



HULL WATER POLLUTION CONTROL FACILITY

**MARCH
2022**

MONTHLY OPERATING REPORT



woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

NPDES NO. MA0101231

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Cover pictures:

[top & bottom] Primary distribution box – new isolation gate installation

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 March 2022.

- No lost-time incidents for the month of March
- Continuing Covid-19 safety operations, adhering to W&C, Town, and CDC guidelines and updates.
- There were **154** effluent samples taken in the month of March [details on page (12).] All effluent samples collected were compliant. Process conditions were stable.
- There were no Sanitary System Overflows [SSO] reported.
- Radio project update: Installation of antennas, cables at the pump stations completed. New Radios installed and now operating.
- The plant and collection system odors remained low. Seasonally low sewage temperatures also contributed to the low levels seen. Remote monitoring with the Vapor-Link to monitor H2S levels continued.
- New isolation gates for primary tanks installed at the primary distribution box by D&C Construction.
- The Asset Management Accounts summaries for contract year #7 is attached. Latest revision date: 5/4/22.
- There were 5 grinder pump calls in March.
- W&C O&M continued efforts to support the various ongoing engineering projects. See projects section.
- Weekly Bio Bot, Covid-19 wastewater sampling & monitoring program continued. Assisting Brian Kiley where needed.

*Aram Varjabedian – Project Manager
Town of Hull WPCF
05/11/22*

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

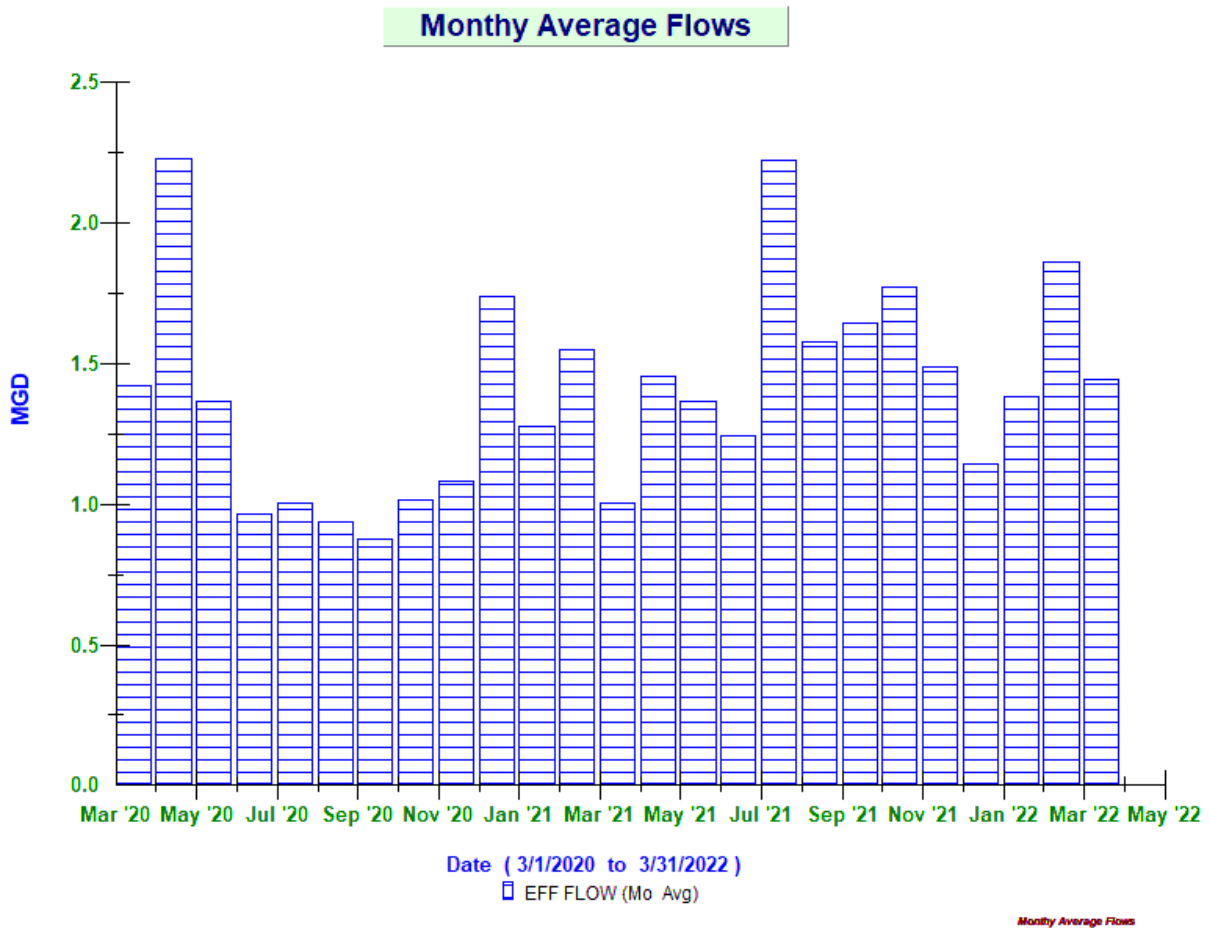


Average Daily Flows and Loadings for the Month: March

Month / Year	Eff Flow	Inf Flow	Inf BOD	Inf TSS	Eff BOD	EFF TSS
	MGD	MDG	LBS	LBS	LBS	LBS
Mar '20	1.42	1.58	1,655.66	3,775.55	54.57	114.61
Mar '21	1.00	1.17	2,557.38	3,365.14	25.97	65.54
Mar '22	1.44	1.45	1,452.74	1,686.21	33.73	66.08

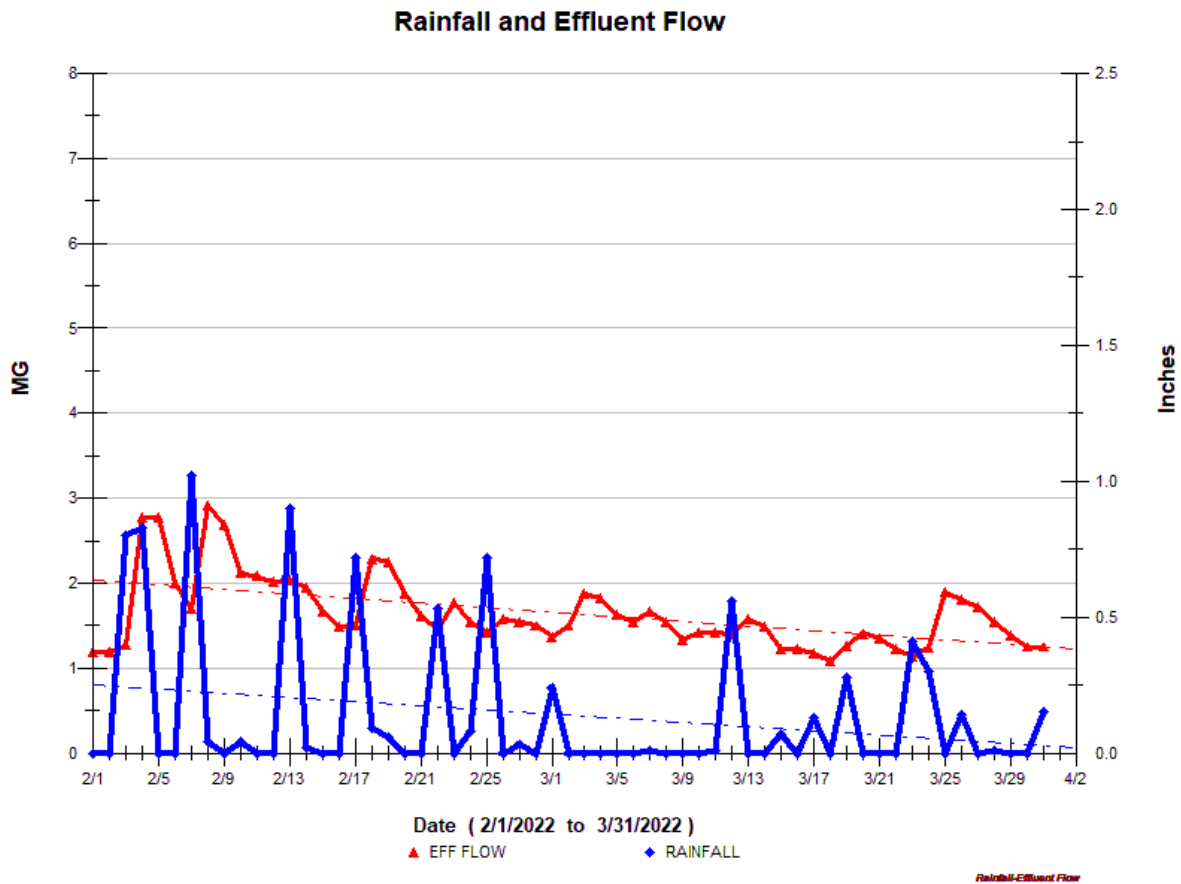
* On-Going -The existing influent flow meters are strap-on doppler flow meters, and the existing pipe condition prevents getting a strong signal. An area velocity meter in the aeration tank inlet channel is used as well as the headworks influent Parshall Flume meter to monitor influent flows. All reported 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.

A. AVERAGE EFFLUENT MONTHLY FLOWS – 2+ YEAR COMPARISON



The monthly average flow for March was 1.44 MGD, slightly lower than the previous month. The total precipitation for the month was 2.31 inches, about 3.5 inches less than the previous month. There were no significant wet weather events to note of during the month. The graph shows the 2-plus year summary of the monthly average flows.

B. TWO MONTH SUMMARY OF RAINFALL AND THE INFLUENCE ON EFFLUENT FLOWS



This graph shows the days where precipitation occurred [rainfall] [Blue Peaks]. This graph shows an upward trend in flows due to the wet conditions.

3 COMPLIANCE



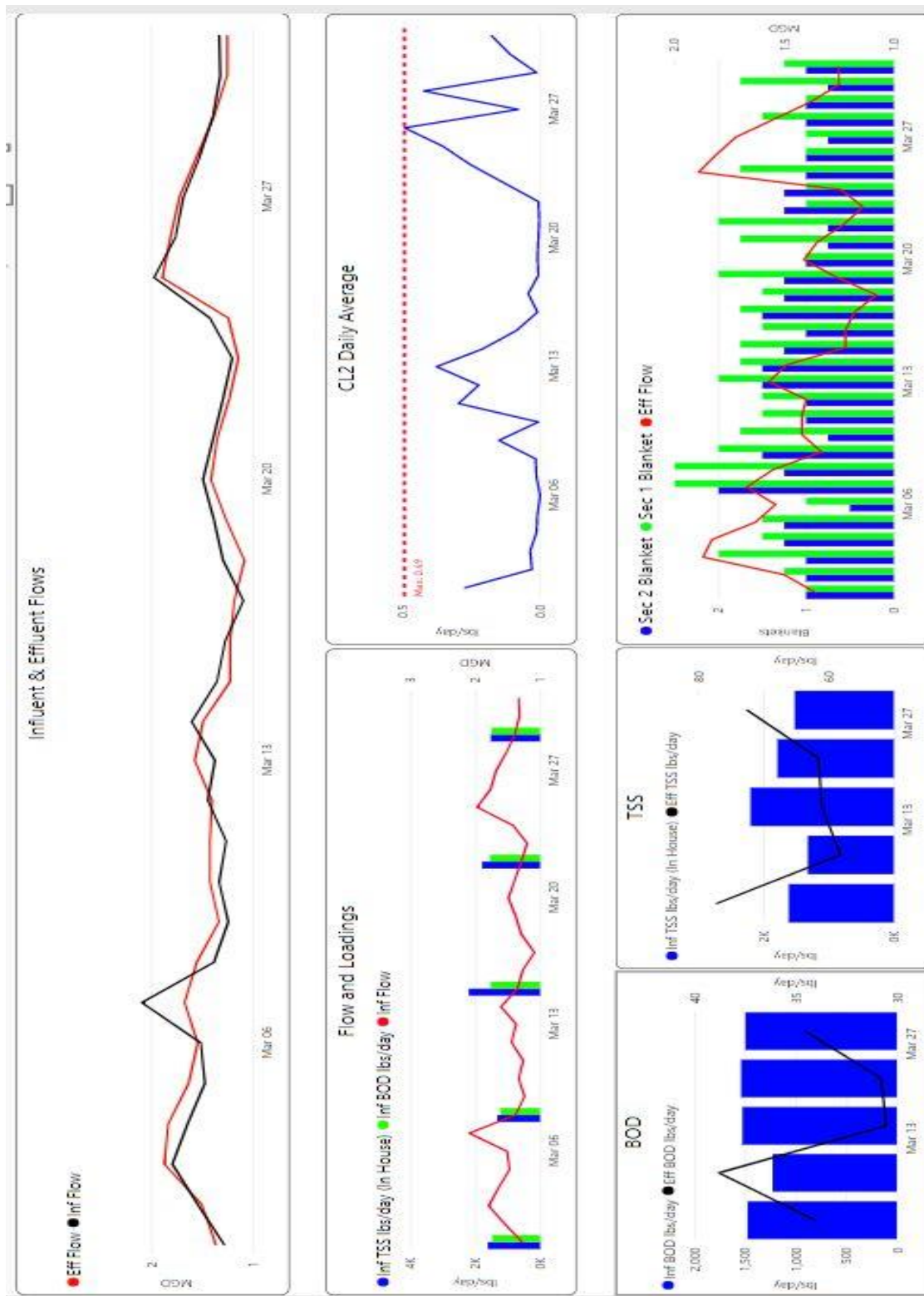
➤ Plant Effluent

There were no permit exceedances in March.

- Plant process conditions were stable during the month. The process tank configuration remained unchanged and, in the contact, “stabilization” mode. This arrangement has 90% of the sewage flow going into aeration tank #3 and the 10% of the sewage flow and 100% of the return activated sludge [RAS] going into aeration tank #1. Aeration tank #1 then flows into aeration tank #3, before flowing to the secondary clarifiers. The aeration blower mode remained in the “timed” mode, due to colder water temperatures. [Dissolved oxygen saturation is higher in colder water]

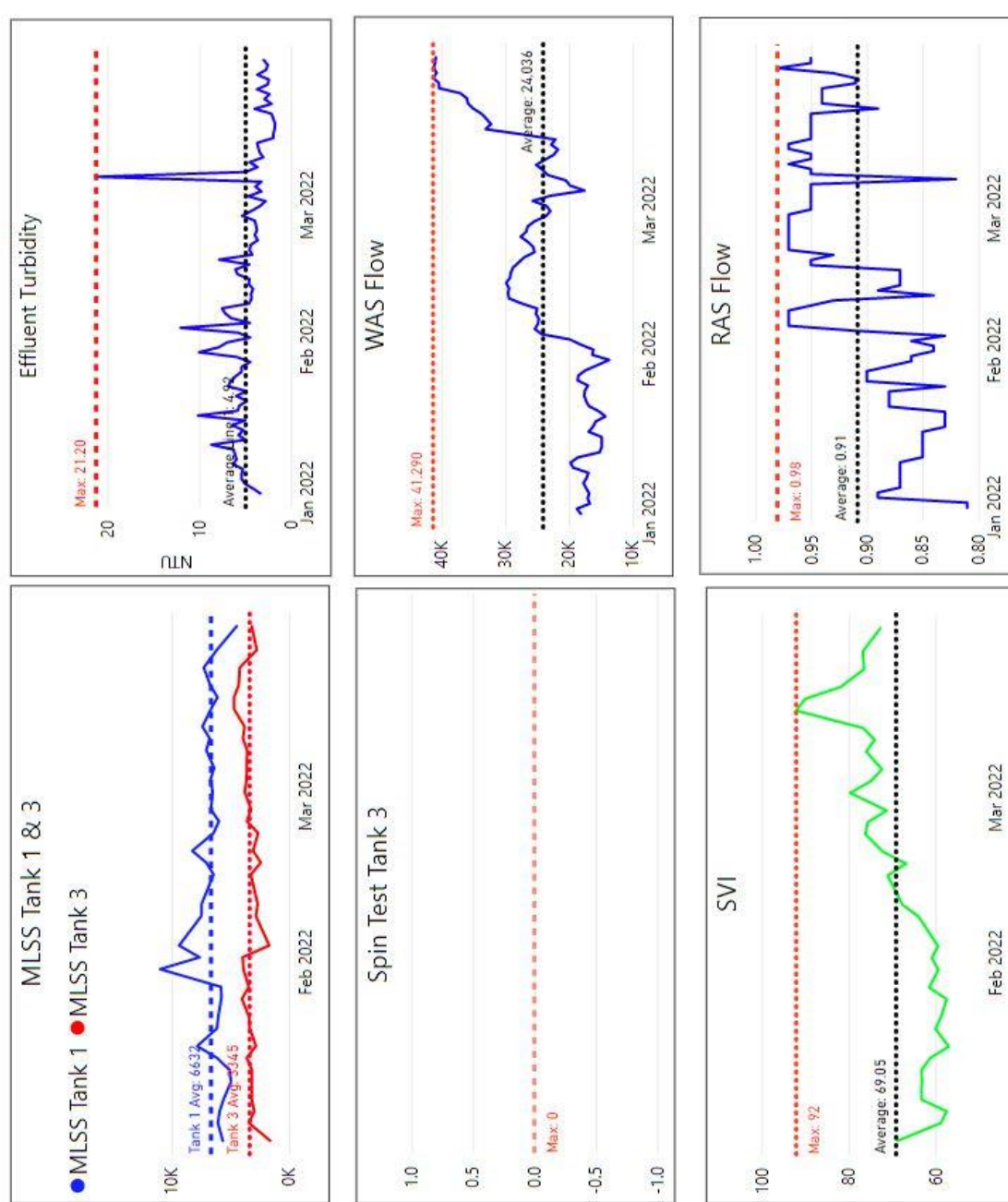


- A Copy of the monthly NPDES reports for March 2022 submitted to the EPA & DEP and then sent to the Hull Sewer Dept.



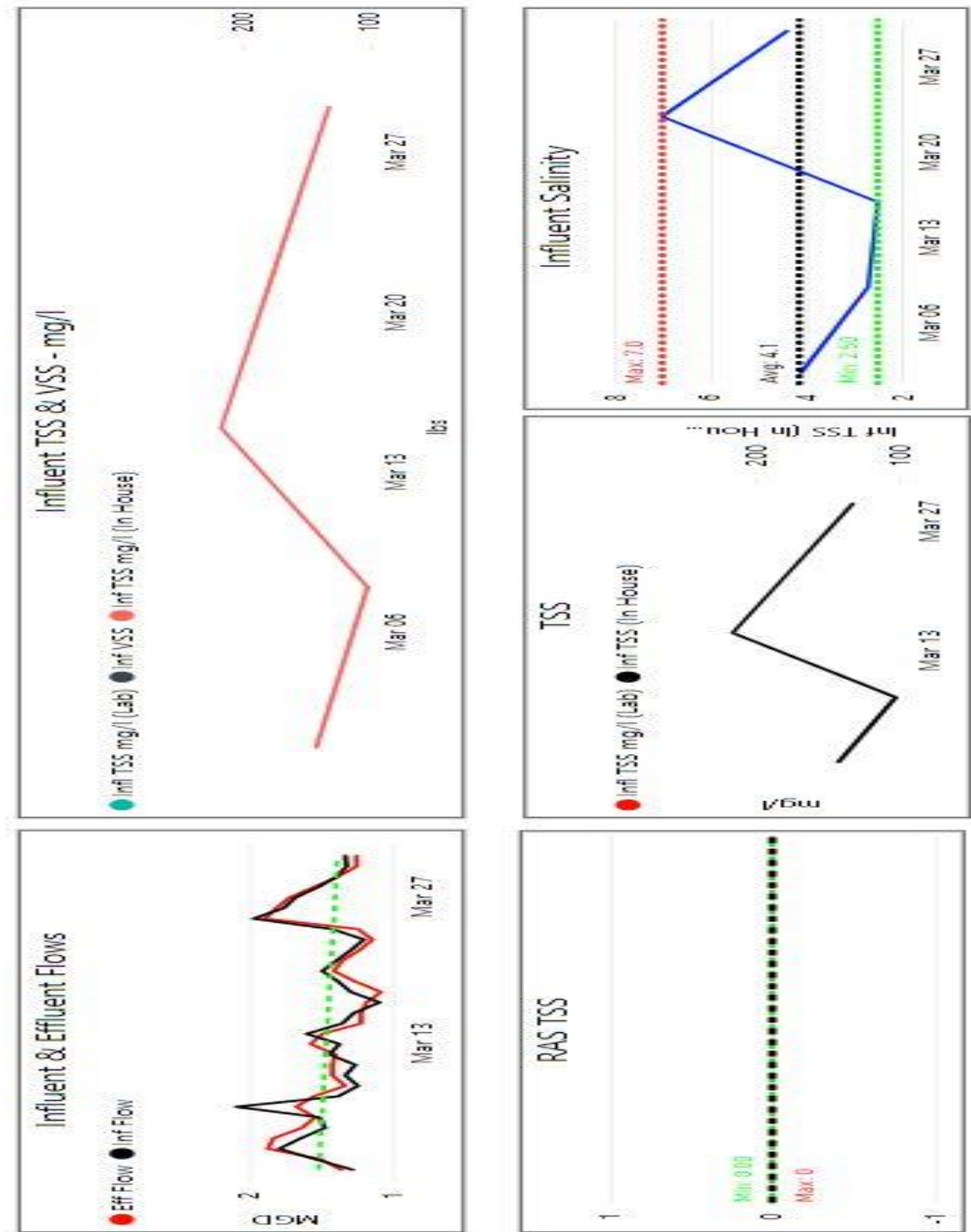
Monthly Process Summary graphs from power BI – March 2022.

SECONDARY PROCESSES – POWER BI GRAPHS



3-month period ending on 3/31/22. The tank solids levels under aeration were stable, as there were no significant changes in plant flows during the month. With the rise in aeration tank solids, a corresponding increase in the wasting rate was made later in the month.

Additional Power BI Graphs showing trends of various processes – March 2022.



4 KEY PERFORMANCE INDICATORS

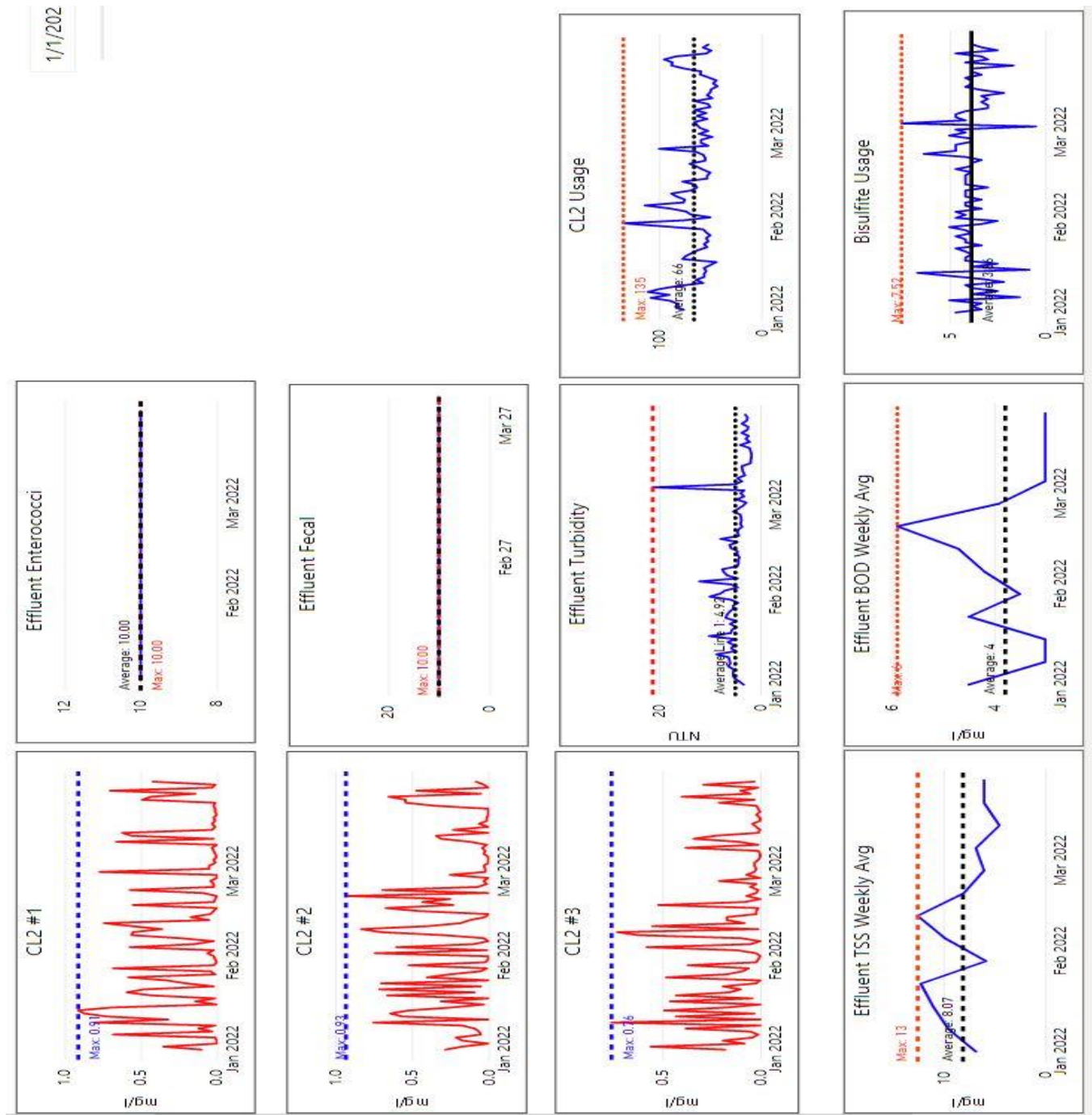


A. WATER QUALITY – MARCH 2022

Parameter Info		Permit Requirements					Results				
Parameter	Units	Daily Allowed Max in month	Min %	Weekly Avg. Max Allowed in month	Monthly Avg	Freq	Period Monthly Avg.	Period Weekly Min	Period Daily Max	# Of Samples	# Of Violations
Eff TSS	MG/L	50		45	30	1 X Week	5.9	4.5	6.8	5	0
Eff TSS	LBS			1152	768	1 X Week	66.1	58.2	77.1		0
% TSS Rem	%		85			1 X Month	96.1				0
Eff BOD	MG/L	50		45	30	1 X Week	3.0	3.0	3.0	5	0
Eff BOD	LBS			1152	768	1 X Week	33.7	33.5	38.8		0
% BOD Rem	%		85			1 X Month	97.7				0
Eff Chlorine	MG/L	1.0			0.7	3 X Day	0.12	0.00	0.49	93	0
Eff Fecal	#/100 ML	260			88	1 X Week	10	10	10	5	0
Eff pH	SU	8.5	6.5			1X Daily	6.7	6.5	6.9	31	0
Enterococci	CFU/100 ML	276			35	1 X Week	10	10	10	5	0

There were **154** effluent samples taken in March.

EFFLUENT COMPLIANCE POWER BI GRAPHS

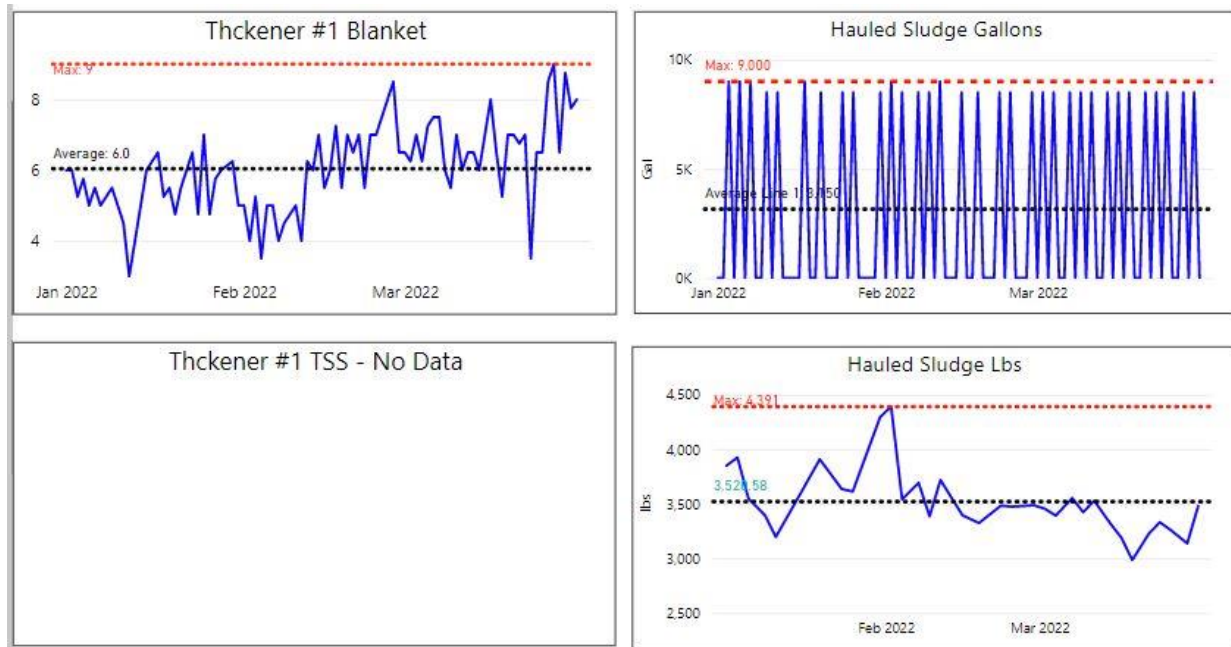


Last 3-month period ending on 3/31/22 - chlorine residuals, effluent compliance, & chemical use. Bleach [sodium hypochlorite] & sodium bisulfite use was lower. Turbidity [clarity] of the effluent was stable. Effluent quality was very good.

Sewage Gallons Treated vs Sludge Disposed

Month	Effluent Treated, MG	Sludge Disposed, Gals
March 2019	44.05	161,000
March 2020	31.09	177,500
March 2021	44.76	110,500

Additional Power BI graphs for sludge solids for 3-month period ending 3/31/22.

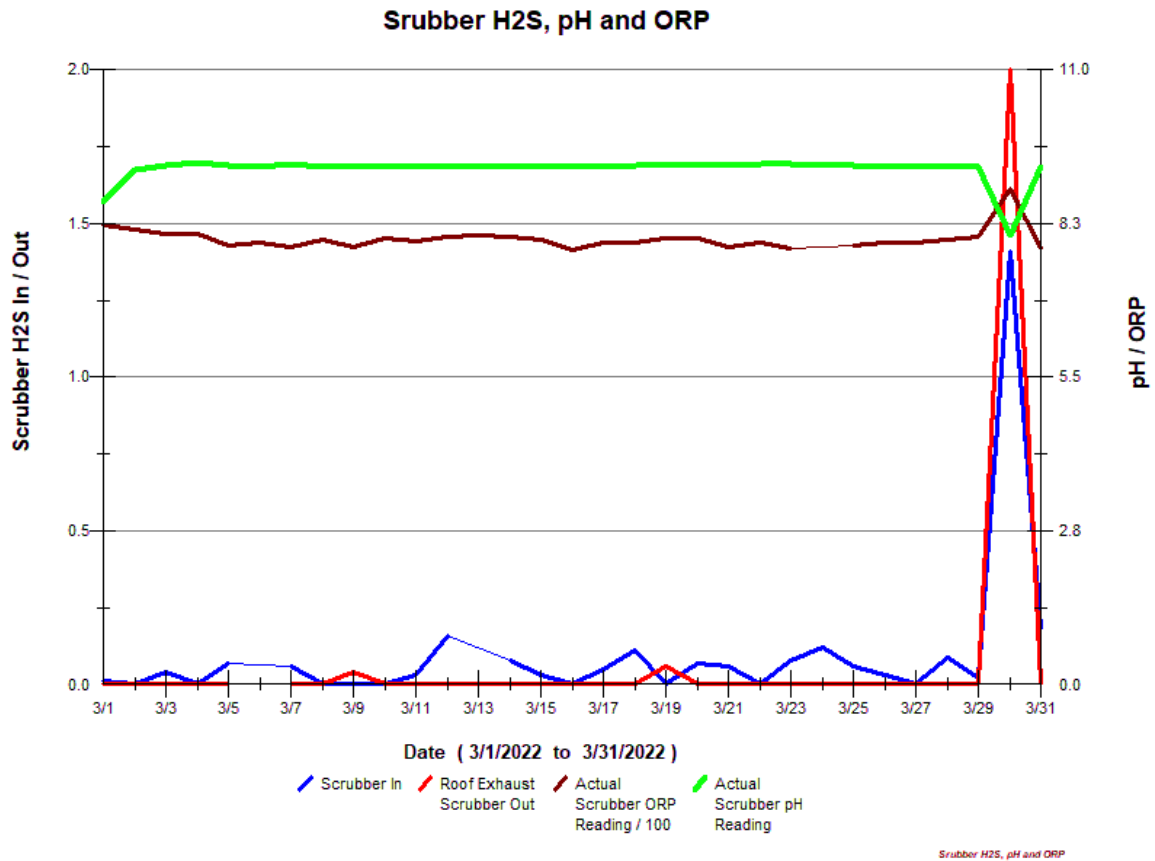


5 ODOR CONTROL

There were no odor complaint calls received during January for the wastewater plant.

The Bioxide system was on, and the feed rates were low. There were adjustments made as needed according to data seen at Nantasket/Water MH and XYZ/Nantasket MH. The monthly graphs are attached below. The daily average Bioxide use for March was 3 gallons per day.

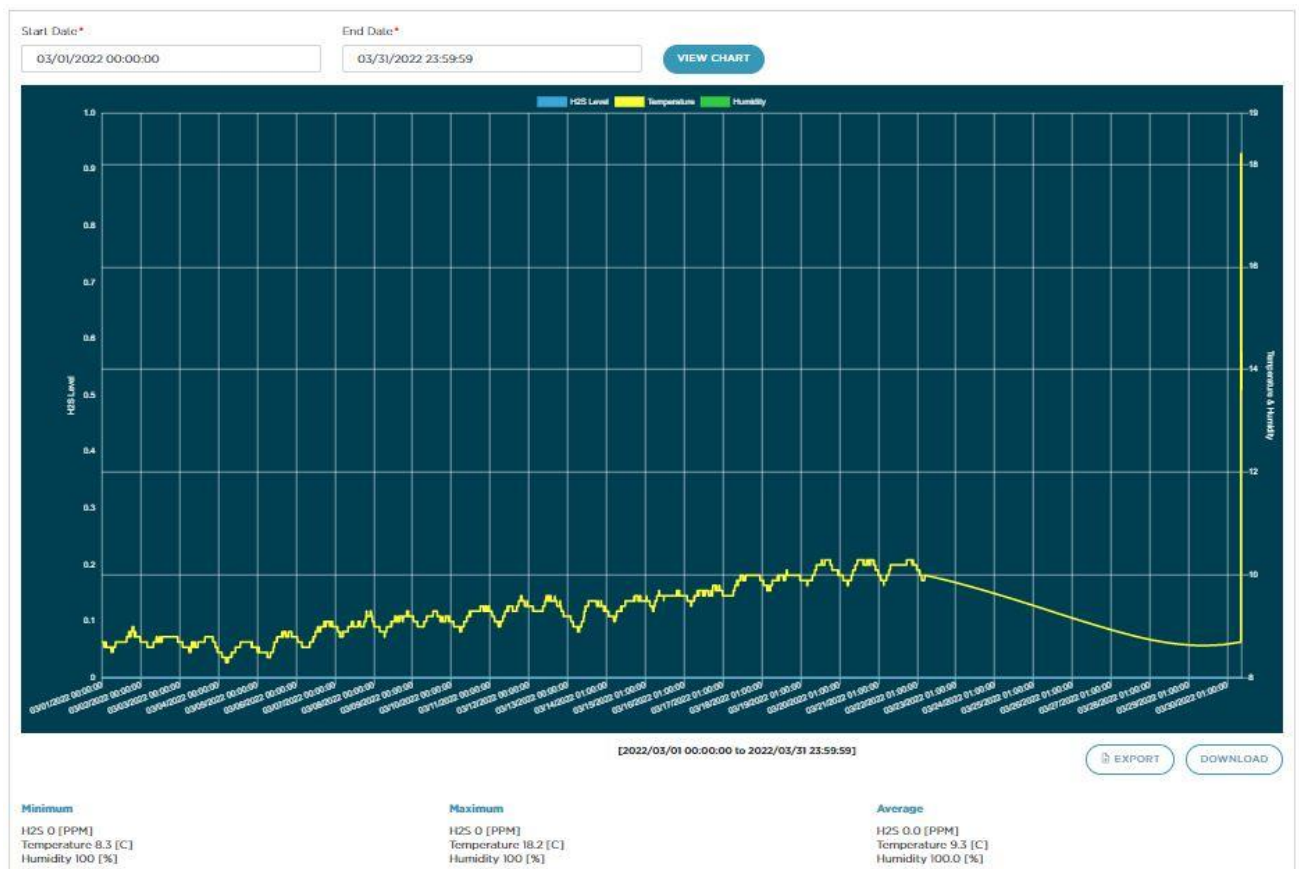
- "In-Pipe" bacteria – monthly changeouts completed on 3/24. Bi-monthly changeouts done for the three locations on 3/18.
- No changes: on pump station mixing systems/aerators.
- No changes - Hydrogen sulfide (H₂S) monitoring units were recording and trending on the odor scrubber. [inlet and outlet]. See graph below



The odor scrubber was shut down for 3/29-3/30 for the annual cleaning and inspection.

[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]



The odor data logging unit at XYZ monitoring the overall H2S levels close to the plant. Low/ZERO H2S present. No spikes seen during the month.

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 at the MH at Nantasket Ave & Water Street. Bioxide is added to have excess nitrate in the sewage system to treat the additional H2S added from other parts of 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.

6 MAINTENANCE SUMMARY



Maintenance History Report

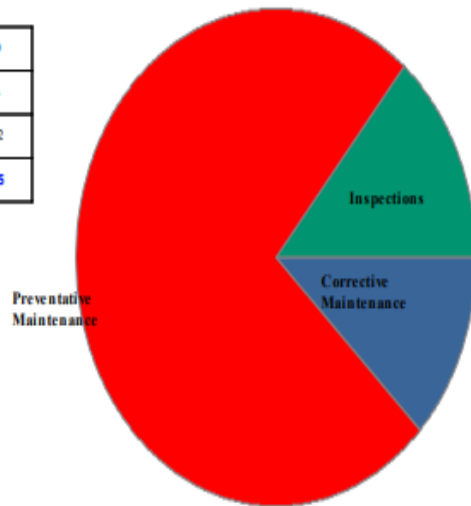
Start Date: 3/1/2022

End Date: 3/31/2022

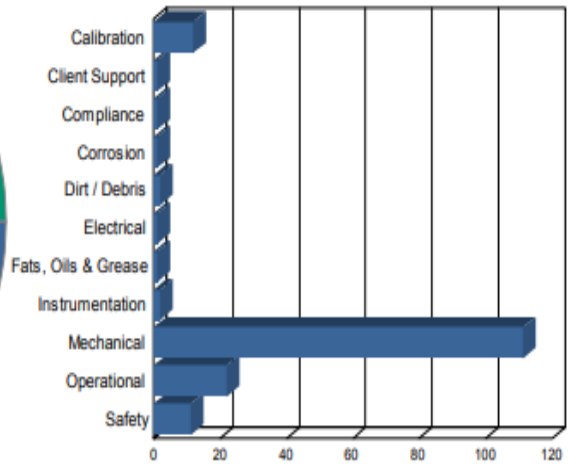
Hull Wastewater

Work Order History By Type

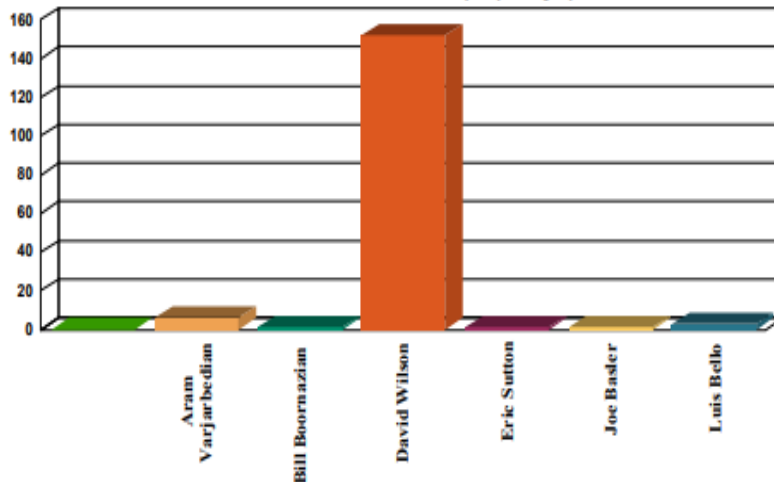
Corrective Maintenance	20
Inspections	23
Preventative Maintenance	122
Total Work Orders	165



Work Order History by Reason



Work Order History By Employee



Employee	WO Count	Labor Hours
Aram Varjarbedian	6	4
Bill Boornazian	1	0
David Wilson	152	31
Eric Sutton	1	3
Joe Basler	1	0
Luis Bello	3	0
Unassigned	1	0
Totals	165	39

A. TASKS COMPLETED THIS MONTH

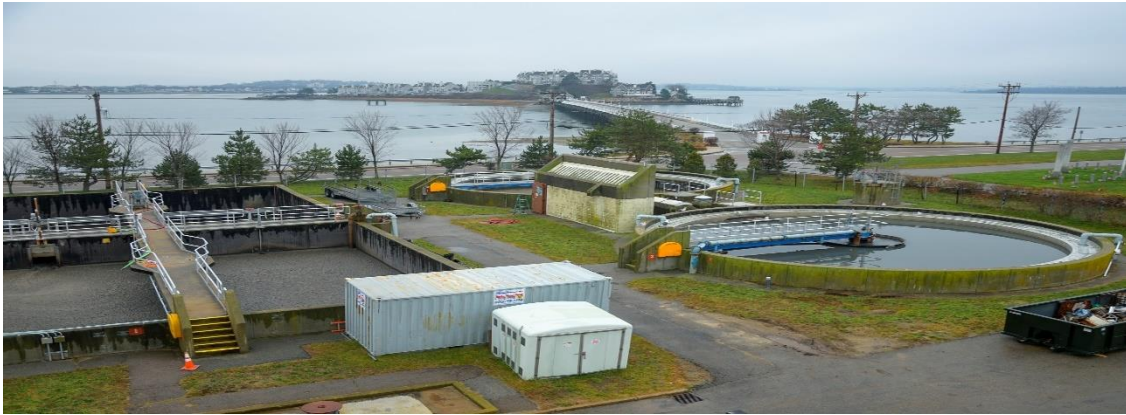
The SEMS monthly work order summary for March is attached for review.

Additional key items of note are listed below:

- 3/14-3/17 – The new sluice gate installation project with new isolation gates installed at the primary D-Box by D&C Construction. The existing isolation gates were 40+ years old, with one gate already broken, and the other gate ready to fail. The new replacement equipment was made of super duplex stainless steel to better withstand the effects of saltwater corrosion. The W&C staff coordinated the process flow changes needed, drain-back of the lines, pump rotation, and tank cleaning necessary so that the D&C work could be completed.
- The annual odor scrubber cleaning and inspection was completed. The timing of the work is typically scheduled at a time during the year when plant odors are at the lowest, and when the scrubber can be shut down for the day or two. The cleaning process involves several cycles of draining, rinsing, treating with hydrochloric acid, and then recirculating at low pH to remove scale build-up. At the end of the cleaning, the low pH water is neutralized, then drained, and the system media is inspected and pressure washed to determine the effectiveness of the cleaning.
- Replaced regen blower at blend box by the GT's



- South Shore Generator [SSG] technician replaced fuel line section that had a pinhole leak on Generator #2 at the plant.
- The generator repairs at PS #6 were completed by SSG. The exciter field, rear bearing, and photo optic sensor were replaced. The rental generator was returned in late March, once the stationary generator repairs were completed.
- W&C Staff responded to a late afternoon level transducer failure at PS #3 on Sunday 3/27. A new level transducer that measures the liquid level in the wet well was installed to replace the failed unit.



B. ASSET MANAGEMENT ACCOUNTS

- Please see the attached summary totals and planned expenditures for the Asset Management accounts for contract year (7). Most recent through **5/4/22**.
- Planned expenditure list updated, especially at the close to end of contract year [4/30]. Monthly review & update. For the delivery & costs that are delayed, some costs will post in year #8.

6 SAFETY



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

- No lost time incidents reported for March
- Monthly PM's - Emergency eyewash and shower inspections, fire extinguishers, and emergency lighting inspections completed.
- Monthly calibrations performed on all MX4 & Max XT11 gas meters
- On-going Coronavirus Covid-19 awareness and updates. Update Covid-19 signage. Daily review and as needed. Pure Safety topic for March was "Use of emergency eyewash and shower stations".
- Monthly W&C staff safety meeting conducted on 3/29/22. Major topics discussed: Various job aids: –back safety, electrical safety, machine guarding, contractor safety.
- Install toe board at end of catwalk for SC #2.
- Install additional Sewer Department signage as requested
- With D&C onsite for HVAC work; review site safety for contractors. Update site specific binder & place at front sign-in desk. All contractors to sign in/out daily.
- Some updating to the SDS binders by RH.

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:

- Monthly staff Safety training completed – Pure Safety and monthly safety meeting. Review W&C's "near-miss" incidents at all W&C projects for month of February.
- Regular (usually daily) operational updates and process control discussions, pump station operations, especially with construction projects going on at the plant. Safety Covid-19, dig-safes, etc.
- JB – First Aid/CPR Training – [2-year refresher]
- JB – Qualified Electrical Worker Training – [every 3-year refresher.
- Staff completed a security culture survey from W&C

Staffing related items:

- The project staffing plan was submitted with the monthly DMR.
- The regular staffing labor was primarily supplemented by O&M Specialist Paul Horigan, who sometimes covers the added shift left open by Aram V, and any other maintenance project needs as needed.
- Continued to have Saturday & Sunday staff coverage supplemented with part-time staff with intern Joel Terrio working Saturdays & Sundays and other weekdays when he has time off from school. This arrangement allows for the regular staff to be on site more during the week.
- Sunday licensed coverage rotation continued with Aram, Roger, Mike, and Joe.
- In March, the staffing levels were not affected due to the ongoing Covid-19 virus pandemic.

8 COLLECTION SYSTEM

A. WET WELL CLEANING

The actual schedule for wet well cleaning: May 2021 to April 2022:

(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, 2021								
June, 2021	X							
July, 2021								
Aug., 2021	X			X				
Sept. 2021								
Oct., 2021								
Nov, 2021								
Dec., 2021								
Jan., 2022								
Feb., 2022								
March 2022	X			X				
April 2022								

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 and a summarized report for October 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 March. 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.

- Grinder pump service – see UC summary
- Check Salt Water Club sewer pipe – inspect and cap off.
- 12 Dighton – check E-1 for control box relocation
- Straits Pond gatehouse assistance as requested
- 96 N Truro – ongoing E-1 alarms/issues
- 10 Valley Beach Rd – blockage call – homeowner issue
- 3/8 - 8 Harborview Rd – I&I investigation

- 3/8 - Push Camera use at 1164,1168,1170 Nantasket Ave
 - 3/11 – 9 Hillside – advise homeowner on broken lateral on their property
 - 3/31 - Odor issue at 263 Harborview, checked MH's found ok and advised homeowner to call plumber with TV capability.
- In-Pipe units – ongoing maintenance of the dosing units as needed. Staff conducted board troubleshooting, dosing pump repairs, and replacements as needed.
 - Pump station emergency generator runs completed- weekly no load and monthly loaded runs.
 - All Pump station wet wells were inspected in March. Monthly Pump Station Inspections are completed and combined with monthly station PM's.
 - Upload new/updated tie-cards to the UC as required.
 - On-going Dig-Safe mark outs. These are completed throughout the Town of Hull to assist/facilitate scheduled and emergency gas repairs, broken water mains, upcoming roadway paving projects, and other residential and town projects and are listed in the UC summary.

9 PROJECT MANAGEMENT & ADMINISTRATION



A. ON-GOING PROJECTS AND SUPPORT ITEMS

March updates:

- Ongoing construction work in many areas of the operations building as the HVAC project started. A lot of work moving, consolidating and storing various items. Disposal and documentation of obsolete items upon approval from HSD. Move and set up of upright cabinets in various locations to store cleaning materials and office supplies – 1st and 2nd floor areas. Many areas were masked off, due to demolition of concrete masonry block, etc.
- W&C O&M working with engineer and D&C construction for hypochlorite storage tank replacement and containment issues plan.
- Draft NPDES Permit – W&C is in the process of reviewing the general permit as well as the site-specific requirements for Hull. Paul Hogan from the Rhode Island office will provide a detailed review of the general permit with the requirements/expectations for all the medium size wastewater treatment facilities. He will review and provide comments and note items that are important and new specifically for Hull. W&C also has reached to our Commercial Lab and provided a copy of the new permit and additional sample requirements to obtain pricing. Preliminary review shows that main impact will be the increased laboratory testing and more specifically the PFAS requirements. A copy of the draft permit was also forwarded to Nick Valinski in anticipation of the upcoming construction project. The Team will continue to review and summarize anything that we note and provided to Brian K, so that a response can go out to the EPA prior to the deadline date in April.
- HSD, W&C met with the Weir River Water Dept to discuss potable water building needs, meters, etc. A plan will be developed to make some modifications in all of the facility buildings at the request of the water supplier.

- Continued to assist and support of engineering projects with review and feedback provided – PS9, secondary& influent systems upgrade project, aeration tanks, bypass options during the planned upgrade, PS 4 pumps, energy grants & funding, and capital planning. Review HVAC updates with Tighe & Bond and all subcontractors, HSD, W&C.
- Assist where requested providing data to the HSD and information for the annual CMOM report
- In response to the webinar delivered by the USEPA and WaterISAC in February to provide additional information on the Cybersecurity Recommendations Advisory, WC was requested to provide responses to the potential Cyber Threat to critical infrastructure in Feb 2022. A number of questions were forwarded by the HSD to W&C, for which we then forwarded to the SCADA group. A response was given, but the HSD requested more specific answers related to Hull. A more detailed response is pending.
- Radio Communications Project Update
 - All antenna components and cables completed
 - Steve Rose & Dean Marengi from TCS completed the installation of the new radios and transition to the new radio communication system on March 16-17. Programming changes at all remote locations and the plant completed and integration into Scada system. Old components removed from control cabinets. New system is on line.
 - radio installation completed and there is a Network Architecture drawing filed in the Hull project folder
 - Update costs to date and consider spare parts for future need

[Pictured: L to R - new radio at plant and same for all pump stations, new antenna at the plant & similar at pump stations, and old 56K modem that has been removed from service at all locations & no longer relying on Verizon for communication network]



Asset Management Accounts - Year 7							
	FOR MARCH M.O.R.	Actual to date			Projected for Final Estimate		
Account		Budgeted Amount	Spent to Date	Delta	Projected costs and incl PO's	Final est	Delta
07M-101A	Preventive Maint	\$213,028.73	\$139,688.34	\$73,340.39	\$0.00	\$139,688.34	\$73,340.39
07M-102B	Capital and Major Repairs	\$140,000.00	\$151,180.04	(\$11,180.04)	\$0.00	\$151,180.04	(\$11,180.04)
07M-103A	Major Sub Contractors	\$180,465.81	\$250,101.26	(\$69,635.45)	\$0.00	\$250,101.26	(\$69,635.45)
blank							
	Asset Management	\$533,494.54	\$540,969.64	(\$7,475.10)	\$0.00	\$540,969.64	(\$7,475.10)

(\$7,475.10)

Budget expended	Time Status	
	NOW=	5/4/2022
	Start	5/1/2020
65.6%	201.0%	135.4%
108.0%	201.0%	93.0%
138.6%	201.0%	62.4%
101.4%	201.0%	99.6%

07S	D Street	\$7,500.00	\$7,681.09	(\$181.09)	\$0.00	\$7,681.09	(\$181.09)
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102.4%	201.0%	98.6%
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07C	Odor Control Chemicals	\$100,000.00	\$84,914.68	\$15,085.32	\$0.00	\$84,914.68	\$15,085.32
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84.9%	201.0%	116.1%
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Estimated total
remaining 07M,
07C \$7,610.22

Hull 2021-2022 - 07M Projects, Tasks, and Needs - (AV)								
Maintenance Account - Year 7 - 05_01_21 to 04_30_22								
FOR MARCH 2021 M.O.R.					\$0.00			5/4/2022 13:14
Priority [1=high]	Description	Status	completed	Task	Estimates & funds remaining	Final Completed Cost	Lead	Comments
1	Mechanical Work Labor by O&M specialists	On Going		101A				Jody St. George, Paul Horigan & WC Support Staff - Total budget \$25,000; incl annual scrubber cleaning, remove old blowers [mech];other items as needed. Adj budget down to \$9,000 - 11/22. Adjust 12/19;adj placeholder \$\$ 1/3/22; adj to zero 2/8/22
1	Pump and Motor Repairs [invoiced and pcard]	On Going		101A				to keep existing equipment running - utilize various outside contractor repair shops, new purchases. orig budget \$20,000; adjust to 6000 11/22, adjust on 2/8/22; adjust to zero 4/4/22
1	Lubricants	On Going		101A				Various Suppliers for oil and grease. Budgeted \$3500. delete \$\$ on 2/2 & move to gen repairs
1	Generator Repairs	completed		101A				General Repair Work - Original Placeholder \$3,000; pending invoice for water solenoed main gen oct 2020; Adj 11/22 to \$2000. Will have rental \$\$, and repair \$\$ for PS6 generator. Main Gen #2 also eval-repairs. Budget at \$3,500. 3/8- Incl with PO issued to SSGen
1	Fire Alarm Inspections and Service	completed		101A				Semi Annual - Hart Security [October & April , central station, & Service]Orig budget \$3000. Adjust to zero 4/4/22. Semi-annual services completed in mid April.
2	Universal waste disposal	Pending		101A				Placeholder - \$500; zero the budget, will incur if needed. Veolia ES in for January services.
1	Service the Forklift	Pending		101A				Placeholder \$400 - Annual cost - outside vendor, will be under 08M
1	Overhead Hoist Inspection	Pending		101A				Annual task - Applied Dynamics - PO is usually issued for April. \$1500 Will be an 08M
1	Flow meter verification and calibration	Pending		101A				Placeholder - Annual - Ray Ferland 1 visit annually [orig budget \$1,000]; Will be under 08M
1	Facility Building - Roof Inspection	Pending		101A				\$2800 Annual Placeholder - Established contract with Tecta America. Spril 2022 services may be delayed due to HVAC project. Not going to happen under 07M, will put into 08M
1	Pump Station #9 - Repairs Immediate	completed		101A		\$6,900.00		Costs from D&C to be charged to budget Oct 2021
2	Jerome H2S Meter Inspection	Pending		101A				\$1100 - Placeholder for Annual Inspection - sent out includes annual service \$1100; not done in year #6 [remove placeholder 10/25
1	Janitorial Supplies	On Going		101A				Estimated annual expenditures - Orig budget \$4,000; adj 12/19;adj to \$1,000 on 2/2/22
1	Manhole Inspections	Pending		101A				As required,and/or scheduled
2	General mechanical and electrical items/supplies	On Going		101A				Grainger, FWWebb, EJP,Hoadley, McMasterCarr, etc; orig budget \$18,000, adjust to \$9,000 on 10/20; adjust to 6500 on 11/22; adj 12/19 to \$5000; adj to \$2000 on 2/2/22. Zero out on 3/8.
1	IR Survey	completed		101A				Done in 2021 [September]
2	Hoses	completed		101A				Replacements and/or Service - On-Going - As Needed; Purchased three 6-inch hoses, close out budget Oct 2021
1	Replace UPS batteries - plant and pump stations & town trailer	completed		101A				in process - started Oct 2021; Readjust budget to \$4,500.on 11/22. Completed 12/19
1	Spare A-C pump rotating assembly repair	completed		101A		\$4,400.74		10/18 - currently in shop for repairs at Seacoast Supply. No PO issued. Repaired unit received back.
1 of 4 5/4/2022					2020 05 01 07M Checkbook YTD draft			07M Planned Cgsts

Hull 2021-2022 - 07M Projects, Tasks, and Needs - (AV)								
Maintenance Account - Year 7 - 05_01_21 to 04_30_22								
FOR MARCH 2021 M.O.R.					\$0.00			5/4/2022 13:14
Priority [1=high]	Description	Status	completed	Task	Estimates & funds remaining	Final Completed Cost	Lead	Comments
2	Misc. Materials	completed		101A				Hardware Store - \$200.00 per month - reoccurring expense; orig budget \$2,400; Adjust to zero 4/4/22
4	Install a flow meter on the generator cooling water system - plant water	Pending		101A				Have an estimate [Oct 2018]; possible after 5/1/20
1	Lab Equip Calibration	completed		101A				Annual service \$600- usually Jan/Feb. Last done May 2021; process invoice Oct 2021
1	Mech seal[s] for RAS pumps ! & 2	completed		101A		\$4,648.39		P1 repairs in progress as of 10/1/21; estim cost \$5,000. No PO issued.
2	Tecta Roof Repairs - proposed per 2021 inspection	Pending		102B				TBD
2	yard hydrants - installation	Pending		102B				sub-contractor labor - pending; Have materials on hand. To be put on hold until spring 2022 [\$5,000] 2/2/22
1	Pump Station #4 - purchase two new pumps	Completed		102B				Cost: On a PO with MSI - # estim \$35,000 - by AEPump, order id delayed due to supply chain issues [expected May 2022]
1	Pump Station #4 - install new pumps	pending		102B				Most likely by D & C. 3/8 - Date pushed out to April & bill to hit in May ? - \$10,000
1	Effluent Pump #3 - repairs	completed		102B				Currently the 60HP pump is at Flygt Repair shop - estimated repairs and new power cord - \$25,000; Pump still at shop - Dec 2021; No PO was issued. Parts due in for late March. April update: Pump delivered on 4/30, therefore repair costs will go on 08M
1	Sanitaire hardware purchase for aer tk 1	Completed		102B		\$12,776.00		Purchase more hardware - done June/July 2021 [not billed yet]
1	Additional Sanitaire hardware/equip needs	completed		102B		\$2,612.00		Additional 350 membrane diffusers for aeration tank #1 [ordered 10/19/21
3	Replace 6" potable water valve in basement and misc. valves	On Going		102B				While doing project check/replace 1 1/4 valves as needed - Requires a water shutdown, on hold until after HVAC project completed. Orig planned cost \$3,000, but scope has increased with all of the plant water system & plumbing needs also. Will be an 08M charge.
2	New 6" portable trash pump - changed to new effluent P3 - Flowserve	On Going		102B				Purchase from either Sourcewell or other -best estimate: Update 2/8 to AquaSolutions - purchase of new effluent pump #3 - 60HP pump. On an issued PO 104175 under 07M.
1	New Effluent Flygt Pump #4	completed		102B				20 HP pump ordered October 2021. on a PO Estim cost: \$17,000 plus freight
3	New 4-inch valves for pri building between the tanks Installation	Pending		102B				Valves - cost: \$2500, sub-contracted labor - either WC or outside co.\$4,000 - totl estim \$6,500
3	Odor log data loggers & calibr kit	Pending		102B				Current units obsolete and not supported by company, possibly look at under 05C if funds avail; remove the \$6,000 on 2/6/20 - 06C or 06M
3	Jerome meter replacement	Pending		102B				replace unit, if done \$11,000
3	Gravity Thickener #1 sandblasting/painting	Pending		102B				Estimate \$45,000+ - would need to go out for competitive bid request, Target late spring/early summer 2022 ?

Hull 2021-2022 - 07M Projects, Tasks, and Needs - (AV)								
Maintenance Account - Year 7 - 05_01_21 to 04_30_22								
FOR MARCH 2021 M.O.R.					\$0.00			5/4/2022 13:14
Priority [1=high]	Description	Status	completed	Task	Estimates & funds remaining	Final Completed Cost	Lead	Comments
2	AUMA spare electric actuator	completed		102B				one spare unit, for inventory - Quoted by A&N. PO requested.& on order.#103652, unit delivered April 18th
1	Grit classifier system parts	On Going		102B				No spare parts - tail shft housing, tail shaft, bushing, retainer plate, etc.Estimate from DGMarshall, HE Moore and Envirodyne. Parts purchasing initiated Dec 2021. Estimated total \$9,000. DGMarshall parts delayed, will post under 08M.
2	Replacement Pumps LS A	Pending		102B				Pump efficiency lower than desired - new pumps may be needed. Estimate ?
1	Electrical Work	On Going		103A				Electricians: Glen Fellows, HiVoltage, other; remv old blowers.lighting, sec bldg elec outlets - \$2,000/month; orig budget \$25,000; adjust down to \$4,000. Adjust down & zero out on 12/19.
1	SCADA Work	On Going		103A				Steve Rose and the SCADA Support Team; orig budget \$25,000; adj Dec 2021. Adjust budget remaining from 11K down to 6K; adjust budget down 2/8/22 to - \$2,500; REDUCE TO ZERO, due to April service visits
1	E-One Repairs and Replacement	completed		103A				Based on historical costs. E1 repairs where cost-effective & new replacement pumps; control panels, other equip; Orig budget \$25,000; More replacement pumps versus repairs. Reduce budget to 15K on 10/6; adj to 12K on 10/25; Adjust budget on 11/22 to \$3000. Adjust budget to Zero 12/19. 1/2/22 YTD costs \$28K. 2/2/22 - ongoing repairs & increased costs. Completed what was in for repairs & posted to 07M
1	Annual Generator inspection	completed		103A				placeholder 2021 Annual \$4,900 - MSElectrical Power - Generator PM/Service work - due in November, Early Dec target completion. 2/2/22 New Contractor will be in place for 2022. SSGEN - incl with PO issued to SSGEn. Annual PM services completed in April 2022.
1	Automatic Transfer Switch inspection and servicing	Pending		103A				\$2400 - Annual Service planned for April Highland Power - NETS - Transfer Switch; Part of Gen Svc PO. Maypush this to after May 1st 2022 [2/2/22]
1	Wetwell Inspections and Cleaning - Plant/Pump Stations	On Going		103A				As required, plant or pump stations; orig budget \$10,000; adj 12/19 down to \$5000. 3/8 - adj placeholder down to \$3,000. Adjust to zero [4/4/22]
1	Sewer Line Cleaning - Emergencies	On Going		103A				Placeholder - As required for various sub-contractors; could be Hoadley, Truax, WindRiver, BMC, or other, collection system & plant; orig budget \$10,000 ; adj budget down to \$5,000 10/20; adjust down 1/3/22; Reduce to zero for Hoadley and Next Level work in late March/early April
1	Collection System and plant - emerg & unplanned calls - Jetting & CCTV work - various contractors	On Going		103A				Budget - 15,000, adj down to 10K on 10/20; Reverse budget to Zero after PS9 Pump & Haul in January for FM evaluation. [2/2/22]
1	Mersino 6" pump rental	completed		103A				approx \$2600 per month; adj budget down due to payments 11/22; adj 12/19. Pump returned at end of March rental period.
1	Aer tank repairs [labor] through September	completed		103A				4 days - millwrights - Lydon \$8000
2	Aer tank repairs [labor] for diffuser membrane replacement	completed		103A		\$1,952.92		2 days - millwrights - Lydon \$6300; Aeration tank #3, aeration tank #1
3	Regen Aeration System - Pump Station #5	Pending		103A				Orig est \$1,500 -Tie into the SCADA system - Glen Fellows; .
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: \$31,000. Maybe year 8M project ?
4	Generators - Load Bank Testing Plant & Pump Stations	Pending		103A				Look at under 08M - recently done under 06M.
1	EESCO electrical MCC work - plant	completed		103A		\$10,235.00		In progress as of September 2021, and to be completed October 2021
1	EESCO MCC work at the Pump Stations	Pending		103A				TBD quoted for Oct/Nov 2021
3 of 4	5/4/2022				2020_05_01_07M_Checkbook_YTD draft			
1	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; budget of \$7,500 on hold
					07M Planned Costs			

Hull 2021-2022 - 07M Projects, Tasks, and Needs - (AV)								
Maintenance Account - Year 7 - 05_01_21 to 04_30_22								
FOR MARCH 2021 M.O.R.					\$0.00			5/4/2022 13:14
Priority [1=high]	Description	Status	completed	Task	Estimates & funds remaining	Final Completed Cost	Lead	Comments
1	LS A pumps - Repairs to P2 by Industrial Pump	On Going		101A				Placeholder - 4/12 - Evaluating cost for pump repair while relacement costs for parts or new pumps are looked at.. Spare assembly still at shop - repairs authorized March/April - Estim \$8,000
1	PC #2 rake repairs - Lydon	completed		103A		\$33,370.77		Time and materials per proposal;[\$18,000]Revised estimate due to additional issues not seen with first inspection. Estimated additional \$\$ - \$15,000
1	PC2 remaining repairs - turnbuuckles	completed		103A				installation - INCL above.
1	Aeration Tank #1 mechanical assistance	completed		103A		\$6,911.47		hardware replacement and diffuser replacement - Late Nov, Early Dec.3 days of contractor assistance.
1	Deragger PS3 for Pump #2	completed		102B				Needs to be completed by MSI, additional electrican assistance. Completed and functional.
TOTAL					\$0.00			



Maintenance History Report

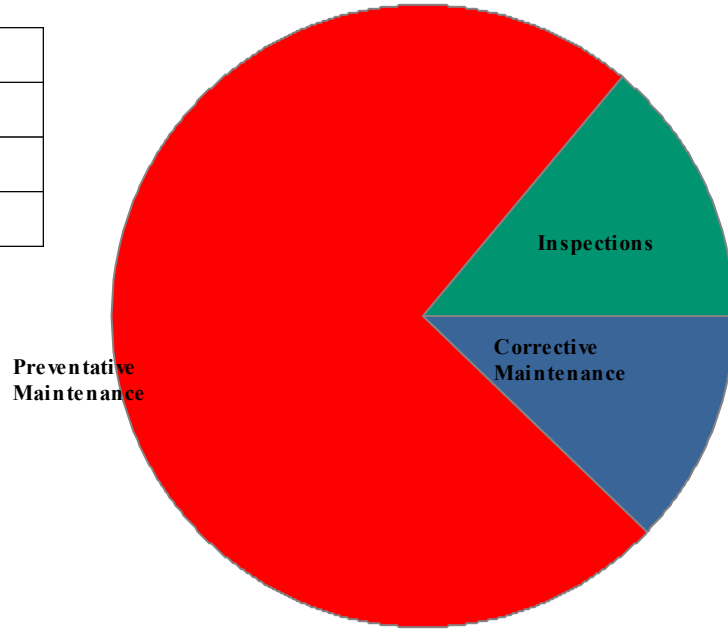
Hull Wastewater

Start Date: 3/1/2022

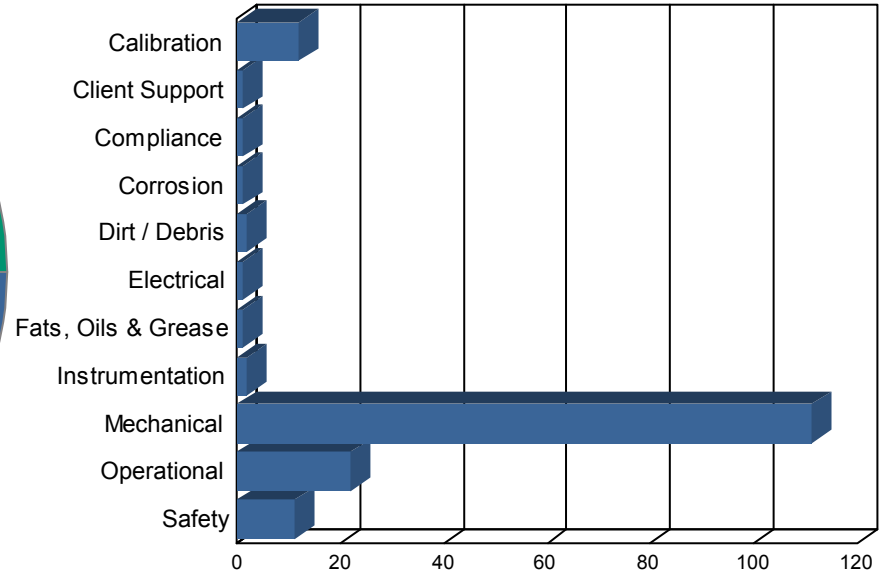
End Date: 3/31/2022

Work Order History By Type

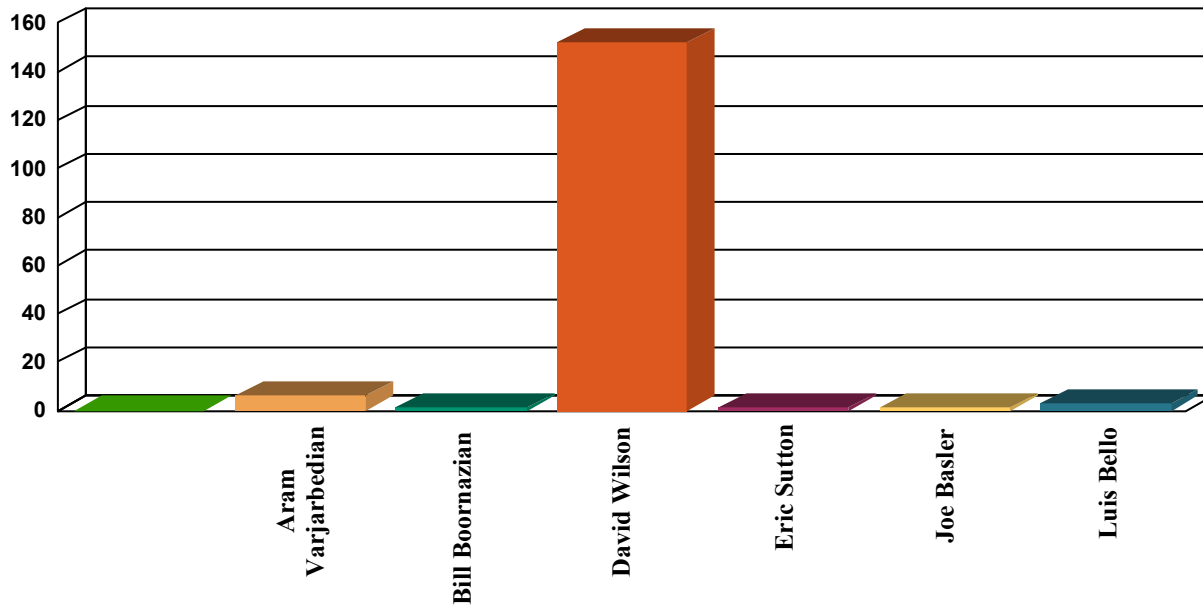
Corrective Maintenance	20
Inspections	23
Preventative Maintenance	122
Total Work Orders	165



Work Order History by Reason



Work Order History By Employee



Employee	WO Count	Labor Hours
Aram Varjarbedian	6	4
Bill Boornazian	1	0
David Wilson	152	31
Eric Sutton	1	3
Joe Basler	1	0
Luis Bello	3	0
Unassigned	1	0
Totals	165	39

Corrective Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
3/1/22	15602	Wet Scrubber System	Diagnose why pH probe will not calibrate	Turned off chemical feed pumps to wet scrubber system. Removed pH probe and inspected. Cleaned optical sensor, replaced salt bridge, seals and buffer solution. Completed two point sample calibration. Verified function- good	David Wilson	3/2/22	Completed
3/2/22	15603	Primary Sludge Pump 1	Replace failed check valve.	LOTO of pump and valves. Removed hardware and check valve. Installed new check valve and installed hardware.	David Wilson	3/2/22	Completed
3/3/22	15604	Wet Scrubber Fan	Replace belts and pulleys.	LOTO of equipment. Removed belt guard and motor gaurd. Removed pulleys from shafts. Installed new pulleys. Paul Horrigan aligned pulleys. Installed new belts and set deflection. Installed gaurds. Returned to service. Decreased speed from 48hz to 44hz.	David Wilson	3/3/22	Completed
3/8/22	15605	Portable Generator - Honda	Repair recoil starter	Removed recoil starter. Removed broken pull cord. Rewound pull cord and installed on motor. Tested function of recoil starter.	David Wilson	3/8/22	Completed
3/11/22	15606	Sludge Transfer Pump 1	Replace failed coupling verify alignment	LOTO of equipment. Removed gaurd to replace spider coupling. Hub seized to shaft. Removed motor mounting hardware. Installed new coupling and aligned motor to pump. Returned to service.	David Wilson	3/11/22	Completed
3/14/22	15608	Primary Clarifiers	Clean and inspect primary scum pit	Raised scum pit level for cleaning. Hoably vacuumed out floating F.O.G. Pumped down tank and washed down ladder rungs and walls. Confined space entry into scum pit to clean scum beach drain pipe. All ladder rungs intact.	David Wilson	3/15/22	Completed
3/14/22	15610	PS A Wet Well	Wetwell cleaning	Turned off pumps and aerator. Set up combination truck to vacuum out solids. Cleaned out all solids. Cleaned and inspected transducer. Cleaned and inspected aerator. Returned station to service. Verified operation of pumps. Decanted liquid into manhole in front of PS3. Emptied solids into landfill pit. Rturned to plant and put away tools used.	David Wilson	3/15/22	Completed
3/15/22	15609	PS 4 Wet Well	Wetwell cleaning	Turned off pumps and set up combination truck to vacuum out solids from wetwell. Removed about 80% of floating solids. Three large pieces of fat broke free from the wall. Could not vacuum out and could not break up with pressure washer. Cleaned and inspected aerator. Cleaned and inspected transducer. Returned station to service. Verified function of pumps.	David Wilson	3/15/22	Completed
3/15/22	15611	Influent Composit Sampler	Influent sample hose ragged and not drawing sample	Pulled out line and vleared debris	Joe Basler	3/15/22	Completed
3/16/22	15612	30 - WW Treatment Plant - General	Diagnose loss of flow	Cleaned pump and disassembled for inspection. Found grit and pine needles packed in between the impeller and volute. Reassembled and tested. Good	David Wilson	3/16/22	Completed
3/17/22	15614	Secondary Clarifier 2	Install toe board at end of catwalk.	Measured catwalk width. Cut flat stock to length. Drilled holes for brackets. Made brackets for mounting assembled with stainless hardware. Installed at end of catwalk.	David Wilson	3/18/22	Completed

Corrective Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
3/17/22	15613	Secondary Clarifier 1	Install toe board at end of catwalk.	Cut flat stock	David Wilson	3/17/22	Completed
3/18/22	15615	Operations Building	Repair door footer going into Incinerator room main floor.	Door footer was not anchored to floor. Cedar filler piece was about 60% rotted away. Staples holding strike plate rusted away. Using pressure treated lumber, I made a new filler piece with a router. Mocked up assembly and drilled holes for tapcon fasteners. Secured footer to floor with RTV and tapcon fasteners. Tightened hinges and adjusted latch.	David Wilson	3/18/22	Completed
3/23/22	15617	PS 9 Generator	LB reported a coolant leak from the right side of the generator by the control panel.	Suspect block heater. Pulled new block heater from inventory and everything required to replace unit. Inspected unit and tried to replicate concern. Found loose hose clamp. Topped off fluid levels and ran generator for 15 minutes. No leaks. Wiped down generator and put away tools and parts.	David Wilson	3/23/22	Completed
3/27/22	15622	PS 3 Wet Well	level transducer in wet well failed	Transducer failed at approx 12:30 pm. RH responded, and inspected wet well and maintained manually. DW responded with MS, and transducer could not be removed (stuck), therefore a new one (0 -10 psi) KPSI transducer installed and set to proper depth in WW.	David Wilson	3/27/22	Completed
3/29/22	15621	PS D - DPW Stormwater Pump Station	Test emergency generator hook up	AV,ES,DW and Glenn F and attempt to hook up generator but plug was not in correct orientation to complete. Very cold temps prevented change. will reschedule.	Aram Varjarbedian	3/29/22	Completed
3/29/22	15763	Odor Control Wet Scrubber Vessel	Annual cleaning.	LOTO of system for annual cleaning. Replaced fluids in vessel with fresh water to rinse out existing chemicals. Dropped pH to <2 for 1.5 hours. Neutralized liquid and drained vessel. Filled with water and rinsed media. Second wash completed. Returned to service.	David Wilson	4/1/22	Completed
3/30/22	15623	PS D Building	Repaired door	Took of door, removed damaged jam wood, replaced with new rehung door	Eric Sutton	3/30/22	Completed
3/30/22	15620	Blend Box	regen blower loud, and getting worse	AV, LB swapped out unit with a spare unit, reuse existing pvc pipe and blower support pieces.	Aram Varjarbedian	3/30/22	Completed
3/30/22	15619	DPW Support	HSD request inspect electrical service	3/29/22 Request to verify electrical voltages, and generator hook up for emerg use if needed. AV, ED, DW, Glenn F	Aram Varjarbedian	3/30/22	Completed

Inspections

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
3/1/22	15109	Blower Room Exhaust Fan 1	Monthly operational inspection		David Wilson	2/1/22	Completed
3/1/22	15110	Blower Room Exhaust Fan 2	Monthly operational inspection		David Wilson	2/1/22	Completed
3/1/22	15279	Blower Room Exhaust Fan 1	Monthly operational inspection		David Wilson	3/1/22	Completed
3/1/22	15280	Blower Room Exhaust Fan 2	Monthly operational inspection		David Wilson	3/1/22	Completed

Inspections

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
3/8/22	15198	PS A	PS #A Inspection - Monthly	Inspected wet well. About 75% surface solids. Reccomend cleaning. Tested alarm and sump pump. Inspected fire extinguisher.	David Wilson	3/3/22	Completed
3/8/22	14969	Eyewash Stations	WWTF Eyewash Inspection - Weekly		David Wilson	2/27/22	Completed
3/10/22	15192	PS 1	PS #1 Inspection - Monthly		David Wilson	3/3/22	Completed
3/10/22	15197	PS 9	PS #9 Inspection - Monthly		David Wilson	3/3/22	Completed
3/10/22	15193	PS 3	PS #3 Inspection - Monthly		David Wilson	3/3/22	Completed
3/10/22	15194	PS 4	PS #4 Inspection - Monthly		David Wilson	3/3/22	Completed
3/10/22	15195	PS 5	PS #5 Inspection - Monthly		David Wilson	3/3/22	Completed
3/10/22	15196	PS 6	PS #6 Inspection - Monthly		David Wilson	3/3/22	Completed
3/10/22	15143	Eyewash Stations	WWTF Eyewash Inspection - Weekly		David Wilson	3/6/22	Completed
3/13/22	15607	Truck 1 - 2010 Dodge Ram 1500	Perform vehicle inspection	Inspected vehicle - See doFORMS report for full details.	Bill Boornazian	3/13/22	Completed
3/15/22	15236	Fire Extinguishers	WWTF Fire Extinguisher Inspections - Monthly		David Wilson	3/7/22	Completed
3/16/22	15144	Eyewash Stations	WWTF Eyewash Inspection - Weekly		David Wilson	3/13/22	Completed
3/18/22	15616	Influent Pump 1	Low output	LOTO of equipment. Removed cleanouts and inspected impeller. No debris in impeller. Reassembled and returned to service. Tested flow and got 1 mgd. Assigned to position 3 in pump sequence.	David Wilson	3/18/22	Completed
3/23/22	15145	Eyewash Stations	WWTF Eyewash Inspection - Weekly		David Wilson	3/20/22	Completed
3/24/22	15251	Waste Oil Storage	Waste Oil Area Inspection		David Wilson	3/8/22	Completed
3/24/22	15147	Emergency Lighting & exit signs	Emergency Lighting Inspection - Monthly		David Wilson	3/9/22	Completed
3/24/22	15618	Truck 2 - 2009 Chevy 2500 HD	Perform vehicle inspection	Inspected vehicle - See doFORMS report for full details.		3/24/22	Completed
3/24/22	15250	Truck 2 - 2009 Chevy 2500 HD	Monthly vehicle inspection on do-Forms		David Wilson	3/7/22	Completed
3/24/22	15257	Truck 3 - 2015 Chevy 3500 HD	Monthly vehicle inspection on do-Forms		David Wilson	3/7/22	Completed

Preventative Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
3/1/22	14980	Grit Screw Drive	Grit Screw Drive PM - Quarterly	Thereis no drive to inspect, no screw in service.	Aram Varjarbedian	2/25/22	Completed
3/1/22	14905	Chlorine probe ATI	Weekly calibration	Closeout, probe close to lab results	Aram Varjarbedian	1/17/22	Completed
3/1/22	14906	Chlorine probe ATI	Weekly calibration	Closeout, probe close to lab results	Aram Varjarbedian	1/31/22	Completed
3/1/22	15073	PS Kholer Trailer Mounted Generator	Generator Weekly - Test Run no load		David Wilson	2/28/22	Completed

Preventative Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
3/1/22	15102	Generators "All Pump Station"	Generator Weekly - Test Run no load		David Wilson	2/28/22	Completed
3/1/22	14977	Generator #1- Emergency Kohler 750 pH meter	Generator Weekly - Test Run no load		David Wilson	2/28/22	Completed
3/1/22	15267		Clean and Calibrate	Replaced salt bridge and completed 2 point sample calibration.	David Wilson	3/1/22	Completed
3/1/22	14973	Generator #2 - Backup Detroit 500	Generator Weekly - Test Run no load		David Wilson	2/28/22	Completed
3/1/22	15058	PS 9 Generator	PS #9 Generator Inspection and Test - Weekly		David Wilson	2/23/22	Completed
3/1/22	15064	PS 6 Generator	PS #6 Generator Inspection and Test - Weekly		David Wilson	2/23/22	Completed
3/1/22	15054	PS 5 Generator	PS #5 Generator Inspection and Test - Weekly		David Wilson	2/23/22	Completed
3/1/22	15048	PS 4 Generator	PS #4 Generator Inspection and Test - Weekly		David Wilson	2/23/22	Completed
3/1/22	15038	PS 1 Generator	PS #1 Generator Inspection and Test - Weekly		David Wilson	2/23/22	Completed
3/1/22	15044	PS 3 Generator	PS #3 Generator Inspection and Test - Weekly		David Wilson	2/23/22	Completed
3/1/22	15083	GasAlert Max XTII #2	monthly calibration		David Wilson	2/24/22	Completed
3/1/22	15075	Ventis MX4 #2 - 4 Gas	4 Gas Meter #2 Calibration - Monthly		David Wilson	2/24/22	Completed
3/1/22	15076	Ventis MX4 #3 - 4 Gas	4 Gas Meter #3 Calibration - Monthly		David Wilson	2/24/22	Completed
3/1/22	15077	Ventis MX4 #4 - 4 Gas	4 Gas Meter #4 Calibration - Monthly		David Wilson	2/24/22	Completed
3/1/22	15078	Ventis MX4 #5 - 4 Gas	4 Gas Meter #5 Calibration - Monthly		David Wilson	2/24/22	Completed
3/1/22	15079	Ventis MX4 #6 - 4 Gas	4 Gas Meter #6 Calibration - Monthly		David Wilson	2/24/22	Completed
3/2/22	15237	GasAlert Max XTII #1	4 gas meter calibration - monthly		David Wilson	3/1/22	Completed
3/2/22	15013	Primary Sludge Pump 1	Vaughan Centrifugal pump - Semi Annual	Suction valve needed so extra attention. Zerk fittings replaced.	David Wilson	2/17/22	Completed
3/2/22	15009	RST Feed Pump 1	Vaughan Centrifugal pump - Semi Annual		David Wilson	2/17/22	Completed
3/2/22	15016	Primary Sludge Pump 2	Vaughan Centrifugal pump - Semi Annual		David Wilson	2/17/22	Completed
3/2/22	15012	RST Feed Pump 2	Vaughan Centrifugal pump - Semi Annual		David Wilson	2/17/22	Completed
3/2/22	15020	Waste Activated Sludge Pump 3	Vaughan Centrifugal pump - Semi Annual	Zerk fittings replaced. Good overall.	David Wilson	2/17/22	Completed
3/3/22	15223	PS 9 Generator	PS #9 Generator Inspection and Test - Weekly		David Wilson	3/2/22	Completed
3/3/22	15228	PS 9 Generator	PS #9 Generator Inspection and Load Test - Monthly		David Wilson	3/2/22	Completed
3/3/22	15230	PS 6 Generator	PS #6 Generator Inspection and Test - Weekly		David Wilson	3/2/22	Completed
3/3/22	15229	PS 6 Generator	PS #5 Generator Inspection and Load Test - Monthly		David Wilson	3/2/22	Completed
3/3/22	15218	PS 5 Generator	PS #5 Generator Inspection and Test - Weekly		David Wilson	3/2/22	Completed
3/3/22	15211	PS 4 Generator	PS #4 Generator Inspection and Test - Weekly		David Wilson	3/2/22	Completed

Preventative Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
3/3/22	15217	PS 5 Generator	PS #5 Generator Inspection and Load Test - Monthly		David Wilson	3/2/22	Completed
3/3/22	15206	PS 3 Generator	PS #3 Generator Inspection and Test - Weekly		David Wilson	3/2/22	Completed
3/3/22	15216	PS 4 Generator	PS #4 Generator Inspection and Load Test - Monthly		David Wilson	3/2/22	Completed
3/3/22	15199	PS 1 Generator	PS #1 Generator Inspection and Test - Weekly		David Wilson	3/2/22	Completed
3/3/22	15205	PS 3 Generator	PS #3 Generator Inspection and Load Test - Monthly		David Wilson	3/2/22	Completed
3/3/22	14991	Aeration Blower 1	Aeration Blower #1 Air Filter Inspection - monthly		David Wilson	2/22/22	Completed
3/3/22	15002	Wet Scrubber Fan	Scrubber Exhaust Fan PM - Monthly		David Wilson	2/9/22	Completed
3/3/22	14994	Aeration Blower 2	Aeration Blower #2 Air Filter Inspection - Monthly		David Wilson	2/24/22	Completed
3/3/22	15204	PS 1 Generator	PS #1 Generator Inspection and Load Test - Monthly		David Wilson	3/2/22	Completed
3/3/22	15156	Influent Sluice Isolation Gate	Weekly operate through full range		David Wilson	3/2/22	Completed
3/3/22	15183	RST Feed Pump 1	Monthly Check Pump Couplings		David Wilson	3/2/22	Completed
3/3/22	15184	RST Feed Pump 2	Monthly Check Pump Couplings		David Wilson	3/2/22	Completed
3/3/22	15188	Primary Sludge Pump 1	Monthly Check Pump Couplings		David Wilson	3/2/22	Completed
3/3/22	15189	Primary Sludge Pump 2	Monthly Check Pump Couplings		David Wilson	3/2/22	Completed
3/4/22	15180	RAS Pump 1	Monthly Check Pump Couplings		David Wilson	3/2/22	Completed
3/4/22	15181	RAS Pump 2	Monthly Check Pump Couplings		David Wilson	3/2/22	Completed
3/4/22	15182	RAS Pump 3	Monthly Check Pump Couplings		David Wilson	3/2/22	Completed
3/4/22	15142	Portable Generator - Honda	Portable Generator Inspection - Monthly		David Wilson	3/2/22	Completed
3/8/22	15106	All Plant Gear box reducers	GEAR BOX MAINT - WEEKLY		David Wilson	2/27/22	Completed
3/8/22	15093	High level floats	Weekly High Float Alarm test		David Wilson	2/27/22	Completed
3/8/22	15244	PS Kholer Trailer Mounted Generator	Generator - Monthly Load Test		David Wilson	3/6/22	Completed
3/8/22	15269	Generators "All Pump Station"	Generator - Monthly Load Test		David Wilson	3/6/22	Completed
3/10/22	15200	PS 1 Generator	PS #1 Generator Inspection and Test - Weekly		David Wilson	3/9/22	Completed
3/10/22	15207	PS 3 Generator	PS #3 Generator Inspection and Test - Weekly		David Wilson	3/9/22	Completed
3/10/22	15212	PS 4 Generator	PS #4 Generator Inspection and Test - Weekly		David Wilson	3/9/22	Completed
3/10/22	15219	PS 5 Generator	PS #5 Generator Inspection and Test - Weekly		David Wilson	3/9/22	Completed
3/10/22	15231	PS 6 Generator	PS #6 Generator Inspection and Test - Weekly		David Wilson	3/9/22	Completed
3/10/22	15179	Wet Scrubber Fan	Scrubber Exhaust Fan PM - Monthly		David Wilson	3/9/22	Completed

Preventative Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
3/10/22	15224	PS 9 Generator	PS #9 Generator Inspection and Test - Weekly		David Wilson	3/9/22	Completed
3/10/22	15157	Influent Sluice Isolation Gate	Weekly operate through full range		David Wilson	3/9/22	Completed
3/10/22	15161	Mechanical Screen & Washpress System	Monthly Maintenance		David Wilson	3/7/22	Completed
3/10/22	15259	High level floats	Weekly High Float Alarm test		David Wilson	3/6/22	Completed
3/10/22	15273	All Plant Gear box reducers	GEAR BOX MAINT - WEEKLY		David Wilson	3/6/22	Completed
3/11/22	15190	Sludge Transfer Pump 1	Monthly Check Pump Couplings		David Wilson	3/2/22	Completed
3/11/22	15191	Sludge Transfer Pump 2	Monthly Check Pump Couplings		David Wilson	3/2/22	Completed
3/11/22	15175	Aeration Tank 1 Oxygen Probe	AT #1 DO Probe Clean and Calibrate - Monthly		David Wilson	3/1/22	Completed
3/11/22	15176	Aeration Tank 3 Oxygen Probe	AT #3 DO Probe Clean and Calibrate - Monthly		David Wilson	3/1/22	Completed
3/15/22	15148	Generator #2 - Backup Detroit 500	Generator Weekly - Test Run no load		David Wilson	3/14/22	Completed
3/15/22	15152	Generator #1- Emergency Kohler 750	Generator Weekly - Test Run no load		David Wilson	3/14/22	Completed
3/15/22	15241	PS Kholer Trailer Mounted Generator	Generator Weekly - Test Run no load		Luis Bello	3/14/22	Completed
3/15/22	15270	Generators "All Pump Station"	Generator Weekly - Test Run no load		Luis Bello	3/14/22	Completed
3/16/22	15168	Influent Pump 3	Monthly Check Pump Couplings		David Wilson	3/2/22	Completed
3/16/22	15169	Influent Pump 4	Monthly Check Pump Couplings		David Wilson	3/2/22	Completed
3/16/22	15172	Influent Pump 5	Monthly Check Pump Couplings		David Wilson	3/2/22	Completed
3/16/22	15167	Influent Pump 3	Influent Pump #3 PM & Inspection - SEMI ANNUAL		David Wilson	3/7/22	Completed
3/16/22	15170	Influent Pump 4	Influent Pump #4 PM & Inspection -SEMI ANNUAL		David Wilson	3/7/22	Completed
3/16/22	15171	Influent Pump 5	Influent Pump #5 PM & Inspection - SEMI ANNUAL		David Wilson	3/7/22	Completed
3/16/22	15162	Influent Pumps	Semi Annual "Clean influent pumps 1, 2, 3, 4 and 5 Air relieve valves"		David Wilson	3/7/22	Completed
3/16/22	15260	High level floats	Weekly High Float Alarm test		David Wilson	3/13/22	Completed
3/16/22	15274	All Plant Gear box reducers	GEAR BOX MAINT - WEEKLY		David Wilson	3/13/22	Completed
3/18/22	15164	Influent Pump 1	Monthly Check Pump Couplings		David Wilson	3/2/22	Completed
3/18/22	15163	Influent Pump 1	Influent Pump #1 PM & Inspection - SEMI ANNUAL		David Wilson	3/7/22	Completed
3/18/22	15165	Influent Pump 2	Monthly Check Pump Couplings		David Wilson	3/2/22	Completed
3/18/22	15166	Influent Pump 2	Influent Pump #2 PM & Inspection - SEMI ANNUAL		David Wilson	3/7/22	Completed
3/18/22	15201	PS 1 Generator	PS #1 Generator Inspection and Test - Weekly		David Wilson	3/16/22	Completed
3/18/22	15208	PS 3 Generator	PS #3 Generator Inspection and Test - Weekly		David Wilson	3/16/22	Completed

Preventative Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
3/18/22	15213	PS 4 Generator	PS #4 Generator Inspection and Test - Weekly		David Wilson	3/16/22	Completed
3/18/22	15225	PS 9 Generator	PS #9 Generator Inspection and Test - Weekly		David Wilson	3/16/22	Completed
3/18/22	15232	PS 6 Generator	PS #6 Generator Inspection and Test - Weekly		David Wilson	3/16/22	Completed
3/18/22	15220	PS 5 Generator	PS #5 Generator Inspection and Test - Weekly		David Wilson	3/16/22	Completed
3/18/22	15158	Influent Sluice Isolation Gate	Weekly operate through full range		David Wilson	3/16/22	Completed
3/22/22	15186	Secondary Scum Pump 1	Pen Valley Double Disc pumps - Quarterly		David Wilson	3/10/22	Completed
3/22/22	15187	Secondary Scum Pump 2	Pen Valley Double Disc pumps - Quarterly		David Wilson	3/10/22	Completed
3/23/22	15153	Generator #1- Emergency Kohler 750	Generator Weekly - Test Run no load		David Wilson	3/21/22	Completed
3/23/22	15149	Generator #2 - Backup Detroit 500	Generator Weekly - Test Run no load		David Wilson	3/21/22	Completed
3/23/22	15242	PS Kohler Trailer Mounted Generator	Generator Weekly - Test Run no load		David Wilson	3/21/22	Completed
3/23/22	15271	Generators "All Pump Station"	Generator Weekly - Test Run no load		David Wilson	3/21/22	Completed
3/23/22	15185	Primary Scum Pump	Pen Valley Double Disc pumps - Quarterly		David Wilson	3/10/22	Completed
3/24/22	15085	Chlorine probe ATl	Weekly calibration		David Wilson	2/28/22	Completed
3/24/22	15084	Chlorine probe ATl	Weekly calibration		David Wilson	2/14/22	Completed
3/24/22	15254	Chlorine probe ATl	Weekly calibration		David Wilson	3/14/22	Completed
3/24/22	15261	High level floats	Weekly High Float Alarm test		David Wilson	3/20/22	Completed
3/24/22	15275	All Plant Gear box reducers	GEAR BOX MAINT - WEEKLY		David Wilson	3/20/22	Completed
3/31/22	15159	Influent Sluice Isolation Gate	Weekly operate through full range		Luis Bello	3/23/22	Completed
3/31/22	15227	PS 9 Generator	PS #9 Generator Inspection and Test - Weekly		David Wilson	3/30/22	Completed
3/31/22	15234	PS 6 Generator	PS #6 Generator Inspection and Test - Weekly		David Wilson	3/30/22	Completed
3/31/22	15222	PS 5 Generator	PS #5 Generator Inspection and Test - Weekly		David Wilson	3/30/22	Completed
3/31/22	15215	PS 4 Generator	PS #4 Generator Inspection and Test - Weekly		David Wilson	3/30/22	Completed
3/31/22	15203	PS 1 Generator	PS #1 Generator Inspection and Test - Weekly		David Wilson	3/30/22	Completed
3/31/22	15210	PS 3 Generator	PS #3 Generator Inspection and Test - Weekly		David Wilson	3/30/22	Completed
3/31/22	15160	Influent Sluice Isolation Gate	Weekly operate through full range		David Wilson	3/30/22	Completed
3/31/22	15243	PS Kohler Trailer Mounted Generator	Generator Weekly - Test Run no load		David Wilson	3/28/22	Completed
3/31/22	15272	Generators "All Pump Station"	Generator Weekly - Test Run no load		David Wilson	3/28/22	Completed
3/31/22	15154	Generator #1- Emergency Kohler 750	Generator Weekly - Test Run no load		David Wilson	3/28/22	Completed

Preventative Maintenance

Status Date	WO #	Asset Name	Work Description	Work History Note	Employee	Schedule Date	Status
3/31/22	15202	PS 1 Generator	PS #1 Generator Inspection and Test - Weekly		David Wilson	3/23/22	Completed
3/31/22	15209	PS 3 Generator	PS #3 Generator Inspection and Test - Weekly		David Wilson	3/23/22	Completed
3/31/22	15214	PS 4 Generator	PS #4 Generator Inspection and Test - Weekly		David Wilson	3/23/22	Completed
3/31/22	15221	PS 5 Generator	PS #5 Generator Inspection and Test - Weekly		David Wilson	3/23/22	Completed
3/31/22	15226	PS 9 Generator	PS #9 Generator Inspection and Test - Weekly		David Wilson	3/23/22	Completed
3/31/22	15233	PS 6 Generator	PS #6 Generator Inspection and Test - Weekly		David Wilson	3/23/22	Completed

Date	Asset ID	Asset Description	Asset Class	Name	Workflow Class
3/1/2022 12:27	01-014	24 HELEN STREET	Hull Parcels	Sutton, Eric	Hull - Markout
3/22/2022 12:55	01-019	1 ARTHUR ST	Hull Parcels	Sutton, Eric	Hull - Markout
3/22/2022 12:52	01-032	3 MILDRED ST	Hull Parcels	Sutton, Eric	Hull - Markout
3/9/2022 14:33	03-020	88 MAIN ST	Hull Parcels	Sutton, Eric	Hull - Markout
3/30/2022 14:30	03-020	88 MAIN ST	Hull Parcels	Sutton, Eric	Hull - Markout
3/23/2022 10:22	03-048	34 OCEAN AVE	Hull Parcels	Sutton, Eric	Hull - Markout
3/15/2022 10:59	03-083	176 SPRING ST	Hull Parcels	Sutton, Eric	Hull - Markout
3/24/2022 14:51	05-068	15 HIGHLAND AVE	Hull Parcels	Sutton, Eric	Hull - Markout
3/30/2022 14:27	05-078	73 HIGHLAND AVE	Hull Parcels	Sutton, Eric	Hull - Markout
3/9/2022 7:56	09-044-A	3 FITZPATRICK WAY	Hull Parcels	Sutton, Eric	Generic WO
3/15/2022 14:23	10-005	67 PT ALLERTON AVE	Hull Parcels	Sutton, Eric	Hull - Markout
3/30/2022 14:16	10-025	21 HOLBROOK AVE	Hull Parcels	Sutton, Eric	Hull - Markout
3/23/2022 10:17	10-065	18 KENTON AVE	Hull Parcels	Sutton, Eric	Hull - Markout
3/22/2022 13:10	10-085	23 BLUFF RD	Hull Parcels	Sutton, Eric	Hull - Markout
3/1/2022 9:50	101 Rockaway Ave	101 Rockaway Ave Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Hull - Grinder Pump Maintenance
3/22/2022 13:42	12-073	1 BREAKERS LN	Hull Parcels	Sutton, Eric	Hull - Markout
3/9/2022 14:27	12-081	836 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout
3/9/2022 14:21	13-080	154 CADISH AVE	Hull Parcels	Sutton, Eric	Hull - Markout
3/24/2022 14:52	14-001	46 SUNSET AVE	Hull Parcels	Sutton, Eric	Hull - Markout
3/29/2022 9:00	14-001	46 SUNSET AVE	Hull Parcels	Sutton, Eric	Hull - Markout
3/17/2022 13:23	145 N Truro St	145 N Truro St Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels
3/28/2022 12:29	15-036	36 K STREET	Hull Parcels	Sutton, Eric	Hull - Markout
3/22/2022 13:59	15-054	32 L STREET	Hull Parcels	Sutton, Eric	Hull - Markout
3/7/2022 14:52	15-105	261 BEACH AVE	Hull Parcels	Sutton, Eric	Hull - Markout
3/30/2022 14:13	15-174	23 O STREET	Hull Parcels	Sutton, Eric	Hull - Markout
3/29/2022 9:04	16-006	24 SUNSET AVE	Hull Parcels	Sutton, Eric	Hull - Markout
3/23/2022 11:23	18-079	32 A STREET	Hull Parcels	Sutton, Eric	Hull - Markout
3/23/2022 11:25	18-080	30 A STREET	Hull Parcels	Sutton, Eric	Hull - Markout
3/23/2022 11:28	18-090	19 BAY AVENUE EAST	Hull Parcels	Sutton, Eric	Hull - Markout
3/23/2022 11:21	18-150	2 A STREET	Hull Parcels	Sutton, Eric	Hull - Markout
3/28/2022 12:12	19-063	155 BEACH AVE	Hull Parcels	Sutton, Eric	Hull - Markout
3/24/2022 14:55	19-066	161 BEACH AVE	Hull Parcels	Sutton, Eric	Hull - Markout
3/24/2022 9:26	19-101	5 ADAMS STREET	Hull Parcels	Sutton, Eric	Hull - Markout
3/31/2022 12:31	19-127	4 BREWSTER ST	Hull Parcels	Sutton, Eric	Hull - Markout
3/28/2022 12:08	19-147	176 SAMOSET AVE	Hull Parcels	Sutton, Eric	Hull - Markout
3/15/2022 12:59	19-165	145 BEACH AVE	Hull Parcels	Sutton, Eric	Hull - Markout
3/24/2022 14:54	21-061	106 MANOMET AVE	Hull Parcels	Sutton, Eric	Hull - Markout
3/15/2022 12:47	22-114	336 NEWPORT RD	Hull Parcels	Sutton, Eric	Hull - Markout
3/7/2022 14:28	22-154	69 BROOKLINE AVE	Hull Parcels	Sutton, Eric	Hull - Markout
3/9/2022 14:00	23-004	543 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout
3/30/2022 14:19	25-047	77 SAMOSET AVE	Hull Parcels	Sutton, Eric	Hull - Markout
3/9/2022 13:29	25-124	23 MALTA ST	Hull Parcels	Sutton, Eric	Hull - Markout
3/15/2022 11:34	30-045	106 EDGEWATER RD	Hull Parcels	Sutton, Eric	Hull - Markout
3/17/2022 13:20	32-021	276 NANTASKET RD	Hull Parcels	Sutton, Eric	Hull - Markout
3/17/2022 9:59	32-047	285 NANTASKET RD	Hull Parcels	Sutton, Eric	Hull - Markout
3/17/2022 9:57	32-049	97 CLIFTON AVE	Hull Parcels	Sutton, Eric	Hull - Markout
3/17/2022 10:02	32-053	94 CLIFTON AVE	Hull Parcels	Sutton, Eric	Hull - Markout
3/31/2022 10:12	35-008	105 HAMPTON CIRCLE	Hull Parcels	Sutton, Eric	Hull - Markout
3/15/2022 11:52	37-004	189 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout
3/10/2022 14:03	38-024	163 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout
3/10/2022 14:05	38-048	15 PARK AVE	Hull Parcels	Sutton, Eric	Hull - Markout
3/17/2022 9:07	39-193	12 ROCKLAND HOUSE RD	Hull Parcels	Sutton, Eric	Hull - Markout
3/7/2022 14:30	41-004	14 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout
3/31/2022 12:28	41-004	14 NANTASKET AVE	Hull Parcels	Sutton, Eric	Hull - Markout
3/23/2022 10:28	42 Wyola Rd	42 Wyola Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Sticker Replacement - Grinder Panels
3/29/2022 9:09	49-053	24 SPRING VALLEY RD	Hull Parcels	Sutton, Eric	Hull - Markout
3/31/2022 10:51	49-059	268 ATLANTIC AVE	Hull Parcels	Sutton, Eric	Hull - Markout
3/23/2022 11:18	49-061	262 ATLANTIC AVE	Hull Parcels	Sutton, Eric	Hull - Markout
3/31/2022 12:25	50-053	15 EASTMAN RD	Hull Parcels	Sutton, Eric	Hull - Markout
3/31/2022 12:27	50-072	13 EASTMAN RD	Hull Parcels	Sutton, Eric	Hull - Markout
3/23/2022 11:09	51-050	242 ATLANTIC AVE	Hull Parcels	Sutton, Eric	Hull - Markout
3/31/2022 11:08	55-014	15 SUMMIT AVE	Hull Parcels	Sutton, Eric	Hull - Markout
3/31/2022 14:19	56-034	63 HARBOR VIEW RD	Hull Parcels	Sutton, Eric	Generic WO
3/9/2022 11:56	61 Wyola Rd	61 Wyola Rd Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Hull - Grinder Pump Maintenance
3/9/2022 11:46	9 School St	9 School St Grinder Pump	Hull Grinder Pumps	Sutton, Eric	Hull - Grinder Pump Maintenance
3/24/2022 7:44	Bacteria UNIT #21	UNIT #21	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units
3/24/2022 7:50	Bacteria UNIT #22	UNIT #22	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units
3/24/2022 7:36	Bateria UNIT # 8	UNIT # 8	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units
3/18/2022 14:02	Bateria UNIT #1	UNIT #1	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units

Date	Asset ID	Asset Description	Asset Class	Name	Workflow Class
3/24/2022 7:37	Bateria UNIT #10	UNIT #10	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units
3/24/2022 7:41	Bateria UNIT #11	UNIT #11	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units
3/24/2022 7:48	Bateria UNIT #12	UNIT #12	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units
3/24/2022 7:47	Bateria UNIT #13	UNIT #13	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units
3/24/2022 7:45	Bateria UNIT #14	UNIT #14	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units
3/24/2022 7:43	Bateria UNIT #15	UNIT #15	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units
3/24/2022 7:42	Bateria UNIT #16	UNIT #16	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units
3/24/2022 7:39	Bateria UNIT #17	UNIT #17	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units
3/24/2022 7:41	Bateria UNIT #18	UNIT #18	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units
3/24/2022 7:40	Bateria UNIT #19	UNIT #19	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units
3/18/2022 14:04	Bateria UNIT #2	UNIT #2	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units
3/24/2022 7:43	Bateria UNIT #20	UNIT #20	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units
3/24/2022 7:49	Bateria UNIT #23	UNIT #23	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units
3/18/2022 14:00	Bateria UNIT #24	UNIT #24	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units
3/24/2022 7:40	Bateria UNIT #3	UNIT #3	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units
3/18/2022 13:58	Bateria UNIT #4	UNIT #4	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units
3/18/2022 14:07	Bateria UNIT #5	UNIT #5	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units
3/18/2022 14:05	Bateria UNIT #6	UNIT #6	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units
3/22/2022 14:13	Bateria UNIT #7	UNIT #7	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units
3/24/2022 7:52	Bateria UNIT #9	UNIT #9	Hull In Pipe Bacteria Unit	Sutton, Eric	Hull - In Pipe Bacteria Units
3/24/2022 7:57	MH-20006	SEMS_Asset	Sanitary Manhole	Sutton, Eric	Generic WO
3/9/2022 8:08	MH-20057	SEMS_Asset	Sanitary Manhole	Sutton, Eric	Generic WO
3/9/2022 8:22	MH-20111	SEMS_Asset	Sanitary Manhole	Sutton, Eric	Generic WO
3/24/2022 7:58	MH-20221	SEMS_Asset	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection
3/24/2022 8:03	MH-20877	SEMS_Asset	Sanitary Manhole	Sutton, Eric	MH Frame & Cover Inspection