump from station due to weather event		12/12/23	Completed
12/13/23	18949	PS 5 Electrical MCC	High voltage W/C es CL and rosano on site.	High voltage repaired 1 lug on 1 led in electrical cabinet, rosano davis pumped 1 load 5000 gal	Eric Sutton	12/13/23	Completed
12/13/23	18950	PS D Building	Breakers tripped	Ben at station D VFDs tripped Ben call es , es on site checked breakers, breakers tripped, reset now operational	Eric Sutton	12/13/23	Completed
12/13/23	18951	Primary Clarifier 1	Primary filled due to weather event	Es CL Lb BP set 6" pump up to pump primary # 1 due to weather event	Eric Sutton	12/13/23	Completed
12/19/23	18952	33 - WW Primary Treatment	Primary number one set pump up due to weather	Es cl set up 6 inch trash pump at primary number 1 due to weather		12/19/23	Completed
12/20/23	18953	Influent Wet Well 1	Es ph replaced transducer	Es ph removed broken transducer installed new one	Eric Sutton	12/20/23	Completed
12/27/23	18954	30 - WW Treatment Plant - General	Drainbalance on site drain blockage	Drain second floor bathroom Drainbalance, used electric snake 100' cleared blockage	Eric Sutton	12/27/23	Completed
12/28/23	18955	30 - WW Treatment Plant - General	Repaired two four-inch hoses using new bandit clamps	Lb and cl repaired 2 four inch damaged hoses, used existing cam locks and rebanded	Clyde Lewis	12/28/23	Completed

Preventative Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
12/7/23	18517	Influent Sluice Isolation Gate	Weekly operate through full range	BP did this, I am just closing the work order.	Luis Bello	12/6/23	Completed
12/7/23	18609	High level floats	Weekly High Float Alarm test	BP, and CL did this, I am just closing the work order.	Luis Bello	12/3/23	Completed
12/7/23	18634	Secondary Effluent Isolation Gate	Isolation Valve Exercise	BP did this, I am just closing the work order.	Luis Bello	12/1/23	Completed
12/11/23	17914	Aeration Blower 1	Aeration Blower #1 Oil Analysis - Semi Annual	Not completed, it will be probably be done when we get a mechanic.	Luis Bello	8/22/23	Completed
12/11/23	17917	Aeration Blower 2	Aeration Blower #2 Oil Change - Semi Annual	Not completed, it will be done once we get a mechanic.	Luis Bello	8/22/23	Completed
12/11/23	18359	Mechanical Screen & Washpress System	Screen & Wash press - Semi annual maintenance	Imcomplete, an outside contractor is needed for this.	Luis Bello	11/6/23	Completed
12/11/23	18370	Aeration Tank 1 Oxygen Probe	AT #1 DO Probe Clean and Calibrate - Monthly	Not completed, it will be done with next work order.	Luis Bello	11/7/23	Completed
12/11/23	18371	Aeration Tank 3 Oxygen Probe	AT #3 DO Probe Clean and Calibrate - Monthly	Not completed, it will be done with next work order.	Luis Bello	11/7/23	Completed
12/11/23	18623	All Plant Gear box reducers	GEAR BOX MAINT - WEEKLY	Not completed, it will be done next Thursday.	Luis Bello	12/3/23	Completed
12/11/23	18516	Fixed Gas Monitoring System	Quarterly Calibration Headworks room gas meters	We dont do this anymore, the equipment has been changed.	Luis Bello	12/6/23	Completed
12/11/23	18588	GODWIN Portable Pump	Test Run Godwin Pump-Monthly	Cant do it do to contractors working. The control panels have been blocked.	Luis Bello	12/6/23	Completed
12/12/23	18512	Generator #1- Emergency Kohler 750	Generator Weekly - Test Run no load		Luis Bello	12/11/23	Completed

Preventative Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
12/12/23	18511	Generator #1- Emergency Kohler 750	Generator - Monthly Load Test		Luis Bello	12/3/23	Completed
12/12/23	18553	PS 1 Generator	PS #1 Generator Inspection and Load Test - Monthly		Luis Bello	12/6/23	Completed
12/12/23	18554	PS 1 Generator	PS #1 Generator Inspection and Test - Weekly		Luis Bello	12/6/23	Completed
12/12/23	18558	PS 3 Generator	PS #3 Generator Inspection and Test - Weekly		Luis Bello	12/6/23	Completed
12/12/23	18562	PS 3 Generator	PS #3 Generator Inspection and Load Test - Monthly		Luis Bello	12/6/23	Completed
12/12/23	18563	PS 4 Generator	PS #4 Generator Inspection and Load Test - Monthly		Luis Bello	12/6/23	Completed
12/12/23	18564	PS 4 Generator	PS #4 Generator Inspection and Test - Weekly		Luis Bello	12/6/23	Completed
12/12/23	18573	PS 9 Generator	PS #9 Generator Inspection and Load Test - Monthly		Luis Bello	12/6/23	Completed
12/12/23	18574	PS 9 Generator	PS #9 Generator Inspection and Test - Weekly		Luis Bello	12/6/23	Completed
12/12/23	18582	PS 6 Generator	PS #5 Generator Inspection and Load Test - Monthly		Luis Bello	12/6/23	Completed
12/12/23	18590	PS Kholer Trailer Mounted Generator	Generator - Monthly Load Test		Luis Bello	12/3/23	Completed
12/12/23	18568	PS 5 Generator	PS #5 Generator Inspection and Test - Weekly		Luis Bello	12/6/23	Completed
12/12/23	18572	PS 5 Generator	PS #5 Generator Inspection and Load Test - Monthly		Luis Bello	12/6/23	Completed
12/12/23	18619	Generators "All Pump Station"	Generator - Monthly Load Test		Luis Bello	12/3/23	Completed
12/12/23	18591	PS Kholer Trailer Mounted Generator	Generator Weekly - Test Run no load		Luis Bello	12/11/23	Completed
12/12/23	18620	Generators "All Pump Station"	Generator Weekly - Test Run no load		Luis Bello	12/11/23	Completed
12/15/23	18450	Ventis MX4 #2 - 4 Gas	4 Gas Meter #2 Calibration - Monthly		Luis Bello	11/30/23	Completed
12/15/23	18452	Ventis MX4 #4 - 4 Gas	4 Gas Meter #4 Calibration - Monthly		Luis Bello	11/30/23	Completed
12/15/23	18454	Ventis MX4 #6 - 4 Gas	4 Gas Meter #6 Calibration - Monthly		Luis Bello	11/30/23	Completed
12/15/23	18461	GasAlert Max XTII #2	monthly calibration	Bad O2 sensor. It wont calibrate.	Luis Bello	11/30/23	Wating for Parts
12/15/23	18585	GasAlert Max XTII #1	4 gas meter calibration - monthly		Luis Bello	12/1/23	Completed
12/15/23	18453	Ventis MX4 #5 - 4 Gas	4 Gas Meter #5 Calibration - Monthly	Bad LEL sensor, it wont calibrate.	Luis Bello	11/30/23	Wating for Parts
12/16/23	18451	Ventis MX4 #3 - 4 Gas	4 Gas Meter #3 Calibration - Monthly		Luis Bello	11/30/23	Completed
12/19/23	18513	Generator #1- Emergency Kohler 750	Generator Weekly - Test Run no load		Luis Bello	12/18/23	Completed
12/19/23	18453	Ventis MX4 #5 - 4 Gas	4 Gas Meter #5 Calibration - Monthly	Dispatched To 6032936642	SEMS TABLET #2	11/30/23	Wating for Parts
12/19/23	18461	GasAlert Max XTII #2	monthly calibration	Dispatched To 6032936642	SEMS TABLET #2	11/30/23	Wating for Parts
12/19/23	18592	PS Kholer Trailer Mounted Generator	Generator Weekly - Test Run no load		Luis Bello	12/18/23	Completed

Preventative Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
12/19/23	18621	Generators "All Pump Station"	Generator Weekly - Test Run no load		Luis Bello	12/18/23	Completed
12/20/23	18461	GasAlert Max XTII #2	monthly calibration	Waiting for parts. They dont work.	Luis Bello	11/30/23	Completed
12/20/23	18453	Ventis MX4 #5 - 4 Gas	4 Gas Meter #5 Calibration - Monthly	Waiting for parts, it doesnt work.	Luis Bello	11/30/23	Completed
12/20/23	18624	All Plant Gear box reducers	GEAR BOX MAINT - WEEKLY	Not completed. I got sick that day, and no body else seen to be qualified to do it.	Luis Bello	12/10/23	Completed
12/20/23	18610	High level floats	Weekly High Float Alarm test	I got sick that day, therefore it wasnt done.	Luis Bello	12/10/23	Completed
12/20/23	18508	Generator #2 - Backup Detroit 500	Generator Weekly - Test Run no load	O didnt have the chance to run it that day, it wasnt done. It will be completed with the next work order.	Luis Bello	12/11/23	Completed
12/20/23	18518	Influent Sluice Isolation Gate	Weekly operate through full range	It wasnt completed, I got sick that day. It will be done with the next work order.	Luis Bello	12/13/23	Completed
12/21/23	18509	Generator #2 - Backup Detroit 500	Generator Weekly - Test Run no load		Luis Bello	12/18/23	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	\$105,683.09	\$137,029.17	\$30,700.00	\$136,383.09	\$106,329.17
09M-102B	Capital and Major Repairs	\$140,000.00	\$34,427.02	\$105,572.98	\$65,500.00	\$99,927.02	\$40,072.98
09M-103A	Major Sub Contractors	\$206,459.14	\$110,970.87	\$95,488.27	\$93,000.00	\$203,970.87	\$2,488.27
blank							
	Asset Management	\$589,171.40	\$251,080.98	\$338,090.42	\$189,200.00	\$440,280.98	\$148,890.42

\$338,090.42

Budget expended	Time Status	
	NOW=	3/19/2024
	Start	5/1/2020
43.5%	388.7%	345.1%
24.6%	388.7%	364.1%
53.7%	388.7%	334.9%
42.6%	388.7%	346.0%

09S	D Street	\$7,500.00	\$4,222.43	\$3,277.57	\$0.00	\$4,222.43	\$3,277.57
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56.3%	388.7%	332.4%
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09C	Odor Control Chemicals	\$100,000.00	\$149,384.00	(\$49,384.00)	\$0.00	\$149,384.00	(\$49,384.00)
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149.4%	388.7%	239.3%
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\$288,706.42

Estimated total
remaining 09M,
09C \$99,506.42

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.					\$189,200.00			3/19/2024 14:52
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				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	\$8,000.00			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	\$5,000.00			Orig budget \$25,000. General PM and CM Repair Work - Placeholder Reduce to \$5K for future projects using 09M-103A
1	Fire Alarm Inspections and Service	Pending		101A	\$2,700.00			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				Annual task - Applied Dynamics - Inspection Work - due in spring/summer 2023 \$1700.
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				\$2800 Annual Placeholder - Established contract with Tecta America. Need for new proposal. Increase to \$3500 year 10
2	Jerome H2S Meter Inspection	Pending		102B				Placeholder if new meter is to be planned for. Factors for new meter replacement to be considered. Bought new one Sept. 2023
1	Janitorial Supplies	Pending		101A	\$1,500.00			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	\$5,000.00			Grainger, FWWebb, EJP,Hoadley, McMasterCarr, etc; orig budget \$20,000, Yr 10 up to \$30K
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				

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.					\$189,200.00			3/19/2024 14:52
Priority [1=high]	Description	Status	completed	Task	Estimates & funds remaining	Final Completed Cost	Lead	Comments
1	Lab Equip Calibration	Pending		101A				Annual service \$640 check cost for year 10
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				hardware - does not include installation [estimate for Equip - \$9,000] May or may not occur. Remove from planned projects for 09M. To be assessed in year 10
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 - Year 10 to be assessed, when 2 & 4 are online
1		Pending		102B				
2		Pending		102B				
2	Pump Station #3 - spare rotating, assy, or pump	Pending		102B	\$15,000.00			TBD- estimates being obtained - Industrial Pump PS3 pump removal/repair estimated cost
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 - totl estim \$8,000
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

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.					\$189,200.00			3/19/2024 14:52
Priority [1=high]	Description	Status	completed	Task	Estimates & funds remaining	Final Completed Cost	Lead	Comments
2		Pending		102B				
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
2	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	\$15,000.00			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	\$34,000.00			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	\$10,000.00			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	\$10,000.00			Place Holder SSGen - \$20,000 (Get PO for annual service work)
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 contractoror 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.

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.					\$189,200.00			3/19/2024 14:52
Priority [1=high]	Description	Status	completed	Task	Estimates & funds remaining	Final Completed Cost	Lead	Comments
1		Pending		102B				
1		Pending		101A				
	HDWK fiberglass slide gate	Pending		101A				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] This came out of 102B \$6975.90
1	SC #1 Structural Steel Repairs	Pending		103A				Based on T&M - center supports, scrapers, other - IPC Lydon. Orig \$20K
TOTAL					\$189,200.00			